

CO-HOUSING IN THE URBAN FABRIC

**Socio-spatial Relations
and Shared Resources
with the Neighbourhood**

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DIPLOMARBEIT

CO-HOUSING IN THE URBAN FABRIC

Socio-spatial Relations and Shared Resources with the Neighbourhood

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Abstract

Co-housing projects create specific conditions for establishing social and spatial relations with their surrounding neighbourhood. In doing so, they open up collective resources and uses, providing impulses at the local level. Especially in times of global crises, co-housing projects are assigned a unique role, as their social and spatial architecture goes beyond fulfilling basic housing needs. Self-organised co-housing groups are regarded as active agents, and their collaborative network with (trans)local organisations and institutions enables them to exert transformative power, thus contributing to urban resilience on a small scale. Some cities and municipalities have already recognised this potential and promote co-housing as a tool for urban development and renewal.

This research examines in detail the social-spatial relations between co-housing projects and their neighbourhood, as well as the resulting synergies. Three case studies in different urban settings in Vienna are conducted to explore the conditions under which socio-spatial connections emerge and endure in the long term. The local neighbourhood context and urban structure entail specific actor constellations and different conditions for the role of co-housing projects in the urban fabric.

Initially, this study examines neighbourhood approaches and related concepts relevant to co-housing research in the European context. Urban commons perspectives are introduced to gain a better understanding of shared resources in co-housing projects, their social and spatial boundaries, and the underlying processes and practices. These discursive foundations provide the framework for conducting and analysing the selected case studies.

Further, this thesis outlines European and Austrian framework conditions that shape the scope of action of co-housing projects. To better comprehend the local projects and selected case studies, this thesis gives a historical overview and summarises the legal and organisational framework in Vienna.

The empirical investigations reveal that co-housing projects establish unique spatial and social interfaces that serve as anchor points for cooperation and resource sharing within and beyond the project. Residents and users constantly negotiate socio-spatial boundaries and reconfigure them in response to internal and external changes. In this context, the organisation and use structure of the co-housing project play a crucial role. Based on the findings, fields of action and further research needs are identified.

Keywords: *collaborative housing, co-housing, neighbourhood, social capital, socio-spatial relations, urban commons, shared resources, Vienna, urban resilience*

Zusammenfassung

Gemeinschaftliche Wohnprojekte schaffen besondere Voraussetzungen, um räumliche und soziale Beziehungen mit der umliegenden Nachbarschaft bzw. dem Quartier zu etablieren. Dabei öffnen Wohnprojekte ihre kollektiven Ressourcen nach außen und setzen durch ihre Nutzungsangebote Impulse auf lokaler Ebene. Gerade in Zeiten globaler Krisen wird gemeinschaftlichen Wohnprojekten eine besondere Rolle zugesprochen, da deren soziale und räumliche Architektur weit mehr als die Befriedigung grundlegender Wohnbedürfnisse adressiert. Selbstorganisierte Wohnprojekt-Gruppen werden als aktive Akteur:innen gesehen, die durch ihre gute Vernetzung mit Organisationen und Institutionen auf verschiedenen räumlichen Ebenen eine transformative Wirkung entfalten können und somit einen Beitrag zur urbanen Resilienz im Kleinen leisten. Einige Städte und Gemeinden haben diesen Mehrwert erkannt und fördern diese Wohnform als Instrument der Stadtentwicklung bzw. -erneuerung.

Im Rahmen dieser Arbeit werden die sozial-räumlichen Beziehungen zwischen gemeinschaftlichen Wohnprojekten und deren umliegender Nachbarschaft sowie die daraus resultierenden Synergien genauer betrachtet. Dabei werden drei Fallbeispiele in Wien in verschiedenen urbanen Kontexten untersucht, um zu verstehen, unter welchen Bedingungen sozial-räumliche Vernetzungen entstehen und bestehen können. Lokale Quartierskontexte und deren Stadtstrukturen ziehen spezifische Akteurskonstellationen nach sich und schaffen unterschiedliche Voraussetzungen für die Rolle von Wohnprojekten im Stadtgefüge.

Zunächst erfolgt eine Auseinandersetzung mit dem Thema Quartier bzw. Nachbarschaft und damit in Verbindung stehenden Konzepten, die in der Literatur über gemeinschaftliche Wohnprojekte im europäischen Kontext relevant sind. Um die geteilten Ressourcen gemeinschaftlicher Wohnprojekte, deren sozialen und räumlichen Grenzen sowie die zugrundeliegenden Praktiken und Prozesse genauer zu betrachten, werden darüber hinaus Urban Commons Perspektiven eingeführt. Diese diskursiven Grundlagen bilden den Rahmen für die Erhebung und Analyse der Fallbeispiele.

Da lokale Rahmenbedingungen und Strukturen den Handlungsspielraum gemeinschaftlicher Wohnprojekte maßgeblich bestimmen, geht diese Arbeit näher auf den europäischen bzw. österreichischen Kontext ein. Der historische Abriss und die Betrachtung rechtlicher und organisatorischer Rahmenbedingungen in Wien ermöglichen eine bessere Einordnung der lokalen Wohnprojekte sowie der ausgewählten Fallbeispiele.

Die empirischen Untersuchungen verdeutlichen, dass Wohnprojekte besondere räumliche und soziale Schnittstellen schaffen, die Anknüpfungspunkte für Kooperationen und Ressourcenteilung sowohl innerhalb als auch über das Projekt hinaus bilden. In kollektiven Aushandlungsprozessen loten Bewohner:innen soziale-räumliche Grenzen aus und konfigurieren diese immer wieder neu, um auf interne und externe Veränderungen zu reagieren. Dabei spielen insbesondere die Organisations- und Nutzungsstruktur eine wichtige Rolle. Anhand der gewonnenen Erkenntnisse werden schließlich Handlungsfelder und weiterer Forschungsbedarf aufgezeigt.

Schlagworte: *Gemeinschaftliche Wohnprojekte, Baugemeinschaften, Baugruppen, Nachbarschaft, Quartier, Sozialkapital, sozial-räumliche Beziehungen, Urban Commons, Wien, Urbane Resilienz*

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1 INTRODUCTION

In times of crisis, it becomes even more evident that cities worldwide are exposed to shocks and related social, economic, political and environmental challenges. Events such as the COVID-19 pandemic challenge the stability of urban systems and thus reveal their fragility (Esopi 2018:175). The COVID-19 pandemic has drawn attention to vulnerable groups and unveiled the consequences of prevalent injustices. Cities worldwide are dealing with rising real estate prices, de-regulations of housing markets and fail to provide affordable housing for all. Not only the financial crisis of 2008 but also the COVID-19 pandemic has accelerated this development. Since this basic human need cannot be met any more, we face a global housing crisis. (Hagbert et al. 2019) Against this background, “Making Cities and human settlements inclusive, safe, resilient and sustainable”, as stated in Goal 11 of the Sustainable Development Goal by the UN, is more relevant than ever before (United Nations n.d.a). Especially ensuring access to adequate and affordable housing and enhancing inclusive and sustainable urbanisation must be addressed in the urban context on its different levels.

As a response to tackle global challenges, the right-to-the-city concept has been taken up by social movements as well as by academics to frame their struggle against the neoliberal logic of urbanism and the resulting social and spatial injustices. Their main ambition is to foster the right to adequate housing for all and to increase social justice. The concept goes back to the French sociologist and philosopher Henri Lefebvre (1968) and comprises an abstract and a more concrete dimension. The former addresses the right to be part of and co-produce urban spaces, whereas the latter encompasses a factual claim to have social, political and economic rights in the urban context. The right to the city is not an ideal end-stage but rather a continuous process and struggle to create urban spaces through use and appropriation by the city’s inhabitants. (Aalbers and Gibb 2014:208f)

In this context, bottom-up initiatives arose, trying to meet collective and individual needs through collaboration, cooperation and resource sharing. Esopi (2018:175) states that the outcome of the interactions between the physical environment and social components of experimental practices in cities is a form of urban commons. Often, global financial and political crises are primary motives for a rising number of people to look for solutions beyond market and state. In this context, the concept of urban commons has (re)gained popularity with its underlying promises, such as participation or self-governance. Due to the increasing research and activities on commons, the term “new commons” has been coined recently, highlighting the emergence of new types of commons across disciplines (Hess 2008:1).

Collaborative housing projects can be considered a complex form of (urban) commons (Rogojanu 2015:180f). In co-housing settings (a widely-cited form of collaborative housing), a community of residents shares and manages their common resources. These communities claim their right to the city and contribute to the de-commodification of housing on a small scale. Since they create an alternative housing form to the mainstream, their practice could be interpreted as “criticism of capitalism”. Nevertheless, co-housing groups often find themselves caught between subversive empowerment claims, the institutional context and the market logic.

Global crises have drawn attention to the local scale, particularly the neighbourhood level, as a scope of action for responses to (global) crises and stresses. During lockdowns, a wave of solidarity could be observed that highlighted the importance of “good neighbourhoods” (Schneidewind et al. 2020). However, in pre-pandemic times the neighbourhood has already been recognised as a valuable scope of action towards a socio-

ecological transformation. Schnur, for example, states that recently, a discourse around resilience and sustainability emerged in neighbourhood research that addresses the tensions between social, economic and ecological factors (Schnur 2014:34).

From this perspective, collaborative housing initiatives can be seen as a local response to global crises. Since the 2000s, there has been a re-emergence of collective self-organised forms of housing provisions in many European countries (Lang, Carriou, and Czischke 2020:1). This form of housing entails a powerful social dimension and the creation of communities. Apart from providing private housing units, these projects provide shared common facilities. The spatial and social resources created by co-housing projects can have a positive impact beyond the project and serve as an example of “good neighbouring within the larger neighbourhood” (Fromm 2012:365). These projects integrate into the urban fabric and experiment with new spatial and social co-living forms. Many cities, particularly in the German-speaking area, have recognised the potential of co-housing projects to contribute to socially resilient neighbourhoods and have taken action to support collaborative housing forms. (Müller 2015)

Inspired by developments in Germany and Switzerland, co-housing in Austria has become more popular since the beginning of the 2000s. In 2009, the *Initiative Collaborative Building & Living (Initiative Gemeinsam Bauen & Wohnen, short: IniGBW)* was founded to advocate for co-housing in Austria and connect different stakeholders. (Temel 2021:19) While the projects differ depending on the model and location, co-housing has raised political interest. In the Viennese context, recent co-housing projects mainly arose in newly built areas and, thus, newly constructed buildings since the City of Vienna provides plots that co-housing groups together with an architect and a property developer can apply for. (Verein Initiative für gemeinschaftliches Bauen und Wohnen 2015:22–26) In addition to newly constructed buildings, co-housing groups have the potential to create urban commons in existing buildings. So far, the retrofit model is not very popular but might gain importance in the future as potential development areas are becoming scarce in cities.

Another aspect is that co-housing projects can be seen as role models for climate-friendly living and serve as entry points for the socio-ecological transformation of current housing policies and structures (Jany et al. 2022:1f). Even if co-housing is still a niche phenomenon, these projects “present micro-laboratories for new urban models for social interaction“ (Tummers 2016: 2037). Testing new practices and ways of living can potentially generate social innovation (Görge 2021:25), resulting in new processes and practices in the housing sector. Thus, co-housing projects and their socio-spatial relations might contribute to more sustainable urban futures on a very local scale.

1.1 State of the art

In the last two decades, a re-emergence of self-managed collective housing that embraces a variety of housing models can be observed in the European context and beyond. Researchers and practitioners have been using *collaborative housing (CH)* as an umbrella term that includes a variety of concepts. Generally speaking, collaborative housing is characterised by collaboration among residents as well as co-housing communities and institutions in the housing sector. Whereas the idea of collaborative housing is not a new phenomenon and is rooted in different planning traditions in Europe, the increasing popularity of collaborative forms of housing indicates a desire to address pressing challenges in our society, such as the climate crisis, the lack of affordable housing, and to transform the current system towards more resilience and sustainability. (Czischke, Carriou, and Lang 2020:1; Lang et al. 2020:11f)

The rise of collaborative housing worldwide has led to an increasing body of knowledge, yet, quantifications and mapping activities are scarce and require further research. Recent publications mainly focus on case study

research. Due to the large variety of models, it is questionable whether researchers are “talking about the same categories” (Czischke et al. 2020:1).

Indeed, the international research field is evolving, and various initiatives across Europe promote and support this housing model. For instance, the Co-Lab Research is an international research group located at TU Delft “working on the development, discussion and valorisation of knowledge on Collaborative Housing” (Co-Lab Research n.d.) Their activities include research, education, learning activities and societal impact. The Co-Lab website is a platform for creating a common knowledge base on this housing model worldwide. They are involved in the *European Network of Housing Research (ENHR) working group collaborative housing*, founded in 2015. Among many other central themes, the working group addresses “connections, synergies and tensions between the proliferation of collaborative housing initiatives and the wider neighbourhood and urban scales” (ENHR 2022).

In the current literature, co-housing projects are often associated with social and environmental sustainability, and the groups are confronted with expectations regarding positive interactions with the neighbourhood. While there is some research on the impact of co-housing projects on the neighbourhood, little is known about the conditions to keep such openness (Tummers 2016:2036). In contrast, some argue that the positive impact of co-housing projects is often overestimated due to the researchers' bias (Lang et al. 2020:19). In the light of Chiodelli's (2010 in Ruiu 2014: 316) claim that co-housing projects and gated communities are alike, Ruiu elucidates “the roles of both cohousing and gated communities in the landscape of existing neighborhoods” (Ruiu 2014:316) and concludes that co-housing projects, unlike gated communities, usually integrate within their neighbourhood and open up their resources to the outside (ibid. 329).

Caldenby et al. (2019) describe in their article the social logic of space and explore how co-housing communities are attaching to the collective and detaching from the surrounding context, but at the same time, they try to establish a social function for the neighbourhood. Accordingly, the boundaries between the co-housing community and the wider neighbourhood are blurred. In this respect, co-housing groups deal with “tensions between the internal needs of the residents and ideals of accessibility for the neighbourhood” (Caldenby, Hagbert, and Wasshede 2019:176). Finally, the authors stress the need to address how co-housing projects can contribute to external (spatial) solidarity and generate added values beyond the project (Caldenby et al. 2019:181). Felstead et al. (2020:16) locate a need for further empirical research on the spatial integration of cohousing projects in their surrounding urban neighbourhood to understand collective and public spatial scales and their interrelations.

As for the neighbourhood context, local authorities sometimes see co-housing groups as resilient agents who positively impact vulnerable inner-city development areas. However, to realise such a complex project in different national planning contexts, co-housing members often require a certain level of education, good network capabilities and some financial resources. Another point of view is that co-housing projects find themselves in the tension between urban revitalisation and gentrification. (Tummers 2016:2030)

The understanding of co-housing projects as an instrument for urban development has gained popularity in the German context, where communes have recognised the potential of this housing form to positively affect the (urban) neighbourhood in terms of sustainable development. Müller stresses that the most vital relations between co-housing and urban development are based on social connections. These assets arise from the social capital built up in the planning process before moving to the neighbourhood. (Müller 2015:4-8,393f) Social capital is a key term in this work and is further elaborated in chapters 3.3 and 3.4.

In the Austrian context, the increasing popularity of co-housing projects has also led to public support by the planning authorities. The comprehensive work by co-housing expert Robert Temel (e.g. *Baugemeinschaften in*

der Wiener Seestadt Aspern 2012; *Baugemeinschaften in Wien, Endbericht 1, Potenzialabschätzung und Rahmenbedingungen 2009*) (Temel et al. 2009b; Temel 2012) provides insights into current framework conditions, limits and potentials of co-housing projects. Moreover, Lang and Stoeger provide evidence about the role of the institutional context for the collaborative housing models and the non-profit housing sector in Austria (Lang and Stoeger 2018).

Some years ago, already, the design aspects of social interactions in co-housing were explored by Williams (2005). He identifies some key features that encourage social interaction, such as shared kitchen and laundry facilities, increasing densities, open building typologies (clusters rather than rows), the heterogeneity of residents, and the active role of residents in decision-making processes. In addition, he mentions the importance of social capital, which is key for social cohesion within and among groups in a neighbourhood but can only unfold in settings that enable it.

The study *Seeding Community: Collaborative Housing as a Strategy for Social and Neighbourhood Repair* by Fromm (2012) investigates the role of co-housing projects in small-scale neighbourhood renewal and how this housing form affects the surrounding neighbourhood in five international case studies. Precisely, she explores the effects on the larger neighbourhood, the role of the development process for the community's interaction with the neighbourhood, and the prerequisites for a positive impact. For the latter, she highlights the role of the urban setting. She distinguishes four types: urban revitalisation (reusing existing structures in the inner-city), urban infill (new construction on available land), brownfield development / undeveloped land, and the reorganisation of existing housing. Fromm concludes that co-housing projects "can play a limited but important role in neighbourhood stability and repair" (Fromm 2012:391) and highlights enabling factors, such as community networks that reach out into the neighbourhood (social capital).

As indicated earlier, co-housing projects can contribute to the production of urban commons through their democratic, non-hierarchical form of organisation of housing beyond state and market. Co-housing, as a specific type of commons, is located between the tensions of state and market. (Lang et al. 2020; Rogojanu 2015) The commoning practice of co-housing projects in the neighbourhood context will be further explored in the empirical part.

Ruiu (2016) provides insights into how co-housing communities generate three forms of social capital (bonding, bridging, linking) through their networks, integration into the neighbourhood, and collaboration with external partners. Understanding social capital in co-housing projects requires an understanding of both the social structure and the physical layout. Her work analyses the degree of trust, reciprocity, participation, governance, complexity, internal and external social ties, and partnerships with institutions to understand the potential of co-housing residents' social capital inside and outside the community. She concludes that co-housing communities establish social support networks inside and outside the project scope. Following Ruiu's findings, this thesis assumes that different types of social capital are a prerequisite for co-housing projects to open up to the neighbourhood and create synergies in the urban fabric.

In recent years, various diploma theses have dealt with collaborative housing from different perspectives. While Hendrich (2010) and Tordy (2011) analyse the general context and framework conditions for co-housing projects in Austria, particularly in Vienna, others focus more on the specific practices as political expression (Büchler 2012) or as approaches to a solidary-based economy (Schmidt 2017). Two theses explore sharing practices (Mock 2014) and the tension of providing public infrastructure and private community facilities (Ehs 2008) in the renowned co-housing project *Sargfabrik* in Vienna. Recent works closely investigate self-organisation and governance aspects in Viennese co-housing projects (Haas 2018; Paulhart 2020). In this context, Paulhart's (2020) work links co-housing projects to the productive city, focusing on their commercial uses.

Another recent thesis examines the contribution of co-housing projects to the Viennese climate goals (Gruber 2021).

Even though international exchange in the field of co-housing has increased and publications and research about co-housing are rapidly growing, knowledge transfer within and across disciplines as well as practitioners seems weakly connected. The present work intends to contribute to delivering insights into co-housing and its relation to the wider neighbourhood in social and spatial terms. Furthermore, the potential and limits of a socio-ecological transformation on a local level will be identified based on the findings.

1.2 Research questions

The current work aims to study the socio-spatial relations between co-housing projects and their urban neighbourhood. In addition, different urban settings of co-housing projects are further explored to understand the practices and processes of their socio-spatial relations and resource sharing. An urban commons perspective and its implications should enable a comprehensive analysis of the underlying mechanisms of outcomes of the socio-spatial practices of co-housing residents in the neighbourhood context. This means that co-housing residents are seen as urban agents with specific capacities and strengths that enable collective action. Building on this, potential and barriers to urban resilience should be identified at the local level. To fully capture their scope of action and limits, considering framework conditions and the local context is vital to this work.

Based on previous considerations, the following research questions are explored:

1. *How are socio-spatial relations between co-housing projects and their urban neighbourhood being produced from an urban commons perspective?*
 - a. *What kinds of relations in terms of social capital exist within the wider neighbourhood?*
 - b. *How are threshold spaces of shared resources being shaped by co-housing groups?*
 - c. *What were the major changes regarding the socio-spatial relations during the pandemic?*
2. *What role do neighbourhood and urban setting play in the commoning practice of co-housing projects?*
3. *What are the transformation potentials (enabling factors) of the relations between project and neighbourhood that foster urban resilience on a local level, and what are their limits (barriers)?*

Understanding of space

Against the background of the challenges mentioned in the introduction, the present work aims to study the socio-spatial relations between co-housing projects and their urban neighbourhood. This work aims to define the concept of space by adopting a relational understanding and drawing on Henri Lefebvre's conceptualization of space. For him, "(social) space is a (social) product" (Lefebvre 1991:30) that is constantly being produced, and thus, the production of space is a process (Lefebvre 1991:34). He distinguishes between the (physical) natural and social space, whereas the former is the point of departure that is increasingly vanishing. Space is always a social space, and each society produces its own space (Lefebvre 1991:31). In his work "The production of Space", he formulates a triad of perceived, conceived and lived space and translates it into spatial terms: spatial practice, representations of space and representational spaces. (Fig. 1)

Spatial practice is about the production and reproduction of space and the locations of social formation. It is strongly tied to perception and enables continuity and cohesion (Lefebvre 1991:38f). Hence, social practices presuppose material transformations of space in a specific socio-economic context that can be empirically observed (Stanek 2011). Representations of space are the dominant space in every society and refer to the conceptualised space by experts, such as scientists, planners, urbanists and others. These professionals identify what is perceived and what is lived within conceived space and communicate it mainly with verbal signs. The representational space is the lived space of inhabitants and users. It is being produced through their experience and, consequently, being changed and appropriated by them. As it overlays the physical space, its objects are being used as non-verbal symbols and signs. (Lefebvre 1991:38f)

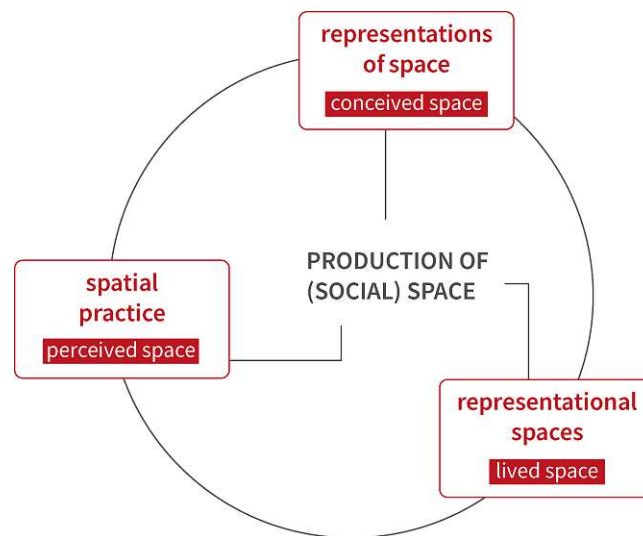


Fig. 1: Lefebvre's understanding of the production of space (own representation based on Lefebvre 1991)

For Lefebvre, social relations are concrete abstractions that do not exist spatially but are characterised by a spatial underpinning (Lefebvre 1991:404). The implication for this work is that social and spatial aspects are not isolated, and analysing socio-spatial relations between co-housing projects and their neighbourhoods requires an integrated approach.

The work of Felstead et al. (2019:7f), in which they develop a conceptual framework for urban commoning in shared residential landscapes – adopted in the empirical part of this work – also refers to Lefebvre's understanding of space. They argue that urban commons are a product of the city and produce urban space and that urban commoners are experiencing this process. Consequently, urban commons imply a reciprocal relationship between spatial form and social organisation. Moreover, they introduce the term territory to capture the notion of control over one's environment. In this context, they highlight the expression of a shared sense of belonging and how individual and collective perceptions of space form boundaries between “mine” and “our” space.

The above-described approach is relevant for this work, as in the empirical part, the socio-spatial relations of co-housing projects are explored from the project's perspective. In this context, Lefebvre's understanding of space allows for a deeper understanding of spatial processes and practices. Even though, in this understanding of space, the social dimension of space is implicit in the term “spatial relation”, I chose to use the term “socio-spatial relation” to highlight the interlinkage between social and spatial configurations and the underlying processes and to make it generally intelligible.

1.3 Structure of the thesis

This work is divided into three main sections and nine chapters:

- PART A: DISCURSIVE FOUNDATIONS
- PART B: VIENNESE PRACTICE
- PART C: CONCLUSION

Firstly, **PART A: Discursive Foundations** draw upon several theoretical discussions and concepts that form a basis for the empirical case study research. After a general contextualisation of co-housing in Europe, this part will further elaborate on neighbourhood research and urban commons. To link these various discourses and to lay the foundations for exploring the socio-spatial relations between co-housing projects and their neighbourhood, existing research and findings on this housing type are directly integrated into chapter 3 (The Neighbourhood) and chapter 4 (Urban Commons). This logic should further allow for more practice-oriented perspectives.

Inspired by the urban commons framework by Felstead et al. (2019), the concepts and terms introduced in part A are the basis for the analysis of the case studies. The key findings deriving from the discursive foundations are synthesised in chapter 5. Furthermore, the dimensions of the analytical framework are elaborated.

Secondly, in **PART B: Viennese Practice**, the institutional context of co-housing in Austria, particularly in Vienna, is described to embed the empirical case studies. Historical developments, current developments, and related challenges are examined. The three case studies conducted shed light on the Viennese practice of co-housing projects in different urban settings. Each project is briefly introduced and then analysed in more detail according to the aspects of the analytical framework.

Finally, the key findings of this work structured according to the research questions are summed up in **PART C: Conclusion**. The findings from the case studies will be discussed in connection with (social) urban resilience on a local level. Enabling factors and barriers should be pointed out to identify transformation potentials. Furthermore, recommendations for action are briefly sketched out, and an outlook for future research is provided.

The topic of urban resilience, which is also addressed in the third research question, is repeatedly taken up throughout the study. Particularly in light of current crises, potentials related to co-housing should be pointed out.

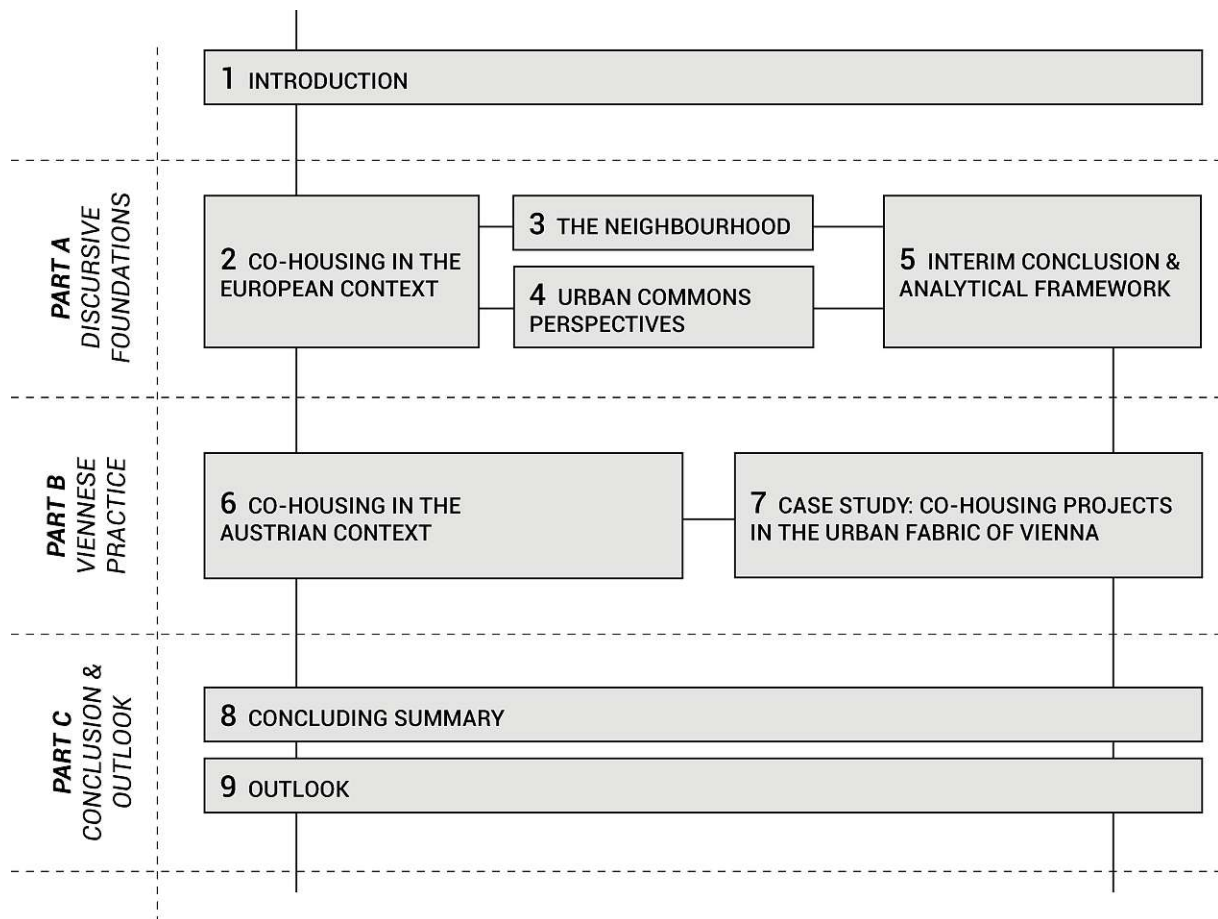


Fig. 2: Structure of the thesis (own representation)

1.4 Methodological approach

This work applies a mix of methods consisting of desk research and case study research with three co-housing projects as cases in Vienna. Secondary literature research is conducted for the discursive foundations. The case study consists of interviews, observation and online research.

Method triangulation aims not only to validate the findings but also to get more profound knowledge about the research subject. There are different kinds of triangulation, but the “between-method-triangulation” – the combination of different methods within one research design – is the most common. As such, it enables the researcher to overcome the barriers of the respective method on the one hand and to collect data about different aspects of the research subject on the other hand. In addition, this work triangulates several theories (theory triangulation) within the analytical framework for the case study research. (Flick 2007)

Case studies in three co-housing projects in different urban settings are conducted to explore the socio-spatial relations with the neighbourhood and how they could positively impact (social) resilience on a local level. Starting from the assumption that co-housing residents are active agents in their neighbourhood, who interact with the urban environment on different levels, the case studies aim to understand the underlying mechanisms of these relations and interactions. In the course of the analysis of the case study, barriers and enabling factors should be identified to understand the limits and potentials of co-housing projects as change agents on a local level in different urban settings.

Case studies rely on various sources of evidence, such as documentation, interviews, observations and others, that complement each other (Yin 2018:113–126). The empirical work includes online research about the respective projects and the neighbourhood context, analysis of existing material (publications, film and radio features), observation (site visits), focus groups, and expert interviews.

The analytical framework (chapter 5) was a basis for structuring the focus group and expert interviews and guided the interview analysis and interpretation. The case study selection is described in chapter 7.1.

Desk research

The discursive foundations rely on desk research and build on existing literature on co-housing, neighbourhood research, urban commons, and related concepts. For the Viennese context, relevant documents, such as studies and practice examples, are the primary sources. As for the case studies, online research is conducted to get an overview of the projects and, depending on the material available, get deeper insights. The neighbourhood context is analysed with the help of different map layers regarding the building structure, infrastructure and legal regulations. In addition, a graphical analysis of the (ground) floor plans of the projects supports the analysis.

Qualitative interviews

Focus groups

Focus groups enable the interviewer to explore a group's opinion dissociated from individual attitudes since the product of collective and not the sum of personal attitudes can be captured with this method. Bohnsack describes focus groups as a model of informal group opinion. A common critique regarding focus groups is the lack of reproducibility since different groups produce unique conversations that might include contrasting opinion-formation processes. (Bohnsack 2007)

This work tackles the related challenges using interview guides, allowing for a discussion about the aspects relevant to this research. The interview guide serves as a basis and structures the discussion. Furthermore, a neighbourhood map and a sketch of different stakeholder levels are used as additional material to map activities and social connections with different stakeholders mentioned during the interview (see appendix). Based on the residents' experience, the focus group should allow identifying relevant collective orientation patterns through interactions and collaboration during the interview.

The focus group participants are selected according to some loose criteria – active group members, being involved in neighbourhood activities and being active in a broader network beyond the project – and are addressed as representatives of the whole group to inquire about collective experiences. A minimum of three residents and users should take part.

Guided expert interview

In addition, four interviews with external experts are conducted: two interviews with *GB* neighbourhood management* cover the neighbourhood perspective and provide expertise on their work and to what extent they are engaged with co-housing groups. The interview partners were selected according to the territorial responsibility to cover the neighbourhoods of the co-housing projects of the case study. Furthermore, two interviews are conducted to get deeper insights into the co-housing practice in the city context – on the one hand, from an architectural perspective and on the other hand, from the perspective of social process support. Since the

architect interviewed designed one of the case studies, further insights could be enabled. The expert interviews were expected to provide perspectives that help identify transformation potentials and barriers (research question 3).

Expert interviews are generally defined according to the ascribed role of the interviewee – an expert (Helfferich 2014). The research focuses on specific expertise that does not depend on a particular person. This means that general knowledge rather than personal experiences should be collected. There is an ongoing debate about who is an expert and who is not – for example, residents of co-housing projects can also be seen as experts in their field. In this work, experts were interviewed about their professional knowledge of co-housing groups (expert interviews), whereas the focus groups focused on the collective experiences of residents and users of the co-housing projects.

Evaluation of the interviews and focus groups

The interviews were transcribed directly after conduction, and particularly relevant aspects were highlighted in the text. The data collected were analysed inspired by the content structuring qualitative content by Kuckartz that is also suitable for guideline-oriented and focus group interviews (Kuckartz 2016:98f). In the first place, the essential aspects of the analytical framework were used as initial categories that also define the structure of the interview guides. These were applied in the initial coding cycle. In the next step, inductive sub-categories were added based on the material. In the second coding cycle, the coded sections were reviewed and recoded if necessary. Finally, sections of the same categories were compiled and interpreted. (Kuckartz 2016:181ff) The main categories and the analytical framework are the basis for the structure of chapters 7.2 to 7.4, although some categories are subsumed as a separate analysis of some aspects is not expedient.

Overview of the interviews conducted

Project context

- Focus group *Wohnraum Künstlergasse* – 3 residents // 27.01.2023
- Focus group *Gleis 21* – 2 residents // 27.02.2023
 - Short interview I with a member of the association *toZOMIA* // 02.03.2023
 - Short interview II with a member of the association *toZOMIA* // 02.03.2023
- Focus group *Sargfabrik* – 4 residents // 08.03.2023

Neighbourhood context

- Expert interview *GB* neighbourhood management* // 07.02.2023
- Expert interview *GB* neighbourhood management* // 15.02.2023

City Context

- Expert interview *realitylab* (social process support) // 06.02.2023
- Expert interview *einszueins architektur* (architecture) // 24.02.2023

Due to difficulties finding a date and time for a focus group interview in *Gleis 21* with at least three residents and users, the focus group interview was conducted with two residents. Two additional short interviews with

two members from the association *toZOMIA*, which rents the commercial space on the ground floor, were conducted to include the perspective of non-resident users.

Related research of the author

Due to my previous and ongoing work as a research assistant in two pertinent research projects, I got more profound insights into the co-housing field on a local and international level. The ongoing (2022-2025) JPI Urban Europe project *CO-HOPE (Collaborative Housing in a Pandemic Era)* explores to what extent residents of collaborative housing projects have been more resilient during the COVID-19 pandemic in connection with health, social integration and affordability. The cross-country, inter- and transdisciplinary research aims to generate potential-oriented recommendations to contribute to a shift in housing politics and provision towards community-led projects that encourage socio-ecological transformation. Within the applied research project *OPENhauswirtschaft (2019-2022)*, I was given a chance to explore the planning process of developing a radically mixed-use building type located in the newly developed area Nordbahnhof in Vienna and got familiar with the Viennese co-housing context and met some key stakeholders in this field.

Methodological critique

Since the cases show significant differences, a direct comparison is limited. Nevertheless, it is argued that they have key aspects (organisation, goals, dense urban areas and others) in common and that the contrasting characteristics are valuable for new findings. Thus, the focus is on a comprehensive and not on comparative analysis. This approach enables exploring a range of possible relations in different urban settings and neighbourhoods. Another criticism might be the seemingly one-sided perspective on relations between co-housing projects and the neighbourhood and that the collected data might be very subjective depending on the group. That is why four expert interviews are conducted in addition to focus group interviews, which widens the research perspective.

A possible weakness is the extensive conceptual approach in part A, considering a wide range of concepts related to neighbourhood research and urban commons. These various concepts and discourses are incorporated into the analytical framework, which might entail the danger of being too complex for the scope of a master thesis. At the same time, this can be seen as a strength since this research field is relatively new, and it is hard to anticipate and explore the relations with a narrow framework. Consequently, it enables identifying the most relevant aspects and setting the focus during the fieldwork.

Regarding the relations between the co-housing project (group) and the neighbourhood being explored within the urban commons framework and through different types of social capital, a significant concern is the conceptualisation of the “group” or the “community”. Due to methodological limits and the limited scope of a master thesis, the focus group can only explore the group's relations and not of individuals, even though the latter play an important role in creating social capital. Furthermore, it should be noted that a co-housing group consists of several subgroups – some based on a formal structure and others informally. To alleviate the difficulty that individuals cannot speak for the whole group but rather relate to their actions, the focus group participants selected should be involved in neighbourhood and networking activities.

One might further criticise that apart from *GB* neighbourhood management*, no interviews are conducted in the neighbourhoods. Although the neighbourhood settings are analysed based on desk research, interviews with local residents or organisations could have delivered valuable insights regarding the socio-spatial relations between co-housing projects and their neighbourhoods.

Expert interviews with *realitylab* and *einszueins architektur* were conducted to broaden the perspectives on the city level. It should be noted that developing co-housing projects is part of their business model, and the interview partners might be biased in favour of co-housing projects. However, both interview partners can be considered pioneers promoting the co-housing model in Austria without the aim of profit-making with this housing form.

Ex-post considerations

The extensive discussion on discursive foundations created a reasonable basis to approach the manifold practices in co-housing projects and yet, illustrated only some parts of the broad spectrums of collaborative housing, neighbourhood and urban commons. Integrating knowledge from international research on collaborative housing allowed me to relate the case studies and the international practice of co-housing to each other and to interpret the empirical findings against different aspects of this housing form.

The extensive theoretical approaches in part A inspired empirical testing in selected case studies. Indeed, the analytical framework was very broad conceptually, making it challenging to collect enough data for all layers in depth within the limited scope of a master thesis. Therefore, not all initial research aspects could be addressed in the same depth, emphasising the need for further research. At the same time, the broad framework allowed for a certain flexibility and to set the focus during the empirical research process and identify key aspects of socio-spatial relations between co-housing projects and their neighbourhood. This broad approach is also reflected in the interview guides, but since these were designed to guide the data collection, some questions were left out depending on the project context.

The research process of this master thesis was a continuous learning process. As for the methodology, the research design allowed for minor adaptations based on the reflection and feedback of the residents following the first focus group interview conducted. Since the stakeholder networks of *Gleis 21* and *Sargfabrik* are very complex, I asked for feedback from one resident of each project on the initial sketch.

As the empirical fieldwork of the research project *CO-HOPE* in four co-housing projects was conducted shortly after I had finished my interviews, I could get deeper insights into these housing settings and their practices and the current context in Vienna. This parallelity particularly enabled me to deepen my knowledge of how co-housing groups dealt with the COVID-19 restrictions and get a broader picture of the context.

PART A: DISCURSIVE FOUNDATIONS

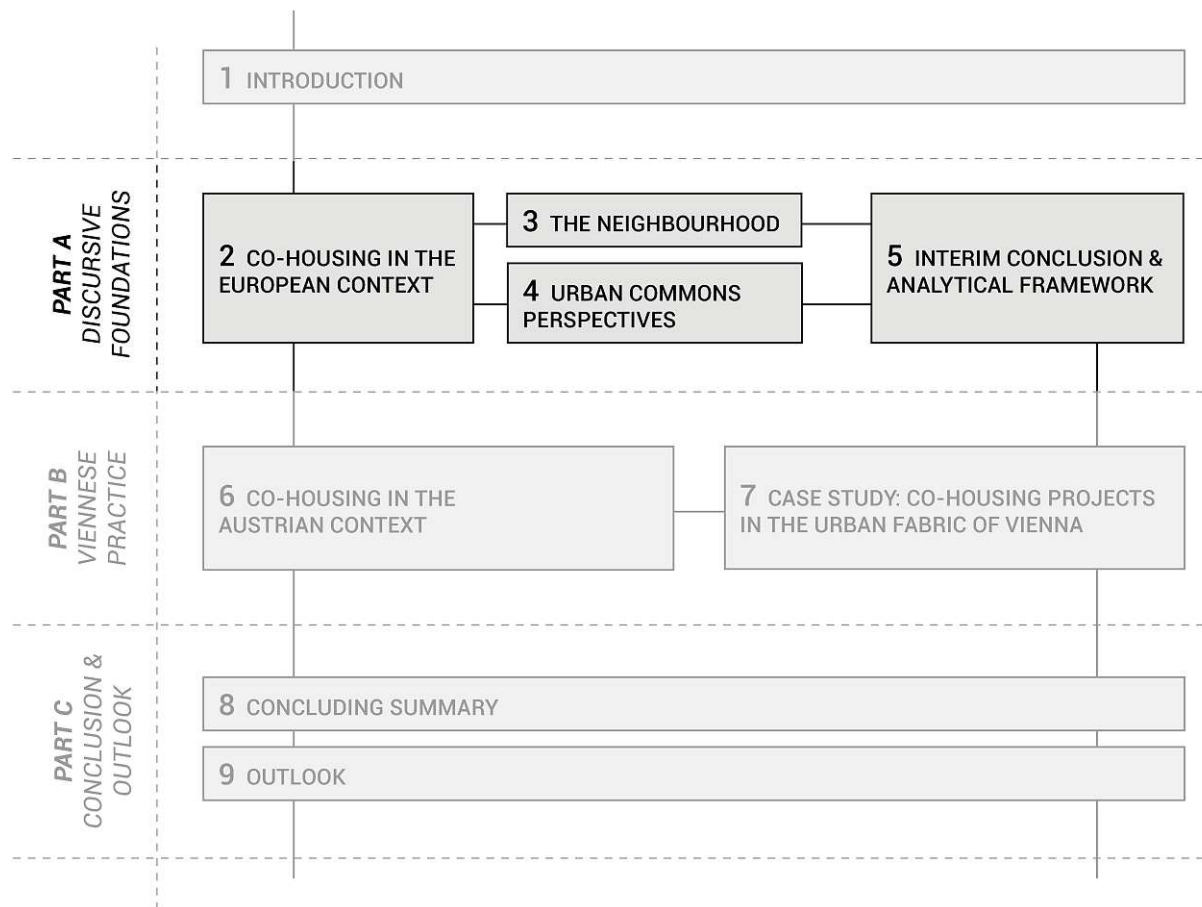


Fig. 3: Structure of the thesis – Part A (own representation)

2 CO-HOUSING IN THE EUROPEAN CONTEXT

2.1 Approaching collaborative housing

In the last decade, in many European countries, there has been a trend towards more collective, self-organised and participatory forms of housing. Collaborative housing includes various concepts, characterised by collaboration among residents and shared facilities, and is thus used as an umbrella term (Vestbro 2010). Due to the broad spectrum of different types and models, there is no universal categorisation. In addition, the models vary depending on the respective national housing context, and even within one country, the different collaborative housing models might not be easy to capture. In general, there is a gap in quantitative data about co-housing projects (Tummers 2016:2036), and research has mainly focussed on qualitative data collection and case study research (Czischke et al. 2020:1).

There have been many attempts to define collaborative housing according to certain criteria, such as ownership for example. Based on an empirical study of collaborative housing forms in five European countries (Italy, the Netherlands, Germany, Spain, Switzerland and Austria), Griffith et al. (2022:2) identified three criteria for collaborative housing: (1) a complex form of ownership that goes beyond solely individual or state property and that includes some form of collective or cooperative tenure, (2) collective (self)management involving the residents of the building, (3) architectural design that promotes sharing of space in everyday life. These criteria are a useful approach including three key aspects of collaborative housing: collective forms of tenure, self-organisation and architectural design for sharing cultures.

In the English-speaking context, a commonly cited concept in connection with collaborative housing is co-housing or cohousing. “Co-housing” and “cohousing” are often used interchangeably, even if they are sometimes defined as different concepts (Lang et al. 2020:2). However, many authors do not specify what “co” means – it could be collaborative, cooperative, collective, community-led among others. Therefore, it is a wider concept, and the term is universally used. Certainly, it emphasises collaboration and resident participation in the design process and long-term management.

Another related term is the concept of “intentional community”, which refers to ways of living and working with communal aims and values (Vestbro 2010: 28). They define themselves via a common identity that might even emerge from being discriminated against due to sexual preferences or beliefs (Griffith et al. 2022:12). Sometimes, ecovillages are mentioned in the context of co-housing, whose intention is among others to live in harmony with nature in a sustainable way outside the mainstream world. Even though they may share characteristics with collaborative housing, the concept differs in terms of their societal context. While co-housing projects are embedded within mainstream society, ecovillages are on the periphery of the mainstream. (Vestbro 2010: 28)

Related models, such as housing cooperatives, are often mentioned in connection with collaborative housing. In their article, Czischke et al. (2020) outline a relevant difference between housing cooperatives and collaborative housing, referring to Thompson (Thompson in Czischke et al. 2020:4): while the former model is characterised by a rather inward-looking nature with a focus on governance structures within the cooperative, collaborative housing often want to create benefits beyond their project with external stakeholders. However, housing cooperatives as a model vary significantly in different countries depending on the local (institutional) context.

Another model that is discussed under the umbrella term co-housing is Community Land Trusts (CLTs). This model allows a community – which might go beyond a group of residents – to govern, develop and manage homes voluntarily to create affordable homes. In contrast to housing cooperatives, CLTs can be integrated into a community-based infrastructure provision. (Czischke et al. 2020:4)

Co-housing in the context of this work

This work puts forward the term co-housing as a form of collaborative housing, as this term is strongly associated with collaborative housing. I use this term to shift the focus away from other collaborative housing types, such as eco-villages or mere flat-sharing communities. Nevertheless, the first part of this work (discursive foundations) provides a more general perspective and thus includes a wider perspective on collaborative housing, focusing on co-housing settings. However, different terms are not used coherently, which is why both terms are used throughout this work depending on the (research) context and the literature.

When I use the term co-housing, I refer to a general definition of *Baugemeinschaften* or *Baugruppen* (co-housing) in the Austrian context “as housing projects that are (co-)initiated, (co-)planned and (co-)constructed by future residents. Additionally, they can aim at the creation of an intentional community (Temel et al. 2009)” (Lang and Stoeger 2018:9). Moreover, I want to highlight collaboration among residents and collective agency in the planning and use phase. To explicitly refer to the use phase, the term *Wohngruppe* is also used for co-housing groups. It should be noted that in contrast to co-housing projects in Germany, Viennese projects are predominantly collectively rather than individually owned (Temel 2021:25). In the Viennese practice, the term *Baugruppe* is used ambiguously for various models, and different co-housing communities identify more or less with this term. Existing co-housing models and the development of collaborative housing in Austria are further elaborated in chapter 6.

A brief history of collaborative housing

In the European context, Scandinavia is seen as a pioneer of collaborative housing. The Danish *Bofællesskaber* model and the Swedish *Kollektivhus*, with its central kitchen, have inspired many co-housing projects across Europe.

Historically, the idea of collaborative housing goes back to various visions and ideas that emerged in different societal contexts. Starting with the utopian ideas of Thomas More of ideal communities, where residents were supposed to live in neighbourhood groups who shared facilities and activities, later on, drastic changes due to industrialisation led to new visions of egalitarian societies. Prominent examples are the ideal society called *Parallelogram* by Robert Owen and the *Falanstere* by Charles Fourier, who both imagined collectively organised working and living environments. (Vestbro 2010:43f)

Later on, these utopian ideas were banned, and the application of technological innovation to the housing sector became more popular during industrialisation in Europe. The central kitchen idea can be seen as a main concept for the origins of collaborative housing. Back then, the idea was that wealthy families could share kitchen facilities, including housemaids who would prepare the food for the families living in a *Central Kitchen Building*. At the beginning of the 20th century, this kind of building was implemented in several European capitals. However, a few years later, the development of such buildings stopped, and the former kitchens were transformed into common spaces. (Vestbro 2010:44f)

Socialists and modernists picked up the idea of collective housing in the 1930s in Sweden, whose rationales should eventually change people’s behaviour according to their philosophy. However, their visions could not get broader support in the labour movement. Nevertheless, their ideas appealed to its women’s association,

and in 1935, the housing project John Ericsonsgatan was realised in Stockholm in a top-down manner, comprising 54 small apartments, a restaurant, small shops and a kindergarten, enabling women to work regular jobs. The collective service worked for 30 years. (Vestbro 2010:46–54)

Despite the initial success, the project did not attract families due to the small units but rather intellectuals. While the co-housing idea was progressing, after World War II, patriarchal structures and opposition by men who wanted to prevent woman's emancipation constituted an obstacle. A significant milestone was the shift from service to collaboration among residents, which was put into place by the builder Olle Engkvist as a so-called family hotel in the 1950s. Even though residents knew each other and had the possibility to work together, the management was done in a top-down manner. These circumstances caused active residents to take over tasks, such as cooking for themselves collectively, instead of the commissioned manager. That was a starting point for adopting communal living by the 1968 generation challenging prevailing family models, which later on, during the 1980s, were further developed as collaborative housing forms. Formerly serviced apartments have been transformed into standard housing units, giving rise to the idea of a new model – the self-work model. As the term suggests, this model is characterised by a high degree of self-organisation and the creation of generous common spaces. In Sweden, local authorities soon recognised the potential of the collaborative model to experiment with innovative housing forms, such as combining co-housing and service housing for seniors. In the 1990s, co-housing for seniors was introduced as a housing form for people “in the second half of their lives” (Vestbro 2010:53), which has become increasingly popular since then. (Vestbro 2010:44–54)

Denmark – where the so-called *Bofaellsskaber* were developed – went through similar developments. In the first half of the 20th century, co-housing experiments were part of social housing. For example, a housing association (DAB) realised a collective building based on the Swedish model of the 1950s. The interest in co-housing was continuously rising since then. Based on these experimental experiences, the first *Bofaellsskaber* was developed in the 1970s and was particularly appealing to women and families who hoped for a relief of care work. As for the typology, this form of co-housing was mainly newly built low-rise buildings, most of them located on the outskirts of cities. Parallel to the development of senior co-housing in Sweden, *Seniorbofaellsskabers* were developed in Denmark. Most of them were top-down initiated and provided rental apartments. Intending to promote this housing model, particularly in rural areas, the Housing Ministry supported it. (Tornow 2015)

As for the German context, neither the ideals of early socialists Charles Fourier and Robert Owen whose ideas were picked up later on in the garden city by Ebenezer Howard, nor the period at the end of 19th century, when numerous cooperatives were founded, are seen as a main origin of current forms of collaborative housing (Fedrowitz 2016:10). Six contexts of origins outlined by Fedrowitz (Fedrowitz 2016:10f) are sketched below, as they are relevant beyond Germany even if developments differ between national contexts.

The so-called “commune-projects” arose from the commune movement in the 1960s that aimed at emancipation from the mainstream society paradigms of the nuclear family and capitalist logic of production. Commune projects are characterised by common economic activities and decision-making without hierarchy. (Fedrowitz 2016:10f)

In the 1980s, housing projects for women were founded and regained popularity in the 2000s. At the same time, eco-villages arose and focused on sustainable ways of living in terms of building practices and lifestyle. Soon after, self-organised, community-oriented projects emerged within the new cooperative movement. Out of this, associations were founded which have pursued these values ever since. Legalising collective squats is part of the outcomes of this movement in Germany. (Fedrowitz 2016:10f) Indeed, some co-housing projects in

Germany and the Netherlands emerged from occupied buildings that have been legalised thereafter (Tummers 2016:2033).

Similar to Scandinavia, senior co-housing projects became popular in the 1990s in Germany. About ten years later, many multi-generation projects were founded to foster mutual support between older adults and young families. (Fedrowitz 2016:10f)

Whereas in Scandinavia, the central kitchen idea and common meals on a daily basis are central characteristics of co-housing projects still relevant today, in other countries, such as Germany and Austria, generally speaking, common meals in co-housing projects are less paramount. Unlike in Scandinavia, in the German-speaking area, new typologies with mixed-use structures, including commercial spaces for external users, have emerged.

Motivations and aspirations nowadays

“Collaborative housing initiatives fit in the societal trends of decentralisation, increased self-reliability and demand for participation and custom-made solutions” (Tummers 2016:2024).

The reasons for becoming part of a collaborative housing (CH) project are as diverse as the numerous existing models. Collective living is embedded in different contexts, and values range from a pragmatic satisfaction of housing needs to political expressions of alternative ways of living. Lang et al. (2020) identified several motivations why people engage in CH projects based on a literature review, including journal articles in English, French and German. A central motivation for CH residents is to look for an alternative lifestyle and co-create living arrangements that would allow them social interaction and collaboration with their neighbours. Another aspect is “environmental awareness” and the aspiration to reduce one’s ecological footprint by sharing resources, for example. That goes hand in hand with a political expression of alternative housing provision that withdraws from profit-oriented exploitation logic and opposes capitalist modes of production. (Lang et al. 2020:11f)

Closely related to the internal motivations are the potential effects of co-housing projects. Notably, the complex issue of affordability is an ambivalent one. On the one hand, CH projects are addressing a lack of affordable housing with innovative solutions. Currently, CH projects are often criticised for high financial barriers and serving only middle-income households with high educational backgrounds (Czischke et al. 2020:5). In connection with commons, CH projects encourage democratic, non-hierarchical organisation and can contribute to the decommodification of housing. Furthermore, Lang et al. (2020) identified architectural and social innovations as positive effects of this housing form. Regarding architectural design, many CH projects are distinguished by innovative typologies with high-quality shared and common spaces. As for social innovation, this type of housing practices new organisational and governance modes that allow for a high degree of participation. (Lang et al. 2020:13f)

Obviously, motivations and aspirations are very different depending on the local context, the target group of the specific model and many other factors. The (institutional) context and the political support for such projects are key to the success and impact of collaborative housing models. CH projects are often expected to have positive impacts beyond the project and are increasingly institutionalised in some European countries. The issue of co-housing groups as a tool for urban development is discussed in the next chapter in connection with the neighbourhood.

2.2 Collaborative housing in a pandemic era

The COVID-19 pandemic has drawn attention to housing and living conditions in urban areas and has unveiled social inequalities on various levels (source). Lockdowns as a measurement to combat the spread of the virus have shed light on the importance of mutual help and social networks on a local level (Izuhara et al. 2022:1). Against this background, tackling challenges regarding health, affordable housing and social integration is more urgent than ever before. In this context, collaborative housing projects seem to have the potential to cope with the pandemic, develop resilience to crises, and trigger transformation capacities (CO-HOPE 2021).

A study from Germany has shown that residents in co-housing communities, compared to traditional neighbourhoods, had better mental health during lockdowns and suffered less from depression, anxiety, compulsive and eating disorders. This is because residents in co-housing communities are more likely to seek social support as a coping strategy, improving their social well-being. In contrast, residents in traditional neighbourhoods focused more on “problem-solving” and disengagement strategies. (Schetsche et al. 2020)

Nevertheless, co-housing communities had to face several challenges during lockdown periods. When governments imposed restrictions on “households”, some co-housing communities needed to define what “household” actually meant in the specific context of this housing form (Izuhara et al. 2022:66). Some experiences from the UK (Izuhara et al. 2022) show that residents adapted their practices of mutual support. One community, for example, set up a WhatsApp group dedicated to mutual support. Considering that professional health care was suddenly reduced and vulnerable groups had special needs, the boundaries of mutual support were newly negotiated. For instance, physical care for chronically ill residents was outside a co-housing group’s remit (Izuhara et al. 2022:78). The Austrian co-housing project B.R.O.T. in Lower Austria for example, introduced a health team that was responsible for implementing COVID-19 measurements within the group (Gruber and Kluge 2021). In addition, the co-housing group organised an open digital space for encounters.

One primary resource for the coping strategies in co-housing communities was pre-existing social bonds and group arrangements aside from shared values regarding mutual support (Izuhara et al. 2022:76). While some co-housing communities decided to put themselves under quarantine as a whole group because they soon recognised that restricting their children from playing with the neighbour children was hardly possible (Zoidl 2020), in other co-housing groups people self-isolated them more strictly according to households and experienced loneliness (Izuhara et al. 2022:77).

Furthermore, the spatial resources of co-housing communities turned out to be very valuable for coping with lockdowns and other restrictions during the COVID-19 pandemic. Outdoor common spaces gained importance (Arroyo, Yahia, and Johansson 2022:20; Izuhara et al. 2022:81) and turned out to enable residents to meet and socially interact despite restrictions. The pandemic has shown that flexible uses and the possibility to transform private and common spaces are essential to adapt to unforeseen circumstances (Arroyo et al. 2022:12). Some co-housing communities transformed common spaces or guest apartments into home office or home-schooling spaces (Dürr et al. 2021:208–12). Others agreed on different use times or decided that families and children should use different spaces than vulnerable groups and older adults (Zoidl 2020).

The pandemic was an opportunity for some groups to re-evaluate their governance structure, practices and activities, but also their relationship with institutions, which brought positive outcomes regarding efficiency and participation for instance (Izuhara et al. 2022:79f). To conclude, their social and spatial resources enabled co-housing communities to better cope with the pandemic and to self-organise themselves. It can be assumed that flexible spaces and self-governance facilitated coping strategies, allowing for more resilience.

2.3 Excursus: urban resilience in times of crises

Against the background of multiple crises and shocks, such as the COVID-19 pandemic, the notion of urban resilience seems to gain the vital interest of researchers and policymakers. As a result, the question of what makes a city resilient has emerged in scientific, political and civic discourses, even if the term is used in various contexts and lacks a clear definition. There is a trend to replace “sustainability” with “resilience”, despite significant differences between the concepts and ambiguities in how the two relate. While some authors see resilience as a prerequisite for sustainability, others argue that the other way around is accurate. (Kuhlicke 2018:359f)

Initially, the concept occurred in the context of ecosystems, describing their ability to recover from shocks and disasters by recovering, resisting and persisting. Later, it became a normative idea or way of thinking about enhancing socio-ecological systems' resilience. In connection with resilient cities, Kuhlicke (2018) identifies different approaches that share a relative understanding of resilience, focusing on objects, subjects or systems exposed to disturbance. Hence, they need to become more resilient, which can be addressed on various scales, such as national, urban, neighbourhood or household.

Considering manifold tensions regarding (urban) resilience, Meerow et al. (2016) define urban resilience as follows:

“Urban resilience refers to the ability of an urban system-and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales-to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity” (Meerow, Newell, and Stults 2016:39).

This definition considers several aspects and encompasses dynamics, pathways and different temporal and spatial scales of urban resilience. Furthermore, it is characterised by three mechanisms or change pathways – “persistence”, “transition”, and “transformation” – towards a state of equilibrium. (Meerow et al. 2016:39)

It is obvious that there are numerous approaches to resilience. Irani and Rahnamayezekavat refer to three main approaches by Figueiredo et al. (2018) that are complementarily addressing different scales. Firstly, they describe the disaster risk reduction scale at the global and national levels. Secondly, the socio-ecological approach is typically applied to cities and communities, and finally, the sustainable livelihoods approach refers to resilience and vulnerability at the household and community scale. (Irani and Rahnamayezekavat 2021:310f)

In research and practice, there are different ways to conceptualise different dimensions – particularly economic, social, environmental and institutional – that resilience is based on. As for the social dimension, active agents with specific capacities play a key role. Social capital and networks with bridging, bonding and linking relations are key aspects of a sustainable urban transformation. The institutional dimension – strongly connected to the social dimension – refers to rules that form human behaviour and social and economic interaction and thus shape how agents and systems interact. Planners and leaders are seen as important agents in this context. Last but not least, “good governance” that enables citizens to take part in urban planning processes is a significant indicator of institutional resilience.

Economic conditions for businesses and households on different scales and their local and global interconnectedness determine economic resilience. Moreover, equitable resource distribution, which impacts social

justice, is essential. The use of natural resources and the interaction between humans and environmental resources affects environmental resilience.

In chapter 3.3, the social dimension will be further mentioned since social networks and active agents with specific capacities are essential for resilience and socio-ecological transformation in the urban context. (Irani and Rahnamayiezekavat 2021:312f)

In connection with co-housing groups, the issue of active agents is particularly relevant since research has shown that compared to conventional housing, co-housing groups developed better coping strategies and were able to self-organise, adapt and rethink their internal governance structure (see section above). These examples illustrate resilience on a very local level (somewhere between household and neighbourhood) and how learning processes and transformation capacities can be activated.

Coming back to the urban scale, the notion of resilience does not only serve as an analytical framework to explore whether a (sub)system is resilient, but it is deeply intertwined with governance structures and normative narratives. So far, many characteristics of resilient cities and, as a consequence, requirements for planning processes have been defined, such as capacities to learn and being open to experimental formats to reach for a paradigm shift in planning. However, specific steps and instructions are often missing. (Kuhlicke 2018:367)

Another criticism points out that transformation, despite stability, brings about the ambiguity that maintaining certain structures might reproduce inherent vulnerabilities (Kuhlicke 2018:366). If a system has enough learning capacity and the ability to initiate learning processes, it could possibly learn from its own weaknesses.

Furthermore, referring to external stresses or threats in connection with resilience might result in the externalisation of such; thus, they are framed as unpredictable and uncontrollable. This brings about problematic views on security and shifts responsibility from society to individuals. Since resilience is a relatively neutral concept, pressing societal questions are depoliticised, and stakeholders might withdraw from clear answers. (Kuhlicke 2018:373f)

For this reason, it is essential to capture the underlying power dynamics of the manifold stakeholders involved and to raise the question for whom, what, when, where and why resilience serves. In addition, the underlying goals and values of resilience should be addressed. (Meerow et al. 2016:46)

As for the German-speaking context, Kuhlicke refers to an interesting oddity related to the translation of the Sustainable Development Goal (SDG 11) “Make cities and human settlements inclusive, safe, resilient and sustainable” (United Nations n.d.a). The term “resilience” is translated as “widerstandsfähig” (resistant), which narrows down the concept of resilience to one aspect. Generally speaking, the resilience discourse in the German-speaking area is less pronounced compared to the international context. (Kuhlicke 2018:369)

Regarding the current work, this excursus aimed to introduce the resilience discourse in the context of crises to get a general understanding of the concept. Urban resilience is assumed to be a prerequisite for the socio-ecological transformation of cities on different scales. In the course of the work, urban resilience will be taken up again in connection with neighbourhood research and urban commons.

3 THE NEIGHBOURHOOD

Against the background that co-housing projects are often associated with positive effects on the neighbourhood and are seen as inclusive communities (Lang et al. 2020:14), the concept of neighbourhood and community in the urban context is elaborated. Furthermore, the current research on co-housing projects in connection with the neighbourhood requires understanding existing approaches to the neighbourhood in the international context. The aim is not to find a clear definition of the neighbourhood and related concepts, such as place, but rather to get an idea of the possible scale and the scope of the neighbourhood to provide a frame for the case studies.

This chapter starts with a comprehensive introduction to neighbourhood research, employing select approaches from diverse disciplines, including historical overviews. This serves as an introduction to engaging with pertinent concepts in the field of co-housing. Within this context, I delve further into specific concepts relevant to the analysis and interpretation of the case studies.

Place-based understandings of neighbourhood (Schnur 2014; Vogelpohl 2014) prove particularly useful in contextualising the understanding of neighbourhoods within the scope of the examined co-housing projects because they take into account both the physical and social aspects, as well as the symbolic meaning of neighbourhood. As co-housing projects are often analysed as communities or (social) groups, these terms are further elaborated to define or understand co-housing groups or communities theoretically. While focusing on socio-spatial relations, the term network is also mentioned to feed the analytical framework. In order to analyse these relations on different scales, three types of social capital are introduced, forming a key element in the case analysis. Exploring the potentials inherent in socio-spatial relationships for urban resilience, this work proceeds to discuss insights from neighbourhood research in this regard briefly. Subsequently, the concepts mentioned above are further elaborated and supplemented with findings from co-housing research.

Lastly, this chapter delves into co-housing as an instrument for urban development and renewal, establishing a connection to housing policies and frameworks. The specific context in Austria, particularly Vienna, is expounded upon in Chapter 6.

3.1 Conceptualisations and approaches and current debates relevant to this work

Generally speaking, “neighbourhood” is a frequently used term, and everyone seems to know what is meant, but the consensus ends when it comes to precise definitions (Galster 2001:2111; Schnur 2014). Across different disciplines, one can find various definitions and approaches; in some contexts, the term is used interchangeably with “community”. During individualisation in the 1980s, however, the (local) community and the related discourse lost importance. As a (social) consequence of this trend, living and housing became very individual questions. Despite or due to these processes of individualisation, neighbourhood and local living environment gained importance not only for residents but also as a scale of political programmes. The latter tend to pick up ideals, such as the neighbourhood as an “urban village”. Nevertheless, neighbourhood ideals reflect individual ways of life and aspirations. Reutlinger et al. (2015) conceptualise neighbourhood as a colour palette where everyone can “paint” his:her ideals of living and forms of community. Co-housing projects, for example, would be compositions of individual aspirations that fit only a few. The authors criticise that their social mix is limited; instead, they enable individual modes of living in a community. (Reutlinger, Stiehler, and Lingg 2015:69f)

Jenks and Dempsey (2007) examine existing interpretations of the neighbourhood and identify three approaches in the existing literature: (1) the neighbourhood as a spatial construct, (2) the functional neighbourhood and (3) the neighbourhood as a social construct.

Even though neighbourhood can be defined as a physical construct, theorists using this spatial definition acknowledge that neighbourhood cannot be separated from social phenomena. The definition of the spatial extent of a neighbourhood strongly depends on the residents, which is why the concept of “place” as “sense of place” is frequently cited in this context. In contrast to that, “area-based” approaches focus on physical attributes. This approach was applied in specific geographic areas to explore certain “neighbourhood effects” (impacts of the neighbourhood) often related to the socio-economic characteristics of residents. Jenks and Dempsey’s considerations show that spatial, functional and social aspects are interlinked, but different theorists approach the subject from different angles. (Jenks and Dempsey 2007:153–58)

Researchers would often adopt administrative boundaries to assign geographical regions for statistical analysis. However, these boundaries can be regarded as aspatial in neighbourhood research as they cannot meet the complexity of the neighbourhood concept. (Jenks and Dempsey 2007:154)

To deal with the multiple dimensions of the neighbourhood, Galster defines the neighbourhood as a “bundle of spatially based attributes” (Galster 2001:2112) and, thus, uses a rather technical approach to describe this “complex commodity”. Therefore, a neighbourhood consists of the following attributes (ibid.):

- (1) Structural characteristics of buildings
- (2) Infrastructural characteristics
- (3) Demographic characteristics of residents
- (4) Class status characteristics of the resident population
- (5) Tax/public service characteristics
- (6) Environmental characteristics
- (7) Proximity characteristics
- (8) Political characteristics
- (9) Social-interactive characteristics

Although this approach takes spatial attributes as a point of departure, he recognises that the neighbourhood is being produced by the actors that consume it and couples the attributes with changes over time and the related processes connected to the consumers' and producers' decisions. At this moment, four key users and, at the same time, producers make relevant decisions that affect the dynamic of neighbourhoods: households, businesses, property owners and the local government. (ibid. 2121)

Reutlinger et al. (2015) describe three dimensions of contemporary neighbourhoods that are all characterised by tensions between individual ways of life and the community project. The idea of (1) “living and being neighbour” (Reutlinger et al. 2015:77) means that individuals start with their own needs, and neighbourly relations are based on individual benefits that are not given but arise from individual efforts. These efforts are being increasingly institutionalised and bundled in neighbourhood communities ((2) “from forms of socialisation to neighbourhood community” (ibid.)). A neighbourhood community is characterised by defined boundaries, where the community serves an individual purpose. Finally, the authors discuss the illusion of (3) “intact neighbourhoods” (ibid.) – an image frequently used by public programmes. The emergence of an increasing number of neighbourhood initiatives that sometimes decontextualise the term neighbourhood is one example of this illusion. The three dimensions can be found in the housing sector and also in co-housing movements in the German-speaking context. (Reutlinger et al. 2015:70–77)

Neighbourhood across disciplines

Neighbourhood research is a very broad and fragmented research field, as various disciplines have dealt with this subject in different contexts – geography, sociology, political science, economics and other disciplines. Due to the absence of a common definition and local variations, different terms and connotations are used.

Olaf Schnur, a key researcher on neighbourhood issues in the German-speaking context, tried to give an overview of different approaches, definitions and current debates and narrow down the concept of neighbourhood. He identifies eight “portals” to neighbourhood embracing a range of conceptualisations across different disciplines. These different approaches overlap and can be understood as “hotspots” of neighbourhood research. He noted that in the 1970s, the research field broadened, and different paradigms emerged. The eight portals identified by Schnur (2012:452) are listed above to show how broad the field is:

- Social ecology: natural area concept, succession-invasion cycle, neighbourhood life cycle
- Neoclassical economics: filtering, arbitrage, vacancy chains
- Demography: population waves, housing demography
- Sociology: surveys, community studies
- Neighbourhood research: action space, perception theory, subculturalism, lifeworld concept
- Governance research: growth machines, urban regimes, local social capital
- Neo-Marxist approaches: regulation theory, post-Fordism
- Poststructuralist approaches: sociospheres concept, relational space concepts, place concept

The current work refers to poststructuralist approaches and relates to a relational understanding of space. In addition, the notion of social capital is picked up in chapter 3.2.

While the geographical discussion on the neighbourhood was characterised by uncertainties and somewhat disconnected from other disciplines, the work of the *Chicago School*¹ laid the foundations for neighbourhood research for different disciplines. A key momentum was the *humanistic turn* in geography in the 1970s resulting in more open and multidisciplinary approaches to neighbourhood research. The new geographical perspective put people and their relationship to place and space in the centre and considered the meanings of place in neighbourhood research. These formerly separated concepts were being intersected, and debates, such as “place matters”, arose and led to new theoretical foundations. (e.g. Massey, Harvey) Moreover, the new perspective of relationships between neighbours and neighbourhood enabled researchers to include the perception of residents, which corresponds to the understanding of space by Lefebvre. (Drilling and Schnur 2019:50f)

Reversely, cultural and social sciences have undergone a *spatial turn* in the 1980s. While until then, the dimension of time was broadly considered in research, this turn put the spatial question in social theories back into focus and recognised that social processes are spatially bound.

Towards the end of the 20th century, neighbourhood research became “a laboratory for dealing with social problems” (Drilling and Schnur 2019:51). Debates in geographical neighbourhood research dealt with issues that arose in the course of increasing urbanisation, demographic change, segregation and shrinking cities. Furthermore, new urbanistic ideals regarding densification, social mix, and global concepts about sustainability-related issues emerged. The neighbourhood level seemed to be the most suitable scale for addressing

¹ The Chicago School of Sociology refers to a school of thought founded at the University of Chicago at the end of the 19th century. It was particularly prominent at the beginning of the 20th century when the city of Chicago faced several challenges due to economic depression and population growth. Scholars explored the city as a social laboratory using mainly qualitative methods, such as observation. A key assumption was that social structure and environment would influence human behaviour. (Sociology Plus 2022)

social problems, and it became part of the governing logic of politics. New research areas gained importance, for example, community psychology, political science, economy, anthropology and others, contributing to theory-building and planning recommendations. Neighbourhood research has become a multidisciplinary but also fragmented field. (ibid.)

Neighbourhood terms in the German-speaking context

As far as distinctions of different neighbourhood terms are concerned, English and German are very different. In contrast to the English-speaking context, the term “Nachbarschaft” (neighbourhood) has hardly any spatial relation. However, neighbourhood could also be translated as “Quartier” (quarter/hood), a very commonly used term in German to dissociate from administrative borders, such as districts. One could also translate it with “Stadtteil”. Sometimes “Quartier” is used as a synonym for community, a term that cannot be translated accurately to German, referring to something between “Gemeinde” (commune) and “Gemeinschaft” (community). (Schnur 2014:37)

In addition, neighbourhood terms vary depending on the local context. While “Quartier”(quarter/hood) is frequently used in Switzerland, Germany and Austria, there are various local synonyms, such as “Kiez” in Berlin, “Veedel” in Cologne and “Grätzl” in Vienna. (ibid.) In this work and when conducting the interviews, I use the term “Grätzl” to refer to the spatial dimension of the neighbourhood and “Nachbarschaft” to refer mainly to the social dimension. This is not a sharp but rather a working definition.

Neighbourhood as place

Schnur (2014a) tried approaching a social-geographic definition of neighbourhood as a fuzzy concept where different social spheres overlap. Thus, neighbourhood as “Quartier” is socially constructed around a fuzzy centre through internal and external action. For him, a neighbourhood is not a large-scale environment but rather the immediate living environment formed by everyday life. In this context, Schnur stresses the human scale of neighbourhoods and their attribute to be constructed and reproduced as a social landscape. (Schnur 2014:43) Hence, the definition of Schnur is valuable for this work, as it captures neighbourhood not only as a social group or community but also stresses the spatial setting.

Subjective neighbourhood layers (sociospheres) are constructed around one’s place of residence, overlapping and densifying in the “core” of the neighbourhood. At the core's edge is a “seam” where different neighbourhoods might intersect. According to this fuzzy logic, there is no clear border, and it is not about something being inside or outside but rather something in-between. For example, neighbourhood networks allow trans-local sociospheres in neighbourhoods that reach far beyond. Since the definition of an exact geographic scope is very challenging, one way of approaching this is using mental maps that can capture these social spheres. (Schnur 2014:44f)

The concept of translocality has gained importance in our globalised world “to capture the interconnectedness and processes that happen in and between different localities” (Peth 2019). The concept often occurs in the context of migration and implies various forms of exchange enabled and encouraged through translocal networks (ibid.). In the context of this work, translocal connections of co-housing residents will be explored as different kinds of social connections in terms of social capital.

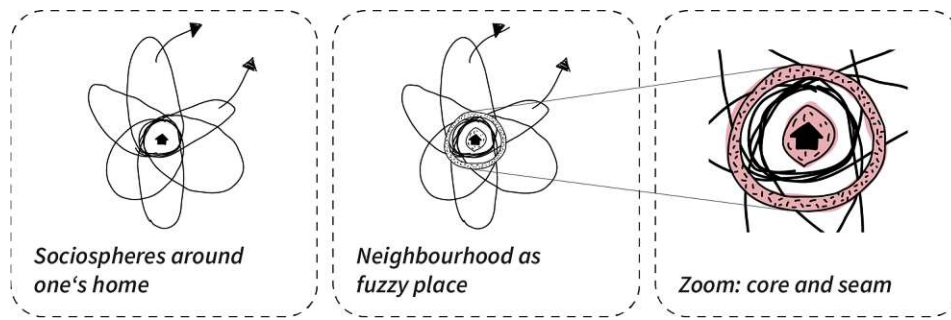


Fig. 4: Neighbourhood as fuzzy place (own representation based on Schnur 2014:44)

The following quote by Barton et al. (2021) emphasises the difficulty of defining neighbourhood and highlights the fuzziness of the concept:

“Most neighbourhoods are not separate units but interconnected parts of the urban continuum, often merging into one another, their edges ‘fuzzy’” (Barton, Grant, and Guise 2021:43).

However, for Barton et al. (2021:46f), a neighbourhood relates to a place, a “unit”, and accordingly, their approach focuses on the spatial dimension. Based on residents’ perceptions, neighbourhoods are areas of a distinctive identity often bounded by landmarks, such as railways. As a subset of neighbourhood, they introduce the “home zone” – the individual street or block that people identify as their “home territory”.

In the literature, other researchers use concepts similar to Schnur's fuzzy logic but define what happens around the core with more precise boundaries. For instance, Suttles (1972) sees the neighbourhood as a layered frame starting from an individual perspective in the centre of three different radial layers: (1) “My neighbourhood” (home, family, immediate neighbours), “Our neighbourhood” (localised group) and “The neighbourhood” (a more fixed entity with a name and certain reputation beyond the residents). (Jenks and Dempsey 2007:160)

Since “place” is a central term in the fuzzy neighbourhood understanding, the place concept in neighbourhood research is introduced here. This approach provides specific dimensions relevant to analysing the understanding of neighbourhood from the co-housing project’s perspective in the empirical part of this work (chapter 7).

In line with the claim that “place matters”, the concept emphasises the meaning of places and the subjective dimension based on individual perceptions and identification. The place concepts shed light on social processes that form space. In this regard, space is simultaneously a product and consequence of social processes. This perspective can directly be translated to the neighbourhood scale; thus, neighbourhoods can be conceptualised as symbolically and physically framed social processes. In this understanding, neighbourhoods are a dynamic complex of produced spaces by subjects and society. (Vogelpohl 2014:61–74) The idea of dynamically produced places corresponds very well to the fuzzy logic of overlapping sociospheres. The place concept itself does not define a scale. When being translated to the neighbourhood level, boundaries are merely constructed to create a sense of place – an interplay between material and subjective layers (Vogelpohl 2014:73). The place concept can serve as a starting point for empirical research (Vogelpohl 2014:69), wherefore the division into three spatial dimensions – symbolic, social and physical – of the place concept enables a simplification of the complexity of neighbourhood (as a space). In this sense, the place concept serves as an approach to processes in urban neighbourhoods and contains strong parallels to Lefebvre's spatial conceptualisation and logic.

Firstly, the symbolic dimension of place describes the imagined, perceived and discursive aspects of space and refers to meanings of place that emerge from individual experiences and emotions. This dimension can be described as “sense of place” and as articulated representations. These are represented through images, for example. Moreover, the media or city marketing impacts the emergence of place and this process. (Vogelpohl 2014:63)

Secondly, the social dimension of place is about the lived and the negotiated space. Accordingly, social relations consist of direct social interactions and institutionalised social relations manifesting at specific places. The social dimension, therefore, deals with places where typical interactions concentrate as well as political aspects. In addition, the daily life of local actors in connection with a time dimension in terms of past, present and future projections plays an important role. In this regard, actors’ constellations, networks, institutions, events and others are key aspects. (Vogelpohl 2014:63f)

Finally, the physical dimension refers to material attributes with a specific location (e.g. buildings or streets) but can moreover refer to functional aspects (e.g. use structure or density). The physical structure can be seen as the output of social practices and entails meanings for social relations as a result and is not something given. (Vogelpohl 2014:64)

In reality, there is no division into three parts as they overlap and presuppose each other – very similar to Lefebvre's understanding of space and its production process. While the triad of Lefebvre is not entirely consistent and lacks precise definitions (Schmid 2005:208), the three dimensions of the place concept might help to grasp the complexity of (neighbourhood) space. It is essential to mention that the dimensions of the place concept are not congruent with the triad of Lefebvre but have several intersections. Furthermore, the dimensions in both concepts do not have clearly defined boundaries.

The concept of Lefebvre, which serves as a basis for defining what “space” is (see chapter 1.2), broadens the horizon in neighbourhood research. In his work, Schnur depicts central aspects of Lefebvre's theory and applies them in neighbourhood research. He argues that this allows deconstructing not only the “stage play” of the neighbourhood but also the “stage design” as well as the stage itself and its underlying production process (Schnur 2012:470).

Community, social groups and networks

A related term that frequently occurs in neighbourhood research is “community”, which in some contexts is used interchangeably with “neighbourhood” and, therefore, faces similar challenges regarding its definition in social and spatial terms. While some authors use the term “community” to describe familiar social arrangements beyond one’s home, others stress the characteristics of a homogenous value system. The latter can be detached from space as social networks often do not have clear geographic boundaries. In contrast, there are approaches highlighting the physical setting and the spatial context in which a community exists. When talking about “community”, some authors relate to a specific territory within which social activities occur. (Jenks and Dempsey 2007:158) Barton et al. (2021) clearly distinguish between neighbourhood and community as follows: “neighbourhood is about place while community is about people” (Barton et al. 2021:44).

One cannot leave aside to approach the concept of “social groups” when it comes to co-housing communities or groups. Firstly, attention should be drawn to basic elements that define a group: (1) number of members, usually between 3 and 25, (2) a common goal, (3) sense of community (“we-feeling”), (4) common values as a basis for communication and interaction and (5) interrelated social roles. Groups usually exist over a longer period. Historically, different types of groups have emerged and have been conceptualised in different ways – for example, “gangs”, “peers”, or “self-help”. The term “small group” was coined by the work of the German

sociologist and forerunner of group sociology Georg Simmel and was conceptualised as a primary group later on. An early conceptualisation of the primary group was made by Charles H. Cooley, which refers to a group that is characterised by strong personal ties and intimacy. These include family, neighbours or even the community group. Primary groups are the basis for self-identification and play a crucial role in socialisation through interaction with others. The family is a particular group and is seen as the origin of group life. In contrast to primary groups, secondary groups are characterised by looser, more temporal, and goal-oriented relationships. Another distinction along structural principles is the division into informal and formal groups. Considering the social reality, informal groups are strongly related to primary groups. (Schäfers 2016:154–62)

A related term – not less complex – is “network”, which refers to social relations that are not limited to individuals but can also emerge between groups and organisations. In contrast to groups, there is no active “membership” of a network, and thus normative relations are secondary. In addition, boundaries are not clearly defined. With the advent of the internet – a material basis for networks – they could emerge more easily with different purposes. Consequently, group formation can occur on the basis of networks – if face-to-face relationships are possible. (Schäfers 2016:168f)

(Social) groups and networks are very complex topics, and one could go into much more detail here. In the case of co-housing, both terms – “community” and “group” – occur in the literature, and the related dynamics in co-housing settings could be analysed from a social group or network perspective. In addition, there is a broad body of literature on group dynamics and various kinds of groups and group settings. For the current work, this short excursus is a sufficient basis to continue reflecting on group and community in co-housing communities.

Regarding relations between co-housing projects and the neighbourhood, it is key to understand the project members as a social group (often used exchangeable with community) with a common goal. Whether they are regarded as primary or secondary groups depends on the respective project context. In addition, different kinds of (sub)groups can be found in co-housing groups that differ in various characteristics and change over time. In this respect, the different phases of the planning process and the emergence of bonding social capital within the group have an impact on the group dynamics. The analytical approach is further elaborated in chapter 5.

3.2 The notion of social capital

The concept of social capital is about the nature of the relationships of groups, communities and associations within and between other groups. There are different theoretical lines within the concept of social capital, for example, the network approach, frequently used in economics. Social capital entails different functions depending on the nature of the relation – bonding, bridging and linking social capital. These are described as “types”, “forms”, “dimension”, or “functions” and are often used interchangeably by different authors. In the literature, different ways of distinguishing aspects of social capital can be found; some researchers work with two types, while others refer to three types. (Claridge 2018b:1)

The term “capital” refers to the attribute that one can invest in social connections and get something out of it, either immediately or in the future, which brings in a time component. It is not unambiguous whether it refers to a collective or individual good, and researchers use the term differently. In connection with the neighbourhood and social groups, more emphasis is put on the collective benefit, resulting in individual advantages as well. (Landhäußer 2015:169–74)

Three types of social capital – bonding, bridging (Putnam 2020) and linking (Woolcock 2001) – are introduced here and are also part of the analytical framework to approach socio-spatial relations between co-housing projects and their neighbourhoods.

Bonding social capital

Bonding social capital refers to connections within a group or community, such as family members, close friends or neighbours. It typically occurs among people of a homogenous group with similar demographic characteristics and similar interests – both of which are not clearly definable, as outlined in the next section. Furthermore, bonding social capital requires frequent interaction to function as a material and emotional resource. (Claridge 2018b:2) The following quote illustrates the benefits of bonding social capital:

“Bonding social capital tends to help people ‘get by’ and provides the norms and trust that facilitates collaborative action” (Claridge 2018b:3).

Bonding social capital can also be seen as a key resource within an organisation, such as associations. Members can identify with the organisation and feel a sense of belonging. The relations are oriented towards the inside and are rather exclusive. However, within an organisation, bridging social capital might occur as well, depending on the size of the group and its members.

Bridging social capital

In contrast, bridging social capital describes relations between different groups, communities or organisations. Even though social capital implies shared interests or goals, connections in terms of bridging social capital refer to ties between people with different social identities. This kind of social capital enables access to resources, information and power and can help to attain a better placement within a network and to be able to recognise opportunities better. It results from networking since this kind of connection is more open and thus potentially more inclusive than bonding social capital. It is argued that it has the potential to be a social leverage. However, the distinction between bonding and bridging social capital is hard to make, as even within a group or community, connections might function as a bridge between different social groups in terms of socio-economic background and other demographic attributes. (Claridge 2018b:4)

One way of conceptualising bonding and bridging social capital can be described as “internal” and “external”. Whereas internal refers to an inevitable heterogeneity within a group, the latter describes bonding and bridging through interconnections between associations (Claridge 2018b:5).

Linking social capital

Some authors introduced linking social capital as a third type that describes the vertical relations between different groups and, thus, considers different power dynamics. It includes relationships across different power or authority gradients. Linking social capital is very close to bridging social capital and is sometimes seen as its extension, but it differs due to uneven power distributions. It encompasses relations with authorities and the local government that might provide resources and benefits for the group. (Claridge 2018b:3–5)

Social capital and the neighbourhood

Within the concept of neighbourhood effects, social capital is related to the questions of what kind of resources for individuals can be provided through the neighbourhood and the role of common values and norms

in neighbourhoods. According to Bourdieu, social capital embraces resources resulting from continuous efforts in (social) relationships (Bourdieu 1983, in: Nieszery 2014:143). Other researchers, like Patsey Healy (1998, in: Schnur 2014: 41), also argue that according to the concept of social capital, neighbourhoods are the central living space that enables people to access resources while drawing symbolic boundaries.

When talking about social capital tied to a specific location, Schnur speaks about “local social capital”, enabling residents to gain agency to activate resources in their neighbourhood collectively (Schnur 2003). In this context, collaborative consumption or sharing economy might positively affect building social capital. In their research, Schnur and Günter examined different online sharing platforms that foster collaborative consumption. They conclude that only platforms that aim directly at community building and personal networks within the neighbourhood can potentially increase local bonding and bridging social capital. In contrast, platforms focusing on resource sharing only, such as the exchange of tools, are unlikely to create social capital since these kinds of interactions are generally not very long-lasting. The different mechanisms of the accumulation of social capital entail different ways of building trust and reciprocity – which are key elements in neighbourhood development. In addition, different sharing platforms can foster interactions not only on a local level but even beyond since virtual networks overcome spatial boundaries in terms of different neighbourhoods. Nevertheless, the “local” will not lose its meaning entirely, but on the contrary, modes of sharing economy support the often discussed local shift and is part of a new emancipated society. (Schnur and Günter 2014)

At this point, the notion of “urban villages” should be briefly mentioned, as this idea focuses on the positive aspects of local social capital, such as social interactions and access to resources. Coming from neighbourhood research, Vogelpohl asks if cities can be seen as a sum of neighbourhoods or urban villages that are being produced through (inter)actions in daily life. Even though she concludes that the city is not a sum of “urban villages” since the single parts are too different, in the sense of David Harvey, the concept can provide an ideal or a vision that enables planners and citizens to imagine a positive future starting at the local level – the direct radius of action and everyday life of residents. (Vogelpohl 2014:71f)

If one approaches social capital based on a location, the comparison with a village is a good metaphor that also draws upon place attachment. In this sense bonding social capital refers to ties within a village, whereas bridging social capital encompasses ties to a different village (Claridge 2018b:2). Within a village, there are dense networks and strong relationships based on trust and reciprocity. People are attached to their village and know everyone and can thus expect social support in times of crisis. In contrast, relationships with a different village are weaker but very valuable since they could enable a community to access resources beyond the immediate network. Nowadays, this geographical distinction is less relevant, especially in developed societies, but it is worth considering against the background of a return to the local scale and of co-housing groups describing themselves as “village in the city”. In this context, third spaces (Oldenburg 1999) as spaces of community life and social encounter play an important role for establishing social bonds and bridges. While the first space is reserved for private life and the second space describes the work space, the third space is regarded as a balance for the first two (ibid. 1999: 14-19). Co-housing projects often create third spaces through their common spaces that they share within and beyond the co-housing group.

Criticism of the social capital approach

In some respects, the concept is controversial. Firstly, the benefits of social capital might be limited to group members and, thus, excludes others from the collective resource. That is why Bourdieu sees social capital as a driver for societal inequality (Bourdieu n.d., in: Landhäußer 2015:174). Claridge adds to the exclusive character of groups that networks with a high level of bonding social capital might be more likely to be racist and

excludable. While, according to him, bridging social capital is relatively unambiguous, linking social capital can potentially encourage corruption and suppression depending on its context. (Claridge 2018b:4f)

Secondly, social capital is applied in many different ways and contexts, and the term is used for different things. As a result, social capital research faces contradictions leading to the third point of critique. Claridge argues that due to its ambiguity and variability, “[t]he main criticisms of social capital theory are that it is not social, not capital and not a theory“ (Claridge 2018a:1). In addition to the inflationary and unreflective use of the term, political demands might be woven into it (Bramley and Power 2009). This work, however, will not examine whether and “how much” social capital is being produced through co-housing groups. It rather integrates the dimensions of social capital in the analytical framework to conceptualise different kinds of collective (social) connections between the project and the wider neighbourhood.

3.3 Urban resilience and the neighbourhood

Recently, neighbourhood research and the neighbourhood level have been discussed in connection with urban resilience and socio-ecological transformation. The neighbourhood level plays an increasingly important part in understanding and advancing urban transformation processes (Vogelpohl 2014:61). Policymakers have recognised this action level, and a growing number of programmes on sustainable urban development build on cohesive neighbourhoods, where local networks and communities are organised in a way that enables them to communicate and interact to foster collective action (Drilling and Schnur 2019:54).

In his work on neighbourhood research in connection to resilience, Olaf Schnur refers to the evolutionary perspective. This approach implies that systems do not return to the previous equilibrium state but can follow new paths after shock exposure. He applies the panarchy model of adaptive cycles by Cranford S. Holling and Lance H. Gunderson, part of eco-systemic theory paradigms, to neighbourhood research. System changes happen due to sudden shocks, such as the pandemic, or continuous changes, like climate change. When it comes to systems, they undergo four different phases according to the model, where resilience increases or decreases depending on two dimensions. In addition, smaller cycles can be nested in bigger cycles. Schnur sees neighbourhoods as systems that go through several cycles. (Schnur 2013:337–41)

The structural potential and internal connectedness are the two dimensions along which the system, like the neighbourhood, changes. The former depends on the quality of the respective material infrastructure of a specific neighbourhood type, the historic building structure, meanings of places and related identities – which could be subsumed as a neighbourhood type. In contrast, the local social capital, the local governance structure and the quality of connections in terms of bonding, bridging and linking social capital determine the internal connectedness of a neighbourhood. (Schnur 2013:341f)

It should be mentioned that, compared to other types of capital, social capital is the most stable and highly important for recovering from shocks. Hence, social capital is a resource for (social) resilience, as highlighted in the following quote:

“Social capital is another important concept in social resilience. From the results of several case studies, Aldrich [2010, 2011] concludes that social capital plays the main role in disaster recovery; other factors, such as physical harm, population density, socio-economic status, and economic inequality, are less effective” (Irani and Rahnamayiezekavat 2021:313).

In the context of social resilience, active agents (individuals, households or organisations), who can make strategic decisions and learn from their experience, and their resources play a key role. Social resilience sources

include social capital, information and communication and the ability to learn and solve problems. (Irani and Rahnamayiezekavat 2021:313)

As for neighbourhood research, Schnur concludes that despite the complexity of neighbourhoods, the panarchy model of adaptive cycles has the potential to gain a broader understanding of sustainable transformations on the local level, of path dependencies and to analyse intervening developments internally (e.g. social movements in the neighbourhood) and externally (political programmes). (Schnur 2013:348f)

Against this background, the well-functioning neighbourhood networks established through co-housing residents and their engagement can potentially foster local urban resilience. As good practice examples, they might set impulses in urban planning.

3.4 Co-housing: socio-spatial relations with the neighbourhood and urban setting

Urban setting

Co-Housing projects occur in various urban settings that potentially offer different opportunities and limits for the co-housing project regarding socio-spatial relations with the respective neighbourhood. As mentioned in the introduction, Fromm (Fromm 2012:391) distinguishes four types regarding the urban setting: urban revitalisation (reusing existing structures in the inner city), urban infill (new construction on available land), brownfield development / undeveloped land, and the reorganisation of existing housing. This classification seems pretty general, and categories might overlap as the distinction can vary depending on the local context – for example, urban revitalisation and reorganisation are hard to distinguish. In addition, cities usually have more than four urban settings depending on the location and the historical context. Urban settings or types are embedded in the respective (historical) city context, showing significant differences when comparing cities and urban settings in different continents or countries and obviously, many co-housing projects are located in rural areas. However, this work focuses on urban locations with a certain density that potentially facilitates spatial relations with the surrounding context, especially by using services and facilities in the neighbourhood (Ruiu 2016:11).

The social logic of space in co-housing

When it comes to the materialisation of co-housing practices, Caldenby et al. (2019:163) identified two parallel processes in the creation of commitment to a collective: on the one hand, detaching from the surrounding (external) environment and, on the other hand, attaching to the (internal) community. Accordingly, this duality can be interpreted spatially, and they examine the “spatiality of co-housing and its relation to questions of urban social sustainability” (ibid.) These processes and structures are further elaborated in the following section and are highly relevant for understanding the socio-spatial relation between co-housing projects and their urban neighbourhood.

Caldenby et al. (ibid.) introduce the concept of transpatial (sense of community within the co-housing) and spatial solidarity (with the neighbourhood) and argue that these underly the same duality of attachment and detachment in co-housing. Ruiu observes a similar simultaneity of different processes in co-housing projects – on the one side, the creation of a “self-sufficient micro-cosmos” (Ruiu 2016:11), on the other side, the struggle to overcome anonymous and alienated neighbourhood relationships with the surrounding context.

Initially, the approach of spatial solidarity used by Caldenby et al. can be traced back to the “Space Syntax” by Hillier and Hanson (1984, in Caldenby et al. 2019: 165f), who emphasise the importance of spatial continuity and aspects of solidarity of building complexes. This analytical framework should enable planners and architects to understand spatial relations and the resulting social effects of their spatial designs. Caldenby et al. use this approach as a “heuristic tool” to explore the negotiation of social and spatial relations between the communities and their urban environment in five co-housing projects in Scandinavia. In their study, they outline the spatiality of social encounters and the importance of the location of common spaces. One key aspect is the accessibility of shared spaces that can enable spontaneous encounters between residents. Their research shows that common spaces close to each other (at ground floor level) facilitate spontaneous neighbourly interactions. A ring-like structure of the common spaces enhanced the transpatial solidarity within the group, contributed to their social cohesion, and enabled equal relations between interior and exterior spaces.

In contrast, tree-like (non-distributed) structures favour hierarchies since one room can only be accessed through the other and is thereby controlled by it. As a result, the former shows more potential to create solidarity with the local context. (Caldenby et al. 2019:164–66)

Taking a closer look at the urban context, some projects aimed at fulfilling a social function in their neighbourhood by providing space for non-commercial uses. However, being open for the neighbourhood entails certain risks and can bring about “tension between internal needs of the residents and ideals of accessibility for the neighbourhood” (Caldenby et al. 2019:176). One illustrative example was a trampoline bought by one co-housing group that turned into a semi-public space, and kids from the neighbourhood used it regularly, which contributed to blurring “the socio-spatial boundaries of the internal co-housing community and the wider neighbourhood” (Caldenby et al. 2019:177) – not without conflict. This example shows how co-housing groups must deal with the tension between “spatial solidarity versus detachment from the surrounding, with the risk of reproducing a sense of ‘we’ and ‘them’” (Caldenby et al. 2019:177). These complex relations demand negotiation regarding the use of shared spaces.

In brief, the authors conclude that spatial solutions in the co-housing settings analysed tend to foster internal attachment (transpatial solidarity and external detachment) rather than spatial solidarity with the wider neighbourhood. In urban contexts, expectations of politics regarding openness to the surroundings seem to arise. In any case, spatiality and sociality are interwoven in a dialectic way, which influences the relations between co-housing projects and the neighbourhood. Since there might be conflicting demands concerning the use of the intermediate zones and shared spaces of the co-housing project, clear boundaries with the neighbourhood need to be negotiated. The authors stress that a closer look should be taken at the challenges and potentials regarding external (spatial) solidarity for political action, urban activism and a bridging function within the neighbourhood context. (Caldenby et al. 2019:179–81)

Designing in-between spaces and interactions

The urban setting sets a frame for the characteristics of intermediate spaces and edges, but also design impacts their potential to some extent. For instance, urban revitalisation projects will likely share many architectural features with their environment. Nevertheless, Fromm argues that the design of in-between spaces is more important than the urban setting regarding neighbourhood collaboration. These intermediate spaces between the private spaces of the project and the public space can allow for visual links and social interactions and show different degrees of porosity. Fine gradations of private and public differ in their accessibility for non-group and group members of the co-housing project, which needs continuous communication efforts to

work well. Moreover, these intermediate spaces can serve as buffer zones and, thus, protect and connect the co-housing community simultaneously. (Fromm 2012:389f)

Williams (2005) highlights that physical (design) factors, such as density, layout, division of public and private space, quality, type and functionality of common spaces, cannot exclusively enable social interactions and highlights the role of personal factors (values and norms), formal (management, maintenance of communal spaces) and informal social factors (social dynamic – the relationship between different individuals and the whole group). In his research, he explores how these different factors influence social interactions.

Regarding design factors, different principles seem crucial for designing neighbourhoods for social interaction. One central feature is physical and functional proximity as a prerequisite for social interactions. However, too high densities can result in the withdrawal of residents since they might lack control over their living environment. Another aspect is surveillance within a community. If residents see and hear each other using the (semi)public space, their sense of community is potentially strengthened. Furthermore, shared pathways and communal spaces provide opportunities for social interaction. (Williams 2005:197f)

The co-housing literature often argues that reducing private space fosters social interaction among residents since they spend more time outside their private units. However, limited kitchen and laundry facilities in the private space seem to be more important than the living area per person. (Williams 2005:197–200)

Based on previous research, Williams (2005: 203) identifies the following major design features to foster social interaction:

- (1) the provision of indoor and outdoor communal facilities
- (2) good visibility into all communal spaces
- (3) car parking outside the community or car-free communities
- (4) gradual transitions between public and private space
- (5) provision of semi-private outdoor spaces close to private units for socializing (buffer zones)
- (6) positioning of key facilities (activity sites) and access points on shared walkways
- (7) the tendency for private dwellings to be of smaller than average unit size (with limited kitchen and laundry facilities provided)
- (8) loss of space in the private unit supported by the provision of communal spaces, for example, communal kitchen/dining areas, laundry, gym, workshop/hobby room, guest bedrooms, entertainment room, garden and storage space

Even though those features mainly refer to social interactions within the community of co-housing residents, they could be extended to features that support social interactions with the wider neighbourhood and are an important starting point for being open for the urban neighbourhood.

Social capital in co-housing communities

Apart from the physical layout, the involvement of the (future) residents decision-making processes – not only in the use phase but also in the design process – is essential for increasing social interactions and creating social capital (Williams 2005:224). Fromm argues that “social capital and the resources it provides are key to the workings of this housing type [co-housing]” (Fromm 2012:365). Sources of social capital are common activities, mutual support (in difficult times), as well as “eyes on the street”, and resident engagement beyond the project (ibid.).

Indeed, co-housing communities can create three forms of social capital – bonding (internal ties), bridging (external ties) and linking social capital (see chapter 3.2). Ruiu explored the conditions under which social capital can evolve in co-housing and the resulting benefits:

“The social capital of cohousing groups promote [sic] a sense of community and belonging, mutual support networks inside and outside the communities, a sense of safety exercised by a social control (in relation to the constant presence of people on the site), and a higher civic engagement.” (Ruiu 2016:13)

She found that bonding social capital (internal ties) is a prerequisite for creating external social ties to the wider neighbourhood in terms of bridging and linking social capital (Ruiu 2016:14). Informal and formal supportive networks within the co-housing group play a key role in this starting point.

According to her, bonding social capital is produced through (1) the design process of the building, (2) the decision-making process and (3) the self-management of co-housing projects. As far as the design process is concerned, this phase lays the foundations for a common vision, how boundaries between private and public space and relations to the neighbourhood are being designed, and where common spaces are located. In this phase, the group spends a lot of time together – ideally in a participatory process – and the individuals learn how to act as a group (group forming phase). At the same time, decision-making systems are established that allow for a consensus in different phases. Naturally, conflicts arise, but learning how to handle them can enhance the bonding social capital. Finally, self-management enables co-housing groups to develop formal and informal care structures that affect daily life. For example, some co-housing groups expect their members to commit a certain amount of time per month to ongoing tasks. Participation in the aspects mentioned plays a crucial role in the sense of community and the resulting bonding social capital. (Ruiu 2016:6–10)

As for bridging social capital, co-housing communities aim to connect and integrate into the wider neighbourhood and open common spaces and activities or services for non-group members. They want to be open to the neighbourhood, reduce physical and psychological barriers, and often show a higher degree of civic engagement in the neighbourhood compared to other housing types. Moreover, co-housing projects want a good reputation in the neighbourhood and like to make their goals and values visible to the outside. (Ruiu 2016:10)

It seems that the institutional level (linking connections) is highly relevant, and the ability of the group to cooperate and work with institutions to access certain resources, such as information or subsidies. Linking social capital goes beyond the connections to the outside and focuses more on the ability of co-housing groups to build partnerships with external actors (Ruiu 2016:12).

Generally speaking, the production of social capital depends on different parallel processes and phases of the co-housing project, which is strongly intertwined with the context – urban setting and institutional context.

3.5 Co-housing as an instrument for neighbourhood development and renewal

Co-housing is increasingly regarded as a strategy for small-scale neighbourhood renewal (Fromm 2012) or as an urban development tool (Müller 2015). Many co-housing groups have “external” goals and want to actively engage with the neighbourhood through sharing spatial and social resources (Temel 2015:38f). For example, they open common spaces at the ground floor level or organise activities in public space. Some cities and communes have recognised the positive impact of co-housing projects in the urban fabric and have taken action to promote these projects with different means, such as funding, providing land or offering assistance in

the planning process. In Germany, for example, Berlin, Hamburg, Sachsen, Baden-Württemberg und Nordrhein-Westfalen and other communes actively support the foundation of co-housing groups with the expectation that they would have a positive impact beyond the project (Müller 2015:4).

In her article, *Seeding Community: Collaborative Housing as a Strategy for Social and Neighbourhood Repair*, Fromm (2012) explores whether collaborative housing projects have a positive impact on the wider neighbourhood and to what extent the planning process lays the foundations for the future community's interaction with the neighbourhood. Based on five international case studies in North America, Europe and Asia, she concludes that co-housing projects can be seen as role models for good neighbouring on a small scale despite certain limitations. Regarding spatial attributes, building design can enable openness and facilitate interactions with the neighbourhood. In addition, some co-housing projects provide space for non-residents and services for specific target groups, like older adults. Another aspect is that collaborative communities are more likely to engage in voluntary activities in the neighbourhood (civic engagement) and cooperate with other communities, which contributes to stronger neighbourhood ties, as also mentioned in connection with social capital. Even though co-housing communities cannot be expected to solve wider neighbourhood problems, they have a stabilisation potential regarding social challenges. (Fromm 2012:387–91)

It can be assumed that a sense of community within the group of residents of co-housing projects is a prerequisite for extending this sense of collaboration into the wider neighbourhood. Another aspect is that involving the future residents in the planning process is important for the usage and appropriation of common spaces and, thus, how the group negotiates the project's boundaries. With this, coaching agencies that accompany the planning process and the group itself might define goals and visions on the role of their future neighbourhood, such as providing space or services not only for members. (Fromm 2012:387–91)

“Particularly with non-profit developers and managers, the larger organizational mission, often tied to neighbourhood development, is articulated. In addition, the local organizational alliances are numerous and diverse, as shown for each of the five projects, aiding project realization. This assistance to the group may be viewed as depositing social capital into the neighbourhood 'ledger,' along with investment dollars.” (Fromm 2012: 388)

Regarding the planning process, Fromm found that this development phase is essential for team building within the group and for forming alliances with local organisations. Regarding urban development, co-housing projects can be part of a larger vision for the neighbourhood and urban development. (Fromm 2012:388)

In the German context, Müller (2015) explored three urban development areas – Freiburg, Tübingen, and Braunschweig – with several co-housing projects in connection with the three dimensions of sustainability. The notion of co-housing groups as a tool and their potential contribution to sustainable urban development is the starting point for Müller's work. His research confirms that co-housing projects are a promising concept as a small-scale, decentral and locally anchored strategy for sustainable development (Müller 2015:402).

While co-housing projects can have positive effects in all three dimensions – ecological, social and economic – on the neighbourhood, social aspects have the highest relevance. On the one hand, co-housing group members know each other in advance and move as an open social network to a new neighbourhood and thus have already created social capital in the planning process. These communities are usually very open to connections in their neighbourhood, which enables them to develop an identity with the place at an early stage. Moreover, providing plots for co-housing groups can unlock positive effects on affordability aspects and, thus, potentially foster social inclusion. The local government can define certain qualities concerning land allocation and choose the best concept. However, the groups' heterogeneity is often limited since becoming part of the group requires social and cultural capital in advance. (Müller 2015:391–369)

What is particularly interesting about the newly developed neighbourhoods selected by Müller is the clustering of co-housing groups, which enables different co-housing groups to cooperate and share resources. Cross-cooperation between building plots is not limited to co-housing projects; these groups might be valuable facilitators for creating these bridges. However, urban development with co-housing groups requires appropriate coordination offices and support. A prominent example is the agency for co-housing projects, *Agentur für Baugemeinschaften*, introduced by the city of Hamburg, which provides advice, fosters networking activities and conducts research (hamburg.de GmbH & Co. KG n.d.).

To summarise, co-housing communities are ascribed to have the capacity to generate urban transformation because of their spatial and social capacities. This housing form might be seen as a model where social processes of housing demands (e.g. right to the city and housing for all) and new housing typologies (as a built form) meet (Delgado 2012:441). In the context of urban development, co-housing is recognised as a tool for sustainable urban development that has the potential to support achieving sustainability goals (Müller 2015; Scheller and Thörn 2019). In newly developed areas as well as in existing neighbourhoods, co-housing groups can be active agents in connection with the socio-ecological transformation.

“Cohousing offers significant potential in terms of housing typology that can embed ‘neighbourhood resilience’ through sharing common resources.” (Stevenson and Petrescu 2016:698)

“Co-housing is promoted as an opportunity for more sustainable urban development, and top-down urban development may perceive co-housing groups as resilient agents of change, specifically for brownfield development and gentrification” (Tummers 2016:2036).

However, there is a fine line between co-housing as an instrument for (sustainable) urban development and instrumentalisation by local governments. When the local government supports co-housing projects to legitimise unsustainable and speculative practices, they become part of neoliberal urbanism logic. Another issue is the perspective on co-housing groups as a tool for social mixing strategies to “‘break up’ socially homogenous areas” (Scheller and Thörn 2019:100) in Gothenburg or to socially stabilise inner city neighbourhoods in Berlin (Müller 2015:42) for example. From a co-housing perspective, this is problematic since a social mix can hardly be created in a top-down manner. That is why urban development should rather see co-housing groups as cooperation partners and set enabling framework conditions for them (Temel 2015:38).

4 URBAN COMMONS PERSPECTIVES

Due to urban crises and resource scarcity, the struggle for resources – particularly (urban) commons – and the need to find solutions beyond state and market have become increasingly prevalent. In an urban context, commons are seen as “promises framed as the right to the city” (Kip et al. 2015:18) and have been adopted by various bottom-up initiatives. One central claim – especially in the case of co-housing – is the right to adequate housing, which is considered a human right and not a commodity according to Article 25 of the 1948 Universal Declaration of Human Rights (United Nations n.d.-b). Housing is essential for accessing other rights and goods, so it is a unique “good” that is – as well as land – not an infinitely renewable resource. Moreover, there is no other good as expensive for individuals (Kip et al. 2015).

This chapter aims to outline the dimensions and characteristics of urban commons, how they are constituted and in what way they might contribute to urban resilience on a local level. On this basis, an overview of the commoning practices of co-housing projects is provided. The presumption is that co-housing initiatives create and sustain urban commons. Therefore, the objective of this work is not to explore to what extent co-housing projects can be seen as urban commons – the scientific literature has already recognised that co-housing projects can be viewed as a form of commons (Rogojanu 2015) – but rather to employ this concept as an analytical lens to comprehend the relations between co-housing projects and their surrounding urban environment.

4.1 The (re-)emergence of (urban) commons

There are many definitions of the commons, but research suggests that most definitions include three essential parts: (1) common resources, (2) commoning practice (social process/governance structure) and the (3) communities that produce and reproduce the resource (Dellenbaugh-Losse, Zimmermann, and Vries 2020; Exner and Kratzwald 2012:23; Kip et al. 2015:13).

Commons cannot be viewed as a product or reduced to a resource; they are rather a process of appropriation and social practices, referred to as commoning, driven by a shared concern. Commons are often regarded as a response to the shortcomings of the capitalist system and as a critique of its mode of production. (Exner and Kratzwald 2012:35). As such, the ideal of commons is to overcome private property, scarcity of resources, wage labour, competition and the market (Exner and Kratzwald 2012:23). Commoning processes are not without conflict since finding common ground in a diverse society and defining boundaries within an existing social system are very challenging negotiation processes (Exner and Kratzwald 2012:32). Commons have historically served as a way to organise collective opposition against dominating systems and ensure subsistence. In this regard, places where people can meet, exchange their opinions and interests and carry out conflicts are highly important. These non-capitalist modes of production and independency hold an emancipatory potential. However, the ongoing tendencies of privatisation of public spaces, increasing consumption of goods and individualisation in various fields, such as housing, have challenged such spaces, resulting in social movements like the occupy-movement. (Exner and Kratzwald 2012:35ff)

Initially, commons emerged in the context of natural resources, such as forests, water, farmlands and fisheries, to collectively manage natural resources. During industrialisation and the transition to a knowledge and information society, other resources like infrastructure and services came into play. (Exner and Kratzwald 2012:24) Another current example is creative commons licences, the so-called “digital commons”.

In economics, urban commons are often discussed in connection with the theory of common pool resources. To outline the features and to understand the social and organisational dimensions of the commons, the eight widely cited design principles of common pool resources by Elinor Ostrom (1990:90) are quoted below:

- (1) *Clearly defined boundaries: Individuals or households who have rights to withdraw resource units from the Common Pool Resource (CPR) must be clearly defined, as must the boundaries of the CPR itself.*
- (2) *Congruence between appropriation and provision rules and local conditions: Appropriation rules restricting time, place, technology and/or quantity of resource units are related to local conditions and to provision rules requiring labor, material, and/or money.*
- (3) *Collective choice arrangements: Most individuals affected by the operational rules can participate in modifying the operational rules.*
- (4) *Monitoring: Monitors, who actively audit CPR conditions and appropriator behaviour, are accountable to the appropriators or are the appropriators.*
- (5) *Graduated sanctions: Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators or by both.*
- (6) *Conflict-resolution mechanisms: Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials.*
- (7) *Minimal recognition of rights to organise: The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.*

For CRPs that are part of larger systems:

- (8) *Nested enterprises: Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.*

These characteristics are not necessarily requirements for commons, but they indicate the circumstances in which commons can be sustained in the long run. Ostrom's arguments root in a liberal economic framework; nevertheless, she acknowledges the intricacies of human behaviour in various settings (Exner and Kratzwald 2012:28). It is important to emphasise boundaries since they are continuously negotiated while simultaneously fostering a sense of community and excluding others from the resource. (Kip et al. 2015:18f).

The widely cited tragedy of the commons, which assumes an over-exploitation of resources due to individual maximisation of benefits, highlights their presumed limitations. According to Hardin, the solution to this problem would be privatisation. However, he ignores the (spatial) context and the fact that people negotiate about (land) uses even without official regulation. Thus, he equates commons with open-access goods. (Exner and Kratzwald 2012:26)

Although the individual satisfaction of needs is the aim of collective action, commons differ substantially from the capitalist exchange of equivalent goods with no further obligation or interaction. As previously noted, commons are not only the outcome of intricate negotiation processes but also a network of reciprocal relationships. Reciprocity, as a foundation for the use of commons, is a crucial characteristic closely linked to practices of a solidarity-based economy. For instance, a building can be considered commons, provided its use is based on reciprocal relations and actions. However, this understanding is complex, and the underlying social processes to define common rules are accompanied by conflicts and may take some time. (Exner and Kratzwald 2012:31f)

The new (urban) commons

The ongoing crises, including those related to climate, energy and housing, along with the privatisation trends, which have eroded people's rights and agency in a neoliberal logic, have led to a revival of the commons in the context of social movements and beyond (Dellenbaugh-Losse et al. 2020; Exner and Kratzwald 2012; Hess 2008; Susser and Tonnelat 2013). Dellenbaugh et al. (2020) identify three main reasons for the emergence of the urban commons since the mid-2000s. Firstly, the climate crisis has increased pressure on finite natural resources, exacerbating the effects of a growing global population. Secondly, the financial crises of recent years have prompted the development of emancipatory and “self-help” measures, leading to the emergence of commons. For example, commons have offered housing alternatives for people facing eviction. Lastly, the decline in municipal housing and public services due to privatisation trends in European and American cities has led to an affordability crisis. (Dellenbaugh-Losse et al. 2020:14f)

In this context, the term “new commons” has emerged in the commons discourse. The researcher Charlotte Hess offers a straightforward definition:

“[...] new commons (NC) are various types of shared resources that have recently evolved or have been recognized as commons. They are commons without pre-existing rules or clear institutional arrangements.” (Hess 2008:1)

She outlines that new commons are not necessarily “new” but have been newly conceptualised as commons due to some threats. As such, they signal new importance and want to raise awareness about endangered resources (e.g. neighbourhood commons). In addition to that, there are indeed newly created commons because of technological progress (e.g. digital commons). (Hess 2008:38)

Her article *Mapping the New Commons* aimed to explore and conceptualise the broad landscape of new commons. As a first step, she pursues the issue of how new commons arise and what constitutes a resource being named as commons. As a result, she identifies six discovery patterns that she calls “entrypoints”: “(A.) the need to protect a shared resource from enclosure, privatization, or commodification; (B.) the observation or action of peer-production and mass collaboration primarily in electronic media; (C.) evidence of new types of tragedies of the commons; (D.) the desire to build civic education and commonslike thinking; and (E.) identification of new or evolving types of commons within traditional commons; and (F.) rediscovery of the commons” (Hess 2008:6).

Thematically, she points out seven main sectors (resource types): (1) cultural commons, (2) neighbourhood commons, (3) knowledge commons, (4) social commons, (5) infrastructure commons, (6) market commons and (7) global commons. This approach is useful for studying different types, albeit they overlap.

In the context of collaborative housing, neighbourhood commons are of great interest since housing arrangements, such as community associations, residential communities and others, are typical examples of neighbourhood commons. Among other examples, she names housing, community gardens, streets and street trees (Hess 2008:16). The following quote illustrates the connection between neighbourhood, community and a shared resource very well:

“Commons can even be thought of as the social bonds shared by a community, and can include the need for trust, cooperation and human relationships. These are the very foundations of what makes ‘a community’ rather than merely a group of individuals living in close proximity to each other.” (Arvanitakis 2006)

Neighbourhood commons are associated with various topics like community organisation, self-governance, social capital and urban commons (Hess 2008:17) – concepts highly relevant in the field of collaborative housing.

The current urban commons discourse is increasingly centred on practice examples, yet it continues to be fraught with ambiguities and poorly theorised concepts related to commons, such as self-organised urbanism or the cooperative city. As a result, the concept of the commons is being misapplied in neoliberal settings. Furthermore, the spatial dimension in urban commons remains unclear in many contexts. (Pelger 2021:37)

Furthermore, a rising number of initiatives and networks in practice and research claim the (urban) commons to share and spread its principles as an alternative to the neoliberalist hegemony. For instance, the U!REKA Lab: Urban Commons is an interdisciplinary research project dealing with urban commons and co-creative initiatives in different European cities (U!REKA Lab: Urban Commons n.d.).

In the Austrian context, social scientist and activist Brigitte Kratzwald describes several (inter)national urban commons initiatives and projects on her website *Commons & Co* and provides several readings about the topic. Her contributions range from repair shops to gardening projects and democracy concepts. Furthermore, co-housing projects (SchloR, Intersektionales Stadthaus) are mentioned in her blog. (Kratzwald n.d.)

In 2009, a group of Austrian experts and practitioners established the *Initiative Collaborative Building & Living (Initiative Gemeinsam Bauen & Wohnen, short: IniGBW)* as an information and knowledge exchange platform, representing the interests of collaborative housing projects on a national level (Verein Initiative für gemeinschaftliches Bauen und Wohnen n.d.-b). Their agenda and activity will be further mentioned in chapter 6.2.

Another example is the online project collection and platform *Gemeinschaften* (realitylab GmbH 2023) by *realitylab*. Their collection includes projects in energy, mobility, food and housing. Based on their practical experience in co-housing and other community-based projects, they found that “commons” is a key concept in their work (Tscherteu 2021).

4.2 The spatiality of urban commons

It is important to acknowledge that urban commons have a spatial dimension, and questions about how common resources are spatially bound and the role of the local spatial context, in general, should be addressed. However, the spatial form of commons remains quite vague, and several researchers have highlighted the need to address the spatiality of urban commons. (Felstead et al. 2019; Moss 2014; Pelger 2021).

Since the *Spatial Turn* in the 1980s and the increasing importance of geography as a discipline, there has been more research interest in the spatial dimension of the commons (Pelger 2021:38). As for the urban commons, “urban” can be understood as spatial organisation of people, referring to spatial embeddedness of commons (Kip et al.) which thus results in a more place-based understanding of urban commons. Nevertheless, spatiality does not make defining urban commons easier, leading to quite vague approaches to urban commons:

“As an initial approximation of the idea of the urban commons, we suggest that urban commons are about collectively appropriating and regulating the shared concerns of the everyday.” (Kip et al. 2015:10)

Considering various lineages of urban studies, Kip et al. (2015) understand the “urban” as a realm of everyday activity and highlight the multiple scales of the urban, linking numerous places and spaces. They conclude that the urban can be conceived as a spatial organisation of society embracing manifold structural aspects,

including processes and connections and cultural aspects materialised in the built environment. (Kip et al. 2015:16f)

Urban commons can be applied in two very different spatial systems: spaces of resource management and contested urban spaces as a resource. While the former refers to the traditional commons concept rooted in ecology and adds regional-spatial aspects to the discussion, the latter gained momentum since the financial crisis of 2007/2008 that triggered right-to-the-city claims. Although different disciplines, especially geography, have started to make spatiality a subject of discussion, urban commons still lack a clear understanding of the production of (social) space. (Pelger 2021:36) This has been criticised by the geographer Timothy Moss (2014) and was a central starting point for the doctoral thesis *Two modes of urban space production – Spatial Commons versus Separate Spaces* by Dagmar Pelger (2021).

Indeed, the conceptualisation of commons from an urbanistic and architectural perspective is a relatively young discourse, starting in the 2010s parallel to rising concern about the spatiality of urban commons in geography. Despite some initial theorisations, hardly any literature provides definitions and conceptualisations of spatial commons. (Pelger 2021:40f)

The geographer Moss highlights the lack of attention paid to the spatial dimension of urban commons, which is usually addressed implicitly as a “site of collective action, a background context factor or a level of agency” (Moss 2014:459). So far, there are three prominent spatial dimensions in the urban commons literature: (1) place-based collective action, (2) functional spaces and spatial fit and (3) problems of scale and multi-level governance. While the first dimension refers to the local context and entails place-based identities, functional spaces and spatial fit focus on natural resources' biophysical boundaries and institutional implications. The latter addresses challenges regarding the optimal scale for effective commons institutions and governance. (Moss 2014:459f) Furthermore, Moss criticises that commons research frequently considers space in physical terms only and spatiality as (physically) given.

“This perspective, however, neglects the economic, social, or cultural geographies which also shape the production, use and regulation of commons. These geographies often cut across political or physical boundaries and are not as a rule, readily circumscribable”
(Moss 2014:460f).

He further elaborates that commons as a product of social interaction and the process of commoning have spatial implications corresponding to the process and result of place-making:

“Rather than viewing space simply as a site of commons provision and use, this perspective entertains the notion of commons shaping socio-spatial structures and dynamics. To quote Blomley again, “[i]f [it] is true to say that place helps make the commons, it is equally the case that the commons is a form of place-making” (2008, 320)” (Moss 2014:462).

It becomes evident that commons and spatiality determine each other and are a socio-spatial construct. To further explore typologies of potential spatial commons, Pelger, in her thesis, conducts empirical research in different spatial settings. For example, in cooperation with other researchers, she overlaps the commons concept and the neighbourhood, enabling them to get new insights into the neighbourhood as a cooperative system. They argue that both concepts – neighbourhood and commons – have several similarities encompassing a physical and a social dimension and are being produced continuously (Pelger 2021:113).

In the context of shared residential landscapes in the UK, the researchers Felstead et al. (2019) aim for a place-based understanding of the urban commons concept that offers the potential to foster collective governance of shared resources and participatory placemaking. They emphasise the importance of social sustainability and bottom-up approaches in shared residential landscapes (community-led housing forms, e.g. cohousing). These enable residents to participate in the design, development and use phase and thus have a high level of involvement in the maintenance and management of the shared resource. As a result, cohousing “provides a useful illustration for the potential of collective participation in residential placemaking” (Felstead et al. 2019:3)

In order to develop their urban commons framework, they review the commons literature and identify several implications of commons in the urban context.

“These include 1) the need for a relatively disconnected and dynamic urban population to work toward a common interest, 2) to understand the spatial manifestations of urban spaces as shared resources, 3) the process of commoning as a potential production of place and 4) the need for commoning communities to work with external professionals and within institutional frameworks” (Felstead et al. 2019:6).

They then connect urban spatial theory to urban commons and identify relevant spatial concepts for their preliminary conceptual framework, including examples from the UK cohousing literature. The development of the framework enables them to integrate new urban, spatial and place perspectives in the urban commons discourse. (Felstead et al. 2019:3–6)

In their work, the underlying understanding of space is based on the three-dimensional theory of Henri Lefebvre, also cited in this work. This would allow a broader understanding of space that considers the relationship between social and spatial manifestations. To explain the linkage between these two dimensions, Felstead et al. (2019) cite the notion of “territory” as a form of control. As such, it describes not only a spatial extent with physical limits but also social boundaries and thus indicates a territorial awareness from an individual or collective perspective. In connection with commons, this relates to the negotiation of boundaries by the commoners to outline what is “mine”, “yours” and “ours”, which is also addressed in the first principle by Ostrom. In this regard, threshold spaces, edges and different scales of “ours” in the sense of the wider public realm play an important role in co-housing communities. This spatial expression of collective action is strongly intertwined with (social) rules and norms of the commoners' group. (Felstead et al. 2019:7f)

“The thresholds that define the edges of shared territories are important in defining what kind of relationship urban commons have with adjacent territories” (Felstead et al. 2019:8).

These edges and intermediate spaces are being defined in different, not necessarily congruent ways, such as physical boundaries, arrangements of objects, symbolic representations, temporary adaptations and others. Concerning residential urban commons, these spaces can enable interaction with the wider neighbourhood. The characteristics of thresholds influence the degree of openness or enclosure to the surroundings, and they can create opportunities for residents' participation in negotiating boundaries and expanding their range of actions. (Felstead et al. 2019:7ff)

The researchers Caciagli and Milan (2021) propose a new approach to urban commons that explicitly considers the connection with the surrounding environment (neighbourhood and city) on the one hand and the institutional context on the other. These two aspects are arranged on a continuous axis, intersecting at their respective midpoint. Consequently, there are four possible configurations for urban commons. Analysing the

relationship with institutions allows for a better understanding of shared spaces and practices from an outside perspective and to explore ongoing (negotiation) processes. (Caciagli and Milan 2021:399f)

As for the relation with the surrounding environment, the researchers define two possible configurations: In the former, the urban common opens up to the surrounding environment through commoning but originally arose from a relatively narrow community with a specific goal, whereas the latter configuration describes a setting, where the community in the neighbourhood creates the urban common. As a result, the urban commons express the needs and desires of the local community. (Caciagli and Milan 2021:400f)

This framework presents an exciting perspective for examining the relationship between co-housing projects and their neighbourhoods in the Viennese context. Fig. 5 shows that many co-housing projects in Vienna tend to predominantly occupy a position on the left side of the x-axis, indicating that they are bottom-up initiated with a specific goal, independent of the immediate local context. Regarding their relationship with institutions, they are assumed to be closer to bottom-up processes than to top-down processes, as the municipality does not directly initiate co-housing communities. However, it is important to note that each project is unique and undergoes different processes. It is also worth mentioning that no co-housing projects in Vienna, to the best of my knowledge, have emerged from squatting. It should be noted that the assumption about the location of co-housing projects within the framework is based on my experiences from previous and ongoing research work, as mentioned in the introduction. Therefore, this simplified assumption is specific to the Viennese context and may vary depending on the specific project context.

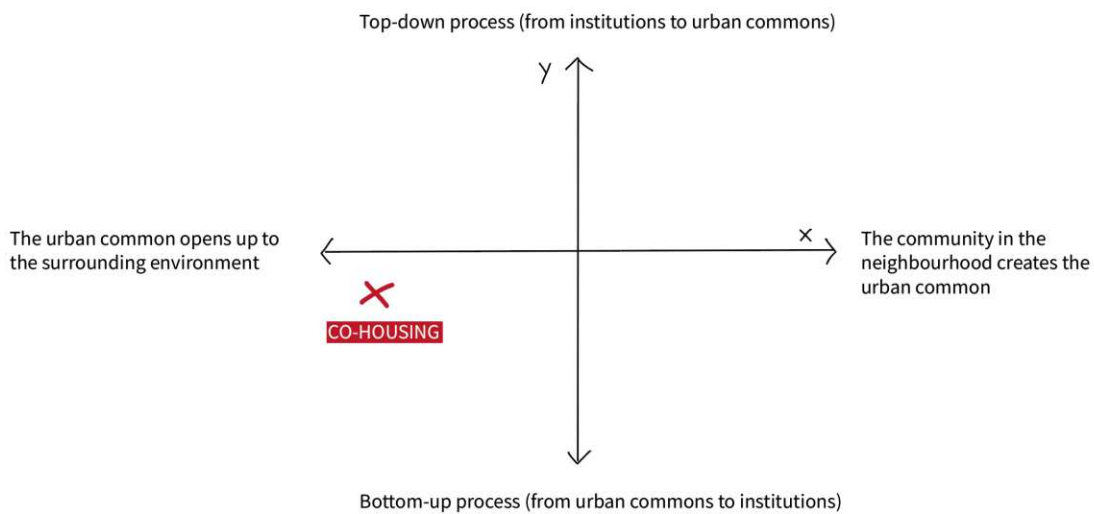


Fig. 5: Possible location of co-housing projects in the new analytical framework by Caciagli and Milan (own representation, based on Caciagli and Milan 2021:400)

4.3 Urban resilience and urban commons

In the recent literature, urban commons have been linked to potential contributions to urban resilience, especially in terms of social aspects (Felstead et al. 2019:20). Esopi identifies specific features of urban commons that are divided into physical, social, and relational aspects. He argues that urban commons are social resilience-based and uses the features to examine the resilience of different cases in the European context (Esopi 2018). The specific features he examined – physical, social and relational – are also incorporated into the analytical framework of the present work. The features identified derive from general characteristics of commons

regarding ownership (public or private), use (collective) and care (collective). As for the general features, he argues that the subjects play an active role through place-making processes and thus “[...] acquire an active role mobilizing their reactive, adaptive and proactive capacities [...]” (Esopi 2018:190).

feature	characteristics
physical	<i>accessibility</i>
	<i>quality</i>
	<i>reversibility</i>
	<i>flexibility</i>
social	<i>mix of stakeholders</i>
	<i>mix of knowledge</i>
	<i>cultural diversity</i>
	<i>inclusion</i>
relational	<i>mix of uses</i>
	<i>social interaction</i>
	<i>interaction with urban environment and landscape</i>

Tab. 1: Specific features of urban commons according to Esopi (own representation based on Esopi 2018)

As outlined by Stevenson and Petrescu (2016), the neighbourhood level is fundamental but also very vulnerable when it comes to the co-production of resilience. These processes can empower communities and improve their agency. Furthermore, they highlight the relevance of learning processes as a prerequisite for self-organised neighbourhood resilience and coping with shocks. Their paper suggests that policymakers should invest more in enabling the co-production of new knowledge and neighbourhoods in transdisciplinary collaboration. “Co-produced resilience is also a form of commoning which offers a new direction for policymaking” (Stevenson and Petrescu 2016:701).

In addition to providing a framework for mapping the commons described above, Caciagli and Milan sketch three possible effects of urban commons on the urban fabric. Firstly, resilience occurs when urban commons provide services no longer provided by the state. As a result, they fill a gap in local policies even if it has never been their goal. Especially in times of crisis, the dimension of solidarity and mutual aid becomes a political action. This kind of resilience can happen without challenging hegemonic politics. Secondly, urban commons can be incorporated into urban transformation processes like gentrification and touristification and become functional for urban development. As a result, they play an ambiguous role and might foster displacement processes but simultaneously want to oppose them. Finally, urban commons can function as spaces of resistance and transformation, challenging mainstream urban development by exemplifying alternative ways of urban development. Urban commons put social values rather than profit maximisation into focus and can thus unfold their transformative political potential. (Caciagli and Milan 2021:404–7)

In terms of resilience, it seems that urban commons run into the danger of being used for outsourcing public services, but at the same time, they cannot exist outside an institutional context. These aspects underline the importance of negotiating the relationships with institutions and the surrounding urban environment.

4.4 Co-housing and urban commons

Co-housing projects are a very complex form of commons, producing material and social resources simultaneously. Whereas the former is manifested in a physical structure, namely the building, characterised by clearly defined boundaries and collectively negotiated rules, the latter implies mutual support and

engagement practices. Social resources must be continuously and actively (re)produced by the residents to exist in the long term. (Rogojanu 2015:181, 182)

According to the “triangle of commons, commoners and commoning”, Tschertscheu comprehends co-housing projects as follows:

- The **resource** (commons) or resource system includes the building and the related spaces. Common and open spaces are essential resources for co-housing projects. Furthermore, (digital) tools and equipment are part of the resource system.
- The **community** (commoners) consists of the members of the association of residents, including all household members. Users of the resource are not necessarily part of the community since some external renters are not part of the “resource production”.
- Social interaction and communication within the community to produce and maintain the resource is understood as **commoning**. These include organising in working groups, regular meetings and discussions, and negotiating common rules and contracts.

In the experience of *realitylab*, sharing resources is a key driver and motivation for co-housing projects. They share and manage different resource systems, such as mobility, food, space or energy, that could potentially be expanded to the neighbourhood. (Tscherteu 2022)

The commons discourse sees co-housing projects as an example of successfully creating public benefits and mentions this kind of initiative among other types of self-organisation, such as food coops or community gardens (Rogojanu 2015:180). While commons are generally understood as products and practices that are neither regulated by the state nor the market (Rogojanu 2015:178), co-housing initiatives often conflict between those two forces in manifold ways (Rogojanu 2015:186).

On the one side, some co-housing groups criticise capitalist housing production and seek to create an alternative. However, on the other side, they are strongly embedded in the institutional context and depend on a “minimal recognition of rights to organise” (Ostrom 1990:90) by governmental authorities. Rogojanu’s (2015) research suggests that co-housing in the European context is a relatively formalised type of commons compared to others, such as urban gardening since housing brings about various regulations and standards that must be taken into account by the commoners.

As mentioned earlier in this chapter, Felstead et al. (2019) draw upon community-led housing (cohousing) as an example of urban commoning in shared residential landscapes in the UK. According to the dimensions of the urban commons framework, the researchers developed they analysed the following aspects (Felstead et al. 2019:12–24):

- Cohousing and its emergence from a common mindset (common mindset and the city as an incubator)
- The territorial arrangement of cohousing centred on a sense of ours (our space and thin boundaries)
- Cohousing governance as placemaking and placekeeping (scales of decision-making and affordance)
- Cohousing, partnerships with professionals and working within institutions (new professional roles and networks)

Their research links urban commons with community-led housing and allows for a deeper understanding of co-housing as urban commons. In the context of the international trend towards a rise of collaborative housing models, “housing commons” and the related networks, such as *Mietshäuser Syndikat*, are gaining importance (Hözl 2022).

5 SYNTHESIS OF THE DISCURSIVE FOUNDATIONS

5.1 Interim conclusion

Collaborative housing is a very complex subject touching on multiple issues of today's cities and communities. It has become evident that co-housing research is a fragmented field encompassing a variety of different models depending on the different (national) institutional contexts. Some key characteristics include collaboration amongst residents, self-organisation and sharing facilities. Collective self-organisation and their particular organisation structures give residents agency over their living environment that often goes beyond the project's boundary. How co-housing residents create, manage and share resources as well as how they produce socio-spatial relations with the neighbourhood evokes particular interest in their role in the urban fabric. It seems that co-housing projects can attain small-scale social and architectural innovation reaching out to the surrounding neighbourhood.

Based on the research interest of this work, several discourses were taken into account to approach socio-spatial relations between co-housing projects and their neighbourhood.

Since relations with the neighbourhood provoke the question of what "neighbourhood" means, some approaches and related concepts relevant to this work were considered. On the one hand, neighbourhood has a spatial dimension and can refer to a specific territory. Several physical characteristics, like the building structure or streets, might bind a neighbourhood.

On the other hand, the concept of neighbourhood always has a social dimension and can be seen as a social construct. In addition, individuals or groups define "their neighbourhood" differently than others. Thus, a place-based understanding of neighbourhood consisting of several subjective "neighbourhood layers" with fuzzy edges allows approaching the neighbourhood based on a specific "home" (in this case, a co-housing project) at the core. As such, I approach co-housing communities as social groups who collectively develop an understanding of "their neighbourhood" through collective actions and practises.

Urban commons were introduced as a discursive foundation and analytical lens to take a closer look at underlying processes and practices of socio-spatial relations between project and neighbourhood. Co-housing can be regarded as a form of commons since co-housing communities produce shared resources and collectively manage them. These small-scale resource-sharing systems or communities can fulfil a social function in the urban fabric and provide spatial and social resources beyond the project.

In this respect, negotiation processes on socio-spatial boundaries are particularly interesting. To what extent does opening up to the neighbourhood work for co-housing projects? How does the community draw boundaries between "mine", "ours", and "theirs"? Intermediate zones and threshold spaces as well as their uses, play an important role in the socio-spatial relations with the neighbourhood and the edges of shared space.

Social capital on different levels can be considered a prerequisite for producing social relations with the neighbourhood. In connection with both neighbourhood research and urban commons, social capital is believed to play a crucial role. As for co-housing communities, it can be said that social capital is part of the resources that are being produced through collective resource management, but at the same time, it presupposes sharing resources. Internal bonding social connections enable bonding social capital. Since co-housing projects are

hardly possible to occur beyond state and market, linking social capital with planning authorities, for example, is a precondition for the development of the co-housing projects.

The first part of this work also discussed the urban setting in which co-housing projects emerge. Many European cities have recognised the added value of co-housing groups for neighbourhood development and renewal, supporting them by providing affordable land. In new urban development areas, the clustering of co-housing groups seems to be promising, as geographical proximity facilitates cooperation and resource sharing. To what extent co-housing is used as a tool for urban development in Vienna is further discussed in chapter 6.

Shared resources and practices that produce social capital can potentially enhance urban (social) resilience on a local level – the neighbourhood. Urban resilience requires active agents who are able to make strategic decisions and who can adapt and transform. Having specific spatial and social capacities, co-housing groups seem to be able to establish resilient structures and might initiate learning processes on the local level. Functioning neighbourhood networks are believed to play a crucial role in urban resilience.

The discursive foundations connected some key topics related to co-housing (resources, resource management, resource community) and their role in the urban fabric, which will be further explored in the case studies.

5.2 Analytical framework

The analytical framework for the case study analysis is based on the three dimensions of the (urban) commons and synthesises the key concepts elaborated in part A. The five dimensions of analysis are inspired by the conceptual framework of Felstead et al. (2019), which has been introduced in the section *The spatiality of urban commons*. Against the background of the revival of the commons, the researchers developed a framework to bridge the gap between urban commons and spatial theories with the aim of applying it within shared residential landscapes. While their framework draws upon preliminary concepts from the UK, its application to the Austrian context is feasible, particularly as part B expounds upon local structures to contextualise the conducted case studies.

Moreover, the concept of social capital is drawn upon since the urban commons literature suggests that it plays a crucial role in the social dimension of urban resilience. To be more precise, the three types of social capital (bonding, bridging and linking) frequently used in network theories (Claridge 2018b) are analysed according to different spatial levels and mapped as shown in Fig. 6. social capital might in this way enable understanding the interconnections between neighbourhood, urban commons, and urban resilience. Even though social capital is a vast concept used in different disciplines, it highlights the resources that result from relationships between individuals and their collective forms of organisation to enable mutual benefit, according to the definition by Putnam (Landhäußer 2015). This work sees co-housing groups as a group or organisation that internally produces bonding social capital and relates bonding social capital to external ties, as also suggested in Ruiu's (2016) work.

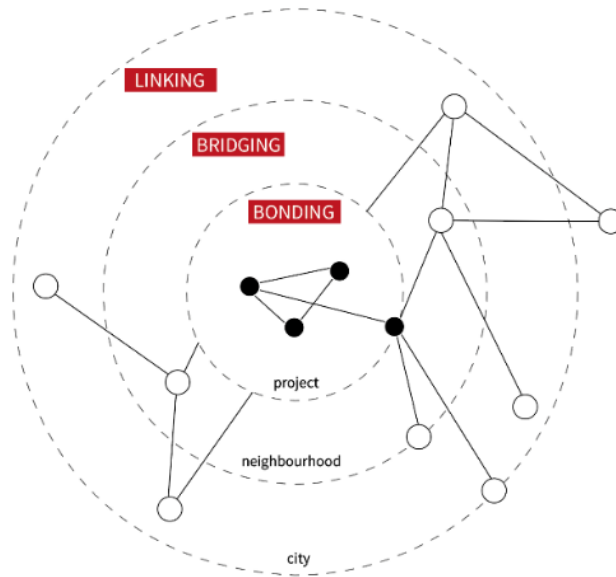


Fig. 6: Three forms of social capital on different scales (own representation)

The table on the next page (Tab. 2) shows the dimensions of the framework, guiding questions, and key aspects addressed within the dimensions to address the research questions. The guiding questions were developed to operationalise the research questions and correspond mainly to questions one and two. Potentials and limits for urban resilience on a local level (research question three) are discussed on the basis of the findings from the case studies.

The focus of the case study work conducted in this work is not on analysing the broad neighbourhood context in the sense of a multi-layered, detailed analysis but rather on understanding how the respective group of residents are constructing their neighbourhood in their everyday practices and interactions with their broader neighbourhood.

Based on the conceptualisation of neighbourhoods as “fuzzy places” by Olaf Schnur (2014), this work puts co-housing projects as living places at the centre of overlapping sociospheres with local and translocal connections. Thus, neighbourhood is a place of focussed fuzziness and has no clear definition. Building upon the literature research, this work explores the co-housing projects’ neighbourhoods from their perspective during the research process without defining clear boundaries. In this sense, the neighbourhood is seen as a social construct produced by social practices. Moreover, the neighbourhood context of each case is described with some selected attributes inspired by Galster (2001:2112).

dimension	guiding questions	key aspects	analysis aspects
community	<i>What was the initial vision of the group with regard to the neighbourhood? How were neighbourhood and urban setting addressed during the planning process and today? How is the community organised?</i>	<i>initiation</i>	<i>stakeholders, context</i>
		<i>common mindset / vision</i>	<i>aims and values</i>
		<i>stakeholders</i>	<i>architect, building developer, process support and advice, ...</i>
		<i>residents & users</i>	<i>type of residents/households/users, organisation and decision making structure, community boundaries</i>
shared resources	<i>What is the relationship with adjacent territories? How do the physical interfaces between project and neighbourhood look like? Where do common activities take place?</i>	<i>urban setting</i>	<i>neighbourhood characteristics</i>
		<i>physical layout</i>	<i>accessibility, architecture, ...</i>
		<i>boundaries & threshold spaces</i>	<i>physical elements, characteristics, use structure, territorial awareness (mine, ours, theirs)</i>
		<i>common and shared spaces</i>	<i>characteristics, use structure, flexibility</i>
collective governance	<i>How did collaboration / cooperations arose with stakeholders in the neighbourhood and what is their (visible) impact?</i>	<i>bonding social capital</i>	<i>the role of the organisation structure for opening up to the neighbourhood</i>
		<i>bridging social capital</i>	<i>collaboration and interaction with external stakeholders in the neighbourhood, inclusion of other social groups</i>
institutional embedding	<i>What expectations (with regard to the neighbourhood) are co-housing groups confronted with? (planning instruments, masterplan, ...) How is the relation with institutions characterised?</i>	<i>linking social capital</i>	<i>relationship with institutions and authorities</i>
		<i>top-down frameworks</i>	<i>planning instruments, masterplans, frameworks, ...</i>
		<i>housing system</i>	<i>subsidy model, co-housing model</i>
////////////////////////////////////			
time factor	<i>How are the different dimensions connected in terms of time? What are the underlying processes?</i>	<i>internal phases</i>	<i>different phases of the project</i>
		<i>external time factors</i>	<i>COVID-19 crisis, lockdown-phases, post-pandemic times</i>

Tab. 2: Analytical framework (own representation inspired by Felstead et al. 2019)

PART B: VIENNESE PRACTICE

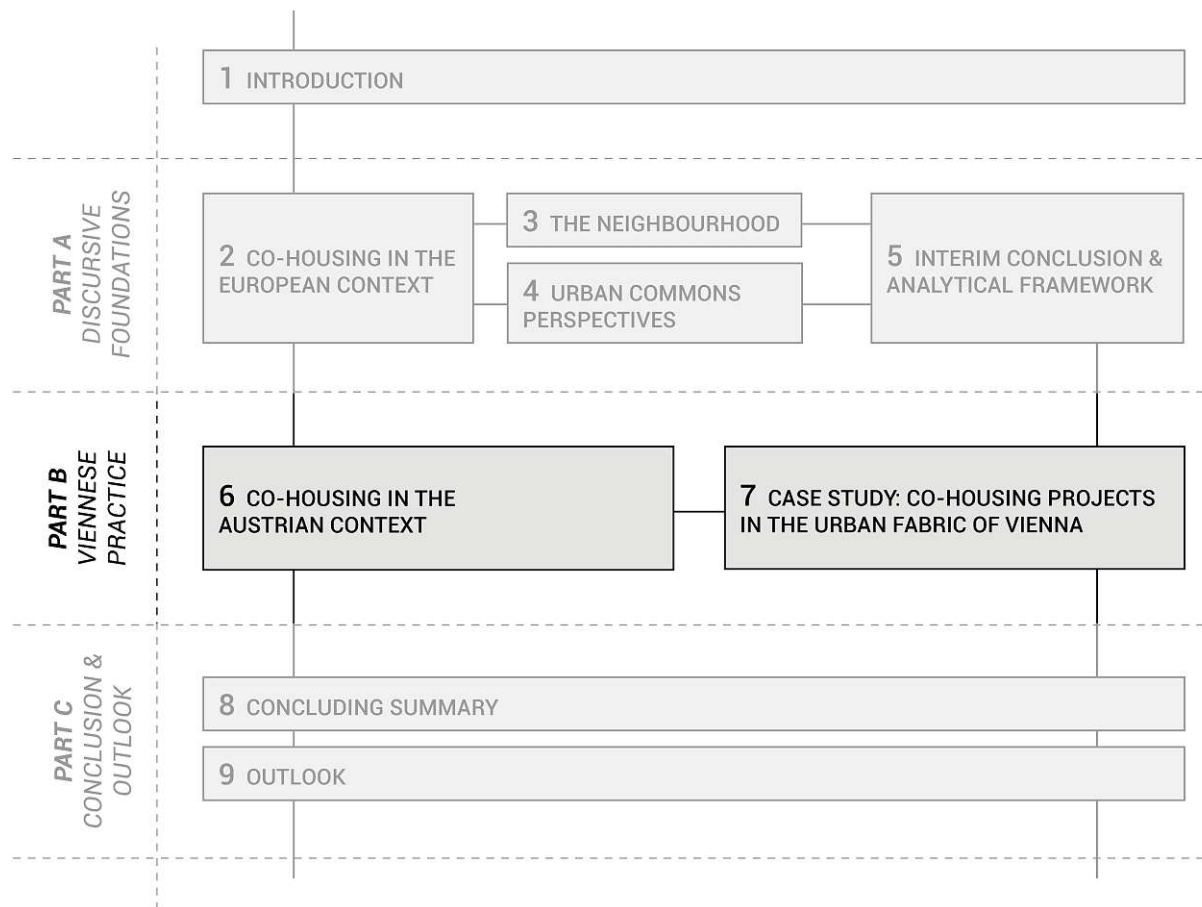


Fig. 7: Structure of the thesis – Part B (own representation)

6 CO-HOUSING IN THE AUSTRIAN CONTEXT

6.1 Collaborative housing in Austria and Vienna

Similar to the international discourse, there is no explicit terminology to describe different co-housing projects. The German umbrella term *Gemeinschaftliches Wohnprojekt* corresponds to the broad term co-housing and encompasses a variety of models. The term is used for the building, the institution of a project, and the group itself before and during the use phase (Verein Initiative für gemeinschaftliches Bauen und Wohnen n.d.-a). The model *Baugruppe* (building group) or *Baugemeinschaft* (building community) as a specific form of collaborative housing is typically associated with co-housing in Vienna. The term itself refers to co-housing groups in all development phases, even though it originally referred to collaboration at the planning level. Consequently, the term *Bau- und Wohngruppe* is more precise and encompasses the planning and the use phase. Other living forms – such as shared (student) apartments – that do not necessarily include collaboration among residents could be subsumed under the umbrella term of *Gemeinschaftliches Wohnprojekt* as well; however, they are excluded in this work since collaboration and common organisational structures are seen as key characteristics for co-housing projects.

When it comes to different types of collaborative housing in Austria, there is no generally accepted classification so far. For instance, the *Initiative Collaborative Building & Living (Initiative Gemeinsam Bauen & Wohnen, short: IniGBW)* defines types of co-housing according to inconsistent characteristics – one type is defined based on the housing typology (e.g. cluster apartments) and another one on the residents who live there (e.g. generational living) (Verein Initiative für gemeinschaftliches Bauen und Wohnen n.d.-a). This reflects the general difficulty in defining clear co-housing typologies along coherent attributes.

Brandl and Gruber, in their work, identify four different typologies of collaborative housing in the subsidised housing sector in Vienna based on “hardware” and “software” characteristics. The former is about architectural and spatial qualities in the respective project, while the latter refers to social processes during the planning and use phase of the co-housing group. The four categories are (1) *Wohngemeinschaft* (flat-sharing community), (2) *Wohngruppen* (living community), (3) *Hausgemeinschaft* (house community) and (4) *Integrierte Nachbarschaft* (Integrated neighbourhood). The different types can overlap and result in reciprocal synergies. For example, the project *Wohnraum Künstlergasse* is classified as house community and the *Sargfabrik* as living community, house community as well as integrated neighbourhood. (Brandl and Gruber 2014:18–21)

There are further attempts to classify co-housing projects in Austria. However, a clear typification is not necessary for this work, as the case study selection is based on some typical characteristics and criteria described in chapter 7.1.

Austria's housing policy context

To understand the context of collaborative housing in Austria, one needs to look at the local housing policy context. In Austria, the central state has relatively little power when it comes to housing and spatial planning in general. As a result, every province – there are nine in total – has its own housing policies, including further local variations on the municipal level. (Lang and Stoeger 2018:6–8)

In the European comparison, Austria is characterised by a rather conservative housing regime, except for Vienna. The City of Vienna is internationally known for its achievements in social housing due to a high level of state intervention and few privatisation approaches in the past, and generous housing subsidies. (Lang and Stoeger 2018:3)

There is no national housing policy, and numerous laws on different issues define some framework conditions for collaborative housing, such as organisation and ownership possibilities. The regional level is most relevant since provinces are responsible for designing the policy and subsidy scheme. In general, Austrian subsidies focus on the supply side in the form of public loans for housing construction and renovation. Since provincial authorities are relatively free in that matter, the subsidy landscape in Austria is fragmented and varies within the country. The regional differences have increased in the course of the national implementation of the *Stability and Growth Pact* of the EU in the 1990s and 2010. Since then, a province can freely shift money assigned from the state from housing provision to other public infrastructure. In addition, the amount of money from the state has been reduced. Consequently, some provinces like Vienna have increased the amount of subsidies, while others have cut them back. At the local level, the governments can indirectly support the housing providers with the supply of cheap land. (Lang and Stoeger 2018:6–8)

Co-housing in the institutional jungle

Since there is no national legislative framework for co-housing, such projects have to find a way of realising their project in the regional “institutional jungle”, which looks very different in each province. The regular housing supply-side subsidies have become accessible for co-housing groups, who often (have to) collaborate with a non-profit professional developer. However, there is hardly any explicit and suitable subsidy for such projects until now, and these funding criteria favour standardised housing types. In Vienna, for example, numerous projects are subsidised with the so-called *Heimförderung*, which is usually applied for student homes or nursing homes and entails some disadvantages for co-housing projects that are further elaborated in this chapter. (Lang and Stoeger 2018:6–8)

Recently, the province of Carinthia introduced a new subsidy model for co-housing projects that is structured into three phases that should be completed after two years. The maximum amount is 38.000 euros (max. 75 per cent of the eligible costs). In order to receive subsidies, the project's aim should match the Corinthian aims regarding subsidised housing. (Matticka 2022)

In brief, the housing policy context in Austria is very complex and fragmented. Since the case studies are located in Vienna, the geographical focus of the following sections is laid there, and the Viennese context with its current models is further elaborated. It is evident, however, that many aspects, such as the planning process, are similar or the same for other provinces.

Historical roots and current developments

Co-housing in Austria is not a new phenomenon, and the current development of co-housing projects goes back to the cooperative movement in the 1920s, characterised by self-organisation to create urgently needed housing collectively. In the 1980s and 1990s, co-housing models rooted in alternative housing models of the 1960s were further developed. However, at the beginning of the 21st century, co-housing developments ceased, and it was not until 2009 that the co-housing movement in Austria regained momentum inspired by German models. (Hendrich 2010:72–76)

Viennese cooperative movement

In light of a lack of housing after World War I in 1919/1920, people started to self-organise and build houses for themselves that the City of Vienna could not provide. That marks the beginning of the Viennese cooperative movement. At the city's fringe, they squatted land and established allot settlements where they could be self-sufficient. Very soon, the “wild settlers” organised as cooperatives that would later become part of an umbrella organisation supported by the city of Vienna and prominent individuals. The inhabitants planned and built the houses collaboratively as a self-help model, which fostered mutual support among neighbours. Thus, the settlements were self-managed, and some common infrastructures strengthened the sense of community among the settlers. Compared to similar movements in Germany, the Viennese movement was quickly institutionalised due to the municipality's support. However, the process also resulted in instrumentalisation and control over the movement. In 1921 the movement split into two political camps – the *Socialist* and the *Christian social party*. Even though the left-wing party established additional support structures, the movement slowly ended, and the self-organised housing production was replaced by the communal housing provision. During World War II, the housing provision was restructured, and the cooperative movement was weakened. Later, the cooperatives provided housing as limited-profit developers in a top-down manner, and the notion of community and self-organisation was lost in the cooperative sector. (Novy and Förster 1991:28–33)

The first wave of co-housing

It was not until the end of the 1960s, at the time of the 68s, when self-organised, community-led projects emerged in Austria and other countries. These projects were mainly initiated by middle-class citizens who did not find a suitable housing model on the market and hence, initiated their projects. Frequently organised in private building communities, they realised their ideas about participation in the planning process and living in community. While the cooperative movement can be seen as a countermovement to the dominant economy, the co-housing projects of the 1970s opposed prevailing models of society and had to find their own economic models (Kläser 2006). In Vienna, the architect Ottokar Uhl pioneered developing housing projects with future residents. One prominent example was the project *Wohnen mit Kindern* (Living with children), where future residents could participate in the design layout of their future apartments. However, the residents were no longer professionally supported after moving in. For this reason, the group's sense of community slowly vanished since vacant apartments were sold to people who were not aware of the project's original intention. (Gruber 2015:23ff)

In Vienna and other provinces of Austria, participatory housing projects emerged in different typologies – ranging from low terrace houses or converted existing buildings to newly built multi-storey buildings. The housing policy in Styria, which policy makers named the “The Styria model”, facilitated the realisation of participatory projects allowing for the tenant's participation in the planning process. Moreover, common spaces could be offered (Gruber 2015:25–27). In addition to the subsidy landscape, residential building research allowed for professional support before and during the planning process and contributed to knowledge dissemination of these newly emerging participatory housing models (Hendrich 2010:73).

At the end of the 1980s, very few co-housing projects were initiated (e.g. *Sargfabrik*, B.R.O.T), and further developments ceased. As a result of increasing migration, national housing policies shifted their focus from small-scale projects towards subsidising large-scale projects to meet the arising housing demand. Another aspect is that the co-housing projects at that time lacked affordability and were not accessible for lower-income groups, who had neither the financial nor time resources to participate in such a project. Moreover, decision-making and planning processes frequently lacked a clear structure and explicit criteria for deciding

whether a project should receive public subsidies were absent. Even though Wolfgang Förster – who is the Head of the Department for Housing Research in the Vienna City Administration – suggested quality criteria that considered ecological and economic aspects, political statements to integrate co-housing models in the subsidised housing sector are still missing in Vienna and most other provinces of Austria. (Gruber 2015:24f)

The second wave of co-housing

Since 2009 there has been a re-emergence of co-housing projects, inspired by the developments in Germany, especially in Berlin (Temel 2012:48). Whereas in the past, co-housing projects were often realised in existing structures, more recent projects emerged in newly built structures – often in urban development areas (Verein Initiative für gemeinschaftliches Bauen und Wohnen 2015:41). At the time, the *Initiative Collaborative Building & Living* was founded to promote collaborative housing ideas and to create a platform for knowledge exchange (Lang and Stoeger 2018:8).

The City of Vienna has recognised the potential of co-housing groups, especially in new neighbourhoods. The introduction of social sustainability² in 2009 as a fourth criterion in the developer competition for the acquisition of land offered a chance for co-housing groups to get a plot, albeit they faced difficulties due to more limited financial resources (Haas 2018:90). In the course of the development of Seestadt Aspern – an urban development area in the north of Vienna, the city implemented an explicit selection procedure for co-housing groups for a building site with five plots in 2011. The *Wien 3420 Aspern Development AG* (development company on behalf of the City of Vienna) and the *wohnfonds_wien* were the awarding authorities of the process, and the former organised the cooperation process for the selected plot. (Temel 2012:21f)

Compared to the first wave of co-housing projects, newer projects seemingly aim to open up to the neighbourhood and generate added value beyond the project. They are strongly embedded in the local context, and instead of detaching from the environment and the hegemonic system, they rather integrate into it (Kläser 2006).

Despite several co-housing projects being implemented in the last 15 years, and the demand for collaborative housing forms has been high, Hendrich (2023) currently sees a stagnation. Also, the *Initiative Collaborative Building & Living* observes fewer co-housing group seekers, but more initiators at their networking events.

6.2 Co-housing models in Vienna

Introduction of the Viennese selection procedure for co-housing projects

After the success of the initial attempt to introduce a selection procedure for co-housing groups to allocate land, it was adopted in other urban development areas as well. The procedure was inspired by existing ones in Germany, such as the model in Tübingen. The idea of the Viennese procedure is to provide land for co-housing groups for a fixed price. So far, six selection procedures for co-housing groups have taken place:

- *Seestadt Aspern* 2011: one plot divided into five building lots
- *Leben am Helmut Zilk Park* in 2015: four plots
- *Neu Leopoldau* 2015: one plot

² The *wohnfonds_wien* organises developers' competitions when providing plots for subsidised apartments and assesses the entries according to its four-pillar-model. The quality criteria are summarised in four categories: economy, social sustainability, architecture, and ecology. (*wohnfonds_wien* 2018)

- *Wildgarten – Wohnen am Rosenhügel* 2016: three plots
- *OASE 22+ 2017*: three plots
- *Seestadt Aspern, Am Seebogen* 2017: two plots

Co-housing groups have to apply for the plot, and a winner is selected according to specific criteria. The procedure consists of two steps: In the first step, the co-housing groups submit a rough concept. If selected, they are entitled to participate in the second step to develop their concept in detail together with the *Quartiersentwicklungsgremium* (urban development committee). (OEBB immobilien 2016:4)

As one of the case studies of this work is located in the urban development area close to the Vienna central station, some aspects of the selection procedure for selling four plots to co-housing groups that took place in 2016 should be highlighted. As a part of an urban development area, the master plan set a couple of requirements and aims for specific areas that affected the co-housing procedure. One key element is the definition of a *Stadtsockelzone* (urban ground floor zone) along the central promenade. This zone should enable lively uses at the ground floor level open for the neighbourhood. Furthermore, the commercial spaces of this zone are subject to lower rent prices. Even if only one of the four co-housing plots is located in this zone, the concept can also be extended to the other plots. Generally, the city expects co-housing groups to open up and establish relations within the local neighbourhood:

“Die Kommunikation mit dem öffentlichen Raum und der Nachbarschaft sollte gesucht werden, die Baugruppen sollen sich nicht als „UFOs“ verstehen, sondern den Bezug zum Umfeld und zum Bezirk herstellen“ (OEBB immobilien 2015:3).

Other requirements in the procedure concern open space, mobility, use diversity, architecture and the group concept. The groups selected in the first step could then participate in the second step. Based on the committee's recommendation during the first step, the co-housing groups further elaborated their concept. A key topic was evaluating the use concept for the ground floor zone in coordination with other projects in the neighbourhood. (OEBB immobilien 2016:4)

The concepts submitted were then evaluated based on five criteria: (1) quality of the use concept, (2) reference to the existing concept regarding open space and mobility and the quality of intermediate space (private - public), (3) ground floor zone, (4) process quality, feasibility and (5) architectural qualities and a relation to the urban fabric. (OEBB immobilien 2016:23)

Concerning the relations with the neighbourhood – which is the key topic of this work – the co-housing procedure is very interesting insofar as authorities formulate specific claims about how co-housing groups should position themselves in the neighbourhood context. This procedure encourages or forces co-housing groups to think about intermediate space between private and public space, activities and uses that engage with the local neighbourhood and appropriation processes that might take place (OEBB immobilien 2016:24).

The selection procedure for co-housing projects replaces the developer's competition that usually takes place if housing subsidies are applied, instead the *Grundstückbeirat*, a committee of the *wohnfonds_wien*, evaluates the submissions (OEBB immobilien 2016:9).

Apart from the selection procedure for co-housing groups in urban development areas, the *wohnfonds_wien* organised a developer's competition for co-housing groups on four plots in Vienna – one plot in the 14th district and three plots in the 22nd district. By providing land for co-housing groups, the city hopes for impulses for the local neighbourhood. (*wohnfonds_wien* 2020)

The introduction of the selection procedure shows that the policy makers have recognised the potential of co-housing groups for urban development. Co-housing groups can contribute to an active neighbourhood and stimulate development processes in the surrounding neighbourhood. On the negative side, the expectations towards co-housing groups with regard to the neighbourhood might overextend the co-housing group's resources and their unpaid engagement. (Dutkowski and Stepanek 2023)

In this context, the question of whether co-housing groups are being instrumentalised arose and was discussed during the expert interviews. In *Seestadt Aspern*, the development company *wien 3420* expresses openly that co-housing projects can serve as a tool for urban development. According to Petra Hendrich (2023), the City of Vienna wanted to implement different scenarios – co-housing projects clustered on one plot like in *Seestadt Aspern* and distributed throughout the neighbourhood as in *Sonnwendviertel*.

Since the requirements for co-housing projects to be granted a plot of land are transparently communicated in the selection procedure, Zilker from *einszueins architektur* would not speak of instrumentalisation but rather sees the procedure as a deal between tenderer and co-housing groups. As for the procedure in *Sonnwendviertel*, opening up for the neighbourhood was part of the deal to get access to affordable land in a good location. However, as for the co-housing project *Wohnprojekt Wien*, which was realised in an ordinary developers' competition in *Nordbahnhofviertel*, he locates a discrepancy between the attitude of the government in Vienna towards the project and their media appearance. Politicians criticise it as a project for middle-class academics but also present it as a showcase project for their media appearance. (Zilker 2023)

Depending on the local context, co-housing groups might create additional (cultural) offers for the neighbourhood that the city would not provide. To guarantee the operation of those uses in the long-run, the experts and service providers agree that the city should provide more financial resources for community work and provision of resources through co-housing groups. (Dutkowski and Stepanek 2023; Hendrich 2023; Zilker 2023)

The development process

Since the development of a co-housing project is very complex and usually takes at least three years, it is helpful to distinguish between five different phases. The framework conditions can vary depending on the initiator – top-down (architect, property developer) or bottom-up (civic actors). Especially group formation and finding a suitable plot can take a relatively long time. (Temel et al. 2009b:27f) The following figure (Fig. 8) maps out five central phases that co-housing projects in Austria usually undergo.

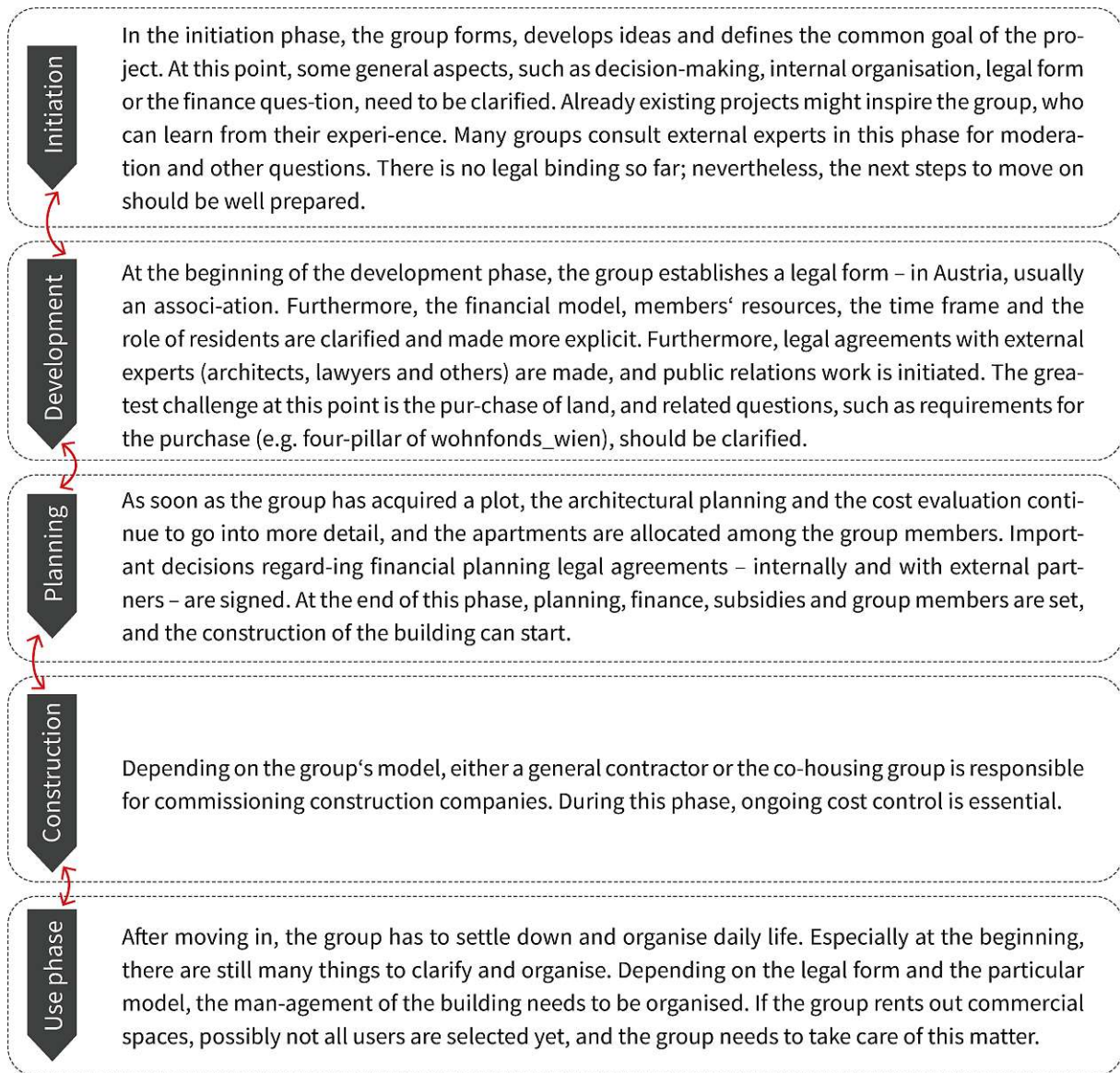


Fig. 8: Development phases of a co-housing project (own representation based on Temel et al. 2009b: 27-31)

To summarise, the development process of a co-housing project is very complex, and there is not one particular way of doing it, but many. In practice, the five phases overlap; sometimes, a group is forced to go back to previous steps.

The role of the neighbourhood during different phases

At the beginning of the development process, the co-housing group generates visions and thinks about how they want to address the neighbourhood. According to the experiences of Zilker (2023) and Hendrich (2023), all groups aim to open up to the neighbourhood to some degree and want to overcome the anonymity of the city. One motivation for opening up for the neighbourhood might be to achieve more diversity and enable the inclusion of different social groups since co-housing groups are often aware of their homogeneity and want to overcome it. Furthermore, co-housing groups often need users from the neighbourhood to be able to operate their businesses, such as FoodCoops or cultural offers. (Hendrich 2023)

Apart from the conceptual level and visions about the neighbourhood, co-housing groups address the issue of location and their expectations, such as public transport access and available infrastructure. Once the location is certain, the group starts to deal with local conditions in the neighbourhood. While planning the use concept, co-housing groups might start reaching out to potential users for commercial spaces, such as co-working spaces. Thus, to operate their businesses, the co-housing group depends on users in the neighbourhood and city context. (Hendrich 2023)

While visioning, planning and constructing shared spaces for the neighbourhood is relatively easy, the greatest challenge is to keep the envisioned openness in the long run. In addition, Markus Zilker mentioned a central conflict line between living in community and changing the world, referring to the American community expert Diane Leafe Christian. While some members would always prefer living quietly, others are very much engaged in neighbourhood activities and non-profit work beyond the co-housing group. Depending on the group's focus and use concept, this debate usually occurs to some degree. This means that boundaries (social, physical, symbolic) are negotiated in different phases, but there is often a discrepancy between plan and reality. Architects tend to define boundaries poorly, and the co-housing groups often redefine boundaries during the use phase. Based on experiences in daily life, the group defines temporal and spatial boundaries for external users. For example, in *Wohnprojekt Wien* the group agreed not to have guided tours on Sundays or in *Gleis 21*, residents re-adjusted a fence separating the semi-public open spaces from the access balconies to the apartments to prevent undesirable guests from entering the rooftop terrace. (Zilker 2023)

Organisation and stakeholders involved

Most co-housing groups in Austria are formally organised as an association, whereas in Germany, cooperatives are a popular legal form in this sector. The reason for the popularity of associations for co-housing groups in Austria is the legal framework, according to which an association is relatively easy to establish and maintain. Moreover, elements of cooperatives can be integrated into the statutes, albeit they are not legally binding and can be changed later on – in contrast to a cooperative, which does not offer this flexibility. Sometimes an association is established as a basis for a cooperative, for example, in the project *die HausWirtschaft* in the second district of Vienna. Generally, associations must have a specific aim and a non-profit status. Nevertheless, an association can make a limited profit as long as it serves its purpose. The financial capital of an association consists of donations – as for co-housing groups, members usually pay a one-time payment when joining and a regular (monthly) contribution. (Temel et al. 2009b:42–45)

In fact, the legal status as cooperative seems more suitable for co-housing, according to expert Robert Temel (2009:44), who refers to the cooperative movement at the beginning of the 20th century. However, there are hardly any role models, and in contrast to Germany and Switzerland, small cooperatives have been merged with bigger ones. Recently, a rise of small cooperatives seems to take place, and bottom-up initiatives have recognised the potential of this legal form. It is noted that there are other possible legal forms for co-housing groups, such as limited companies.

Regarding the internal decision-making structure, the widely spread sociocracy model has partly replaced the majority principle, common in basic democratic structures. Sociocracy is a form of self-governance and decision-making that distributes work to working groups. Two selected delegates in each group connect these subgroups to the leadership circle. Decisions are made based on consensus, which enables the whole group to approve decisions. (Verein Initiative für gemeinschaftliches Bauen und Wohnen n.d.-a)

In addition to the co-housing group, many professional stakeholders are involved in the planning process. It is evident that the composition of stakeholders varies according to the specific project context. The key

stakeholders are listed below (Temel et al. 2009b:31–34; Verein Initiative für gemeinschaftliches Bauen und Wohnen n.d.-a):

- The co-housing group as an association, cooperative or other legal forms
- Moderation: responsible for steering the group process and supporting the group process (social support)
- Architects and planners
- Further experts: finance, law, research, ...
- Executing companies: construction company, ...
- Public authorities
- Bank institute
- Property developer
- Landowner

Depending on the organisation and legal form, ownership structures of the plot, project financing and other circumstances, different stakeholders are involved in Viennese projects. Most projects cooperate with a limited-profit developer, who arranges the construction of the building since this results in fewer risks for the co-housing group. In the use phase, the property developer can have different roles depending on the type of tenure, which is further elaborated on in the next section.

While some specific stakeholders, such as architectural companies, property developers or consulting firms, might have focused more on co-housing groups based on their experiences and the increasing demand, there are only a few higher-level structures for such projects. Two umbrella associations that particularly support self-management and participation in housing projects should be briefly mentioned here:

habiTAT

The *habiTAT* has established the German model *Mietshäuser Syndikat* in the Austrian context and aims at supporting self-managed housing projects with a focus on solidarity. To withdraw real estate from the market and to ensure that the projects remain collective property in the long run, the *habiTAT* model has established a specific structure: The house projects set up a limited liability company (LLC), that is the owner of the building and has two partners – the housing association (co-housing group) and the *habiTAT*. While the housing association is responsible for daily business, the *habiTAT* only has a vote to prevent the sale of the building. Moreover, financial surpluses from established projects are transferred to a solidarity fund to support new projects. The source of funding for this model is direct loans from individuals. (*habiTAT* n.d.; *Mietshäuser Syndikat* n.d.)

Initiative Collaborative Building & Living (Initiative Gemeinsam Bauen & Wohnen)

The *Initiative Collaborative Building & Living (IniGBW)* is a non-profit platform advocating for collaborative housing projects in Austria, established by several experts in 2009. Their objective is to enhance the framework conditions for this housing model and support existing and emerging collaborative housing projects. Apart from regular networking activities, knowledge exchange and consultancy for co-housing projects, they engage with professionals and political decision-makers. Furthermore, they are involved in research activities on a national and international level. (Verein Initiative für gemeinschaftliches Bauen und Wohnen n.d.-b)

Die WoGen

The *WoGen Wohnprojekte-Genossenschaft e.Gen.* is the first property developer focusing on developing, implementing and operating collaborative housing projects in Austria. They aim to provide affordable housing and support living sustainably and inclusively in community. In addition to housing units, they provide commercial and shared spaces, such as co-working or common spaces. The structure of the cooperative provides that the cooperative owns the property and the building and concludes a user contract with the operating association. The association then rents out the individual units. Since all residents are members of the cooperative and the association, they play three roles simultaneously: Firstly, they are co-owner of the *WoGen real estates* as members of the cooperative. Secondly, they are their own landlords as members of the association and, finally, tenants in their role as residents. (Die WoGen Wohnprojekte-Genossenschaft e. Gen n.d.)

Institutional resources on the neighbourhood level: GB* neighbourhood management

Local institutions can be a vital resource for co-housing groups during different phases. Since providing and networking resources is part of their work, they might come into contact with co-housing groups in different contexts. In general, the *GB** local area renewal office is an intermediary organisation that operates in five Vienna locations. In urban development areas, *GB* neighbourhood managements* support new residents in the settling phase. Since co-housing groups are very active groups with many resources due to their organisation, they might not need as much support from *GB** as others. The interviews with *GB* neighbourhood management* employees have shown that co-housing groups and *GB** could be seen as cooperation partners supporting each other's work. In the planning phase, *GB** provided space for co-housing groups in their offices, as well as consultancy and information (Dutkowski and Stepanek 2023; Employee *GB*Stadtteilmanagement Sonnwendviertel* 2023). In *Sonnwendviertel*, for example, an employee of *GB* neighbourhood management* (2023) mentioned the exchange of resources with co-housing groups and other projects. Initially, they would contact the co-housing projects to establish a connection, whereas later on, they sometimes ask to use their common or event spaces. Likewise, co-housing groups borrow equipment for events from *GB** or profit from their mailing list to make announcements.

*GB** introduced the so-called *Stadtteilpartnerschaften* (district partnerships) to facilitate space resource sharing, connecting space seekers with space providers. Everyone can access the list of spaces provided by *GB**. This format is mentioned here since the case *Wohnraum Künstlergasse* of the case study is part of this format. (Dutkowski and Stepanek 2023)

Finance and type of tenure

As for the type of tenure, there are several possibilities ranging from individual to collective property and different rent models. Most projects in Austria and Vienna receive housing subsidies, even though some groups realise their building without public funding. However, there is no particular subsidy for co-housing projects, so they must adapt to the existing structures and find their way.

Wiener Wohnbauförderung (Viennese housing subsidies)

The Viennese housing subsidy model is based on three pillars: newly constructed housing, the renovation of existing buildings and direct subject-related subsidies for residents with a lower income (*Wohnberatung Wien* n.d.). The latter is excluded here since it only plays a marginal role for co-housing groups because most projects receive a subsidy that excludes subject-related support. Since most co-housing projects are realised in newly constructed buildings, the first pillar is currently the most relevant subsidy.

Within the pillar of newly constructed buildings, the subsidy distinguishes between owner-occupied apartments, rental apartments and home units (*Heimförderung*), and the projects can be subsidised in different ways, such as loans or grants. According to the *Wiener Wohnbauförderungs- und Wohnhaussanierungsgesetz 1989* (Viennese 'Building-Subvention and House Renovation Law' from 1989), a third of the subsidised rental or owner-occupied apartments must be allocated by the *Wohnservice Wien GmbH* based on their criteria. Since co-housing groups are often “intentional communities” and want all residents to agree to their values and aims, this specification of the subsidy law is a burden for many co-housing groups. (Temel et al. 2009b:17)

For this reason, many co-housing projects in Vienna use the so-called *Heimförderung* (home unit subsidy) that was initially designed for student homes or nursing homes. The advantage of this model is enabling the group to choose who should live there on the one hand and allowing for subsidies for common and shared spaces on the other hand. In addition, the number of compulsory parking spaces is reduced to (1 parking space per 10 home units). The downside, however, is that the status as a *Heim* brings about specific architectural requirements regarding fire protection, for example. Moreover, it automatically blocks subject-oriented subsidies for residents, which might result in fewer affordable housing units. (Temel et al. 2009b:18f)

As mentioned above, many co-housing projects in Vienna cooperate with a limited-profit developer, who then receives the subsidies and takes over certain risks. With or without a building property developer, many possible configurations result in different types of tenure. Some frequent configurations are the following:

- (1) After the building construction is completed, the residents association buys the building and rents out the apartments to its households. Common and shared spaces are operated by the residents' association or another association related to the project.
- (2) The residents' association rents the whole building from the property developer, who is the owner, and then rents out the apartments to the residents. Common and shared spaces are operated by the residents' association or another association related to the project.
- (3) The property developer owns the building and rents out the individual apartments to residents (single lease agreements). Common and shared spaces are rented out to the residents' association.

Building renovation

The subsidy models, as mentioned earlier, are mainly associated with newly built projects. There are only a few examples of co-housing groups in Vienna whose building was partly financed with a building renovation subsidy, which is also part of the housing subsidy law from 1989. Different types of renovations range from selective measures to complete changes on the building or the building block. At least two co-housing projects in Vienna – *Wohnraum Künstlergasse* and *Grundsteingasse* – were realised with a so-called *Sockelsanierung* (renovation), a comprehensive renovation of inhabited buildings. As such, not only necessary renovation work and improvements of apartments and the ground floor can be subsidised, but also roof extensions, improvements of the urban structure, demolitions of building parts and parking spaces. (wohnfonds_wien n.d.)

6.3 Urban settings of co-housing projects in Vienna

Looking at the Viennese city context and the spatial distribution of co-housing projects in the city, one can recognise a tendency where newer co-housing projects have emerged. Whereas older projects (realised before 2009) are more distributed in the urban fabric and are built in existing structures (either as urban infill or renovation projects), newer projects (realised after 2009) are clustered in urban development areas (Fig. 9). This is due to the respective contexts in which the projects have emerged. In the 1960s, when the first co-housing projects emerged, recent development areas, such as *Seestadt Aspern* or *Nordbahnhofviertel*, were not planned

yet, and it was long before the City of Vienna would support co-housing projects as urban development tools. Evaluating the procedure in *Seestadt Aspern*, Robert Temel (2012:95f) concludes that clustering co-housing groups on the same building plot might bring more benefits for the project than distributing them in the city because this allows for synergies among different co-housing groups. However, since the evaluation in 2012, many projects have been developed in different urban contexts, albeit a majority were realised in urban development areas. As shown in the map, several clusters are located in newly developed areas: *Seestadt Aspern* in the 22nd district, *Nordbahnhof* in the 2nd district, *Sonnwendviertel* in the 10th district and *Wildgarten* in the 12th district.

Different urban settings entail different typologies; in Vienna, various typologies have emerged. While co-housing groups in existing structures are often located in the typical *Gründerzeitblock* (closed block structure), more recent structures show more open structures, such as open block structures, buildings with balcony access, solitary buildings and others. Furthermore, in some cases, the co-housing groups inhabit only a building part and share common spaces with other residents who are not part of the co-housing project.

The map shows co-housing projects, including the new typology of *Quartiershäuser* (neighbourhood houses), a mixed-use typology with communal living in the development area *Sonnwendviertel*. The map is based on previous research in the project *OPENhauswirtschaft*, and the data might be incomplete.

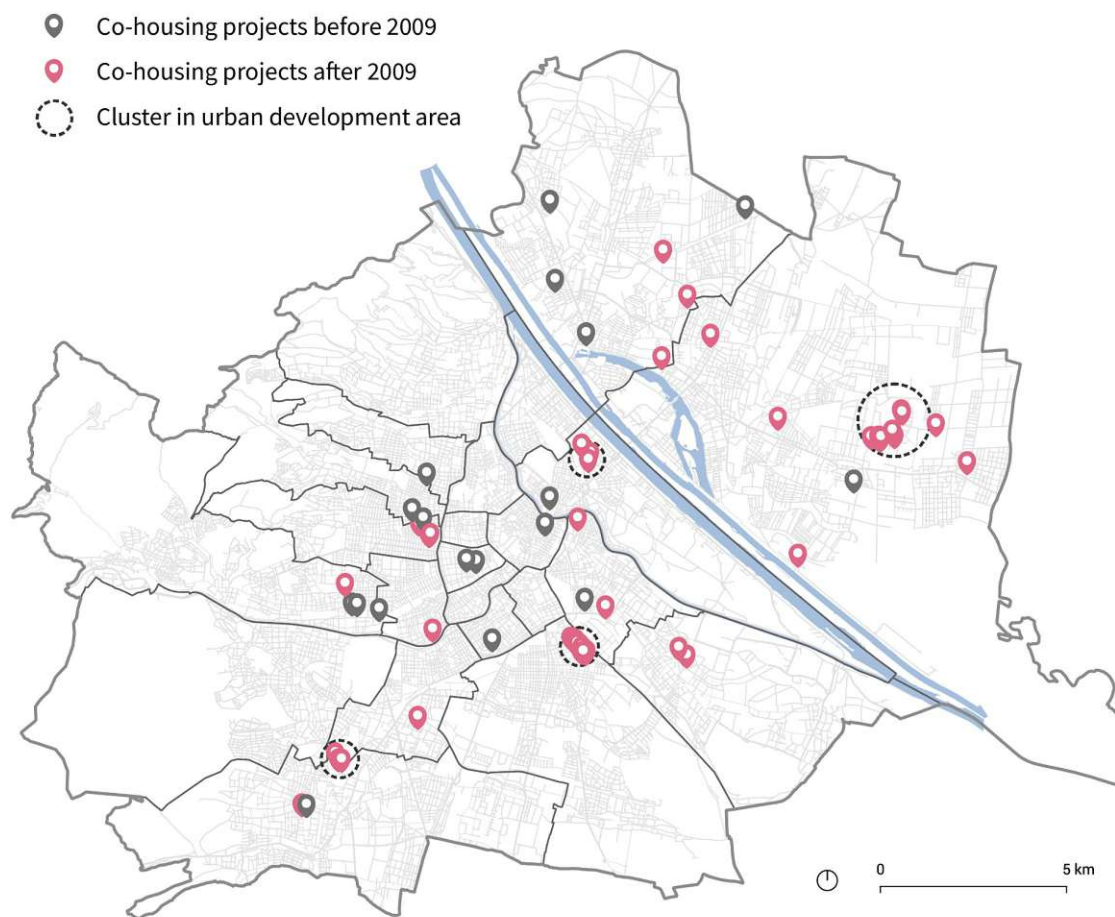


Fig. 9: Locations of co-housing projects in Vienna (own survey; map source: Stadt Wien – <https://data.wien.gv.at>)

The role of urban structure

It is evident that different urban settings allow for different spatial qualities and create different spatial interfaces between co-housing projects and the surrounding neighbourhood. Qualities of intermediate spaces do not start at the building edge but are shaped by the qualities of public space and mobility policies. If public space is mainly dedicated to cars (parking and driving), social interactions are less likely to take place in front of a building compared to pedestrian zones, for example (Zilker 2023). Thus, having space for social interaction in public space around the building is key. Furthermore, non-residential use at the ground floor level and visible, accessible spaces are crucial for opening up and blurring the boundary between the project and the neighbourhood. (Hendrich 2023; Zilker 2023)

While these qualities may seem obvious to planners, various framework conditions often make their implementation difficult. Apart from spatial qualities, different urban settings bring about different conditions in terms of socio-economic characteristics, institutional framework conditions and available local resources.

The older co-housing projects (1960s – 1980s) are often realised in typical *Gründerzeit* block structures with a clearly defined edge between the project and public space, which makes spontaneous social interactions with non-residents less likely. Social connections and interactions beyond the project happen rather through personal networks and on special occasions. (Hendrich 2023; Zilker 2023)

In terms of available resources in existing neighbourhoods, co-housing groups can potentially tie up with existing initiatives, and they already know who is there in the planning phase. Stepanek (Dutkowski and Stepanek 2023) used the metaphor of a naturally grown forest (existing structures) and a planted forest with an intentional structure (new development area). While the vision for the planted forest is made in advance, the natural forest might not be inhabitable at the beginning but be adapted over time. Both settings bring about different challenges and benefits.

The different institutional framework conditions (co-housing model, financing and others) have already been outlined in this chapter. Moreover, changing conditions for urban developments have impacted the access to land for co-housing groups. The housing market has significantly changed since the fall of the Iron Curtain, and co-housing groups were increasingly facing difficulties in getting access to plots and real estate. Various initiatives have failed to access land in existing urban areas, as other players are faster and have more financial resources. Since the introduction of the selection procedure for co-housing groups, access to land has become easier – at least for newly developed projects. (Zilker 2023)

Currently, there is still some potential urban development areas for co-housing groups, such as *Nordwestbahnhof*, but sooner or later, there is no way around transforming existing buildings. Despite the fact that the transformation of existing structures has potential, Zilker (2023) sees the implementation critically due to the limits of capitalist logic in the housing market and the financial and legal boundaries that come with it, which cannot be transformed from one day to the other. The urban setting and institutional context are strongly connected, and existing structures entail completely different logics that require innovative approaches.

Future potentials

In this context, co-housing groups could support the renovation of existing buildings (*Zinshäuser*) and be part of new cooperation models that enable a transformation. In their new research project *Baugruppe X Zinshaus*, *realitylab* and other partners explore the complex structures of *Zinshäuser* and the potential of retro-fit co-housing projects. Since co-housing groups actively deal with their (future) neighbourhood and reach to local requirements, they might create anchor points activating development processes in existing neighbourhoods. These are not necessarily limited to one building or co-housing group but could create a cross-building

network for sharing resources. Hendrich sees this as a “cooperative development of existing buildings”. (Hendrich 2023)

Amidst crumbling political and economic structures that society has created, self-organised manageable units or communities have great potential for establishing resilient structures. In particular, in connection with housing provision – a very crucial and long-lasting issue – communities of about 40 to 200 people can contribute to more stable mixed-use city blocks (Zilker 2023). Finally, the potential of co-housing projects towards a more resilient urban future is to show others of the local neighbourhood and beyond what is possible. They can serve as role models for creating and governing shared resources. Further, they want to share their experiences and exchange knowledge with other stakeholders. (Dutkowski and Stepanek 2023; Employee GB*Stadtteilmanagement Sonnwendviertel 2023; Hendrich 2023)

7 CASE STUDY: CO-HOUSING PROJECTS IN THE URBAN FABRIC OF VIENNA

7.1 Case study selection

The case study follows the aspects of the urban commons analytical framework (chapter 5.2) – shared resources, a community and collective governance. The cases selected should have no privately-owned housing units since this would entail different dynamics – assumably more individualistic decision-making processes. Shared resources, such as collectively managed common spaces, are regarded as a critical feature and enabling factor for establishing socio-spatial relations with the neighbourhood. Moreover, the case study selection considered the relational aspects of Esopi's (2018) checklist – a mix of uses, social interactions and interactions with the urban environment and landscape. Therefore, opening up to the neighbourhood should be part of the group's vision or aims.

Another criterion is that the chosen projects must have reached the use phase and been finalised before 2020. This facilitates an investigation into the establishment of socio-spatial relations, not only during the planning phase but notably within the use phase. This examination encompasses how these relations are maintained and how they have changed due to the pandemic. According to the research interest, the focus is on socio-spatial relations during the use phase.

In order to explore the role of the urban neighbourhood, this study delves into co-housing projects located within diverse urban contexts. One case is located in a new development area, whereas the others have integrated into previously existing neighbourhoods (*Gründerzeit* structures). This allows for examining how different urban settings entail specific framework conditions for co-housing groups and their implications for these relations. As this work explores the urban context, inner-city building density and the resulting infrastructure (public transport, social infrastructure and others) played a crucial role in the case study selection. Therefore, the projects selected have a relatively central location in Vienna.

Within one country, co-housing models show a great variety. Thus, the three cases were selected in Vienna, as they are part of the same planning culture and institutional framework conditions. This selection enables more profound insights into individual cases and neighbourhood contexts.

The case selection consists of three cases: (1) **Wohnraum Künstlergasse**, (2) **Gleis 21** and (3) **Sargfabrik**

Sargfabrik and *Gleis 21* can be seen as lighthouse projects that want to have a wider impact beyond the project. Both projects offer spaces to rent and host cultural events open to a broad audience. For example, the association *Verein für Integrative Lebensgestaltung (VIL)* of *Sargfabrik* is actively involved in the association *Lebenswertes Matznerviertel*, which wants to improve the quality of life in the district (*Verein Lebenswertes Matznerviertel n.d.*). Whereas the *Sargfabrik* was built in an existing neighbourhood, *Gleis 21* is part of the newly built urban development area of *Sonnwendviertel* and consequently underlies different institutional structures. The project *Wohnraum Künstlergasse* is included in the case study research to better understand the relations with the neighbourhood and gain insights into the experience of a smaller co-housing project in a retrofit building. (*Verein für integrative Lebensgestaltung n.d.*; *Verein KulturLeben Künstlergasse n.d.*; *Verein Wohnprojekt Gleis 21 2022*)

Structure of the case analysis

At first, each case is briefly described, and some key figures are depicted to get an overview of the co-housing projects. In the following chapters, each case is analysed in detail according to the dimensions of the analytical framework. The structure of chapters 7.2 to 7.4 is based on the framework and the categories of the interview analysis, followed by a synthesis of key findings in chapter 7.5.

Wohnraum Künstlergasse



Fig. 10: Location in Vienna of Wohnraum Künstlergasse (own representation, data source: Stadt Wien – <https://data.wien.gv.at>)

Project Description:

The project *Wohnraum Künstlergasse* was realised in an existing building in the 15th district of Vienna, Künstlergasse 14-16. The private foundation *PUBA* (*Privatstiftung zur Unterstützung von Bildung und Arbeitnehmer:innen*) renovated two neighbouring buildings with 15 apartments and created 14 additional apartments, subsidised by the City of Vienna as a *Sockelsanierung* (renovation). Since many apartments were vacant, the foundation let 14 of the 29 apartments and common spaces in *Künstlergasse 14* to the collaborative housing group.

The association of the co-housing group *KulturLeben Künstlergasse* has existed since 2010, and a group of students developed the initial idea for the collaborative housing project in 2009. Young people with a background in arts, culture and social work laid the foundation for the group's focus. In the beginning, they did not know how to finance the project and finding a location to realise the project was challenging, and it was only by coincidence that the group was informed about the renovation project in *Künstlergasse*. The company *raum & kommunikation*, which specialises in social process support and consultancy for co-housing

OVERVIEW

Address: Künstlergasse 14, 1150 Vienna

Project start: 2009

Completion: 2014

Project focus: housing, culture

Number of apartments: 14 of 29 units in the building

Residents: ~ 30 (23 adults, 7 children)

Initiative: group of students

Architect: Wolf Klerings

Social process support: raum & kommunikation

Property developer: PUBA Privatstiftung

Legal form: association
(*Verein Wohnraum Künstlergasse*)

Tenure form: association rents flats and common spaces from property developer, rental apartments

Financing model: renovation subsidies, PUBA foundation

Typology: retrofit, “Gründerzeit-Block”

Resources for the neighbourhood: multifunctional event space

Heating demand: 63,69 kWh/m²a

(*Verein KulturLeben Künstlergasse n.d.; wohnfonds_wien 2021; Wohnraum Künstlergasse 2023*)

groups, brought together the co-housing group, the property developer *PUBA foundation* and the architect Wolf Klerings. Furthermore, they supported the group in moderation, coordination and consultation.

When the group moved in during the summer of 2014, some households had already lived there. Even though the residents of the neighbouring building that was part of the renovation are not members of the association, they share two common areas in the courtyard – a terrace and a green area – a bicycle room and a garbage room in the building complex.



Fig. 11: Wohnraum Künstlergasse (own photograph, 2023)

The association rents one multifunctional common space from the *PUBA foundation*, which is also available for external users. The group meets here or in the courtyard for the monthly plenum and organises common activities.

Furthermore, they share a music room to practice, which is located in the other building. Apart from that, every household has its kitchen and bathroom, and such facilities are mainly shared among neighbours who are friends.

Besides regular courses organised by external users, only a few events address a wider public. For example, there was an art project in cooperation with a university in 2015 or an initiative to plant trees in the street.

(raum & kommunikation n.d.; Verein KulturLeben Künstlergasse n.d.)

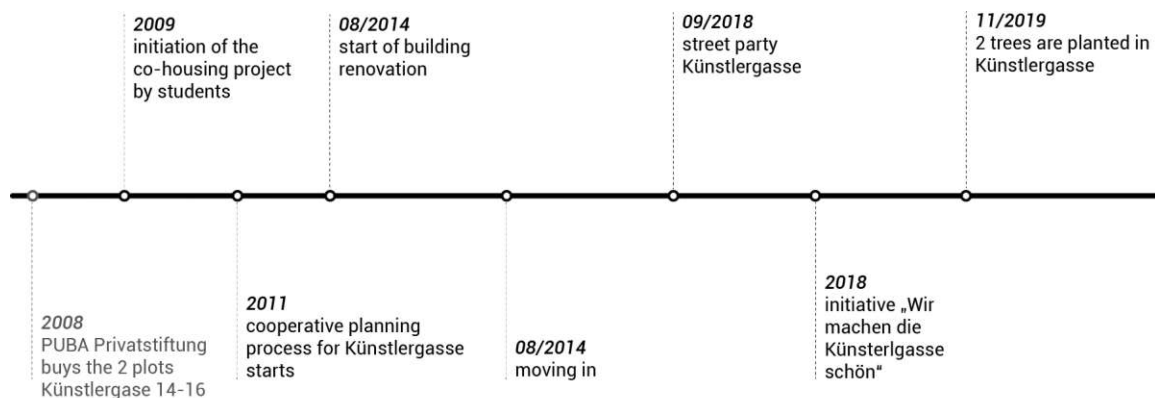


Fig. 12: Wohnraum Künstlergasse timeline (own representation)

Gleis 21



Fig. 13: Location in Vienna of Gleis 21 (own representation, data source: Stadt Wien – <https://data.wien.gv.at>)

Project Description:

The co-housing project *Gleis 21* in *Sonnwendviertel*, a new urban development area near the main station, was realised in the course of a two-stage concept competition dedicating four plots to co-housing groups. *Gleis 21* convinced the jury of their concept for plot C.17.C. The architect Markus Zilker and Gernot Tschertscheu initiated the project from *realitylab*.

Gleis 21 is very well interconnected on a local, national and international level, and since it was awarded the *European Bauhaus prize 2022*, international interest has increased even more. The co-housing and cultural project addresses the neighbourhood and the city with several cultural offers.

In this respect, the ground floor that opens up to the neighbourhood plays an important part. The open space on the plot is accessible and functions as an extension and connection of public space – there are no fences between the park in the southwest and the promenade northeast of the building. Furthermore, *Gleis 21* offers “three pillars” for the surrounding neighbourhood: The “neighbourhood wall” provides space for exchanging books, announcing events and a bench to take a seat. A

OVERVIEW

Address: Bloch-Bauer-Promenade 22,
1100 Vienna

Project start: 2015

Completion: 2019

Project focus: housing, culture

Number of apartments: 34

Initiative: Gernot Tschertscheu, Markus Zilker

Architect: einszueins architektur

Social process support: realitylab

Property developer: Schwarzatal

Legal form: association

Tenure form: association owns building, rental
apartments

Financing model: housing subsidies (*Heimförderung*),
bank loans, own funds

Typology: newly developed area

Resources for the neighbourhood: event space,
café, music school, open book shelf

Heating demand: 24,75 kWh/m²a

(BMK 2020; *einszueins architektur n.d.*)

diverse cultural programme – organised by the cultural association of *Gleis 21* – takes place in the multifunctional event space that is also open to renting. Last but not least, the artist's collective *to-Zomia* and the café *Kaffeesatz* invite the neighbourhood to the ground floor space.

In the basement, there is a commercial unit rented by a music school, which can be accessed via one of the two “sunken courtyards” facing the promenade. The other courtyard faces the park and opens up to the co-housing group's common spaces (atelier and laundry room).

The 34 private units can be accessed through an open portico, which was designed as a space for social interaction. Each unit has a private balcony on the other side of the building. Due to the flexible

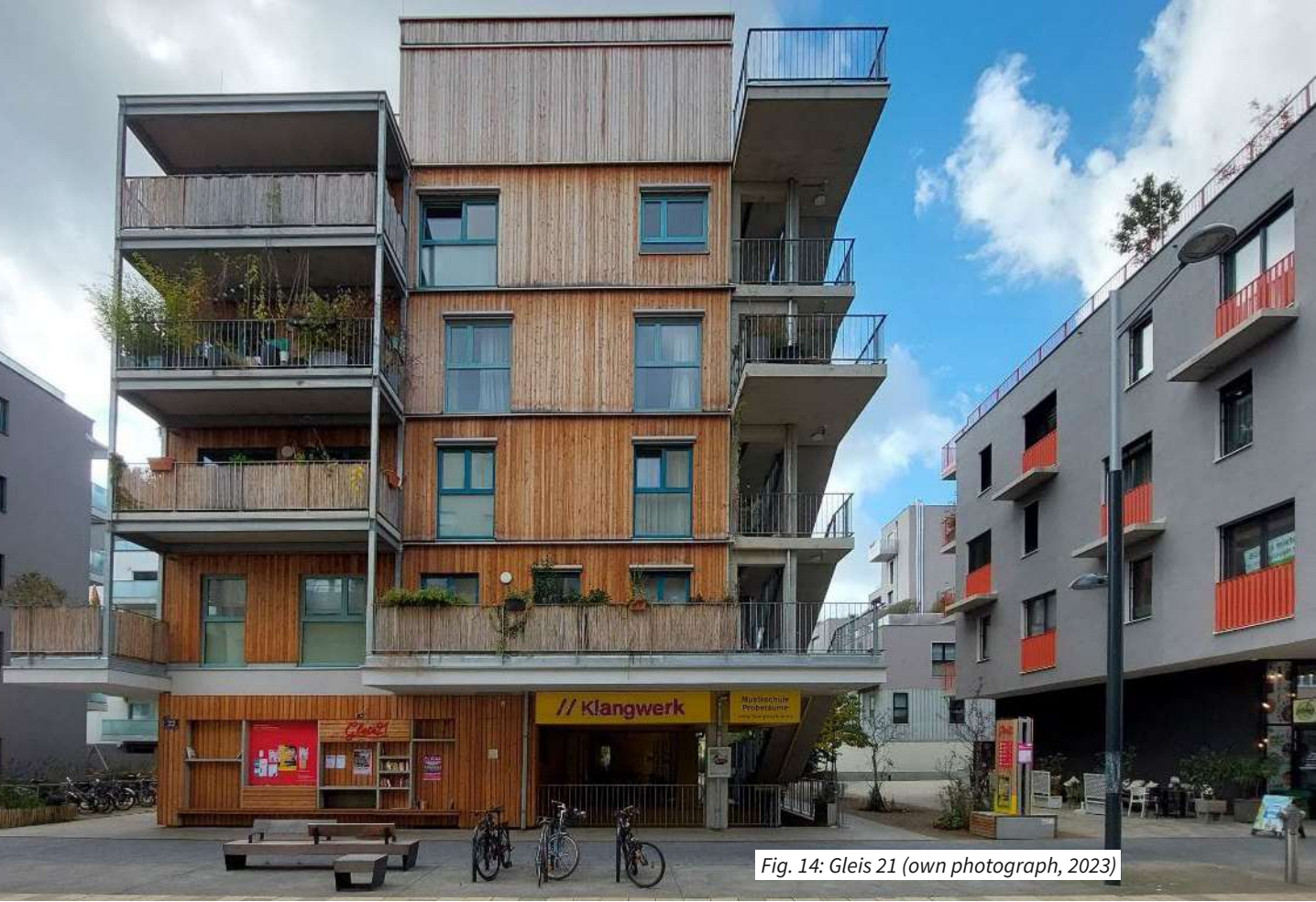


Fig. 14: Gleis 21 (own photograph, 2023)

structure, residents could, for example, choose the location of the kitchen. One unit is used as a guest apartment, and five units were made available for refugees.

The common spaces reserved for co-housing members are located on the rooftop. These include a so-called “rest house” (library), a “community house” (kitchen and playroom) and a “relaxation house” (sauna, bathtub, meditation room).

The whole building is collectively owned by the association that manages the building and rents out the units to the households. The co-housing group is organised into several working groups and takes decisions based on the principles of sociocracy.

(BMK 2020; einszueins architektur n.d.)

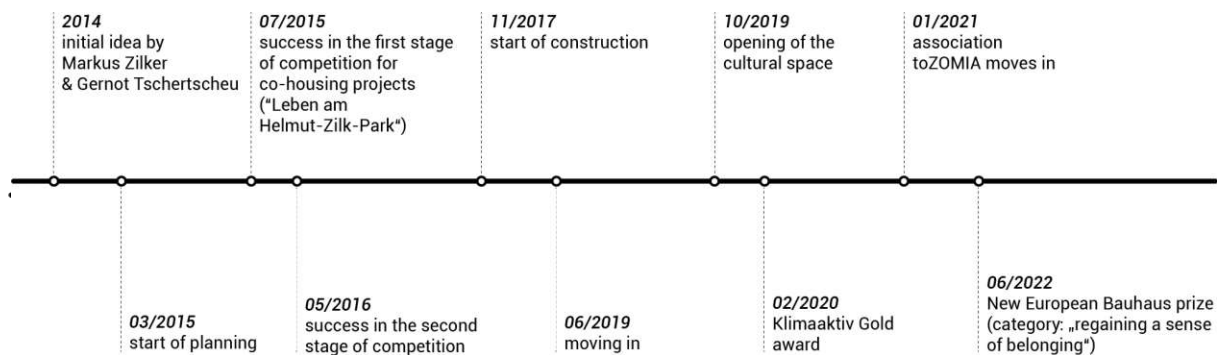


Fig. 15: Gleis 21 timeline (own representation)

Sargfabrik



Fig. 16: Location in Vienna of Sargfabrik (own representation, data source: Stadt Wien – <https://data.wien.gv.at>)

Project Description:

The co-housing project *Sargfabrik* is located on the plot of a former coffin factory in the 14th district of Vienna. It was realised in the mid-1980s, and due to its innovative concept and success, the project has an international reputation. There is an ongoing (research) interest, and the co-housing group offers guided tours for visitors.

A group of politically engaged persons initiated the project aiming at communal living and opening up to the neighbourhood with diverse social and cultural offers. To this end, they considered the neighbourhood's needs and have been in contact with the district administration from the beginning. In 1987, they established the *Verein für Integrative Lebensgestaltung (VIL)* (association for Inclusive Living). After a complicated planning process with some obstacles, the *Sargfabrik* opened with 73 residential units and several shared spaces in 1996.

The shared spaces include an event space, a seminar room, a café and restaurant, a spa and a pool, all of which are open to the public. In addition, the project provides a social infrastructure – a child-care group – for the neighbourhood. Moreover, the project features several common spaces for

OVERVIEW

Address: Goldschlagstraße 169, 1140 Vienna

Project start: 1987

Completion: 1996

Project focus: housing, culture, inclusion

Number of apartments: 112 (39 in Miss Sargfabrik)

Residents: > 200

Initiative: Association for Inclusive Living (VIL)

Architect: BKK-2

Social process support: raum & kommunikation

Property developer: VIL

Legal form: association

Tenure form: association owns the building, rental apartments

Financing model: housing subsidies (*Heimförderung*), bank loans, own funds

Typology: urban infill, “Gründerzeit-Block”

Resources for the neighbourhood: event space, restaurant, swimming pool, child care facility, seminar room

Heating demand: 82,9 kWh/m²a - 58,7 kWh/m²a, 32,84 kWh/m²a (Miss Sargfabrik)

(Stieldorf et al. 2000:96; VIL 2021)

residents: a roof-top garden, a laundry room, a workshop and more.

Driven by the project's success, the association bought another plot around the corner in 1998. The new building, *Miss Sargfabrik*, opened in 2000 with 39 residential units, a library, a common kitchen with a dining area, a club room and the offices of the architectural company *BKK-3* (formerly *BKK-2*). The residents' association owns and runs both buildings, and the common spaces are shared between the two buildings.

Regarding the private spaces, the architectural design enables flexibility through removable intermediate walls that can be adapted to the



Fig. 17: Market in front of Sargfabrik (own photograph, 2023)

resident's needs. Seven flats are dedicated to people with special needs, and some are rented out for short-term use to refugees. Furthermore, there is a shared flat for children and adolescents.

The co-housing project was realised with subsidies from the city of Vienna as *Wohnheim* (home units). The association *VIL* owns and manages the buildings and rents out the flats to its members. Furthermore, *Sargfabrik* employs about 20 people to operate its businesses.

Apart from the cultural and social offers to the local community and the city, some engaged association members co-founded the association *Verein Lebenswertes Matzner Viertel* (liveable Matzner Viertel), a citizens' initiative to improve the quality of life and public space on a local level, in 2012. They address open space and mobility issues as well as good neighbouring and local businesses. A year ago, in 2021, they started the *Matzner* market – a weekly market with regional products (Fig. 17).

(Verein für integrative Lebensgestaltung 2021; Verein Lebenswertes Matzner Viertel n.d.)

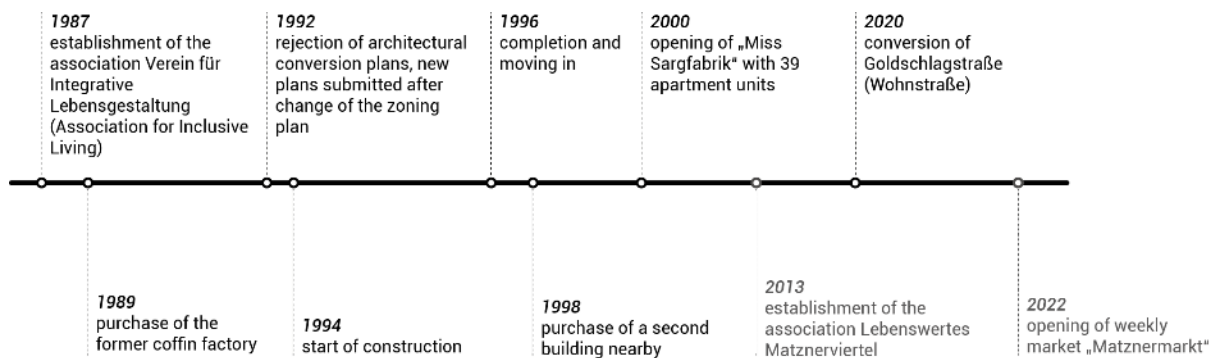


Fig. 18: Sargfabrik timeline (own representation)

7.2 Wohnraum Künstlergasse

Neighbourhood context

The collaborative housing project *Wohnraum Künstlergasse* is located in the south of the 15th district (*Rudolfshiem-Fünfhaus*) – the cadastral commune *Sechshaus*. This district is the smallest one outside of the *Gürtel* – a broad street surrounding the inner districts in Vienna – and has a similar structure in terms of density to inner districts.

The building typology of this project and the surrounding neighbourhood are characterised by historical *Gründerzeit* block structures that vary in size and height. Most blocks have a clear edge between public and (semi) private space – the main access is faced towards the street, whereas the courtyard is often very small and separated from the adjacent plot by a fence or wall. The buildings typically have three to five floors, albeit some have fewer floors and others – especially newly built infill buildings have more. Between the dense urban fabric are a couple of small green areas and some streets lined with trees.

To the project's south, an important transport axis – *Wienzeile* – for public transport (subway) and motorised traffic separates the 15th from the 12th district. Moreover, a main bike route follows this street, which is the western exit for motorised traffic of the city and turns into a highway at the fringe of Vienna. The *Sechshauser Straße* north of the project is the historic main street of the neighbourhood and is a vital traffic connection between *Gürtel* and *Schönbrunner Brücke*.

Taking a closer look at selected infrastructure layers in the area, one can see that the neighbourhood is surrounded by major linear infrastructures, namely railway and underground lines. In the north of the map area in Fig. 21, the western station (Wien Westbahnhof) is located. Regional trains, buses, two underground lines (U3, U6), and several trams and buses depart here. The associated aboveground track infrastructure separates two parts of the 15th district and is perceived as a barrier that can only be crossed via two bridges (one for pedestrians and one for all transport modes). As mentioned above, the *Gürtel* is another main road where the underground line U6 operates. The U6 crosses line U4 in the southern part of the map area.



Fig. 19: Wohnraum Künstlergasse – urban grain plan (own representation, data source: Stadt Wien – <https://data.wien.gv.at>)



Fig. 20: Wohnraum Künstlergasse orthophoto (map source: basemap.at)

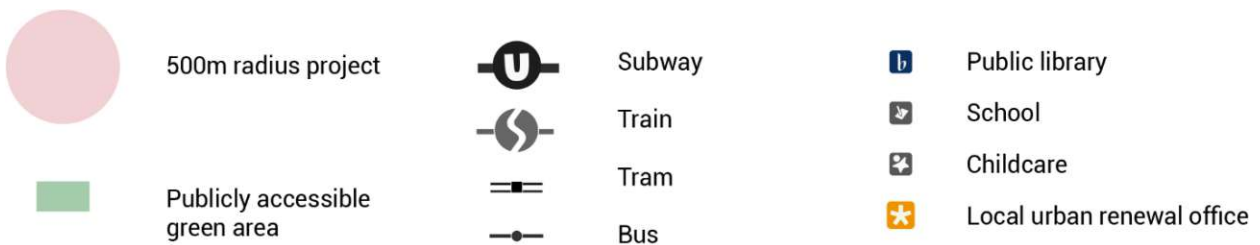
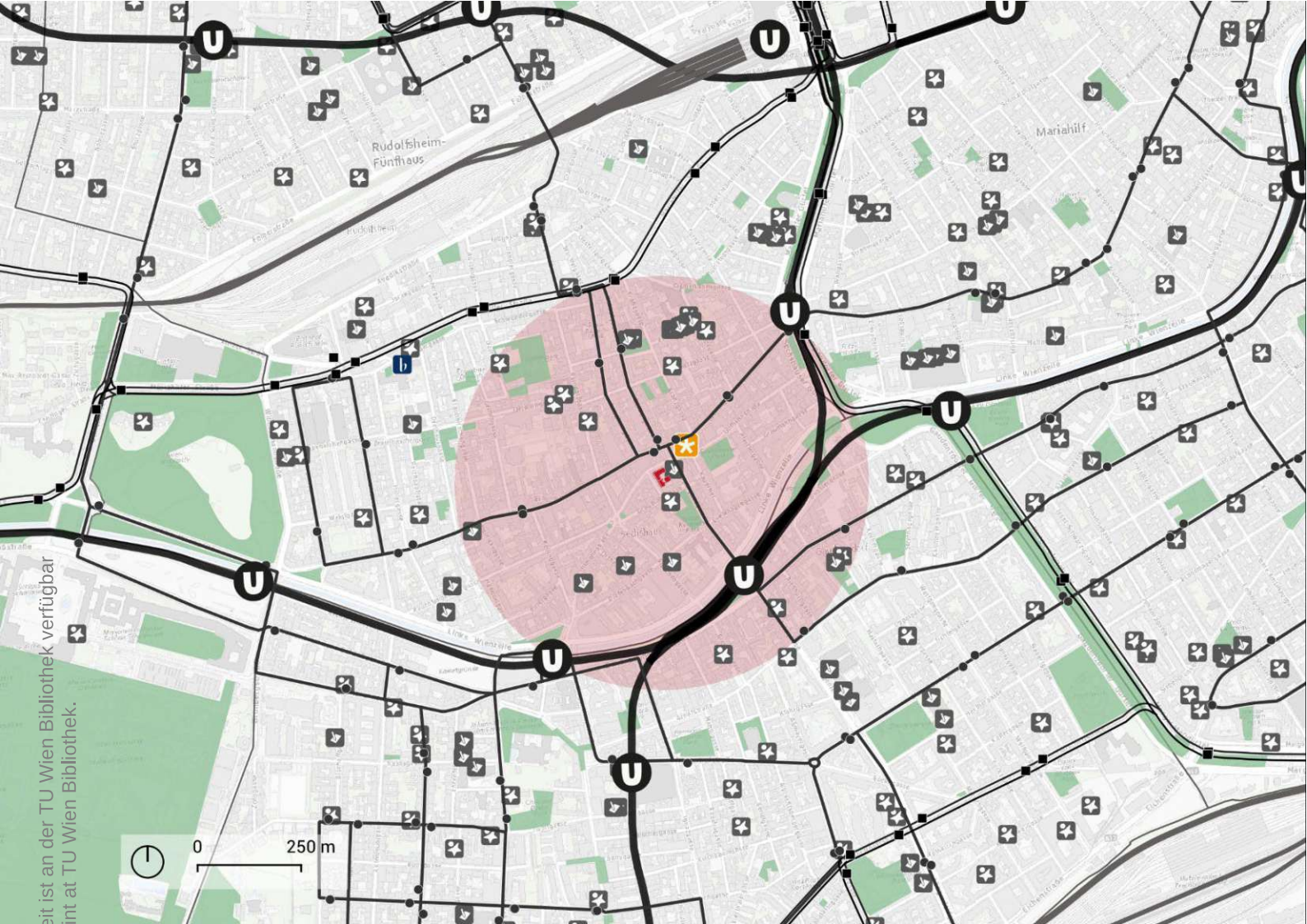


Fig. 21: Selected infrastructure layers – neighbourhood of Wohnraum Künstlergasse (own representation, data sources: MA 01 – Wien Digital; Stadt Wien – <https://data.wien.gv.at>; map source: basemap.at)

When it comes to green spaces, several tiny parks are located in the neighbourhood but are poorly connected. The big park *Schloss Schönbrunn* cannot be accessed anytime since it is closed at night. Generally, this area has a smaller share of green spaces than the average of the city (Landesstatistik, Wien (MA 23) 2022c).

As for social infrastructure, the map shows some selected layers. Educational institutions, namely childcare, different types of schools and public libraries were selected since they are important places of education and knowledge exchange and can play an immediate role in the network of co-housing groups, as shown in this chapter. There are many more layers to analyse the area, but this would go beyond the scope of this work.

The generalised land use plan (Fig. 22) of the City of Vienna is a tool to better understand the use structure of the neighbourhood. Generally, the neighbourhood is a small-scale mixed-use area with a high share of residential uses. Interestingly, the inside of the block is often coloured differently than the outside (see legend),

which indicates that there might be small businesses at the ground floor level. In the 15th district, various small businesses, such as carpentries, have been located inside historic blocks for decades. One can still recognise the historic commercial structures in the urban fabric.

According to the zoning plan, the block of *Wohnraum Künstlergasse* is a mixed building land, closed building structure, building class III – which means that the building height can range from 9 to 16 meters. In addition to that, the building block lies in a protected zone.³



Fig. 22: Land use and zoning plan Vienna (Stadt Wien – <https://data.wien.gv.at>)

Regarding the area’s social environment, it should be highlighted that the 15th district is one of the densest in Vienna. Whereas the Viennese average is 4.656 inhabitants per km² (2022), in the district *Rudolfsheim-Fünfhaus*, the population density is 19.302 inhabitants per km² (2022) on average (Landesstatistik, Wien (MA 23) 2022c). The average living area of 31 m² (Vienna: 35 m²) per person corresponds to the high population density.

As for the nationality of the 75.635 district’s inhabitants, 57 per cent originate from Austria (Vienna: 68 per cent), 19 per cent are from other EU countries (Vienna: 14 per cent), and 24 per cent are from other countries (Vienna: 18 per cent). Serbia, Poland, and Turkey are the top three countries of origin for the latter. Compared to other parts of Vienna, the population in the 15th district has been growing slowly, with a growth rate of 5,6

³ Protected zones can be defined in addition to listed buildings to protect the appearance of characteristic, historic building ensembles. (Stadt Wien n.d.)

per cent (Vienna: +12,5 per cent) in the last ten years (2012-2022). In the last year, there was a slight decrease of -0,9 per cent. (Landesstatistik, Wien (MA 23) 2022c)

Institutional embedding

Two adjacent buildings, one of which is occupied by the co-housing group *Wohnraum Künstlergasse*, underwent renovation as part of a subsidised *Sockelsanierung* project by *wohnfonds_wien*. In 2008, the *Privatstiftung zur Unterstützung und Bildung von ArbeitnehmerInnen (PUBA)*, a private foundation that owns several properties with existing buildings in Vienna and aims to invest sustainably in housing, acquired the two neighbouring plots in *Künstlergasse/Ullmannstraße*. Together with *raum & kommunikation*, an interdisciplinary planning office that has supported several co-housing projects in Vienna, and architect Wolf Klerings, they carried out the renovation and enabled a co-housing project. This group of actors had prior experience working together during the subsidised renovation (*Sockelsanierung*) of a *Gründerzeit* building with the co-housing group *Grundsteingasse* in Vienna. The *PUBA foundation* is both the owner and property manager of the two buildings. (Lichtenegger 2015)

Since 2011, the association of *Wohnraum Künstlergasse* has existed, and at that time, they were searching for a building or plot. The co-housing association listed their email address at a networking event of the *Initiative Collaborative Building & Living*. *Raum & kommunikation* became acquainted with the co-housing project soon after and contacted the association, proposing to participate in the ongoing renovation project in *Künstlergasse* by *PUBA foundation*. The *GB* neighbourhood management*, whose office is located in the immediate neighbourhood, provided advice and accompanied the renovation process to facilitate continuous cooperation between all involved stakeholders. Thus, the planning process laid the foundation for further collaboration between *GB** and the co-housing group. (FG Wohnraum Künstlergasse 2023)

The building was constructed in 1902 and has served various purposes throughout history. Initially owned by several families, by 1954, most of the building parts were owned by the business *Huber & Lerner*, which operated a printing company in what is now the office space of *neunerhaus*. In the 1950s, *Huber & Lerner* carried out renovation work to expand their business space, which unfortunately resulted in demolishing the historic façade of the building. The two plots had already been connected since the 1930s. The workshop in the basement of *Künstlergasse 14* was most likely used by a carpenter, while the courtyard provided space for another workshop and a restaurant. Additionally, commercial spaces were located on the ground floor level in *Ullmannstraße*. When the *PUBA foundation* purchased the plots, they merged them. (Lichtenegger 2015:19)

The initial situation of the renovation was challenging since the building was in a poor state and several apartments were vacant. During the renovation, a one-story and a four-story building in the courtyard were demolished. Another four-story building was reduced to two stories, which now houses three maisonette apartments and a rooftop terrace. Two elevators were added to the courtyard for barrier-free access, and the attic space was developed to create additional housing units. The renovation reduced the heating demand according to the criteria of *wohnfonds_wien*. As some apartment units were rented out before the renovation, a *Huckepacksanierung* (piggyback renovation) was carried out, which involved renovating existing tenants' apartments with a special contract. During the renovation of one building part, tenants moved to interim apartments in the other building part. The initial vacancy in the building allowed for the co-housing apartments to be concentrated in one building part. In addition to the housing, the commercial and shared spaces on the ground floor and in the basement were renewed. (Lichtenegger 2015:33-39)

The renovation resulted in 29 housing units, 14 of which are leased to members of the co-housing group. Only the shared spaces are collectively rented by the co-housing association *Verein KulturLeben Künstlergasse*, while the apartments are individually rented from the *PUBA foundation*.

The community

Young people with a background in arts, culture or social work initiated the project *Wohnraum Künstlergasse* in 2009. Living in community and activities in arts and culture is the project’s thematic focus. Domenika Badegruber is the founder of the project and came up with the idea of establishing a co-housing project as a student to escape the anonymity of the city and live in a good community with other students. Soon after, a group formed, but due to lengthy discussions and insecurities in the planning process, a core group of seven people pursued the idea further. Initially, they wanted to realise collective property, but then they were contacted by *raum & kommunikation*, who brought together the co-housing group and the *PUBA foundation*. In addition, the planning office knew some people who wanted to join the co-housing community in *Künstlergasse*. (Badegruber and Chrilovich 2015)

In the meanwhile, the co-housing residents have grown older. Some have children, others have moved out, and new members joined. The group described itself as relatively homogenous in some terms. One interviewee in the focus group said that compared to other projects, such as *Sargfabrik*, their vision did not particularly address the surrounding neighbourhood. Instead, they focus on living in community as good neighbours. Many co-housing members are friends and regularly do common activities in their free time. As a relatively small project, they describe themselves as a “low-threshold co-housing project with a limited public scope.” Reaching a broader public is thus not their primary objective. During the planning phase, the neighbourhood was addressed in terms of a good location with public transport access, which was an important aspect for the initial group. (FG Wohnraum Künstlergasse 2023)

Regarding the formal structure of the community, the co-housing group is organised as an association (*Verein KulturLeben Künstlergasse*). The association determines three formal roles: the cashier, a chairman/-woman and the secretary. Besides these required roles, there are some working groups for different matters. Currently, there is one gardening group, a working group for the music room, one for the common room and a working group responsible for apartment requests. When the group moved in, they had a networking group responsible for establishing contacts with the neighbourhood. Furthermore, the co-housing group introduced the role of the “mouthpiece” to the property management (*PUBA*) to facilitate communication for both sides. This person is responsible for communication and taking care of necessary repairs in the building. (FG Wohnraum Künstlergasse 2023)

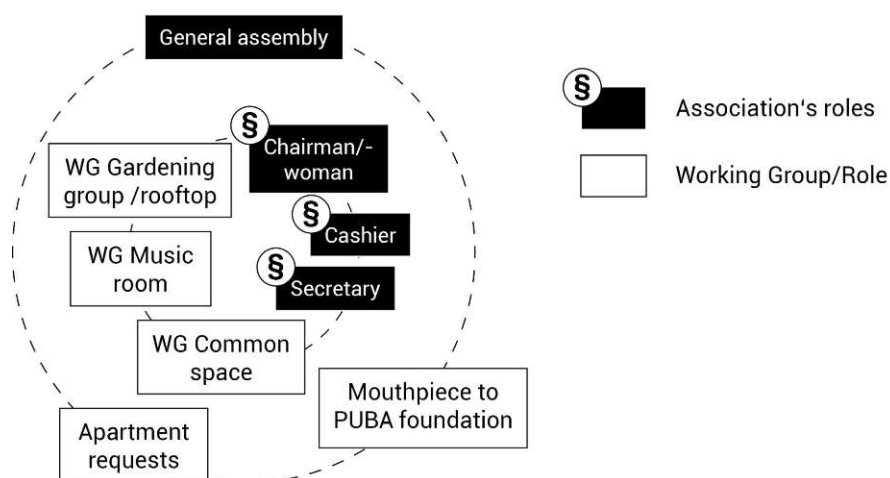


Fig. 23: Internal organisation structure of *Wohnraum Künstlergasse* (own representation)

Internal meetings with the whole group take place every month, and the group alternates who takes the minutes. Decisions are made based on majority voting since this mode worked best for the group after testing different modes. In addition, working groups meet separately according to pending tasks. (FG Wohnraum Künstlergasse 2023)

The community boundaries of *Wohnraum Künstlergasse* result from the formal membership in the association. All adults of the co-housing project are supposed to become members of the association. Since other residents live in the same building or the neighbouring building, these boundaries are blurred in daily practices and the common use of open spaces on the plot. In the building part of *Wohnraum Künstlergasse*, three previous tenants moved in again, one of which joined the association of the co-housing project later on. The co-housing group proposed to residents of the neighbouring building to become association members, so they would be entitled to use the common indoor space, but there was little need or interest. While residents of both buildings can use the open spaces, using the common indoor space at the souterrain requires membership or selective fee-based rent. The association rents the shared indoor space from the *PUBA foundation*. Moreover, the association offered external users to become members but later stopped this experiment since these members were not on-site to attend meetings and other regular activities. (FG Wohnraum Künstlergasse 2023)

Since the co-housing association does not own and manage the building, the co-housing group cannot decide on new tenants if someone moves out. However, the *PUBA foundation* granted the group the right to propose tenants, and the apartments of co-housing residents are not allocated by the *wohnservice wien* (usually a third of subsidised newly built or renovated apartments must be allocated by the *wohnservice wien*). In addition, the co-housing group tries to propose new tenants for vacant apartments in the neighbouring building as well as to expand the co-housing association. (FG Wohnraum Künstlergasse 2023)

Socio-spatial relations – shared resource and collective governance

“Our” neighbourhood

To approach the complex issue of the neighbourhood – in social and spatial terms – a mental map was created based on the discussion during the focus group interview with three residents of *Wohnraum Künstlergasse*. It has become evident that specific local (spatial) conditions form the perception of a common understanding of the neighbourhood and constitute boundaries. In addition, collective activities and individual networks are essential and can move neighbourhood boundaries.

“My ‘Grätzl’ (neighbourhood) is the area that I can reach within 10-15 minutes.” (FG Wohnraum Künstlergasse 2023). Spatial elements and characteristics that seem to form boundaries of the surrounding neighbourhood (“Grätzl”) are the *Wienfluss* and the *Wienzeile* (a very busy road) in the south, the *Auer-Wels-Bach-Park* in the west and the *Mariahilfer Straße* in the north. In this context, the hilly topography in the north was mentioned as a boundary-forming characteristic. In the east, the *Gürtel*, a busy road, was also named as a physical boundary of the wider neighbourhood. This definition of boundaries cannot be seen as absolute but is rather constituted by subjective and collective perceptions. For example, personal relations in the south of the *Wienfluss* blur this boundary and extend the neighbourhood from an individual’s perspective. (FG Wohnraum Künstlergasse 2023)

As for places of importance in the neighbourhood, it turned out that, on the one hand, places regularly attended (the way to the subway or the supermarket, for example) by individuals play a crucial role. On the other hand, it was highlighted during the focus group discussion that places of collective activities (walking the dog, having breakfast in the park) or collectively organised activities, such as street parties or collaborative activities with other organisations and institutions in the neighbourhood influence the definition of the project’s neighbourhood. On the map, streets and places named as important for the residents of *Wohnraum*

Künstlergasse are marked in red and labelled, while particular locations, such as restaurants, a market or other points of interest mentioned, are marked with pins. Sometimes, residents go to restaurants or bars together in their free time or attend specific festivities. Spontaneous interactions with neighbours take place at the supermarket or on the way to the subway, for example. Furthermore, green and open spaces are important destinations for collective activities like taking a walk, going to a playground with children or walking the dog. (FG Wohnraum Künstlergasse 2023)

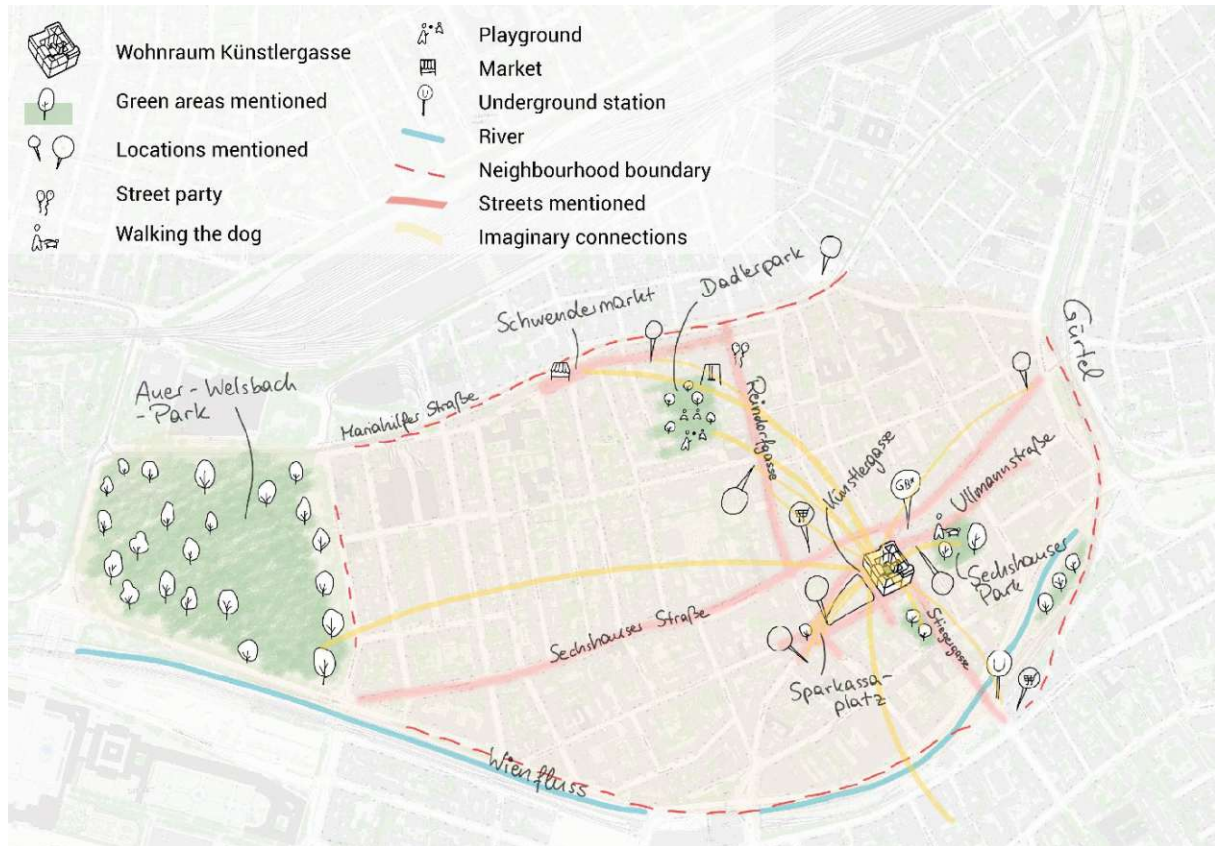


Fig. 24: Mental map of the neighbourhood of Wohnraum Künstlergasse (own representation based on the focus group interview, map source: basemap.at)

During the interviews, the residents used the term “Grätzl” when discussing the wider neighbourhood, referring to a relatively specific area. The German term “Nachbarschaft” (neighbourhood) was rather used for social relations and networks in the neighbourhood. Thus, personal relations form the (social) neighbourhood – regardless of whether someone lives in the same building. Later during the focus group discussion, one resident defined neighbours as those living in the same building block, and everyone outside was part of the neighbourhood (“Grätzl”). The resident remarked that neighbours or neighbourhood alone could have several layers – the ones living next door (in the same building) or the ones in the neighbouring building. Another aspect mentioned was the orientation of the apartments: Oriented towards the street would create more view connections towards public space or the people in the building in front, whereas a resident of one of the three maisonette apartments in the courtyard stated that he likes being surrounded by the block like a “castle”. (FG Wohnraum Künstlergasse 2023)

To better understand the subjective construct of neighbourhood from the co-housings perspective, I refer to the three dimensions of place – physical, social and symbolic – which have been used in neighbourhood research before (Vogelpohl 2014:61–66). Accordingly, neighbourhood as place results from social, physical and symbolic interrelations.

As discussed, the locations depicted in the mental map (Fig. 24) show places with particular meaning for the co-housing residents based on social interaction with other residents or external stakeholders. For example, the Auer-Welsbach-Park or the Reindorf-gasse are locations where residents go together or participate in events. These different kinds of social connections and events “take place” and thus, a specific collective meaning is given.

As for the immediate neighbourhood in social terms, the block structure and the two connected building plots create specific gradations of neighbourhood: The neighbours living in the same building or connected building who are not part of the co-housing association but share some resources like open space on the plot and the neighbours outside the building. The latter are defined as such only if temporal or permanent social connections exist.

Compared to the surrounding neighbourhood of Gleis 21 (*Sonnwendviertel*) or *Sargfabrik* (*Matzner Viertel*), there is no present symbolic boundary defined through urban development or local initiatives that was referred to during the interview. However, a resident mentioned the former reputation as a red-light-district with no specific spatial extent (Wohnraum Künstlergasse 2023), a historically grown district image.

Shared resources

The building of *Wohnraum Künstlergasse* has six floors, including the basement and rooftop. The residential building can be accessed from the *Künstlergasse 14* and *Ullmannstraße 37*. While residents from the co-housing group regularly use both entrances of the residential parts, residents from the neighbouring building (*Ullmannstraße*) seem to use the entrance in *Künstlergasse* less often. The commercial space [4], where *neunerhaus* has its office, has its entrance on the corner and the commercial space [5], where an architectural office is the tenant, is accessed from the resident’s entrance in *Ullmannstraße*. The litter room [3] and the bicycle room [8] are shared among residents from both buildings, as well as the green courtyard [1] and the terrace on the rooftop terrace between 2nd and 3rd floor [10]. The courtyard has a more public character than the terrace, but both are occasionally accessed by external users who do not live in the building. For example, employees of *neunerhaus* smoke in the courtyard or participants of workshops or classes taking place in the shared space [6] spend their break on the terrace or the rooftop. (FG Wohnraum Künstlergasse 2023)

In practice, the outdoor shared spaces are mostly used by the co-housing group, of which some members are gardening together, having occasional barbecues or just enjoying the sun. The open spaces were designed in cooperation with TU Wien. (FG Wohnraum Künstlergasse 2023) The courtyard has approximately 190 m² and the terrace about 170 m² (own measurement based on <https://www.wien.gv.at/stadtplan/>)

According to the ground floor plan (Klerings 2014), the multifunctional shared space [6] and the music room (band rehearsal room) [7] are located in the basement. The former is about 90 m² in total. Besides the big room of about 60 m², there is a kitchen, a bathroom and a toilet. It can be accessed from the courtyard or the barrier-free back entrance (emergency exit). Even though the room can be seen from the public space, this view connection is very limited due to the location in the basement and the entrance location on the inside of the block. The room is also rented out, and the program consisting of different courses and classes (e.g. Yoga) is regularly updated. The music room is accessed from the neighbouring building. The co-housing group is responsible for maintaining the rooms, and cleaning duties are shared among residents. (FG Wohnraum Künstlergasse 2023)

The private space of *Wohnraum Künstlergasse* consists of 14 apartments between 55 and 104 m² (Klerings 2014). Occasionally, meetings and common parties of the co-housing members took place in one of the apartments and some neighbours cooked together regularly in the private space. (FG Wohnraum Künstlergasse 2023)

Sharing resources is not only about space but also knowledge or tools being shared. A resident said that they knew who had what kind of skill or tool in the co-housing project. Furthermore, residents exchange clothes or other things in a box in the corridor, and they have a so-called DVD-Thek – two niches in the staircase where residents can borrow DVDs. In the common room, they put an open bookshelf where residents and visitors can exchange books. Occasionally, they organise a clothes meet swap and invite friends. Moreover, food is shared since one member is part of a food-sharing organisation and brings “rescued food” to the project, and sometimes they organise to order food, such as honey. (FG Wohnraum Künstlergasse 2023)

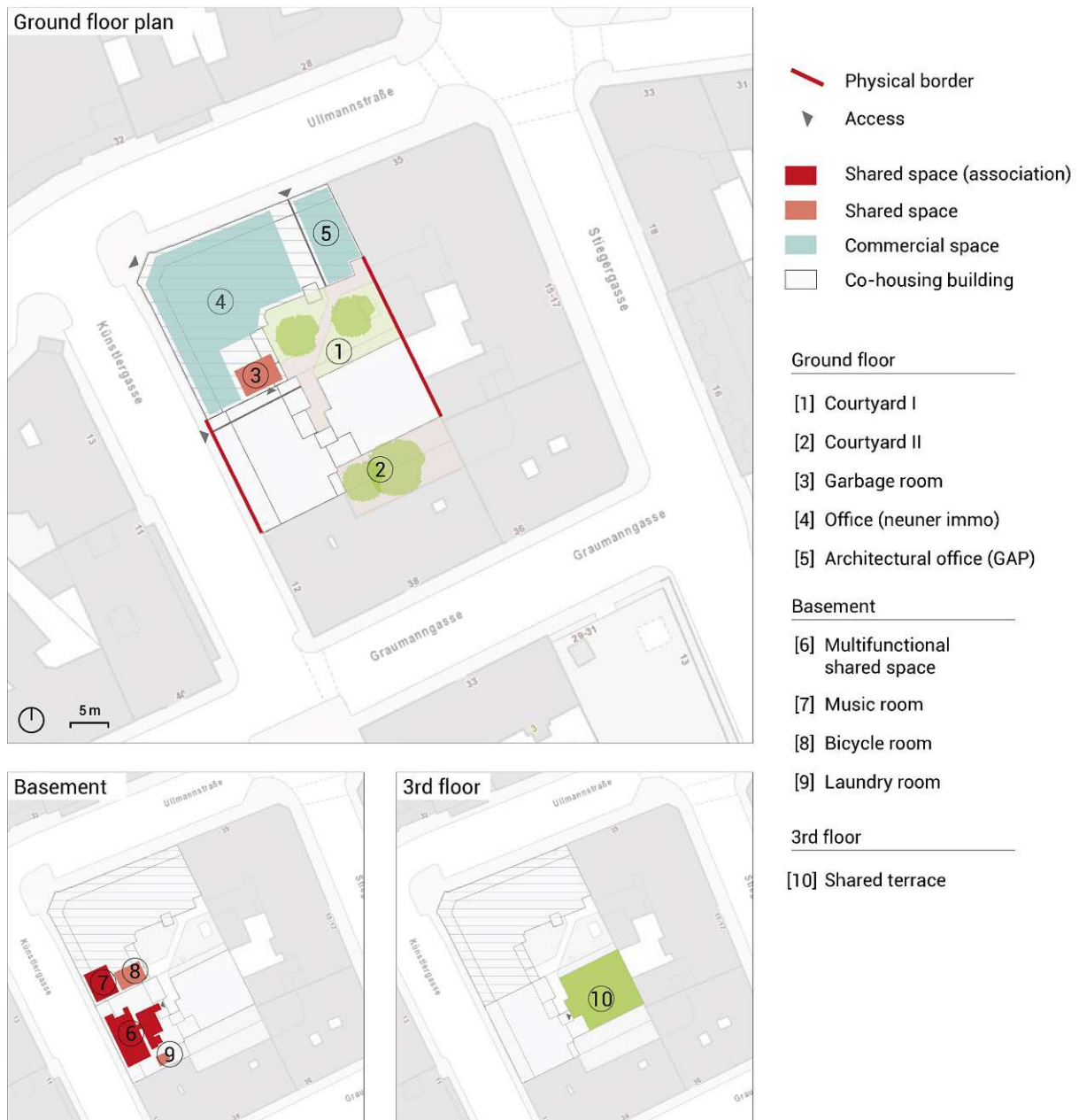


Fig. 25: Floor Plans Wohnraum Künstlergasse (own representation, map source: basemap.at)



*Fig. 26: Courtyard
Wohnraum Künstlergasse
(own photograph, 2023)*



*Fig. 27: Shared terrace
Wohnraum Künstlergasse
(own photograph, 2023)*



*Fig. 28: Multifunctional
common space
Wohnraum Künstlergasse
(own photograph, 2023)*

Boundaries and threshold spaces

Different uses and spatial configurations constitute boundaries and intermediate spaces on different layers. Fig. 29 outlines social boundaries and thresholds between different spaces, ranging from private to public space in terms of “mine”, “our” and “theirs” space. This highly simplified illustration shows the adjacencies between different spaces, indicating typical threshold elements.

The closed block structure of *Wohnraum Künstlergasse* defines a clear boundary between the surrounding neighbourhood (“Grätzl”) – public space – and the spaces inside the block. Inside the block, a high wall separates neighbouring plots and, thus, clearly defines this boundary. Within the courtyard, boundaries are blurred, and different users meet each other. As mentioned, the open space is accessible for users (employees of commercial uses) and residents (co-housing and other residents). The open space at the ground floor level is equally accessible from both buildings, while the terrace is accessed from the building part of the co-housing group, which also takes care of the greening. These different spatial configurations result in a gradation of the open spaces within the block. Non-residents cannot access these spaces apart from special occasions or courses taking place in the multifunctional indoor space of the co-housing association. Apart from the open space in the courtyard, shared spaces within the block comprise functional spaces, such as the litter room, bicycle room or laundry room, all located on the ground floor or basement. These spaces are characterised by clear boundaries through doors.

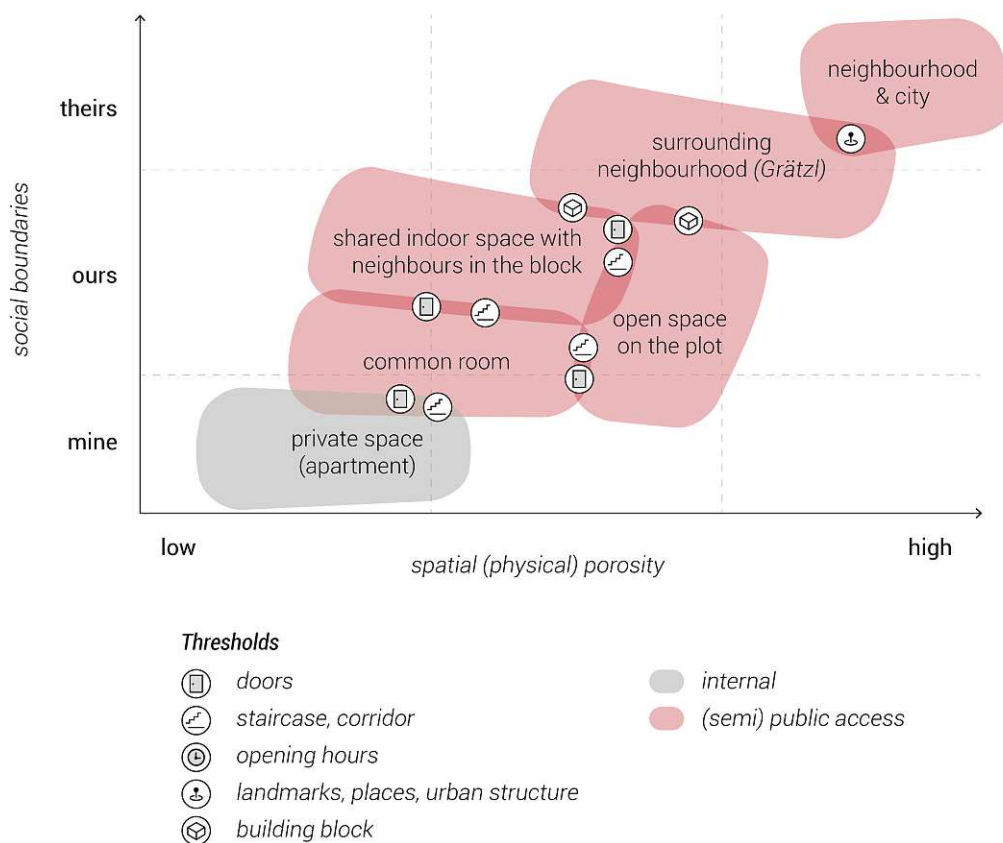


Fig. 29: Sketch of socio-spatial boundaries and thresholds, *Wohnraum Künstlergasse* (own representation)

The music room and multifunctional shared space in the souterrain (basement) have clear boundaries, both physically and socially. Both rooms require keys, and the co-housing group decides who can use them. The

common space is used internally as well as for publicly open classes (e.g. Yoga) and selective events, such as birthday parties. In addition to external access, this space has view connections to public space, and the windows allow for small glimpses from the public pavement.

The courtyard [2] south of the central building is particularly interesting regarding intermediate spaces and social interactions with neighbours. Since the beginning, the co-housing group has rented a small area from the neighbouring plot. The gardens of the maisonette apartments are oriented towards this courtyard, and residents use it for gardening or chopping wood. The ground floor gardens and the neighbouring plot are separated by a wire fence allowing for spontaneous interaction with neighbours. A resident in the focus group reported that he regularly chatted with the caretaker of the building, whose apartment is on the ground floor or other residents, who took out the trash to the courtyard. Once the co-housing group organised a party there and invited people from the neighbouring building. They realised they did not know each other, even though they had lived next to each other for many years. (FG Wohnraum Künstlergasse 2023)

As a threshold space separating the private space (“mine”) and shared spaces within the block (“ours”), the corridor inside the building provides space for social interactions among direct neighbours. Thereby, “our” space has several spatial nuances defining the neighbourhood socially and spatially.

Reaching out to the neighbourhood and the city – collaborative networks

Fig. 30 shows different actors on different levels – the project, the neighbourhood, the city context and beyond – mentioned during the focus group discussion complemented with desk research. The graphic outlines different actors and organisations involved in the *Wohnraum Künstlergasse* and indicates when this connection was or is particularly relevant for the co-housing group. Despite this simplification, it allows for some interesting conclusions regarding the relations and networks of the project *Wohnraum Künstlergasse* and the way the group collectively “governs” their resources.

On the one hand, bonding social capital results from the group activity based on the organisational structure of the co-housing community, based on the association’s statutes and the working groups. Compared to the other cases analysed, *Wohnraum Künstlergasse* is a smaller community and does not manage the building itself, which is reflected in the number of working groups and less formalised organisation structure. Since they do not operate a business, the association focuses more on the internal community. Nevertheless, the co-housing group manages the common space and its external lease, which requires continuous personal resources.

Informal bonds within the co-housing group, however, very much depend on the individuals. Some residents are friends and do things together regularly, and initiatives for collective activities in the broader group are likely encouraged by individuals. These activities range from going to bars or restaurants in the neighbourhood to organising events for residents and others. The residents observed that collective initiatives come in waves, for example, if someone new moves in. Over the years, people seem to have become a little “lazy”, and the need for many common activities is less present, according to residents. Some reasons mentioned during the interview were that residents have grown older and are now in another stage of life where they work full-time or have to take care of their children. Relations in connection with school or kindergarten, however, have enabled new bridging connections. For example, several children attend the same kindergarten, and the others there already know about the co-housing project through informal chats. (FG Wohnraum Künstlergasse 2023)

Renting out the shared space can be located at the edge of bonding and bridging social capital. On the one hand, the group uses it for internal activities; on the other hand, they must find external users to finance it. The group had to furnish the room and organise the rent at the beginning of the use phase. Apart from

advertising the room on the project's website, social media and personal networks, they listed it on the *Stadtteilpartnerschaften*-list of the *GB* neighbourhood management*. In the meantime, the room rent works well except during the lockdown phases due to the COVID-19 pandemic. Since March 2022, the room can be found on the cost-free platform *imgraetzl.at*, which connects people who provide and seek space for commercial uses. (FG Wohnraum Künstlergasse 2023)

To create bridges to the neighbourhood and involve others, one resident once initiated a neighbourhood café, but when he realised he would have been the only one organising it, he stopped the project. This is a good example of how bridging activities depend on individual engagement and can easily overstretch them. When more than one person is engaged in an initiative or activity, it develops a more robust dynamic. For instance, the association cooperates with the organisers of the Reindorfgassen street festival, which takes place once a year. In 2018, the co-housing group organised a street party in Künstlergasse to “prolong” the *Reindorfgassen* street festival and invited the same crowd. This kind of activity that creates temporary places for the neighbourhood creates bridges and broadens the project's boundaries to some extent. (FG Wohnraum Künstlergasse 2023) In 2015, the art project *Über* in cooperation with the *Vienna University of Technology (TU Wien)* took place in *Künstlergasse*, which playfully dealt with several dimensions of the street space through a net installed between the buildings (Verein Wohnraum Künstlergasse n.d.).

Another dimension is civic engagement and how residents of *Wohnraum Künstlergasse* actively contributed to a sustainable transformation in the physical environment. In 2018, two residents started an initiative to plant two trees in *Wohnraum Künstlergasse*. While collecting signatures, they interacted with people and institutions in the surrounding neighbourhood whom they would not have met otherwise. One of the two initiators described this experience as enriching due to the initiative they discovered who lived in the immediate surrounding neighbourhood. As a result, the resident's engagement can create new bridging connections in the neighbourhood.

This initiative was also supported by the *GB* neighbourhood management*, advising them to collect signatures to submit them to the district administration. This experience enabled the residents to understand the political structure and how initiatives work and, thus, enabled new linking connections to the district administration. Thanks to the initiative, two trees were planted in 2019. (FG Wohnraum Künstlergasse 2023)

The latest *GB** handbook of *Do It Together Stadt* provides inspiration and information for active citizens and presents several local projects, including the *Coole Künstlergasse*-initiative. The article in the handbook emphasises how the initiators were able to connect with the local neighbourhood and motivate others to participate. (Stadt Wien - Technische Stadterneuerung 2023)

In general, the relationship with the *GB* neighbourhood management* is interesting in terms of bridging and linking connections on different layers. Firstly, the *GB* neighbourhood management* described the relationship as “being friends” during the interview (Dutkowski and Stepanek 2023), and residents from the co-housing group said that *GB** “liked the group” (FG Wohnraum Künstlergasse 2023). Apart from the interpersonal level, the *GB** advises the co-housing if needed, and conversely, they show the project in their guided walks on living forms. Finally, the *GB** operates as an intermediate organisation and can contribute to the linking social connections of the project and helps to build contacts. In the planning phase, *GB** was already involved in the building renovation (Dutkowski and Stepanek 2023). Furthermore, the good relationship between the *GB** and the project is favoured due to the geographical proximity, and one could say that the co-housing project and the *GB* neighbourhood management* form a kind of strategic partnership to support each other's goals and foster neighbourhood activities.

As for linking social capital, many of these relations are established during the planning process as they are needed to realise the project. Fig. 30 shows some of these institutions, but since this phase is not the focus of

this work, they are not further discussed here. It is logical to assume that some of these relations might also enable linking social capital in the use phase, albeit the extent and scope depend on the project's aims. In the city context, the co-housing group has mainly individual connections. The exchange with other co-housing projects is based on individual connections, and there are no official cooperations. For example, there is some ongoing informal exchange with a project in another region of Austria, namely Styria.

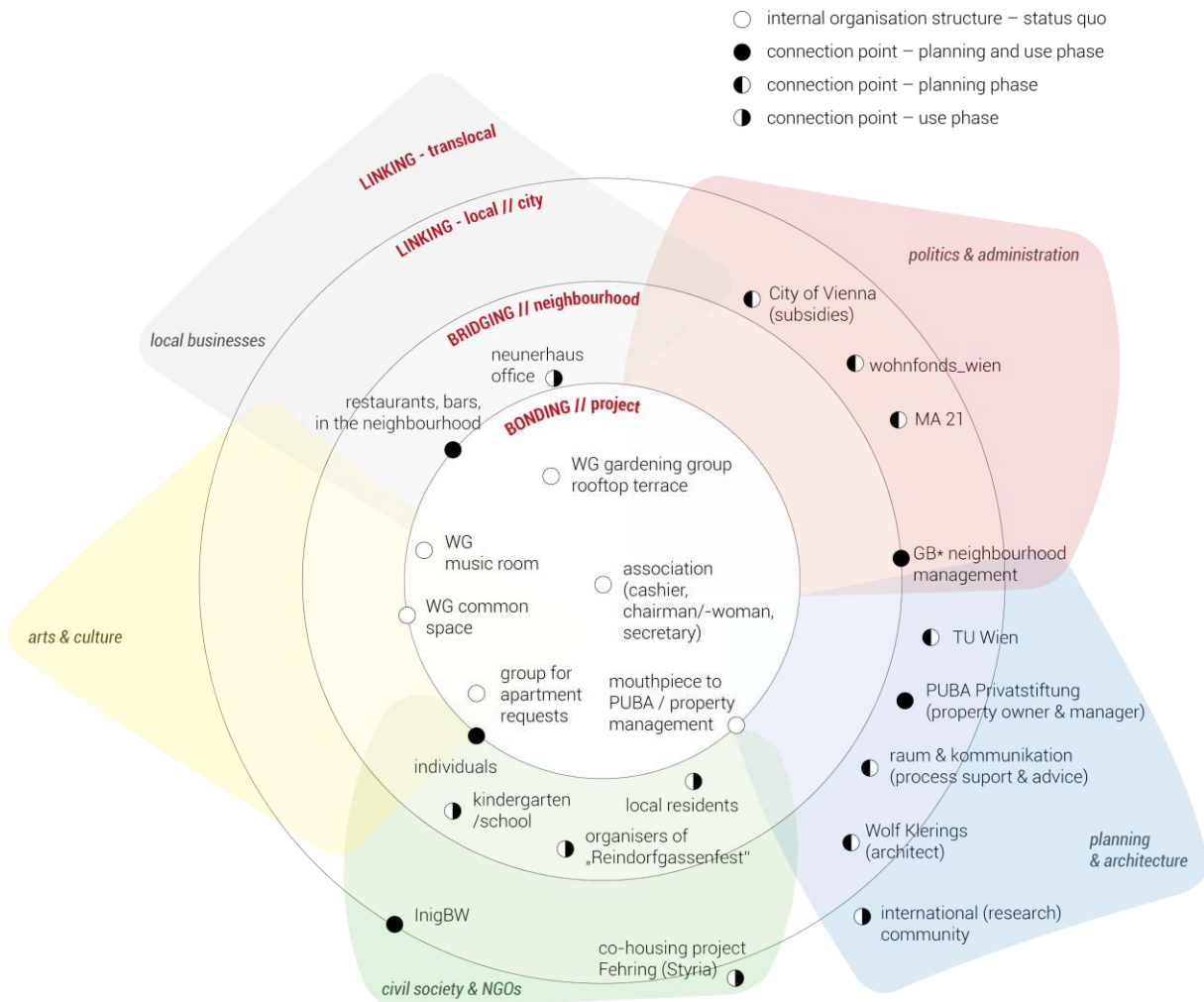


Fig. 30: Sketch of the collaborative network, Wohnraum Künstlergasse (own representation based on the focus group, complemented with desk research)

Relations and interactions in times of crises

During the COVID-19 pandemic and the related measurements and restrictions, bonding social relations were a key resource for the group. Group members experienced mutual support during lockdowns in different ways. When someone could not leave the apartment, others went grocery shopping, picked up COVID-19 tests or cooked meals for each other. Besides practical support, the group offered emotional support to the residents. The interviewees described a very long and personal meeting during the pandemic, where residents shared their fears, anxieties and other feelings about the pandemic and its handling. Despite new divisions in our society that affected the co-housing group on a smaller scale, they were able to deal with conflicts and divisions and experienced how strong their social bonds were. “Nothing can happen to us. In the worst case, we take

care of ourselves”, one resident said during the discussion. This statement shows how important the sense of community was to cope with this challenging situation, which makes the co-housing group a resilient and relatively stable community that can communicate and support each other. Neighbourly support beyond the project took place individually between “neighbours” who already knew each other. (FG Wohnraum Künstlergasse 2023)

Apart from the group’s social resources, their spatial resources – especially open spaces in the courtyard – offered a safe space to grasp fresh air. During warmer times, group meetings took place on the terrace. Nevertheless, group meetings were regularly held online or in a hybrid mode. The shared indoor space was not rented out during lockdowns, and the group got a rent reduction and a one-time subsidy between 1.000 and 2.000 euros. (FG Wohnraum Künstlergasse 2023)

7.3 Gleis 21

Neighbourhood context

Gleis 21 is located in the new urban development area close to the central station in the 10th district of Vienna. The neighbourhood is known as *Sonnwendviertel* and contrasts with the surrounding neighbourhood in many ways. In general, the 10th district (Favoriten) is very large and stretches to the city border in the south of Vienna. Therefore, it consists of very different urban typologies.

In the course of the transformation of the two former terminal stations *Südbahnhof* and *Ostbahnhof*, into the central station of Vienna in 2003, the freight railway station was not needed anymore, and a large area was suddenly available for urban development. The planning process started with an expert process for developing a master plan in 2004 for the 110 ha area, of which around 50 per cent was railway infrastructure. After some revisions, it was then approved by the city council and translated into the zoning and building plan. In addition, an environmental impact assessment was carried out. (Temel 2019: 11)

In the northern part of the area *Quartier Belvedere*, the masterplan envisaged mainly hotel and office (high-rise) buildings. This part was implemented first, while the *Sonnwendviertel* located around the park was developed later. Initially, the western section of the *Sonnwendviertel* was developed, and two developers' competitions and one architectural competition for the school campus were carried out. The urban grain plan (Fig. 31) shows that the block structure is generously picked up in this part of the urban development area. While the western part of the new area was already finished, the eastern part *Leben am Helmut-Zilk Park* embracing an area of twelve ha, was still vacant in 2012. Since some framework conditions had changed and the demand for housing had increased, the master plan was adopted in a cooperative planning procedure with all relevant stakeholders. It was the first time in Vienna that this interdisciplinary, collaborative procedure was implemented, in which planning teams regularly exchanged ideas with the jury and other experts. As a result, the new master plan stipulates a mixed-used area with porous, small-scale block structures and a central



Fig. 31: Gleis 21 – urban grain plan (own representation, data source: Stadt Wien – <https://data.wien.gv.at>)



Fig. 32: Gleis 21 – orthophoto (map source: basemap.at)

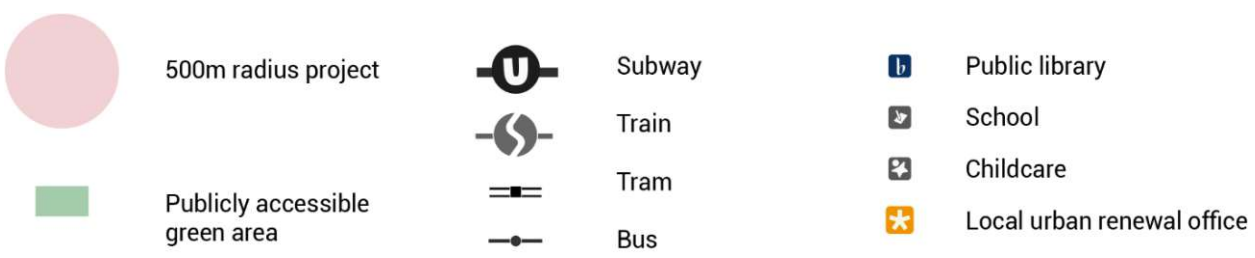
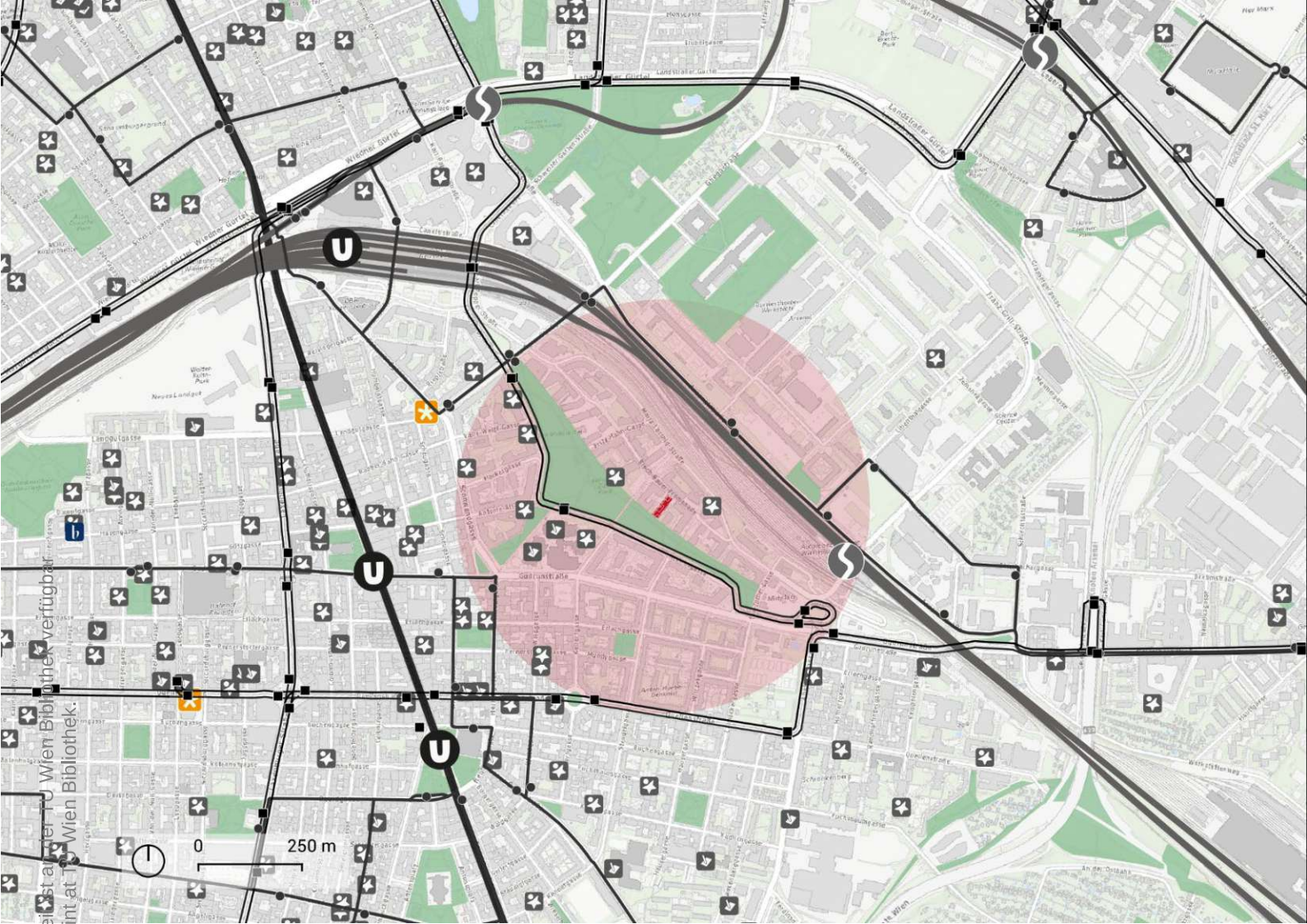


Fig. 33: Selected infrastructure layers neighbourhood Gleis 21 (own representation, data sources: MA 01 – Wien Digital; Stadt Wien – <https://data.wien.gv.at>; map source: basemap.at)

pedestrian zone (bicycle traffic is allowed) to access the buildings. Motorised traffic can access the neighbourhood via the road next to the train tracks, and parking facilities are mainly in collective garages. (Temel 2019: 13-16)

In the west of the *Sonnwendviertel*, the *Sonnwendgasse* separates or connects the new and the old block structures, whereas, in the south, the *Gudrunstraße* follows the border between the two neighbourhoods. On the other side (north) of the tracks, the *Gürtel*, which is a main connection for motorised traffic, leads to highway A23 in the east of Vienna.

The central station is a major hub for public transport. International, regional trains, the underground (U1) and several buses and trams can be accessed here. The tram line D in the southeast of *Sonnwendviertel* connects the neighbourhood with the city centre. In addition, a bus line stops in the western part of the area. In addition,

cycling infrastructure was established during the site development, such as physically separated cycle paths in the immediate surrounding. (Fig. 33)

The open green area Helmut-Zilk-Park is located in the heart of the new neighbourhood. In addition to a large meadow, the park features a playground, a motor skills park, a dog area, and a community garden. South of the new neighbourhood, several small parks with playgrounds are located. Further north, on the other side of the train tracks, the *Arsenal* area and the *Schweizergarten* are located, which are important green spaces. They can be accessed via the pedestrian and cycle bridge or two underpasses for motorised traffic and active mobility (walking and cycling).

The selected social infrastructure layers on the map (Fig. 33) indicate the locations of schools and childcare facilities. Within the *Sonnwendviertel* itself, there is a school campus that includes a kindergarten, elementary school, and lower secondary school, as well as six other childcare facilities distributed throughout the area. The locations of local urban renewal offices of *GB** neighbourhood management are also indicated, with particular significance placed on the office responsible for the *Sonnwendviertel* (close to the area). The relationship with *GB** will be further explored in a subsequent section of this chapter.

The generalised land use plan shows the official usage structure of the area (Fig. 34). Around the central station, within the zone designated as mixed building land – business district, there is a concentration of office and hotel buildings. In the western part of the *Sonnwendviertel*, the predominant zoning is the category residential area, while in the eastern part, a variety of categories allow for a higher degree of mixed-use structures. The building of *Gleis 21* is located within a building area designated for residential use.



Fig. 34: Land use and zoning plan Vienna (Stadt Wien – <https://data.wien.gv.at>)

According to the zoning plan (Fig. 34), Gleis 21 is located in a residential area, closed building structure, building class III – which means that the building height can range from 9 to 16 meters.

Given the size and structural diversity of the district, it is difficult to make statements regarding socio-demographic characteristics at the neighbourhood scale. The 10th district has a population density of around 6.700 persons per km², although there are significant differences depending on the building density. There is no precise data available for the area of *Sonnwendviertel* itself. The average living space per person in the 10th district is 31 m², but it can be assumed that there is a wide variance in this regard as well. (Landesstatistik, Wien (MA 23) 2022a)

Institutional context

The co-housing project Gleis 21 was initiated by architect Markus Zilker (*einszueins architektur*) and Gernot Tschertscheu (*realitylab*), both of whom had prior experience in the field of collaborative housing. Soon after, a visioning workshop took place in March 2015, which led to the formation of a group that worked on the concept and applied for the two-stage selection procedure for co-housing groups in *Sonnwendviertel*. The group then decided to apply for the current plot from the four available plots. The competition procedure stipulated specific requirements for the ground floor zone that should enable lively uses open to the neighbourhood, which were previously discussed in chapter 6.2.

Since the project decided to take advantage of housing subsidies for home units (*Heimförderung*), the committee (*Grundstücksbeirat*) of *wohnfonds_wien* evaluated the concept submitted in the co-housing procedure. The group cooperated with the limited-profit developer *Schwarzatal* to construct the building. This property developer has already realised several co-housing projects in Vienna. After completion, the group bought the building from the property developer, enabling the creation of collective ownership. This critical framework condition allows the group a high degree of participation in resource management and utilisation. Accordingly, the association leases the individual apartments to households, which prevents private ownership in the long run.

The community

The project's thematic focus on art and culture arises from the residents' interests and commitment. As a result, the project taps into an extensive network beyond the city and establishes partnerships. Thus, *Gleis 21* is not just a co-housing project but also a cultural institution that radiates into the neighbourhood and the entire city.

As the co-housing group owns and manages the building, they can autonomously decide who moves in and becomes part of the community. In total, approximately 49 adults and 28 children live in the project (Verein Wohnprojekt Gleis 21 2023a). All adults who live in Gleis 21 must be members of the resident's association. Since some members had difficulties paying the initial entry costs, the association introduced a solidarity fund for internal anonymous loans. (FG Gleis 21 2023)

The residents are organised as an association (*Verein Wohnprojekt Gleis 21*) and work in various working groups that are in charge of different tasks (Fig. 35). The board assumes the official roles of the association, while the working groups are responsible for their respective defined areas. The general assembly takes place every second month, where the entire group comes together. The high degree of self-organisation is visible through the organisational structure and becomes even more evident, considering the group is in charge of property management. During the planning process, the group was professionally accompanied by *realitylab*, who provided support and advice in group processes. (FG Gleis 21 2023)

Decisions are made according to the principle of sociocracy by consent, which is also reflected in the organisational structure. The individual working groups (WGs) decide as autonomously as possible, given that the respective matters fall within their area of responsibility. They are connected to each other through the management circle, the central governing body consisting of the association's board and two delegates per working group. (Verein Wohnprojekt Gleis 21 2023b)

An independent association was established for the programme, management, and rental of the cultural space, which is, however, part of the resident association, with overlapping memberships. In addition, a separate structure facilitates the application for cultural funding. The cultural association employs three people, two of whom are refugees living in solidarity apartments of the co-housing project. These apartments are rented to refugees in cooperation with the *Diakonie* (church welfare). This is particularly interesting because the co-housing project enables the inclusion of disadvantaged groups both in housing and work. A third employee in the association is responsible for public relations. (FG Gleis 21 2023)

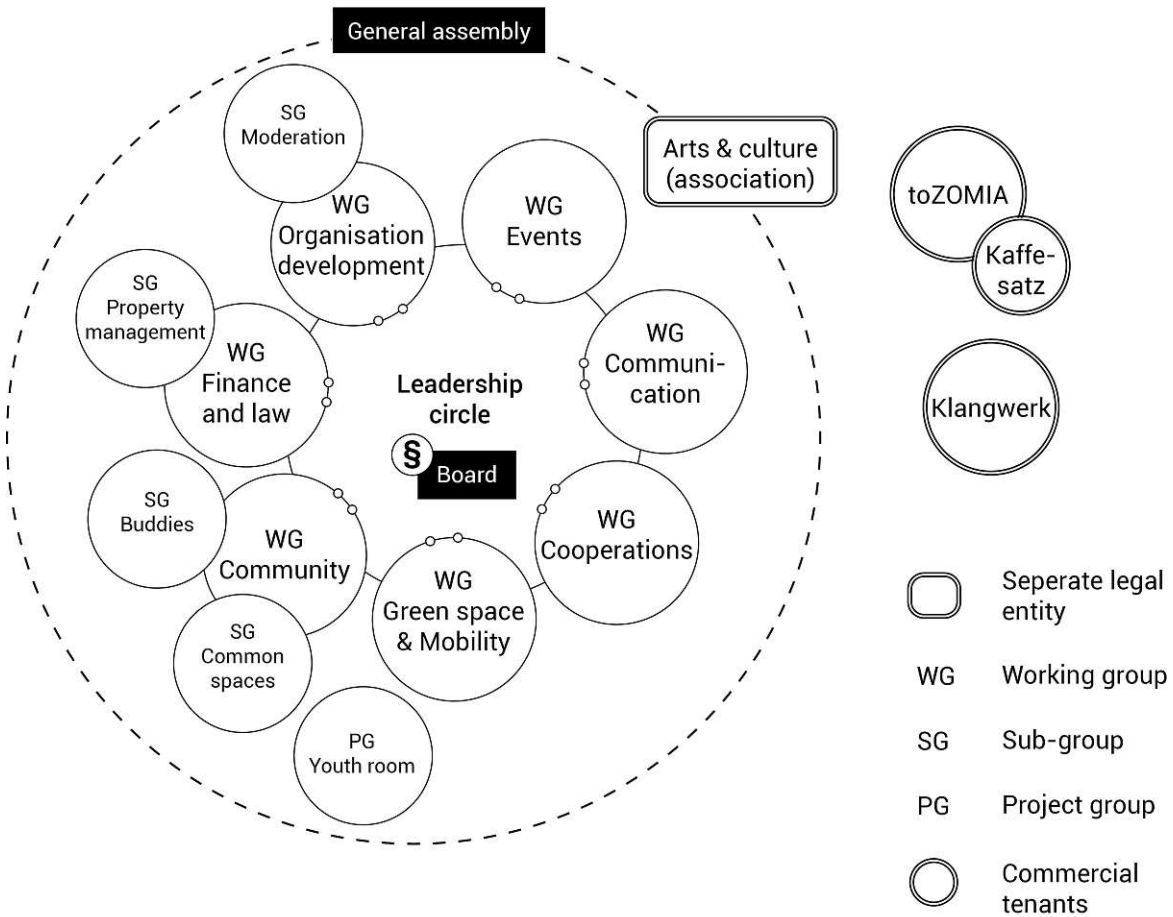


Fig. 35: Internal organisation structure of Gleis 21 (own representation, based on Verein Wohnprojekt Gleis 21 2023)

During the focus group discussion with residents, it became evident that such organisational structures are not rigid systems but require ongoing adjustments. For instance, decisions had to be made quickly during the construction phase, and as a result, many decisions were made by the whole group. However, the sociocracy model provides for decisions to be made primarily in the leadership circle. To reflect established structures and adapt them as needed, the WG organisation development explicitly deals with the development of

(sociocratic) organisational structures. These examples suggest that the internal organisational structure is subject to a constant learning process and allows for adaptations to different circumstances. (FG Gleis 21 2023)

Apart from renting out the event space, media room, and meeting room on a selective basis, the residents' association also permanently rents out two commercial units. In the basement, one of the residents runs a music school called *Klangwerk*, which offers instrument courses and a neighbourhood choir. The southwestern part of the ground floor is leased to the artist collective *toZOMIA*, which is a platform for developing resistant practices in art and life (toZOMIA 2022). The co-housing group initially sought to rent this space to a gastronomy business but had difficulty finding a tenant. There was also the possibility to rent the commercial space to a medical practice. When *Gleis 21* learned that *toZOMIA* had to move out of the nearby co-housing project *Grätzelmixer*, they offered to rent their vacant space on the ground floor. In January 2021, *toZOMIA* moved in. (FG Gleis 21 2023; Verein Wohnprojekt Gleis 21 2023d)

Currently, the association of *toZOMIA* consist of four individuals and nine artists working here. Each of them has their own individual projects, some of which are connected through collaboration (SI toZOMIA 2 2023). Their aim is to create space for “art that integrates new urban ecologies and a micropolitical activism of everyday life. We engage in a transdisciplinary manner with installative and collaborative formats” (toZOMIA 2022). The artists interviewed work in community building and holistic art therapy. Furthermore, *Kaffeesatz*, a small coffee shop run by three people, is subleased from *toZOMIA*. While they were initially part of the association of *toZOMIA*, they later established an independent legal entity. (SI toZOMIA 2 2023)

For internal communication within the project, *Gleis 21* uses the digital tool *Slack* used by other co-housing projects, such as *Grüner Markt* as well. The tool allows to create channels for different working groups or specific issues. *toZOMIA* is also part of the *Slack* group. (FG Gleis 21 2023)

Reflecting on the boundaries of the co-housing community or group, some aspects should be highlighted with reference to the meaning of social groups (Schäfers 2016), as discussed in chapter 3.1. Firstly, there are formal memberships: to be a member of the residents' association, one must rent a flat in the building. As for the cultural association, *Gleis 21* once considered enabling membership for non-residents but decided that only residents are entitled to official membership (FG Gleis 21 2023). As a result, one way of defining the social group of *Gleis 21* is through membership status. However, this would exclude children, who are not allowed to be official members. Therefore, it can be stated that a key boundary of the community is defined by the status of permanent residency in the project. The group of residents has common goals and shared values to some extent, which were already defined during the planning phase.

Socio-spatial relations and shared resources

“Our” neighbourhood

Intuitively, one of the residents referred to the boundaries of the planning area *Leben am Helmut-Zilk-Park (Sonnwendviertel Ost)* when defining the neighbourhood in terms of spatial extent. Similar to the focus group discussion in *Wohnraum Künstlergasse*, the residents interviewed in *Gleis 21* agreed that the German term “Nachbarschaft” describes social relations and networks, while “Grätzl” refers to a specific area. (FG Gleis 21 2023)

It became evident in all interviews with residents and users from *Gleis 21* (FG Gleis 21 2023; SI toZOMIA 1 2023; SI toZOMIA 2 2023) that the *Sonnwendviertel* stands out from its environment, and there seems to be an invisible but perceivable border between the new development area and the existing city – these neighbourhoods differ in terms of social and physical structure. Even within *Sonnwendviertel*, there are different neighbourhoods, and the tram tracks and the park separate them. One interviewee even jokingly described the western

part of *Sonnwendviertel* as a “ghetto” (SI toZOMIA 2 2023), which points to socio-economic differences on a small scale. Indeed, most co-housing projects are located in the eastern part of the *Sonnwendviertel*. The train tracks bound the eastern part of *Sonnwendviertel*. There are two bridges and two underpasses close to the central station to cross the tracks in the *Sonnwendviertel* area.

In an urban development area, spatial boundaries and actual physical barriers change according to the construction phase. When the co-housing group moved in, there was still a lot of ongoing construction work, and other housing projects, public spaces and restaurants were developed step by step. For example, one section of the *Bloch-Bauer-Promenade* (marked with red dots in the map Fig. 36) is still under construction (status March 2023), and there was only a narrow passage since the neighbouring plot is not finished yet. (FG Gleis 21 2023)

The neighbourhood has multiple dimensions, including local places that residents regularly visit, such as parks such as *Schweizer Garten* and *Arsenal*, and recreation areas located farther away, like *Laaerberg* or *Böhmischer Prater*. Interestingly, during a focus group interview, the central park (*Helmut-Zilk-Park*) was criticised for its lack of shade and inadequate quality for spending time. Additionally, institutions such as schools, swimming pools, medical care centres, and community gardens define individual and collective interpretations of the neighbourhood, depending on the daily rhythms of life. Community gardens were particularly mentioned in the work context of *toZOMIA*. One member described these gardens as “experimental territories” (SI toZOMIA 1 2023) that allow testing new practices, mentioning the zone next to the tracks that still leaves space for future uses as not every square meter has been predefined. Another member of *toZOMIA* highlighted some places in the older part of the 10th district (SI toZOMIA 2 2023), such as markets, which she regularly attends. (FG Gleis 21 2023)

During the interview, residents defined the neighbourhood (“Nachbarschaft”) as social contacts in the co-housing building on the one hand and social connections, especially to other co-housing groups, on the other hand. These connections are based on personal relationships and collaboration between projects on different matters, such as festivities or other initiatives. Connections to other co-housing groups in the neighbourhood were already established during the planning phase. (FG Gleis 21 2023)

Moreover, the social connections to cooperation partners, such as *GB* neighbourhood management*, and the related activities determine the scope of residents' neighbourhood. Although the office of *GB** is not directly in the *Sonnwendviertel* itself, their work involves providing information in the neighbourhood and being physically present in public spaces (Employee *GB*Stadtteilmanagement Sonnwendviertel* 2023). Places of cooperation partners and personal relationships in *Sonnwendviertel* and beyond were also mentioned during the interviews. Residents and users have social connections with café and restaurant owners, other co-housing groups, a bicycle workshop, and cultural institutions such as *Anker Brotfabrik* (FG Gleis 21 2023; SI toZOMIA 1 2023; SI toZOMIA 2 2023).

The discussion of what constitutes a neighbourhood from the perspective of co-housing residents and users has revealed a variety of different layers. Drawing on Vogelpohl's (2014: 61-66) three dimensions of the concept of place – physical, social, and symbolic – some key aspects of the neighbourhood as a place based on the interviews and mental map (Fig. 36) should be highlighted.



Fig. 36: Mental map of the neighbourhood of Gleis 21 (own representation based on the focus group interview and two short interviews with toZOMIA, map source: basemap.at)

The physical dimension of the neighbourhood encompasses material elements such as pathways, green spaces, institutional buildings (e.g. schools), and the locations of shops, cafes, and restaurants that were mentioned during the interviews (FG Gleis 21 2023; SI toZOMIA 1 2023; SI toZOMIA 2 2023). The building structure of the *Sonnwendviertel*, which contrasts with its surrounding areas, also contributes to definitions of the neighbourhood in physical terms. However, physical elements are not given but rather the result of social processes (Vogelpohl, 2014: 64). These places serve as the foundation for social interactions, leading to the neighbourhood's social dimension. This dimension includes the co-housing residents of *Gleis 21*, co-housing groups in the neighbourhood, and institutional bodies such as *GB* neighbourhood management*, schools, and gastronomies, among others. In this case, the focus is on social connections rather than on the specific location where these interactions take place. However, in reality, there is no clear separation between these dimensions.

The symbolic dimension of the neighbourhood refers to individual identifications with the place, as well as associated representations and discourses (Vogelpohl 2014:63). In the case of *Sonnwendviertel*, various planning documents, such as the master plan, mobility concept, IBA-map, and *GB* neighbourhood map*, define the boundaries of the *Sonnwendviertel* and its parts (e.g. *Sonnwendviertel Ost*). These representations seem to reinforce the neighbourhood perceptions of residents and users, which is a significant difference compared to co-housing groups in existing neighbourhoods that are not embedded in such a distinct spatial, social, and temporal setting that contrasts with their surrounding structures.

Shared resources

As for the shared resources of the co-housing group, material resources and shared spaces are the basis and, at the same time, the result of social interaction. The building of *Gleis 21* was constructed as a zero-energy

house (*Niedrigstenergiehaus*) using wood-hybrid construction. The energy supply is provided through district heating, as in the rest of the neighbourhood. The building has a total of six floors, including a rooftop and a basement. The 34 housing units are located on the first to the fourth floor and can be accessed through an open portico on the northwestern side of the building. Two staircases, each located above the sunken courtyards, and one elevator in the middle ensure access. Additionally, there are four units for refugees that the co-housing residents partly finance, as well as two guest apartments. (einszueins architektur n.d.)

The building plot can be accessed from the pedestrian zone in the north and the park located south of the building. While several bicycle parking spots are available in the ground floor zone (both indoor and outdoor), the three mandatory car parking spaces are located on a neighbouring plot (einszueins architektur n.d.). The latter could be reduced due to the housing subsidy for home units (*Heimförderung*).

Spatial resources shared among residents include several common spaces. In the basement, there is a workshop [10], an atelier [11], a laundry room [12], and a fitness room [13], all of which are located in the southern part of the building. They can be accessed through the staircase inside the building or through the sunken courtyard [6]. There are several common spaces on the rooftop, as shown in Fig. 37. These spaces can only be accessed by residents and are not available for external users.

The residents' association rents out several rooms on the ground floor. The event space and the salon are 117m² in size and can host up to 99 people. The salon (33m², [3]) can be separated from the event space by a movable wall and used as a meeting room. Next to it is the media room (15m², [4]), which provides a workspace for up to six people and can also serve as a backstage room if needed. The foyer in the middle of the ground floor separates the mentioned rooms from the southern commercial space [1]. (Verein Wohnprojekt Gleis 21 2023c)

The flexible space *Chameleon* [2] is of particular interest with regard to shared resources between different users in the project. It is located in the commercial area and separated from it only by adjustable walls but is used by both *Gleis 21* and *toZOMIA*. During events in the hall, the front part serves as a catering bar; otherwise, used as a meeting room. There are plans better separate the room and make it soundproof. (SI toZOMIA 2 2023)

As mentioned earlier, two commercial spaces are permanently rented. In the basement, the music school *Klangwerk* [8] offers various courses to the neighbourhood and the neighbourhood choir taking place in the nearby co-housing building of *Grüner Markt*. It faces the pedestrian zone and can be accessed through the northern sunken courtyard. (FG Gleis 21 2023)

The neighbourhood wall is located at the same building edge facing the *Bloch-Bauer-Promenade*. It offers space for exchanging books, announcing events and other information, and there is a bench inviting passers-by to linger. The co-housing group paused the neighbourhood wall for a while in autumn 2022 due to vandalism. (FG Gleis 21 2023)

The southern part of the ground floor zone facing the park is rented by *toZOMIA*. The room is equipped with a kitchen, and all other furniture is flexible and has wheels so that the room can be adapted according to the use. The café *Kaffeersatz*, which is a subtenant, directly faces the park and is not separated from the rest of the room. In addition to some seating, visitors can also use the terrace in front of the building. During the interview, a member of *toZOMIA* said that people who stepped in were often disoriented and did not understand at first what this space was (SI toZOMIA 2 2023). The flexibility of the space allows the group to move boundaries and experiment with different configurations. Since the room is shared among the artists of the collective and visitors can usually access the room during opening hours, use conflicts sometimes occur. (SI toZOMIA 2 2023)



Fig. 37: Floor Plans Gleis 21 (own representation, data source: einszueins architektur 2021, map source: basemap.at)



Fig. 38: Northwestern building side of Gleis 21 (own photograph, 2023)



Fig. 39: Art space rented by toZOMIA (own photograph, 2023)



Fig. 40: View of Gleis 21 from the park side (own photograph, 2023)

Apart from the common and shared spaces, residents share their private spaces with each other. When someone is gone for a few days, it is usual to let the apartment to neighbours if needed. Another example mentioned in the interview was the children playing in one or another apartment and moving around in the house independently. (FG Gleis 21 2023)

Sharing resources is not limited to material possessions, and the co-housing group has created a “Who can help” channel on the communication platform *Slack*. Mutual support ranges from borrowing tools to cooking for a neighbour if someone is sick to exchanging know-how. The resource community of *Gleis 21* extends beyond the project, and neighbours outside the project can also use bicycles or transport trolleys from the co-housing projects. (FG Gleis 21 2023)

In this context, the *Förderprogramm für nachhaltige Mobilitätsprojekte im Sonnwendviertel Ost* (funding programme for sustainable mobility projects in Sonnwendviertel Ost) facilitated resource sharing between different projects. Several co-housing groups submitted projects, some focusing on sharing resources among the co-housing projects in the area, albeit not exclusively. The co-housing projects’ submissions were coordinated among each to ensure a good balance. *Gleis 21* submitted the project *Gleis 21 – Gibt’s nicht nur auf Schiene* providing a cargo bike, four trolleys and two handcarts. (Stadt Wien, Straßenverwaltung und Straßenbau 2021)

This example shows how top-down initiatives coupled with co-housing projects and other local initiatives can enhance resource sharing in the neighbourhood. Further examples are discussed in the section on the collaborative network of *Gleis 21*.

Boundaries and threshold spaces

According to the research by Felstead et al., it is key “to understand the spatial manifestations of urban spaces and shared resources” and “the process of commoning as a potential production of place” (Felstead et al. 2019:6). Therefore, the boundaries and threshold spaces between the co-housing project and the neighbourhood as well as the underlying negotiation processes should be further explored.

Fig. 41 illustrates the spatial gradations of shared spatial resources and outlines the characteristics and elements that shape the boundaries and intermediate zones of the respective spaces. In addition, the graphic outlines social boundaries in terms of “my”, “our”, and “their” space, albeit these assignments are continuous.

Negotiating boundaries and threshold spaces has been an ongoing debate accompanying *Gleis 21* since the planning phase. The ground floor zone was initially designed to be an open and porous space that would connect with the neighbourhood. However, disagreements arose between the architect and the co-housing group regarding the location of commercial and shared spaces in the ground floor zone. While the architects had planned for the ground floor zone to be even more porous and suggested that the media room should be oriented towards the pedestrian zone, the residents wanted to connect the event space and the gastronomy area. This led to the litter room being located in the northern part of the building. Nevertheless, the northern boundaries of the project were opened up by creating the neighbourhood wall and the sunken courtyard where the music school is located. This helped to avoid having a hard border on the edge of the plot. (FG Gleis 21 2023; Zilker 2023)

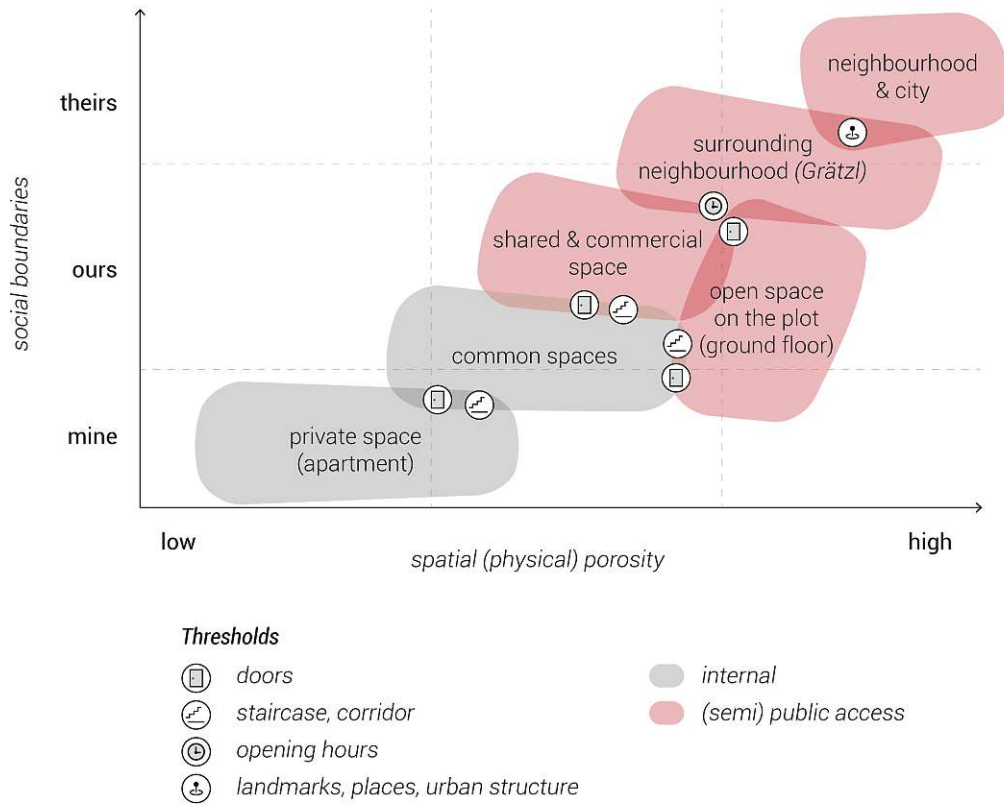


Fig. 41: Sketch of socio-spatial boundaries and thresholds, Gleis 21 (own representation)

Another example of the negotiation of boundaries is the border between the residents' common spaces (access balconies) and the shared and commercial areas open to external users. The architects initially intended to have no door between the two stairs of the access balconies, while the group wanted small doors at the entrance of the staircase. Nevertheless, when the building was finished, many visitors went upstairs, and especially in summer, groups of young people went up to the rooftop terrace to have a drink there. When objects from the access balconies disappeared or were destroyed, the group decided to put up a taller door and a metal plate to prevent people from reaching through the lattice to open the door (Fig. 42). (FG Gleis 21 2023)

These conflicts are good examples of the discrepancies that can arise between planned and actual boundaries. While architects sometimes leave boundaries poorly defined in order to allow for more openness (Zilker 2023), residents often desire clearly defined boundaries in their lived reality. Crossing private boundaries by strangers led to a redefinition of the boundary so that only residents and invited guests could access the co-housing group's common spaces. Within these common spaces, the access balconies with several niches (Fig. 38) serve as a threshold towards the private spaces, enabling spontaneous social interaction and view connections to the interior of the apartments.

The two sunken courtyards serve as intermediate zones between different spaces: the southern one between the common spaces of the co-housing group in the basement and the open space on the plot, and the northern one between public space (the surrounding neighbourhood) and commercial spaces (the music school). Due to incidents of vandalism and young people drinking in the courtyards, the boundary had to be communicated more clearly by installing a chain with a sign indicating "private" (Fig. 43). These incidents evoked varying degrees of anxiety among residents, and the issue of drawing boundaries is a topic that is regularly discussed in the group. (FG Gleis 21 2023)



Fig. 42: Boundary between open space and private/common space (own photograph, 2023)



Fig. 43: Sign indicating “private”, sunken courtyard (own photograph, 2023)

The artist collective *toZOMIA* deals with territorial boundaries in their work by using different spaces and extending or blurring boundaries through temporal activities. For example, they often use the terrace facing the park as a stage for concerts, with the audience sitting on carpets in the park meadow. If they were to use chairs in the park, they would need official permission from the city administration since it is a public space. Sitting on carpets, however, is seen as a regulatory grey area. Connecting their art space with the surrounding neighbourhood means crossing different territorial responsibilities. (SI toZOMIA 1 2023; SI toZOMIA 2 2023)

The open space on the ground floor level on the northwestern side (7) is publicly accessible, and there is no fence on the boundary to the public space. Residents and neighbours regularly use the area near the small playground as a spontaneous meeting point. One artist of the collective described the covered area as “raw” and expressed a desire to use it more apart from selective events, such as the bike market (SI toZOMIA 1 2023).

The discussion made clear that boundaries and threshold spaces are the outcomes of social negotiation processes, but at the same time, these spaces are continuously reconfigured due to changing spatial claims both internally and externally. The boundaries of *Gleis 21* change over time, and specific incidents or events define, shift, or blur boundaries permanently or temporarily.

Reaching out to the neighbourhood and the city – collaborative networks

To further explore how socio-spatial relations are being produced, the “collaborative network” of *Gleis 21* Fig. 44 outlines the stakeholder network and locates them regarding the type of social capital (bonding, bridging, linking) as well as the spatial level (project, neighbourhood, city context or beyond) they operate at. It also indicates the phase in which the respective connection was or is particularly relevant for the co-housing group.

The bonding social capital can be classified into formal and informal aspects. On the one hand, bonding social capital emerges based on the formal group organisation. The *Gleis 21* is structured into various working groups, some of which are responsible for internal matters and activities, while others are responsible for outward relationships. The *WG community* is responsible for maintaining good community life, evaluating residents' needs, and planning community-building activities. They initiate formats that enable community building and decide when professional support is needed. In addition, the sub-group buddies support refugees living in solidarity apartments. The *WG green space* carries out regular gardening activities on the rooftop or the ground floor open space. Regular communal activities among residents include common meals, such as breakfasts on Sundays, barbecues in summer and the use of the sauna. The co-housing group organises an open-topic discussion every six weeks in the library to exchange personal ideas and concerns about

community life. Moreover, the co-housing group organises a community weekend every year, where they go away over the weekend together. (FG Gleis 21 2023)

On the other hand, social bonds within the group arise from spontaneous social interactions in common and open spaces and established friendships. The role of children in creating bonding social capital in the co-housing project is also essential, as they move around independently in the common area and play in one or another flat. At a certain point in the evening, parents would look for their children and stay for a spontaneous tea at the neighbour's place (FG Gleis 21 2023).

As shown in Fig. 44, three working groups and the cultural association are located on the border of bridging social connections. The *working group communication* is responsible for public relations work and maintaining the neighbourhood wall. In addition, it takes over an interface function to the cultural association. The *working group events* takes care of rental matters of the event space, media room, and the *chameleon* meeting room to ensure cost-covering rental. The *working group cooperation* aims to establish new bridging connections and maintain collaborations that do not concern the *WG events*. As a separate legal body, the cultural association plans and coordinates the cultural program of *Gleis 21*. These organisational entities play a vital role in fostering bridging and linking connections beyond the city context.

Besides the organisational structure, other factors, such as individual expectations and resources, can enable or limit bridging relations with the neighbourhood and beyond. Some residents expect more regular activities in the neighbourhood, such as flea markets or breakfast in public space, but these require significant individual resources to organise. The balancing act between personal life and keeping the high-demand project running can challenge the co-housing residents, and additional neighbourhood activities can quickly exceed individual resources. (FG Gleis 21 2023)

The simultaneous establishment of several co-housing projects in *Sonnwendviertel* provided a unique opportunity for collaboration on a neighbourhood level. Since the planning phase, connections were established with three other co-housing projects in the immediate vicinity: *Grüner Markt*, *Grätzelmixer*, and *Bikes & Rails*. At that time, *Gleis 21* residents envisioned synergies and efficient resource sharing to avoid redundancies. However, effective cooperation did not turn out as expected, as the co-housing groups were preoccupied with their own affairs, and coordinating common activities proved challenging.

Despite this, bundling resources between the co-housing projects during the planning phase had a lasting impact on the pedestrian zone. A co-housing resident of *Grätzelmixer* initiated an effort to ban motorised traffic from the *Bloch-Bauer-Promenade*, the central connection of *Sonnwendviertel Ost*. Since co-housing residents knew each other before moving in and the initiative could leverage this network, the petition for a pedestrian zone gained traction and was highly successful. (Employee GB*Stadtteilmanagement Sonnwendviertel 2023; FG Gleis 21 2023)

Not only during the planning phase but also in the use phase, other co-housing projects play a significant role in the neighbourhood. *Grüner Markt* and *Gleis 21* recently founded the association *Grünes Gleis* to promote shared e-mobility in both projects. In addition, the *Mobilitätsrat* (mobility council) (Verein zur Förderung sozialer Nachhaltigkeit und Partizipation n.d.) on the neighbourhood level has spawned several initiatives, such as *Blühendes Sonnwendviertel* that aims to improve green infrastructure and community spirit in the area. Another group initiated the creation of a skating park on the vacant space next to the rail tracks.

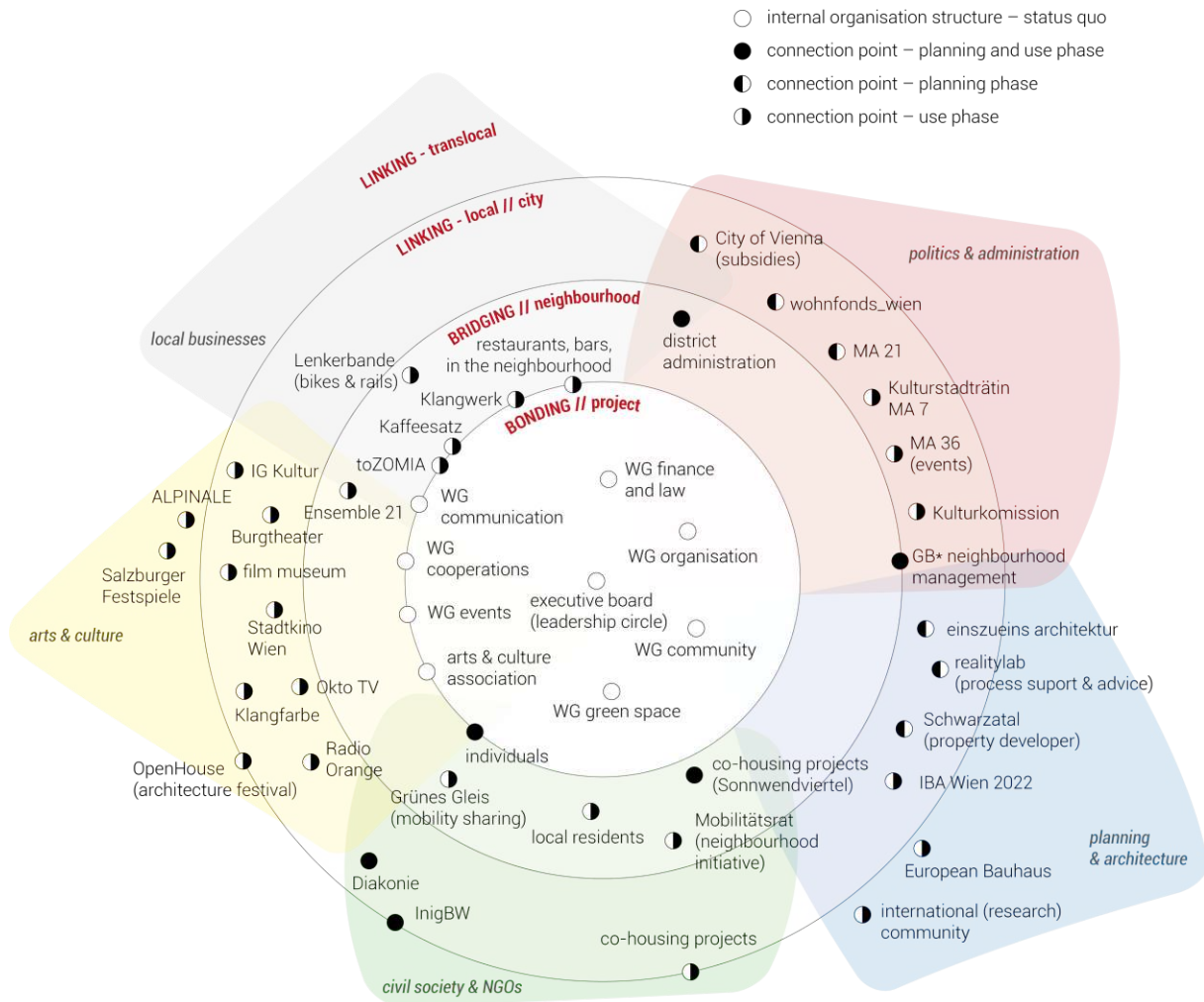


Fig. 44: Sketch of the collaborative network, Gleis 21 (own representation based on the focus group interview, complemented with desk research)

With regard to bridging social capital, the role of the artist collective *toZOMIA* and its connection with *Gleis 21* should be given particular attention. The co-housing group welcomed the idea of renting space to the artist collective since it aligned with the co-housing project's goals and vision of opening up to the neighbourhood and creating offers beyond the project (FG Gleis 21 2023). However, *toZOMIA* faces major challenges, such as high rent for their space and financial sustainability (SI *toZOMIA* 1 2023; SI *toZOMIA* 2 2023). The co-housing group is aware of this challenge, which is why they request catering services from the collective during events and regularly visit the café. The relationship between *Gleis 21* and *toZOMIA* can be interpreted as a bridging connection within the co-housing project, and due to mutual support and collaboration, the bridging connections to the neighbourhood and beyond become stronger.

As depicted in Fig. 45, *toZOMIA* has established its own projects, partnerships, and networks. For example, they collaborate on cargo bikes with the nearby bicycle workshop *Lenkerbande*. Their activities make the art space and the intermediate zones on the ground floor of *Gleis 21* a hub of social interaction, enabling bridging connections between various organisations and individuals. Another focus of their work is including individuals with an immigrant background and fostering ties with other cultures (SI *toZOMIA* 2 2023). *Gleis 21* residents describe *toZOMIA* as a “gateway to the neighbourhood” (FG Gleis 21 2023).

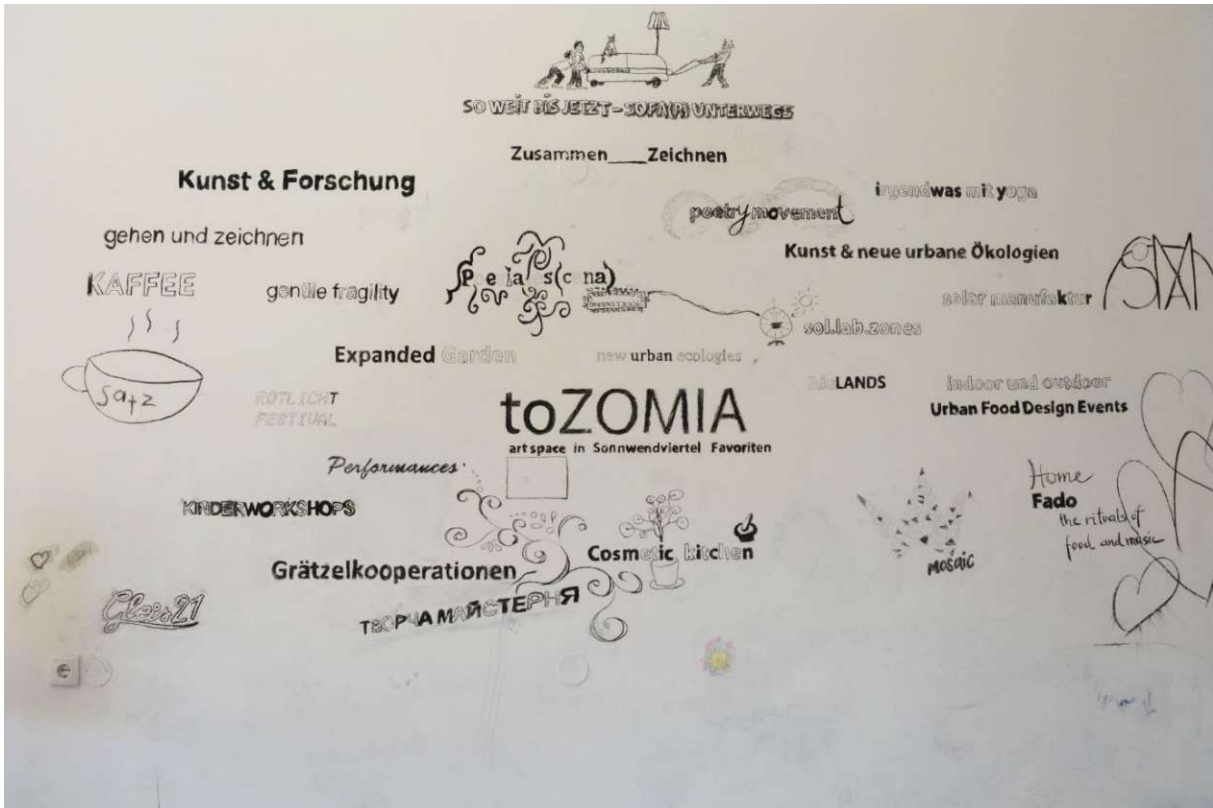


Fig. 45: Cooperation and projects of toZOMIA painted on a wall in the art space (own photograph, 2023)

Residents of *Gleis 21* and members of *toZOMIA* have established contacts with local shop and restaurant operators in the *Sonnenwendviertel Ost* neighbourhood. Additionally, on the neighbouring plot of *Gleis 21*, there is a bookshop, a children's products shop, and an organic farmer's shop that have enabled various connections in the neighbourhood. The ground floor space of the co-housing project *Grätzelmixer*, which regularly hosts events, was also mentioned during interviews (FG *Gleis 21* 2023; SI *toZOMIA 1* 2023). Although these bridging connections are often based on personal connections, they can be activated for collaborations if needed.

In Vienna, newly developed areas are accompanied by the *GB* neighbourhood management* on behalf of the City of Vienna. Therefore, an office of *GB* neighbourhood management* near *Sonnenwendviertel* is responsible for two urban development areas: the *Sonnenwendviertel* and the *Arsenal* on the northern side of the train tracks. They support and network with local initiatives and neighbours as part of their work and actively connect with residents and initiatives. Co-housing groups contact them for advice or other resources. *Gleis 21* has strong connections to the *GB* neighbourhood management*, and they benefit from each other's resources. For instance, *Gleis 21* uses the mailing list of *GB** to announce events. Moreover, *GB** has an intermediary role between bridging social connections on the neighbourhood level and linking connections in the city context. (Employee *GB*Stadtteilmanagement Sonnwendviertel* 2023)

The neighbourhood level is particularly interesting in *Sonnenwendviertel Ost*, as various initiatives, such as *Mobilitätsrat*, common gardens, petitions, and many more, have arisen during the last few years. Many co-housing projects are highly involved and function as important anchor points in these networks. Despite limited resources, co-housing residents have established strategic collaboration networks with other co-housing groups, initiatives, and the *GB* neighbourhood management*. As a result, the co-housing projects in *Sonnenwendviertel* enable points of contact for the neighbourhood from the beginning that allow for synergies.

A vital framework condition is the linking social capital of *Gleis 21*. Firstly, linking connections enabled the realisation of the project during the planning phase, and they established connections to planners, developers, and public authorities. Since this work focuses on the use phase of the co-housing project, connections during the planning phase are not discussed in further depth.

Due to the co-housing project's focus on culture and media, linking connections to cultural institutions and organisations play a crucial role for *Gleis 21*. For example, there are collaborations in the fields of theatre (*Burgtheater*), film (*film museum*), film festivals, music, and media (*Okto TV, Radio Orange*). These collaborations and networks have emerged from individual networks of some residents with many contacts in this field and are then “collectivized” for the operation of the cultural business of the co-housing project.

Good linking connections to city and district administration that go beyond recognition are another critical condition for the co-housing project since the cultural association of *Gleis 21* depends on permissions and subsidies provided by the authorities. That is why the *working group cooperations* is also responsible for maintaining good contact with the district administration. Another kind of linking connection is networks on the city level, such as the International Building Exhibition (IBA_Vienna 2022), which awarded the co-housing project and increased national and international visibility.

Finally, translocal contacts and networks facilitate linking connections beyond the city context. At the national level, the *Initiative Collaborative Building & Living* networks co-housing projects across Austria and organises low-key activities for residents. On a higher level, *Gleis 21* participated in the *New European Bauhaus* initiative and was awarded the *New European Bauhaus prize* in 2022, which offers potential new linking connections.

Relations and interactions in times of crises

When the COVID-19 pandemic hit, the residents of *Gleis 21* had only been living in the building for six months, which made the cultural association ineligible for COVID-19 subsidies from the government. The co-housing residents had diverse opinions, reactions, and feelings towards the COVID-19 measures taken by the government. However, the community complied with the legal requirements, and no significant conflicts arose. Group meetings were held online, and the previously established communication tool *Slack* facilitated the adaptation to the new circumstances. Neighbourhood support between residents varied from grocery shopping to cooking for infected neighbours and taking care of children. According to the residents, mutual support among neighbours was the most important resource to cope with the pandemic. (FG Gleis 21 2023)

Moreover, new social formats emerged, such as “distance-coffee meetings”, where residents would bring their own coffee to the rooftop and sit in a circle to chat. During Christmas time, residents alternated decorating their windows or had hot drinks on the access balconies. (FG Gleis 21 2023)

The pandemic reinforced the flexible use and transformation of common and shared spaces. Residents used the library or event space for home office. Some residents offered their apartments for this purpose when they went away. Additionally, the ground floor zone was rented to an architectural office that needed more space for their employees to comply with legal distancing requirements. This interim commercial use was a valuable source of income for the co-housing project, which could not host events during COVID-19 lockdowns. (FG Gleis 21 2023)

7.4 Sargfabrik

Neighbourhood context

Both buildings of the association *VIL* (*Sargfabrik* and *Miss Sargfabrik*) are located centrally in the 14th district (Penzing) in Vienna. The surrounding neighbourhood is characterised by *Gründerzeit* block structures and some newer multi-storey buildings in rows, constructed in the post-war years. Further north, some allotment gardens are located that extend to the *Wiener Wald* (recreation area in the west of Vienna) and further south, on the other side of the train tracks, the building structure varies between one- or two-storey buildings and multi-storey buildings.

In the 19th century, various small businesses and factories were integrated into the block structures, which are still visible in the urban structure. Workshops and working places were typically located inside the blocks, whereas the housing units were oriented towards the outside. *Sargfabrik* was built on a former coffin factory, which also explains the project's name.

The surrounding neighbourhood of *Sargfabrik* has undergone major changes in the last 20 years in terms of structural improvements, densification, public transport access and population development. These changes are accompanied by gentrification processes that pioneers like *Sargfabrik* also reinforced. In the meantime, neighbouring property developers use the location close to *Sargfabrik* to promote their apartments, which underlines these revaluation tendencies (FG *Sargfabrik* 2023).

Some years ago, *tilia staller.struder og* (2017) developed plans for public space on behalf of the City of Vienna (MA 19), analysed different neighbourhoods in *Penzing* and defined specific measurements needed to improve their quality. The project teams defined neighbourhoods (“Grätzl”) according to residents’ identities. The so-called *Matzner Viertel* surrounds the *Sargfabrik* and *Miss Sargfabrik*. This neighbourhood boundary corresponds more or less to the project area of the association *Lebenswertes Matzner Viertel* (Verein *Lebenswertes Matzner Viertel* n.d.), a bottom-up initiative to improve the quality of the neighbourhood and connect residents.



Fig. 46: *Sargfabrik* – urban grain plan (own representation, data source: Stadt Wien – <https://data.wien.gv.at>)



Fig. 47: *Sargfabrik* – orthophoto (map source: basemap.at)

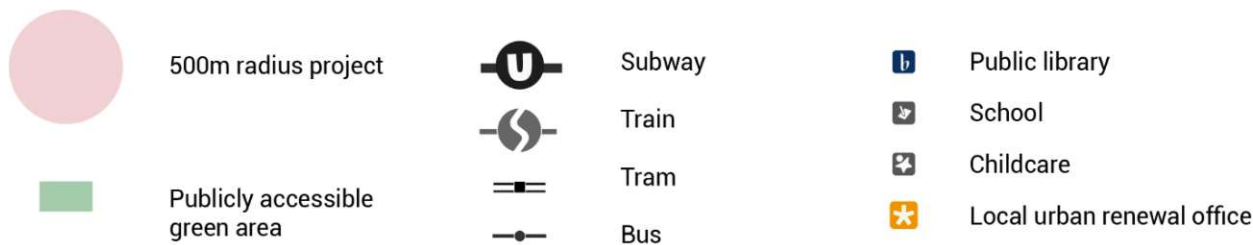
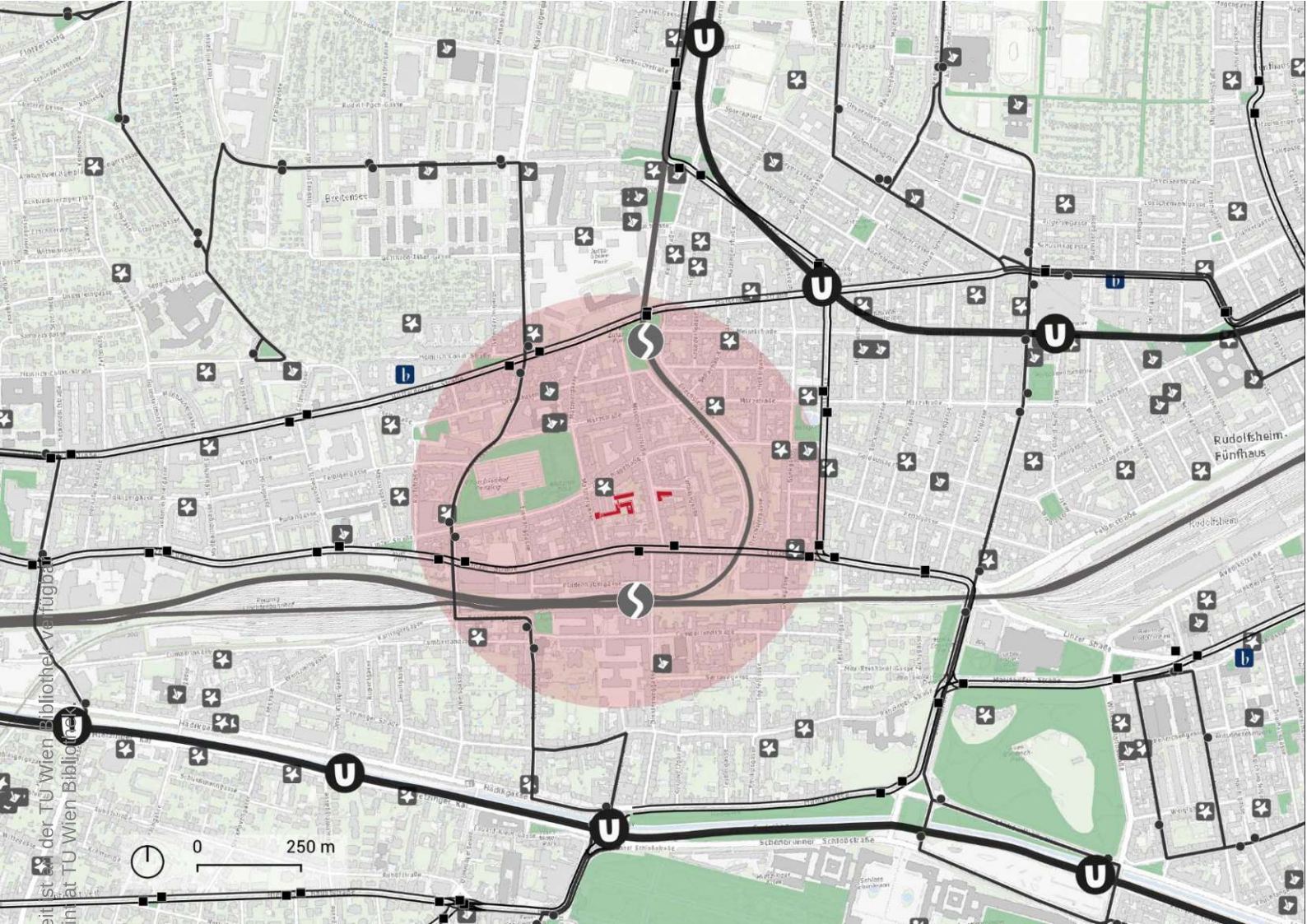


Fig. 48: Selected infrastructure layers – neighbourhood Sargfabrik (own representation, data sources: MA 01 – Wien Digital; Stadt Wien – <https://data.wien.gv.at>; map source: basemap.at)

The *Hütteldorfer Straße* in the north and the *Linzer Straße* in the south of the *Matzner Viertel* are characterised by mixed-use structures, and many shops are located at the ground floor level providing services of daily life. In both streets, tram lines connect the decentral parts of the district with the city centre. In addition, two regional train stations and bus stops are nearby. The train tracks form the eastern border of the *Matzner Viertel*. Further north, the metro line U3 is a major public transport connection; further south, the metro line U4 can be accessed.

As mentioned in the context of the case *Wohnraum Künstlergasse*, the *Wienzeile* (south) is a major traffic axis for motorised traffic, public transport, and bicycle traffic. As for the latter, a major connection follows the *Goldschlagstraße* (address of *Sargfabrik*), which has been transformed into a bicycle street. This means that priority is given to cyclists on this route.

In the immediate neighbourhood of *Sargfabrik*, the *Matznerpark* is a vital local green area featuring a playground and a community garden. In the heart of the park, there is a cemetery.

The selected social infrastructure layers on the map (Fig. 48) show the locations of schools and childcare facilities nearby the co-housing project. In the immediate neighbourhood of *Sargfabrik*, there are several childcare facilities, including the one that is part of the project. A primary school is located adjacent to the north of *Matznerpark*.

The mixed-use structure of the area is also reflected in the generalised land use plan indicating mainly residential areas and mixed-used building land (Fig. 49). Similar to the structure of the surrounding neighbourhood of the case *Wohnraum Künstlergasse*, the inside of the block often has a different zoning as the inside since historical workshops are located there. Vis-à-vis of *Sargfabrik*, the business park *Wirtschaftspark Breitensee* is located that is designated as industrial building land.

As shown in the land use plan, the plot of *Sargfabrik* is in a mixed building land, partly a business district, and *Miss Sargfabrik* is located in a residential area with closed block structures. According to the zoning plan, the building parts of *Sargfabrik* facing the street can be up to 16 meters high (building class III), whereas the inner block structure is defined as building class II (max. 12 meters height). The southern part of the block is part of a protected zone to preserve the historical appearance of the building.



Fig. 49: Land use and zoning plan Vienna (Stadt Wien – <https://data.wien.gv.at>)

Upon closer examination of the district's social structure, the statistics show that Penzing had a population density of 2,754 inhabitants per square kilometre in 2022, which is lower than Vienna's density of 4,656 persons per square kilometre. Furthermore, the total population of *Penzing* was 92,989 in the same year. However, the district's population density does not say much about the neighbourhood of *Sargfabrik*, where the building structure is similar to inner districts, while other parts of *Penzing* are not as densely populated. In addition, the district has a high share of green space (61 per cent of the district area is green land and water) compared to the average of Vienna (49 per cent). (Landesstatistik, Wien (MA 23) 2022b)

Seventy-three per cent of the population in *Penzing* originate from Austria, 13 per cent from other EU countries (mainly Poland, Germany and Romania) and 15 per cent immigrated from non-EU countries, such as Serbia or Turkey. The district has been growing by 9 per cent between 2012 and 2022, corresponding to the growth rate of the whole city (+12,5 per cent). (Landesstatistik, Wien (MA 23) 2022b)

Institutional context

Sargfabrik is a bottom-up co-housing project initiated by a politically engaged group of young people in the 1980s. They were searching for a plot where they could bring their visions of alternative housing forms that foster inclusion to life. Eventually, they stumbled upon an article in a newspaper about the coffin factory. During that period, the City of Vienna was very receptive to experimental housing initiatives, and as a result, the *Sargfabrik* received political support at both the city and district levels. The former district leader Otto Bauer welcomed the initiative and saw a revival of socio-demographic values in their project, while the local population was sceptical about the project at the beginning. (FG Sargfabrik 2023)

Despite political support, the group faced several obstacles along the way. Initially, they aimed to preserve and transform the former coffin factory, but due to complications regarding the purchase process, the zoning plan, several permissions, and financial limitations, the residents' association *VIL* decided to construct a new building instead. The chimney of the factory was preserved, and the new building structure was based on the layout of the coffin factory. (FG Sargfabrik 2023)

The *Sargfabrik* association *VIL* is the developer, owner, and operator of the *Sargfabrik* and *Miss Sargfabrik* housing complexes. As a *Wohnheim*, the project could receive subsidies, according to the *Wiener Wohnbauförderung* explained in chapter 6. Since the association owns and manages the two buildings, it leases flats to households, and the group can collectively decide who can move in. The subsidy model based on the status *Wohnheim* blocks direct subsidies for residents who need it, and thus, the association *VIL* has established an internal solidarity fund to support members who have difficulties paying their rent. (FG Sargfabrik 2023)

Due to the success of the pioneer co-housing project, the association aimed to acquire neighbouring plots within the same block or vis-à-vis. However, commercial developers were quicker and had more financial resources. The neighbouring plot of *Miss Sargfabrik*, where a one-story building is located, has potential for future development. However, *Sargfabrik* residents are not too optimistic because self-organised groups with limited financial resources are unlikely to succeed in purchasing a plot in today's globalised housing market. (FG Sargfabrik 2023)

The community

Sargfabrik is a co-housing project that extends far beyond housing provision. The association *Verein für Integrative Lebensgestaltung (VIL)* has established a cultural centre for the neighbourhood and the city. The aim of the project was to create co-living spaces addressing a wide range of needs beyond heteronormative

standards, including individuals with special needs. When referring to the association *VIL*, both buildings, *Sargfabrik* and *Miss Sargfabrik*, are included since there is no separate organisational structure.

The organisational structure of the association *VIL* has been professionalised to accommodate its businesses beyond housing. There are several employees dedicated to administration and ongoing operations. Fig. 50 illustrates an organigram of the association. According to the association's statutes, the general assembly of all residents takes place twice a year and is responsible for making decisions based on majority voting (2/3 of the present members have to approve for a valid decision). Furthermore, a plenum is organised approximately ten times a year. Minor decisions are made in the respective sub-units or groups. (FG Sargfabrik 2023)

The general assembly elects the board, consisting of at least six persons who fulfil the association's legal requirements and are in charge of ongoing operations. The service of finance, controlling and administration is another formal aspect of the association. In case of conflicts, there is an independent arbitration (*Salzamt*) consisting of external (non-residents, non-association members). (Ehs 2008:33f)

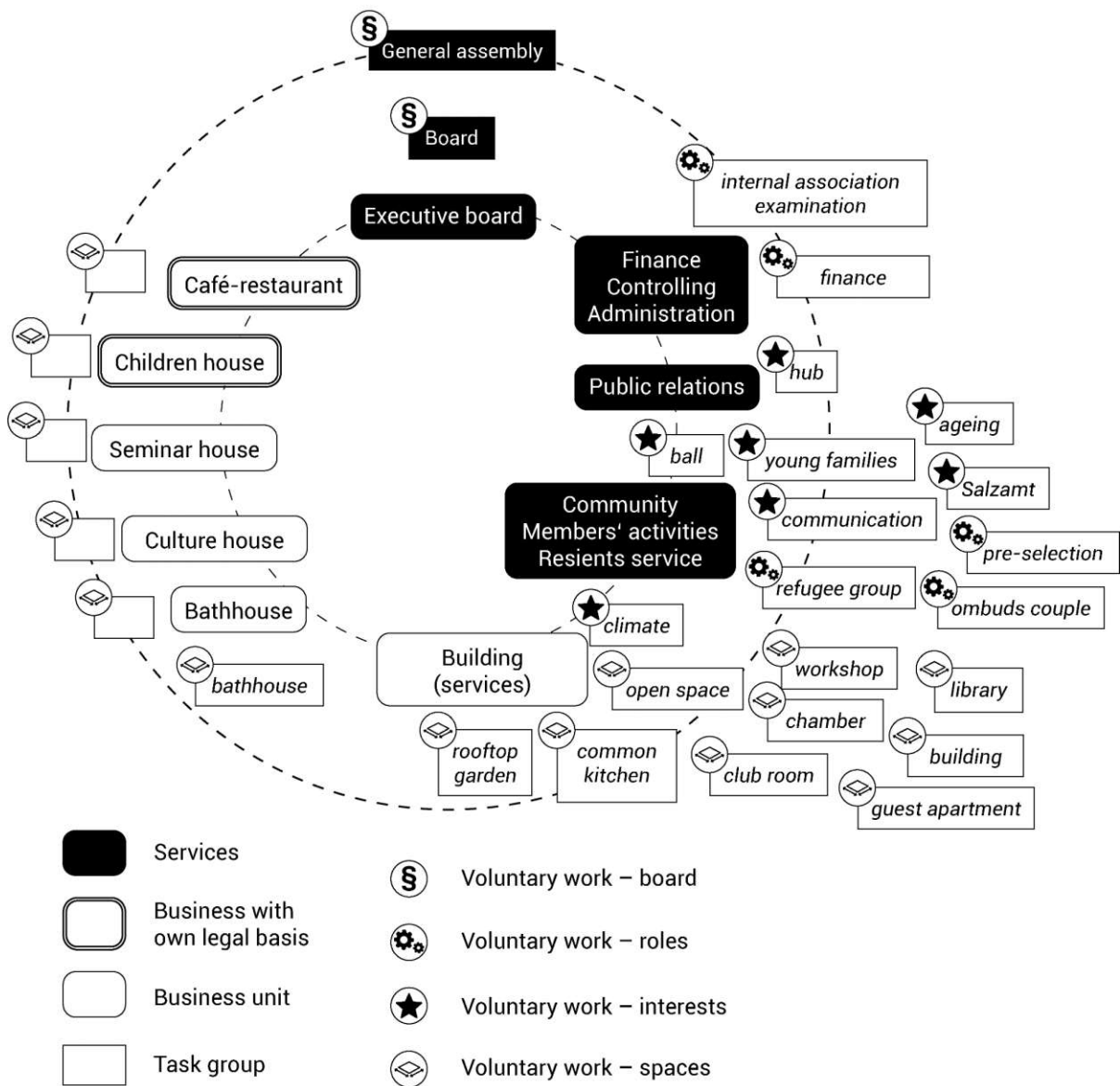


Fig. 50: Internal organisation structure of Sargfabrik Wien (own representation, based on Sargfabrik 2020)

Apart from the formal structure defined in the association's statutes, several permanent or temporary working groups and initiatives exist. These can be roughly distinguished according to the following criteria (Ehs 2008:35):

- Commons space oriented // topic-related
- Continuous activity // selective activity
- Organisation-wide // house-related
- Business character // leisure character

Community members' activities and residents services are key components of the *Sargfabrik* association. The related working groups fulfil distinct tasks and functions necessary to operate the *Sargfabrik*. As illustrated in the organisational chart Fig. 50, some of these services are based on specific interests, while others are related to specific common spaces. The latter mainly concerns the residential building parts and building services, as each "house" accessible to external users is operated as a business unit or as a separate business. (Verein für integrative Lebensgestaltung 2020)

The businesses operating as units of *VIL* include the *seminar house*, the *culture house*, and the *bathroom*, all of which can be rented by external users. Regular use of the *bathroom* requires a club membership and the payment of an annual membership fee. (FG Sargfabrik 2023)

Two houses are run as separate businesses: The *children house* and the restaurant. The *children house*, a private childcare facility subsidised by the City of Vienna, offers approximately 60 places for preschool children. The children regularly attend the *bathroom* and theatre performances in the *culture house*. Moreover, meals are locally prepared in the café and restaurant of *Sargfabrik*. *KANT_INE VIER ZEHN* is run as a non-profit social enterprise by *Die Kümmerlei*, a socio-economic employment project by *Job-TransFair GmbH*. They aim to employ people over 50 who are disadvantaged in the labour market. (Verein für integrative Lebensgestaltung 2021, 2023)

The association employs about 20 people for property management, business operations, cleaning duties, and office administration (Verein für integrative Lebensgestaltung 2021). This makes *Sargfabrik* a medium-sized business in Austria. Although *VIL* is legally organised as an association, it is a prototype for a bottom-up cooperative. The initiators did not establish a cooperative because the legal structure for this model was or is very complex in Austria. (FG Sargfabrik 2023)

Compared to other cases, the *Sargfabrik* community, with more than 200 residents (112 housing units), is relatively large, bringing about different organisational challenges and opportunities. Not every resident contributes their resources to the same extent, and personal engagement for the project varies. It is accepted that some residents are more engaged than others, and some things never balance. The interviewed residents see the project size as an enabling factor and stress that not everyone must or can contribute in the same way. In the past, the number of hours contributed by residents caused a conflict since there were certain unbalances and only a part was continuously engaged. At present, residents are no longer obliged to contribute a certain number of hours per month and a relaxed attitude in this matter is part of their values. (FG Sargfabrik 2023)

When defining the boundaries of the community, it is necessary to consider the membership status of the residents: at least one person per household must be a full member of the association and participate in the general assembly. Exceptions are made for residents of the "flex boxes" (with limited rental agreements), refugees, and the supervised flat-sharing community. If someone moves out, the membership status is not automatically cancelled, and some former members continue supporting the project with their membership contributions. (FG Sargfabrik 2023)

Furthermore, the group of employees of the association partly overlaps with the residents. External users can be distinguished between continuous users and occasional visitors. Children who attend the child house and bath guests are formally part of the non-residential community and are on-site regularly, whereas visitors of the cultural house and the restaurant come occasionally.

Finally, the association *Verein Lebenswertes Matznerviertel* should be mentioned here, as some *Sargfabrik* residents are co-founders and very active in the organisation. It was established in 2012 by engaged citizens who wanted to improve the quality of life in the neighbourhood. Their vision addresses the quality of public space, green space, mobility, good neighbouring, and the local economy. (Verein Lebenswertes Matznerviertel n.d.)

Socio-spatial relations and shared resources

Subjective neighbourhood boundaries

During the focus group discussion about the neighbourhood extent of *Sargfabrik*, the symbolic boundary of *Matznerviertel* was quickly brought up. The association *Lebenswertes Matznerviertel* defined this boundary as the scope of their action. Since the *VIL* is very close with the initiative and their members overlap, this boundary is also associated with the neighbourhood of the co-housing project *Sargfabrik*.

The building of *Sargfabrik* is located on *Goldschlagstraße*, which is in the core of *Matznerviertel*. In 2020, the street section in front of *Sargfabrik* was transformed into a “Wohnstraße” (traffic-calmed street) after advocacy by the association *Lebenswertes Matznerviertel* for seven years. The renovation involved planting trees, creating seating, and removing parking spaces. The *Matzner* market takes place here every week. Across from the *Sargfabrik* building is a business park called *Wirtschaftspark Breitensee*, which offers space for small and medium-sized businesses. The *VIL* occasionally rented a room there, and there is continuous cooperation with *OktoTV*, a business located there. (FG *Sargfabrik* 2023)

In addition to the streets surrounding the two co-housing buildings, *Matznerpark* is considered a very important place for *Sargfabrik* in different ways. The park is the closest green area and playground. Furthermore, the community garden *Matznergarten* is located at the edge of *Matznergasse*. At the centre of the park is a cemetery that was also mentioned during the interview since five former residents of the co-housing project are buried there, which gives this place a particular meaning. (FG *Sargfabrik* 2023)

Near the community garden, there is a parklet and an open bookshelf, both initiated by the association *Lebenswertes Matznerviertel*. Furthermore, a bicycle shop and a restaurant in the area were mentioned during the interview. On a larger scale, outside of the very local neighbourhood, the allotment gardens nearby and the *Wiener Wald* are important places for recreation. In this context, a resident mentioned the good public transport connection to the western green spaces outside Vienna and the city centre. In the south of the *Matznerviertel*, there is a music school attended by several residents. In brief, individually attended places of *Sargfabrik* residents, as well as places or locations of collective engagement, form the neighbourhood in terms of “Grätzl”, which refers mainly to the physical dimension of place. (FG *Sargfabrik* 2023)

When it comes to the difference between the German terms “Grätzl” and “Nachbarschaft”, similar aspects like in the other cases were discussed. The neighbourhood boundary of *Lebenswertes Matznerviertel* bounds a specific “Grätzl” – a unit smaller than the district. In terms of “Grätzl”, the neighbourhood is “the spatially extended neighbourhood where I do not necessarily know everyone” (*Sargfabrik* 2023). This definition by a resident refers to a specific spatial extent. In contrast, neighbourhood as “Nachbarschaft” would imply personal contacts within or outside the co-housing projects and is a subset of “Grätzl”, according to another resident.

A different possible distinction in social terms was between neighbours who live next door or the residents of the co-housing project and neighbours who are clients and who have personal connections with residents.

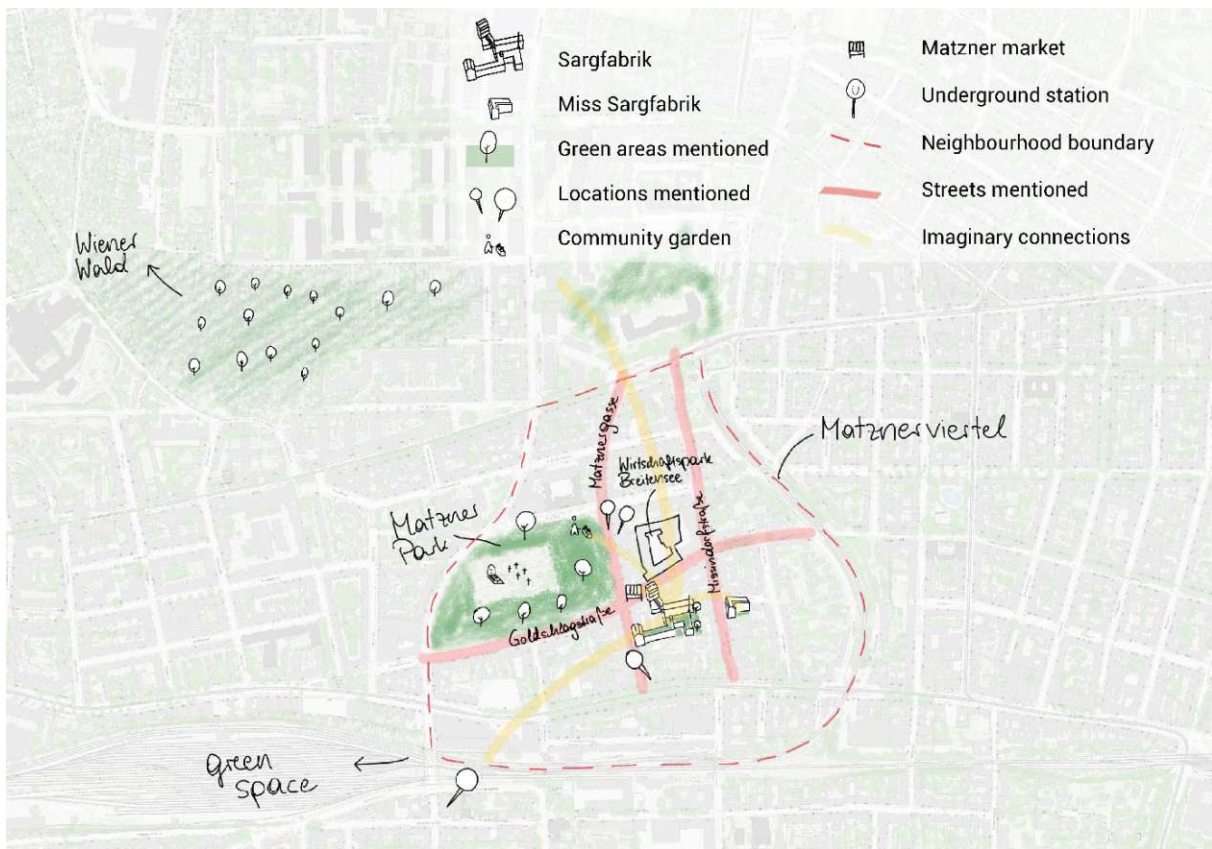


Fig. 51: Mental map of the neighbourhood of Sargfabrik (own representation based on the focus group interview, map source: basemap.at)

Referring to the physical, social and symbolic dimension of space (Vogelpohl 2014:61–66), the area of *Lebenswertes Matzner Viertel* serves as a significant symbolic boundary for the co-housing project. Physical landmarks, such as the railway track to the east and south, delineate the boundaries of *Matzner Viertel*. Social interactions and events associated with the co-housing group and the initiative *Lebenswertes Matzner Viertel* often take place in *Goldschlagstraße* and *Matznergasse* as well as in the *Sargfabrik* building. These social and physical characteristics reinforce the significance of *Sargfabrik* as a local centre within the urban fabric, further elaborated in the following sections.

Shared resources

Even during the planning phase, the co-housing group actively engaged with the local community, identifying the missing services and contacting the district administration for support. They thoroughly considered the neighbourhood context in their planning process. As a result, they decided to offer a childcare facility (*children house*), a *bathroom*, an event space and a restaurant for the neighbourhood. In addition, they have several common spaces, as shown in Fig. 52. This analysis focuses on the building of *Sargfabrik*. Nevertheless, the shared spatial resources in the newer building *Miss Sargfabrik* are briefly mentioned.

The architecture of the building was designed by *BKK-2* together with the residents in a participatory planning process. The housing units – called “boxes” – are designed as maisonette apartments and are based on the

grid of the former coffin factory. The number of floors varies between nine (street front) and five (inside of the block) floors, including the basement, ground floor rooftop and intermediate floors. *Sargfabrik* has a total of 73 apartments in different connected building parts (Verein für integrative Lebensgestaltung 2023).

The co-housing project realised seven so-called flex-boxes (apartments) for temporal living, seven home units (four single units and a shared flat) subsidised for persons with special needs, and a supervised flat-sharing community by the City of Vienna, MA 11 (children and youth). Additionally, the project has dedicated several apartments to refugees and provides social support due to the urgent housing need of refugees caused by war. The apartment units vary between 30 m² and 130 m², addressing different groups of residents, such as single parents and older adults. (FG *Sargfabrik* 2023) The private spaces can be accessed through the access balconies, and the apartments on the ground floor are located on the pathway, of which some parts are used as a semi-public pathway.

The site of *Sargfabrik* can be accessed via two entrances: The main entrance in the *Goldschlagstraße* and another one in *Matznergasse*. As illustrated in the ground floor plan (Fig. 52), the more public uses open for the neighbourhood are located close to the main entrance or in the centre of the “public pathway” through the plot. At the ground floor level, the office of *Sargfabrik* [1] is directly connected to the seminar house [2], which external users can rent. The seminar room is 104 m² in size and is suited for various workshops or seminars.

On the other side of the site entrance is the restaurant that extends to the first floor. In the basement lies the event space [6] featuring an event hall (150 m²) with a stage and a foyer with a bar (165m²). It can be accessed from *Goldschlagstraße*, and the back door is located in the entrance area of the *bathhouse* [7]. The *bathhouse* provides space for a pool, a sauna, a hot water pool and relaxation in an area of 350 m². The *children house* has a very central location in the building complex on the first floor. (Verein für integrative Lebensgestaltung 2023)

Aside from the access balconies, there is a collective open green space [4] in the eastern part of the plot with a playground, seating and a sports ground. Since there are no fences on the ground floor, it can be publicly accessed. The rooftop garden [8] on the southern building part can usually only be accessed by residents except for events. For example, the *culture house* hosted some open-air concerts on the rooftop garden during summer.

Just a few indoor commons spaces in *Sargfabrik* are exclusively for residents: A very central one is the laundry room on the second floor, deliberately located here to foster social interaction. Locating such commons spaces well is essential advice by *Sargfabrik* to developers. Moreover, residents share a workshop and the so-called *Transformationskammerl* for sharing clothes in the basement, enabling sharing practices. For exchanging things, there is an open bookshelf near the site entrance in *Matznergasse* which is also publicly accessible.

The newer building *Miss Sargfabrik* features several common spaces for residents. In general, the architecture of *Miss Sargfabrik* [5] is less open to the outside and can only be accessed through locked doors. There are 39 apartment units and several common spaces, including a library, a kitchen, a laundry room, a club room and a meeting room named *Dilettantenkammerl*. Furthermore, a guest apartment is located in *Miss Sargfabrik*. Residents of both buildings can use all common spaces.

Considering ecological aspects, the building of *Sargfabrik* was constructed in an energy-efficient way, there are solar panels on the rooftop for warm water, and the building is supplied with green power. Due to the legal requirements of the housing subsidy (*Heimförderung*), only seven parking spaces for cars (1 per 10 home units) had to be planned. These were never constructed but are visible on the architectural plan, located in the open space [4].

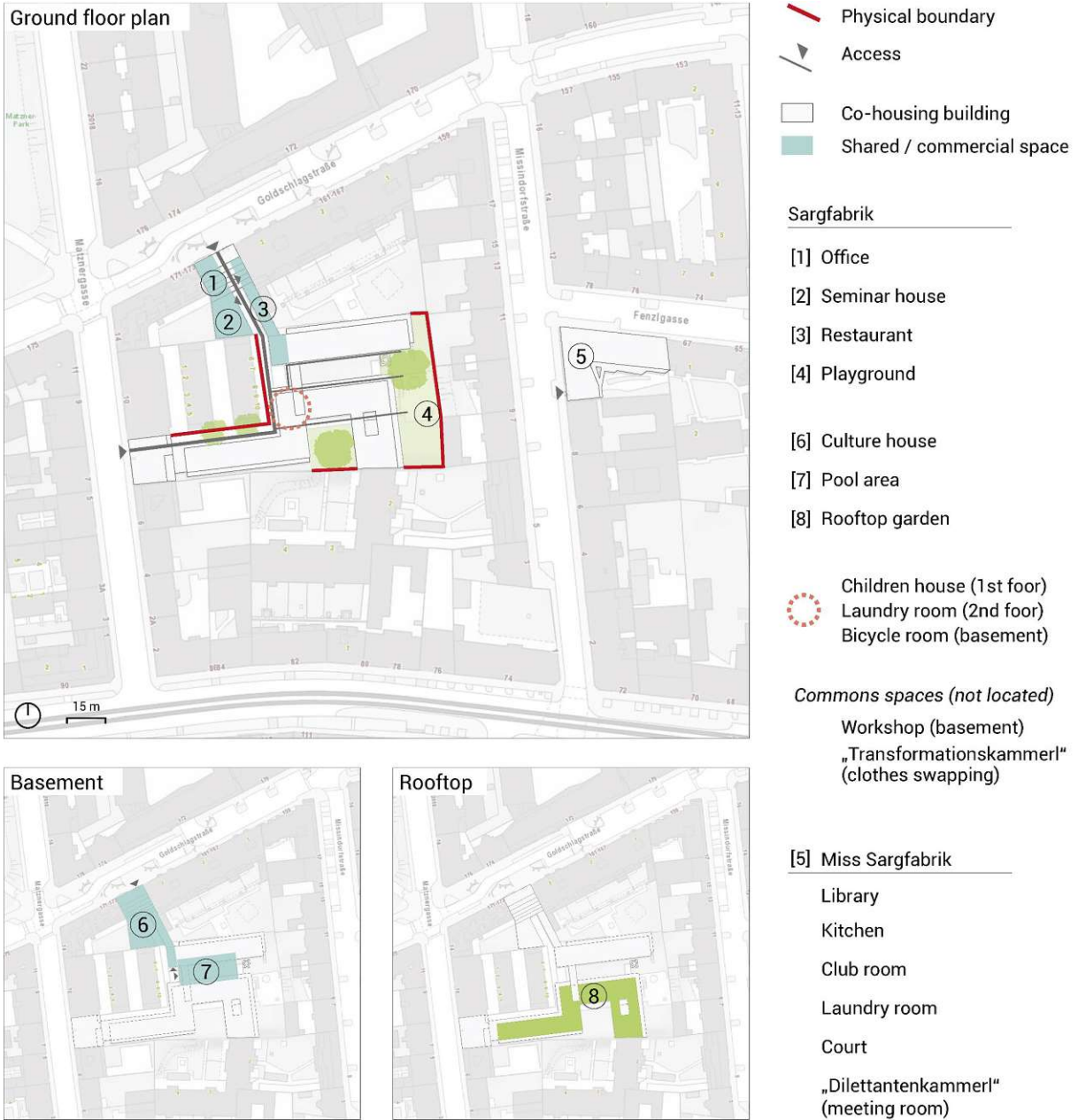


Fig. 52: Floor Plans Sargfabrik (own representation, source: Winter 1996, map source: basemap.at)



Fig. 53: Rooftop garden and access balcony, Sargfabrik (own photograph, 2023)



Fig. 54: Semi-private space above the bathhouse, Sargfabrik (own photograph, 2023)



Fig. 55: View towards main entrance, Sargfabrik (own photograph, 2023)

Boundaries and threshold spaces

To understand the socio-spatial relations between the *Sargfabrik* and its neighbourhood, examining the boundaries and threshold spaces and how they are negotiated is necessary. Fig. 56 illustrates various degrees of social boundaries and spatial porosity of *Sargfabrik*'s spatial resources and surroundings. The focus of this analysis is the building of the *Sargfabrik*. As mentioned, *Miss Sargfabrik* has a more clearly defined boundary on the block edge since access to the inside of the block requires keys. The architecture of the *Sargfabrik* building is generally open, allowing for blurred boundaries between different spaces. The absence of physical borders puts social and symbolic or perceived borders more into focus. Even though some visitors cross private borders, the residents of *Sargfabrik* are used to this openness and tolerate visitors. In the past, the group temporarily stopped doing guided tours during weekends, but in the meantime, residents are comfortable with it. When asked how they would deal with vandalism, the answer is reducing boundaries and opening up (FG Sargfabrik 2023).

A major difference compared to the other cases is that non-residents can access the private doors on the ground floor level as well as on the access balconies since there is no physical barrier and no zones explicitly marked as "private". The glass front on the southern side of the building parts allows for view connections between private and open spaces on the plot. To avoid discomfort for both parties, guides inform visitors about privacy and respect these boundaries during guided tours. (FG Sargfabrik 2023)

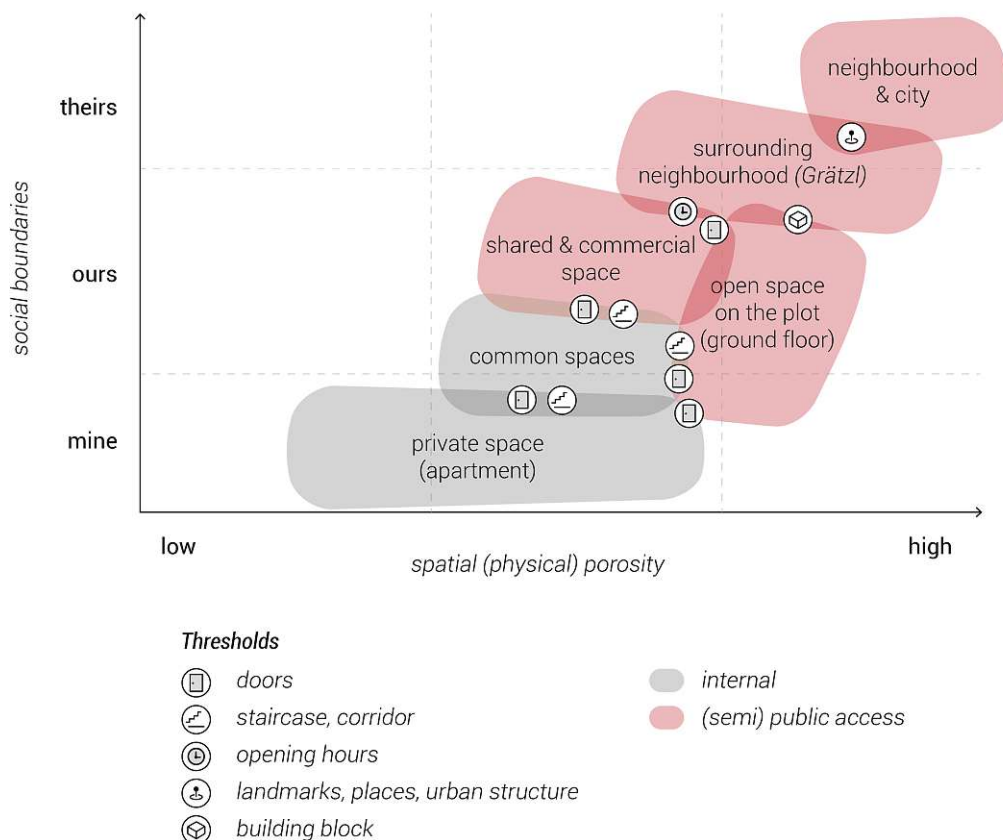


Fig. 56: Sketch of socio-spatial boundaries and thresholds, *Sargfabrik* (own representation)

The common indoor spaces in the *Sargfabrik* building and the rooftop terrace cannot be accessed by external visitors regularly, but some view connections exist. For example, the laundry room's entrance is located on

the access balcony. Moreover, most indoor common spaces for residents are located in *Miss Sargfabrik*. The shared and commercial spaces are open for the neighbourhood under different conditions depending on the respective house. The restaurant is generally open to the wider public during opening hours and provides an outdoor space on a parklet for guests during summer. Depending on the event, the culture house is open for a specific target group. Using the *bathroom* requires a membership, except for courses and public events. In contrast, the *children house* has both membership and temporal boundaries in addition to the physical boundary (entrance door). Despite these conditions, the shared and commercial spaces are open to the public, and the surrounding intermediate zones are publicly accessible.

The ground floor level open spaces are generally accessible, and the pathway between the two site entrances can be used as a public passage during the day. However, the other parts of the open space on the ground floor level may seem more private since one has to pass close to the glass facades of the apartment units. Given the historical block structure, there is a clear boundary between the inside and outside. However, the semi-public passage of *Sargfabrik* blurs this boundary to some extent, making the boundaries to the neighbouring plots more present. The red lines in Fig. 52 indicate walls that prevent view connections on the ground floor level. Especially the western plot is a “sore point” for the residents of *Sargfabrik* as they wanted to purchase the plot but could not compete with a financially strong developer. Consequently, there is a hard boundary to the neighbouring plot.

The transformation of the *Goldschlagstraße* in the section of the block provides an interesting aspect regarding shared resources and boundaries. Since then, *Sargfabrik* has been more visible in public space, and the street offers space to linger for visitors as well as residents. In addition to the physical dimension of the built environment, temporal events in *Goldschlagstraße*, such as the *Matzner* market, blur the boundary between the project and the neighbourhood.



Fig. 57: Semi-public path, *Sargfabrik* (own photograph, 2023)



Fig. 58: Open space ground floor, *Sargfabrik* (own photograph, 2023)

Reaching out to the neighbourhood and the city – collaborative networks

The collaborative network presented in Fig. 59 identifies key stakeholders at different spatial levels and assigns them to different types of social capital resulting from their connections. Given the broad network of *Sargfabrik* and the unique role of the co-housing project in the city and neighbourhood context, the focus is on current connections, most of which were discussed in interviews. The dots' filling indicates the temporal dimension of the connections while emphasising the period during which it was or is most relevant.

Bonding connections arise from the project's working structure and social interactions between neighbours. For instance, some of the working groups shown in Fig. 50 are responsible for internal matters that support community building, such as the *rooftop gardening group* (space-related) or the *buddies couple* (capacity). To

address internal conflicts, *Sargfabrik* introduced the “Salzamt,” where residents can anonymously deposit their complaints, which are then resolved through arbitration (FG Sargfabrik 2023).

Regarding internal ties, the size of the co-housing project – more than 200 residents in 112 apartment units – is particularly noteworthy compared to other projects. The residents interviewed believe that this is a good size because not everyone has to get along with each other, and the community can absorb some disagreements (FG Sargfabrik 2023). In addition, *Sargfabrik* has a diverse mix of residents in terms of socio-economic and ethnic backgrounds, age, and personal needs, which is a particular focus of the association *VIL*. Therefore, the inclusion of different social groups creates bridging social capital within the community at an individual level.

Since the analysis focuses on collective action rather than individual networks, a closer look should be taken at the units or initiatives on the edge between bonding and bridging connections. These include, first and foremost, the business units and independent businesses (houses) of *Sargfabrik* described earlier. While the *children house* has a specific target group, the other houses address different individuals, initiatives, or businesses. The *children house* is important in creating internal bridging connections since they regularly attend the *bathroom* and the *cultural house*. As part of the administration and services of *VIL*, public relations are another node on the threshold between bonding and bridging connections, as well as linking connections that reach beyond the local level. (FG Sargfabrik 2023)

The restaurant enables various social connections at the project and neighbourhood level and beyond. As mentioned earlier, the external business *Die Kümmerer*, which focuses on social sustainability, runs the restaurant and is an essential bridging connection for the co-housing association *VIL*. Residents of *Sargfabrik* and *Miss Sargfabrik* receive a discount on meals at the restaurant. At the same time, external clients and visitors to cultural events are important sources of income for the restaurant.

The culture house plays a central role in reaching out to the neighbourhood and the city, and the event location has gained a city-wide reputation. The association responsible for curating the program focuses on music and theatre to address a broad audience, including children, through several theatre and music events. The *Verein Lebenswertes Matzner Viertel* is a key player in socio-spatial relations with the neighbourhood since many *Sargfabrik* residents are part of this association, which advocates for more quality of life in the area. The infrastructure and social engagement of *Sargfabrik* are vital resources for the *Verein Lebenswertes Matzner Viertel*, and conversely, the association aligns well with the neighbourhood vision of *VIL*. For instance, the neighbourhood initiative, in cooperation with *Sargfabrik*, promoted the transformation of the street section in front of the *Sargfabrik* building. Moreover, they have organised the weekly *Matzner* market since 2022, which is often accompanied by small street concerts and serves as a meeting point for the neighbourhood. (FG Sargfabrik 2023)

Furthermore, they organise a parklet in front of the community garden *Matznergarten* and an open bookshelf at the corner of *Goldschlagstraße/Matznergasse*. The association of *Lebenswertes Matzner Viertel* has a dense network with local businesses and other local initiatives, such as the community garden *Matznergarten* or the *Initiative Westbahnhof* – the latter aims to create green space on the area of the western train station. Moreover, the association gave rise to a civic initiative to activate vacant ground-floor premises. Due to spatial proximity and ongoing collaborations with businesses (*Okto TV*), the *Wirtschaftspark Breitensee* is also part of the collaborative network, and the co-housing project occasionally uses some spatial resources there. *Wirtschaftspark Breitensee* was also part of the extensive planning process for the transformation of *Goldschlagstraße*. These examples show how the civic engagement of co-housing residents of *Sargfabrik* radiates into the city and unleashes new potentials for bridging social capital.

At a higher level, the *Regionalforum 14* fosters bridging and linking social capital in the neighbourhood by providing an exchange platform for local initiatives in the district. Different NGOs, institutions, and associations, such as *Lebenswertes Matzner Viertel*, meet monthly to exchange ideas about their activities (FG Sargfabrik 2023). For example, the *GB* neighbourhood management* is also part of this forum and has witnessed the growth of the neighbourhood association *Lebenswertes Matzner Viertel* (Dutkowski and Stepanek 2023).

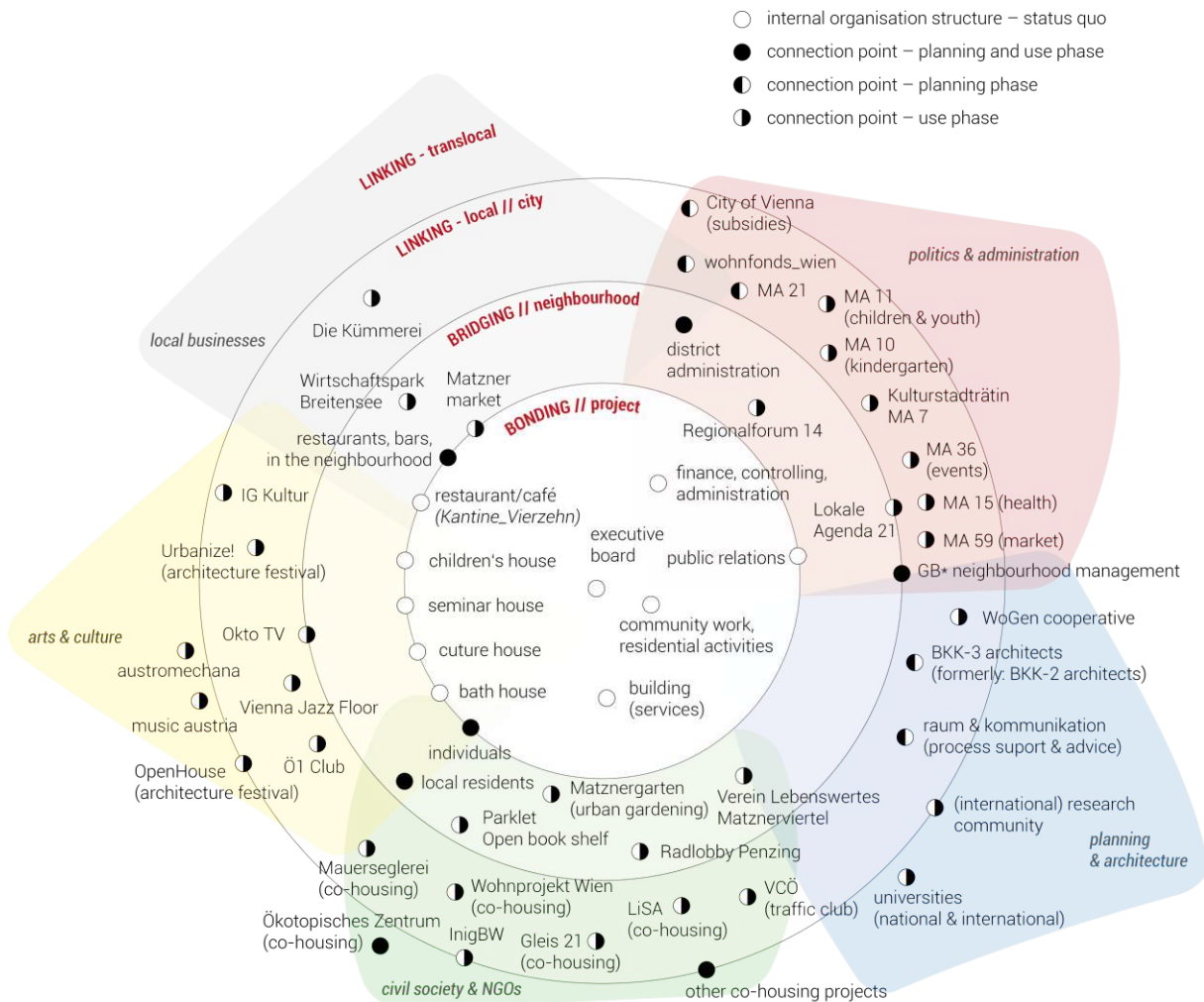


Fig. 59: Sketch of the collaborative social capital network, Sargfabrik (own representation based on the focus group interview, complemented with desk research)

Since the planning phase of *Sargfabrik*, the initiators have established linking connections to the district and city administration in favour of the co-housing project. Different departments (MA - Magistratsabteilung) at the city level financially support the housing project and their cultural and social activities. During a district festivity in 2018, *Lebenswertes Matzner Viertel* hosted a neighbourhood party in Goldschlagstraße in cooperation with other local initiatives that are part of their network. (FG Sargfabrik 2023)

As an influential icon in urban planning, the *Sargfabrik* enjoys a well-connected position in the national and international planning scene. An example of this was the opening of the urbanise! architecture festival in autumn 2022, which took place at *Sargfabrik*, where the co-housing project was described as a “key transformation-motor in a city of short distances” (dérive – Verein für Stadtforschung 2022).

Several bridging and linking connections of *Sargfabrik* arose from individual networks. Some residents who were part of the project from the beginning are well-known personalities in the planning scene. For instance, Robert Korab, whose company *raum & kommunikation* accompanied the planning process of *Sargfabrik*, is one of the founders. Willi Novak from *VCÖ*, a public-benefit organisation for mobility and transport, is also an initiator of the project, and the expertise of *VCÖ* was crucial for the transformation of *Goldschlagstraße*. Another initiator, Ute Fragner, is a founder and board member of *WoGen -Wohnprojekte-Genossenschaft e.Gen*, the first and only property developer for collaborative housing projects in Austria.

These networks, which are based on “individual nodes,” facilitate learning processes beyond the local level and have contributed to the reputation of the co-housing project. For example, *Sargfabrik* has supported the development of the co-housing project *LiSA* in *Seestadt Aspern* and provided advice. Many other projects and developers have copied some of the planning principles, such as the location of common spaces (e.g. laundry room), and the co-housing project is regarded as a “trendsetter” in providing collective spaces in collaborative housing settings. Due to ongoing interest and research, *Sargfabrik* residents regularly offer guided tours and are interviewed, which is also part of their voluntary engagement. (FG *Sargfabrik* 2023)

Relations and interactions in times of crises

Between 2020 and 2022, *Sargfabrik*'s businesses were significantly impacted by COVID-19 measures. As a result of lockdowns and other restrictions, the culture house, bathhouse, and restaurant were closed, with only the management continuing to operate as usual. Some employees, such as the bath attendant and culture house responsables, worked reduced hours. The association complied with official measures and had a person responsible for COVID-19 matters, with no significant internal conflicts reported. *Sargfabrik*'s social and spatial resources provided a strong foundation for residents and businesses to adapt to the new situation. For example, the technical infrastructure of the culture house allowed for streaming concerts during lockdowns, which were based on donations and provided a source of income when face-to-face cultural events could not take place. (FG *Sargfabrik* 2023)

Internal meetings were held online, and the transition to digital tools went smoothly, thanks to internal competencies and neighbourly support. As restrictions were reduced, the community introduced hybrid meetings to allow participants to choose their preferred mode of participation. In the focus group interview, residents highlighted the community's resources and personal capacities to cope with the pandemic, not only in terms of digital communication but also medical advice and mutual support. A resident, who is a professional doctor, provided co-housing residents and the surrounding neighbourhood with information and advice and established a hotline for this purpose. Anxieties and fears were addressed through neighbourly support, good communication, and trustworthy information. (FG *Sargfabrik* 2023)

Moreover, the common and shared spaces in *Sargfabrik* and *Miss Sargfabrik* proved to be important spatial resources for residents during the pandemic. However, the two buildings were “more separated” than usual due to the reduced possibility for face-to-face social interaction, and meetings and activities, such as yoga, took place online. Similar to the co-housing *Gleis 21*, common spaces of *Sargfabrik* were used as home office spaces during lockdowns. In contrast to *Miss Sargfabrik*, the *Sargfabrik* building in *Goldschlagstraße* had more outdoor shared spaces on the rooftop and ground floor, where residents could get fresh air and meet others while maintaining physical distance during lockdowns. A new format of making music with other residents on the rooftop resulted in new bridging social connections with neighbours of the block who also spent time on their rooftops and joined music sessions. (FG *Sargfabrik* 2023)

The long-established social bonds among residents were a key resource, and one resident reported that it was reassuring to see that *Sargfabrik*'s lived practice of a solidary community could withstand an extreme situation

like the pandemic. Some bonding connections were reinforced, and everyone seemed to have a trusted person during these difficult times. For instance, two neighbours started cooking for each other regularly and continue to do so today. (FG Sargfabrik 2023)

7.5 Synthesis and key findings

Hereafter, the main findings from the three case studies are synthesised and interpreted to address the research questions. On this basis, the role of co-housing projects in the urban fabric is summarised, and the conclusion outlines future fields of action.

The first research question sought to elucidate how socio-spatial relations between co-housing projects and their urban neighbourhoods are being produced, focusing on different kinds of relations, threshold spaces and changes during the pandemic. The second research question revolved around the role of the neighbourhood and urban setting in the commoning practice of co-housing communities. Finally, I identified transformation potentials for enhancing urban resilience while also outlining constraints inherent in the socio-spatial relations between co-housing projects and their neighbourhoods.

Socio-spatial relations between co-housing projects and their urban neighbourhood from an urban commons perspective

To explore the socio-spatial relations between the co-housing projects analysed and their neighbourhoods, the social connections, as well as the physical structure of the shared resources, were analysed. In this context, the spatial boundaries between different spaces and the related negotiation processes of the co-housing communities proved to play a key role in opening up to the neighbourhood and maintaining long-term openness. In this context, planners set a frame for use flexibility and the user's socio-spatial appropriation and adapting of boundaries on different scales. On the neighbourhood level, a masterplan (e.g. *Sonnwendviertel*) might define the building structures and spaces between buildings. Accordingly, the responsible authority defines the land use and zoning plan, and depending on the framework conditions, co-housing groups might influence the legal guidelines in the zoning plan. Planners often work with certain principles that can possibly foster social interaction, as defined, for example, by Williams (2005: 203), mentioned earlier in this work.

During the planning phase, the co-housing groups laid the foundations for governing their common resources and deciding what kind of resources are open to the surrounding neighbourhood. Internal structures located at the edge between bonding and bridging connections are prerequisites for opening up collective resources. While *Gleis 21* and *Sargfabrik* run cultural businesses or several business units, the co-housing project *Wohnraum Künstlergasse* rents their common space to external users. Running a cultural business requires a certain public perception and an audience attending events to maintain and finance this kind of socio-spatial relation with the neighbourhood and the city. In contrast, the latter co-housing project does not depend on such a radiance for renting out their common space.

Furthermore, the role of the different urban settings of the case studies was elaborated. The differences between existing structures (*Gründerzeit* block structures) and the newly-developed *Sonnwendviertel*, where *Gleis 21* is located, are particularly interesting since they entail different actor constellations impacting the neighbourhood relations in the planning and use phase.

What kind of relations in terms of social capital exist with the wider neighbourhood?

Three types of social relations – bonding, bridging and linking – that enable connections and synergies on different spatial levels were discussed in the analysis. Although bridging connections are most relevant on the neighbourhood level, these would not arise without bonding social capital within the community and linking connections with authorities and other stakeholders on the city level and beyond.

Firstly, bonding social connections within the co-housing community at the project level arise from the formal organisation structure and decision-making processes (governance). All projects analysed are legally

organised as an association requiring specific roles and organs – board, general assembly, cashier, secretary – defined in the statutes. The number of working groups responsible for different tasks depends on the community size, the extent to which resources are shared beyond the project and the group’s responsibilities. It seems that keeping the openness to the neighbourhood and managing shared resources require a certain community size on the one hand and professionalisation of the organisational structure on the other hand. Both, *Gleis 21* and *Sargfabrik* operate businesses or business units with employees who relieve the personal resources of community members. In general, sub-units or roles with external contacts require a clear definition and continuous commitment and some tasks, like cleaning, might be outsourced. Furthermore, the organisational structure depends on the ownership structure and whether the co-housing group is in charge of property management. While *Gleis 21* and *Sargfabrik* own and manage their buildings, the building of *Wohnraum Künstlergasse* is owned and managed by the *PUBA foundation*. As a result, the bridging connection between *Wohnraum Künstlergasse* residents and the *PUBA foundation* determines the co-housing group’s scope of action regarding their spatial resources, whereas the other projects have a certain degree of freedom of action and decision-making power in this matter. This has implications for the decision-making scope regarding the socio-spatial boundaries of each co-housing project.

Another aspect is that larger communities have more capacities to deal with the (temporary) unbalanced engagement of individual group members and differences of opinions within the group. It is natural that some group members are friends and have strong informal bonds, while others do not get along. For instance, the *Sargfabrik* community has more than 200 residents, which is, according to them, a good community size to recognise everyone, but at the same time, it would allow for some anonymity.

The case analyses have shown that individual networks are vital for bridging and linking connections from the initiation phase onwards. Individual networks of residents in culture and urban planning are enablers for collective collaboration. During the planning phase, these networks are needed to establish the project and manage and operate shared resources, particularly when the co-housing project relies on income through renting out and operating shared or commercial spaces in the use phase. Reversely, a co-housing group can easily support individual initiatives or civic engagement initiated by single residents, such as planting trees, due to the community’s bonding connections. However, as residents’ experiences in *Gleis 21* and *Wohnraum Künstlergasse* have shown, social formats such as neighbourhood cafés that rely on a single resident can easily overstretch personal resources.

In addition to individual (professional) networks that facilitate bridging connections for the co-housing project, the nodes positioned at the intersection of bonding and bridging connections assume a crucial role in fostering connections with the surrounding neighbourhood. The community defines the use conditions and the degree of openness of shared resources within their scope of action. Moreover, the strategic orientation of the businesses or commercial tenants determines the openness for external users, among other factors. In *Sargfabrik*, the businesses (“houses”) have different target groups, and access is partly limited through membership status or selective culture events. *Gleis 21* and *Sargfabrik* both offer a culture programme in their event spaces for the city and the neighbourhood, making them “cultural anchor points” in the urban fabric. In this context, the artist collective *toZOMIA*, which rents the commercial space on the ground floor in *Gleis 21*, plays a particular role in terms of providing experimental space and non-commercial community services for the wider neighbourhood. In both larger co-housing projects, the non-residential uses are deeply interwoven with the resident’s association, which increases the bonding as well as bridging social capital of the co-housing communities and broadens the co-housing network. All three cases analysed have low-threshold room offers for external users for meetings, workshops and other purposes – a valuable resource for local and citywide initiatives and small businesses.

Co-housing groups collaborate with local institutions and organisations to establish and maintain spatial bridging (and linking) relations with the surrounding neighbourhood. They enter into strategic partnerships to share resources and implement small-scale projects for the neighbourhood. While connections with city-wide actors, such as planning authorities, developers, or architects, are essential during the planning phase, partnerships with local institutions or organisations might emerge or consolidate during the use phase. Local institutions can provide “platforms” (Hendrich 2023) for exchanging information and resources, which are vital in creating bridges with the neighbourhood and overcoming a separation between “we” (co-housing group) and “them” (the surrounding neighbourhood). For instance, the co-housing project *Wohnraum Künstlergasse* maintains a friendly relationship with the *GB* neighbourhood management*, and they support each other’s initiatives. *Gleis 21* and the local *neighbourhood management* regularly exchange resources, such as space, furniture for festivities or mailing lists, particularly during the use phase. As an intermediary organisation, the *GB** supports bridging and linking connections on the local level and can facilitate contacts with the departments of the City of Vienna.

For bridging social connections on the local level of *Gleis 21*, the other co-housing groups play a vital role, and there are several informal and formal cooperations between them. Moreover, in the neighbourhood, several initiatives to improve public spaces have emerged that are supported by co-housing residents of *Gleis 21*. The active involvement of individuals in local initiatives should also be emphasised within the neighbourhood context of *Sargfabrik*, as the co-housing project contributes not only spatial resources and equipment (e.g. to the weekly market) but also valuable expertise and experience, which are partially derived from individual networks and professions.

Finally, co-housing projects depend on linking connections, as well as political support or, at the very least, tolerance, as also outlined in one of the design principles of common pool resources by Elinor Ostrom (1990:90). While the three examined projects received housing subsidies provided by the City of Vienna (*Heimförderung: Gleis 21, Sargfabrik, Sockelsanierung: Wohnraum Künstlergasse*), the co-housing project in the newly-developed area additionally acquired the plot at favourable conditions through a competition for co-housing groups. Apart from linking connections with authorities, the co-housing groups relied on professional partners in the planning process. Co-housing projects, especially if they run cultural businesses like *Gleis 21* and *Sargfabrik*, have a strong interest in maintaining good linking connections with the city administration on the neighbourhood and city level during the use phase to obtain (cultural) subsidies.

Spatial solidarity with the neighbourhood

Caldenby et al. (2019) have discussed the dual nature of co-housing projects, which are both inwardly focused on building community within the project and outwardly focused on demonstrating solidarity with the surrounding neighbourhood by “providing a social function to the neighbourhood or the wider urban context” (Caldenby et al. 2019:180).

The spatial solidarity of *Wohnraum Künstlergasse* with the neighbourhood is limited because of the block structure of the building to some extent, and visitors cannot randomly walk in. Thus, boundaries between private, semi-private, and public spaces are clearly defined. However, the case analysis has shown that bonding relations occur on a small scale within the building block. On the one hand, employees of *neunerhaus* and residents of the neighbouring building use the courtyard and the terrace. On the other hand, external users who take part in courses in the shared space use the terrace. Still, the spatial boundary between public space and the building limits access to “invited” persons. Furthermore, the group has limited shared resources with the wider neighbourhood, focusing on the internal community and a good neighbourhood within the building. Actively opening up to the surrounding neighbourhood happens on special occasions, such as (street) parties.

However, the transformation of space in *Künstlergasse* due to the initiative *Cooler Künstlergasse* planting two trees could also be interpreted as spatial solidarity since the residents' collective engagement opened up new spatial qualities beyond the project.

In the case of *Gleis 21*, this “external solidarity” is not only an intrinsic motivation of the group of residents but is also explicitly desired by the City of Vienna, which provided affordable land for co-housing groups and formulated specific requirements regarding the neighbourhood in the development area *Sonnwendviertel Ost*. The clustering of several co-housing groups in an urban development area offers particular conditions for socio-spatial relations between co-housing projects and their neighbourhoods, as well as for sharing resources beyond the project as outlined. Regarding the project's physical structure in the urban fabric, the open and porous ground floor zone of *Gleis 21* allows for social interaction, and these spaces are open to the neighbourhood.

The case of *Sargfabrik* provides an example of how these two aspects can be successfully addressed from the outset. The project's approach involved planning shared spaces according to the needs of the surrounding neighbourhood and creating a cultural space that extends beyond the project itself (FG Sargfabrik 2023). Providing valuable infrastructure for the neighbourhood, such as the *bathroom*, has resulted in high demand and long waiting lists. Moreover, the case analysis demonstrated that the solidarity with the surrounding neighbourhood has grown stronger through the ongoing engagement of some *Sargfabrik* residents and employees. Professional management and operation of the businesses and business units contribute to maintaining openness in the long term in *Sargfabrik* and *Gleis 21*. Moreover, social and political engagement on a local level, such as the *Lebenswertes Matzner Viertel* and the *Matzner* market, has played a vital role in fostering synergies with the neighbourhood. Metaphorically speaking, the *Sargfabrik* community extends its arms to the surrounding neighbourhood, providing innovative impulses on a local scale and beyond.

How are threshold spaces being shaped by co-housing groups?

Co-housing groups produce “an intentional matrix of private, shared and public territories that allow an expression of both ours and mine” (Felstead et al. 2020:14). Therefore, boundaries and thresholds between those different territories are subject to continuous negotiation processes within the groups. Referring to the territorial awareness in the sense of “mine”, “ours”, and “theirs” (Felstead et al. 2020: 8), I tried to illustrate different thresholds of adjacent spaces (private to public) and the porosity of their boundaries from the co-housing's perspective. Clearly, there is no linear gradation of spaces; they can overlap, and boundaries might be temporary or adapted over time.

On the one hand, the co-housing buildings' physical space and structure predefine some boundaries and thresholds. While the block structure in existing neighbourhoods sets an “inside” and an “outside” of the block, the Masterplan of *Sonnwendviertel* envisaged a very open structure for the plot of *Gleis 21*. As a result, the ground floor level is very porous, and the open space is publicly accessible. Despite the block boundary of *Sargfabrik*, there is a public path inside the block. In contrast, the block of *Wohnraum Künstlergasse* can only be accessed by entitled users. Depending on the building structure and the urban setting, the extent to which the co-housing can influence physical boundaries in the planning process varies. In that regard, the role of planning authorities responsible for land use and zoning plans should be noted – in the Vienna City Administration, the *MA 21* (urban planning and zoning). In the zoning plan, they define alignments and boundaries of buildings, access types or (public) pathways on the plot, which sets a frame for the more detailed building layout and qualities at a later time. The land use and zoning plan of co-housing projects is made in accordance with strategic documents on the city and neighbourhood level. In some cases, the co-housing groups can influence the zoning plan through a “Widmungsansuchen” (zoning request) based on their preliminary draft for

the plot. Sargfabrik residents actively participated in the zoning process. Based on this document, the architects and the co-housing residents proceed with detailed planning of the building. For instance, the definition of spatial thresholds and the location of shared spaces in the building of *Gleis 21* caused a conflict between the architect and the co-housing group.

On the other hand, use patterns can shift spatial boundaries and might even result in physical adaptations during the use phase. In this context, the ground floor zone and its uses play an essential role, and the commercial tenants' focus co-determines social interaction with the surrounding neighbourhood. Therefore, it makes a significant difference whether the co-housing association owns the building and can decide on tenants collectively – like in *Gleis 21* and *Sargfabrik* – or if ground floor spaces are outside the scope of action of the co-housing group, as in *Wohnraum Künstlergasse*. For example, the artist collective *toZOMIA*, which rents the commercial unit on the ground floor of *Gleis 21*, aligns very well with the co-housing's aim to reach out to the neighbourhood and open up. The artists of the collective make threshold spaces and territorial boundaries a subject of their work and experiment with the open ground floor space of the co-housing project and the yet undefined “raw” space under the access balconies. In *Wohnraum Künstlergasse*, the *PUBA foundation* rents out the commercial spaces in the two neighbouring buildings. As a result, the spatial boundaries and usage patterns of shared resources (e.g. in the courtyard) depend on the users themselves.

Another dimension of spatial boundaries is the right to use certain spaces, which is strongly linked to membership statuses (e.g. residents' association and bath club) or other agreements. These boundaries between different spaces can have different characteristics – while some are clearly marked by doors requiring keys, others subtly hint at thresholds between different gradations of private and public. The group might reconfigure these thresholds if non-residents misunderstand or violate these boundaries. As the case of *Gleis 21* revealed, the group took action due to vandalism and placed higher doors at the access balconies and marked boundaries more clearly. This example shows that some boundaries are constantly negotiated and adapted. Although in *Sargfabrik* as well, the private doors of residents can be accessed by visitors, the co-housing project kept these boundaries open, and the public pathway functions well.

Open thresholds in co-housing projects work well because of social control and residents' awareness of shared responsibility. View connections between different spaces support collective care and allow for open boundaries. For example, the glass facades on the ground floor level of *Sargfabrik* enable the residents to “control” the publicly accessible open space; reversely, their presence makes the adjacent open space more private.

What were the major changes regarding the socio-spatial relations during the pandemic?

Due to the COVID-19 pandemic and related measurements, “public” and “private” and the boundary between those spaces gained importance since different regulations were applied. As co-housing residents manage and use shared “private” space, they needed to collectively adapt measurements, which was particularly challenging when no official rules were defined yet. Related difficulties, such as the definition of household, were also discussed in chapter 2.2.

The social bonding relations within the co-housing groups were a major resource to cope with the pandemic since they facilitated neighbourly support (e.g. grocery shopping, cooking, child care) and exchange of information. Previously established bonds, organisational structures and communication tools (e.g. Slack, Zoom) enabled the co-housing residents to take action despite external shocks and insecurities. A *Sargfabrik* resident with a professional medical background even introduced a hotline open for the local neighbourhood. During lockdowns, face-to-face social interactions were often limited to selected bonding connections within the group, and meetings took place online in all co-housing groups analysed.

It seems that larger co-housing communities, like *Sargfabrik* with more than 200 residents, could better absorb conflicts and disagreements regarding COVID-19 measurements since they allow for more sub-groups and not everyone has to cross each other's way. Despite some divisions in *Wohnraum Künstlergasse*, practical and emotional support reinforced bonding connections between residents. Moreover, new social formats emerged temporally during lockdowns, like distance coffee meetings in *Gleis 21* or musical interventions on the rooftop of *Sargfabrik*.

In addition to social connections, collective (open) spaces were crucial in adapting to COVID-19 measures. Open spaces, such as rooftop gardens or courtyards, primarily facilitated social interactions while maintaining physical distance. The block structure of *Wohnraum Künstlergasse* and *Sargfabrik*, with limited visibility to public spaces, offered a "safe haven" for co-housing residents. As external users and visitors were restricted, commercial spaces were underutilised and, therefore, converted into home-office spaces in *Gleis 21*. The co-housing project's businesses were closed, prompting *Sargfabrik* to relocate some events to virtual spaces and host streaming concerts. In line with the rapid trend towards digitalisation, co-housing groups increased their online activities both internally and externally.

The role of neighbourhood and urban setting in the commoning practice of co-housing projects

In the case studies, three different urban settings were examined, whereby two co-housing projects are located in existing urban *Gründerzeit* structures, and one project was built in a newly developed area. Even though, at first glance, the two *Gründerzeit* neighbourhoods have many similarities in terms of the building structure, the projects are very differently embedded in the urban fabric. While the co-housing project *Wohnraum Künstlergasse* was realised in an existing structure as part of a building renovation, and the community occupies half of the apartments of the two buildings, the *Sargfabrik* was newly constructed on the ground of a former coffin factory. Referring to the distinction of Fromm (2012:391), the three different urban settings can be described as urban revitalisation (*Wohnraum Künstlergasse*), urban infill (*Sargfabrik*) and brownfield development (*Gleis 21*).

Besides characteristic spatial and social structures, the urban settings analysed entail very different institutional contexts and actor constellations. Authorities and planners curated the development process of the newly built *Sonnwendviertel* area according to the master plan and the cooperative planning procedure, and the established higher-level structures specifically enabled the realisation of co-housing projects on selected plots. In contrast, in the existing city, previous use and ownership structures, among other factors, determine framework conditions for the commoning practice of co-housing projects.

These different neighbourhood contexts also determine how co-housing groups define their neighbourhood physically and socially. On the one hand, existing physical building structures and landmarks, such as streets, green spaces or railway lines, define neighbourhood boundaries. Existing plans and zonings, such as the masterplan, can moreover reinforce symbolic boundaries. On the other hand, collective and individual activities, connections, and engagement shape perceived neighbourhood boundaries and the collective meaning of neighbourhood as place.

During the initiation and planning phase, the co-housing groups analysed started reaching out to the neighbourhood and looking for local points of contact to different extents. Reaching out to the neighbourhood occurs on different levels and varies throughout project phases. *Sargfabrik*, for example, exchanged ideas with the district administration to find out what kind of services were missing in the local neighbourhood in advance, whereas for *Gleis 21*, the other co-housing projects were important contact points before they moved in. These bridging connections were already established during the planning procedure, which underlines the

added value of clustering co-housing projects in a neighbourhood. The co-housing group also attempted to contact other developers to reach out to future neighbours, but the companies showed little interest. The fact that residents of the new neighbourhood moved in at a similar time created a specific openness to get to know other residents and businesses in the neighbourhood and, thus, facilitated new bridging connections. In this context, the *GB* neighbourhood management* is a supportive resource accompanying the moving-in phase.

Existing neighbourhoods offer previously established contact points for co-housing projects, which are encouraged through physical proximity. Co-housing projects seek cooperation on the local level to share their resources and profit from existing spatial and social resources in the neighbourhood. *Wohnraum Künstlergasse* collaborates with the nearby *GB* neighbourhood management* involved in the planning process and with other local organisations. The long-existing co-housing *Sargfabrik* is a pioneer project in the city and the neighbourhood and is an anchor point for local initiatives.

Particularly in existing neighbourhoods, the attitude of local residents towards the co-housing project impacts the boundaries and thresholds of shared resources. Residents from the surrounding neighbourhood of *Sargfabrik* were sceptical about the project when it was built, but in the meantime, they are thankful for the services (*bathhouse, culture house, weekly market* and others) provided by the co-housing project. It should be noted, however, that the *Matzner Viertel (Sargfabrik neighbourhood)* has undergone major socio-economic changes and gentrification processes in the last 25 years. In comparison, the acceptance in *Sonnwendviertel* was given to some extent, as the neighbourhood had never existed without co-housing projects. Nevertheless, the residents and users of *Gleis 21* noted a minor north-south division within the urban development area and the *Sonnwendviertel Ost*, where several co-housing projects are located, has a more small-scale building and use structure.

The urban setting also has implications for adapting spatial boundaries through co-housing groups and the building's architectural features. Closed *Gründerzeit* block structures have a specific street layout – pavement, a parking lane on each side, and the road in the middle. In the case of urban revitalisation and urban infill, shifting these boundaries is limited, especially when the co-housing group's scope of action is bounded due to the institutional setting. Nevertheless, both co-housing cases in existing neighbourhoods have started initiatives to transform the adjacent public space.

Transformation potentials and limits

Finally, the potentials and limits of the relations between co-housing projects and their urban neighbourhoods for increasing urban resilience on the neighbourhood level are outlined. During the case study analysis, some exciting aspects of the multi-layered issue of urban resilience, mainly related to social perspectives, became evident. However, due to the limited scope of a master thesis and the complexity of urban resilience and its dimensions, this thesis illustrates selected aspects, knowing that the picture is much broader. Therefore, the following exposition can be regarded as a stimulus for further research.

Collaborative housing projects act as space pioneers, introducing new dynamics and triggering socio-ecological transformation processes on the local level by creating spatial and social thresholds between the project and the surrounding urban fabric. As active agents, they cooperate with local institutions and offer an anchor point for local residents and organisations that seek collaboration. Thus, their networks on different spatial levels can be considered a key asset for local urban resilience. It turned out that the internal formal and informal bonds of the co-housing groups and the organisational structure and processes enable stability and adaptation to internal and external changes or shocks. Testing and reflecting on different modes of organisation and decision-making has enabled internal learning processes in manifold ways. According to Irani and Rahmayiezekavat (2021:313) the ability to learn from experiences is a main source of social resilience.

Furthermore, the case studies have revealed that learning processes are not limited to the co-housing groups internally but that these projects are role models for alternative living forms in their neighbourhoods and beyond. For example, researchers, planners, students and other experts visit *Sargfabrik* and *Gleis 21* to study the building architecture as well as their organisational structure, and the *GB* neighbourhood management* regularly includes *Wohnraum Künstlergasse* in their guided tours. Co-housing communities have the capacity to collectively experiment with new forms of housing and self-organisation, and their socio-spatial practices unfold a spatial manifestation radiating into the surrounding neighbourhood. Therefore, the socio-spatial relations between co-housing projects and urban fabric are a valuable resource for urban resilience on the local level.

Solidarity within the community manifests in mutual trust and support among residents, which became particularly visible during the pandemic. Co-housing projects reported emotional and practical support within the project during the COVID-19 lockdown, and they established new social formats, such as singing on the rooftop or distant coffee, to keep up interaction and previously established bonds. Social connections and social competencies to self-organise are vital assets to cope with emerging challenges and crises, such as the pandemic. Social cohesion within the community and beyond might even be seen as a prerequisite for other forms of resilience and transformation capacities, albeit the various dimensions (institutional, ecological, and economic) are strongly interconnected.

Collective spatial resources and a mix of uses allow for external solidarity with the neighbourhood and can potentially foster urban resilience. All projects analysed create cultural spaces enabling bridging connections with the local neighbourhood. Organisational units at the edge between bonding and bridging connections are vital enabling factors for spatial solidarity with the surrounding neighbourhood and, depending on the space, allow for flexibility in usage to some extent. For example, *Gleis 21* transformed its event space into home office spaces during the COVID-19 pandemic. Through self-managed businesses, as in *Gleis 21* and *Sargfabrik*, they can moreover implement socially sustainable jobs. *Gleis 21* also hired two refugees who also live in the project. Even if the commercial uses on the ground floor level are out of the co-housing group's control, like in the case of *Wohnraum Künstlergasse*, the "lived mixed-use" has created bridging connections between residents and employees.

Against the background of eroding systems, co-housing communities can act and react to changes. At the same time, they are deeply embedded in the local institutional housing context, which can be seen as a potential and a barrier at the same time. The linking social capital of co-housing groups is an enabler to realise the project, although institutional frameworks might entail some burdens. Moreover, the linking connections with authorities, institutions and other players in the field can enable co-housing groups to contribute to shaping the transformation of institutional frameworks. For example, the *Sargfabrik* project has contributed to the establishment of the *Wohnheimförderung* (housing subsidies home units frequently used by Viennese co-housing projects). Cooperations with non-profit developers facilitate financing such projects and simultaneously open new business fields for developers.

As outlined, different urban settings open different possibilities for action regarding co-housing groups. In this context, the co-housing project *Wohnraum Künstlergasse* should be highlighted, as integrating a co-housing group into a "regular" building during renovation allows for unique neighbourhood fabric on the plot level. Co-housing projects as anchor points might potentially foster social cohesion on a micro-level and, thus, foster urban resilience.

- *Co-housing residents as active agents in the neighbourhood*
- *Collective property and management of shared resources / collective responsibility for shared resources*
- *Business units or working groups at the border of bonding and bridging connections*
- *Sharing resources within the project and beyond*
- *A mix of uses and use flexibility*
- *“Collectivising” individual networks of residents in arts & culture*
- *Solidarity-based economy model on a small scale*
- *Clustering of co-housing groups in the neighbourhood (cooperation networks), e.g. petition for the pedestrian zone*
- *Strong connections to neighbourhood initiatives*
- *Spatial thresholds that foster social interaction*
- *Sustainable use of resources for construction and operation*
- *Good links to the district administration and other institutions*
- *Translocal networks enable (inter)national cooperations and sharing of knowledge (practice & research)*



Potentials

However, the personal resources of co-housing members are limited, and neighbourhood activities can fail if too few people participate. Being part of a co-housing project per se requires voluntary engagement and many unpaid working hours. Keeping up and negotiating relations with the surrounding neighbourhood, in addition to internal organisation, requires constant effort and can overstretch individual resources. Opening up to external users can also be limited due to legal regulations and liability issues.

It should be recognised that co-housing projects also fulfil a fundamental housing need and that some co-housing residents primarily want to live in caring neighbourhoods. The discrepancy between living in a good neighbourhood and “changing the world” varies between and within co-housing projects. Analogous to the overestimation of the positive effects of co-housing projects, the limits of co-housing projects to foster urban resilience should be considered.

Furthermore, co-housing groups deal with the limits of the hegemonic capitalist system and its neo-liberal exploitation logic. They aim at creating affordable housing while, at the same time, they want to implement high living qualities beyond the standard through shared space resources. To move in, residents must usually contribute with high initial capital resources, which might be an obstacle for some. Even if the buildings of *Gleis 21* and *Sargfabrik* were withdrawn from the real estate market since they are collective property with the resident’s association as owner, they would rely on revenues from renting out shared or commercial spaces. For non-profit-oriented tenants, such as the artist collective *toZOMIA*, the high rent challenges their existence.

Despite these limits, the co-housing projects analysed present alternative ways of living together, sharing and managing resources. This way, they can contribute to the transformation of current practices on a very local scale, and their social capital enables them to have an impact beyond the project on different levels.

This research question focused on the potentials and limits of socio-spatial relations and the related social practices and networks, but the synthesis merely hinted at economic and ecological aspects of collective resource management, sharing practices and solidary economies in co-housing projects. In this context, it should be mentioned that Viennese housing subsidies set certain standards in terms of ecological, economic,

architectural and social criteria. Depending on the scope of action and decision-making during the planning process, co-housing projects exceed these by far, like the innovative wood-hybrid construction of *Gleis 21*.

Potentials and limits can change over time depending on different factors, such as urban settings or the resources of the co-housing group. While some relations develop during the planning process already – such as cooperations between co-housing groups in *Sonnwendviertel* – others emerge some years after the settling-in phase of the residents. Relations might be temporal but could still open opportunities for synergies at a later point in time. Precisely in this flexibility, coupled with the permanence of these socio-spatial relations, lies an essential building block for urban resilience.

→ *Personal resources of residents*

→ *Time resources of residents*

→ *Limited financial resources of the co-housing association and no-commercial uses (affordability)*

→ *Unequal engagement within the community*

→ *Usage and financial pressure regarding non-residential uses*

→ *Different needs to define boundaries between “mine”, “our”, and “their” space within the group*

→ *Violation of spatial boundaries by non-residents (e.g. vandalism)*

→ *Legal regulations and liability issues*



Limits

PART C: CONCLUSION AND OUTLOOK

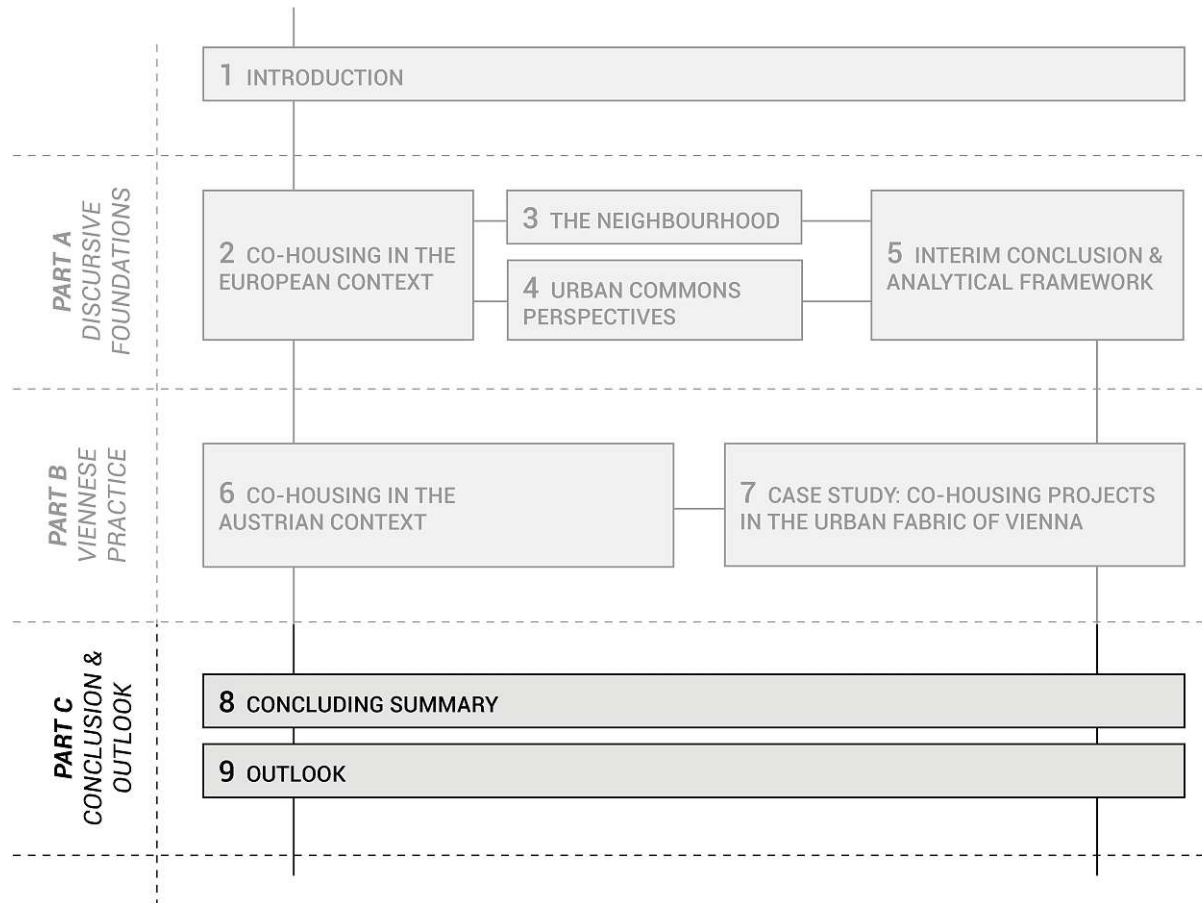


Fig. 60: Structure of the thesis – Part C (own representation)

8 CONCLUDING SUMMARY

Collaborative housing projects address today's crises and challenges on various layers based on a fundamental need in our society: housing. In the European context, various models have emerged, featuring collaboration throughout different phases and shared resources among residents. Their experimental practice of living together is usually not limited to internal collaboration, but these projects establish socio-spatial relations and synergies with the surrounding neighbourhood. Based on a literature search and three case studies conducted in Vienna, this work has shown that socio-spatial relations between co-housing projects and their surrounding neighbourhood manifest in physical thresholds and social connections on several scales. As active agents, co-housing projects enter into strategic partnerships with local institutions, initiatives, and projects, sharing and exchanging resources in collaborative neighbourhood networks.

Examining the concept of neighbourhood at both theoretical and practical levels facilitated a comprehensive understanding of the local scope of action for co-housing projects. Drawing from the residents' perspective, physical, social and symbolic dimensions define the neighbourhood as place (Vogelpohl 2014). Social connections and networks, or overlapping social spheres with fuzzy boundaries, would emerge around one's home, according to the conceptualisation of neighbourhood by Schnur (2014:44f). The concept of social capital – a commonly cited approach in neighbourhood research – provided a practical approach for the case studies to grasp the collaborative networks of co-housing projects on different spatial levels. In this context, bonding social connections refer to internal connections within the respective co-housing project, in the Austrian context, often organised as an association with different working groups. In contrast, bridging connections describe relations to other organisations or initiatives on the neighbourhood level, while linking social capital is mainly about connections to authorities and institutions on the city level but was not interpreted exclusively as such. Instead, in this work, local and translocal linking connections also included non-governmental institutions, organisations or initiatives.

The ambiguity of neighbourhood as a term becomes evident in translation since “Nachbarschaft” in German seems more precise than in English and refers mainly to the social construct and social relations between neighbours. In contrast, the Viennese term “Grätzl” is broadly used to refer to spatial dimensions of the neighbourhood. The case analyses confirmed these considerations about “Nachbarschaft” and “Grätzl” and provided insights into how co-housing groups define and address their neighbourhood. Depending on the urban setting and the related building structure, co-housing groups define “Grätzl” and “Nachbarschaft” based on different socio-spatial relations.

As for urban settings, a newly developed area and historic block structures (*Gründerzeitstadt*) entail different conditions for integrating co-housing projects into the urban fabric. A closer look at the Viennese context provided insights into different neighbourhood contexts and institutional framework conditions. While many older projects established before 2009 (mainly in the last century) integrated into existing *Gründerzeit* block structures, most recent projects are located in urban development areas and are sometimes clustered with other co-housing projects. In 2011, the City of Vienna introduced competition procedures for co-housing projects as a tool for urban development and to provide these groups with affordable land, which is a major challenge for co-housing groups, particularly in existing structures. The empirical evidence highlights that urban qualities shaped by planners constitute a fundamental framework for the socio-spatial relationships of co-housing projects and their neighbourhood in the use phase. Strategic documents such as master plans, as well as land use and zoning plans, predefine threshold spaces, spatial boundaries, and potential uses.

To explore the socio-spatial relations with the neighbourhood in detail, case studies in three Viennese co-housing projects were conducted: *Sargfabrik*, a very famous co-housing project with more than 200 residents on the plot of a former coffin factory; *Wohnraum Künstlergasse*, a smaller co-housing community with around 30 residents that was part of a block renovation and *Gleis 21* a medium-sized community with approximately 80 residents in the new urban development area *Sonnwendviertel*. I approached the case studies with an urban commons lens, which enabled me to delve into the structures and processes of shared resources and their spatial manifestation in the co-housing projects analysed. The analysis aspects were roughly divided into resources (shared resources among residents), community (co-housing group), collective governance and the institutional context. In addition, the analytical approach incorporated several neighbourhood aspects to grasp the urban setting of the respective case and the concept of social capital to understand the collaborative network of the projects.

The co-housing projects analysed all focus on arts and culture and offered spatial resources to external users for rent. Particularly the larger communities *Gleis 21* and *Sargfabrik* can be seen as lighthouse projects in their neighbourhoods, managing cultural and commercial spaces or even services for external users. These include, for example, event spaces, gastronomy offers or seminar rooms. *Sargfabrik* also provides social infrastructure (child care, bathhouse) for the surrounding neighbourhood, while the experimental space of the artist collective *toZOMIA* on the ground floor of *Gleis 21* plays a crucial role in creating bridges to the neighbourhood. The respective spatial configuration and use structure of the shared resources evoke different gradations of private and public, resulting in different definitions of “mine”, “our” and “their” space from the co-housing’s perspective, which emerge regardless of the ownership structure. Threshold spaces and boundaries vary due to the urban setting and the building structure. Closed block structures, like in *Sargfabrik* and *Wohnraum Künstlergasse*, allow for a more “private” open space inside the block and more intimate social interactions, while the open ground floor of *Gleis 21* is very porous and publicly accessible. Nevertheless, block edges can be blurred, like through the public pathway in *Sargfabrik*, and some boundaries are temporal and occasionally opened up when external users are invited. Intermediate zones and spatial boundaries undergo constant negotiation processes – especially when different needs for privacy emerge within the community – and require constant care through the community.

The internal organisational structure of the co-housing projects reflects the ownership structure, the community size and the share of non-residential use. *Gleis 21* and *Sargfabrik* have established additional legal bodies to run their (cultural) businesses that play a vital role in sharing and providing their resources with external users. Since managing and maintaining collective resources requires continuous commitment, the co-housing groups organise into different working groups responsible for social and spatial resources. Formal and informal internal bonds are a prerequisite for opening up to the neighbourhood, and it became evident that organisational units at the edge between bonding and bridging connections – between project and neighbourhood or even the city in spatial terms – play a significant role in this context. Furthermore, the co-housing residents showed high civic engagement in local initiatives aiming at the sustainable transformation of public space (planting trees, traffic calming measures and others) and fostering cooperation among local businesses and residents. Individual resources of some co-housing residents can enable bridging social capital relevant for the whole community and should not be underestimated.

Further, co-housing projects depend on linking connections with authorities and other stakeholders in the planning and use phase. As an intermediate organisation at the edge between bridging and linking connections, the *GB* neighbourhood managements* are partners of co-housing projects, providing expertise and resources. Notably, they are vital contact points for co-housing groups during the planning phase. Linking connections of co-housing projects have different characteristics, from mere enablers to cooperation partners. According to the urban setting and co-housing model, actor constellations and institutional framework

conditions vary, as shown in the comparison between the new development area *Sonnwendviertel* and the historic *Gründerzeit* block structures.

In the face of increasing scarcity of resources, the transformation of existing structures will gain importance, and co-housing groups seem to be promising active agents in urban renewal processes. Historically grown structures require different approaches, and clustering co-housing projects, like in new development areas, might inspire collaborative neighbourhood developments beyond co-housing groups in existing neighbourhoods. The case of *Wohnraum Künstlergasse* has shown how a co-housing group inhabiting a building part can foster social interaction with other tenants and offer them possibilities to participate.

Even if co-housing projects are a niche phenomenon and have limited resources, their experimental practices and embedding in the hegemonic system offer high potential to unfold a bottom-up transformative force. Their collective social and spatial practices trigger and actively shape local change and learning processes. Therefore, they are role models for resilient communities in the urban fabric. Especially their manifold socio-spatial relations have shown that they actively engage with the neighbourhood and seek local collaboration and resource exchange. Due to collective organisation, they can tackle global challenges, like the COVID-19 pandemic, on a very local scale, and their shared resources allow for maintaining a certain scope of action.

As active agents, co-housing groups do not only provide resources for the neighbourhood but also actively use existing resources in the neighbourhood. An analysis of the surrounding neighbourhood in advance can pave the way for resource sharing and exchange in the use phase and potentially relieve the workload of co-housing groups when they have access to existing resources. The case analysis has revealed that co-housing groups are mainly resource providers, but their collaborative networks and activities enable them to access and use external spaces and mobility offers, among others. Depending on the urban setting, other co-housing groups or local businesses are important partners in this respect.

However, co-housing projects also meet basic housing needs, and their community resources are limited. The establishment, maintenance and internal organisation of co-housing groups require many unpaid working hours, but the individual resources of residents are limited. Not only internal group processes are often challenging, but also the institutional framework entails several obstacles. Currently, there is neither a specific legal framework for co-housing groups nor a contact point on the city level in Vienna, and co-housing groups must figure out their own (legal) structure. Although there are many experienced stakeholders, like consulting agencies accompanying the planning process, architectural companies, the *Initiative Collaborative Building & Living* or other co-housing groups, every group must acquire the knowledge needed since practical knowledge is not systematically documented.

9 OUTLOOK

9.1 Fields of action

Several fields of action can be derived from the experiences and findings from the case studies and the Viennese context. These recommendations mainly address policymakers and developers in the Viennese and Austrian contexts but may also be valid in a wider context. Although some of the following aspects have a general character, all of these are relevant to unlock the potential of socio-spatial relations between co-housing projects and the surrounding urban fabric.

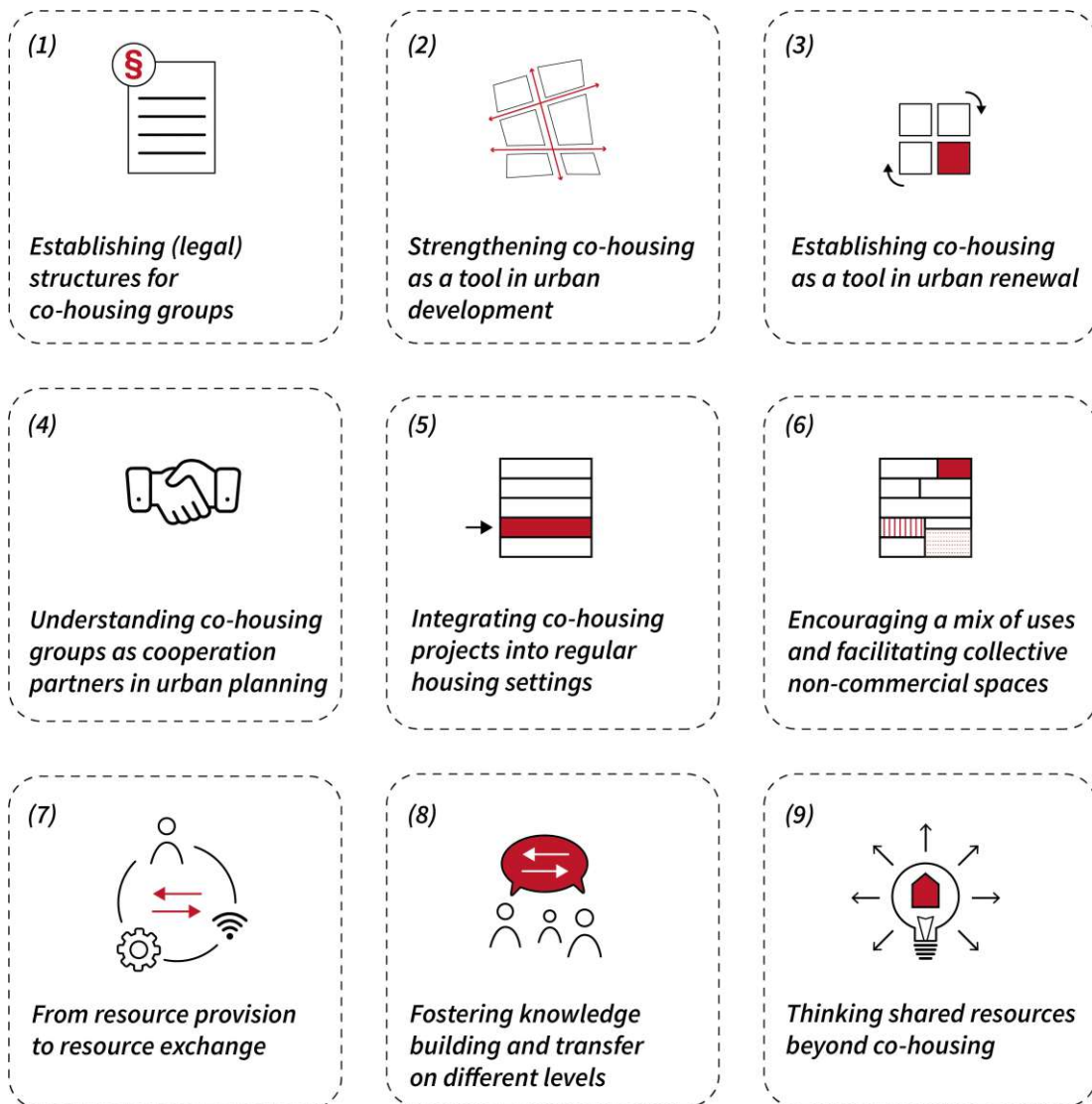


Fig. 61: Fields of action (own representation)

(1) Establishing (legal) structures for co-housing groups

This work has shown that co-housing projects establish an added value beyond their project and provide new impetus for their surrounding neighbourhoods. To facilitate the establishment and planning process of co-housing projects, a contact point, like the *Agentur für Baugemeinschaften* in Hamburg, which provides advice and facilitates networking among different projects, could be established in Vienna. Moreover, co-housing groups could be provided with means to establish paid jobs to develop and maintain such projects.

The housing subsidy law (WWFG) should be added a new category for co-housing projects and allow for more possibilities for alternative housing models. The frequently used *Heimförderung* implies several measurements regarding fire exits and safety standards hindering co-housing groups, while other subsidy models require a third of the apartments to be externally allocated through *Wiener Wohnen*. Adaptions and new structures should be developed with relevant stakeholders from administration, research and practice.

(2) Strengthening co-housing as a tool in urban development

The City of Vienna has already recognised the potential of co-housing projects as a tool for urban development and has introduced a procedure for co-housing projects to allocate land. This competition procedure was applied in several urban development areas and has enabled co-housing groups to acquire affordable land. In exchange, the City of Vienna can stipulate use concepts with an added value for the neighbourhood or open ground floor zones, for example. Notably, the proximity of several projects – either on the same plot or distributed in the neighbourhood – facilitates cooperation between projects and sharing resources. Therefore, the City of Vienna should continue to reserve plots for co-housing projects in future development areas.

(3) Establishing co-housing as a tool in urban renewal

Since urban development areas and resources, such as land or building materials, are becoming scarce urban planning is increasingly focusing on transforming existing structures. Furthermore, existing buildings, such as *Gründerzeit* block structures, must be renovated and renewed to meet new quality standards regarding energy, accessibility and others. Co-housing groups should be integrated into urban renewal processes or block renovations in this context, as their shared resources and sharing practices usually go beyond the internal community. Retrofit-co-housing has the potential to revitalise and transform empty buildings and provide a valuable alternative to demolishing existing buildings. Complicated ownership, building structures, and competing goals need diverse and innovative approaches in developing existing structures with or by co-housing groups. This requires the activation and rethinking of existing planning instruments and approaches and the inclusion of a spectrum of stakeholders. A contact point for co-housing groups should take into account various urban settings to foster urban renewal processes with co-housing groups. To further explore the potentials and possibilities, inter- and transdisciplinary cooperation and knowledge building remain a broad field of action.

(4) Understanding co-housing groups as cooperation partners in urban planning

Co-housing groups are active agents in their neighbourhood, and the City of Vienna and developers should empower them as cooperation partners. As outlined in the two previous fields of action, their interests align with public interests in urban development and renewal, such as common spaces for the neighbourhood and liveable public spaces. Furthermore, already established projects can function as contact points

for local initiatives and organisations due to their collective organisation and communication channels resulting in synergies and collaborations. Their bridging and linking social capital can enable sustainable transformation processes on the local level, and thus, these resources should be connected while balancing top-down and bottom-up processes.

(5) Integrating co-housing projects into regular housing settings

In Vienna, a mixture of different apartment types and subsidy models within one building is already common practice. As for co-housing projects, a few examples in Vienna show how integrating a co-housing project into a regular (subsidised) housing project can be realised. Co-housing residents share, for example, open spaces in the courtyard or on terraces with other residents, but they also have exclusive common spaces. This small-scale mixture of housing types is seen as a potential for social mixture and can foster socio-spatial relations and social interaction among neighbours. Especially for the transformation of existing structures, rethinking co-housing projects occupying only parts of the building has potential due to different ownership structures within a building. Another aspect of this model – when subsidised by the City of Vienna according to the *WWFG* (housing subsidies) – is the possibility of locating the third of the apartments allocated by *Wiener Wohnen* outside the “co-housing apartments”.

(6) Encouraging a mix of uses and facilitating collective non-commercial spaces

A mix of uses and shared non-residential uses are key in opening up co-housing projects for external users. This concerns various types of spatial arrangements – from commercial uses and event spaces to multi-functional or seminar spaces for rent or non-commercial (open) spaces. The flexibility of use allows for adaption to newly emerging needs, such as temporal home office, which is another asset of these non-residential spaces. Some co-housing projects can create experimental spaces for arts, culture and social interaction, while others establish small businesses. However, these spaces are often subject to economic pressure, and non-profit tenants face difficulties paying rent. For this reason, mixed-use co-housing projects should be promoted, and the City of Vienna should continue to create incentives for co-housing projects to establish small-scale, flexible collective spaces open for the neighbourhood. Co-housing groups also tend to be more open to cooperating with commercial users who rent spaces in buildings outside the group's responsibility.

(7) From resource provision to resource exchange

Currently, Viennese co-housing projects primarily function as (spatial) resource providers for their neighbourhoods rather than being resource consumers within the local context. During the planning phase, these projects make decisions regarding which spatial resources should be made available to external users and which should be exclusively reserved for co-housing members. Conducting an early-stage analysis of the surrounding neighbourhood allows for identifying and activating underutilised resources, such as vacant spaces. The clustering of co-housing groups offers the potential to avoid redundancies but requires additional effort during the planning phase. Although the engagement and network of co-housing groups facilitate resource exchange to some extent, targeted subsidies like the mobility funds in *Sonnwendviertel* can further enhance cross-project resource sharing and the activation of existing resources. In particular, integrating co-housing groups into other housing projects can alleviate the group's workload by enabling external provision and maintenance of shared spaces, such as common areas accessible to all residents. Instead of focusing solely on resource provision, strengthening resource exchange can foster socio-spatial relations and synergies between co-housing projects and their neighbourhoods.

(8) Fostering knowledge building and transfer on different levels

The fragmentation of the research field on collaborative housing is also reflected in the body of knowledge on co-housing projects in the Austrian or Viennese context. A systematic, comprehensive quantitative data collection on co-housing and a consistent categorisation are missing, although some project databases exist, such as the one from the *Initiative Collaborative Building & Living*.

From a co-housing perspective, collected know-how on planning processes and a knowledge transfer between long-established projects and co-housing groups in the development phase are improvable. Internal group dynamics and initial decisions often accompany the co-housing groups long after. This knowledge transfer takes already place between different co-housing groups and through professional stakeholders like architectural companies, consulting agencies or property developers experienced with this type of housing. To avoid mistakes already made by others, the knowledge transfer between co-housing groups should be strengthened, and their experiences should be documented, which could be a key task of a contact point for co-housing groups. It should also be highlighted that co-housing projects can deliver valuable inputs for developers, for example, regarding the location of the laundry room to make them more communicative. Reversely, limited-profit developers are experienced with financial matters, which is often a knowledge gap of co-housing groups.

Even though there are some studies on co-housing projects on behalf of the City Administration (e.g. Brandl and Gruber 2014, Temel 2009; Temel et al. 2009), further evaluations and mapping projects are a basis for future potentials, policies and decisions to meet current housing needs. In line with future-proof climate policy, promoting alternative housing forms represents a valuable opportunity (Jany et al. 2022:2), and their actual contributions should be further explored.

In this context, knowledge transfer between practice and research plays a crucial role. So far, only some co-housing projects are accompanied by research projects. Applied research with a focus on co-creation can make practical knowledge more accessible, support transdisciplinary learning processes and enable innovation. Profound knowledge is needed to explore future potential.

(9) Thinking shared resources beyond co-housing

Recently, there have been discussions about how co-housing could become a mainstream model and what we can learn from these housing settings. It is important to acknowledge that co-housing is a niche phenomenon that does not fit all. However, there is a variety of co-housing models, and it is key to enable different housing experiments and alternative housing settings to tackle multiple crises. Co-housing projects can be regarded as real-world laboratories experimenting with alternative ways of living and sharing resources within and beyond the project. Notably, resource-sharing networks on the neighbourhood level and resource exchange (materially and socially) across buildings are key aspects of sustainable transformation. Establishing socio-spatial relations with the surrounding neighbourhood in all kinds of housing settings can potentially increase urban resilience. Policymakers and planners should therefore learn from co-housing practices of establishing and maintaining socio-spatial relations with the urban fabric and include active groups in transformation processes. Existing experimental methods and instruments, such as *Innovationspartnerschaften (innovation partnership)*⁴, should be applied and further developed to foster resource sharing and cooperative neighbourhood developments.

⁴ The *Innovationspartnerschaft* is a legally established instrument to develop innovative goods, buildings or services in a research and development process. (WKO 2021)

9.2 Future research

This work explored the socio-spatial relations between co-housing projects and their surrounding neighbourhood from an urban commons perspective, showed how these relations are established and maintained and how synergies can result from their practices. Selected discourses and conceptualisations regarding neighbourhood research and urban commons were picked up and further discussed based on insights from co-housing research. These considerations were then integrated into the analytical framework that guided the empirical case study research. Furthermore, urban resilience was discussed against the background of multiple crises and ran through this work as a meta background. Particular focus was laid on the recent COVID-19 pandemic and how socio-spatial relations changed during related restrictions. The empirical approach allowed a broad picture of three selected co-housing settings in Vienna and their spatial practices of reaching out to the neighbourhood and providing resources beyond the project. To understand how these socio-spatial relations are established, the framework covered various significant aspects of collective resource management and the configuration of spatial boundaries in three different urban settings.

However, this thesis could only cover a small part of the broad research field of co-housing and its embedding in different urban settings. Further research could focus more on temporal dimensions and how spatial relations evolve over time during different phases of the co-housing projects. As for socio-spatial relations in terms of social capital, the kind of connections between different actors and their role in creating these connections need to be further explored. In this context, not only can the co-housing perspective deliver new insights, but future research could also include local residents who interact with co-housing residents. A comparison with regular housing settings and how residents (collectively) create relations with their neighbourhood in these settings could enable a better contextualisation of socio-spatial relations in co-housing groups.

Moreover, other urban settings, but also how socio-spatial relations with the surroundings emerge in rural settings, can stimulate further research. The urban setting and co-housing type entail very different actor constellations on different spatial levels that need to be addressed in future works. Particularly in the context of the transformation of existing urban structures, the potential role of co-housing projects calls for further examination. A potential research question might also be what qualities of co-housing projects in new development areas can be transferred to existing structures. The research question of this work concerning the potential and barriers of these socio-spatial relations for urban resilience on the local level could only be addressed to some extent, which calls for future research. Learning processes in the neighbourhood triggered by co-housing projects could be further explored. Another significant aspect is the question of different social groups who can participate in these processes and to what extent socio-spatial relations of co-housing groups can enable bridges to disadvantaged social groups.

In addition, the fields of action above outline several entry points for future research. These include establishing a comprehensive data basis and mapping different co-housing settings on the national level. Furthermore, the potential of co-housing projects as tools for urban development and renewal should be evaluated according to suitable criteria based on existing cases and future scenarios. Finally, it should be explored how top-down framework conditions can facilitate the establishment of bottom-up collaborative anchor points promoting socio-spatial relations with their surroundings in different residential settings.

10 BIBLIOGRAPHY

10.1 List of references

- Aalbers, Manuel B., and Kenneth Gibb. 2014. 'Housing and the Right to the City: Introduction to the Special Issue'. *International Journal of Housing Policy* 14(3):207–13. doi: 10.1080/14616718.2014.936179.
- Arroyo, Ivette, Moohammed Wasim Yahia, and Erik Johansson. 2022. *Collaborative Housing: A Tool for Social Integration and Increased Sustainability*. Vol. 16. Lund.
- Arvanitakis, James. 2006. 'Education as a Commons: Why We Should All Share in the Picnic of Knowledge'. *Centre for Policy Development*. Retrieved 20 December 2022 (<https://cpd.org.au/2006/04/education-as-a-commons-why-we-should-all-share-in-the-picnic-of-knowledge/>).
- Badegruber, Domenika, and Mira Chrilovich. 2015. 'Wohnraum Künstlergasse'. *Freigeist-Zeitschrift Für Innovative Pädagogik*, 42–46.
- Barton, Hugh, Marcus Grant, and Richard Guise. 2021. *Shaping Neighbourhoods for Local Health and Global Sustainability*.
- BMK. 2020. 'Klimaaktiv Gebäudedatenbank - Detailseite Baugruppenprojekt Gleis 21'. Retrieved 14 June 2023 (<https://klimaaktiv-gebaut.at/gebaut/objekte/all/baugruppenprojekt-gleis-21/>).
- Bohnsack, Ralf. 2007. 'Gruppendiskussion'. Pp. 369–84 in *Qualitative Forschung: ein Handbuch, Rororo Rowohlt's Enzyklopädie*, edited by U. Flick, E. von Kardorff, and I. Steinke. Reinbek bei Hamburg: rowohlt's enzyklopädie im Rowohlt Taschenbuch Verlag.
- Bramley, Glen, and Sinéad Power. 2009. 'Urban Form and Social Sustainability: The Role of Density and Housing Type'. *Environment and Planning B: Planning and Design* 36(1):30–48. doi: 10.1068/b33129.
- Brandl, Freya, and Ernst Gruber. 2014. *Gemeinschaftliches Wohnen in Wien - Bedarf Und Ausblick*. Wien: Studie im Auftrag der Stadt Wien, Magistratsabteilung 50 – Wohnbauförderung und Schlichtungsstelle für wohnrechtliche Angelegenheiten, Referat für Wohnbauforschung und internationale Beziehungen.
- Büchler, Simon. 2012. 'Neue Politische Ausdrucksformen Am Beispiel Des „Wohnprojektes Wien“'.
- Caciagli, Carlotta, and Chiara Milan. 2021. 'Contemporary Urban Commons. Rebuilding the Analytical Framework'.
- Caldenby, Claes, Pernilla Hagbert, and Cathrin Wasshede. 2019. 'The Social Logic of Space. Community and Detachment'. Pp. 163–82 in *Contemporary Co-housing in Europe: Towards Sustainable Cities?*, edited by P. Hagbert, H. G. Larsen, H. Thörn, and C. Wasshede. London: Routledge.
- Claridge, Tristan. 2018a. 'Criticisms of Social Capital Theory: And Lessons for Improving Practice'.
- Claridge, Tristan. 2018b. 'Functions of Social Capital – Bonding, Bridging, Linking'. 7.
- CO-HOPE. 2021. 'CO-HOPE, Project Full Proposal, JPI Urban Europe'.
- Co-Lab Research. n.d. 'About Us – Co-Lab Research'. Retrieved 29 March 2023 (<https://co-lab-research.net/aboutus/>).
- Czischke, Darinka, Claire Carriou, and Richard Lang. 2020. 'Collaborative Housing in Europe: Conceptualizing the Field'. *Housing, Theory and Society* 37(1):1–9. doi: 10.1080/14036096.2020.1703611.

- Delgado, Guillermo. 2012. 'Towards Dialectic Utopias: Links and Disjunctions between Collaborative Housing and Squatting in the Netherlands'. *Built Environment* 38(3):430–42. doi: 10.2148/benv.38.3.430.
- Dellenbaugh-Losse, Mary, Nils-Eyk Zimmermann, and Nicole de Vries. 2020. *The Urban Commons Cookbook: Strategies and Insights for Creating and Maintaining Urban Commons*. Berlin: Mary Dellenbaugh-Losse.
- dérive – Verein für Stadtforschung. 2022. 'Urbanize! Programm'. Retrieved 17 April 2023 (<https://urbanize.at/programm/>).
- Die WoGen Wohnprojekte-Genossenschaft e. Gen. n.d. 'Was ist Die WoGen?' *Wohnprojekte Genossenschaft*. Retrieved 12 February 2023 (<https://diewogen.at>).
- Drilling, Matthias, and Olaf Schnur. 2019. 'Neighbourhood Research from a Geographical Perspective'. *Die ERDE*. doi: 10.12854/erde-2019-416.
- Dürr, Susanne, Martina Heitkötter, Gerd Kuhn, Shih-cheng Lien, and Nanni Abraham. 2021. *Familien in Gemeinschaftlichen Wohnformen*. Vol. 5. Bonn: BBSR-Online-Publikation.
- Ehs, Gerda. 2008. 'Das Badehaus Sargfabrik - Im Spannungsfeld Zwischen Öffentlicher Betriebsfläche Und Privater Gemeinschaftseinrichtung'. Universität Wien.
- einszueins architektur. n.d. 'Projektbeschreibung Wohnprojekt Gleis 21'.
- ENHR. 2022. 'Collaborative Housing – ENHR'. Retrieved 29 March 2023 (<https://enhr.net/collaborative-housing-2/>).
- Esopi, Giulia. 2018. 'Urban Commons: Social Resilience Experiences to Increase the Quality of Urban System'. *TeMA - Journal of Land Use, Mobility and Environment* 11(2). doi: 10.6092/1970-9870/5532.
- Exner, Andreas, and Brigitte Kratzwald. 2012. *Solidarische Ökonomie & Commons: INTRO. Eine Einführung*. Wien: Mandelbaum.
- Fedrowitz, Micha. 2016. 'Was sind gemeinschaftliche Wohnprojekte?' *Nachrichten der ARL*.
- Felstead, Aimee, Kevin Thwaites, and James Simpson. 2019. 'A Conceptual Framework for Urban Commoning in Shared Residential Landscapes in the UK'. *Sustainability* 11(21). doi: 10.3390/su11216119.
- Flick, Uwe. 2007. 'Triangulation in der qualitativen Forschung'. Pp. 309–18 in *Qualitative Forschung: ein Handbuch, Rororo Rowohlt's Enzyklopädie*, edited by U. Flick, E. von Kardorff, and I. Steinke. Reinbek bei Hamburg: rowohlt's enzyklopädie im Rowohlt Taschenbuch Verlag.
- Fromm, Dorit. 2012. 'Seeding Community: Collaborative Housing as a Strategy for Social and Neighbourhood Repair'. *Built Environment* 38(3):364–94. doi: 10.2148/benv.38.3.364.
- Galster, George. 2001. 'On the Nature of Neighbourhood'. *Urban Studies* 38(12):2111–24. doi: 10.1080/00420980120087072.
- Görge, Benjamin. 2021. *Nachhaltige Lebensführung: Praktiken und Transformationspotenziale gemeinschaftlicher Wohnprojekte*. Vol. 3. 1st ed. Bielefeld, Germany: transcript Verlag.
- Griffith, Emma Jo, Mirte Jepma, and Federico Savini. 2022. 'Beyond Collective Property: A Typology of Collaborative Housing in Europe'. *International Journal of Housing Policy* 1–21. doi: 10.1080/19491247.2022.2123272.
- Gruber, Ernst. 2015. 'Cohousing in Austria'. Pp. 21–31 in *Europa: gemeinsam wohnen = Europe: co-operative housing*, edited by Wohnbund. Berlin: Jovis.

- Gruber, Helene Ulrike. 2021. 'Wenn Gruppen bauen - Positive Beiträge von Baugruppen zur Erfüllung der Klimaziele in Wien'. TU Wien.
- Gruber, Roland, and Florian Kluge. 2021. 'Corona Und Die Zukunft Des Wohnens - Der Österreichische Gemeindebund'. Retrieved 19 September 2022 (<https://gemeindebund.at/corona-und-die-zukunft-des-wohnens/>).
- Haas, Mara. 2018. 'Selbstorganisation im Wiener Wohnbau aus Sicht der Self-Governance & Urban Commons-Perspektive'. TU Wien.
- habiTAT. n.d. 'About Us'. *HabiTAT*. Retrieved 12 February 2023 (https://habitat.servus.at/?page_id=1533).
- Hagbert, Pernilla, Henrik Gutzon Larsen, Håkan Thörn, and Cathrin Wasshede. 2019. *Contemporary Co-Housing in Europe: Towards Sustainable Cities?* 1st ed. London: Routledge.
- hamburg.de GmbH & Co. KG. n.d. 'Baugemeinschaften Hamburg'. *hamburg.de*. Retrieved 7 January 2023 (<https://www.hamburg.de/baugemeinschaften/>).
- Helfferrich, Cornelia. 2014. 'Leitfaden- und Experteninterviews'. Pp. 559–74 in *Handbuch Methoden der empirischen Sozialforschung*, edited by N. Baur and J. Blasius. Wiesbaden: Springer Fachmedien Wiesbaden.
- Hendrich, Petra. 2010. 'Baugruppen - Selbstbestimmtes Bauen und Wohnen in Wien'. TU Wien.
- Hess, Charlotte. 2008. 'Mapping the New Commons'. *SSRN Electronic Journal*. doi: 10.2139/ssrn.1356835.
- Hözl, Corinna. 2022. 'Translocal Mobilization of Housing Commons. The Example of the German Mietshäuser Syndikat'. *Frontiers in Sustainable Cities* 4. doi: 10.3389/frsc.2022.759332.
- Irani, Mazdak, and Payam Rahnamayiezekavat. 2021. 'An Overview of Urban Resilience: Dimensions, Components, and Approaches'. *Acta Scientiarum Polonorum Administratio Locorum* 20(4):305–22. doi: 10.31648/aspa.7054.
- Izuhara, Misa, Karen West, Jim Hudson, Melissa Fernández Arrigoitia, and Kath Scanlon. 2022. 'Collaborative Housing Communities through the COVID-19 Pandemic: Rethinking Governance and Mutuality'. *Housing Studies* 38(1):65–83. doi: 10.1080/02673037.2022.2077919.
- Jany, Andrea, Meike Bukowski, Univ-Prof Dr Heindl, and Katharina Kreissl. 2022. 'Kapitel 4. Wohnen'.
- Jenks, Mike, and Nicola Dempsey. 2007. 'Defining the Neighbourhood: Challenges for Empirical Research'. *Town Planning Review* 78(2):153–77. doi: 10.3828/tpr.78.2.4.
- Kip, Markus, Majken Bieniok, Mary Dellenbaugh, Agnes Katharina Müller, and Martin Schwegmann. 2015. 'Seizing the (Every)Day: Welcome to the Urban Commons!' Pp. 9–25 in *Urban commons: moving beyond state and market, Bauwelt Fundamente*, edited by M. Dellenbaugh. Gütersloh: Basel: Baurverlag; Birkhäuser.
- Kläser, Simone. 2006. 'Selbstorganisiertes Wohnen'. *archplus*, 90–99.
- Klerings, Wolf. 2014. 'Architectural Plans Künstlergasse 14'.
- Kratzwald, Brigitte. n.d. 'Commons & Co – Auf Dem Weg Zu Einem Guten Leben Für Alle'. Retrieved 17 March 2023 (<https://commons.at/>).
- Kuckartz, Udo. 2016. *Qualitative Inhaltsanalyse: Methoden, Praxis, Computerunterstützung*. 3., überarbeitete Auflage. Weinheim Basel: Beltz Juventa.

- Kuhlicke, Christian. 2018. 'Resiliente Stadt'. in *Handbuch Stadtkonzepte: Analysen, Diagnosen, Kritiken und Visionen, utb Sozialwissenschaften, Stadtforschung*, edited by D. Rink and A. Haase. Opladen Toronto: Verlag Barbara Budrich.
- Landesstatistik, Wien (MA 23). 2022a. 'Favoriten in Zahlen 2022'.
- Landesstatistik, Wien (MA 23). 2022b. 'Penzing in Zahlen 2022'.
- Landesstatistik, Wien (MA 23). 2022c. 'Rudolfsheim-Fünfhaus in Zahlen 2022'.
- Landhäußer, Sandra. 2015. 'Soziales Kapital und Nachbarschaft'. Pp. 169–75 in *Soziale Nachbarschaften*, edited by C. Reutlinger, S. Stiehler, and E. Lingg. Wiesbaden: Springer Fachmedien Wiesbaden.
- Lang, Richard, Claire Carriou, and Darinka Czischke. 2020. 'Collaborative Housing Research (1990–2017): A Systematic Review and Thematic Analysis of the Field'. *Housing, Theory and Society* 37(1):10–39. doi: 10.1080/14036096.2018.1536077.
- Lang, Richard, and Harald Stoeger. 2018. 'The Role of the Local Institutional Context in Understanding Collaborative Housing Models: Empirical Evidence from Austria'. *International Journal of Housing Policy* 18(1):35–54. doi: 10.1080/19491247.2016.1265265.
- Lefebvre, Henri. 1968. *Le Droit à La Ville*. Paris: Anthropos.
- Lefebvre, Henri. 1991. *The Production of Space*. Oxford, OX, UK; Cambridge, Mass., USA: Blackwell.
- Lichtenegger, Isabella. 2015. *Beispielhaft - Sockelsanierung Mit 'Wohnraum Künstlergasse'*. edited by PUBA.
- Lossau, Julia. 2012. 'Spatial Turn'. Pp. 185–98 in *Handbuch Stadtsoziologie*, edited by F. Eckardt. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Matticka, Böhm. 2022. 'Kärnten bietet österreichweit einzigartige Förderung für gemeinschaftliche Wohnprojekte'. *Architektur Haus Kärnten*. Retrieved 9 February 2023 (<https://architektur-kaernten.at/news/kaernten-bietet-oesterreichweit-einzigartige-foerderung-fuer-gemeinschaftliche-wohnprojekte>).
- Meerow, Sara, Joshua P. Newell, and Melissa Stults. 2016. 'Defining Urban Resilience: A Review'. *Landscape and Urban Planning* 147:38–49. doi: 10.1016/j.landurbplan.2015.11.011.
- Mietshäuser Syndikat. n.d. 'The Building Blocks of the Network – Mietshäuser Syndikat'. Retrieved 12 February 2023 (<https://www.syndikat.org/en/the-building-blocks-of-the-network/>).
- Mock, Mirijam. 2014. '„meins, Deins...Unser?“ Eine Praxistheoretische Untersuchung von Sharing-Praktiken in Cohousing'. Universität Wien.
- Moss, Timothy. 2014. 'Spatiality of the Commons'. *International Journal of the Commons* 8:457–71.
- Müller, Hannes. 2015. *Baugemeinschaften als städtebauliches Entwicklungsinstrument*. Wiesbaden: Springer Fachmedien Wiesbaden.
- Nieszery, Andrea. 2014. 'Class, race, gender ... neighbourhood?' Pp. 125–55 in *Quartiersforschung: Zwischen Theorie und Praxis*, edited by O. Schnur. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Novy, Klaus, and Wolfgang Förster. 1991. *Einfach Bauen: Genossenschaftliche Selbsthilfe Nach Der Jahrhundertwende: Zur Rekonstruktion Der Wiener Siedlerbewegung*. Wien: Picus.
- OEBB immobilien. 2015. 'Bewerbungsverfahren Für Baugruppen Leben Am Helmut-Zilk-Park, Hauptbahnhof Wien Erste Stufe - Fragenbantwortung'.

- OEBB immobilien. 2016. 'Bewerbungsverfahren Für Baugruppen Leben Am Helmut-Zilk-Park Hauptbahnhof Wien Zweistufiges Verkaufsverfahren Für Grundstücke Im Konzeptwettbewerb Ausschreibungsunterlage Für Die Zweite Stufe'.
- Oldenburg, Ray. 1999. *The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community*. Cambridge (Mass.): Da Capo press.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge; New York: Cambridge University Press.
- Paulhart, Lucia. 2020. 'Der Beitrag selbstorganisierter Projekte im Kontext der Produktiven Stadt'. TU Wien.
- Pelger, Dagmar. 2021. 'Two modes of urban space production Spatial Commons versus Separate Spaces: Zwei Modi der urbanen Raumproduktion'. doi: 10.14279/DEPOSITONCE-11983.
- Peth, Simon Alexander. 2019. 'What Is Translocality? A Refined Understanding of Place and Space in a Globalized World'. doi: 10.34834/2019.0007.
- Putnam, Robert D. 2020. *Bowling Alone: The Collapse and Revival of American Community*. Revised and updated. New York London Toronto Sydne New Delhi: Simon & Schuster Paperbacks.
- raum & kommunikation. n.d. 'Wohnprojekt Künstlergasse 14'. Retrieved 14 June 2023 (<https://www.raumkomm.at/project/wohnprojekt-kuenstlergasse-14/>).
- realitylab GmbH. 2023. 'Gemeinschaften'. Retrieved 17 March 2023 (<https://gemeinschaffen.com/gem/projekte/>).
- Reutlinger, Christian, Steve Stiehler, and Eva Lingg, eds. 2015. *Soziale Nachbarschaften*. Wiesbaden: Springer Fachmedien Wiesbaden.
- Rogojanu, Ana. 2015. 'Gemeinschaftliches Bauen Und Wohnen Zwischen Selbstorganisation, Solidarität Und Stadtpolitischen Interessen Gemeinschaftliches'. *Österreichische Zeitschrift Für Volkskunde* 118:177–201.
- Ruiu, Maria L. 2014. 'Differences between Cohousing and Gated Communities. A Literature Review'. *Sociological Inquiry* 84(2):316–35. doi: 10.1111/soin.12031.
- Ruiu, Maria Laura. 2016. 'The Social Capital of Cohousing Communities'. *Sociology* 50(2):400–415. doi: 10.1177/0038038515573473.
- Schäfers, Bernhard. 2016. 'Lektion VII - Die soziale Gruppe'. Pp. 153–72 in *Einführung in Hauptbegriffe der Soziologie*, edited by H. Korte and B. Schäfers. Wiesbaden: Springer Fachmedien Wiesbaden.
- Scheller, David, and Håkan Thörn. 2019. 'Autonomy vs. Government - Consequences for Sustainability in Co-Housing'. Pp. 97–119 in *Contemporary Co-housing in Europe: Towards Sustainable Cities?* London: Routledge.
- Schetsche, Christian, Luis Carlos Jaume, Lucas Gago-Galvagno, and Ángel Elgier. 2020. 'Living in Cohousing Communities: Psychological Effects and Coping Strategies in Times of COVID-19'. *Interpersona: An International Journal on Personal Relationships* 14(2):169–82. doi: 10.5964/ijpr.v14i2.4257.
- Schmid, Christian. 2005. *Stadt, Raum und Gesellschaft: Henri Lefebvre und die Theorie der Produktion des Raumes*. Stuttgart: Steiner.
- Schmidt, Teresa. 2017. 'Ansätze Der Solidarischen Ökonomie Im Wohnungswesen Am Beispiel Wien'. TU Wien.
- Schnur, Olaf. 2003. *Lokales Sozialkapital für die „soziale Stadt“*. Wiesbaden: VS Verlag für Sozialwissenschaften.

- Schnur, Olaf. 2012. 'Nachbarschaft und Quartier'. Pp. 449–74 in *Handbuch Stadtsoziologie*, edited by F. Eckardt. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Schnur, Olaf. 2013. 'Eine Annäherung über das Panarchie-Modell adaptiver Zyklen'. *Informationen zur Raumentwicklung* 14.
- Schnur, Olaf. 2014. 'Quartiersforschung im Überblick: Konzepte, Definitionen und aktuelle Perspektiven'. Pp. 21–56 in *Quartiersforschung: Zwischen Theorie und Praxis*, edited by O. Schnur. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Schnur, Olaf, and Henning Günter. 2014. 'Collaborative Consumption, Sozialkapital und Quartier. Eine Annäherung'. *Raumforschung und Raumordnung | Spatial Research and Planning* 72(5). doi: 10.1007/s13147-014-0304-9.
- Sociology Plus. 2022. 'Chicago School of Sociology Definition & Explanation | Sociology Plus'. Retrieved 4 July 2023 (<https://sociology.plus/glossary/chicago-school-of-sociology/>).
- Stadt Wien. n.d. 'Schutzzone Wien'. Retrieved 24 April 2023 (<https://www.wien.gv.at/stadtentwicklung/grundlagen/schutzzone/>).
- Stadt Wien - Technische Stadterneuerung, ed. 2023. *Do It Together Stadt*.
- Stadt Wien, Straßenverwaltung und Straßenbau. 2021. 'Nachhaltige Mobilitätsprojekte für das Sonnwendviertel Ost'. Retrieved 12 June 2023 (<https://www.wien.gv.at/verkehr/mobilitaetsfonds/foerderung-sonnwendviertel.html#projekte>).
- Stanek, Lukasz. 2011. *Henri Lefebvre on Space: Architecture, Urban Research, and the Production of Theory / Lukasz Stanek*. Minneapolis, MN: University of Minnesota Press.
- Stevenson, Fionn, and Doina Petrescu. 2016. 'Co-Producing Neighbourhood Resilience'. *Building Research & Information* 44(7):695–702. doi: 10.1080/09613218.2016.1213865.
- Susser, Ida, and Stéphane Tonnelat. 2013. 'Transformative Cities'. *Focaal* 2013(66):105–21. doi: 10.3167/fcl.2013.660110.
- Temel, Robert. 2012. *Baugemeinschaften in der Wiener Seestadt Aspern*. Wien: Studie im Auftrag der Stadt Wien, Magistratsabteilung 50 – Wohnbauförderung und Schlichtungsstelle für wohnrechtliche Angelegenheiten, Referat für Wohnbauforschung und internationale Beziehungen.
- Temel, Robert. 2015. 'Stadtentwicklung und Baugruppen'. in *Gemeinsam Bauen Wohnen in der Praxis - Workshopreihe 2014 über, für und mit Baugruppen in Wien*, edited by Verein Initiative für gemeinschaftliches Bauen und Wohnen.
- Temel, Robert. 2021. 'Baugruppenprojekte - Möglichkeiten Und Potenziale'. Pp. 17–25 in *Bauen für die Gemeinschaft in Wien / Building for the Community in Vienna: Neue gemeinschaftliche Formen des Zusammenleben / New communal forms of cohabitation*, edited by I. Marboe. DETAIL.
- Temel, Robert, Maja Lorbek, Aleksandra Ptaszy, and Daniela Wittinger. 2009a. 'Baugemeinschaften in Wien, Endbericht 1 - Potenzialabschätzung und Rahmenbedingungen'.
- Temel, Robert, Maja Lorbek, Aleksandra Ptaszy, and Daniela Wittinger. 2009b. *Baugemeinschaften in Wien Endbericht 2 - Rechtsfragen, Leitfaden, Grundstücksvergabe*. Wien: Studie im Auftrag der Stadt Wien, Magistratsabteilung 50 – Wohnbauförderung und Schlichtungsstelle für wohnrechtliche Angelegenheiten, Referat für Wohnbauforschung und internationale Beziehungen.
- tilia staller.struder og. 2017. 'Entwicklungsplan Öffentlicher Raum: 14. Bezirk. Studie Im Auftrag Der Stadtplanung Wien MA19 - Architektur Und Stadtgestaltung'.

- Tordy, Joanne. 2011. 'Der Entstehungsprozess von Baugemeinschaften - Ein Blick Hinter Die Fassade'. TU Wien.
- Tornow, Britta. 2015. 'Denmark, Pioneer Country for Cohousing'. Pp. 80–91 in *Europa: gemeinsam wohnen = Europe: co-operative housing*, edited by Wohnbund. Berlin: Jovis.
- toZOMIA. 2022. 'Über Uns - ToZOMIA'. Retrieved 3 April 2023 (<https://tozomia.net/>).
- Tscherteu, Gernot. 2021. 'Gemeinschaffen – Ein Einführender Text Zu Grundbegriffen Und Positionen – Gemeinschaffen'. Retrieved 17 March 2023 (<https://blog.gemeinschaffen.com/2021/11/03/gemeinschaffen-ein-einfuehrender-text-zu-grundbegriffen-und-positionen/>).
- Tscherteu, Gernot. 2022. 'Hauswirtschaften Im Nachhaltigen Grätzl - Genossenschaften Als Quartiersentwicklerin'. Presented at the IBA Workshop am 13.10.2022.
- Tummers, Lidewij. 2016. 'The Re-Emergence of Self-Managed Co-Housing in Europe: A Critical Review of Co-Housing Research'. *Urban Studies* 53(10):2023–40. doi: 10.1177/0042098015586696.
- United Nations. n.d.a. 'Goal 11 | Department of Economic and Social Affairs'. Retrieved 28 September 2022 (<https://sdgs.un.org/goals/goal11>).
- United Nations. n.d.-b. 'OHCHR | The Human Right to Adequate Housing'. *OHCHR*. Retrieved 5 December 2022 (<https://www.ohchr.org/en/special-procedures/sr-housing/human-right-adequate-housing>).
- UIREKA Lab: Urban Commons. n.d. 'About UIREKA Lab'. Retrieved 17 March 2023 (<https://urcommons.eu/about/>).
- Verein für integrative Lebensgestaltung. 2020. 'Organigramm Sargfabrik'.
- Verein für integrative Lebensgestaltung. 2021. 'Imagefolder Sargfabrik'.
- Verein für integrative Lebensgestaltung. 2023. 'Sargfabrik Wien'. Retrieved 17 April 2023 (<https://sargfabrik.at/veranstaltungen>).
- Verein für integrative Lebensgestaltung. n.d. 'Sargfabrik Wien'. Retrieved 18 October 2022 (<https://sargfabrik.at/veranstaltungen>).
- Verein Initiative für gemeinschaftliches Bauen und Wohnen, ed. 2015. *Gemeinsam Bauen Wohnen in Der Praxis - Workshopreihe 2014 Über, Für Und Mit Baugruppen in Wien*. Vol. 2.
- Verein Initiative für gemeinschaftliches Bauen und Wohnen. n.d.-a. 'FAQ'. Retrieved 12 February 2023 (<https://www.inigbw.org/gemeinschaftlich-wohnen/faq>).
- Verein Initiative für gemeinschaftliches Bauen und Wohnen. n.d.-b. 'Initiative Gemeinsam Bauen & Wohnen'. Retrieved 15 August 2023 (<https://www.inigbw.org/die-initiative>).
- Verein KulturLeben Künstlergasse. n.d. 'Wohnraum Künstlergasse | Wohnprojekt Künstlergasse'. Retrieved 18 October 2022 (<http://www.kuenstlergasse.at/>).
- Verein Lebenswertes Matznerviertel. n.d. 'Matznerviertel - Lebenswertes Matznerviertel'. *Matznerviertel*. Retrieved 20 October 2022 (<https://matznerviertel.at/>).
- Verein Wohnprojekt Gleis 21. 2022. 'Wohnprojekt Gleis 21 - Miteinander Weichen stellen'. Retrieved 18 October 2022 (<https://gleis21.wien/>).
- Verein Wohnprojekt Gleis 21. 2023a. 'Gleis 21 Architektur - Ein Schiff Aus Holz'. Retrieved 8 April 2023 (<https://gleis21.wien/architektur/>).

- Verein Wohnprojekt Gleis 21. 2023b. 'Logbuch Gleis 21'.
- Verein Wohnprojekt Gleis 21. 2023c. 'Seminar- Und Veranstaltungsraum Im Gleis 21 Mieten'. Retrieved 8 April 2023 (<https://gleis21.wien/raeume-mieten/>).
- Verein Wohnprojekt Gleis 21. 2023d. 'Wohnprojekt Gleis 21 - Miteinander Weichen Stellen'. Retrieved 28 March 2023 (<https://gleis21.wien/>).
- Verein Wohnraum Künstlergasse. n.d. 'Facebook Page - Wohnraum Künstlergasse'. Retrieved 10 March 2023 (<https://www.facebook.com/Kuenstlerraum>).
- Verein zur Förderung sozialer Nachhaltigkeit und Partizipation. n.d. 'Mobilitätsrat - Nachhaltige Mobilität Aus Der Nachbarschaft'. Retrieved 6 April 2023 (<https://nachbarschaftsrat.at/>).
- Vestbro, Dick Urban, ed. 2010. *Living Together - Cohousing Ideas and Realities around the World: Proceedings from the International Collaborative Housing Conference in Stockholm 5 - 9 May 2010*. Stockholm: Division of Urban and Regional Studies. Royal Inst. of Technology [u.a.].
- Vogelpohl, Anne. 2014. 'Stadt der Quartiere? Das Place-Konzept und die Idee von urbanen Dörfern'. in *Quartiersforschung: Zwischen Theorie und Praxis*, edited by O. Schnur. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Williams, Jo. 2005. 'Designing Neighbourhoods for Social Interaction: The Case of Cohousing'. *Journal of Urban Design* 10(2):195–227. doi: 10.1080/13574800500086998.
- WKO. 2021. 'Innovationspartnerschaft'. Retrieved 21 June 2023 (<https://www.wko.at/service/wirtschaftsrecht-gewerberecht/innovationspartnerschaft.html>).
- Wohnberatung Wien. n.d. 'Wiener Wohnbauförderung'. Retrieved 13 February 2023 (<https://wohnberatung-wien.at/wohnberatung/wohnbaufoerderung>).
- wohnfonds_wien. 2018. 'The Developers' Competition. an Instrument in the Construction of New Subsidised Housing'.
- wohnfonds_wien. 2020. 'Bauträgerwettbewerb Für Baugruppen'.
- wohnfonds_wien. n.d. 'Sockelsanierung'. Retrieved 15 February 2023 (http://www.wohnfonds.wien.at/erstinfo_sockelsanierung).
- Woolcock, Michael. 2001. 'Microenterprise and Social Capital': *The Journal of Socio-Economics* 30(2):193–98. doi: 10.1016/S1053-5357(00)00106-2.
- Yin, Robert K. 2018. *Case Study Research and Applications: Design and Methods*. Sixth edition. Los Angeles: SAGE.
- Zoidl, Franziska. 2020. 'Baugruppen in Zeiten von Corona: Gemeinsam auf Abstand wohnen'. *DER STANDARD*.

10.2 List of interviews

- Dutkowski, Daniel, and Sonja Stepanek. 2023. 'Expert Interview (EI), Viennese Context, Neighbourhood Work, 06.02.2023, Wien'.
- Employee GB*Stadtteilmanagement Sonnwendviertel. 2023. 'Expert Interview (EI), Viennese Context, Neighbourhood Work, 06.02.2023, Wien'.

FG Gleis 21. 2023. 'Focus Group (FG) with Two Residents, Gleis 21, 27.03.2023, Wien'.

FG Sargfabrik. 2023. 'Focus Group (FG) with Four Residents, Sargfabrik, 08.03.2023, Wien'.

FG Wohnraum Künstlergasse. 2023. 'Focus Group (FG) with Three Residents, Gleis 21, 27.01.2023, Wien'.

Hendrich, Petra. 2023. 'Expert Interview (EI), Viennese Context, Social Process Support, 06.02.2023, Wien'.

SI toZOMIA 1. 2023. 'Short Interview (SI) with One Artist, Gleis 21, 02.03.2023, Wien'.

SI toZOMIA 2. 2023. 'Short Interview (SI) with One Artist, Gleis 21, 02.03.2023, Wien'.

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11 APPENDIX

11.1 Interview guides

Expert interviews (60 minutes each)

City Context | Interview Architektur/Soziale Prozessbegleitung

- Planungsprozess, Architektur, räumliche Schnittstellen zur Nachbarschaft
- Bezug zu allgemeineren Diskursen zu Baugruppen und Quartier, Rahmenbedingungen für Baugruppen in Wien

Einstieg

- Vorstellen, Ablauf erklären, Administratives: Aufzeichnen, Einverständniserklärung
 - Vorstellen Interviewpartner:in
-
- Perspektive auf Baugruppen im Quartiers-Kontext in Wien? Können Baugruppen Quartiere beleben?
 - Welche Rolle in der Nachbarschaft?
 - Relationen/Bezug zur Quartier?
 - Bevorzugte Standorte / Nachbarschaften
 - Was erwarten Baugruppen von der Nachbarschaft?

Community (Initiation, Vision, Planning Process, Network)

Planungsprozess von Baugruppen, Partizipation

- Welche **Visionen** haben Baugruppen in Bezug auf das Quartier auf die Nachbarschaft? Woher kommen diese? Welche Motivationen stehen dahinter?
- Welche Rolle spielt die Nachbarschaft bzw. das Quartier in unterschiedlichen Phasen (Visionsphase, Planungsphase, Nutzungsphase)
- Planungsprozess
 - Motivationen für gute Nachbarschaftliche Beziehungen? Wie wird Nachbarschaft adressiert?
 - *@Architektur: Welche Rolle spielen die Nachbarschaft und das Quartier bei euren Planungen?*
- Akteur:innenmix und relevantes Wissen/Knowhow für Planungs- und Nutzungsphase: Das (Wissens-)Netzwerkwerk von Baugruppen auf unterschiedlichen Ebenen (Nachbarschaft, Stadtkontext)?
- Wie zugänglich bzw. inklusiv sind Baugruppen in Wien in der Nutzungsphase? Einerseits für Menschen, die dort wohnen möchten, andererseits in Bezug auf Angebote für die Nachbarschaft?
- Veränderungen über die Zeit?
 - Baugruppen allgemein
 - Gruppenintern / Gruppenaktivität

Shared resources (Urban Setting, Intermediate Spaces, ...)

- Welche Rolle spielt die räumliche Struktur/Typologie für die räumlichen Bezüge und Synergien zwischen Projekt und dessen Umfeld?
- Welche Anforderungen an die Nachbarschaft an das Quartier haben Baugruppen, die ihr begleitet/geplant habt?
- *@Architektur: Wie können architektonische Qualitäten Beziehungen zur Nachbarschaft/zum Quartier herstellen?*
- Welche organisatorischen Ressourcen bzw. Voraussetzungen braucht es für das das Funktionieren räumlicher Schnittstellen zwischen der Baugruppe und dem Quartier?

- *@Architektur: Entwurf/Architektur/Typologie (EG Zone, Raumangebot, räumliche Ressourcen in der Nachbarschaft, Zwischenzone, ..)*
 - Anordnung von Gemeinschaftsräumen
 - Zwischenräume
- Wie werden räumliche und symbolische Grenzen gezogen? Abgrenzung durch die Gruppe (detachment from the environment/attachment to the community)
 - *@Architektur: von euch / von den Gruppen, die ihr begleitet?*
- *@Architektur: Plan vs. Realität? Welche geplanten Schnittstellen scheitern / welche funktionieren? Warum?*
- Thema Bauen im Bestand (Retrofit co-housing Model)
 - Die meisten Projekte entstehen im Neubau. Warum? Ließen sich Erfahrungen aus dem Neubau in den Bestand übertragen?
 - Unter welchen Rahmenbedingungen können Baugruppen ein erfolgreiches Modell für die Bestandstransformation sein?
 - Welche räumlichen Potenziale und Herausforderungen?
- Baugruppen als räumliche Ressource in unterschiedlichen Quartierskontexten (Bestand, Lückenfüller, Stadtentwicklungsgebiet, ...)
- Vergleich Gleis21 und Sargfabrik und deren Rolle in der Stadt? Im Vergleich zur kleineren Projekten (Künstlergasse)?

Collective Governance & Institutional Embedding (collaborations, cooperations, ...)

Zusammenarbeit mit Institutionen (Bridging und Linking Social Capital) im Planungsprozess und in der Nutzungsphase

- Aushandlungsprozesse über räumliche Schnittstellen und Grenzen / Abgrenzung? Welche Rolle spielt hierbei die Architektur bzw. der Planungsprozess? Welche Rolle spielt Partizipation?
- Welche Aneignungsprozesse finden dabei statt?
- Nutzungskonflikte mit der Nachbarschaft?
- Welche institutionelle Rahmenbedingungen begünstigen Synergien mit dem Umfeld? Welche erschweren diese? Welche Akteur:innen sind dabei zentral? Was bräuchte es?
- Baugruppen als neue Mikro-Zentren des nachbarschaftlichen Zusammenlebens? Unterstützenswert? Wenn ja, wie? Wie inklusiv?
- Welche Art von Engagement in der Nachbarschaft durch Baugruppen tritt häufig auf? Konkrete Beispiele?
- Inwiefern werden Baugruppen als Akteur:in in der Stadtentwicklung wahrgenommen? (Change Agent in times of crises)
- Nimmst du eine Instrumentalisierung von Baugruppen wahr? Inwiefern geht damit möglicherweise eine Auslagerung öffentlicher Services/Leistungen/Ressourcen-Bereitstellung an Baugruppen bzw. selbstorganisierte Gruppen in der Nachbarschaft einher?

Pandemic

- *@Architektur: Architektur für Gruppen in Zeiten der Pandemie und globale Krisen? Was hat sich bewährt? Was hat gefehlt?*
- Größere Nachfrage nach gemeinschaftlichen Wohnformen? Diskrepanz zwischen Angebot und Nachfrage?
- Potenziale von Baugruppen in der Krisenbewältigung in Bezug auf das Quartier?

Socio-ecological transformation (potentials, barriers, ...)

- Inwiefern können Baugruppen als Instrument der Stadtentwicklung / resiliente Stadtbausteine eingesetzt werden? Welche Erwartungen und Ziele sind daran geknüpft? Wie seht ihr das?
- Welche Rolle spielen Baugruppen als Wissensnetzwerke und ermöglichen Lernprozesse im Quartier und in der Nachbarschaft? Wie könnte das gefördert werden?
- Welche Rolle spielt dabei die Nachbarschaft im Sinne von Bebauungsstruktur und sozialräumlicher Struktur als Voraussetzung für die lokale Nachhaltigkeitstransformation? Grenzen/Barrieren?
- Potenziale und Limits für krisenresiliente Nachbarschaften durch Baugruppen
 - Welche Faktoren begünstigen das Teilen von Ressourcen und soziale Interaktionen zwischen Projekt und Nachbarschaft?
 - Was kann das Quartier von Baugruppen lernen und möglicherweise übernehmen? Wie?
 - Wen erreichen Baugruppen in der Nachbarschaft?
- Inwiefern hat die Stadt Wien das Potenzial von Baugruppen erkannt? Was sollte die Stadt tun, um die nachbarschaftlichen Synergien zwischen Projekten und deren Umfeld entstehen und langfristig bestehen können?

Abschluss

- Ergänzungen?
- Bedanken

Neighbourhood Context Interview GB*

→ Nachbarschaftskontext und die Rolle von Baugruppen – Perspektive aus der Nachbarschaftsarbeit

Einstieg

- Vorstellen, Ablauf erklären, Administratives: Aufzeichnen, Einverständniserklärung
 - Vorstellen Interviewpartner:in
-
- Welche Erfahrungen habt ihr mit Baugruppen und gemeinschaftlichen Wohnformen? Wann, in welchem Kontext? Wie?
 - Nachbarschaften in Wien und die Rolle von Baugruppen?
 - Welche Rolle spielen Baugruppen in der Stadtentwicklung in unterschiedlichen Teilräumen? (Stadtentwicklungsgebiete? Gründerzeitquartiere, ...?)

Community (Initiation, Vision, Planning Process, Network)

- Mit welchen Baugruppen-Akteur:innen seid ihr im Kontakt?
- Adressiert ihr selbstorganisierte (Wohn)projekte durch eure Aktivitäten/Arbeit?
- Zeitliche Perspektive: Prozesse der Kooperation, Zusammenarbeit im Stadtteil? Wann und wodurch mehr oder weniger?
- Wie zugänglich bzw. inklusiv sind Baugruppen in Wien in der Nutzungsphase? Einerseits für Menschen, die dort wohnen möchten, andererseits in Bezug auf Angebote für die Nachbarschaft?
- Wen können bzw. wollen Baugruppen in der Nachbarschaft adressieren?

Shared resources (Urban Setting, Intermediate Spaces, ...)

- Inwiefern schaffen Baugruppen räumliche Ressource in unterschiedlichen Quartierskontexten? (Bestand, Lückenfüller, Stadtentwicklungsgebiet, ...)
 - Welche Ressourcen können Baugruppen in ein Grätzl bzw. in eine Nachbarschaft bringen?
 - Wie werden Räume/räumliche Schnittstellen von gemeinschaftlichen Wohnprojekten geschaffen? Aneignungsprozesse?
 - Welche räumlichen Qualitäten begünstigen bzw. erschweren Synergien zwischen Baugruppe und Grätzl? (Zwischenräume, Zugänglichkeiten)
 - Welche Potentiale seht ihr in der Schaffung (nachbarschaftlicher) Räume durch Baugruppen für das Quartier und die Stadt? Negative Seite (Exklusion)?
 - Baugruppen als Mikrozentren im Stadtteil? Wie seht ihr das? Was qualifiziert Baugruppen dafür? (Bsp. Sargfabrik)
 - Konkrete Projekte im zuständigen Gebiet: Zusammenarbeit, Ressourcenaustausch und -einsatz? Wie gelingen Öffnung zum / Synergien mit dem Quartier?
 - Veränderung über die Zeit? (Öffnung und Abschottung zur Nachbarschaft)
 - *Sargfabrik & Verein Lebenswertes Matzner Viertel* (Rolle der GB*)
 - Welche Rolle spielt ihr im Verein Lebenswertes Matzner Viertel?
 - *Wohnraum Künstlergasse*, Stadtteilpartnerschaften
- Bzw.
- *Gleis21*

Collective Governance & Institutional Embedding (collaborations, cooperations, ...)

- Über welche Formate vernetzt ihr räumliche und soziale Ressourcen im Grätzl? Was ist hierbei die Rolle von Baugruppen? Potenziale?
- Erwartungen an und von Baugruppe? Geht ihr auf Baugruppen zu? Gehen Baugruppen auf euch zu? (Bsp. Wohnraum Künstlergasse, Sargfabrik, Gleis21)

- Welches Art von Engagement in der Nachbarschaft durch Baugruppen nehmt ihr wahr? Konkrete Beispiele?
- Inwiefern ergänzen das Engagement von Baugruppen und eure Arbeit einander? Baugruppen als Partner:in in der Nachbarschaftsarbeit?
- Wo seht ihr Grenzen von Baugruppen im Engagement für das Quartier?
- Welche institutionelle Rahmenbedingungen begünstigen Synergien mit dem Umfeld? Welche erschweren diese? Welche Akteur:innen sind dabei zentral? Was bräuchte es?
- Inwiefern werden Baugruppen als Akteur:in in der Stadtentwicklung wahrgenommen? (Urban Agents)
- Nehmt ihr eine Instrumentalisierung von Baugruppen wahr? Inwiefern geht damit möglicherweise eine Auslagerung öffentlicher Services/Leistungen/Ressourcen-Bereitstellung an Baugruppen bzw. selbstorganisierte Gruppen in der Nachbarschaft einher?

Pandemic

- Welche lokalen Veränderungsprozesse in Nachbarschaften/Grätzln könnt ihr seit Beginn der Pandemie beobachten? Welche Rolle spielen gemeinschaftliche Wohnprojekte hierbei?
- Welche Bedeutung haben gemeinschaftlichen Wohnprojekten/Baugruppen in Krisenzeiten – Pandemie, Klimakrise, ... - im Nachbarschaftskontext?

Socio-ecological transformation (potentials, barriers, ...)

- Inwiefern können Baugruppen als Instrument der Stadtentwicklung / resiliente Stadtbausteine eingesetzt werden? Welche Erwartungen und Ziele sind daran geknüpft? Wie seht ihr das?
- Welche Rolle spielen Baugruppen als Wissensnetzwerke und ermöglichen Lernprozesse im Quartier und in der Nachbarschaft? Wie könnte das gefördert werden?
- Welche Rolle spielt dabei die Nachbarschaft im Sinne von Bebauungsstruktur und sozialräumlicher Struktur als Voraussetzung für die lokale Nachhaltigkeitstransformation? Grenzen/Barrieren?
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 - Welche Faktoren begünstigen das Teilen von Ressourcen und soziale Interaktionen zwischen Projekt und Nachbarschaft?
 - Was kann das Quartier von Baugruppen lernen und möglicherweise übernehmen? Wie?
 - Wen erreichen Baugruppen in der Nachbarschaft?
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Abschluss

- Ergänzungen?
- Bedanken

Focus group: co-housing project (90-120 minutes each)

Project Context Focus Group Workshop

- Personen als Teil der Gruppe ansprechen, kollektive Erfahrungen im Vordergrund

Materialien:

- Einverständniserklärungen
- Karte der Nachbarschaft – ca. 1,25 km Radius um das Projekt
- Akteursmapping Flipchart (nach der Logik der 3 Ebenen Soziales Kapital (Projekt- Bonding, Grätzl/Nachbarschaft – Bridging, Stadt – Linking)

Einstieg

- Vorstellen, Ablauf erklären, Administratives: Aufzeichnen, Einverständniserklärung
- Vorstellungsrunde Teilnehmende: seit wann in Baugruppe, Motivation (kurz)
- Fragen?

Karte der Nachbarschaft

- **Begriffe Nachbarschaft/Grätzl: Nachbarschaft (soziale Nähe), Grätzl (physische Nähe), Abgrenzungen schwierig**
- **Wie ist das in eurem Verständnis? Was spricht für/gegen eine Abgrenzung? Wie ließe sich eure Nachbarschaft/euer Grätzl doch abgrenzen? Wie ließe sich diese aus eurer Sicht räumlich/sozial abgrenzen? (>> Karte) Was/Wer gehört dazu? Was nicht? Warum? („Mine“, „Ours“, „Theirs“)**
 - Unser Projekt
 - Unsere unmittelbare Nachbarschaft (alltägliche Interaktionen)
 - Unser Grätzl
- **Welche Orte im Grätzl sind für euch als Gruppe wichtig? Warum? (>> Karte)**
- **Hat sich eure Definition von Grätzl/Nachbarschaft über die Zeit verändert? Warum? Wodurch verschieben sich Grenzen?**

community

- **Welche Visionen für die Nachbarschaft? Welche Rolle hat Nachbarschaft bzw. das Grätzl im Planungsprozess gespielt? Motive und Ziele vor dem Hintergrund globaler Krisen? (Lokales Handeln, ...)**
- **Was war wichtig bei der Standortwahl? Erwartungen an die Umgebung?**
- **Erwartungen an euch als Baugruppe? (z.B. Ausschreibung)**
- **Wer ist Teil der „Community“ (Gruppe)? Formal? Informell? Wer kann dem Verein beitreten?**
- **Wie hat sich eure Aktivität als Gruppe über die Zeit verändert? Wie die Beziehungen zur Nachbarschaft?**

shared resources

Die Rolle der Nachbarschaft/des Urban Settings, räumliche Ressource, Netzwerke, Zugänglichkeit (physisch/symbolisch)

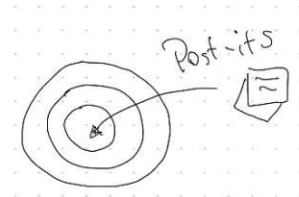
- **Wo öffnet ihr euch zur Nachbarschaft? Wo gibt es Grenzen (räumlich, sozial, symbolisch, rechtlich, ...)? Wo grenzt ihr euch bewusst ab?**
- **Architektonische/Städtebauliche Qualitäten, die Übergangsräume darstellen bzw. Übergänge begünstigen oder erschweren? Abstufungen der räumlicher Dimensionen? Wer ist wo willkommen? Informelle**

Interaktionen? Wo finden Interaktionen mit Nachbar:innen statt? (Bewohnende des Projekts/Bewohner:innen aus der Umgebung)

- Zeitliche Grenzen?
- Welche Ressourcen werden innerhalb des Projektes geteilt? Welche über das Projekt hinaus? Was bietet ihr der Nachbarschaft? Nutzungen? Räume? Services? Knowhow? (Ressourcen für die Nachbarschaft)
- Inwiefern ist die Nachbarschaft für euch eine Ressource? (Räumlich, Sozial, ...) Wen oder was braucht bzw. nutzt ihr kollektiv in der Nachbarschaft? (Nachbarschaft als Ressource)
- Wie adressiert ihr die Nachbarschaft/Umfeld und die Stadt? Wie werdet ihr von der Nachbarschaft angesprochen? (Digitale Nachbarschaftsnetzwerke, Social Media) Wer wendet sich aus der Nachbarschaft bzw. der Stadt an euch? (Kommunikationskanäle)
- Spannungen/Konflikte/Grenzüberschreitungen von außen (Grätzl) (räumlich und sozial)?
- Veränderung über die Zeit (Nachbarschaft als Ressource, Offenheit für die Nachbarschaft, etc.)?

Akteursmapping erklären

- Projekt (als soziale Gruppe mit Subgruppen)
- Grätzl/Nachbarschaft (sich überlagernde Soziosphären)
- Stadtkontext und darüber hinaus



collective governance

- Wie seid ihr intern organisiert? Wie häufig finden treffen statt? Veränderung über die Zeit?
- Wie wird Nachbarschaft/Grätzl im Alltag thematisiert? Wer beschäftigt sich in eurer Gruppe mit dem Grätzl und der Nachbarschaft? Wie genau?
- Welche internen Voraussetzungen braucht es aus eurer Sicht, sodass eine Öffnung zur Nachbarschaft langfristig aufrecht erhalten werden kann? (bonding > bridging) Wie gelingt es euch? Woran scheitert ihr?
 - Wo stoßt ihr an Grenzen? Wo bräuchtet ihr mehr Unterstützung?
- (Ziviles) Kollektives Engagement in der Nachbarschaft? Über welche Strukturen/Institutionen/Organisationen? Über welche Aktivitäten schafft ihr Brücken zur Nachbarschaft? (Kulturverein, interne Betriebe, externe Organisation, ..)
 - Rolle in der jeweiligen Organisation (eigene Organisation oder Mitglied als Baugruppe, ...)
- Wen wollt ihr im Quartier/in der Nachbarschaft ansprechen? Wen könnt oder wollt ihr nicht erreichen?
- Welche Netzwerke über die Nachbarschaft/Stadt hinaus? (Kooperation, Wissensnetzwerke, ...) Kommunikation über das Projekt? Publikationen? „Lobbying“? Vernetzung mit anderen Baugruppen bzw. „Commons-Projekten“? (Sharing Knowledge)

Wohnraum Künstlergasse

- *Stadtteilpartnerschaft* „Stadtteilpartnerschaft ist eine lokale Initiative der Gebietsbetreuungen Stadterneuerung. Sie bringt Menschen im Stadtteil zusammen, die Platz haben und Platz suchen. Im Vordergrund steht der gemeinsame Einsatz für ein lebenswertes Stadtviertel.“ (<https://www.qbstern.at/themen-projekte/stadtteilpartnerschaft/qb-ist-stadtteilpartner/>) Wohnraumkünstlergasse ist ein Stadtteilpartner >> Was bedeutet das? Wird dieses Angebot von der Nachbarschaft angenommen?

institutional embedding

- Inwiefern nehmt ihr euch als Akteur:in in der Stadtentwicklung wahr?
- Verhältnis zu städtischen Institutionen? Welche Institutionen unterstützen euch? Welche nicht? Welche Erwartungen/Kritik werden an euch herangetragen?
- Nehmt ihr eine Instrumentalisierung seitens der Stadt wahr? (Eure Ressourcen anstelle öffentlicher Güter?)

Pandemic

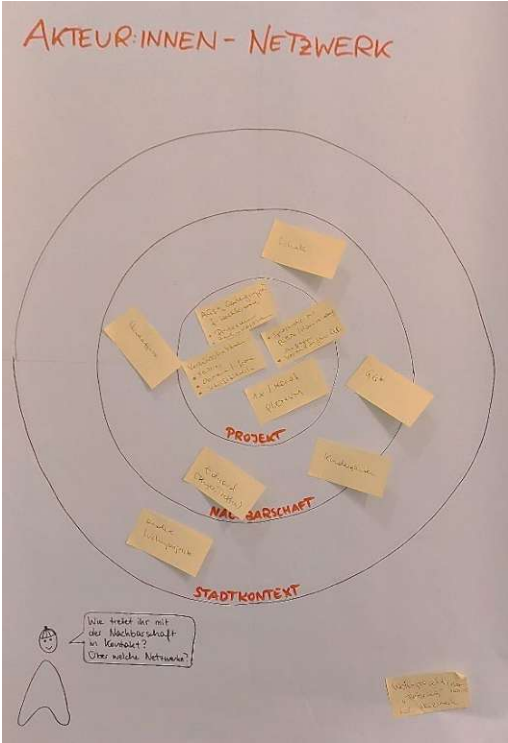
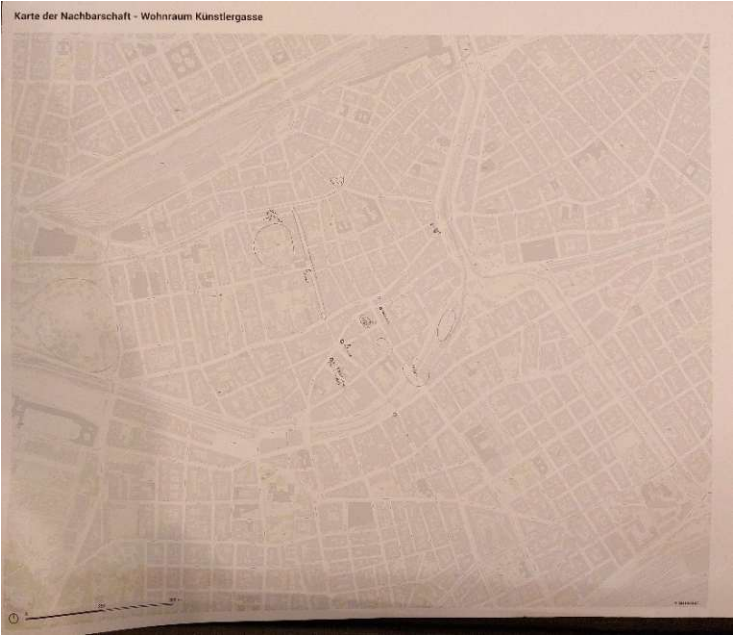
- Wie haben sich die Beziehungen in die Nachbarschaft/mit dem Grätzl verändert? Einerseits intern andererseits extern? (Solidarität)
- Welche Netzwerke und Strukturen (soziale Ressourcen) waren zentral, um mit der Krise als (Bau)gruppe zurechtzukommen? (intern und extern) Inwiefern?
- Welche räumlichen Ressourcen waren besonders wichtig während der Lockdowns? (im Projekt und in der Nachbarschaft)? Nutzungsflexibilität? Inwiefern?
- Was hat sich seit Beginn der Pandemie (in Bezug auf die Nachbarschaft) nachhaltig verändert?
- Institutionelle Ressourcen/Unterstützung (Kulturförderungen, individuelle Förderungen, ...)
- Was habt ihr als Gruppe aus der Krise gelernt? (in Bezug auf euer Grätzl/Nachbarschaft und Beziehungen, welche Herausforderungen, Probleme konntet ihr erfolgreich adressieren? (=Ausstiegsfrage)

Abschluss

- Ergänzungen?
- Bedanken
- Feedback zur Befragung

Focus Group – additional documents

Karte der Karte der Nachbarschaft & Akteur:innen-Netzwerk (own photographs, 2023)



Focus Group Workshop (Wohnraum Künstlergasse, own photograph, 2023)



11.2 Consent forms



Expert interview

Einverständniserklärung/Datenschutzmitteilung

Herzlichen Dank, dass Sie sich bereit erklärt haben, als Expert:in für ein Gespräch für die Abfassung einer Masterarbeit der Technischen Universität Wien zur Verfügung zu stehen.

Gemäß Datenschutzgesetz (§ 7 Abs 2 Ziffer 2 DSG) muss für ein derartiges Interview Ihre Zustimmung eingeholt werden, da die Aussagen unter Nennung Ihres Namens in der Masterarbeit verwendet (zitiert) werden.

Die Inhalte des Interviews werden partiell transkribiert und es erfolgt eine Zusammenfassung der zentralen Aussagen. Abschlussarbeiten müssen laut Universitätsgesetz veröffentlicht werden (durch Aufstellen in der National- und Universitätsbibliothek), sie sind üblicherweise auch online zugänglich.

Die Daten können von dem:der Betreuer:in bzw. Begutachter:in der Masterarbeit für Zwecke der Leistungsbeurteilung eingesehen werden. Die erhobenen Daten dürfen gemäß Art 89 Abs 1 DSGVO grundsätzlich unbeschränkt gespeichert werden.

Sie können die Zustimmung zur Verwendung dieses Interviews jederzeit widerrufen, alle Aussagen, die bis zu diesem Zeitpunkt in der wissenschaftlichen Arbeit verwendet wurden, sind allerdings rechtskonform und müssen nicht aus der Arbeit entfernt werden.

Weiters besteht das Recht auf Auskunft durch den:die Verantwortlichen an dieser Studie über die erhobenen personenbezogenen Daten sowie das Recht auf Berichtigung, Löschung, Einschränkung der Verarbeitung der Daten sowie ein Widerspruchsrecht gegen die Verarbeitung sowie des Rechts auf Datenübertragbarkeit.

Wenn Sie Fragen zu dieser Erhebung haben, wenden Sie sich bitte gern an die Verantwortliche dieser Untersuchung: Ruth HÖPLER (ruth.hoepler@tuwien.ac.at Studentin der Studienrichtung Raumplanung und Raumordnung, Preysinggasse 5/12-13, 1150 Wien).

Hiermit bestätige ich, dass die von mir beigetragenen Daten im Rahmen der Masterarbeit verwendet werden dürfen.

Name

E-Mail

Wien, am _____

Unterschrift

Einverständniserklärung/Datenschutzmitteilung

Herzlichen Dank, dass Sie sich bereit erklärt haben, als Expert:in für ein Gespräch für die Abfassung einer Masterarbeit der Technischen Universität Wien zur Verfügung zu stehen.

In der Arbeit werden Sie nicht namentlich genannt, es lässt sich aber nicht ausschließen, dass sich Rückschlüsse auf Personen ziehen lassen. Daher muss gemäß Datenschutzgesetz (§ 7 Abs 2 Ziffer 2 DSG) für ein derartiges Interview Ihre Zustimmung eingeholt werden.

Die Inhalte des Interviews werden partiell transkribiert und es erfolgt eine Zusammenfassung der zentralen Aussagen. Abschlussarbeiten müssen laut Universitätsgesetz veröffentlicht werden (durch Aufstellen in der National- und Universitätsbibliothek), sie sind üblicherweise auch online zugänglich.

Die Daten können von dem:der Betreuer:in bzw. Begutachter:in der Masterarbeit für Zwecke der Leistungsbeurteilung eingesehen werden. Die erhobenen Daten dürfen gemäß Art 89 Abs 1 DSGVO grundsätzlich unbeschränkt gespeichert werden.

Sie können die Zustimmung zur Verwendung dieses Interviews jederzeit widerrufen, alle Aussagen, die bis zu diesem Zeitpunkt in der wissenschaftlichen Arbeit verwendet wurden, sind allerdings rechtskonform und müssen nicht aus der Arbeit entfernt werden.

Weiters besteht das Recht auf Auskunft durch den:die Verantwortlichen an dieser Studie über die erhobenen personenbezogenen Daten sowie das Recht auf Berichtigung, Löschung, Einschränkung der Verarbeitung der Daten sowie ein Widerspruchsrecht gegen die Verarbeitung sowie des Rechts auf Datenübertragbarkeit.

Wenn Sie Fragen zu dieser Erhebung haben, wenden Sie sich bitte gern an die Verantwortliche dieser Untersuchung: Ruth HÖPLER (ruth.hoepler@tuwien.ac.at Studentin der Studienrichtung Raumplanung und Raumordnung, Preysinggasse 5/12-13, 1150 Wien).

Hiermit bestätige ich, dass die von mir beigetragenen Daten im Rahmen der Masterarbeit anonymisiert verwendet werden dürfen.

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