

ISBN: 978-82-575-1417-4
ISSN: 1894-6402



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Philosophiae Doctor (PhD), Thesis 2017:08

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Norwegian University of Life Sciences
Faculty of Landscape and Society

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Marking space: Negotiating room for user efficacy in residential urban spaces

Sette sitt preg på urbane boligområder:
brukernes handlingsrom

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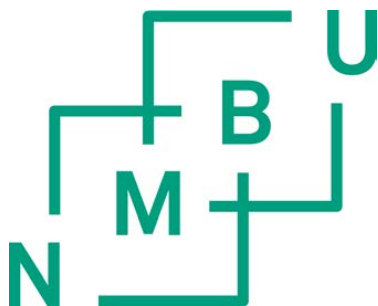
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GLOSSARY OF RELEVANT NORWEGIAN TERMS

Borettslag is a form of property ownership translated as building cooperative, implying that management decisions and tasks are delegated to an elected board (*styre*), typically is formed by 3 or more resident-owners. Norwegian property boards for both cooperative and condominium (*sameie*) housing properties are required by law to invite all unit owners to a meeting (*generalforsamling*) once a year.

Dugnad refers to a Norwegian concept of coming together to clean or work voluntarily for a collective cause. In cities, *dugnad* is traditionally used by apartment building residents to seasonally clean common areas, plant flowers and socialize with neighbors. It has become considerably weak in urban centers, where residents increasingly choose rather to pay external firms to deliver these services and elect to socialize outside of their neighborhood (Eriksen, 2010).

Vaktmester is translated as superintendent. In Norwegian residential properties, this position can be a resident who takes on maintenance tasks or a hired individual or firm that holds general oversight and performs maintenance, often over several properties. In Norway as well as across Europe, maintenance tasks for urban residential spaces are increasingly hired out to fragmented private firms, minimizing property specific oversight through full time superintendents (Carmona et al., 2008).

Drift og forvaltning of urban space has been translated as maintenance and operations (M&O), used through this dissertation as an umbrella term to refer to property specific administration and upkeep practices.

ACKNOWLEDGEMENTS

This project taught me a great deal about how I understand urban design and the world around me- largely through the exploration of ANT. Like the ANT approach, I am at times at odds with what others take for granted. I aim to challenge in the hopes of betterment – better places, better practices, better processes. This urge telescopes, stretching wide into vacuity, then narrowing back to tediously mundane details. The scope I navigated over the past five years attempting to stabilize this was enabled by a wide network of both things and people - relationships that helped transform this dissertation into its current form. Tools from both field and office: a series of notebooks and pens, my camera, tablet, and laptop captured and organized thoughts and experiences. The portability of these objects enabled my productivity through many useful hours spent commuting and travelling, expanding my insights and impressions during fieldwork, conferences, and tourism.

Discussion partners further inspired and challenged the research's many translations. My three advisors were invaluable in helping mediate broad swings amidst different scopes, disciplines, and understandings of the project. I thank Inger-Lise Saglie for helping to cultivate my interests and to ground my thoughts in Oslo's planning context. I greatly appreciate Lars Frers's understanding of the project and support in negotiating research methodologies. I am grateful for Deni Ruggeri's reminder of my design background and his ever-patient guidance through the final clarifications of project aims and language. Two seminar opponents (along with several nameless article editors) offered valuable advice and careful reflection over my progress – Monica Degan and Shelley Egoz. I am additionally thankful for the project informants whose responses I learned from and for colleagues who asked important questions- in particular the SUSPLAN research team and PhD fellows Sebastian Peters and Lillin Knudtzon. These people forced me to explain the project as it evolved, our relationships and interactions were invaluable to clarifying and prioritizing my concerns.

My relationship with this research swung often between joy and frustration - with my own research design, with my convoluted writing style, with the tools available to me. Through it all, one constant helped me weather the tides I brought upon myself- my levelheaded and endlessly patient partner in life, Rolf Mjønes. Our little family coalition with Louisa and Rocky strengthens my resolve and keeps the peaks and valleys in perspective. My professional goals are more meaningful due to family and friends spread around the globe – their urban experiences inspire me to strive towards making a small contribution to bettering daily life in cities.

SUMMARY

The ability to mark and change- or hold efficacy over- one's environment is a basic need of everyday dwelling. Because people in cities share outdoor space, their ability to affect their environment is constantly in contention – in relation to other spatial users and to those who maintain and regulate urban spaces. Residential urban spaces are managed through the decisions that determine their plan, design, access, administration, regulation, functionality, and quality of maintenance over time. In contemporary cities, these tasks are increasingly performed or influenced by private actors, or public actors without local knowledge of individual spaces. These phenomena bring into question how user efficacy can be safeguarded and how users are served by the spaces that they frequent. This dissertation operationalizes user efficacy and explores these practical challenges through three differently administered residential urban spaces in Oslo, Norway.

Inspiring the research's ethnographic inquiry is a reconsideration of spatial management research through a translation of the Actor Network Theory (ANT) approach. The approach focuses the research on the material effects of practices. This perspective frames the interaction of spatial management and user efficacy through how they affect the built environment. User efficacy is thus approached not only through the ability to engage civically in participation forums, but also to engage by marking the physical environment. This deployment encourages the consideration of many practical disciplines together, opening the inquiry to the plurality of possible actions, actors, and influencers that affect urban spaces. Considering all kinds of user actions that affect the environment – intentional or incidental, legal or illegal, constructive or destructive – the dissertation describes the need for reflexive spatial management margins. Within locally inclusive and responsive margins of management and regulation, different users can contribute constructively to adapting and heterogeneously textured environments- mediated to ensure minimal infringement upon others' efficacy, safety, and well-being.

The study's results show that user efficacy can be enabled by spatial management's facilitation of physical and civic engagement, implementation of user input, flexible enforcement of regulations, and reflexive response to physical changes in the built environment. User efficacy that excludes or infringes upon other users or deteriorates the environment can be limited by imposing and enforcing regulations. Such regulations should be evaluated by how enforceable they are in a given context. Further, the need for regulations should be evaluated against the extent of social exclusion or environmental deterioration that their infractions would cause at a specific urban space. By illuminating the distinct differences of three Oslo cases, the following threats to user efficacy are found: anonymous spaces, high investment pressures, strict regulation of spatial use, and gaps as well as excesses in maintenance.

SAMMENDRAG

Å sette sitt preg på, og å ha muligheter til å påvirke bomiljøet er en forutsetning for følelsen av tilhørighet og eierskap til sitt nærmiljø. I byer deler mange mennesker det samme miljøet, og dermed blir det vanskelig for den enkelte å påvirke det – de kan komme i konflikt med andre brukere i byrommet eller med de som forvalter og drifter byrom. *Spatial management* innebærer utforming og vedlikehold av byrom – fagområder som planlegging, byforming, administrasjon, og drift. Flere og flere av de oppgavene som faller inn under *spatial management* feltet utføres av private aktører, eller offentlige etater uten tilknytting til spesifikke byrom. Disse fenomenene fordrer spørsmål rundt hvordan brukeres påvirkningskraft ivaretas og tilrettelegges i felles byrom i boligstrøk. Denne avhandlingen studerer brukernes påvirkningskraft i det bygde miljøet og bruker tre oslo-caser, hver med sin egen driftsform, for å belyse de praktiske utfordringer innenfor *spatial management*.

Denne forskningen er inspirert av en tilnærming som er fortolket fra sosiologi – *Actor Network Theory* (ANT). Tilnærmingen fokuserer på de konkrete, materielle effekter som følger praksis. Den setter effektene av *spatial management* og brukernes praksis opp mot hverandre. Brukere kan påvirke miljøet både gjennom deltagelse i medvirkningsprosesser og gjennom fysiske tiltak som endrer omgivelsene. Dette perspektivet åpner for vurdering av mange typer praksis i byrom – ikke bare de som er forventet, planlagte, eller lovlige. Avhandlingen viser behovet for refleksive og koordinerte *spatial management* praksiser for å utforme, regulere, og vedlikeholde byrom sånn at de møter brukernes behov. Slik får forskjellige brukere mulighet til å tilpasse og sette sitt preg på sine fellesrom uten å forstyrre andres påvirkningskraft, trygghet, og velvære.

Forskningsresultatene viser at de som jobber i *spatial management* (planleggere, designere, eiendomsforvaltere, og driftsarbeidere) kan oppmuntre brukere til å bidra konstruktivt til bomiljøet. Dette gjennom tilrettelegging av fysisk engasjement og brukervedvirkning, gjennomføring av innspill fra medvirkningsfora, fleksibel håndheving av lokale regler, samt refleksiv responsivitet til brukeres endringer i byrom. Samtidig kan forvaltere begrense destruktiv atferd som ekskluderer andre brukere eller på andre måter forringer byrom gjennom håndheving av regler og samarbeid med engasjerte brukere. Slik regulering må vurderes lokalt i henhold til hvor rimelig reguleringen kan håndheves, kontra de negative konsekvensene når reguleringen ikke er på plass. Ved å evaluere tre caser i Oslo by har denne avhandlingen identifisert faktorer som truer brukernes påvirkningskraft, disse er: brukernes følelse av anonymitet, privatisering med høyt investeringspress, streng regulering av byrommets bruk, og utilstrekkelige driftstiltak.

1. INTRODUCTION

Contents:

1.1. Background: seeking heterogeneity

1.2. Positioning the research and underlying tensions

1.3. Knowledge gaps

1.4. Structure of the thesis

Residential urban spaces are important components of how cities are physically structured and socially lived. They allow buildings access to light and air while providing connections to other neighborhoods and urban functions. Encompassing aspects of public space and green space, *residential urban spaces* offer opportunities for recreation, encountering strangers, and experiencing nature. As part of the *built environment*, these spaces are “physical surroundings given meaning through interaction,” (Milligan, 2003, p. 382). The daily and personal interactions that happen within them are particularly significant due to their proximity to residents’ homes. Their changing condition over time affects their functionality and their users’ wellbeing (Tonkiss, 2005; Carmona, De Magalhaes, & Hammond, 2008). *Spatial management* – or the processes and practices of producing and sustaining urban space- affect those conditions, providing and maintaining environmental functionality, sanitation, and safety. This realm envelopes urban planning and design with the continuous administration, regulation, and maintenance of built environment quality and function. Therefore user benefits from residential urban spaces depend upon how spatial management professionals (*spatial managers*) respond to challenges and handle user needs (Dempsey, Smith, & Burton, 2014). Meanwhile, planning, design, administration, regulation, and maintenance approaches vary greatly, even by residential property in most cities (Carmona et

al., 2008). Differences in spatial management practices can mean that residents in different neighborhoods are served and affected differently by their local urban spaces.

The ability to control one's environment – particularly one's home environment- is a basic human need. Nussbaum (2011) names this control as one of ten central *capabilities* that allow the pursuit of “a dignified and minimally flourishing life,” (pp. 33-34). The capacity to act towards effecting some kind of change is *agency* (see elaboration in Chapter 3). The perceptions and feelings associated with holding agency- over one's environment, for example - is *efficacy*, which can be exercised by individuals or groups (Bandura, 2000). Exercising user efficacy upon the built environment can take the forms of participating in decision-making processes that affect urban spaces, giving input to design projects, contributing to local maintenance or renovation works by reporting issues, taking part in building, decoration or upkeep, and using or wearing out amenities – all actions that result in environmental change. Efficacy influences people's “goals and aspirations, outcome expectations, affective proclivities, and perception of impediments and opportunities,” (Bandura, 2000, p. 75). Efficacy therefore has a role in connecting urban space users through encouraging personal and group identity, senses of belonging and social cohesion (Muir, 2007). Efficacy amongst groups can further aid in community building by generating place attachment and social capital, encouraging residents from different backgrounds to come together as stewards of a local environment (Moskell & Allred, 2012). Individual efficacy in ones' surroundings is a key component of satisfaction and personal wellbeing in residential environments (Korpela, 1989).

Urban spaces, however, present a challenge for the individual exercise of efficacy, as many people share and seek to exercise efficacy in the same environment. Spatial management practices are responsible for accommodating individual needs *and* maintaining spatial function- tasking spatial managers to “manag[e] the interactions between, and impacts of, multiple functions in a way that is acceptable to users,” (Carmona et al., 2008, p. 66). The order imposed by spatial design and maintenance has been recognized as contributing to regulating public culture and social interaction (Amin, 2008), even though how this regulation occurs- intentionally or incidentally- has been little researched. This dissertation operationalizes the notion of efficacy in the built environment, with the aim of making the social agendas and effects of spatial management more explicit. It illuminates tensions surrounding urban homes, where life and management meet in everyday, common outdoor spaces by asking: *how does spatial management mediate user efficacy in residential urban spaces?*

1.1. Background: seeking heterogeneity

The populations that use urban spaces are *heterogeneous*, composed of diverse individuals with different needs. Worldwide immigration and urbanization patterns bring new users to cities, densifying neighborhoods and blending different demographics. Contemporary urban planning, particularly in the Nordic countries, addresses such growth through densification policies that require high utilization of small areas of space (Hanssen, Hofstad, Saglie, Næss, & Røe, 2015). This utilization offers less outdoor area for each resident and demands that common spaces accommodate the needs of multiple residents. As different people need different things from the same built environment, different preferences and exercised efficacies can produce conflict. When individuals dominate common spaces, their adaptations to the built environment can infringe upon others' needs and cause detriment. Spatial management practices can mediate these, reducing or instigating conflict depending on instance-specific awareness, prioritization, and execution of tasks. However, the social implications of spatial management organization, decisions, and actions are not always straightforward (Carmona et al., 2008). Despite the common dilemmas that result from these management and user relationships, few academic studies have considered how individual users physically transform urban spaces¹.

While human intervention is critical to creating and sustaining built environments, scholars seldom tackle the heterogeneity of potential interveners. Architect and theorist John Habraken (1998) romantically writes, "change and renewal are the keys to our knowledge of the built environment... As long as [people] are actively involved and find a given built environment worth renewing, altering, and expanding, it endures," (p. 7). However, who is involved and to what extent varies significantly amidst different spatial management contexts and situations. It follows that the more heterogeneous individuals are involved and exercise efficacy in space, the more variegated and heterogeneous the space becomes. Urban spaces may be adapted to better address climate, user preferences, and needed functions- making places more *authentic* than those that are over-managed², over-designed and sterile of meaning (Sorkin, 1992; Southworth & Ruggeri, 2011). The extent of heterogeneity of the built environment can be understood as an indicator of multiple, diverse efficacies being exercised. Environmental heterogeneity is positive when *loosening* space, rendering places more interesting by reflecting contextual character (Franck & Stevens, 2006). However, the exercise of individual efficacies

1 Work on territoriality has outlined how people and behaviours affect users' sense of urban spaces, both purposefully and unintentionally (Kärholm, 2007). Most literature in the recent realm of spatial "co-production" has rather focused on user efficacy through participation and organized volunteer work (i.e. Bovaird, 2007; Michialino, 2010; Watson, 2014).

2 This dissertation considers *over-management* in the context of residential urban spaces against user efficacy – over-managed spaces are those that prevent heterogeneity in the built environment.

must be limited in some situations to prevent negative consequences for the collective – i.e. hazard, detriment, offense, or exclusion. A margin of spatial management is necessary to uphold safety, health, and wellbeing. The more people are allowed to contribute to a built environment within margins of spatial management practice, the more sustainably they can adapt urban spaces to suit and reflect heterogeneous needs, rendering places resilient with time (Turner, 1977; Sorkin, 1992).

Many degrees of environmental heterogeneity and frames of spatial management can exist within one city's residential areas, as this dissertation illuminates through study of three neighborhoods in Oslo, Norway. With an average of 2% population growth each year since 2005, Oslo is Europe's fastest growing capital city. As over half of this growth is due to net immigration (HRS, 2015), the population is steadily becoming more heterogeneous. Oslo's urban planning policies have pushed densification, following the compact city model (Hofstad, Saglie, & Hanssen, 2015). Like many western cities, its politics have begun to delegate the provision, administration and upkeep of urban spaces to private developers, raising questions with regard to how, whether and which interests should shape its built environments (Hofstad et al., 2015).

Oslo has a goal for most inner-Oslo neighborhoods (between Ring 1 and Ring 3 motorways) to maintain 20% of residential built-up area as common outdoor space. This goal intends to reserve areas that function environmentally as well as socially by including varied activities for all age groups and amenities like green areas, water features, seating, play and physical training areas, car-free paths, existing sidewalks, and streets (PBE, 2012). Despite this intention, the city has not yet approved and mandated these residential urban space standards – leaving the amount and functionality of outdoor space in new residential developments largely up to local developers and property owners. This dissertation questions the implications of this lack of planning regulation upon spatial provision, form, local maintenance, and the ultimately affected lives of urban residents.

1.2. Positioning the research and underlying tensions

Aiming to illuminate complexities of managing residential urban spaces, this dissertation offers knowledge for setting spatial management margins that can encourage heterogeneous, authentic-to-users environments without compromising basic needs like safety, cleanliness and functionality. The interests behind this aim do not fit neatly into a single theoretical discipline or methodological tradition as they are inspired by actual phenomena experienced in urban space. This inspiration produces tensions that underlie the dissertation and guide its research design. How this research handles actual spatial users, temporality of the built environment,

and disciplinary boundaries differs significantly from the abstractions typically employed by spatial management research.

Users of urban spaces are traditionally discussed as a unified group or collection of demographic groups. This abstraction structurally presumes that all users or people of a certain characteristic (i.e. ethnic background or age range) behave alike in a particular place³. Green space and public space management literature typically discusses user efficacy as derived from participating in formal and organized governance forums. Related studies overlook the agency of disorganized individuals in order to focus rather upon institutional benefits of participation processes (Fors, Molin, Murphy, & van den Bosch, 2015; i.e. Carmona et al., 2008; Dempsey et al., 2014). Both discourse and practice in urban planning and architecture hold ideals of suiting spatial provision and design to local needs through user input (Cooper-Marcus & Francis, 1997; Hester, 2006). However, these fields usually rely on workshops and organized participation forums, seldom capable of entertaining un-mandated or informal contributions (Miessen, 2010). While formal participation processes can offer a mode of exercising efficacy, they are challenged to represent or include all of a targeted population (Campbell, 2005).

Actual spatial users can stretch beyond those desirable or identifiable for formal participation processes. Newly envisioned projects do not have established user bases. Existing yards, sidewalks, pathways, and playgrounds are local meeting and recreation areas that serve residents and citizens as well as visitors - people with and without voting rights or planning knowledge. These outdoor spaces can be fully public spaces, owned and maintained by the municipality and accessible to all, or various levels of semi-public common spaces, where user access is determined by private property owners. Neoliberalism has led to a combination of these two, with cities mandating public access of privately owned spaces and delegating the enforcement of public access rights to property owners (Carmona et al., 2008). While residential properties in Oslo are traditionally governed by cooperative or condominium apartment owners, they are increasingly called upon by city plans and zoning regulations to provide public space (Hofstad et al., 2015) – increasing the user base beyond those who can partake in each property’s spatial governance. In order to consider all who may exercise efficacy in the built environment, this research approaches spatial users as any individuals from any demographic that inhabit and contribute to a residential urban space – all who physically affect or are affected by a given built environment. This expanded orientation of spatial user allows the consideration of how multiple interests and contestable rights shape residential urban spaces.

3 This pattern is particularly prevalent in studies drawing upon Barker’s (1968) seminal work on behavioral settings and Gibson’s (1986) theory of environmental affordances.

Urban spaces are shaped daily outside of design processes; built environments are temporal, constantly changing, and evolving. Environmental materials weather and become worn out from use, maintenance actors replace and add elements, users change physical conditions by planting flowers, littering, or marking graffiti, for example. Some of the changes are anticipated and allowed, performed with intent, while others are products of repeated practices or instant, spontaneous behaviors (de Certeau, 1984; Kärholm, 2007). Temporality of the built environment is theorized as significant in that it merges into “the experience of those who, in their activities, carry forward the process of social life,” (Ingold, 1993, p. 63). However, the physical aspects and significance of temporality have been overlooked in urban design study. This field tends to emphasize temporality in the use of space and rhythms of activities over particular time periods or seasons, often referencing sociologist Henri Lefebvre’s (1991) discussion of space production. The concrete effects of time’s passage upon the built environment receive less theoretical attention despite preoccupying spatial management practice. Carmona et al. (2008) note that different elements of the built environment change at different rates, with aspects of the landscape and public spaces changing fastest, often having “the most decisive short-term impact on the way public space is perceived by its users,” (p. 11). Built environmental change and its perception happen daily in urban spaces, rendering the formal participation in single, time-limited phases (i.e. input for a specific plan, process, design, renovation or improvement project) a limited form of user efficacy. This research approaches temporality by taking as a starting point the multitude of changes experienced daily as the built environment evolves.

As many professional disciplines are involved in spatial management practice, significant methodological differences exist across their research, often leaving limited consideration for interdisciplinary concerns. In landscape management, the Ecosystem Services approach maps out a variety of ways the environment can contribute to the health and well-being of its users (Tzoulas et al., 2007), but places little emphasis on what users contribute to their environment. Environmental psychology scholars quantify various factors of place attachment, social cohesion, and residents’ willingness to contribute to improving an environment (i.e. Kaiser, Ranney, Hartig, & Bowler, 1999; Scannell & Gifford, 2010). Their generalizations- often grouping sites together or attributing data to demographic groups- overlook case-specific nuances and the plurality of spatial users. Elsewhere, green space management and urban governance studies approach user contributions to the environment through a New Institutional perspective (i.e. Healey, 2007; Dempsey et al., 2014; Randrup & Persson, 2009), delving into the organizational aspects of management and legitimacy of processes rather than focusing upon practice and outcomes (Lounsbury, 2008).

In order to relate physical changes in built environments to user efficacy and the varied practices of spatial management, this dissertation adopts the Actor Network Theory (ANT) approach. Adapting ANT from the sociological field Science, Technology, and Society (STS), it focuses on the connections between physical and human elements, expanding traditional research limitations of discipline, time, and user definition. As with any adaption of research approach, translation and methodological amendment affect the research design (see Chapter 3). ANT's deployment in this dissertation affords physical conditions of the built environment new significance by bringing them into perspective as the effects of different practices. The roles and work of both users and spatial managers can be assessed through their inter-dynamics, beyond formal processes and specific time phases. A practical need exists for each of the disciplines of spatial management to understand how their work affects other sectors and places over time (Madanipour, 2006; Carmona et al., 2008; Dempsey et al., 2014) – this dissertation offers the field a new research approach to encourage that understanding.

1.3. Knowledge gaps

The tensions outlined in the previous section illuminate knowledge gaps, particularly in traversing different theoretical realms relevant to this research. The focus on practices that change residential urban spaces link to theories of urban design, dwelling, and governance. Table 1-1 outlines several knowledge gaps, demonstrating this dissertation's overarching theoretical challenge of bridging relating realms. These are further explained in Chapter 2's survey of existing knowledge in the three realms.

Beginning with these missing links between the realms, this dissertation weaves together different intersecting, disciplinary threads to reinterpret spatial management practice as one united field. How different governance perspectives affect the regulation of space can be tied to how that regulation affects users' dwelling needs of efficacy. The mechanisms and everyday decisions in spatial management can be reconsidered based on how they promote or limit communication and personal expression between users. These aims depart from essentialist and structuralist research in seeking to learn from dynamics that are variable with time and specific to particular circumstances. They render many of the methodologies associated with each discipline (listed in the "Relationship to physical space" column of Table 1-1) insufficient in accounting for complexity and case specificity, grounding this dissertation's exploration of a new methodology.

Table 1-1 Summary of knowledge gaps by theoretical realm. Each realm offers different perspectives on physical space and user efficacy, but leaves knowledge gaps regarding how users and spatial management interact in, and with, the built environment.

Knowledge gaps

Realm	Typical research methods	Relationship to physical space	Relationship to user efficacy	Knowledge Gaps
Urban design	mapping, diagramming, observations; Case- to city-scale studies	<ul style="list-style-type: none"> • form of space and its implications upon social behaviors • semiotic readings of meaning in the built environment 	<ul style="list-style-type: none"> • design’s ability to affect user behaviors 	<ul style="list-style-type: none"> • users’ ability to change the built environment • how urban design might limit or encourage user efficacy
Dwelling	surveys, interviews, observations, ethnographies, case studies; Case- to neighborhood-scale studies	<ul style="list-style-type: none"> • perceptions of and meaning attached to residential environments 	<ul style="list-style-type: none"> • inhabitants’ ability to leave and interpret traces and the environment • territorial practices 	<ul style="list-style-type: none"> • how dwelling is affected by spatial management • challenges of heterogeneous individuals dwelling together
Governance	surveys, interviews, institutional analyses; civic- (state or municipal) scale studies	<ul style="list-style-type: none"> • physical space as result of governance processes 	<ul style="list-style-type: none"> • efficacy exercised through participation forums • user organizations 	<ul style="list-style-type: none"> • how governance forms and forums affect physical space • agency of unorganized individuals

1.4. Structure of the thesis

Illuminating how spatial management and users interact to affect heterogeneity in the built environment requires undertaking theoretical, empirical, and analytical tasks. These guide the structure and argumentation of the dissertation as visualized in Figure 1-1 – with the theoretical background serving both to ground the empirical inquiry and for discussion against the analytical results. Chapter 2: Theoretical background and Chapter 3: Framing spatial management research through ANT present this background by surveying existing knowledge. The knowledge gaps are further explained and the theoretical realms of urban design, dwelling, and governance are associated together through each realm’s relationship to spatial management practice. User efficacy’s agency is operationalized within these theoretical relationships in Chapter 3 to build the methodological approach that inspires Chapter 4: Methodology. Chapter 4’s research design frames the empirical tasks that explore user efficacy and spatial management effects on the built environment through three concrete cases – the findings of which are presented in Chapter 5: Presentation of the cases and Chapter 6: Findings. Analytical tasks interpret the findings to identify relationships between exercised user efficacies and practiced spatial management as detailed in Chapter 7: Analysis of efficacy enablers and inhibitors. In order to address spatial management practitioners and offer suggestions for negotiating room for efficacy within spatial management practice margins, these results are synthesized and discussed by practical discipline in light of existing theory in Chapter 8: How spatial management mediates user efficacy. Chapter 9: Reflections concludes the dissertation by answering the main research question and reflecting over the research.

Structure of the thesis

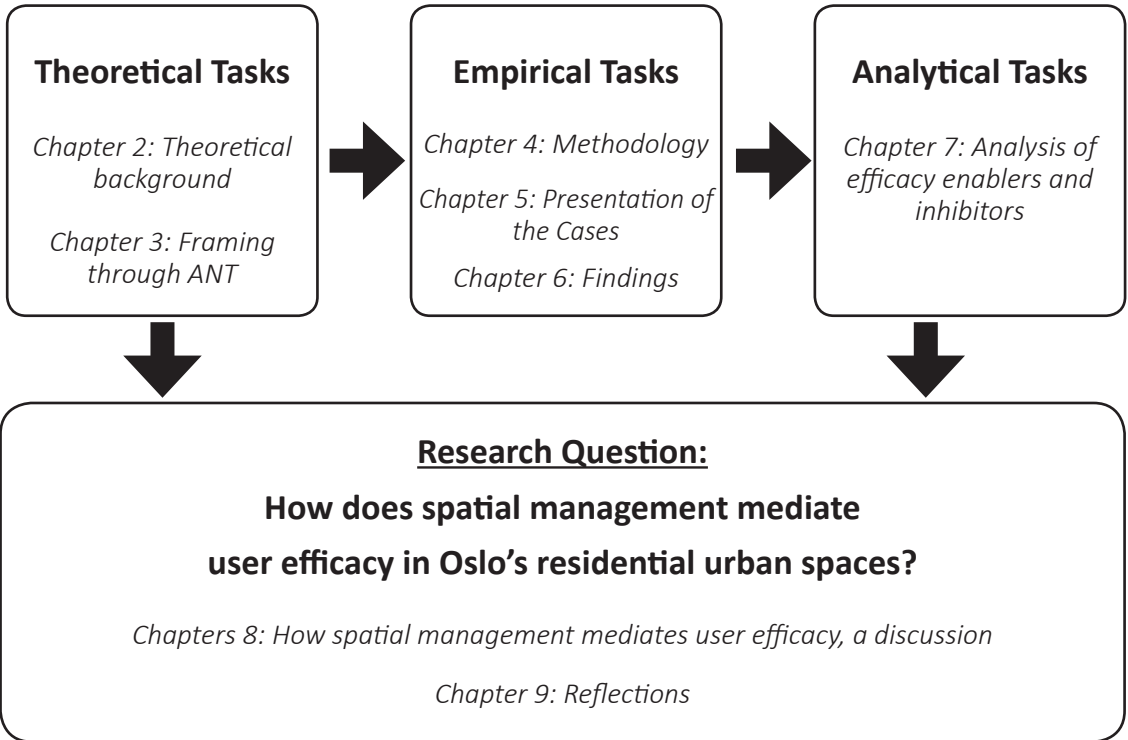


Figure 1-1 Visualization of the dissertation structure and tasks for answering the research question - the theoretical background provides a basis that inspires the empirical research and offers discussion points against the analyzed results.

2. THEORETICAL BACKGROUND TO THE RESEARCH

Contents:

2.1. Efficacy potentials in urban design

- 2.1.1. A shift from designer control to co-design
- 2.1.2. Design that limits and inspires user efficacy
- 2.1.3. Relationality and invited user efficacy in the built environment
- 2.1.4. Heterogeneity in urban design

2.2. Efficacy needs and challenges in urban dwelling

- 2.2.1. Identity embedded in dwelling
- 2.2.2. Traces of dwelling
- 2.2.3. Efficacy in heterogeneous and inclusive dwelling

2.3. Governing efficacy in urban spaces

- 2.3.1. The shift from government to governance invites efficacy
- 2.3.2. Participation and engagement to exercise efficacy
- 2.3.3. Addressing conflict: from consensus-making to agonistic debate

2.4. Spectrums of spatial management – a theoretical framework

- 2.4.1. Ranges of spatial management practice
- 2.4.2. Management tendencies towards environmental homogeneity
- 2.4.3. User efficacy's role in spatial quality

People attribute meaning to places by defining them – how a space looks, is used and what it represents offer bases for that meaning by distinguishing one place from another (Sack, 1992; Agnew, 2011). In reference to residential urban spaces, these aspects can be translated as urban design, dwelling, and governance respectively – with theory from each realm explaining spatial form, use, and the life it aspires to engender. An individual's efficacy exercised upon one of these realms can thereby change or challenge elements that others find meaningful in an urban space. In this chapter, a survey of these theoretical realms presents existing knowledge of users' potential to meaningfully affect urban space, building a theoretical framework for considering how and why spatial management practices might mediate efficacy, particularly in residential urban spaces.

2.1. Efficacy potentials in urban design

Urban design shapes the cities and residential environments people occupy, affecting how people engage with them. Paradigmatic changes in urban planning and architecture thought through the 20th century inspired a shift in perspective on user efficacy in urban design, leading to contemporary inclusions of user contributions in design practice. This subchapter's presentation of that shift considers design professionals' control, built environment effects upon users,

and contemporary urban relationality to demonstrate theoretical knowledge gaps regarding users' ability to change the built environment and how urban design might mediate user efficacy.

2.1.1. A shift from designer control to co-design

Urban planner Kevin Lynch (1981) defined design as “the playful creation and strict evaluation of the possible forms of something, including how it is to be made,” (p. 290). Those involved in design processes have control in determining form. As early as Roman times, elements like walls, gates, and roads were placed to control access to and within cities (Sennett, 1996). In the 19th Century, urban planning began to design for specific social agendas and utopian visions. In 1898, Ebenezer Howard's Garden City strove towards imposing utopian lifestyles through urban form by segregating land use and regulating urban scale. He sought to ‘design out’ the ills of large cities (Jacobs, 1961). In the mid-20th century, urban design targeted daily life. Modernism's application of technology shifted urban planning towards separating building inhabitants from city surroundings with elements like central ventilation and elevators, “[socially organizing] speed, comfort, and efficiency,” (Sennett, 1996, p. 349). Le Corbusier (1931) modernized planning ideals by defining housing as “machines for living,” manifesting that their design should follow the principles of efficiency and mass production. “Maximum individual liberty,” was thought to be achievable by housing urban populations within anonymous towers connected by motorways set within vast green spaces (Jacobs, 1961, p. 30). Modernist planning, following these principles, rejected organic development patterns and opportunities for chance encounters by separating spaces for particular functions and activities, paradoxically narrowing the liberty of individual choice and efficacy (Jacobs, 1961). During this early to mid- 20th century period the notion of designer control peaked with theory following architectural and environmental determinism which claimed that one's surroundings and their physical form control human behaviours in space (Hillier, Burdett, Peponis, & Penn, 1987).

In the second half of the 20th century, the urban design field developed out of interest in how people use cities. Seminal works by Jane Jacobs (1961) and William H. Whyte (1980) described cities through their everyday use and social opportunity, inspiring this social turn. Designer awareness focused upon what kind of functions and social life spaces could afford rather than determine. Fields like urban semiotics gained interest, explaining the experience of the city through symbolism and metaphor and recognizing that meaning can be read from materials in urban environments (i.e. Gottdiener & Lagopoulos, 1986). Architect Jan Gehl (1987) used observations of urban social life to produce design guidelines for encouraging social behaviour through the provision and placement of physical elements, such as comfortable outdoor

seating and multi-functional open areas. These thoughts paved the way for a dialogue between urban design and user efficacy.

2.1.2. Design that limits and inspires user efficacy

Several late 20th century premises for urban design affecting behavior can be interpreted as potentially affecting user efficacy. Particularly relevant in residential urban spaces are premises concerning the legibility of urban space and designing for safety and sociality. *Legibility*, or how urban space is read by users, is crucial to understanding how to navigate and behave in space (Lynch, 1960). In urban residential neighborhoods, legibility overlaps with territoriality to emphasize where people belong and the need for readable distinctions between public and private space (Gehl, 1987; Dempsey, 2008). Explicit physical separators like hedges, gates, fences, and subtle material changes can signify who belongs in a space. In excess, physical divisions of space result in gated communities, which have been shown to exclude outsiders and promote fear amongst neighbors (Carmona, De Magalhaes, & Hammond, 2008). Subtle divisions and variegated urban space can provide comfortable, identifiable spaces where users know who belongs (Gehl, 1987; PBE, 2013). Such separations distinguish the private realm of individual apartments and balconies from semi-public common areas where neighbors meet, and from public space where all have access. The differing degrees of anonymity and ownership conveyed by spatial divisions affect different users' notions of belonging and thus might affect the degree to which users exercise efficacy (see elaboration in dwelling subchapter 2.2).

Legible yet permeable separations offer feelings of safety and proclivity for social interaction, largely due to the clarity offered in recognizing who belongs (Dempsey, 2009; Jacobs, 1961). Jacobs (1961) introduces the concept of *informal surveillance* – “eyes on the street” (p. 44)- as a main quality of safe neighborhoods. The potential presence of aware people on sidewalks and behind the windows of buildings provide “an intricate, almost unconscious, network of voluntary controls and standards,” (Jacobs, 1961, p. 40). Building porosity- windows and other openings – designed to face the public realm give the constant allusion that someone is watching, allowing users to monitor space to deter crime and anti-social behavior (Jacobs, 1961). This design quality is of particular importance where building facades meet sidewalks, as the best surveillance possibilities fall within humans' 60-degree cone of vision- meaning windows over certain heights lose sight lines to street level activity. High ground floor windows leave blind zones (see Figure 2-1). The design aspects that support informal surveillance then might limit efficacy by discouraging users from destructively affecting their environment.

A variety of design elements have been shown to encourage sociality. Gehl's (1987) concept

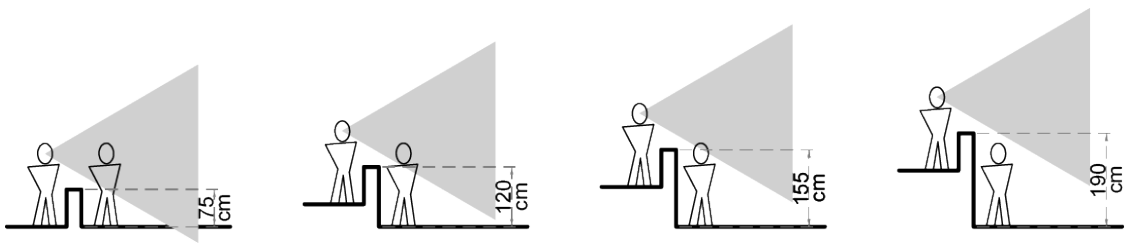


Figure 2-1 Cone of vision - graphic explanation of informal surveillance. Increasing heights of windowsill from sidewalk elevation leaves substantial zones of unmonitored ground-level space along building facades.

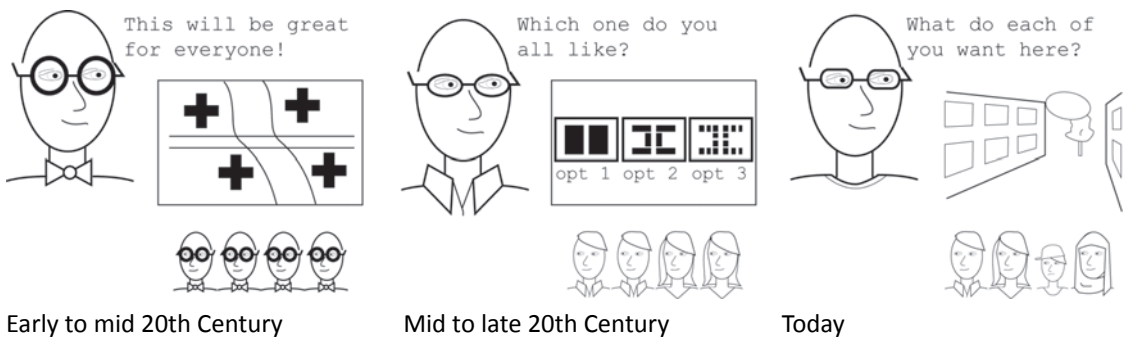


Figure 2-2 Comic by author: changing acknowledgements of, and dialogue with, users of urban design.

of standing, or *staying* is important here as social interactions can occur between people who are in urban spaces regularly and for long periods. People will only stay in areas that are comfortable and have places to sit. The more people, attractions, and life in a place, the more reason to spend time outside there, potentially meeting neighbors (Whyte, 1980; Gehl, 1987). Groups of benches can provide seating that encourages groups to gather and potentially start casual conversations. Variegated site furniture – like moveable chairs, tables, and planters with broad edges – accommodates different uses in the same space, drawing different kinds of users. All spaces that encourage users to stay for short or long durations – “staying areas” – serve important social functions by leading to familiarity between users, encouraging chance interactions, and providing informal surveillance (Gehl, 1987, p. 147).

In addition to design elements affording social use, users can also shape the physicality and meaning of lived environments. Broad stairs can be appropriated as seating, new pathways can be created where many walk across lawns (*desire paths*). Places can become known

and meaningful for how they are appropriated, together with how they are designed. This interrelationship between people and environment, driven by use, is a form of *socio-material co-production* – the interactions between the environmental materials and social practices that occur with them produce new meanings and possibilities. This relationality is described in sociology and architectural theory as reinforcing the notion of human efficacy in space (i.e. Dant, 2005; Kärrholm, 2007). Design can draw different people to use urban spaces, which increase the numbers who potentially exercise efficacy. At the same time, the flexibility and uses that designed spaces afford can provide users the opportunity to affect them in creative and unique manners.

2.1.3. Relationality and invited user efficacy in the built environment

Understanding the two-way nature of how people relate to the built environment, contemporary urban space research focuses on relationalities. The general atmosphere created by physical and social aspects, together with the symbolism projected makes urban space *social* through the behaviors it supports and encourages (Amin, 2008). A bench does not make a place social, unless it is used. Use, experience, and memory can work alongside design to connect people (Frers, 2006; Kärrholm, 2007; DeSilvey & Edensor, 2013). Materials and forms that designers compose are increasingly evaluated against how they work – in setting certain moods and conveying messages to users (Appleyard, 1979; Amin, 2008). Relational understandings of influence and co-operation largely replace the deterministic ideals of designer control; today many users, elements and disciplines are acknowledged as affecting lived urban spaces (Amin, Massey, & Thrift, 2000; Tietjen, 2011; Dempsey, Smith, & Burton, 2014).

This acknowledgement of relationality and meaning departs from more functional views, opening the built environment up also for interpretation by the many who experience it:

“professionals see the environment as a physical entity, a functional container, an accumulation of goods or commodities, a setting for social action or programs, a pattern of land uses, a sensuous experience, or a natural ecosystem, but seldom do they see it as a social or political symbol.” (Appleyard, 1979, p. 143).

Acknowledging that the environment is symbolic and interpreted by users allows the consideration of the meaning it holds (see further discussion in the Dwelling subsection 2.2 of this chapter) and how its physical form and condition affects users. A relational understanding of the built environment, defines it as a “complex mixture of nodes and networks, places and flows, in which multiple relations, activities and values co-exist, interact, combine, conflict, oppress and generate creative synergy,” (Healey, 2007, p. 1). Designers are not alone in shaping urban spaces.

Departing from designer control, the urge to match design to user needs encourages user participation in design processes. *Community Design* grew out of the user-focused movements of the 1960s, alongside urban design, “emerg[ing] from a growing realization that mismanagement of the physical environment is a major factor contributing to the social and economic ills of the world,” (Sanoff, 2000, p. ix). Community design inspires architects and urban designers to delegate some of their responsibilities to the users of future projects. In practice, not all designers offer the efficacy of affecting design to all users. In Norway, municipalities host public hearings, where designers offer different options or at minimum display projects for comment before construction, as required by the Norwegian Planning and Building Law (*Plan- og bygnings lov*, 2008). Community design can inspire efficacy beyond such requirements, inviting users to actually affect design decisions through workshops or other forums, where they are guided by professionals (Sanoff, 2000). Such inclusionary practice is particularly beneficial for residential environments, where designers aim for residents to feel at home and become attached to the spaces they design (Cooper-Marcus, Sarkissian, Wilson, & Perlgut, 1986; Hester, 2006) – linking efficacy in design directly to residential urban spaces. A range of efficacy can be offered here, depending upon which spatial users are invited and are available to participate, and how designers resolve conflicting opinions over design decisions.

2.1.4. Heterogeneity in urban design

The reality of contemporary cities’ population heterogeneity – people holding different opinions, needs and tastes- challenges the community design ideals of inclusiveness and user efficacy. Neutralizing such potential conflicts of heterogeneous user groups led modernism to rely on universal design guidelines and planning regulations (Sorkin, 1992). While this period of planning and urban design produced indistinguishable developments across the world (Sorkin, 1992), other forms of user efficacy mark many of them today, reintroducing context and visualizing local users’ needs. A brief visit to Le Corbusier’s modernist-planned city of Chandigarh, India shows marks of heterogeneous use over the original planner-controlled design, adapting spaces to meet local needs (see Figure 2-3).

Chandigarh’s urban spaces illustrate how user efficacy can transform designed cities and display user heterogeneity. Exercised efficacy can demonstrate urban difference, which is a basis upon which cities reinvent themselves (Tietjen, 2011 after Diener et. al. 2006). “Heterogeneity, capacity for interaction and the dynamic of differences can be used to characterise experiential potential of urban space,” (Tietjen, 2011, p. 55). In Chandigarh, the different marks by users experientially distinguish spaces and attract interest. The heterogeneity of a space depends on people interacting with the “differences it encompasses” (p. 55) to understand the local ways of urban life (Tietjen, 2011), making the concept of users co-producing urban space even more



Figure 2-3 User changes to Le Corbusier’s Chandigarh, India reveal local context and the exercise of efficacy within a designed environment.

meaningful in diverse settings. Differences demonstrate themselves through environmental materials and interaction with those materials – allowing users to interact with urban design to “perform” difference (Tietjen, 2011, p. 55). Thereby design materials that allow these kinds of interactions or displays of difference can offer users efficacy opportunities.

In sum, urban design holds potential in offering and limiting efficacy opportunities through inviting users to collaborate in designs, providing urban spaces where users are comfortable, and in providing spaces and materials that can be adapted and spark interaction.

2.2. Efficacy needs and challenges in urban dwelling

“Dwelling is the manner in which mortals are on the earth,” (Heidegger, 1971, p. 143).

The use of residential urban spaces is an important part of daily dwelling in cities. While Heidegger’s definition of dwelling is often cited today as the understanding that people dwell and change spaces through use to meet their dwelling needs (i.e. Abu-Ghazze, 2000; Skotte, 2004; Dant, 2005; Southworth & Ruggeri, 2011), it overlooks the tensions that inherently open up when heterogeneous populations dwell densely together. Understanding how people dwell together offers insight into their needs for efficacy within residential urban spaces. This survey of existing knowledge demonstrates gaps regarding the urban challenge of heterogeneous individuals dwelling together and how spatial management affects dwelling.

2.2.1. Identity embedded in dwelling

Housing and residential neighborhoods – spaces used every day – relate personally to their users' lives. Housing embodies activities that are “important to personal life ... which can act as vehicles for personal fulfillment,” (Turner, 1977). Dense cities offer minimal personal space for social gathering, exercising, and pursuing hobbies- relegating the fulfillment of many daily dwelling practices to common spaces. How housing environments support such activities is important for both self-identity as well as community building (Skotte, 2004). When everyday spaces support these activities, the resulting shared experiences and common values can yield place identity, connecting users through the spaces they share (Southworth & Ruggeri, 2011). People shape, and are shaped by, the spaces they regularly use, breeding common memories and values from individual experiences (i.e. Relph, 1976; Hull-IV, Lam, & Vigo, 1994; Twigger-Ross & Uzzell, 1996; Gotham & Brumley, 2002; Muir, 2007). Multiple efficacies exercised through common use of urban spaces hold the potential to bring people together, bridging social capital⁴: “active involvement with a place generates shared meanings,” (Milligan, 2003, p. 383).

Individuals also develop personal identities through how they dwell and exercise efficacy. Identity is “forged” through the interactions people have with and within geographical space (Massey, 2004, p. 5). Individual dwelling uses interact with residential urban spaces and with other spatial users, particularly when those uses are reflected in marks within the environment. Marks in urban space – traces left intentionally or resulting from use- are interpreted by spatial users as personal or group claims of territory, which ascribe identity to particular spatial users (Kärholm, 2007). Altman (1975) defines territorial behavior as the “personalization or marking of a place or object and communication that it is ‘owned’ by a person or group,” (p. 107). Such territorial behaviors, particularly when intentionally conveying identity, can breed tension among other spatial users, but are first and foremost a material form of communication that offer indirect social interaction. While interaction from territoriality is often presumed to be negative and offensive, it can also peacefully present different identities and regulate behavior by directing what belongs (Abu-Ghazze, 2000). When personal tastes and hobbies mark space, it affiliates particular people with place, showing care and offering a basis for local interactions (Mehrabian & Russell, 1975; Greenbaum & Greenbaum, 1985). While exercising this form of efficacy is common in single family housing, it can be limited in multi-family housing to the extent that design and property management legitimate individual claims upon common spaces (Abu-Ghazze, 2000).

4 The concept of *bridging social capital* is defined by Putnam (2000) as bringing people together across social divides, in spite of diversity, typically around a shared interest.

2.2.2. Traces of dwelling

The marks, or traces, left by dwelling demonstrate user exercises of efficacy in changing their environment. These range from footprints and accidentally dropped litter to more intentionally planted flowers or decorative displays, for example. Beyond the private borders of one's own home, traces are layered in communal outdoor spaces (Appleyard, 1979; Kaiser & Fuhrer, 1996). When such traces are purposefully left, they can be understood as *environmental acts* that are intended for others' interpretation (Appleyard, 1979). All intentional changes to the environment – including user behaviors as well as designed renovations and marketing in public spaces- fall into this category. However, virtually any changes to the built environment can convey messages that are interpreted by spatial users – whether or not they are left intentionally (Appleyard, 1979). This interpretability makes dwelling traces meaningful as a mode of communicating users' identities and exercised efficacies in residential urban spaces.

Focusing on material traces of dwelling and their interpretability show that their significance transcends intentionality (Kärrholm, 2007). Messages interpreted from the environment are not limited to those intended or left intentionally (Merleau-Ponty, 1945; Appleyard, 1979; Kärrholm, 2007). What one notices and interprets from their surroundings can vary depending on cultural background, past experiences, and momentary moods (Merleau-Ponty, 1945; Southworth & Ruggeri, 2011). People are likely to notice what pertains to them – their interests, preferences, or current actions (Degen, Rose, & Basdas, 2010). Observing traces can reaffirm or clash with one's own identity in a place. Spatial users can see the possibilities of dwelling in a place by experiencing the effects of others' dwelling. The potentials for dwelling and using urban spaces are broad, but local behaviors are normalized through the materials of the immediate environment together with the atmosphere rendered by the presence or lack of others' marks and acts (Frers, 2006). Interpreting traces provides users with an idea of what behaviors are allowed and what marks are tolerated in a neighborhood, furthermore conveying clues to the identities of those who have left the traces. As the Chandigarh example illustrates, design can attempt to regulate dwelling, but the traces that mark the environment can inspire interpretations and communication beyond spatial management's control.

2.2.3. Efficacy in heterogeneous and inclusive dwelling⁵

Different people can leave traces upon the same environment. The heterogeneity of urban populations- everyday urban diversity- challenges the identity-building activities and personal claims to space associated with dwelling. This diversity is often more nuanced than ethnic or social group divides suggest, as can be seen in the particular identities that dwelling traces

5 Parts of this section were simultaneously published in an article by the author (Murphy, 2016a).

physically express. Residential urban spaces can simultaneously support the dwelling of graffiti taggers, guerrilla gardeners,⁶ and political protesters along with daily residents' varied commuting and recreational patterns. Residents share space with passers-by that can range from local neighbors to tourists, from desired to undesirable visitors.

Everyone who uses a space dwells there- with or without equal rights to affect it. Kilian (1998) divides people using and controlling urban space use into three categories – inhabitants, visitors, and strangers- distinguishing control from access in a tidy overview of ideal users and power in space. However, this simplification neglects the reality of users transcending these categories without mandate. Any spatial user offered access might take opportunity to affect a space, regardless of intended controls – urban explorers make a hobby of doing precisely this (Garrett, 2011). Residents may have greater access, more formal rights and spend more time in a place than visitors, but a graffiti artist for example can mark a space more significantly by leaving obvious traces in a single, illegal visit. The formal rights certain users have to a space may not coincide with their actions and potential efficacy there.

Common users of a space are the most exposed to its traces, no matter the intended audience, actual actor, or specific target. The heterogeneity of those leaving and those interpreting traces opens potentials for conflict. Different preferences, marks, and uses can infringe upon the needs of other users. Residential urban spaces' proximity to individual homes and their personal meaning to dwellers make them conducive arenas for confronting diversity (Amin, 2008; Madanipour, 2010). This confrontation, the encounter with otherness, is thought to be integral in teaching tolerance and hindering conflicts otherwise sparked by diversity of opinions, preferences, tastes, and behaviors (i.e. Allport, 1954; Dixon, 2001; Wessel, 2009). The experience and interpretation of dwelling traces become a manner in which users interact, and how urban spaces support that interaction can affect users' tolerance of difference. Conflicts resulting from dwelling threaten the function of urban spaces and efficacy of other users, thereby requiring some limitations and regulation in the environment, yet attempts to maintain and neutralize environments from traces can amplify conflict. Homogenous, unmarked spaces discourage tolerance because they direct users' attention to the small differences that stand out, rather encouraging assimilation (Van Leeuwen, 2010). Single traces of dwelling are less remarkable when amongst many others.

The intensity of exposure to diversity is still questioned in political philosophy – whether difference should be celebrated as in cosmopolitanism, openly debated as in agonism, or held respectfully with an amount indifference (Van Leeuwen, 2010, 2014). While urban spaces can support different attitudes towards diversity, all of these perspectives agree that awareness

6 Guerrilla gardening refers to spontaneous or organized planting in public spaces without permission, growing out of a 1970s American movement against urban space neglect (Certomà, 2011).

of otherness is important (Van Leeuwen, 2014). Today, many urban spaces lack meaningful opportunities for human encounters; people use them for transit rather than social life (Amin & Parkinson, 2002; Sorkin, 1992; Van Leeuwen, 2010). While close, inter-personal contact can be rare, simple exposure to difference can also benefit diverse populations (Wessel, 2009). Cities where diverse groups do not mix, encounter each other, or acknowledge diversity risk “perpetuating a state of mutual ignorance that might easily be tipped into suspicion and antagonism,” (Wood & Landry, 2012, p. 313). Dwelling trace’s symbolism in presenting identity and meaning in the environment are a form of material interaction yet to be researched dimension of geographical contact between diverse groups (Wessel, 2009).

A goal for balancing efficacies may be found in how diversity affects neighborhood satisfaction and community strength in residential environments. Most operationalizations of local environmental quality include the quality of *inclusiveness* – “the ability of all people to realize their potential without suffering negative effects of [their differences],” (Dempsey, 2008, pp. 257-258). The distinctive character and social interaction opportunities afforded by diversity can become local assets to a neighborhood when they coincide with local trust and safety (Franck & Stevens, 2006; Carmona & de Magalhaes, 2007; Dempsey, 2008). This is the same kind of trust that Jacobs (1961) relates to resident awareness and informal surveillance, and which can inspire place stewardship even amidst adversity (Svendsen, Campbell, Sonti, & Baine, 2015). Some degree of encounter with, knowledge of, and empathy for other people who share space are prerequisites to caring for and engaging in one’s environment. Respect and *civic compassion* – acknowledging others’ cares- can inspire resident satisfaction, tolerance, and appreciation for expressing heterogeneity. That expression, in turn can contribute to the interest of cities by adding textures of dwelling traces to prevent dullness and monotony in the environment (Van Leeuwen, 2010).

In sum, urban residents need a balance of management that allows them efficacy to change some aspects of their environment – whether for presenting their identity, marking their territory, or otherwise adapting space to fit their needs (Abu-Ghazze, 2000). Self- or group- efficacy in dwelling gives the ability to partake meaningfully in local processes of environmental change. When balanced, dwelling efficacy can offer spatial users perceived control of space, freedom of performing dwelling activities, tolerance for the others who share space, and a collective sense of responsibility over common spaces (Korpela, 1989). In heterogeneous residential urban spaces, user efficacy is the ability to adapt one’s environment to fit individual needs and thereby, the capability to dwell and express one’s identity alongside many others.

2.3. Governing efficacy in urban spaces

Alongside or in the absence of residential urban spaces supporting common dwelling experiences, institutions can encourage efficacy through the invitation to formal participation processes (Skotte, 2004), which can effect spaces through their governance. The motivation of institutions to invite civil society into formal participation forums can be traced to a paradigm shift from government to governance in the mid-to-late 20th century. Following a description of this shift and of how user participation can affect urban space, this subchapter further addresses the contentions of handling diversity and conflict. Describing knowledge gaps of how governing forms and forums affect physical space and the agency of unorganized individuals, different governing practices and ideologies are shown to support varying extents of user efficacy.

2.3.1. The shift from government to governance invites efficacy

Government – with its political representatives for decision making, reliance on professional expertise, and focus on service delivery- employs regulation to presumably work in the interests of a public majority (Healey, 2007). This paradigm of regulatory power being held separately from private market and civic interests characterizes the public sector and most urban space provision prior to the mid-20th century. From then, a shift towards *governance* began, introducing partnerships between public and private actors and a plethora of ideals for involving civil society in urban planning (Healey, 2007). From this grew popularity in collective action and both private citizens’ and market interests’ participation in the public sector – to make service delivery more efficient and urban spaces more suited to their users. While significant for bringing populations closer to the provision and maintenance of urban space, this paradigm shift also diffused governing and decision-making power. Blurred legitimacy became a risk due to new difficulty in pinpointing responsible and excluded actors and the loss of the traditional coherence of municipal governing structures and practices (Healey, 2007).

This diffusion of responsibility brings new, complex models of governing urban space – namely in the private provision of services and the framing of spatial users as customers or partners. Carmona et. al. (2008, p. 72) outlines three coexisting models of spatial governance administration commonly found today – *state-, market-, and community- centered*. State-centered spatial administration roughly follows the government paradigm, with public entities holding control separate from the private sphere. The other two models invite in additional actors and delegate tasks, focusing on economic profitability or civic spirit respectively (Carmona et al., 2008). The market- and community- centered administration models reflect the two main governance agendas that Healey (2007) points to as challenging government

– the market-centered’s neo-liberal roots attempt to limit government power and delegate responsibilities to presumably more efficient private actors, while the community-centered’s social democracy mandate seeks citizen engagement by encouraging empowerment, political inclusion, and participation. While Oslo’s traditional building cooperatives roughly follow the community model, a growing number of residential properties tend towards the market model, developed as privately administered residential areas. This trend is widespread throughout the world, with homeowners’ associations or private management companies taking over responsibilities previously held by municipal governments (Fraser, Bazuin, & Hornberger, 2015). The shift is highly debated for changing the relationship between homeowners and local governance actors, particularly due to potentially reducing personal property rights (Fraser et al., 2015) and reducing the public’s rights in urban spaces (Loukaitou-Sideris & Banerjee, 1998).

These models and trends in governing residential properties frame residents’ and spatial managers’ roles, priorities, and interactions differently. Elements from all three models are often interchanged in practice –

“[I]t is not possible to refer to an ideal pattern of responsibilities over public space as these are invariably the result of messy governance arrangements resulting from the historical evolution of social practices and urban governments,” (Carmona et al., 2008, p. 67).

No model is inherently superior – all have advantages and disadvantages, as listed in Table 2-1. While the state-centered model allows government to easily uphold the interests of the general public, it may overlook specific user groups and individual needs. The other two models likely offer more efficacy to individual actors, alluded to in elements like adaptability and sensitivity to local needs. However, question remains over who is allowed to exercise efficacy in these models and which users’ needs are prioritized. All three models can support and limit the efficacy of particular users and user groups, depending on their primary interests and access mandates.

Table 2-1 Advantages and disadvantages of the models of spatial administration, after Carmona et. al. (2008, p. 80).

<u>Model</u>	<u>Advantage</u>	<u>Disadvantage</u>
State-centered	clear accountability, public interest ethos	potential bureaucracy, insensitivity
Market-centered	wider resource base, more adaptable to change and demand	risks of exclusion and commodification
Community-centered	sensitivity to user needs, local commitment	lacking strategic perspective, inequality of resources

2.3.2. Participation and engagement to exercise efficacy

The efficacy afforded by each model frames different perspectives of user participation, which the social democratic governance agenda introduces to spatial management disciplines from urban planning to the design and maintenance of urban spaces. While general agreement holds that participation can connect users to urban spaces, where and how to best exercise it continues to be questioned (Fors, Molin, Murphy, & van den Bosch, 2015). Political science and planning literature tout civic participation in state and municipal government as making “citizenship more active, the policy process more inclusive, and democracy more democratic,” (Campbell, 2005, p. 689). At the project scale, architecture, landscape architecture, and green space management literature describe participation as a mode of connecting future users of a place to the processes and potential outcomes of its development, supporting social, economic, and environmental sustainability (Fors et al., 2015). At both ends of the spectrum, formal participation meets well-documented challenges, including circumstantial exclusion of groups and individuals, processes geared towards manipulation rather than meaningful input, and implementations not reflecting process outcomes (Arnstein, 1969; Campbell, 2005; Fainstein, 2009). Civic participation is often implemented either too early or too late in planning and development processes to actually alter outcomes (Hanssen, 2015). In these situations, the lack of effect makes the participation processes *symbolic* rather than true exercises of efficacy.

Shifting participation processes to the project-specific scale can target those most affected by specific plans, designs, and administrative decisions – spatial users. The actual efficacy users gain from participating in local forums remains little researched in terms of effects upon physical spatial quality (Fors et al., 2015). Research that transgresses civic participation by studying the project- and user- scale often focuses instead upon personal benefits to users and administrators derived from participation processes (i.e. Crompton, Lamb, & Schul, 1981; Jones, 2002; Townsend, 2006). Other studies approach how the acts of involvement affect user relationships with green spaces (i.e. Kaplan, 1980; Huang, 2010; Jansson & Persson, 2010) - offering users the feeling of having efficacy, with or without making a physical difference. Despite little academic, empirical research assessing participation practices against physical outcomes, green space management literature commonly argues participation’s potential to better spatial quality by increasing management efficiency, user satisfaction, and improving vegetation health, for example (Fors et al., 2015). The challenge of assessing outcomes of participation is mirrored in research on civic participation in urban planning, which focuses on legitimizing governance, community building, common identities and place attachment (i.e. Campbell, 2005; Manzo & Perkins, 2006) rather than the physical resultant conditions of developed urban spaces.

The efficacy users can hold to affect urban spaces is framed from experiences in Nordic green space management as the potential to give input to spatial management professionals, who in turn affect urban spaces (Randrup & Persson, 2009). While this clearly frames formal participation forums run by planners, designers, and other spatial administrators, this framing overlooks the ability of users to directly affect urban green spaces (Fors et al., 2015). Fors et al. (2015) identify *physical* participation as potential efficacy users can exercise to directly affect space, for example through activities like conducting surveys of tree health (cf. Nannini, Sommer, & Meyers, 1998) and volunteering to perform maintenance tasks (cf. Jones, 2002). This expansion of the participation concept distinguishes two ways users can exercise efficacy: *civic user engagement* – by participating in formal forums that affect decision making in policy, plans, designs and regulations – and *physical user engagement*⁷ – by directly manipulating space through physical action. These forms of engagement align with the political and material facets of the human capability that explains the need to have control over one’s environment (Nussbaum, 2011). Opportunities to engage in either form can offer users efficacy, as long as the engagement affects the built environment.

2.3.3. Addressing conflict: from consensus-making to agonistic debate

Inviting heterogeneous users into the processes that shape residential urban spaces demands an approach for managing conflict. As contemporary government rarely holds singular, authoritative control, the multiplicity of invited inputs can destabilize and complicate decision-making when conflict arises (Carmona et al., 2008). Different approaches to managing conflict exist: consensus seeking can serve a majority, while ideals for inclusion encourage advocating the voices of the marginalized (Healey, 2007). While the concept of *right to difference* acknowledges the need to consider minorities and marginalized groups (Young, 1989), it can complicate planning practice and decision-making by bringing many different perspectives to light and expecting everyone to respect each other’s differences (Van Leeuwen, 2010, 2014). Different concepts of deliberation shape a theoretical gradient from controlling adversity to a near anarchical stance of including all voices despite difference.

Question remains over how to handle conflict and weigh conflicting arguments fairly. Acknowledging that not everyone will be pleased with any outcome, deliberation can be employed specifically to bring different views into an open forum. This form of *agonism* places value in the hearing of different views and the need for completely open forums for debate (Mouffe, 2000). The assumption is that one’s exposure to a multitude of other opinions on a given topic will make people more tolerant and perhaps more accepting of compromised

⁷ While physical user engagement can be invited, for example when spatial administrators request users to collaborate in performing maintenance tasks, it also describes user actions taken without mandate that affect the environment, such as dwelling acts.

outcomes (Mouffe, 2000). This acceptance of *pluralism*, or the coexistence of heterogeneous entities and opinions, in governance thought offers a challenge for participation conceptions and practices to aim beyond consensus and acknowledge the conflicts inherent to cities. Relational perspectives of urban planning acknowledge pluralism by explaining the need for a fluid politics that address specific and complex social interactions in order to accommodate the many rather than a small majority (Amin et al., 2000). Allowing conflict and pluralism to be part of governance departs from government’s tradition of providing for a united general public (Healey, 2007). How these ideologies are exercised in spatial management can largely determine which users hold efficacy and to what extent, particularly in formal participation forums.

2.4. Spectrums of spatial management – a theoretical framework

Beyond the formal deliberation of participation forums, different approaches to handling conflict are further reflected in how urban spaces are designed and how their use is regulated. Framing possible approaches between two extremes- from authoritative government to agonistic governance- illustrates a spectrum of how spatial management theoretically can mediate user efficacy. The potential effects of practices discussed in the disciplinary realms can transverse three gradient fields (civic user engagement, regulation, and physical user engagement) as illustrated in Figure 2-4. The theoretical relationships proposed here serve as the theoretical framework for this dissertation.

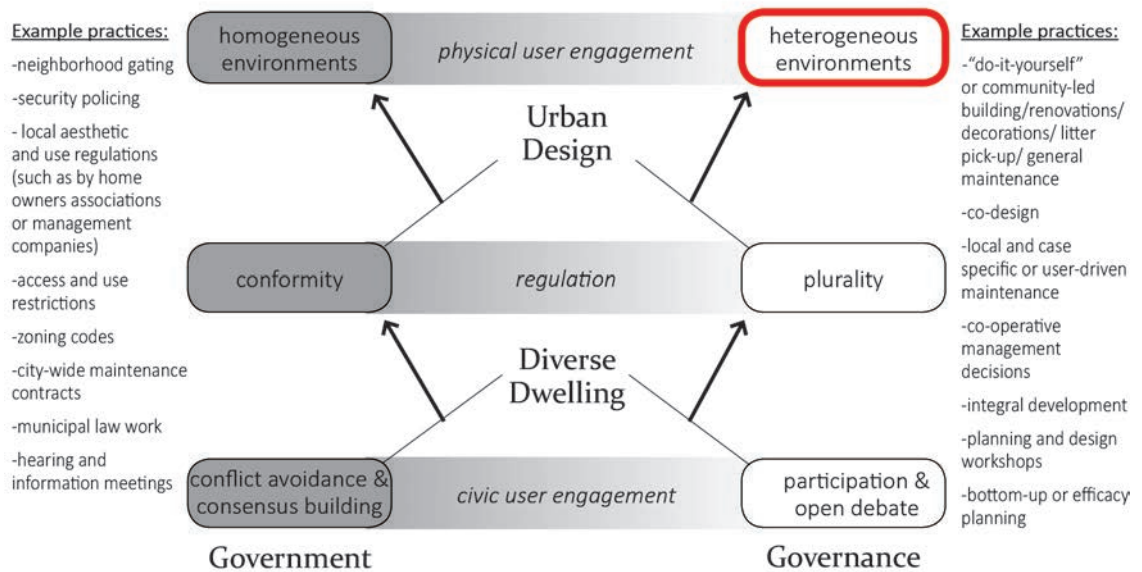


Figure 2-4 Theoretical framework for approaching flexible, heterogeneous environments – the three gradients represent related fields of action where spatial management practices theoretically can effect different extents of user efficacy. Note: “participation” here refers to meaningful participation where those who participate can be heard and affect outcomes, as opposed to symbolic processes. This framework will be used to synthesize data analysis in Chapter 7.

2.4.1. Ranges of spatial management practice

The fields of action span authoritative approaches from the government paradigm (left side of Figure 2-4) and agonistic ones from the governance paradigm (right side of Figure 2-4). While some understandings of governance include market-forces, *the market* here is considered to include all non-governmental, economically driven actors. As such, the market contributes through spatial management actors, potentially along the entire range, with approaches leaning towards government (i.e. providing government services) or governance (i.e. enabling civil society). The authoritative extreme seeks consensus and conformity, so it relies on strict regulations of dwelling uses and design elements. Civic user engagement on this end is restricted to symbolism for conflict avoidance and consensus building. When this extreme meets issues of heterogeneous dwelling, the perspective supports significant regulation to seek conformity of dwelling behaviors. In support of conformity, the perspective sways urban design towards homogenous environments that offer little flexibility for use, personalization, or adaptation through physical user engagement. Thereby the chain of relations inspired by this extreme theoretically limits all forms user efficacy.

In contrast, the agonistic extreme invites all perspectives and potential conflict, so it minimizes the regulation of use and constrictive designs. Participation and open debate are supported. This extreme meets heterogeneous dwelling with reduced regulation that encourages plurality, which in turn inspires adaptable, variegated urban designs. This approach to design results in heterogeneous environments by enabling flexible use and physical user engagement. This extreme theoretically invites, allows, and affords many different users to exercise efficacy throughout all three fields.

As explained in the dwelling subchapter, either extreme – complete limitation of user efficacy or complete encouragement – may result in environmental and social detriment. Spatial management practices must act to set local margins, which limit these ranges locally in order to balance property-specific needs and remain accountable to each individual user while supporting spatial functionality for all. Viewing spatial management practices in light of mediating user efficacy, the framework suggests that (from top to bottom field of Figure 2-4):

- Spatial managers determine the extent of flexibility in urban and affordances allowed by material selections. This acknowledges the role spatial management has in designing and modifying physical elements, potentially changing what users can do in a place, researchable through actual uses enabled by design and materials, as well as by acts of physical user engagement that have marked, changed, or adapted a built environment;
- Spatial managers determine the amount of effective regulations imposed over use. This acknowledges possible malalignment between formal regulation and actual use,

researchable by the range of actual uses, corrective actions, and enforced regulations, or lacks therein;

- Spatial managers determine the extent of user efficacy invited through civic engagement forums. This acknowledges the need for user input to be followed through to spatial outcomes, researchable through how the input is reflected in the built environment.

The theoretical framework illustrates how the range of spatial management practices in an urban space theoretically determines the extent of user efficacy it supports and resultant environmental homogeneity or heterogeneity.

2.4.2. Management tendencies towards environmental homogeneity

The theoretical framework can help illustrate common critiques of urban spaces. The homogeneity of many publically managed spaces results from the public sector “adopt[ing] a range of standards, guidelines and control practices that in many cases merely parrot ‘generic’ ‘globalised’ design principles that may or may not be appropriate locally.. without thought to context,” (Sorkin, 1992). These spatial management practices particularly affect residential environments (Carmona, 2001). Blame is directed towards the goal of minimizing potential conflict:

“Contemporary urban public spaces have become increasingly contested and fragmented as those within them compete for spatial identities. The argument goes that as communication between groups is often misunderstood and differences cannot be resolved, users are willing to accept a homogenised vision of urban public space that neither fosters civility nor community,” (Carmona et al., 2008, p. 57).

The framework highlights privatization’s risk to urban space in its tendencies towards regulating use and constricting designs. Privatization and global economic interests exacerbate the fear of conflict due to perceived risks of uncertainty alongside diversity (Carmona et al., 2008). Fear of conflict often leads to over-management and surveillance which undermine the public nature of urban spaces (Carmona et al., 2008). Urban neighbourhoods become physically segregated; signage and security cameras take over the landscape, replacing user efficacy with control and policing, thus leading to a lived and physical environment dominated by regulations.

2.4.3. User efficacy’s role in spatial quality

Finding the right balance of mediating multiple users’ efficacies can be difficult as most measures of spatial management are incredibly subjective. The most holistic approach to

spatial management can be found in the theory known as *place-keeping*, which offers a goal of “creat[ing] high-quality, sustainable space[s] valued by users who want to visit again and again,” (Dempsey & Burton, 2012, p. 13). The terms “high-quality” and “valued” here allude to this challenge – the content of quality, the level that determines it as high, and whose values count are all vague, subjective concepts. Assessments of environmental quality vary per individual and per context. Research in local environment quality finds that “there is no consensus on how a high quality space is defined,” (Dempsey, 2008, p. 249). Neither spatial management professionals nor users have “commonly held perceptions of quality,” (Carmona & de Magalhaes, 2007). Professionals rely upon user complaints to reflect negative environmental factors, implying that quality should be assessed by those who use specific spaces. Spatial users can indicate whether prompted qualities – like cleanliness or safety- contribute to positive or negative feelings about their neighborhood, but those who are willing to answer such polls may be biased from the start. Further, the threshold for users to complain can be high – dissatisfaction short of particular threats to safety or health often goes unreported. Most spatial users are quick to resign themselves to the level of spatial management provided (Carmona et al., 2008).

Nevertheless, scholars tend to agree about the conceptual qualities that are important in urban spaces. Connectedness and permeability, legibility, safety, and attractiveness are commonly referenced, plus several others that gain attention depending scholarly focus upon physical quality, quality for users, or holistic place-making (Dempsey, 2008). To relate these to user preferences, the most academically agreed-upon components of local environmental quality were polled as: clean and tidy, accessible, attractive, comfortable, inclusive, vital and viable, functional, distinctive, safe and secure, robust, green and unpolluted, and fulfilling (Carmona & de Magalhaes, 2007). However, even beyond potential sampling bias, the wide interpretability of these terms and dispersal of individual preferences proves consensus impossible and prioritization difficult (Carmona & de Magalhaes, 2007). While the polled public’s concerns showed safety, cleanliness, and fulfillment are prerequisites for spatial users to consider judging distinctiveness and attractiveness (Carmona et al., 2008), the method overlooks individual nuances in defining, and motivations in prioritizing, these terms. User efficacy does not explicitly appear in scholarly lists of environmental qualities, but it relates to many of them. Based on the theoretical background of dwelling, user efficacy potentially fits best under the fulfillment quality, described as offering “a sense of ownership and well-being,” including “fostering neighborliness, allowing personal freedom, and opportunities for self-sufficiency,” (Carmona & de Magalhaes, 2007, p. 10). While these spatial characteristics are presumably important to spatial management actors, research to date has yet to reach consensus on how to measure or provide them.

The many types of spatial management professionals yield further question over which disciplines hold responsibility for particular environmental qualities. The number of organizations involved with producing and maintaining public spaces can lead to the attitude that caring about spatial quality is someone else's problem – reducing both user stewardship and maintenance responsibility (Tibbalds, 2001 in Carmona et al., 2008). Neglected and poorly maintained spaces can encourage further antisocial behavior, creating downward spirals resulting in disuse, according to the Broken Windows Theory (Wilson & Kelling, 1982; Loukaitou-Sideris, 1996 in Carmona et al., 2008). The inclusion of private and commercial actors in spatial management can lead to better maintenance yet exclude particular user groups – i.e. disabled, non-consumer, or homeless spatial users (Carmona et al., 2008). The controlled aesthetic that often follows iconic design can overlook the authentic, or user-relatable, character of a place, particularly by regulating acceptable behaviors rather than accommodating local users and existing contextual patterns (Carmona et al., 2008; Southworth & Ruggeri, 2011). Similarly, over-management and over-regulation can reduce user liberties in space, making space more anonymous, potentially reducing user senses of belonging, responsibility, and tolerance (Van Leeuwen, 2010). Planners, designers, administrators, and maintenance workers all have roles to play in these spatial issues. As spatial managers, they each must negotiate the desired qualities of a particular place and the extent user efficacy can be allowed without inviting environmental deterioration or exclusive infringement upon other users' rights.

3. FRAMING SPATIAL MANAGEMENT RESEARCH THROUGH ANT

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3.3.1. User and management agency potentials to affect the built environment

3.3.2. Trace production

Spatial management practice affects residential urban spaces and the exercise of user efficacy. The webs of disciplines and theoretical backgrounds that guide these practices demand a new approach to spatial management research, capable of interpreting complex interrelationships. This chapter builds a case for deploying Actor Network Theory (ANT) towards this goal – translating the approach’s basic principles to apply to study of the built environment and building a methodological framework for researching how spatial management mediates user efficacy.

3.1. A case for ANT in spatial management research

As research approaches greatly influence orientation to theory, research design, data collection, analysis, and interpretation, deploying an approach in a new field offers unique challenges and opportunities. Spatial management practice overlaps with and encompasses many different theoretical realms, offering no definitive research tradition. Instead, each realm has been researched separately, leaving gaps in and between the types of knowledge produced. This subchapter reviews common approaches and methods in spatial management research to describe the methodological gap for considering the interaction of user efficacy and spatial management practices in residential urban spaces.

3.1.1. Diverse approaches to spatial management research

Research that can inform spatial management practices spans disciplines from planning and design to health and criminology. The theoretical realms identified in the previous chapter as relevant for the management of residential urban spaces- urban design, dwelling, and governance- are each interdisciplinary, studied by architects, sociologists, environmental psychologists, and political scientists. Post-modernist and poststructuralist research paradigms have influenced contemporary tendencies towards qualitative analyses and case specificity in architecture (Leach, 1997) and sociology (Hess, 1997). Following these tendencies, this dissertation addresses the complexity and multiplicity inherent to residential urban spaces. By contrast, research from environmental psychology maintains tendencies towards structural, post-positivist, and quantitative research - seeking broad patterns and universal explanations for local phenomena (Lewicka, 2011). These approaches are inappropriate for this dissertation's topic as they overlook case specificities and risk oversimplification of heterogeneous roles, preferences, and efficacies of individuals (Hess, 1997).

The common methods in spatial management research reveal missing ties to link its practice to urban efficacy in the built environment. Quantitative surveys have been employed to measure place attachment (i.e. Scannell & Gifford, 2010), the willingness of residents to engage in environmental behaviors (i.e. Kaiser, Ranney, Hartig, & Bowler, 1999), and perceptions of local environment quality (i.e. Carmona & de Magalhaes, 2007). Empirical study of residential environments in Norway has also employed quantitative surveys, reporting statistically and across multiple properties (i.e. Knudtzon, 1996; Hauge, Denizou, & Støa, 2015). However, the survey method cannot describe the impacts, interests, and efficacy of individual spatial users. Beyond supplementary interviews, these studies overlook dynamic and contextual characteristics of specific environments that may affect user efficacy. Norwegian public spaces are more often studied for how they allow and invite different demographic groups to use space (i.e. Høyland, Denizou, Woods, & Christophersen, 2012), neglecting to consider individual user effects upon designed spaces.

Qualitative methods are more suited to addressing the complexity of how spatial management interacts with users. Mapping and diagramming are dominant in studies of urban form, which can also be used to document social patterns and management practices in relation to design (i.e. Carmona, De Magalhaes, & Hammond, 2008). This method offers potential insight for understanding the effects of design, dwelling, governance, and management practices in urban spaces. Qualitative observation methods also bridge disciplines, having been employed to analyze designs (i.e. Lynch, 1960), to seek meaning through social practices (i.e. Lozanovska, 2002), to document deliberation steering in governmental meetings (i.e. Latour, 2010),

and to study the effects of spatial management practices and surveillance (i.e. Carmona & De Magalhaes, 2006). These methods approach dimensions of urban space and spatial management that may affect user efficacy.

Place-keeping comes closest to this research in bridging spatial management with the wishes of users. The conceptualization of spatial management practice in place-keeping is developed from a “New Institutional” approach, focusing on institutional analyses of administrative organizations and actors (Dempsey & Burton, 2012, p. 13). This approach is also common to other governance and green space management research (i.e. Healey, 2006; Randrup & Persson, 2009). However, institutionalist approaches presume organized responsibility and overlook heterogeneous aspects of practice (Lounsbury, 2008), leaving them inadequate for the consideration of physical results of particular spatial management and user efficacy practices. While place-keeping cites the goal of providing spaces that users want to visit (Dempsey & Burton, 2012, p. 13), it focuses on how formal actors and partnerships can provide and maintain spatial quality, largely overlooking potentially everyday-efficacious roles of use, users, and the physical environment itself (Murphy, 2016b).

A methodological gap remains in bridging planning, design, administrative, and maintenance practices with individual uses and efficacy exercise in the built environment. As these sets of practices hold the capacity to change material aspects of the built environment, ANT’s ability to relate socio-material practices identifies it as a promising approach. Similar to New Institutionalism, ANT is also a post-positivist approach that acknowledges relationships between phenomena and context (Lounsbury, 2008). Both approaches build networks through relational connections, though the manners in which they define meaningful connections significantly divide them- they understand and attribute power differently. ANT focuses upon practice and specific entities that create effects, often at the micro-scale, while New Institutionalism focuses on organizational structures to understand how context affects the work of entire institutions (Lounsbury, 2008). The ANT approach places greater weight on how individual behaviors affect an institution, its heterogeneity and the effects of its practices (Latour, 2005). These differences underscore how the ANT approach could guide inquiry about the efficacy of individuals in relation to spatial management, particularly through the effects and relationships of their specific practices in the built environment. ANT offers a manner to research spatial management dynamics from the effects of everyday spatial practices; even a minute practice like dropping a piece of litter can be researched for the role it plays in mobilizing maintenance response.

ANT offers tools and sensibilities for understanding the micro-scale relations of physical space, materials, and their ties to individuals as well as organizations. The approach “grows out of an intersection between ethnographic fieldwork on the one hand, and a theoretical

or philosophical resource on the other,” handling theory and practice together (Law, 2008, p. 228). The relationality of ANT serves as a philosophical resource that inspires relating different theoretical realms (see the effect-driven theoretical framework in Chapter 2) and relating practices through their effects (in the methodological framework presented later in this chapter). The approach further orients the research: its constructivist nature provides the understanding that knowledge is constructed through research; its foundation in post-structuralism guides a concern for understanding how phenomena come to be, rather than what they are (Hess, 1997). ANT pragmatically integrates theory and methodology by “characteristically seek[ing] to develop theoretical insights through case-studies and deft use of empirical materials,” (Law, 2012, p. 225). While the approach lands relatively recently in study of the built environment, its application towards understanding how humans and environmental materials affect and change each other holds resonance with this dissertation’s research question.

3.1.2. ANT background and previous applications in the built environment

Although considered radical by some, ANT offers a mode for drawing causal and efficacious relationships between objects and humans. ANT’s roots in laboratory studies demonstrate how materials intersect with human agency and actions, taking part in social relationships- i.e. a microscope in a lab enables scientists to see more, affecting the scientific community’s ability to share results and replicate observations (Hess, 1997). This notion of *inter-objectivity* is a controversial but iconic principle of ANT. ANT founding scholars Michel Callon, Bruno Latour, and John Law developed inter-objectivity to address how materials allow, prevent, and provide resistance to human acts. ANT’s definition of *social* thereby extends to all kinds of associations that contribute to transformation and exchanges of power– including humans associated with humans or objects. Entities are *associated*, or linked into spontaneous *networks*, by *working upon* – affecting, creating, transforming, or translating- other entities (Latour, 2005, p. 16).

The principles of relationality and inter-objectivity have led ANT’s contribution to studying socio-material complexity in the built environment. Urban studies deploying ANT consider phenomena across a variety of physical scales, entities beyond the human in ecological systems, and theoretical multiplicities in cities (Farias & Bender, 2012). ANT redefines territoriality to demonstrate its intentional and unintentional production through physical effects in urban space (Kärrholm, 2007). An interdisciplinary team, Degen et. al. (2010) found ANT particularly suited to understanding how maintenance and security practices affect, and are experienced in, shopping mall environments. Architecture and landscape architecture studies have used ANT to explain influencers behind built designs (Yaneva, 2012) and within site contexts (Tietjen, 2011). Common to these studies is a need to consider practical

relationships between professional actors, spatial users, and environmental materials, which ANT supports.

3.2. Basic principles of ANT and their translation to built environment

To more closely approach study of user efficacy and spatial management, this sub-chapter reinterprets the principles of ANT. Unpacking the concepts of non-hierarchical relations, agency, and the figuration of change in the following sections lays a foundation for the dissertation's methodological framework.

3.2.1. Non-hierarchical relations

ANT determines associations by their contribution to an outcome – change or translation. This orientation highlights the significance of *acting*, over the presumed natures of particular entities – nothing is presumed to hold hierarchy or power without demonstrating it (Latour, 2005). In ANT, no particular entity or type of organism is considered essentially superior to another- they may only become so temporarily during specific interactions based on how they affect other entities (Latour, 1996). Latour's (1994) anecdote of a speedbump- referred to in many languages as a 'sleeping policeman' – demonstrates an object's ability to perform the same action that a present human would serve, a police officer slowing down cars in this example. As the officer or the speedbump achieve the same goal, they are equal in the situation- one can replace the other, despite distinction as human or object.

"It's not that there is no hierarchy, no ups and downs, no rifts, no deep canyons, no high spots. It is simply that if you wish to go from one site to another, then you have to pay the full cost of relation, connection, displacement, and information. No lifts, accelerations, or shortcuts are allowed," (Latour, 2005, p. 176).

Avoiding hierarchy presumptions allows ANT to transcend limitations of scale and intentionality. Any change becomes significant and traceable in ANT as an outcome of a process, which may exceed otherwise pre-established boundaries. Typical of post-structuralist approaches, the geographical scales of global, national, and local are flattened to equality, only becoming relevant if specifically associated with change (Murdoch, 2005). Change as an outcome of a process can be traced to contributor and influencer entities across different scales. The entities become associated in bringing about the change whether or not it was planned or intended. Both intentional actions and use of the built environment can contribute to physical changes – the change is interpretable regardless of whether it was an intended outcome. Actions

that contribute to change may be planned out ahead of time or evolve suddenly in reaction to a given situation or circumstance (Kärrholm, 2007). ANT inquiry does not distinguish intentionality, as importance lies within the change itself.

3.2.2. Agency and figuration of change

ANT's lack of presumed hierarchy further refocuses the definition of agency around changes it can render. Again abandoning intentionality, *agency* is "how an entity can be made to act, often in an unexpected manner that creates change or produces a transformation," (Latour, 2005, p. 52). In respect to the built environment and spatial management, agency then encompasses any potential to influence material changes or transform material conditions. The approach thus inspires the study of actual, enacted practices (Latour, 2005) – i.e., practices that affect changes in the built environment. Many agencies may be entangled together in contributing to one change (Latour, 2005). Agency may be exercised by individuals, groups, or humans acting together with present materials or material conditions. Materiality enables their actions: i.e. a blank wall enables the spraying and display of graffiti, a bench in a dark corner gives privacy that encourages particular users and uses. Actors who exercise agency become important regardless of their essential nature- type, category, demographic, or organization- since it is seldom that constructed essentialist definitions actually contribute to action or change (Latour, 2005).

ANT study approaches exercised agency through its resultant changes or transformations, which are often discoverable through observable material traces, or *figurations* (Latour, 2005; Braae & Tietjen, 2011). These traces are the "flesh and features that make [exercised agency] have some form or shape, no matter how vague," (Latour, 2005, p. 53). In the built environment, traces of change are perceivable and interpretable by spatial users through experience (Kärrholm, 2007). As such, they are *embodied* in the regular and unusual elements one encounters in space (Degen et al., 2010). Starting research inquiry from a figuration of change can reconstruct the exercised agencies that produced it – i.e. in the built environment, seeking what contributed to changed material conditions. All entities that contribute to such transformations are ANT *actors*, associated by the specific circumstances they affect together. Further, influencers contributing to the agency behind each actor can be traced as contributing to setting actions into motion- extending reconstructed networks of associated actors as far as information is available. The associations uncovered by tracing figurations can be surprising and even momentary. These basic principles lead most ANT research to take the form of qualitative case studies with a strong tendency towards observation methodology that traces figurations and produces deep description narratives (Latour, 2005).

Table 3-1 ANT definitions translated for considering user and management agency in the built environment (Murphy, 2016b).

Term	ANT Definition (Latour 2005)	Example in built environment change
agency	How an entity can be made to act, often in an unexpected manner, creating change or producing a transformation (p. 52). Many agencies may be entangled together to produce one action (p. 43).	The ability to make materials or material conditions change in a built environment, i.e. a lock has the agency to <i>keep</i> a gate closed; the fitting key, together with a person able to use it has the agency to <i>unlock</i> .
(mediating-) action	Work that produces any transformation, translation, distortion, or modification to another entity (p. 39). Not necessarily, "a cause generating effects; it can also be an occasion for other things to start acting," (p. 59). Action can be "borrowed, distributed, suggested, influenced, dominated, betrayed, translated" (p. 46).	All work that changes and transforms, integrally linked to (influencing, allowing, inhibiting, etc.) built environment change. I.e. a person <i>locking</i> a gate activates the gate's agency of limiting who can pass through it.
actor	The entities- any human or non-human, individual or group that is made by action(s), made to act, or involved in action(s) (p.233); Actors might work alone or together "[to determine action, serve as a backdrop for,] authorize, allow, afford, encourage, permit, suggest, influence, block, render possible, [or] forbid " action (p. 72).	In the example of the locked gate - the lock, the associated gate, key or operating mechanism, person operating the key and others who potentially try to pass through the gate are all actors, forming groups (actor-networks) depending on action performed.
actor-network	"A string of actions where each participant is treated as a full-blown mediator." (p. 128) Non-hierarchical sets of often unlike actors, that are linked only through performed action, and in turn can take on agency together as one actor.	All of the actors named above can be assembled into one actor-network through actions that link them, resulting in the locked gate. Any inherent actions within each actor that contribute to agency exercised can also be linked (i.e. procuring a key), along with intended or unintended actions further provoked (i.e. someone climbing the locked gate to gain un-allowed access).
figuration	The "flesh and features that make [what has done some action] have some form or shape, no matter how vague," (p. 53).	The physical outcome or traces of action, determined by actor and agency exercised. The locked gate is the figuration of an actor existing with the key and physical ability of having operated the gate's locking mechanism.
stabilization	The reduction of uncertainty and controversy through actors resolving or limiting other actions- stabilization is normally sought through disciplinary standards (p. 227).	The locking of a gate may stabilize the uncertainty that follows with open access, aiming to solve a perceived problem of too many with access, and making entrance more predictable.

3.2.3. Translation of key ANT terms into the built environment

Table 3-1 summarizes ANTs terms and translates them into the built environment to offer a background for building this study’s methodological framework in the following subchapter. The key term of figuration is further operationalized in the following section and the notion of stabilization inspires the use-management dualism that is deployed to relate types of agency, building the methodological framework.

3.3. Methodological framework of user and management agency in the built environment

Linking the principles of ANT to the built environment directs a focus of how user efficacy can work through design, dwelling, and governance realms to change and transform the built environment, producing and erasing traces. Theories from these three realms outlined potential user efficacy and spatial management agencies that may affect each other through traces in the built environment. This subchapter deconstructs the agency potentials of managers and users to operationalize trace production and efficacy mediation.

3.3.1. User and management agency potentials to affect the built environment

The following list describes the potentially enacted agencies of user efficacy and spatial management that can affect the built environment with vectors (→) that denote an action and direction of effect or influence. The signifier *built environment* in the agency explanations refers specifically to the materials and material conditions of a built environment. It can be interpreted across different scales – from part to whole of a place, depending on what the studied agency affects or was affected by. This openness prevents scalar limitations and is supported by the notion that people perceive places and environments in parts- “built environment...is simply far too complex, too large, and too self-evident to be perceived as a single entity,” (Habraken, 1998, p. 6).

MANAGERS → BUILT ENVIRONMENT (MANAGEMENT ACTIONS)

The definitions of government and governance offer the action types of decision-making, maintenance service-delivery, and regulation on behalf of – or in cooperation with – a population. At the scale of the built environment, this encompasses any formal decisions that change physical conditions, including imposing regulations and delivering maintenance services, and placing or removing materials. The resulting figurations can be traced towards

what has influenced them and what they affect. Several traceable steps are likely to follow, as managers often implement decisions and regulations through hiring other actors to physically carry out work (i.e. municipal planner to architect to builder). The agency designers hold over space is included here as a type of formal decision-making that affects the environment. Users' intentional physical user engagement- in their agency to physically take on management tasks and to intentionally change the environment- is also included here (i.e. performing voluntary maintenance work or purposefully adding personal effects).

USERS → MANAGERS → BUILT ENVIRONMENT (USERS AS EXTERNAL INFLUENCERS)

The governance concept of participation, or civic user engagement, offers several ways that users may affect the management actions relationship described above. Users can influence change in the built environment by exercising agency to sway the decisions of planners, managers, designers, or maintenance workers through participation forums. Users can also directly communicate with superintendents and local maintenance workers to affect particular work. Agency exercised in this manner is traceable through the steps, actors, and implementation forums when they result in physical changes to the environment.

USERS → BUILT ENVIRONMENT (USE ACTIONS)

Theory on dwelling adds to user agency, describing unintentional physical user engagement as how actions and use can spontaneously or gradually change the built environment. Byproducts of use may yield figurations of incidentally placed items (i.e. moved furniture, dropped litter) and material wear from use (i.e. footprints, worn amenities). These are distinguished from changes users make that are intentional, planned, or acted with an agenda of purposefully changing the built environment (management actions). Use actions create figurations in a similar manner to management actions, similarly traceable as evidence of use transpired. They may also set management reactions into motion by informing and communicating, as described below.

BUILT ENVIRONMENT → USERS (INFORMING AND COMMUNICATING)

The built environment's traces, symbols, and meanings convey potentially influential information to users – whether the messages are intended or not. Environmental information can guide users' behaviors by alerting them to actions of others past or to how urban design means to guide behavior. These communications can inspire reactions and responses to ones' surroundings, potentially encouraging sociality, vandalism, or feelings of safety – depending on what figurations are observed and how they are interpreted. The observed figurations here become actors, traceable by their affects upon the behavior of spatial users, as well as to what took part in their production.

BUILT ENVIRONMENT → MANAGERS (INFORMING AND COMMUNICATING)

As the built environment adapts and integrates changes made to it over time by both managers and users, its condition may also inform spatial managers of needed attention, maintenance, or renovation. Here, reading and tracing physical conditions as figurations can inform or inspire action from maintenance workers and decision-makers by conveying need for corrective actions, service changes, and other responses deemed necessary to keep an environment functional. Different forms of spatial management may have more local or attentive workers, be faster or more adept at responding quickly to temporal changes, resulting in different amounts of figurations. Remaining figurations can then be traced to reflect over management responsivity and spatial uses.

As these different forms of agency meet in their common potential of affecting or being affected by the built environment, they can be framed as affecting each other through the built environment (see Figure 3-1). The interrelationships illustrated in the figure offer a methodological framework for tracing figurations in the built environment to enacted user efficacies and management dynamics. These potential routes of agency frame spatial management and user efficacy practices as webs of relationships, traceable for understanding how the former mediates the latter. While the framework illustrates potential actions and relationships, it is not intended as pre-determining, universally consistent, or all encompassing – it simply offers starting points for tracing agency from figurations of change in the built environment. While the agencies are described through a use-management dualism, specific actors depend on exercised agencies to be identified and might not fit preconceived patterns. The framework orients starting points for empirical research rather than suggesting set mechanisms.

Figure 3-1 graphically portrays all the agency potentials listed previously, distinguishing between *management actions* and *use actions*. *Management actions* are agencies intentionally⁸ exercised by placing materials, maintaining material conditions, and otherwise attempting to control functions and behaviors in the built environment. These transcend Appleyard's (1979) notion of professionally led *environmental acts* by also including intentional territorial and environment-marking behaviors by users. Terming these acts *management* distinguishes the intentional use of power over or through materials. *Use actions* encompass all other behaviors and actions that result in material or material condition changes, including spontaneous, impersonal behaviors, and unintended marking of the environment. Both types of actions can create figurations, producing traces of having transpired. Figuration examples from management actions include the condition of upkeep, added amenities, or removal of trash, while examples from use actions include paths worn by use and litter dropped by picnickers.

⁸ Note that the outcomes and interpretations of intentional actions may diverge from actor intention.

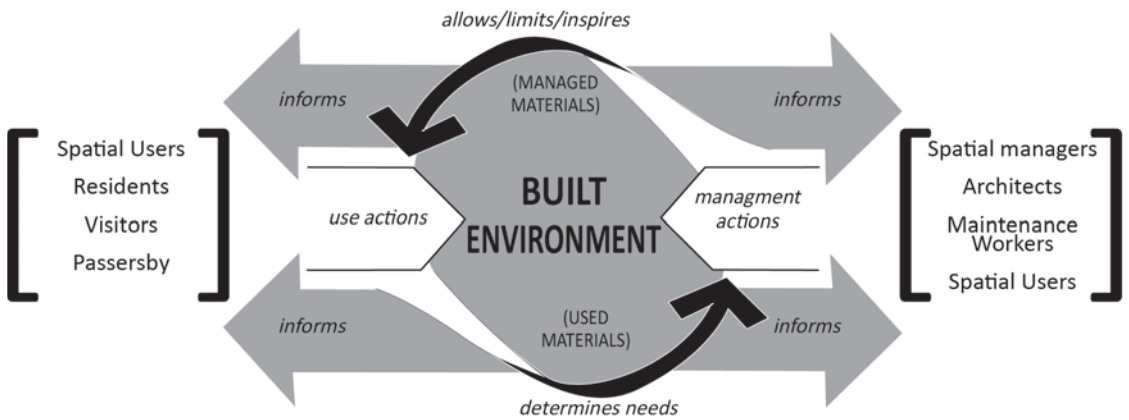


Figure 3-1 Visualized agency potentials -Methodological framework for data collection and analysis. The vectors represent directions whereby entities may affect each other and each other's agency to effect change in the built environment.

Brackets on each side of the framework in Figure 3-1 list examples of potential types of actors, discoverable by whom exercises or influences specific actions. Different types of actors may work together, affecting material conditions as one. Actors can further affect each other’s agency and initiate other actions. For example, users change the built environment by littering, which inspires workers to clean. Each action is influenced by external factors and entities (i.e. the workers by their employer, contract, budget, etc), so each actor encompasses its influencers, traceable through the specific actions they trigger. As such, each actor can be understood as an embedded actor-network of its influencers (Law, 2012). Influencers can be as whimsical as an individual’s mood prior to action, or characteristic of greater contextual trends and forces like architectural drawings influencing built form, municipal budgets influencing maintenance delivery, or global trends influencing economic backing of a development project.

In sum, spatial management can work to counteract use-based wear, materially destructive behaviors, and weathering patterns while spatial users adapt aspects of the built environment through use and purposeful action. The everyday interactions of these relationships demonstrate the central role that the built environment’s materiality holds in receiving, conveying, and affecting the agencies. Within that materiality, figurations of use and management actions provide a starting point for this dissertation’s empirical inquiry into spatial management’s mediation of user efficacy. After a brief overview of how those figurations come about – *trace production* – Chapter 4 describes the research design inspired by this framework and approach.

3.3.2. Trace production

As management and use actions result in traces of change in the built environment, analyzing *trace production* can offer information regarding the agencies that contribute to trace presence

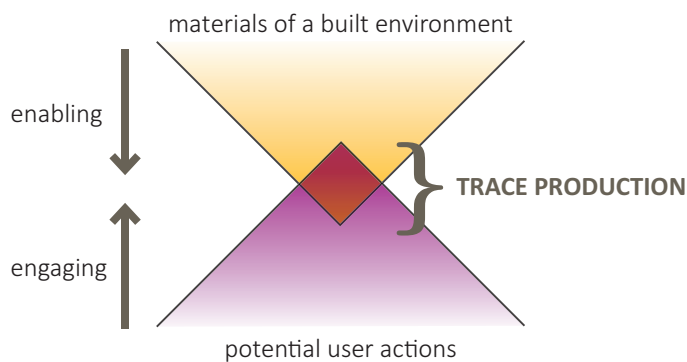


Figure 3-2 Trace production as a function of enabler materials and engagement actions.

or absence. The performed actions that produce traces are *engagement actions* as they must *engage*, or interact, with the built environment to change it. These actions are the manner that users exercise efficacy – whether directly through physical user engagement or indirectly with civic user engagement. All engagement with the built environment that produces traces can be linked to environmental materials and objects that allow the action to leave a mark – *enabler materials*.⁹ The presence, absence, and specific qualities of enabler materials offer insight into case-specific engagement opportunities and hindrances. Following their central role in the methodological framework, built environment materials enable and limit the set of actions potentially done to, with, and through them. For example, the placement and form of a balcony railing can affect how and whether a user can engage by mounting a flower box.

Opportunities for trace production in a built environment are thus approached as the intersection of the presence of enabler materials (*material opportunity*) and the engagement actions potentially performed by users (*will to engage*) – as illustrated Figure 3-2. Similar actions with similar enabler materials that produce a similar effect can be grouped into *trace types* and analyzed similarly. A lack of enabler materials or constricted user actions thereby limit user efficacy by inhibiting opportunities for trace production. Present materials and wills to engage describe relative opportunities for physical user engagement and can inform spatial users of different ways to engage with the environment – i.e. which materials offer opportunities to be adapted, changed or marked. This operationalization, together with the methodological framework, provides the foundation for collecting, handling, and analyzing evidence of physical user engagement, as described further in the following chapter.

9 The notions of trace production, trace types, engagement actions, and enabler materials, together with Figure 7, are also published in an article simultaneous to this dissertation (Murphy, 2016a).

4. METHODOLOGY

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4.5.1. Analytical tasks

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The ANT approach and its translation guided the methodology of this research. The research goals were phronetic in attempting to understand phenomena in order to illuminate the risks of current practices and possible directions for future ones (Flyvbjerg, 2001). ANT's focus on practices and deconstructing occurred phenomena led the project to applying an ethnographic methodology that focused on the physical effects of user and manager practices in everyday urban space situations.

4.1. Postmodern ethnographic research

Ethnographic research is typical of ANT studies (Hess, 1997) and is familiar to urban space study since the seminal works of Jane Jacobs (1961) and William H. Whyte (1980). This type of research is characterized by "observations of events and interactions in natural situations and [the recognition of] a mutual relationship between theory and empirical work," (Fangen, 2010, p. 13). Ethnographies typically draw upon "a range of sources of data" (Hammersley & Atkinson, 2007, p. 3) with a goal of incorporating different accounts to achieve one that informants can recognize (Gubrium & Holstein, 1997). Further features of ethnographies are: study within everyday, uncontrolled contexts; heavy reliance upon participant observation and relatively informal conversational interview methods; unstructured data collection; and research designs

and analytical categories that adapt alongside findings (Hammersley & Atkinson, 2007, p. 3). Ethnographic research typically focuses in-depth upon single or few cases, resulting in the production of qualitative, interpretative descriptions, explanations and theories (Hammersley & Atkinson, 2007). As the rest of this chapter details, this research adopted ethnographic methodology to explore three cases through field observation, interviews, and document reviews, which contributed to the evolving definition of analytical objectives during the study.

4.1.1. Reflexivity and postmodernism

Ethnographic research spans different research paradigms, with the integral notion of interpreting an ontologically real world (Hammersley & Atkinson, 2007). This notion bridges constructivist and realist ideals from the philosophy of science, landing the field in contemporary postmodern thought. As such, it relies on reflexively understanding methodological goals and limitations against specific research contexts. This reflexivity leads to self-critical research designs aimed towards specific research goals rather than strictly following singular analytic perspectives (Gubrium & Holstein, 1997).

The postmodern paradigm blends analytical perspectives, enabling the consideration of both *how* and *what* questions to “render different realities visible,” (Gubrium & Holstein, 1997, p. 100). In this manner, postmodernism embraces the complexity of studying practices and considering both “how” people shape the world and of “what” that world actually consists (Gubrium & Holstein, 1997, p. 17).

4.1.2. Elaboration of the research question

Table 4-1 elaborates upon this dissertation’s research question, demonstrating the mixture of relevant *what* and *how* sub-inquires. This combined, postmodern perspective allowed the research to seek a wide evidence base (see Table 4-1's "Information required" column), by incorporating multiple methods and perspectives (see the following subchapter for method selection).

Table 4-1: Elaboration of the research question, deploying *what* and *how* sub-questions, signifying the need for different types of data (“information required”).

RQ: How does spatial management mediate user efficacy in Oslo’s residential urban spaces?

Empirical tasks (in three cases):

<u>Sub-question</u>	<u>Knowledge gaps addressed</u>	<u>Information required</u>	<u>Findings reported</u>
How might urban design support user efficacy in residential urban spaces?	<ul style="list-style-type: none"> • how urban design might limit or encourage user efficacy 	Design: <ul style="list-style-type: none"> • physical context of each case • urban design principles embodied in each case 	Chapter 5
How do users exercise efficacy in residential urban spaces?	<ul style="list-style-type: none"> • users’ ability to change the built environment • agency of unorganized individuals • challenges of heterogeneous individuals dwelling together 	Physical user engagement: <ul style="list-style-type: none"> • outputs of physical engagement in the environment • local accounts of participating in physical engagement 	Chapter 6.1
		Civic user engagement: <ul style="list-style-type: none"> • opportunities to engage civically at each case • outputs of civic engagement in the environment • local accounts of participating in civic engagement 	Chapter 6.3
What potentials does spatial management have to mitigate engagement?	<ul style="list-style-type: none"> • how governance forms and forums affect physical space • how dwelling is affected by spatial management 	Regulation: <ul style="list-style-type: none"> • formal regulations established at each case • regulating spatial management practices at each case • local accounts of spatial management 	Chapter 6.2

4.1.3. Case selection

The overall organization of the fieldwork took the form of multiple ethnographies, or case studies. According to Yin (2014, p. 16), a case study “investigates a contemporary phenomenon in depth and within a real-world context, especially when the boundaries between phenomenon and context are not clearly evident.” In this dissertation, the terms *case* and *case study* refer to units of ethnographic research selected for considering the wider setting of central Oslo. An ethnographic *setting* is a “named context in which phenomena occur that might be studied from any number of angles,” (Hammersley & Atkinson, 2007, p. 32). Rather than treating Oslo as an overarching case, three cases were selected that hold intrinsic interest as illuminating extremes within it as a setting. Each case offered an angle from which to see phenomena towards a goal of theory-building rather than generalization.

This research’s case selection followed the strategy of *theoretical sampling* – where aspects of background theory aid in determining the parameters for the cases (Hammersley & Atkinson, 2007). The strategy seeks first to minimize the differences in order to highlight basic properties of interest, then to maximize the differences in order to “increase the density of the properties” related to the core research interests (Hammersley & Atkinson, 2007, p. 33 after Glaser & Straus (1967)). Two broad interests informed case selection in this research: urban residential neighborhoods and spatial administration models. Assessing neighborhoods in Oslo, the potential cases were narrowed by those holding similar urban qualities of centrality (location within Ring 2) and density (medium-high residential density) along with encompassing common outdoor spaces. Differentiating the cases maximally, one neighborhood was chosen for each of the theoretical models of spatial administration – public-, market-, and community-centered. These were understood in the setting of Oslo respectively as: publicly managed by municipal departments, privately managed with services delivered on-site, and resident managed with cooperative-lead decisions and services hired out – the municipality’s three most common forms of property management.

The pragmatic concerns of access, researcher familiarity, and documentation available determined the specific selection of cases. Two extreme examples were settled upon for their particular natures and fully accessible common spaces – a publicly managed housing site with a common yard and adjacent public playground in a neighborhood previously inhabited by the researcher (Case 1: Publicly-Managed Social Housing) and a privately managed waterfront development with publicly accessible spaces, simultaneously under study in an adjacent research project (Case 3: Privately-Managed Waterfront). These cases are extreme both in comparison to each other and for the setting of Oslo since centralized public housing is limited and private-management of publically accessible space is a relatively new phenomenon.

The last case selected is a more typical example of inner-Oslo's residential courtyard blocks, managed by resident boards (Case 2: Resident-Managed Courtyard); its common space is closed to non-residents, requiring a resident acquaintance to gain access. A colleague served as a *gatekeeper*, offering physical access and making an initial round of introductions among residents. The case selection simultaneously represented three different common residential typologies of Oslo's urban form (discussed further in Chapter 5). While these cases do not provide a basis for generalizing about other properties, they do encompass extremes that illuminate the range of practices and dynamics that occur within the setting (cf. Small, 2009).

4.2. Method selection

Ethnographic research typically bases data collection upon observation and informal interview studies, but does not exclude other methods (Hammersley & Atkinson, 2007). This dissertation employed participant observation supplemented by filming, photography, in-situ semi-structured interviews, document review, and one participatory action research project. The observation, film, and photography methods were tested out in a pilot project a year prior to the start of the fieldwork.

4.2.1. Participant observation

The primary method of this research was *participant observation*- a method that adds slightly more structure and directed focus to how people see their surroundings everyday (Hammersley & Atkinson, 2007). The *participant* notion of the method denotes that the researcher chooses a perspective within a context from which to observe phenomena, in order to reflect on how the phenomena affects them and their experience (Fangen, 2010). As with any qualitative observation study, this reflection happens alongside documentation of ones' surroundings.

The method offered in-depth knowledge of the selected cases, documenting their social dynamics and built environment contexts from the chosen perspective of an everyday spatial user (albeit a particularly attentive and research-focused one). It followed and documented how phenomena occurred in its natural setting and derived meanings from how they affected the researcher's embodied¹⁰ experience (cf. Fangen, 2010). Researcher attention during the observation study focused upon the use and physical conditions of the common spaces, based on initial research goals (cf. Hammersley & Atkinson, 2007). Elements that had been affected

10 *Embodiment* is a reflexive understanding of how surroundings affect ones' perception and behavior – a key notion for researchers reflecting simultaneously upon the materials of the world and their own experience in it (i.e. Dant, 2005; Frers & Meier, 2007; Degen, Rose, & Basdas, 2010).

by the decisions and actions of users and managers were particularly sought after as traces of exercised efficacy and practices. To maximize exposure to interactions between people and the physical environment, the study periods were set to align with parts of the day and year when many people use outdoor spaces- climate and vacation schedules determined the primary observation periods as between April and July (see elaboration in Subchapter 4.3 Research Design).

The observations and experiences provided by this method offered data in the form of field note texts about the physical environment's conditions, witnessed use and maintenance actions, upkeep levels, and the researcher's embodied experience of possibilities, hindrances, perceptions, reactive emotions to traces of upkeep and use, and suppositions of potentially contributing factors behind trace production. Reflection over researcher biases and comparing researcher experience with others' accounts and with data from additional methods helped to round out the subjectivity associated with this method (cf. Frers & Meier, 2007).

4.2.2. Film and photography

Selecting additional, supplementary methods- particularly film and photography- added additional perspectives and extended the attention span of the researcher. Employing photography in an intentional, direct manner recorded observed phenomena of interest in its original context. As a secondary, backup source of observation, filming allowed experiences at each site to be revisited, recording potentially-overlooked phenomena (cf. Frers & Meier, 2007).

During each site visit, field notes and photography were predominantly recorded from stationary positions, at vantage points where users typically stayed and could observe each site (benches, picnic tables, café tables, and seating-steps). Between these stops, film recorded common walking routes and circuits through each site. Observed phenomena noted during the walks were later supplemented with notes from deliberate review of film and photographic material. In this manner, the visual data expanded what the researcher could observe, particularly with the ability to pause and reanalyze specific contexts around traces or actions of interest. This method offered visual primary data, which was translated into textual notes within the field notes. Tracking metadata of source and date maintained links between supplemented text lines and visual data.

4.2.3. Semi-structured interviews

Conducting semi-structured, in-situ interviews with spatial users and management actors served as a second substantial method for this research. Ethnographic interviews typically

Table 4-2 Objectives for semi-structured interviews were set separately for user and manager informants.

<u>OBJECTIVES FOR SPATIAL USER INTERVIEWS</u>	<u>OBJECTIVES FOR SPATIAL MANAGER INTERVIEWS</u>
<ul style="list-style-type: none"> • Informant background • Civic engagement habits and identity • Comments on the place, things people change, uses and desired uses • Accounts of, reflections over and knowledge of management actors, participation potentials and local regulations • Perspectives towards case-specific changes affected by other spatial users 	<ul style="list-style-type: none"> • Organization and employment structure • Communication with fellow and contracted firms • Standards for spatial quality and maintenance performance • Attitudes towards physical and civic user engagement

range from informal conversations to loosely structured interviews that invite informants to expand upon open-ended questions (Hammersley & Atkinson, 2007). Following this method, the researcher remained open to receiving information beyond the anticipated and determined interview objectives based on type of informant (see Table 4-2). Specific interview guides were developed for each case after preliminary observation visits (see Appendix). The actual lines of questioning developed further over the course of the study in reaction to each interview’s circumstances, and to running findings from observations and prior interviews.

When possible, the interviews were conducted in-situ, with questioning within, or moving around, the common spaces of each case. This engaged residents in casual conversation where their surroundings could be specifically referred to in order to spark otherwise overlooked yet relevant accounts and details (cf. Kusenbach, 2003). When weather or informant availability prevented in-situ interviews and forced them to be conducted indoors, stationary, or at a separate location, the interviews relied upon verbal descriptions and were supplemented with maps and photographs (included in Appendix) to guide conversation around specific physical conditions.¹¹

Informant sampling was largely determined by availability. Selecting informants that presumably represent different viewpoints to find patterns and anomalies by comparing biases and answers followed *inferential logic* (cf. Small, 2009). Varied contexts and personal

¹¹ This supplementation of *photo elicitation* is commonly employed to “invoke comments, memory and discussion [in semi-structured interviews],” (Banks, 2008, p. 65), serving a similar intent as interviewing in situ, despite being more researcher-conducted.

interests of each user informant were approached in an attempt to try to meet informants from different age groups, tenancies, civil statuses, ethnicities, and levels of civic involvement. However, predisposal to interviewing and availability limited diversity and representativeness of the informants. Regardless, the informants provided different perspectives on each case, as was intended, and no attempts were made to generalize from their responses. An anonymized informant list and interview schedule is included in the Appendix, offering brief, general descriptions of each informant to demonstrate the number and relative variety of backgrounds procured from each case.

Each interview lasted one to one-and-a-half hours, seeking depth over high numbers of informants. Most were conducted in Norwegian and translated into English by the researcher, simultaneously during transcription. All of the interviews were transcribed as text into the field diary, entered by date along with simultaneous field observation notes. Descriptions of the space and events witnessed during the interviews provided context to the transcriptions. The translations aimed at directness, noting original language when ambiguities occurred or an English expression seemed insufficient. Quotes of particular interest were also logged in Norwegian, noting recording times to maintain links to the primary audio files. To increase the data's reliability and meet ethical requirements, the informants were given the opportunity to read, correct, and strike comments from their interview transcriptions, though all but two declined to do so.

4.2.4. Document review

Document review supported other findings in this study and answered specific gaps and uncertainties from the other methods. The reviewed documents particularly provided knowledge regarding established regulations and local laws. They consisted of property maps, statistics, law documents, rental contracts, house rules, formal reports from municipal departments, memos regarding construction projects, local news articles, and Facebook social media postings. In addition to outlining laws and spatial management intentions for comparison against observed practices, the documents illuminated additional perspectives regarding each site's upkeep.

As a secondary method, document review provided background material and data for consideration in light of findings from the other methods. Document review notes were handled as text and checked against specific analyses of the other data. This method allowed comparison of the formal rules, regulations, intentions, and perspectives of each of case against 1) what regulations user informants reported awareness of, 2) observed, recorded, and reported accounts of user behaviors and 3) how manager informants reported enforcing the rules.

4.2.5. Mapping and diagramming studies

Mapping and diagramming each case employed methods typical to architecture and urban design research. Drawings of site plans and sections highlighted specific physical qualities and relationships experienced at the sites. They offered background material (see Chapter 5 Presentation of the cases) and provided an analytical basis for visualizing particular findings (presented in Chapter 7's urban design analyses). The maps and diagrams offered a basis for comparing practiced design principles across the cases, revealing similarities and differences in morphological form, spatial quality, ownership and management domains, experienced boundaries, building porosity, seating and social spaces, and vertical and horizontal separations between public and private spaces (visually and physically). By recording trace and use findings by location and proximity to these design characteristics, the method allowed the analytical interpretation of inter-case patterns related to urban design form and theoretical principles.

The formal urban design analysis further demonstrated an orientation and awareness embodied in the researcher's observation perspective, attributable to the researcher's architectural training. Sketches and notes in the fieldwork documented an awareness of design factors and their assumed roles in affecting use and engagement from the perspective of a designer while the interpretation of possibilities at the sites was documented from the perspective of a spatial user. As the formal mapping analyses were performed after data collection completion, the method offered rigor in connecting and testing the principles and effects of each site's urban design.

4.2.6. Participatory action research

A small participatory action research (PAR) project was the final secondary method of the research. This method was performed only at Publicly-Managed Social Housing due to a particular opportunity for private actors to run community activities to encourage local participation and resident interaction. The opportunity was funded by the district government's urban renewal project and reported upon separately from this research (Murphy, 2015). The PAR method¹² offered spatial users a manner to participate in their environment within "a participatory, democratic process concerned with developing practical knowledge in the pursuit of worthwhile human purposes," (Reason & Bradbury, 2001, p. 1). While the method departs from traditional ethnographic study by actively disrupting natural surroundings, it shares

12 PAR merges theory and practice to seek solutions to pragmatic issues (Reason & Bradbury, 2001) and has become relevant to urban design and architecture by offering the possibility to experiment physically in space through installation and activity projects – merging learning with practice through project outcome reflection (Brydon-Miller, Greenwood, & Maguire, 2003).

observation, conversation, and reflection components with the rest of this research.

The PAR project introduced a series of stands along the site's most used pedestrian path during a local street festival. Spatial users – residents, passersby, and festival attendees – were invited to draw over maps and site photographs displayed on the stands and to respond to questions about the playground area: “What happens here? What do you like here? What would you change here?” On the festival day, the researcher spent four hours in place with the stands, explaining and giving instructions. The stands remained up for three days after, during which daily visits allowed the researcher to document changes to and marks upon the stands. This method was experimental within this research but aimed at meeting additional informants and deepening an understanding of local awareness of the case through collecting local stories of concerns and aspirations. The designed looseness of the project invited both prompted and unprompted user reactions, the traces of which were noted and analyzed together with other data on physical user engagement. Visual evidence in the form of photographs was analyzed together with those from the observation studies at the case.

4.3. Research Design

The empirical research design for this dissertation sought to collect information about the actual practices of spatial management and possibilities for exercising user efficacy in the three cases. Studies by method were directed towards the sub-questions provided in Table 4-1 presented earlier. The empirical tasks of this dissertation illuminated actual phenomena and informed directions for the theoretical background's literature review. The research design's planning and phasing preceded the theoretical background and final formulation of the research question, as both of these developed alongside the empirical findings.

4.3.1. Phasing of the research

Three main study phases were distinguished by method with an intentional sequencing – 1) observation, 2) user interviews, and 3) manager interviews. Conducting each phase across the three cases simultaneously secured comparable experiences with weather, holidays, and other temporal use patterns which were tacitly known to provide great seasonal variance in the context. The order of the phases minimized and controlled for researcher bias, despite some overlap of the phases in practice (see research calendar in Figure 4-1). The participant observation phase began the study, making impressions upon a more or less clean slate. From the outset, the researcher held a general familiarity with the three cases from living in Oslo for three years prior. Tacit knowledge from this past experience aided in understanding early case observations. Preconceptions and expectations were documented prior to and during fieldwork

Fieldwork Calendar

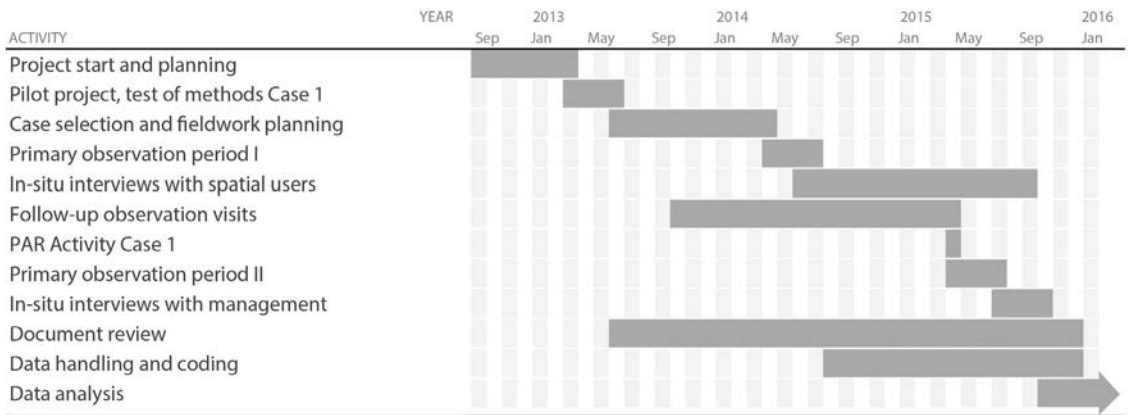


Figure 4-1 Calendar for the research

to record inferences. Documenting these allowed conscientious follow-up which prevented mistaking assumptions for findings (cf. Fangen, 2010).

Monthly and bimonthly visits to each site afforded observations beyond the two primary periods, following up on ongoing phenomena and continuing to shape the researcher’s understandings of each case (see Figure 4-1). These understandings were intentionally challenged by the second research design phase’s introduction of interviews with spatial user informants. These informants offered additional and comparative information that enriched accounts, as well as answered and posed some open-ended questions. Conducting interviews with users first allowed the researcher to understand local user perspectives of each site before approaching managers’ views and perspectives regarding each site’s use. Simultaneous document reviews served to address particular questions of regulation and management practices. Finally, interviews with managers reflected over gaps and inconsistencies amongst documented regulations, observed management practices, user knowledge of management, and management challenges at each case.

Spending relatively equal amounts of time at each case (see observation time log in Appendix) between 2013 and 2016 built comparable, deep, tacit knowledge of each site and surrounding contexts. This familiarity offered reflexivity during data collection and analysis that allowed evaluation of each case’s findings against their context and across that of the setting.



Figure 4-2 Methodological and case reflexivity as exercised in the research design.

4.3.2. Reflexivity in the research design

Reflexivity was designed into this research in three different manners – through the researcher, the methodology, and the multiple cases. Researcher reflexivity compared observation experiences and collected data against preconceptions and expectations. Facilitating this was the phasing of the research, which gradually added perspectives over time so that interview questions and document searches could be adapted to directly address uncertainties and presumptions. Employing multiple methods within each case offered methodological reflexivity where different types of data were judged together and against each other. Adjusting methods and interview inquiry based upon specific findings allowed each method to inform the others, as illustrated in the left side diagram in Figure 4-2.

Selecting extreme multiple cases built inner- and intra- case reflexivity (right side of Figure 4-2). The findings from each case were seen in light of the other two, pointing out meaningful specificities in the context of each. The findings and prevalences of trends at each case illuminated possibilities for the others, while strong divergences and absences alerted the researcher to case-specific mechanisms at work.

4.3.3. Ethical concerns of the project

Employing three steps aimed to ethically avoid researcher bias in this research – 1) documenting conscious biases and preconceptions before beginning fieldwork, 2) noting presumptions and unfounded judgements that came to mind during fieldwork, and 3) comparing answers from open-ended questions with a variety of local informants and the researcher’s perspective.

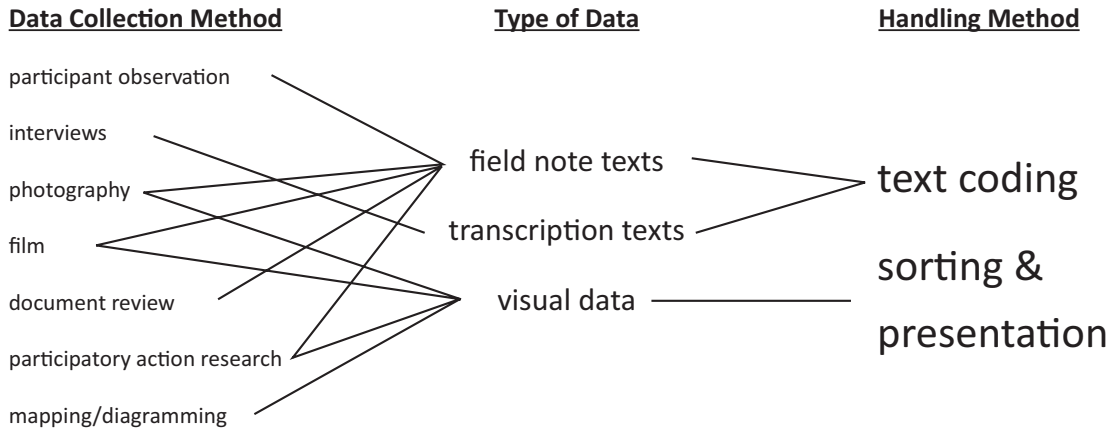


Figure 4-3 Types of data and data handling methods in this research – most data was converted to text prior to handling and analysis.

The potential collection of personal data was an ethical concern for this project, manifesting itself beyond informant interviews in the potential documentation of people using public spaces. These matters were addressed with the Norwegian Social Science Data Services (NSD), who granted permission to film and photograph in public spaces as well as to record the street addresses of informants after integrating the following concessions into the research design:

- Publicly posting a project brief at each site (see “Prosjektbrev” in the Appendix) to explain the project, role of informants, and any subjects’ possibility to opt out by requesting immediate erasure of their photo or interview;
- Offering informants the chance to review interview transcription and informing them of their right to edit or withdraw information;
- Agreeing to either delete files or blur recognizable faces or voices in any film, photo, or audio material connected to the research after study completion and storing it on the university’s encrypted servers, only accessible by the researcher in the meantime;
- Avoiding intentional filming or photographing of small children or minors without consent of their parents;
- Anonymizing informant identities by not recording or reporting names, telephone numbers, or other potentially sensitive material on any electronic devices.

These concessions changed minor parts of the research design as users’ awareness of the observation study likely affected some observed behaviors. Certain phenomena were omitted from the project’s data collection due to involving children or informants that declined participation. While the project sought to incorporate potentially objecting viewpoints and contradictory explanations to and within the findings, the extent of different perspectives was somewhat limited by the voluntary nature of participating in the research.

4.4. Data handling and coding methods

The different research methods delivered different forms of data, which required particular preparation and handling prior to analysis largely based on initial interpretations and categorization. Data handling began after the first primary observation period and was performed in stages until data collection completion. Figure 4-3 offers an overview of the types of data and handling methods employed.

4.4.1. Text coding

Field notes, interview transcriptions, and notes from documents, photos, and videos were prepared using qualitative text coding.¹³ Microsoft OneNote software was used to copy text line-by-line. Sorting it first by case and date or informant established a contextualized foundation. An initial separation by method offered one level of de-contextualization, the reading of which reflected upon method selection and derived findings across the three cases. Next, grouping the notes from each case, regardless of method, re-contextualized the data to describe inner-case dynamics.

These first two readings revealed categories from trends within the texts and the research objectives. These categories were used to decontextualize the text again, using OneNote's "tag" and "create summary page" functions to mark, separate, and automatically regroup separate lines of notes within and then across cases. This sorted the text into themes, providing a non-chronological reading of specific dynamics that was compared first across cases and then reflexively related back to specific case contexts. The resulting categories were: broken/removed materials, repaired, fixed, replaced materials, graffiti and tagging, signage and formal regulation, maintenance activities, trash/litter, use and engagement, to do/open questions/meta-notes. Setting aside the last category further directed research while the others were analyzed in and across the three cases. Several text lines received multiple tags in this initial sorting, so appeared in multiple sub-narratives for each case. Reading the notes within each category revealed additional themes, which elements were most observed, and the overlaps and dynamics between particular categories. The most obvious overlap expected was the relationship between what was observed broken and what was fixed, though interesting contradictions also appeared amongst sign-posted, established regulations, actual use and engagement traces, and infractions not repaired or maintained during the study. These preliminary findings further informed the analysis of regulations' effectiveness described in the next subchapter.

13 The original field notes were kept in sequential order to maintain reference back to original texts and contexts, minimizing the risks of losing the context of the original data (Hammersley & Atkinson, 2007).

Breaking down the “use and engagement” further defined engagement actions from the findings. Two initial categories of civic and physical engagement became 12, as the following 11 categories were discovered within physical user engagement: decorating, planting, functional airing, posting flyers, bicycle parking, bird feeding, dog walking, personal interest initiatives, vandalizing and breaking, littering and trash, graffiti tagging. The last three were carried over from the original sorting due to describing user actions that affect the environment. Though these final three categories are illegal actions, all of the categories were treated equally due to affecting physical space- no concessions were made to judge the resultant effects as positive or negative.

4.4.2. Preliminary handling of interview data

Interview transcriptions were also logged, sorted by case and tagged per line using OneNote, offering pertinent trends that were compared to 1) other responses within and across cases; 2) the background and personal relationship of each informant to their respective site; 3) the line of questioning leading to the answer; and 4) the observations made and documents reviewed at each site. A reference coding the context, case, informant, and date was manually added to each text line to maintain the chain of reference.

The interview questions (based on the interview guides provided in the Appendix) initially sought information about the background of informant; civic engagement habits and identity; comments on the site, things people change, uses and desired uses; reflections over and knowledge of management actors and local rules; and perspectives offered towards changes made and towards neighbors. Reading all the interviews from each case together offered a perspective on the range of backgrounds and reports provided by different informants. Further categories that appeared within the texts were tagged per relevant line to begin de-contextualized sorting. These included:

- User possibilities to change – accounts of civic engagement opportunities, involvement, and output; actual physical changes and engagement in the built environment; perspectives/emotions about user change; embodied possibilities
- Hindrances to user change –reports of change deterrents; physical deterrents; knowledge of regulations that affect will to engage
- Perspectives on management – reports of management responsivity; maintenance practices; renovations; awareness of use of the physical.

Reading summary pages of these tags out of other contexts provided sub-narratives showing how the interview method contributed to the research questions. Trends, agreements, and divergences in the information required a second level of deconstruction that separated evidence-crossing themes into three specific data categories for sorting as possibilities, hindrances, and perspectives of:

- Physical user engagement- merged with the other field texts from observation and categorized with the 11 categories of physical user engagement listed earlier;
- Regulation- separated it from other reports about management and hindrances;
- Civic engagement – divided later into accounts of processes, interests, knowledge of venues and outputs.

This step allowed direct comparison between interview and observation data where like information was collected.

4.4.3. Sorting and presentation of visual data

Visual data, from photography, filming, PAR, and mapping/diagramming studies were handled in parallel to the text data to the extent possible. File names used consistent, descriptive keywords, linking images to maps as well as to observation dates. File structures separated visual data by case, where it was copied and refiled to relate to the categories of the coded texts for cross-analysis. Representative examples within the visual data itself- particularly still images of categorized physical user engagement and signs of regulation- are presented as supportive evidence throughout the findings and discussion of this dissertation (Chapters 6-8). In order to counter potential researcher bias in selection and presentation, the visual data is used alongside quotes from interviews, reflexively relating the different dimensions of context and interpretations found (cf. Banks, 2008).

4.4.4. Preliminary synthesis of findings

Following the ANT methodological approach, data was deemed significant on the basis of it doing something that effects (influences, causes, limits, or prevents) change or transformation. The results of enacted civic and physical user engagement (or their absence) were a starting point for tracing actions, enablers, and inhibitors of user efficacy. Civic user engagement was determined by informant accounts, plus visual and document evidence of participation forums in the forms of information from signage, news articles and websites. Spatial management activities were determined through observed maintenance actions, general environmental

quality over time, lack or presence of traces, reported accounts, and documented law work, rules, regulations, contracts. Physical user engagement was determined by traces of changes in the built environment, observed and reported accounts of actions and traces past. In order to trace and understand what contributed to physical user engagement, further data handling and synthesis was necessary.

Traces of physical user engagement identified in the initial handling of field notes were deconstructed into constituent components of trace production and agency from the methodological framework: built environment material preceding trace, material prevalence (Case 1, 2, 3), trace observable, engagement action associated with trace making, trace prevalence (Case 1, 2, 3), trace or action observable, manager responsible, reaction/regulation prevalence (Case 1, 2, 3), comments, reactions, conflicts – related notes, and when observed or method used. Traces of regulation were analyzed in a similar manner, deriving the following categories: type, by issuing authority or form in the case of signage, presence of the regulation in each case, enforcement of the regulation in each case (evaluated by reports, observation of enforcement/correction and evidence of counter engagement), and reported knowledge of the regulation (or awareness of signage) amongst informants. These categories were used as columns for sorting and filtering separate Excel spreadsheets, synthesizing the data for comparative analyses within and across the cases. These categories and abstractions allowed the delimitation of variables from the different cases to interpret the work of efficacy enablers and inhibitors.

4.5. Analytical tasks and methodology

Seeking evidence of how engagement was limited or encouraged within efficacy mediation, a series of analyses assessing urban space, trace production, regulation effectivity, and efficacy from civic user engagement were deployed to interpret evidence from the prepared data.

4.5.1. Analytical tasks

A series of analytical tasks (presented in Table 4-3) guided the analysis and synthesis of the handled data. These tasks organized the analysis using the theoretical framework in Chapter 2. This facilitated a discussion of results against existing knowledge that responds to the main research question in Chapter 8 by synthesizing the design, regulation and governance aspects of spatial management that mediate user efficacy.

Table 4-3 Analytical tasks for answering the research question bring different types of data together to address knowledge gaps.

RQ: How does spatial management mediate user efficacy in Oslo’s residential urban spaces?

Analytical tasks:

<u>Sub-question</u>	<u>Knowledge gaps addressed</u>	<u>Analysis results sought</u>	<u>Results reported</u>
What enables and limits the spatial users’ physical effects upon the residential urban spaces of the cases?	<ul style="list-style-type: none"> • how dwelling is affected by spatial management • how urban design might limit or encourage user efficacy • how governance forms and forums affect physical space 	Design: <ul style="list-style-type: none"> • urban design opportunities and limitations for user engagement 	Chapter 7.1
		Physical user engagement: <ul style="list-style-type: none"> • enablers of making physical changes • limitations of users making physical changes 	Chapter 7.1
		Regulation: <ul style="list-style-type: none"> • enforcement and effectiveness of regulations • impact of maintenance upon engagement 	Chapter 7.1
		Civic user engagement: <ul style="list-style-type: none"> • enablers of engaging civically • limitations of outputs of civic engagement 	Chapter 7.2
To what extents do users and spatial management affect the three cases?	<ul style="list-style-type: none"> • users’ ability to change the built environment • agency of unorganized individuals • challenges of heterogeneous individuals dwelling together 	<ul style="list-style-type: none"> • extents of physical user engagement, regulation, civic user engagement • extents of environmental homogeneity 	Chapter 7.3

4.5.2. Lenses of analysis

Physical engagement data prepared from traces observed in the built environment and described by informants was analyzed following three lenses that sought evidence of efficacy's mediation. These lenses were determined from the data material through the course of its handling to explain potential efficacy mediation through urban form, materiality, upkeep, and regulations imposed by spatial management. The three lenses of analysis for physical engagement data were:

A. URBAN DESIGN CONTEXT –

The first lens located physical user engagement findings in space through urban design analyses. These overlaid found traces onto maps and section diagrams by location, seeking evidence of potential design contributions to trace production, placement, and prevalence.

B. TRACE PRODUCTION –

The second lens interpreted how the found physical traces of user engagement were produced, seeking evidence of the material opportunity and engagement acts necessary behind leaving traces. This lens drew upon the contextual information described in field notes and visual data within the 11 categories of physical user engagement. The contextual information was analyzed for evidence of 1) actors leaving traces, 2) placement of the traces, and 3) the traces' physical qualities, which relate to their production. The absence or prevention of material opportunity or engagement acts offered explanations for engagement that did not happen, or was not rendered apparent in a case due to the limitation of (and/or management response to) user efficacy.

C. REGULATION AND TRACE PREVALENCE –

The third lens reviewed regulation findings in light of the engagement categories and occurrences. Trace types were compared by relative prevalence of traces left and the applicable and enforced regulations in place at each case. This lens sought to uncover evidence of the effectiveness of regulations in hindering physical user engagement.

Civic engagement data was analyzed along the range provided by the theoretical framework, seeking the extent of opportunities offered to case users. These opportunities were then weighted by the extent of participation invited (from symbolic to having significant traceable effects on the built environment) and the extent to which users engaged within the opportunities (knowledge, number, and interest). This analysis offered evidence of how spatial

management actors enable and limit civic user engagement and its ability to physically affect the three cases.

The theoretical framework was used to combine these analyses, relating evidence from the three fields and comparing it across the cases. This offered a comparison of the extents and limits of efficacious civic and physical user engagement within each case relative to the others. Patterns within each case and differences across cases provided evidence of user efficacy mediation. Chapter 7 presents the results of these analyses in detail.

5. PRESENTATION OF THE CASES

Contents:

5.1. Urban residential Oslo, Norway

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5.4.1. Resident-Managed Courtyard Overview of spatial management

5.4.2. Urban design analyses of Resident-Managed Courtyard

5.5. Case 3: “Privately-Managed Waterfront”

5.5.1. Privately-Managed Waterfront Overview of spatial management

5.5.2. Urban design analyses of Privately-Managed Waterfront

Three cases illustrate the range of design and management paradigms of central Oslo’s urban residential properties with common outdoor spaces. This chapter introduces case- and setting- contexts through a brief overview of urban residential Oslo, comparing the cases and presenting a spatial management narrative¹⁴ and urban design analysis for each case.

5.1. Urban residential Oslo, Norway

In the last decade, over half of the population growth in Norway has occurred in the Oslo region, accounted for by immigration, urbanization, and high birth rates (Høydahl, 2010). The national statistical bureau projects Oslo’s population to continue to grow by over 30% in the next 20 years – placing particular stress upon the city’s residential neighborhoods and new developments. These pressures, along with international sustainability goals of reducing CO2 emissions, have encouraged the city to implement compact urban development policies (Hanssen, Hofstad, Saglie, Næss, & Røe, 2015). This has coincided with the spread of neo-liberal ideology to result in growing private investment and market-based management principles and reduced public regulation in urban space development (Hanssen et al., 2015). This urban governance shift has sparked a clear tendency towards decentralized and private property management in the city’s approach to providing urban space.

The maintenance and operations (M&O) of Oslo’s urban residential environments follows trends typical to western cities in replacing full-time property superintendents with

14 The spatial management overviews of each case draw upon reviewed documents and interviews with management informants.

fragmented and distanced, outsourced service contractors. Oslo and other Norwegian cities have also seen a decline in the tradition of *dugnad* – as fewer residents come together to voluntarily perform property maintenance tasks. The declining resident interest and participation has been attributed to perceived lack of time and willingness to pay for services rather than volunteer (Brekke, Kverndokk, & Nyborg, 2003). The sum of these trends suggests a widening gap between those who provide M&O services and the spatial users who are affected daily by that service provision.

5.2. Comparative overview of the cases

The selected cases vary a great deal in urban and administrative forms, as well as in resident demographics. Together they describe three different residential contexts of inner-Oslo, representing extremes of the setting.

5.2.1. Location

The three cases are located within Oslo’s Ring 2, all within three kilometers of each other (Figure 5-1). Two cases fall in eastern Oslo- an area known for less wealth and more population diversity than its western counterpart on the other side of the Akerselva river. The third case is in the west, along the fjord, and part of the city’s largest development initiative in decades.

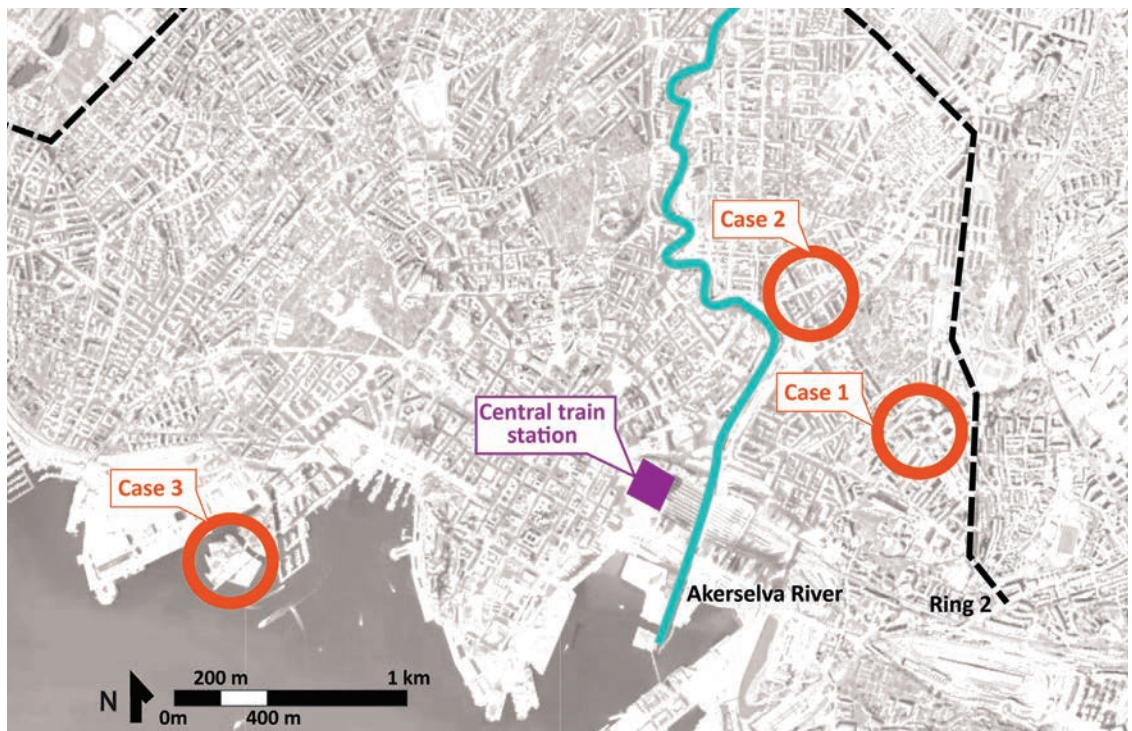


Figure 5-1 Location map of cases

Overview of the Cases



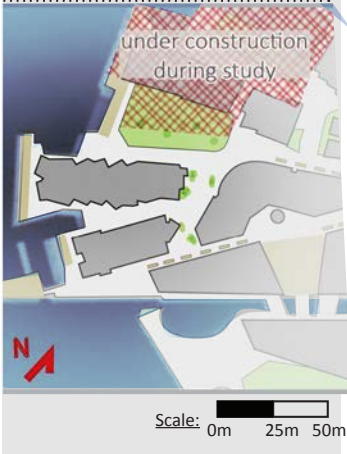
	<u>1: Publicly managed</u>	<u>2: Resident managed</u>	<u>3: Privately managed</u>
<u>Development type:</u>	modernist low towers in a field of green space	traditional housing block with central green courtyard	contemporary waterfront with hardscaped terraces and towers
<u>Date:</u>	original plan from 1970s, neighborhood renovation in 1990s and housing property renovation completed in 2013	original plan from late 1800s, yard design and renewal project in 1990s	design competition in 2002, inhabitants from 2013, construction completion in 2014
<u>Land area:</u>	approx. 1.13 hectares	approx. 0.57 hectares	approx. 2.9 hectares
<u>Residential units:</u>	192 social housing units, adjacent student and middle income housing	113 mid- to high income apartments, approximately 20% rental units	ca 300 high-value apartments sold at time of study, predominantly owner-occupied
<u>Common spaces:</u>	highly used public pedestrian way with playground and accessible yard; accomodates picnicking, play, pedestrian thoroughfare and resident use	highly travelled external sidewalks, interior courtyard gated and restricted to residents; accomodates shopping and resident use	highly visited area, all open spaces publically accessible; accomodates swimming, exercise, tourism, and resident use
<u>Other site uses:</u>	office building with volunteer organizations and district government offices, small-scale commercial - grocery stores and hairdressers nearby	small-scale commercial shops and community group meeting houses, a massage parlor and an art gallery at ground floor	offices at ground floor, one cafe, a hotel, and a large art museum
<u>Site plan:</u>			

Figure 5-2 Comparative overview of the cases.





Figure 5-3 Overall photos of Publicly-Managed Social Housing



Figure 5-4 Overall photos of Resident-Managed Courtyard



Figure 5-5 Overall photos of Privately-Managed Waterfront

5.2.2. Comparative overview of the cases

The differences represented by the three cases show the variety of residential contexts within inner-Oslo. Figure 5-2 offers a comparative overview of the cases noting differences in their development, size, common spaces, adjacent spatial programs, and urban form. Two of the cases are extremes for the setting of Oslo – Publicly-Managed Social Housing and Privately-Managed Waterfront. Publicly-Managed Social Housing is one of few centralized public housing developments in Norway, built in the 1970s amidst a historically working-class part of the city (Huse, 2010). Privately-Managed Waterfront is a contemporary development, designed by noteworthy architects and housing some of the most expensive apartments in Norway.¹⁵ Resident-Managed Courtyard distinguishes itself as a typical city block developed around the turn of the 20th century. It houses a relatively young population of middle-income owner-occupants and rental tenants. The block, like many similar in eastern Oslo, has a growing number of rental units (approximately 30% are either rental properties or individual apartments leased out by owners).

Formal architectural differences of the cases represent three archetypal periods of urban development in Oslo. Resident-Managed Courtyard is a closed city block with an inner courtyard from the late 1800s (see Figure 5-4). Publicly-Managed Social Housing is inspired

15 Case residential unit prices are around 200,000 NOK/square meter- three to four times that of other Oslo neighborhoods (Kirkebøen, 2013).

Table 5-1 Socio-economic comparison of the cases - encircled numbers emphasize case particularities. Statistics based on information at <http://statistikkbanken.oslo.kommune.no/webview/> 2015 statistiks, downloaded 9 sept 2015.

<u>Case</u>	<u>Pop-ulation**</u>	<u>Pop-ulation*</u>	<u>Male %*</u>	<u>Female %*</u>	<u>Non-European**</u>	<u>0-18 years*</u>	<u>19-66 years*</u>	<u>67+ years*</u>	<u>Average Yearly Income (NOK)**</u>
Oslo	647676		49,85 %	50,15 %	21,84 %	20,63 %	68,85 %	10,52 %	448000
Case 1	5088	1291	49,57 %	50,43 %	39,62 %	27,73 %	66,69 %	5,58 %	318000
Case 2	8752	1014	58,09 %	41,91 %	19,57 %	10,55 %	87,87 %	1,58 %	368000
Case 3	8651	928	55,82 %	44,18 %	13,43 %	8,41 %	84,05 %	7,54 %	587000

*denotes numbers from the basic statistical level (*grunnkrets*)

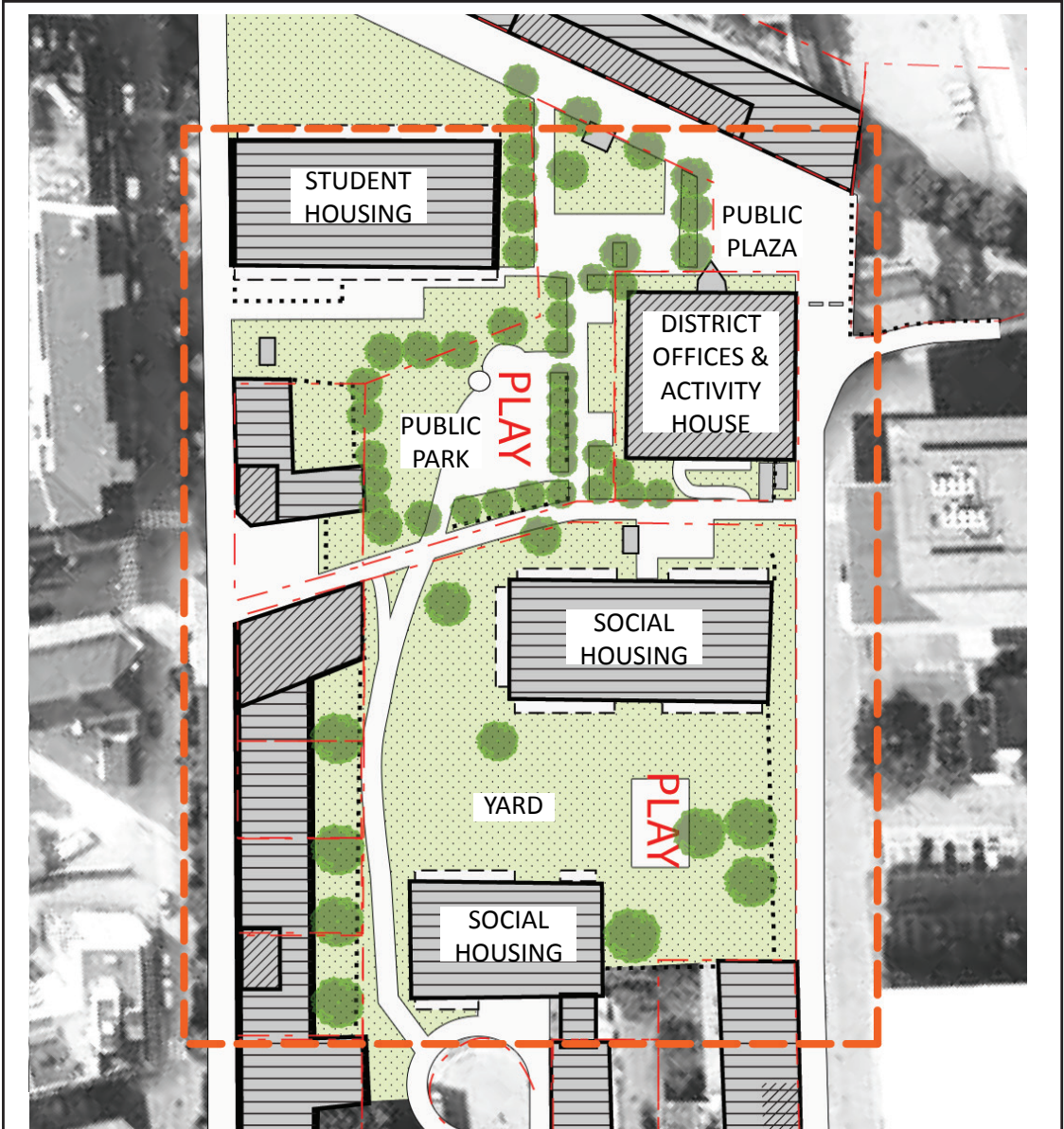
**denotes numbers from the neighborhood level (*delbydel*)

by mid-20th century modernism with parallel linear slab blocks set in an open green space (see Figure 5-3). Privately-Managed Waterfront is a collection of high-rise buildings along the waterfront, designed in 2002 (see Figure 5-5). Its dynamically formed buildings are built over submerged parking and loosely frame public spaces in three dimensions using overhangs, walls, and terraced ground levels. Publicly-Managed Social Housing's neighborhood was traffic-calmed in the 1990s and is currently in the midst of an urban renewal project aimed at improving living conditions, which is actively clearing overgrown vegetation and constructing new site amenities – i.e. play equipment, artwork, and lighting. Resident-Managed Courtyard was renovated during an urban renewal project of the 1970s- 1990s that upgraded sanitation, open space, and access to sunlight by clearing the previously existing courtyard apartment blocks and outhouses.



Socio-economic differences in the three cases are reflected in the demographics- Table 5-1 compares each case to the average for Oslo. The neighborhood surrounding Publicly-Managed Social Housing (Case 1) has one of the highest percentages of residents of Non-European background, while Privately-Managed Waterfront's neighborhood (Case 3) distinguishes itself by housing an older population with an income well above the municipal average. Resident-Managed Courtyard (Case 2) has a notably small proportion of retirees and higher percentage of males, reflecting its popularity with young adults and new families. Publicly-Managed Social Housing's immediate population stands out in particular due to its nature of social housing – which in the setting of Oslo houses residents with a variety of challenges, including the elderly, the mentally or physically disabled and the socially disadvantaged (translated from Oslo-Municipality, 2013).

5.3. Case 1: “Publicly-Managed Social Housing”

Case 1 – The Publicly-Managed Social Housing Case- is one of few locations of centralized social housing in Norway. It is set within the partially marginalized, largely diverse, and gentrifying neighborhood of Tøyen. The architecture and site layout were designed in the 1970s and amended during a traffic-calming project in the 1990s that added the adjacent playground and pedestrian pathways (see site plan in Figure 5-6). The social housing property was upgraded again in 2013, providing new balcony facades and landscape elements (see images in Figure 5-3). Also bordering the continuous open space of the site are a private office building, a student housing building, and several private residential cooperative properties.



Building use type at ground floor:

-  Residential
-  Commercial or office space

Case 1: Overview site plan



Figure 5-6 Overview site plan of Publicly-Managed Social Housing - despite several property divisions, the outdoor spaces are not physically divided between the social housing yard, public playground, and plaza in front of the office building.

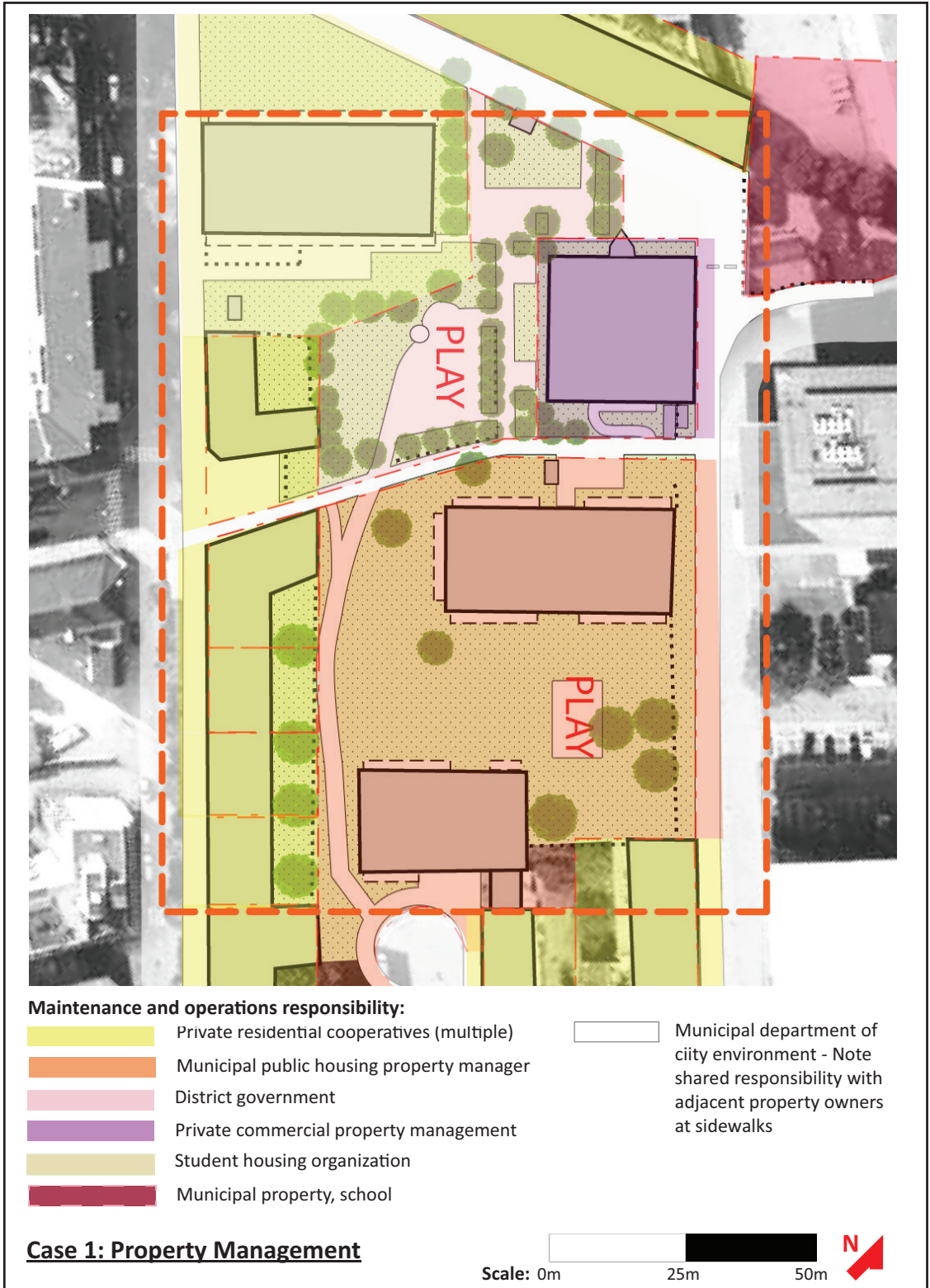


Figure 5-7 Map of property management in Publicly-Managed Social Housing - M&O responsibility divisions are clear when mapped, even if not physically separated on the site.

5.3.1. Overview of spatial management

The case's site has open spaces that appear to be continuous, despite being composed of parcels owned by different municipal entities (see map of responsible entities in Figure 5-7). Three major managing entities hold responsibility: a public-private concern that manages all of the municipal residential properties in Oslo oversees the social housing property, the district government manages the adjacent playground and park, and the municipal Department for City Environment takes care of the site's main pathway and adjacent sidewalks.

While these three management entities are separate, they operate similarly. Each invites public bidding to hire firms for the delivery of M&O services. These contracted firms typically take on large contracts that cover several properties at once. Oslo municipality has applied increasing pressure upon standardizing the quality of maintenance- with the city council placing ordinances to govern the quality and frequency of M&O tasks like graffiti removal. The public housing property manager has a mandate from the municipality to uphold the residential environment for the well-being of challenged residents while simultaneously running property M&O as a business driven by efficiency and economy. Despite all these management entities being under the umbrella of Oslo municipality, and their maintenance domains abutting, they do not communicate or coordinate M&O efforts in practice. Common maintenance tasks like litter removal and grass clipping fall under separate contracts, which are potentially awarded to separate firms, resulting in fragmented service delivery following property lines – even where the properties are not physically or visually divided. The playground and park's maintenance particularly suffers from low budgets and limited resources, leaving unresolved issues like litter and vandalism that the other management entities can address on their respective sites. While the housing property manager can order responsive, professional maintenance for its property's amenities, the district's public spaces rely upon voluntary, sometimes unskilled labor for addressing vandalized and worn out site furniture (Brattbakk et al., 2015).

The social housing property has not had a consistent or well-functioning local property board despite municipal intentions. Such a board functions for other public housing sites in Oslo by stewarding and streamlining local concerns and communicating resident interests to the property management company. In this case, the residents revert to individually taking contact with the property manager to report maintenance issues. No forum for resolving social disputes amongst neighbors is in place. The residents are placed in social housing by the district government, to whom the municipality delegates responsibility over social aspects of the residential environment. Limited resources here can conflict with the property manager's goals of maintaining the physical residential environment.

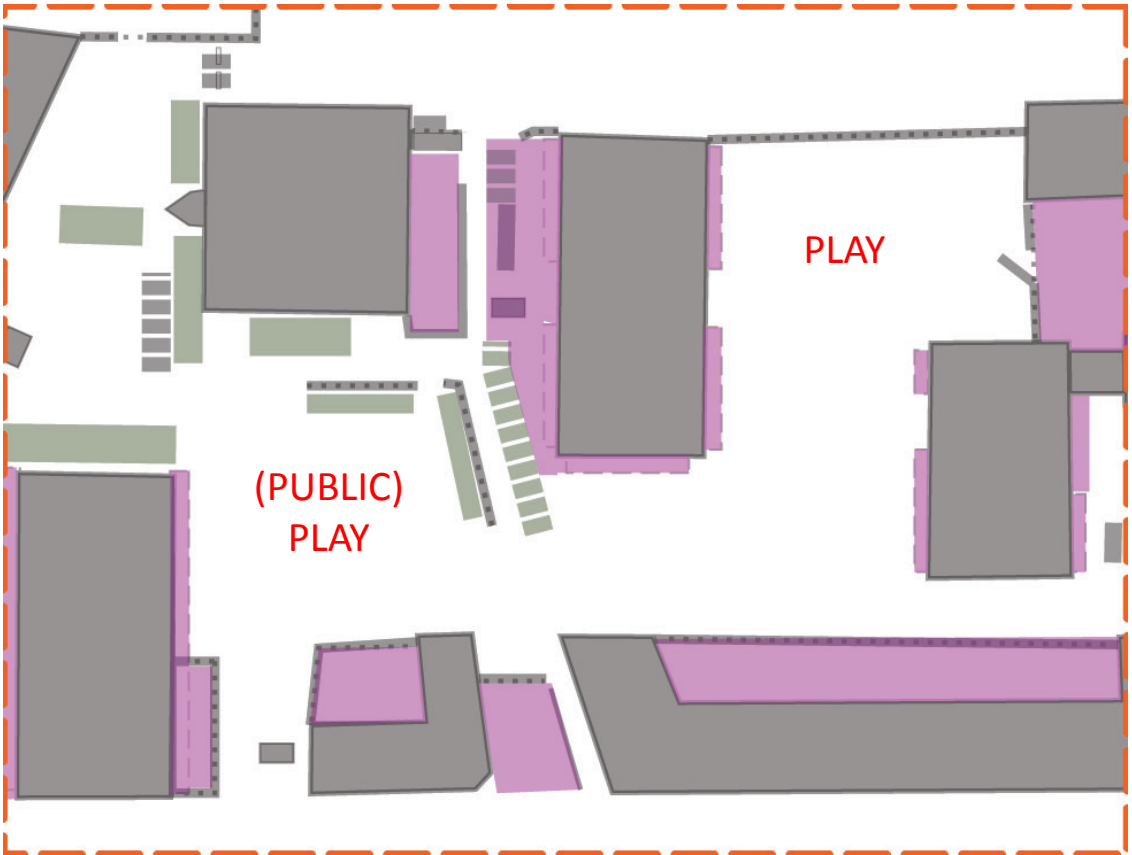
5.3.2. Urban design analyses of Publicly-Managed Social Housing

Figures 5-8 through 5-14 analyze the urban form of Publicly-Managed Social Housing's site, demarcate zones of management responsibility, and analyze the following: effective divisions between public and private spaces, building porosity and visibility into the social spaces, and social uses of the common spaces.

The linear slab buildings are surrounded by continuous open space (see Figure 5-6). While the open space is differentiated with paving and vegetation, these physical differences do not correlate with the many property lines or zones of M&O responsibility on the site (Figure 5-7). Site elements like fences and trash containers aid in denoting semi-bounded areas near building entrances as serving local residents' needs. The large, non-enclosed space between the housing buildings makes the residents' yard appear more public than semi-public. One leftover space appears semi-public and bounded due to topography between an office building and pathway (Figure 5-8). The open spaces of neighboring properties are completely bordered by fences, which limit use, connections, and views from the case site (see Figure 5-9).

The site has quite a few windows facing the open spaces at the ground level, which should provide informal surveillance (Figure 5-11, Figure 5-14). However, many of these are slightly higher than ideal for directly surveying the immediate open spaces (see Figure 5-14). Other first floor windows belong to offices, which are closed in the evenings and night (Figure 5-9). The high fences and blank facades scattered through the site create zones that are open to little informal surveillance (Figure 5-12).





Social, staying zones are located mostly near entrances and site amenities (Figure 5-10). Many fixed-in-place benches and picnic tables are provided in both the resident yard and the adjacent playground and park. These vary in levels of use and condition- the most used ones being those located along the main pathways and around the district playground.



Case 1: Effective barriers and semi-public spaces



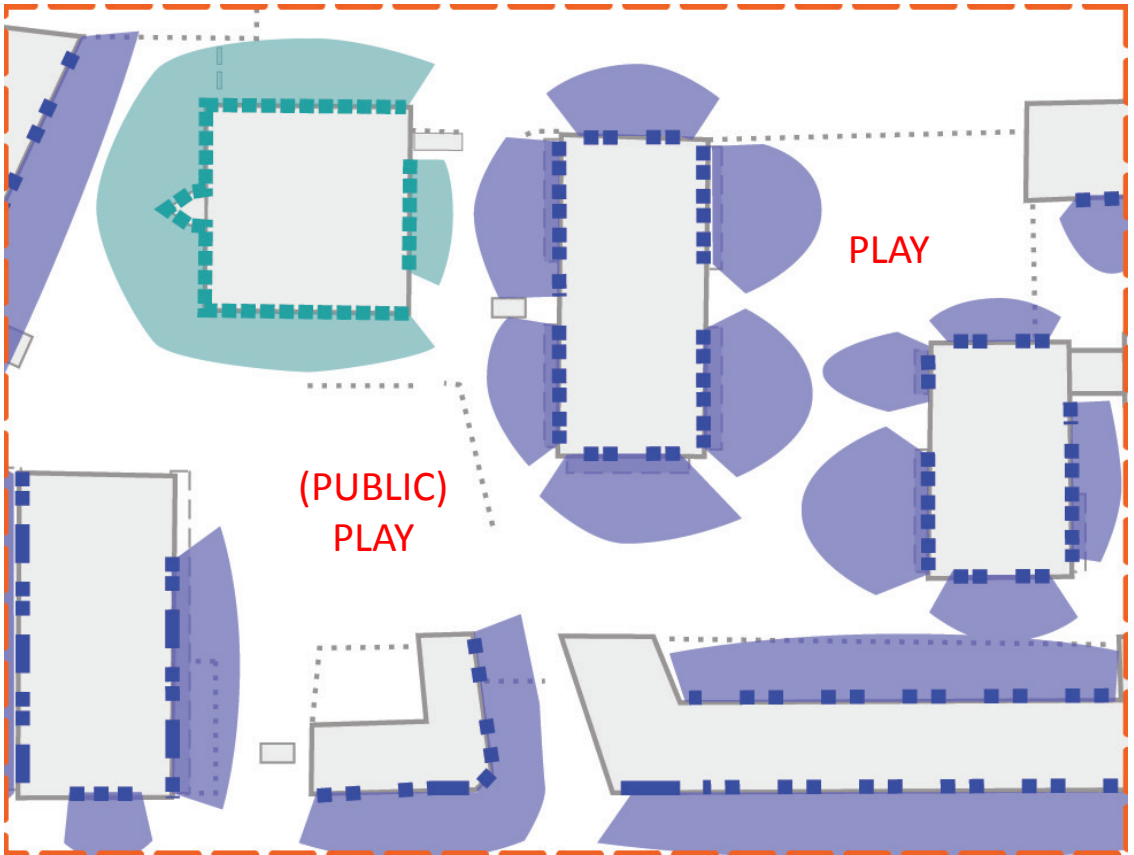
Legend:

-  Semi-public spaces
-  Buildings
-  Fence or wall boundary
-  Hedge/vegetation boundary



Fences, dense trees and plantings, along with the building masses and one significant grade change provide the primary spatial divisions in this case. The hedges line the main path. Observations and interviews confirm many users' disregard to hedge and fence boundaries, though they visually bind space and limit most from crossing.

Figure 5-8 Map of effective barriers and semi-public spaces, Publicly-Managed Social Housing



Case 1: Building porosity and informal surveillance



Legend:

- Ground floor view from commercial use
- Ground floor view from residential use
- Residential windows at ground floor
- Commercial windows at ground floor

Commercial use in this case is mostly office space that is not open on weekends or evenings. A couple small shops are open late and all days of the week, but have few windows. Residential windows are typical on the 2nd to 5th floors in all buildings.

Other barriers that limit visibility are trees, fences, and hedges.

Figure 5-9 Map of building porosity and informal surveillance, Publicly-Managed Social Housing



Case 1: Social spaces



Legend:

- Typically single users or pairs
- Often small groups of users
- Typically more than 6 users at a time
- Fixed Bench
- Moveable picnic tables
- Many staying
- Some staying
- Few staying

The playground and adjacent benches attract the most social and staying uses. Additional spots by building entrances often find people chatting or hanging out for short periods.

Figure 5-10 Map of socially used spaces, Publicly-Managed Social Housing

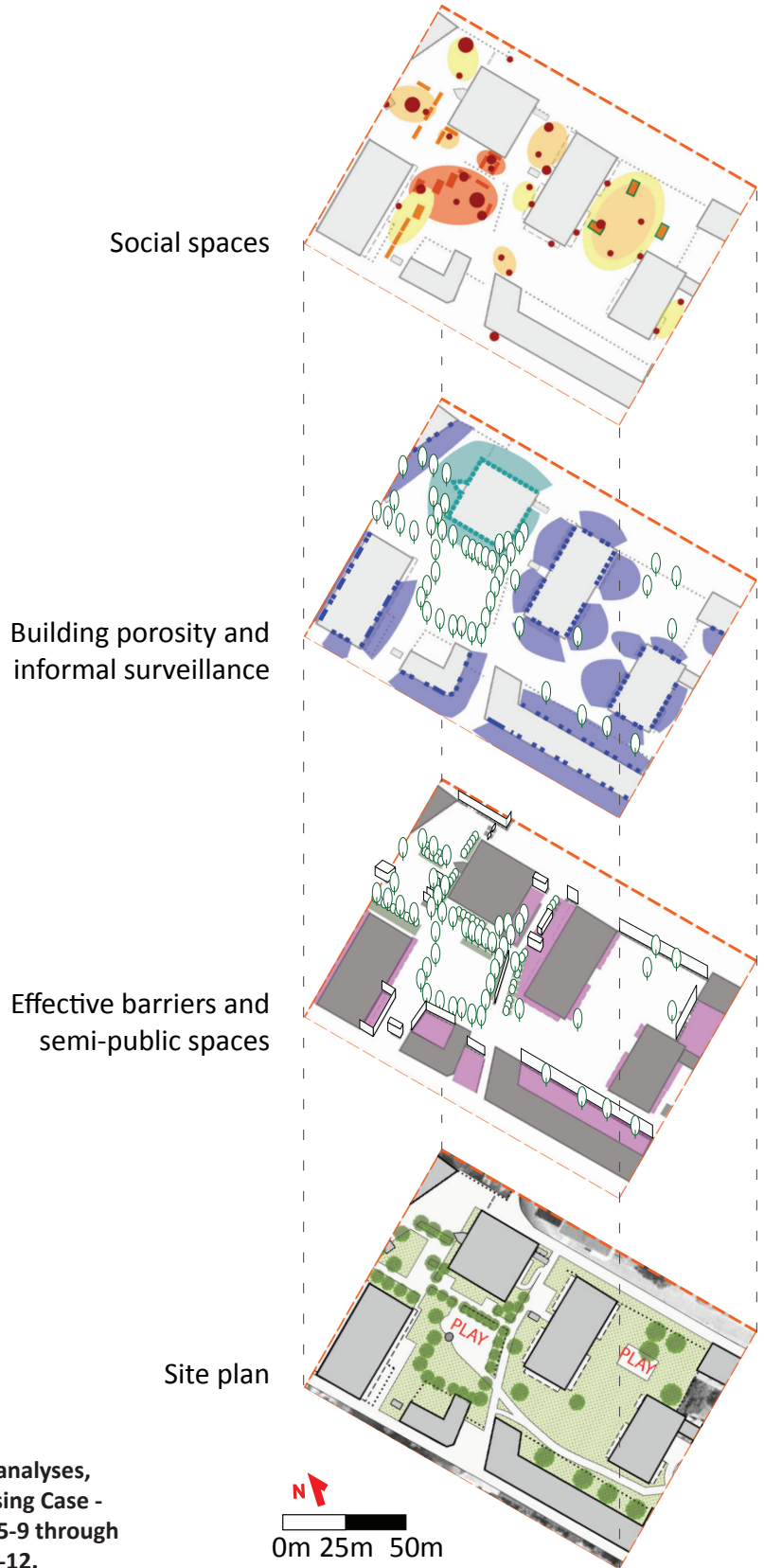
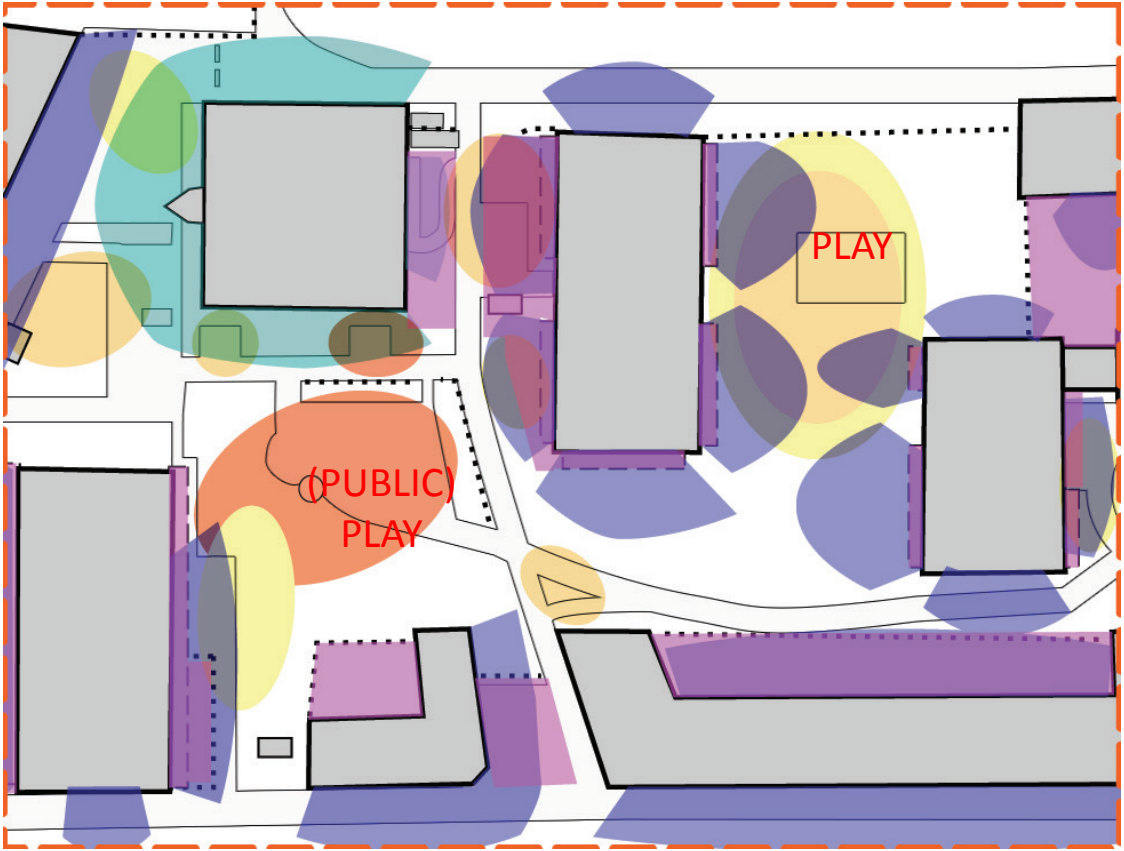


Figure 5-11 Synthesis of plan analyses, Publicly-Managed Social Housing Case - these are enlarged in Figures 5-9 through 5-11 and compiled in Figure 5-12.



Case 1 Analyzed zones

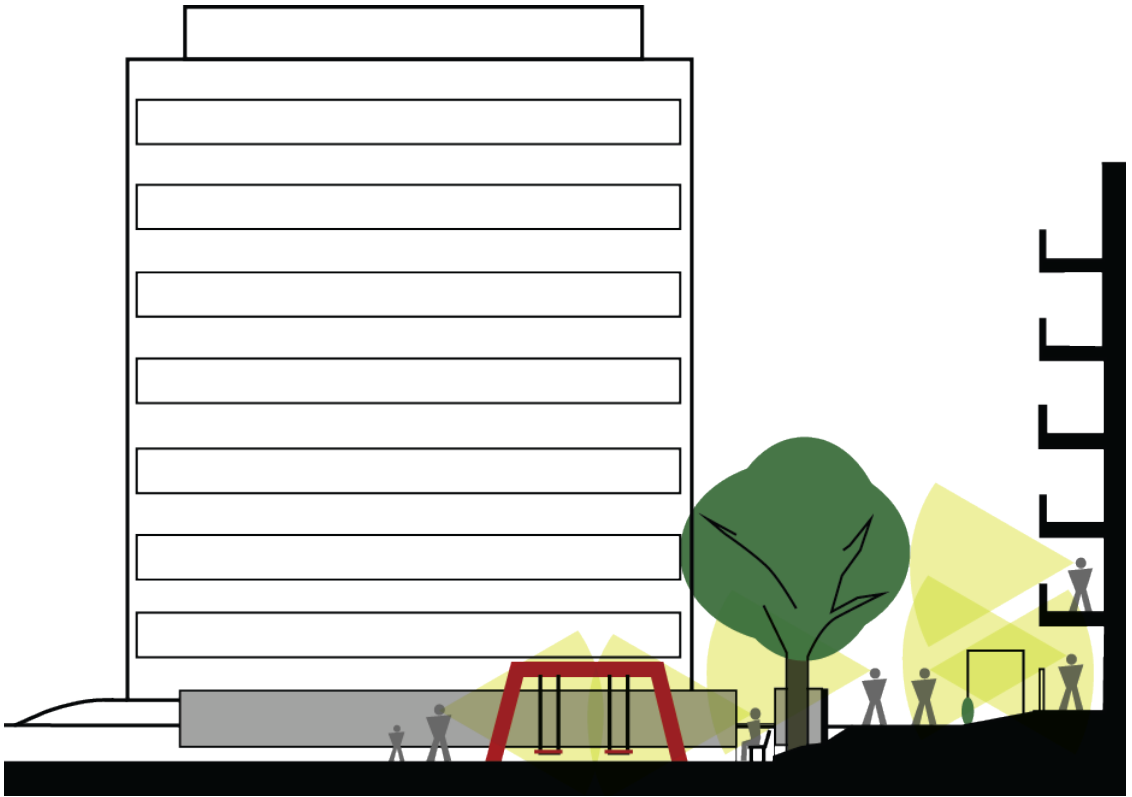
Scale: 0m 25m 50m **N**

Legend:

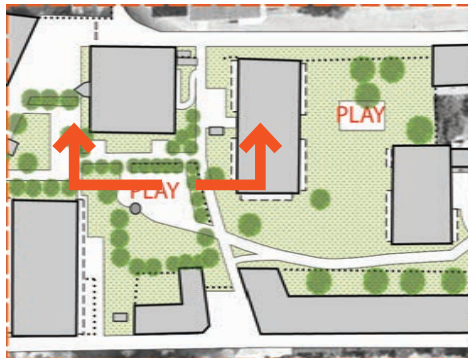
- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

- Social gradient:*
- Often many stayers
 - Sometimes some stayers
 - Occasionally few stayers

Figure 5-12 Synthesized map of analyzed zones, Publicly-Managed Social Housing

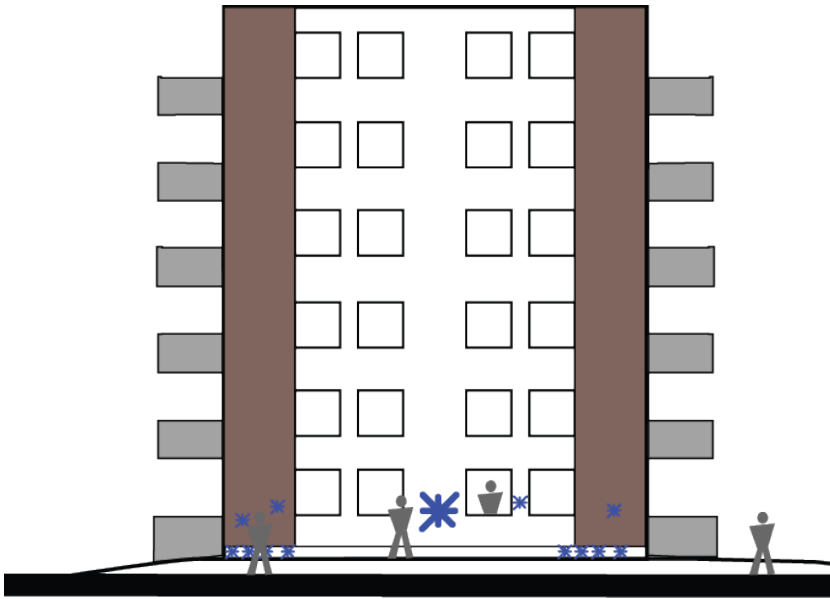


Key plan:



Case 1: Cone of vision study (not to scale)

Figure 5-13 Site section study showing the relative cones of vision (in yellow) towards the playground.



Key plan:



Case 1: Graffiti study (not to scale)

Figure 5-14 Site section study showing the relationship of graffiti to building porosity.

5.4. Case 2: “Resident-Managed Courtyard”

Case 2 – The Resident-Managed Courtyard Case – is a late 19th century city block representative of Oslo’s urban development in that era. Clearing additional buildings from the block’s central courtyard in the 1990s resulted in a common open space, shared between nine properties. The space was designed by an architect and landscape architect hired by the municipality in 1998. The redesign enclosed the courtyard with gates, planted significant amounts of vegetation, and provided zones with site amenities for grilling, clothes hanging, children’s play, and bicycle parking (see Figure 5-15).

5.4.1. Resident-Managed Courtyard Overview of spatial management

The apartment owners in the nine residential cooperative properties are expected to manage the courtyard through an elected yard board – composed of one representative and one alternative member from each property. This board operates in conjunction with each building’s cooperative board of three elected owners as members. The yard board directly manages the common space, controlling a common budget and hiring out maintenance services, taking only large and costly decisions up for general vote among the owner residents. Each building property pays a fee to cover yard maintenance and to maintain a modest fund for future courtyard projects. This fee is distributed across each property’s apartment owners as a percentage of their common fees each month.

The yard board’s composition and responsibilities are described in a document from the design of the yard, along with the courtyard’s original “rules for well-being,” (Lisakvartalet 1998). These documents have not been significantly modified since 1998. In the documents, the yard board’s responsibilities are defined as looking over the entire block and facilitating common maintenance tasks on both its interior yard and exterior sidewalks and facade. However, the yard board currently only looks after the block’s interior courtyard, maintaining it communally despite property divisions (see Figure 5-16). Each of the nine buildings holds responsibility under municipal law to maintain the sidewalks immediately in front of each property- by keeping them free from trash and obstacles, safe from snow and icicles falling from the rooves, and clean of graffiti. In past efforts, the yard board attempted common solutions to these tasks, today each building is on their own. Not all of the responsibilities are clearly understood by every board member. Each property addresses maintenance issues singularly, resulting in varying levels of visual quality and upkeep around the block’s exterior perimeter.

The yard board’s practices have changed over the years from its original intentions. Only three people sit on the current yard board with little stability. Other properties’ residents show

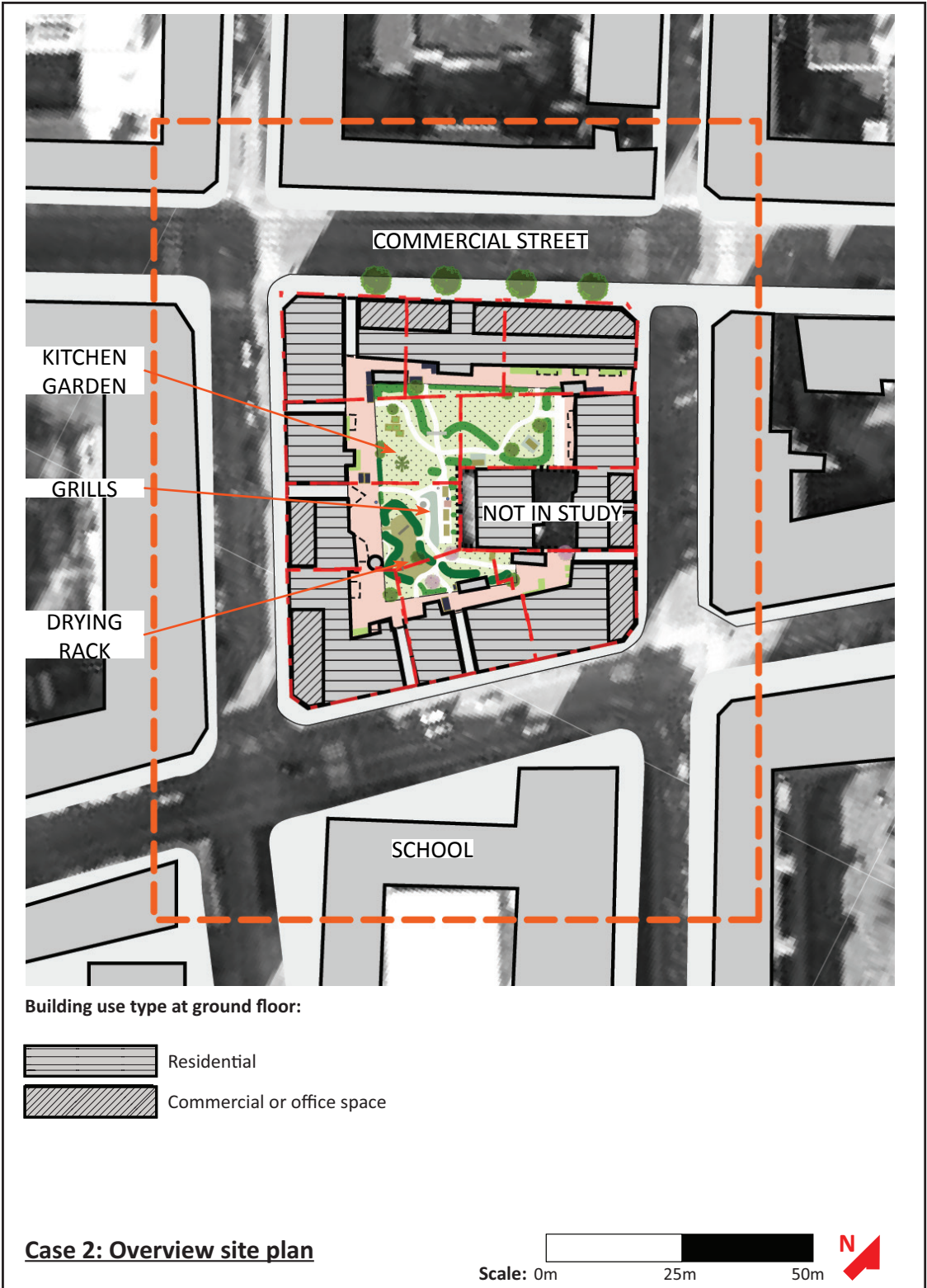


Figure 5-15 Overview site plan of Resident-Managed Courtyard showing designed vegetation and paving areas within nine perimeter buildings. While the buildings are residential, several of their ground floors have commercial units.

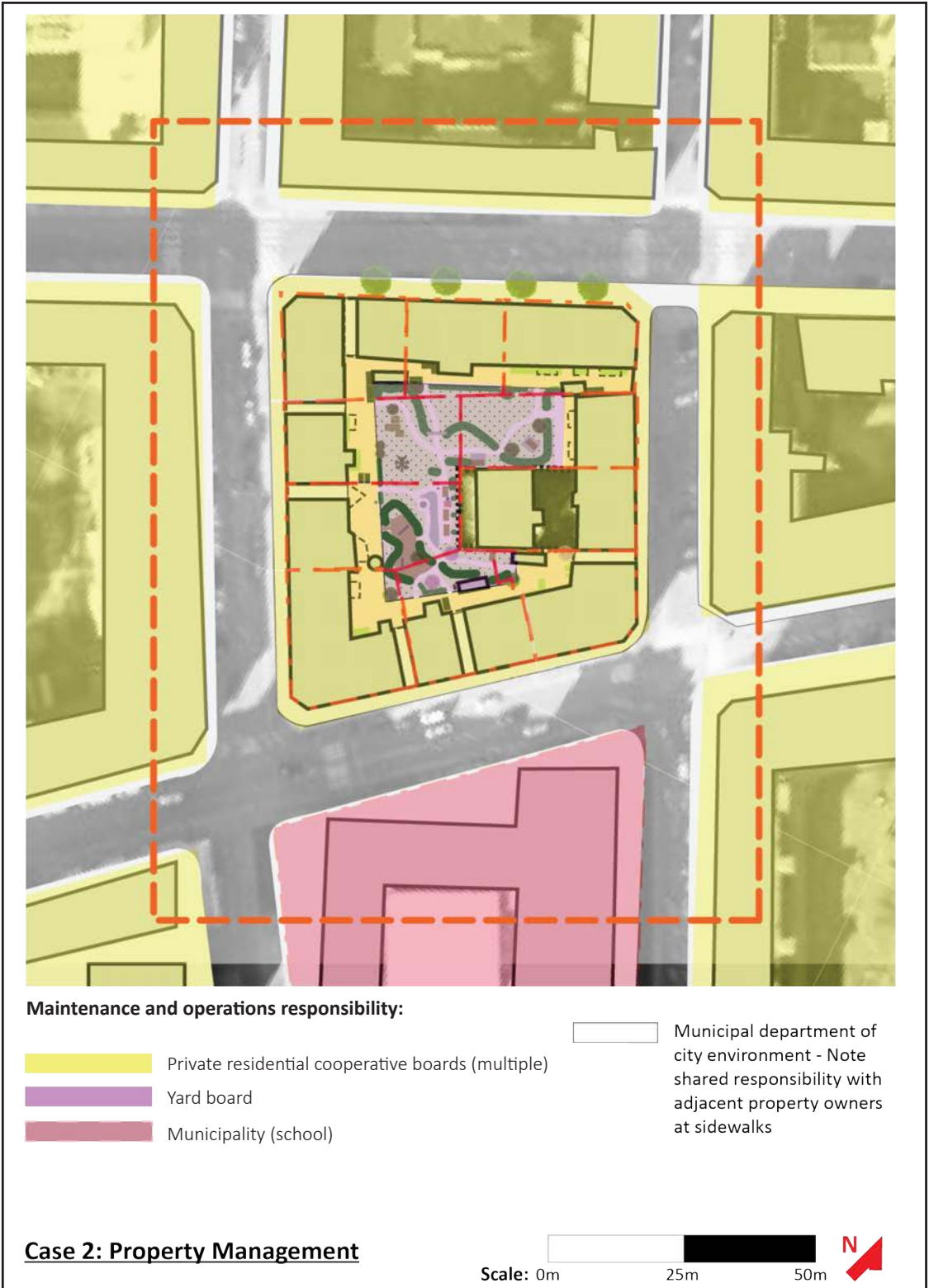


Figure 5-16 Map of property management in Resident-Managed Courtyard showing the yard’s united M&O despite being technically owned amongst nine separate properties. Each building has responsibility over perimeter sidewalks, shared with the municipal department.

minimal interest by neither participating nor sending representatives to the board's yearly meeting. Tasks that require consensus or collaboration across properties, like hiring common pest control, seldom see success due to inconsistent levels of activity, communication, and follow-up between individual building board leaders. The yard board responsibilities included calling two *dugnad* events a year, but over the past years, there has seldom been more than one. The latest *dugnad* was initiated by residents rather than the board. The rules document includes an email address for residents to contact board members, though this was not in use during the study. Over the years, different yard boards over the years have shown varied degrees of competence and activity, effecting little change in the courtyard. Different M&O entities have been granted contracts for maintaining the courtyard, including a resident superintendent, a firm that employs recovering drug addicts, and the current professional outdoor services firm. Gaps between contracts and competences, along with the significant maintenance need of the designed vegetation and paving materials, have resulted in varying standards and conditions in the yard over time, including occasional vegetation overgrowth and presence of litter.

Beyond these changes, recent years have seen an increasing number of the block's apartments becoming rental units. Two of the nine properties are owned by management companies, which exclusively lease out units. Cooperative owners also frequently lease out their apartments for short or long periods. The rise in rental population contributes to a high resident turnover in the block. Few residents who were part of the 1990s renovation still live there.

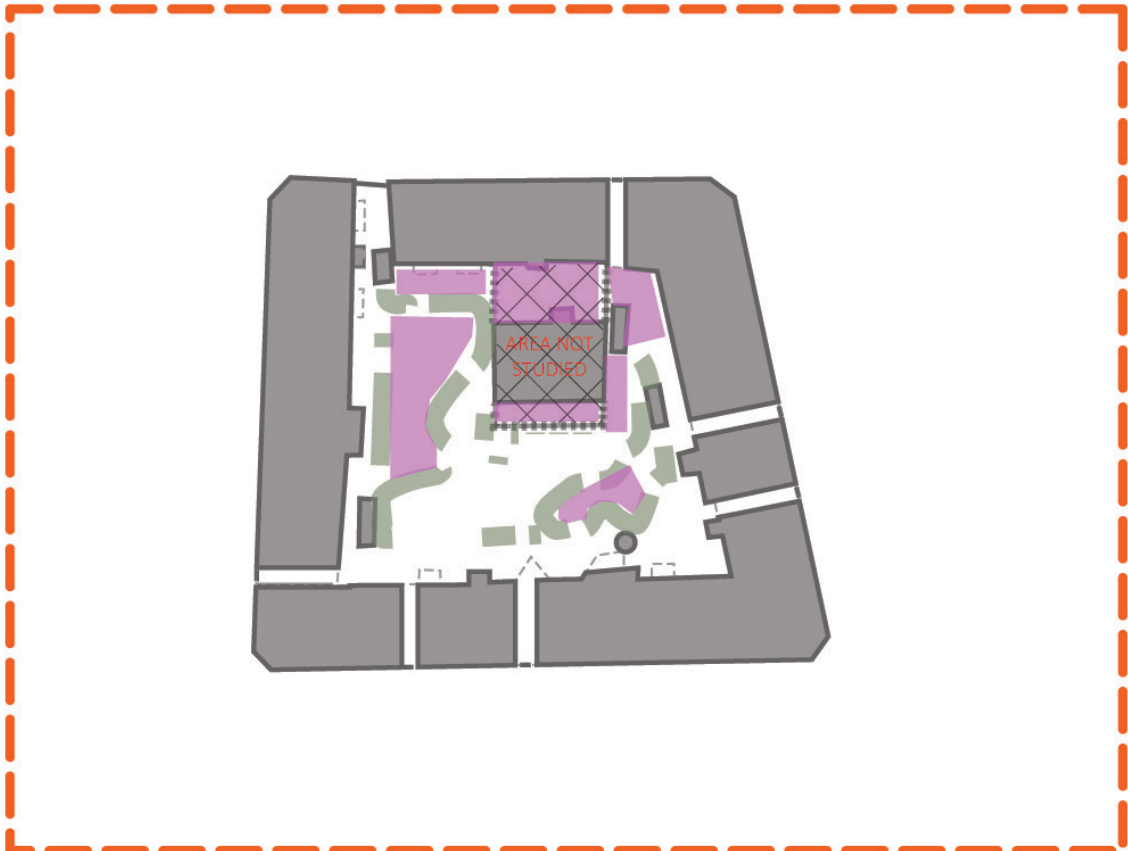
5.4.2. Urban design analyses of Resident-Managed Courtyard

Figures 5-17 through 5-23, which follow, illustrate plans and sections that analyze the urban form of Resident-Managed Courtyard's site. In this residential block, semi-public spaces were purposely created with landscape elements from the design (Figure 5-17) – few of which have changed from original intent. This results in pockets for different simultaneous use, where all from individuals to large groups can find areas to stay in and be social, particularly by using movable picnic tables (Figures 5-19 through 5-21). Most of this gathering and staying occurs within the courtyard rather than on the exterior sidewalks, where many people pass by.

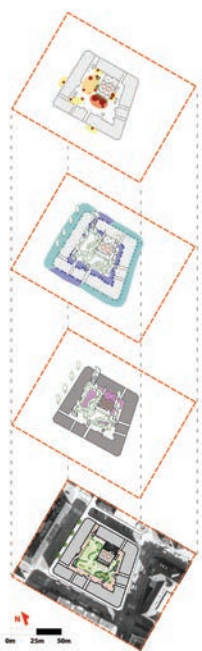
The block is evenly punctuated with windows and recessed doorways, yet informal surveillance opportunities vary (Figure 5-18). The windows are uniformly too high to look directly onto the sidewalks, leaving many blind spots (Figure 5-23). Several shops – particularly on the block's corners and busiest street- occupy the first floor units that face the exterior of the block, so their opening hours further limit surveillance potentials. Ground floor apartment units

consistently have curtains, screening film, or decorative objects like artwork blocking views in and out. All of the doorways and gates to the courtyard are deeply recessed, creating additional blind spots around the block. Only two of the yard's entrances have partially see-through gates rather than solid doors.





Two height variables showed altered informal surveillance potential in the courtyard during the study. Ten resident owners from three of the properties added balconies to their buildings' yard-facing façades, changing the potential oversight and sectional relationship of the common spaces (Figures 5-22 through 5-23). Also, each season the courtyard's vegetation experiences significant growth, so that the hedge height affects what courtyard users can see from each semi-public pocket.



Case 2: Effective barriers and semi-public spaces

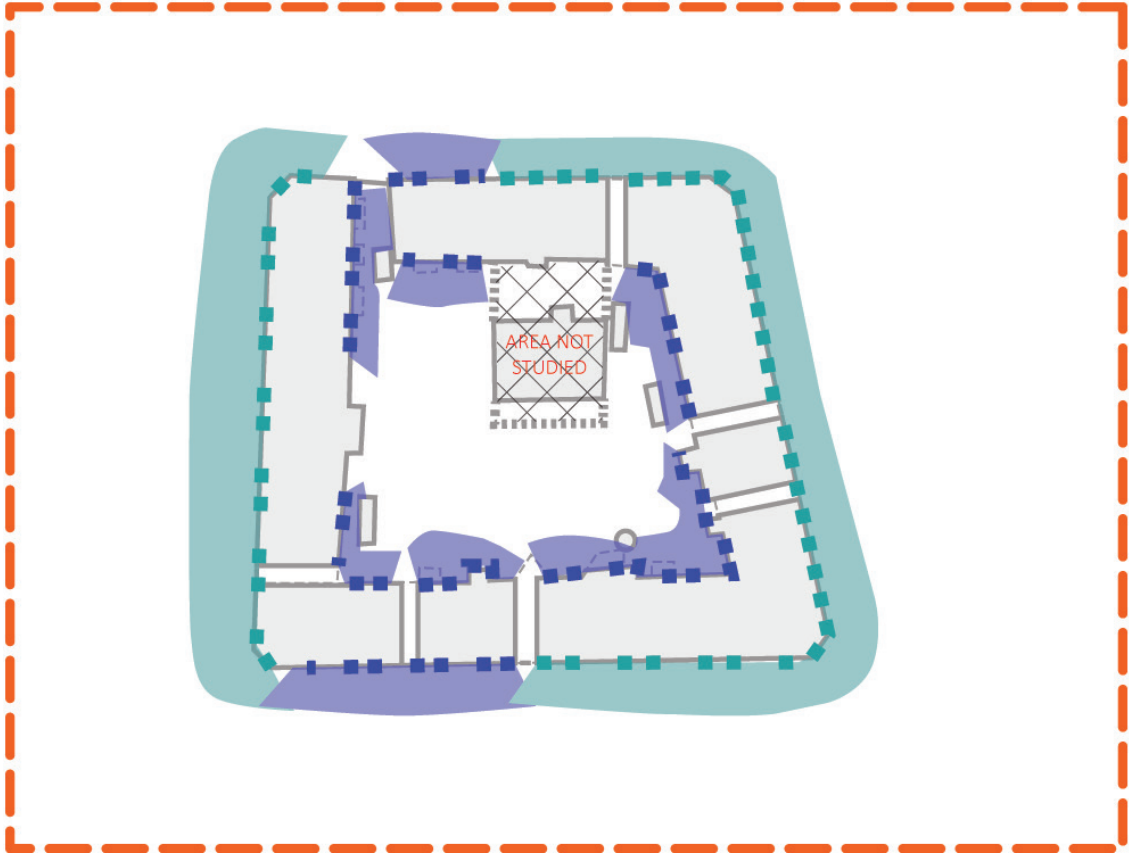


Legend:

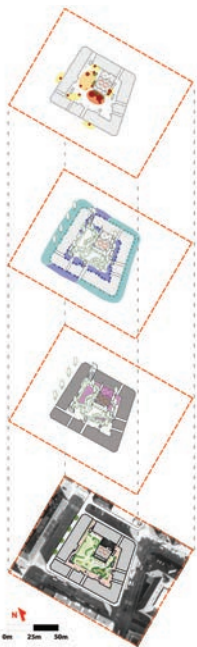
-  Semi-public spaces
-  Buildings
-  Fence or wall boundary
-  Hedge/vegetation boundary

In this case, tall hedges and fences provide the primary means of spatial division, along with the building massing. The hedges offer smaller pockets of space within the yard. However, in the lack of regular maintenance, they quickly become overgrown and their height exaggerates the sense of enclosure.

Figure 5-17 Map of effective barriers and semi-public spaces, Resident-Managed Courtyard



Case 2: Building porosity and informal surveillance



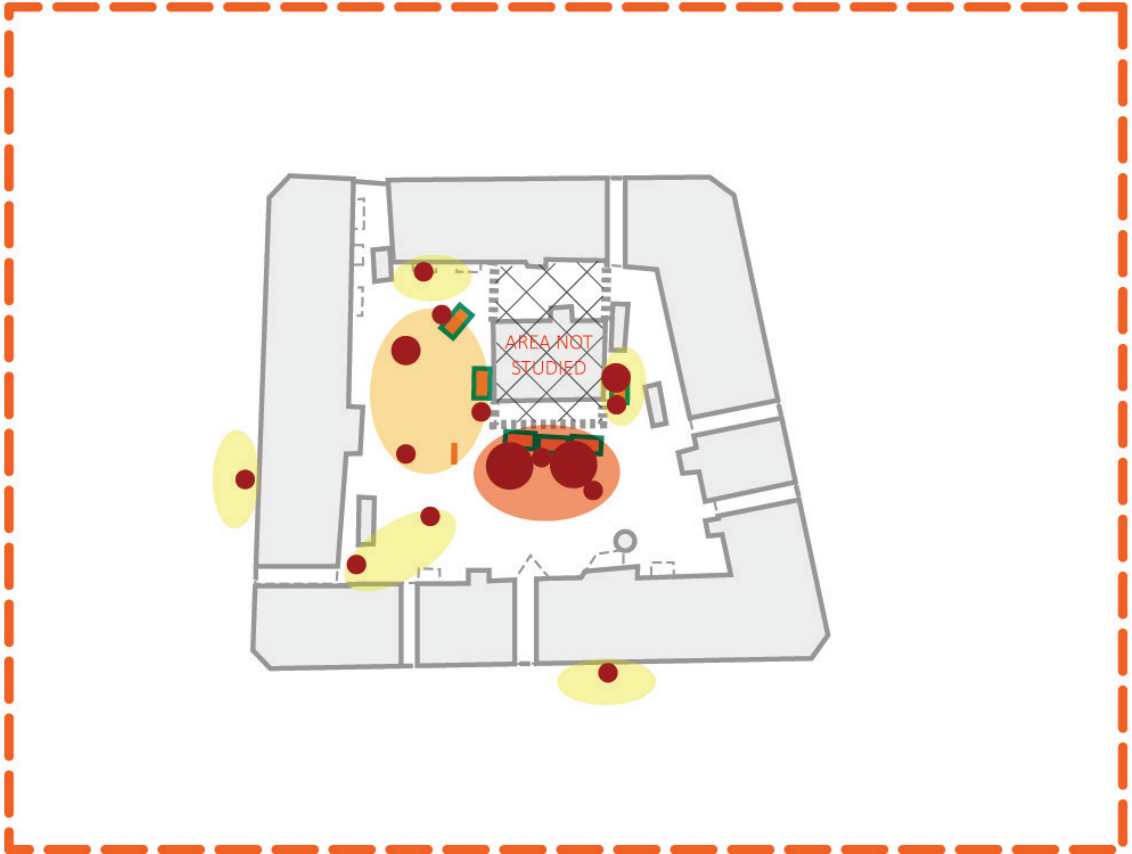
Legend:

- Ground floor view from commercial use
- Ground floor view from residential use
- Residential windows at ground floor
- Commercial windows at ground floor

Commercial use is limited to storefronts, which are not open on Sundays and have daily closing times between 16:00 and 20:00. Residential windows are typical from the 2nd floor and upward in all buildings.

Other barriers limiting visibility are trees, tall hedges, fences, walls, bicycle sheds, and gates.

Figure 5-18 Map of building porosity and informal surveillance, Resident-Managed Courtyard

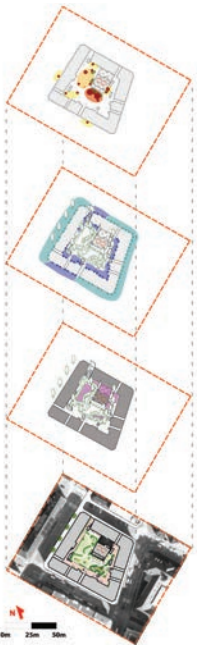


Case 2: Social spaces



Legend:

- Typically single users or pairs
- Often small groups of users
- Typically more than 6 users at a time
- ▭ Fixed Bench
- ▭ Moveable picnic tables
- ▭ Many staying
- ▭ Some staying
- ▭ Few staying



The small pockets in the courtyard host the most social and individual staying use. The central grills and picnic tables attract the most social use and largest groups.

Figure 5-19 Map of socially used spaces, Resident-Managed Courtyard

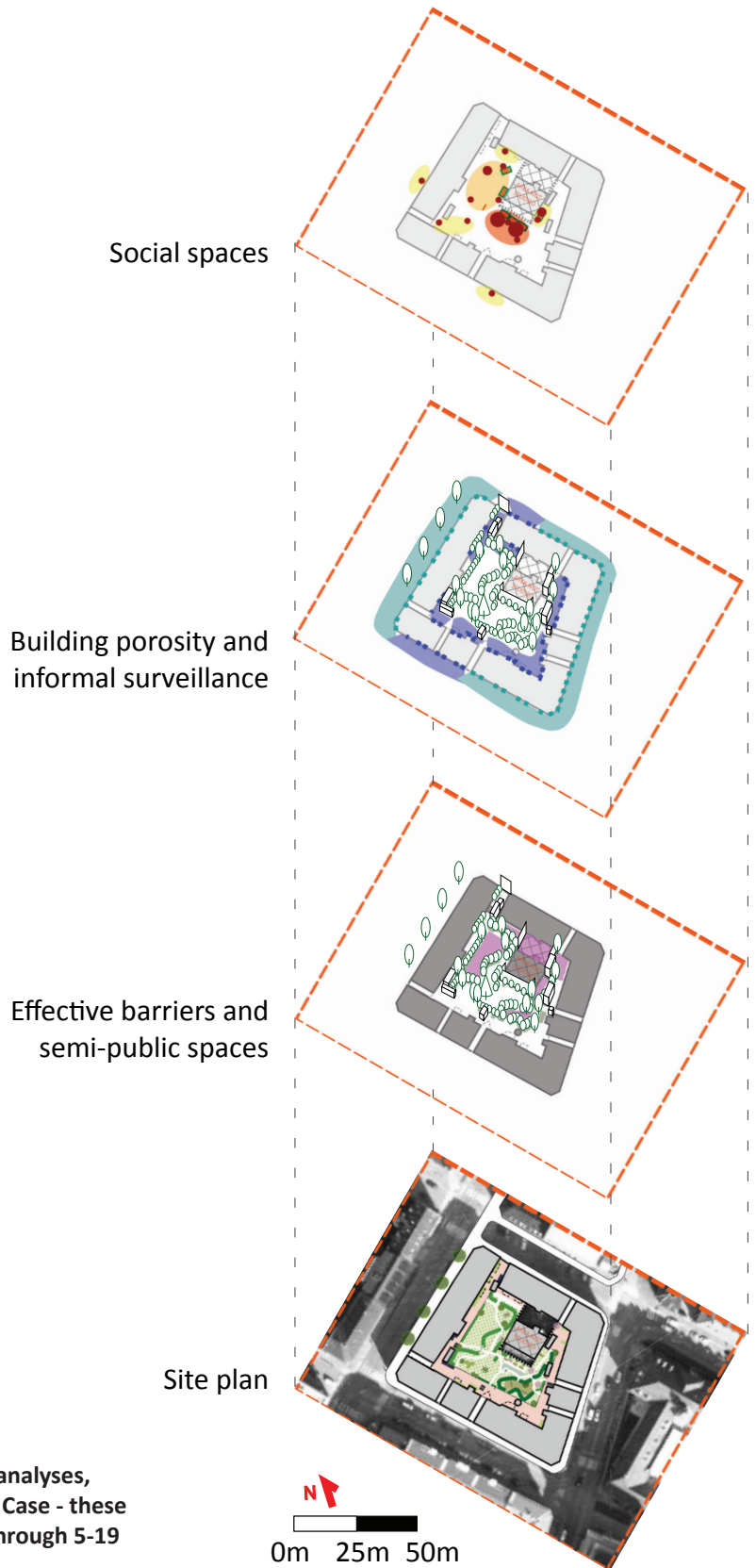
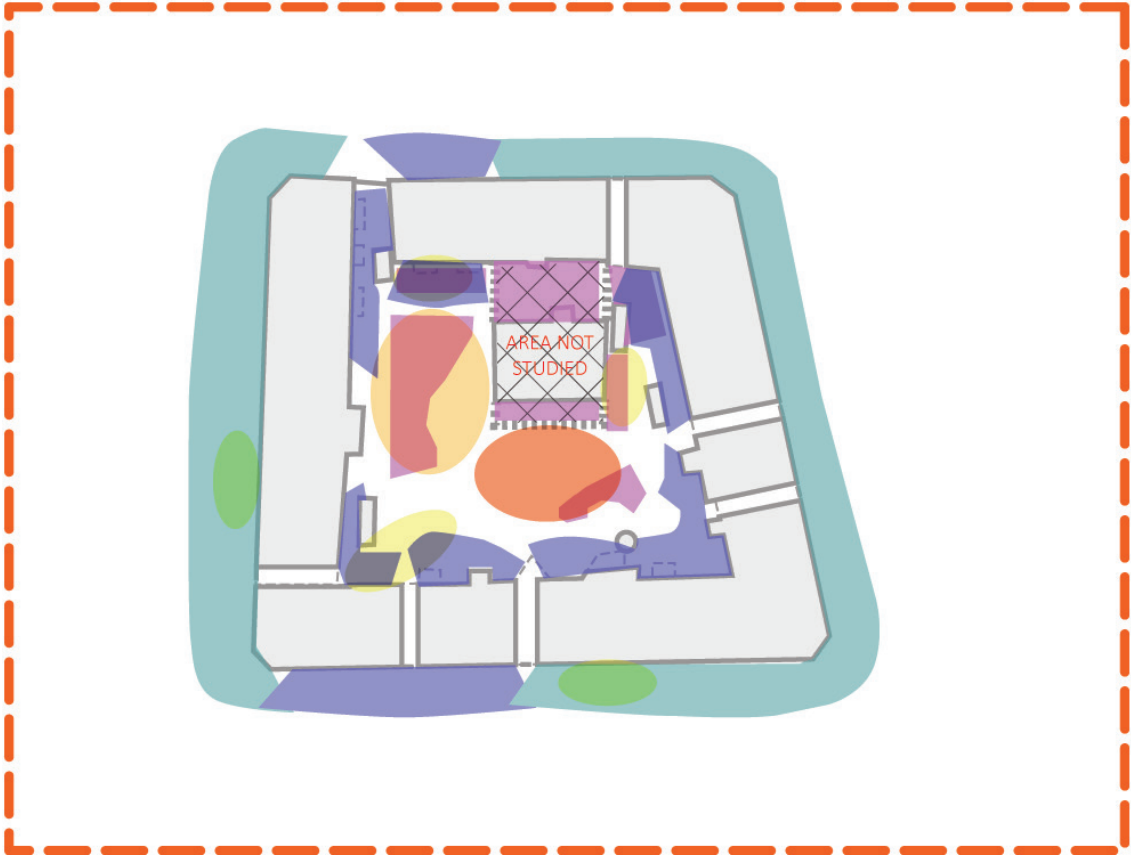


Figure 5-20 Synthesis of plan analyses, Resident-Managed Courtyard Case - these are enlarged in Figures 5-17 through 5-19 and compiled in Figure 5-21.



Case 2 Analyzed zones



Legend:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

- Social gradient:*
- Often many stayers
 - Sometimes some stayers
 - Occasionally few stayers

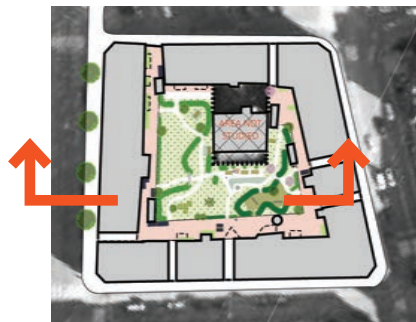
Figure 5-21 Synthesized map of analyzed zones, Resident-Managed Courtyard



Site section before 2014 balcony additions - not to scale



Site section after 2014 balcony additions - not to scale



Key plan:

Case 2: Balcony addition study

Figure 5-22 Site section study showing balcony additions at Resident-Managed Courtyard



Site section with cone of vision before balcony addition - not to scale



Site section with cone of vision after balcony additions - not to scale

Case 2: Cone of vision study

Figure 5-23 Site section study showing cones of vision (in yellow) at Resident-Managed Courtyard

5.5. Case 3: “Privately-Managed Waterfront”

Case 3 – The Privately-Managed Waterfront Case- is a new development with apartments attracting high-income residents. Construction was completed in 2014, although occupancy on most of the site began in early 2013. The site is a mixture of residential, commercial, and cultural uses over two islands – the island chosen for this research is the one with the most residential and least commercial units (see Figure 5-24).

5.5.1. Privately-Managed Waterfront Overview of spatial management

Previously a public property under the municipal port authority, this site was sold for private redevelopment when harbor activities in the city center ceased. The redevelopment began with a concept competition in 2002. The neighborhood that stands today reflects the city-council-determined winner for combining architectural expression with financial backing. The competition winner was awarded the right to buy the land from the municipality, develop it, and to manage the resultant property- resulting in a privately owned and maintained neighborhood.

This case is a controversial example of Oslo’s privatization of spatial management and public space provision. The municipality demands private M&O of the site due to challenges to standard management posed by higher-than-city-standard material quality and the presence of an underground parking garage. From the terms of the land sale, the municipality mandates that the neighborhood’s open spaces be open for public access, yet no municipal departments service them. A secondary company owned by the site’s developer fulfills all M&O duties and is funded by monthly common fees¹⁶ billed to commercial and residential tenants and owners. Owners of the residential and commercial units are invited to sit on condominium boards, which in turn designate a representative from each building property to participate in a ‘user forum.’ The user forum allows deliberation of property-wide maintenance decisions and M&O budgeting together with the site’s development company and investors.

All visitors, neighborhood residents and rental tenants can report maintenance and security issues to the private property management company. These reports can be filed into the company’s M&O database by sending them through a building board member, or by directly calling, emailing, or visiting on-site the M&O company’s office. Visitors are directed to a telephone number and email address through posted signage.

16 The fees covered by residents at Privately-Managed Waterfront are approximately 25% more per month for similarly sized apartments in Resident-Managed Courtyard, based on examples for sale in November 2016 listed on www.finn.no.

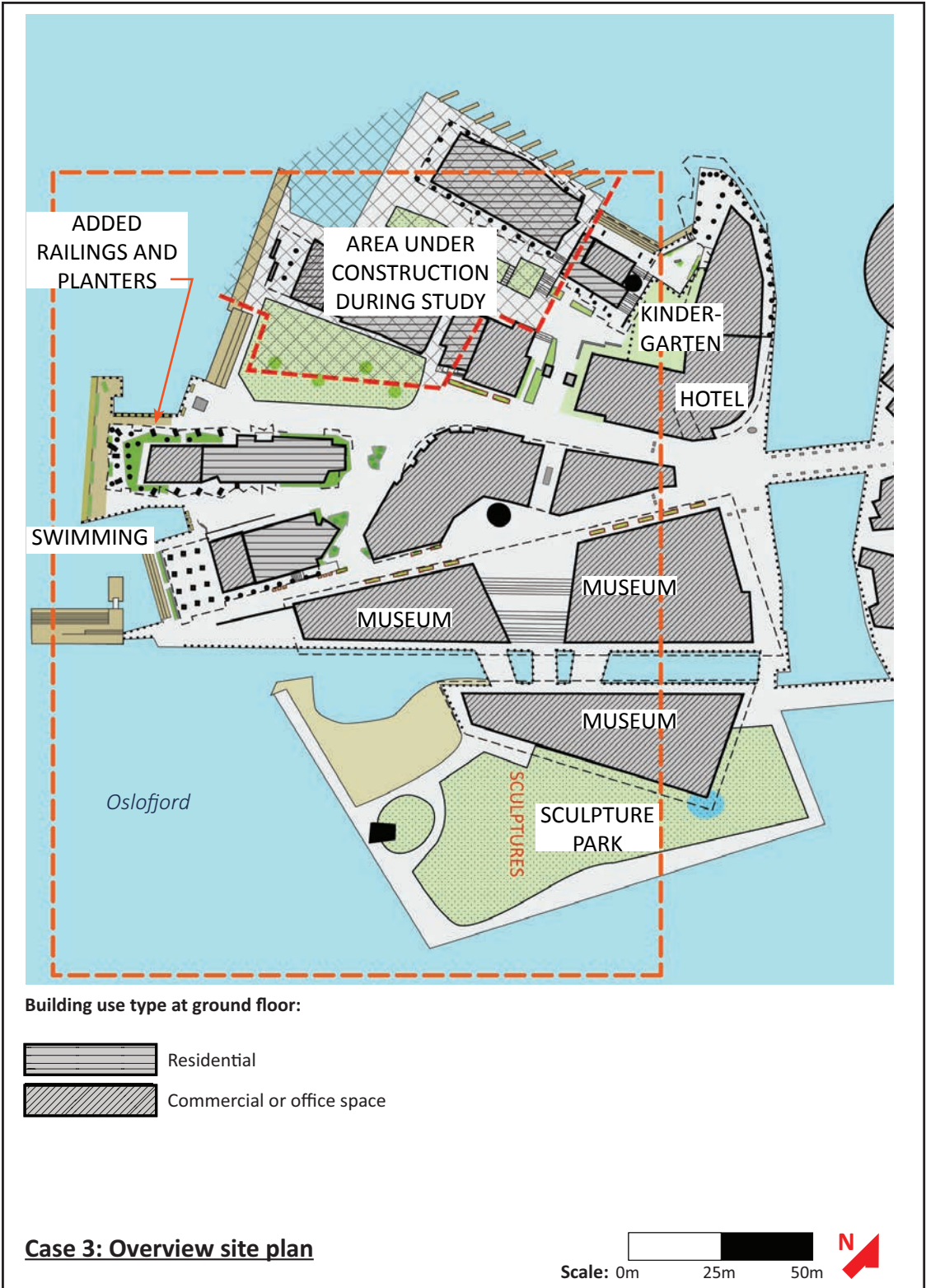


Figure 5-24 Overview Site plan of Privately-Managed Waterfront, showing a majority of commercial building fronts at the ground floor and hardscaped pedestrian corridors between buildings.



Maintenance and operations responsibility:

Private property management company

Case 3: Property Management



Figure 5-25 Map over property management at Privately-Managed Waterfront showing the unity of M&O responsibility over the site and lack of public actors.

5.5.2. Urban design analyses of Privately-Managed Waterfront

Figures 5-24 through 5-33 analyze the urban form of Privately-Managed Waterfront's site. Contrary to the previous cases, this site only holds one zone of management responsibility (Figure 5-25). The different buildings offer very few boundaries that enclose space in the plan (Figure 5-27), relying instead upon differentiation in sectional relationships to shape spaces (Figure 5-33). As the neighborhood is only recently occupied, the management company continues to implement physical changes that alter the boundaries and social staying spaces (Figure 5-29, Figure 5-32). During the study, the main boundary was temporary construction fencing. Railings added along the waters' edge and large planters installed under one building's overhang in 2015 formed new boundaries without demarcating semi-public spaces. One seemingly semi-public space was found- bounded, and screened from main pathways due to a stair. However, the space is faced by two office fronts, denoting its use as rather public instead of resident-based. A fenced-in kindergarten with little view or interaction with the open public spaces acts as a private outdoor space due to restricted access.

The balconies are only partially visible, rendering them more private than semi-public, as relative building heights and narrow areas for view prevent most of them from being seen from the ground level's public space (Figure 5-25 and Figure 5-33). The cone of vision analysis shows relative openness at the ground level, but difficult and blocked views up to the floors above. The proximity of the buildings' upper floors to the water's edge and to adjacent buildings prevents the display quality that the balconies in Publicly-Managed Social Housing demonstrate. Asides from the water access areas, the site's open spaces are primarily narrow walking streets with solid first floor facades, which reemphasize them as movement corridors rather than spaces for staying (Figure 5-25).

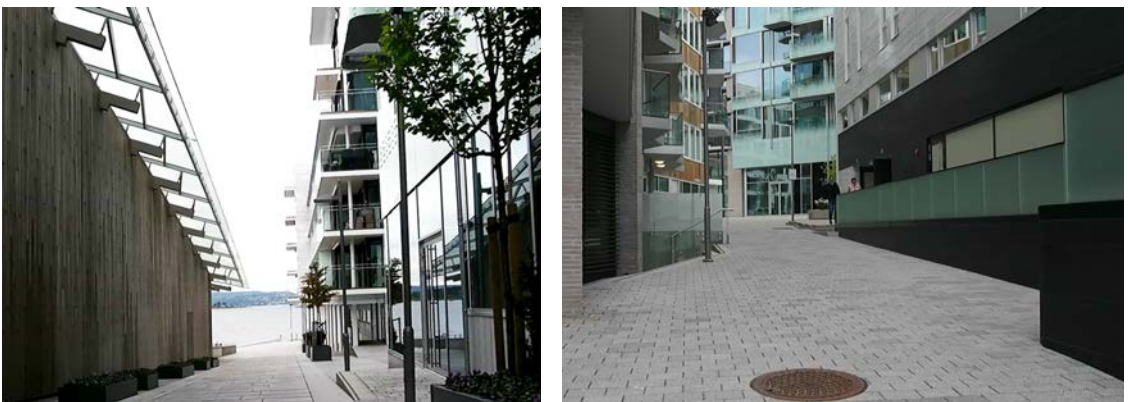
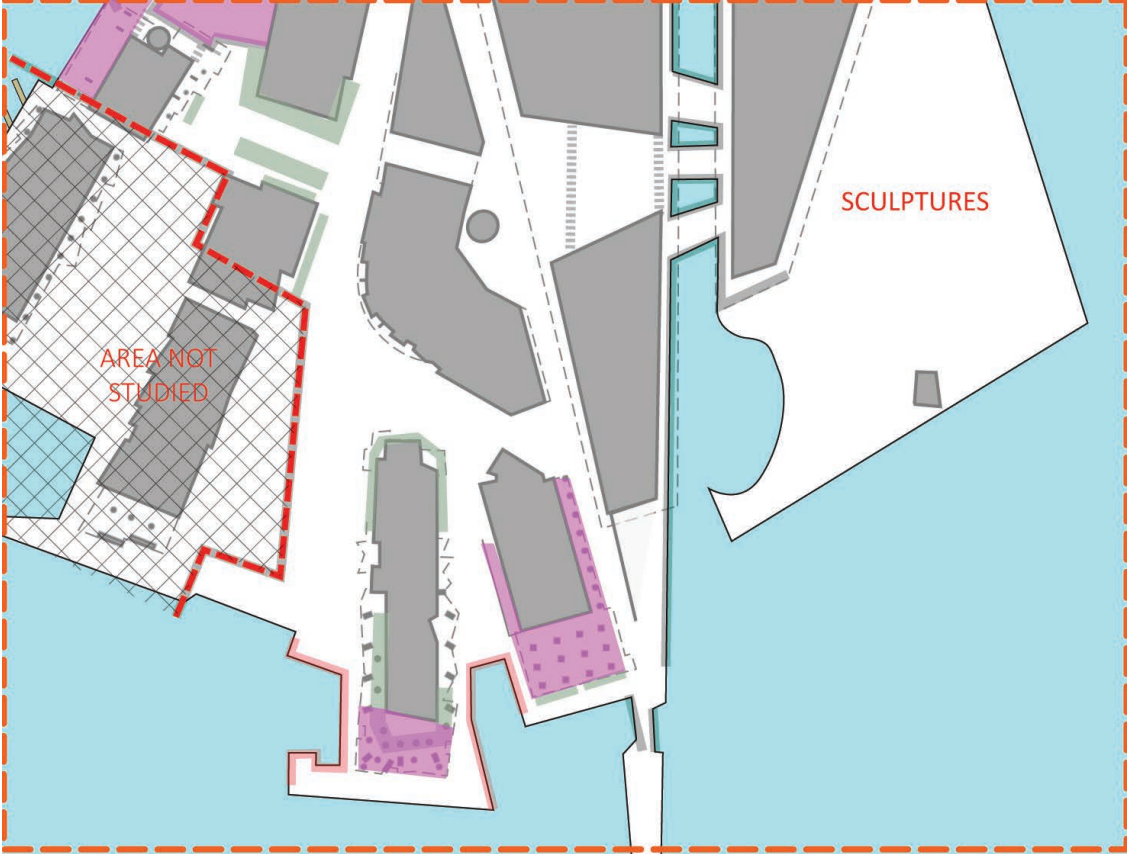


Figure 5-26 Narrow corridors at Privately-Managed Waterfront restrict views into buildings and encourage passing rather than staying.

The design and detailing of this neighborhood are not particularly conducive to informal surveillance. Across the entire site, few windows are visible at street level. Those that are visible are typically spandrel glass, preventing views in and backed by storage, laundry, and technical rooms. All clear street-level windows belong to offices or commercial spaces, with limited evening and weekend surveillance (Figure 5-28). Residential lobbies feature glass walls, recessed under deep building overhangs and screened from direct view with planters.

While all the ground level spaces are regulated as publicly accessible, few amenities encourage social staying through most of the site. There are few benches, all fixed-in-place. Wooden steps at the waters' edge and planters afford the most seating and attract the most staying and social use on the site. These amenities are mainly confined to the designated zones for swimming (Figure 5-29). The lack of sun and attraction in the neighborhood's inner open spaces discourages staying and use of seating amenities where they are present.






Overhangs and ceiling heights help divide residential balconies from the public spaces – inhibiting visibility between the public and private realms. The management company's addition of planters and railings during the course of the study affect the relative accessibility, oversight, and sectional quality of the common spaces (Figure 5-32). The planters change the spatial quality and view relationships, effectively shrinking the amount of publicly accessible space by forcing passersby to keep a distance from buildings. The guardrails along the water's edge limit spatial users' access to the water, corralling swimmers to select openings and perceptibly enclosing several spaces (Figure 5-32).

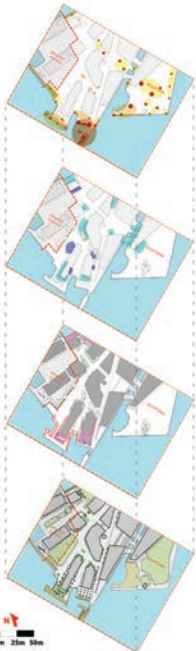


Case 3: Effective barriers and semi-public spaces



Legend:

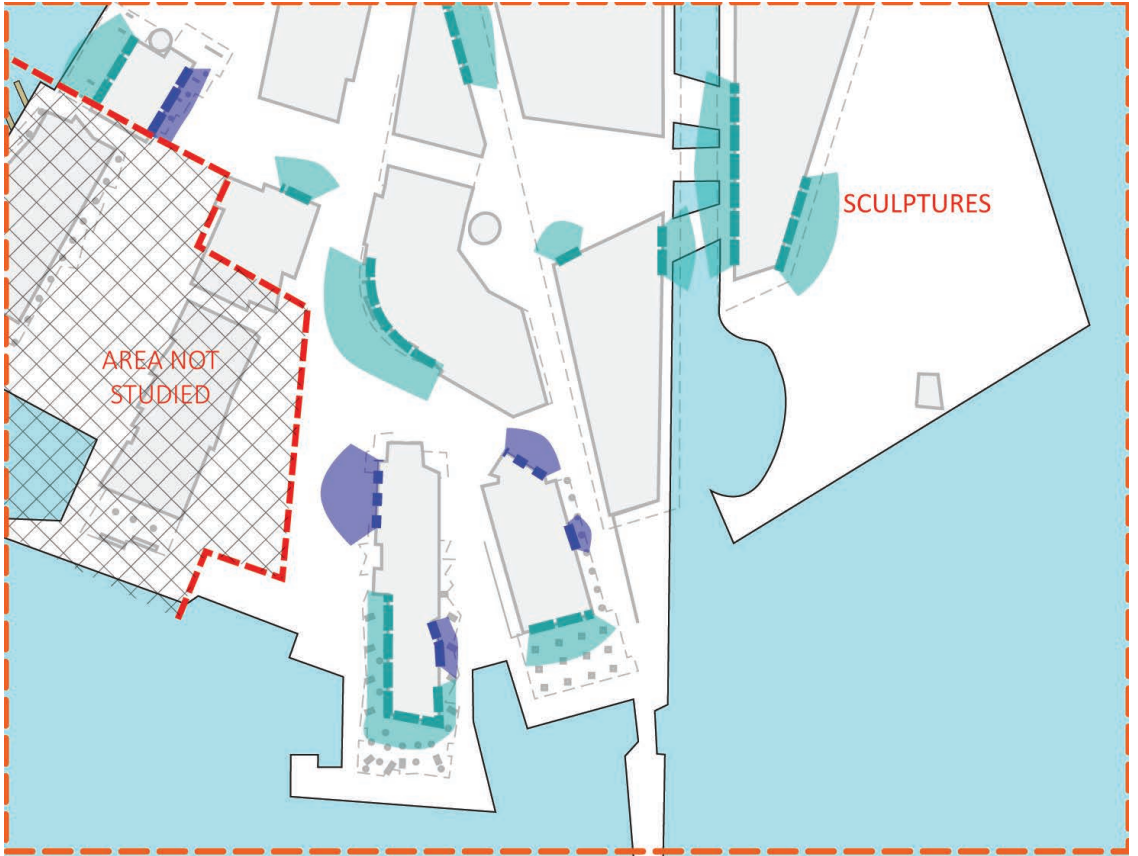
-  Semi-public spaces
-  Buildings
-  Railing or wall boundary
-  Railing added during study
-  Vegetation/planter boundary



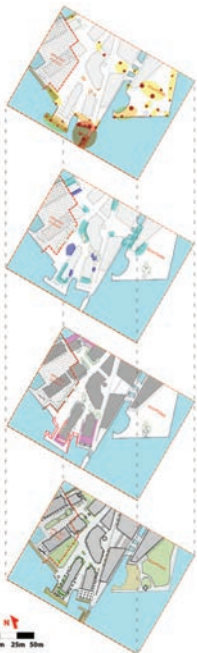
Level changes and railings are the greatest barriers and spatial separators on this site. The railings and planters added during the study period created a more confined feel at one of the swimming access points. A temporary construction wall further divided the site during the study.

Few semi-public spaces are defineable beyond column-screened spaces below building overhangs.

Figure 5-27 Map of effective barriers and semi-public spaces, Privately-Managed Waterfront



Case 3: Building porosity and informal surveillance



Legend:

- Ground floor view from commercial use
- Ground floor view from residential use
- Residential windows at ground floor
- Commercial windows at ground floor

Few windows at the ground floor prevent informal surveillance opportunities. Those that exist are primarily commercial or office spaces, which are closed in the evenings and on weekends. Columns, trees, and planters are the only other barriers to visibility on the site.

Figure 5-28 Map of building porosity and informal surveillance, Privately-Managed Waterfront

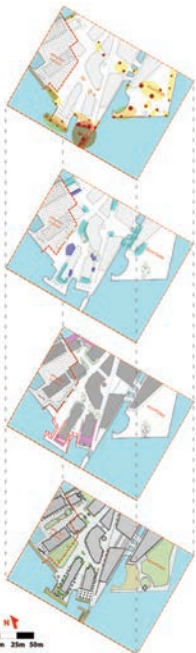


Case 3: Social spaces



Legend:

- Typically single users or pairs
- Often small groups of users
- Typically more than 6 users at a time
- ▬ Fixed Bench
- ▬ Wooden stair seating
- ▬ Many staying
- ▬ Some staying
- ▬ Few staying



Social spaces are located at the water. Lack of sun and activity limits interior spaces with seating from much social use.

Figure 5-29 Map of socially used spaces, Privately-Managed Waterfront

Social spaces



Building porosity and informal surveillance



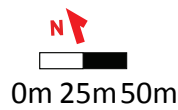
Effective barriers and semi-public spaces

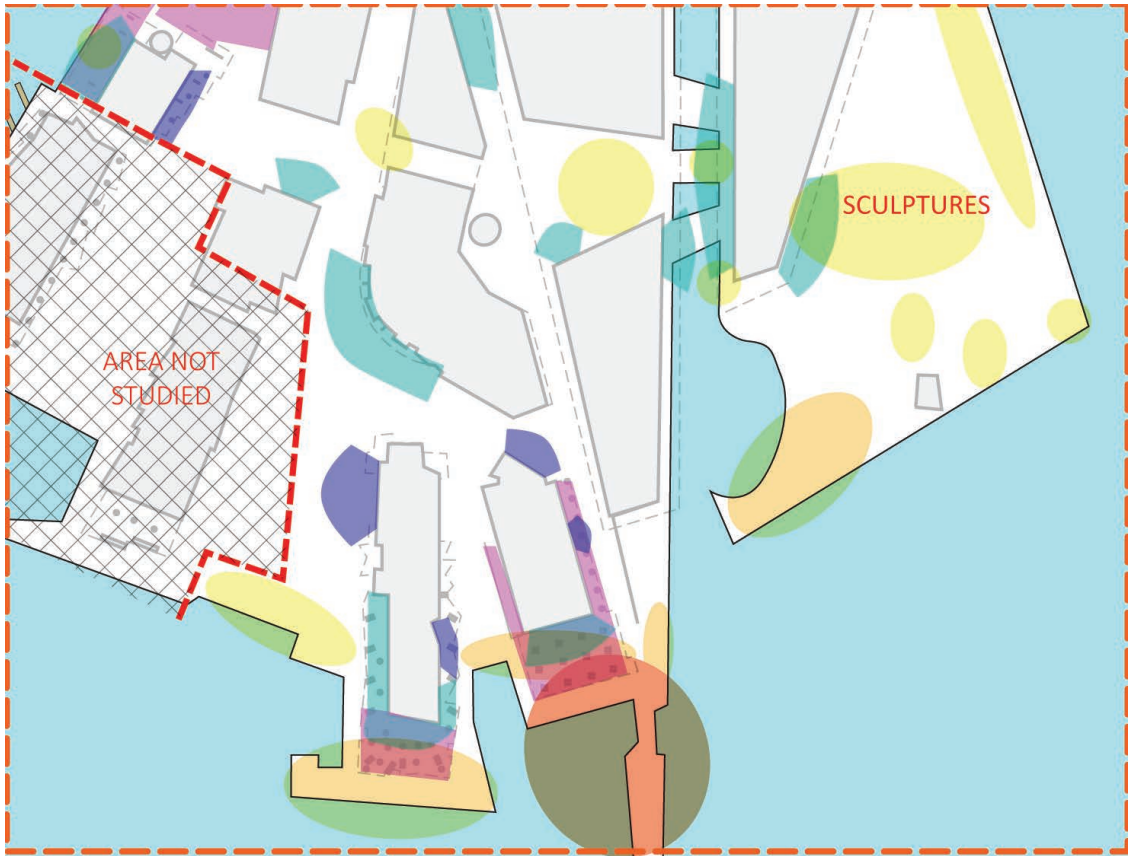


Site plan



Figure 5-30 Synthesis of plan analyses, Privately Managed Waterfront Case - these are enlarged in Figures 5-27 through 5-29 and compiled in Figure 5-31.





Case 3 Analyzed zones

Scale: 0m 25m 50m

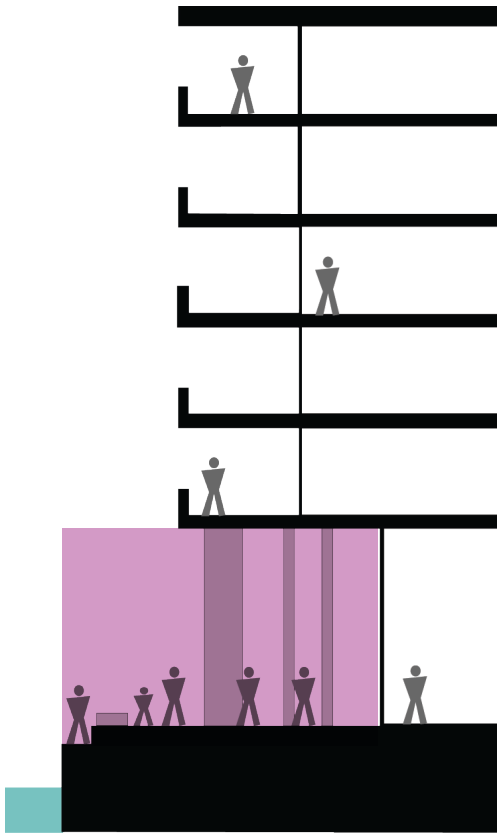


Legend:

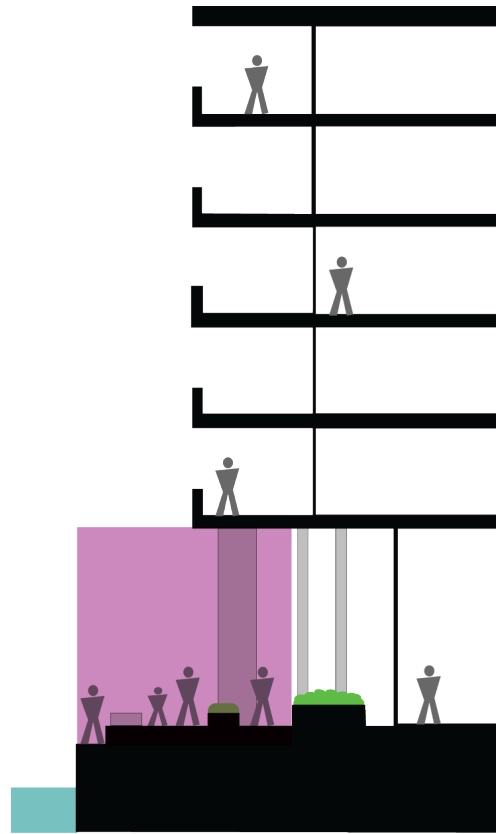
- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

- Social gradient:*
- Often many stayers
 - Sometimes some stayers
 - Occasionally few stayers

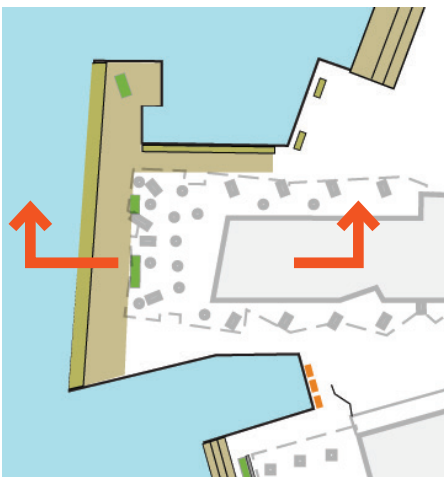
Figure 5-31 Synthesized map of analyzed zones, Privately-Managed Waterfront



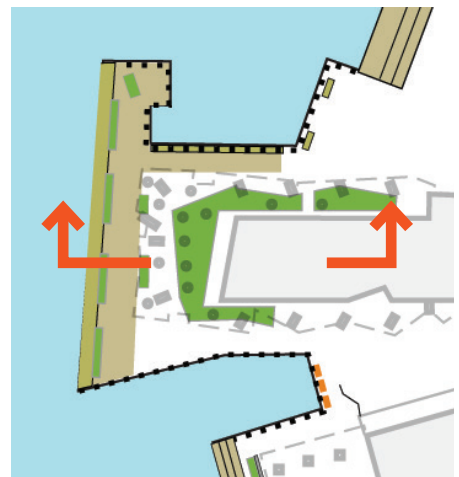
Section at steps along water, 2014
(typical condition similar)



Section at steps along water, 2015
(effective public space highlighted)



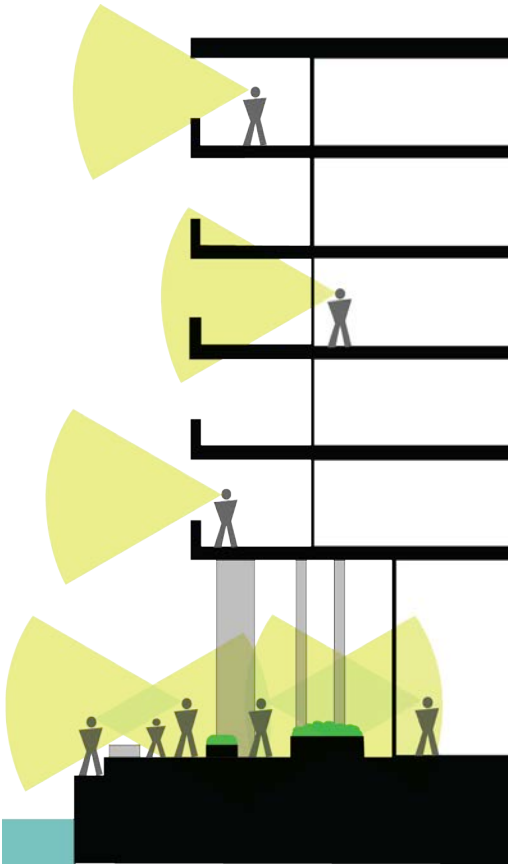
Plan condition, 2014



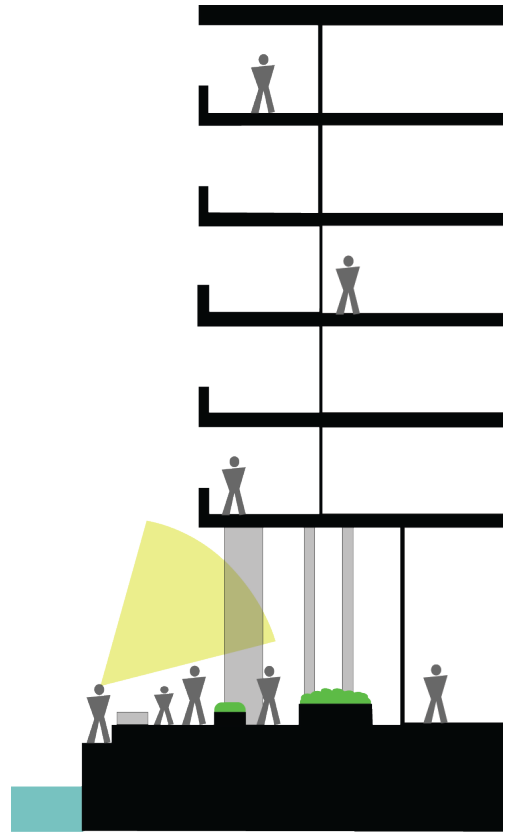
Amended plan condition, 2015

Case 3: Reduction of public space study (not to scale)

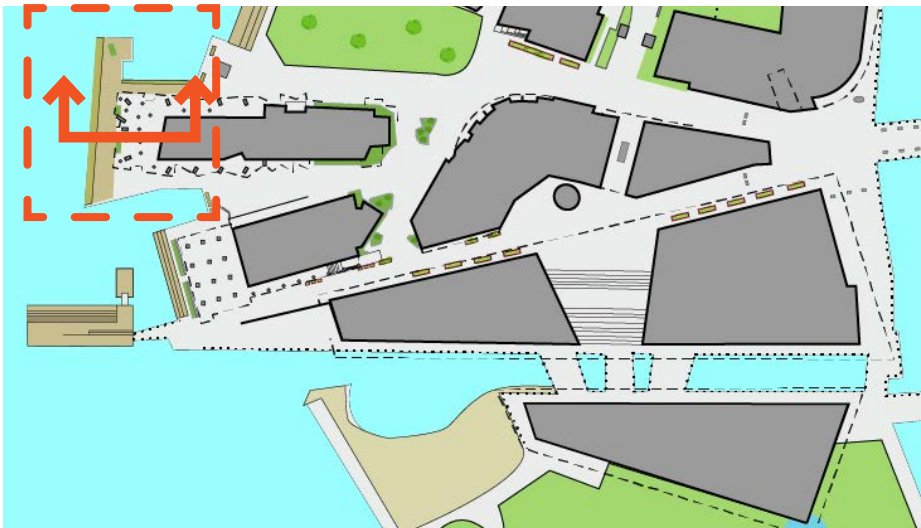
Figure 5-32 Site section study limitation of public space at Privately-Managed Waterfront



Typical condition for cone of vision



Little visual connection between ground plane and balconies above



Key-plan

Case 3: Cones of vision study (not to scale)

Figure 5-33 Site section study showing cones of vision (in yellow) at Privately-Managed Waterfront

6. FINDINGS

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- 6.1.4. Functional airing
- 6.1.5. Bird feeding
- 6.1.6. Dog walking
- 6.1.7. Desire paths
- 6.1.8. Posting flyers
- 6.1.9. Littering
- 6.1.10. Graffiti tagging
- 6.1.11. Vandalizing and breaking
- 6.1.12. Other personal interest initiatives

6.2. Potentials for spatial management to mitigate through regulation

- 6.2.1. Formal regulations established in the cases
- 6.2.2. Management practices with the potential to regulate
- 6.2.3. Informant accounts of spatial management's regulation at each case

6.3. Efficacy through civic user engagement

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- 6.3.3. Informant accounts of engaging civically

Following the theoretical framework presented in Chapter 2, physical user engagement, regulation, and civic user engagement are three facets of exercising and mediating efficacy in urban residential environments. This chapter presents practices in each facet and their interrelationships as they affect the three cases, illustrating 1) how users exercise efficacy through physical engagement; 2) the potentials spatial management has to mitigate engagement through regulation; and 3) how users contribute to the environment through civic user engagement. These findings describe the effects of the spatial management contexts presented Chapter 5, substantiating evidence that Chapter 7 analyzes towards answering how spatial management mediates user efficacy. Presenting the findings by method within the following subchapters maintains chains of evidence and builds a case for the reflection upon the research design in Chapter 9.

6.1. Efficacy through physical user engagement

Effective physical user engagement leaves physical traces in the built environment – the traces and actions observed and reported in the interviews include: decorating, planting, bicycle parking outside of provided racks, functional airing, bird feeding, dog walking, making desire paths, posting flyers, littering, graffiti tagging, vandalizing or breaking and other

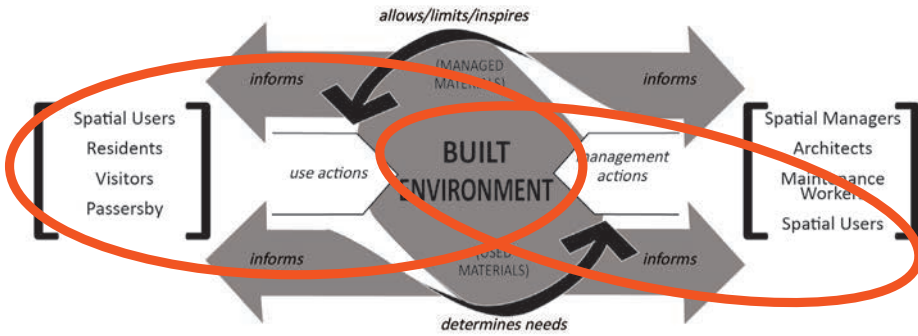


Figure 6-1: Physical user engagement includes users performing use and management actions, as the circles over the methodological framework illustrate.

Decorating traces



Figure 6-2 Decorating commonly affects Resident-Managed Courtyard, occasionally affects Publicly-Managed Social Housing. It is, however, rarely observable at Privately-Managed Waterfront, even on balconies.

personal interest initiatives. The performance of engagement actions within these categories occurs on both sides of the methodological framework (see Figure 6-1). The variable actions produce different traces and trace types within and across the cases. Their prevalences also vary by case, as the following subsections show through photographs, brief observation summaries, and informant accounts. These observations are compared against the researcher's reflections and interview data to present multiple local perspectives of the phenomena.

6.1.1. Decorating

Decorating describes engagement actions that add personal touches to balconies (Publicly-Managed Social Housing and Privately-Managed Waterfront), walls (Resident-Managed Courtyard), sidewalks (Resident-Managed Courtyard) and site furniture (Publicly-Managed Social Housing). Publicly-Managed Social Housing and Resident-Managed Courtyard hold more traces of decoration, displaying different tastes and affecting common spaces by hanging over balconies and into public spaces (Figure 6-2). Decoration in Privately-Managed Waterfront is surprisingly minimal by comparison to the other cases. This form of engagement is rendered mostly invisible from common spaces except for one balcony, where decorative elements and plants clearly stand out.

Decoration in Publicly-Managed Social Housing sometimes inspires reactive engagement actions, which show spatial users' awareness of others' decoration traces. One day, a picnic table in the middle of the public housing's yard was decked with an intricately patterned woven cloth and a flower vase with plastic flowers. Six days later, the cloth had been bunched together and moved to one of the benches, the vase knocked over on the tabletop, and the flowers bent purposefully in half at the stem. All of these traces were removed by the following week.

INFORMANT ACCOUNTS OF DECORATING

Tastes can vary in regards to decoration. A Privately-Managed Waterfront informant mentioned how some neighbors use the yearly owners meeting to debate others' balcony choices for color and furniture (INF 3-5). However, decorating is generally commended by informants across the cases: "I like when all the balconies are orderly and decorated, not used for trash or stuff," (INF 1-3); "Tja, there are some who decorate their balconies. I haven't seen any problems there, no – it looks very nice," (INF 3-4).

While decorating one's own balcony is common in Publicly-Managed Social Housing, it can be difficult to organize neighbors and find resources for larger, communal initiatives: "I have tried unsuccessfully to get support for an activity with kids in our block where they could decorate labels for the mail boxes, because they tear them off all the time. I thought if the kids made

them themselves, then they wouldn't tear them down," (INF 1-1).

Resident-Managed Courtyard informants report little decorating despite many observed traces: "There hasn't been much decoration in the yard, some leave toys outside since there are so many kids now. Someone decorated for a party or something once- that stayed up for a while but eventually came down," (INF 2-2).

A Privately-Managed Waterfront informant speaks of motivation to decorate and the awareness of others' attention to balcony choices:

"I have decorated the balcony a little, of course. Not something that is meant to showcase a green thumb, but I just do it for myself... I think those who decorate their balconies are so conscious of what they do and that it should look good- both from outside and from inside- that it just has to be positive. Some have reacted about others having lamps in a particular color or such (*sigh). Some dislike that, but I don't think it's something that can be reacted negatively to. There are some who have a lot on their balconies so it looks a little messy, but those who decorate with plants – no one can react negatively to that," (INF 3-5).

This case's informants appear to be most concerned with personal decorations despite their neighborhood displaying the least of the three cases.

6.1.2. Planting

Planting and plant maintenance most visibly affects the cases' built environments, particularly in the yard of Resident-Managed Courtyard (Figure 6-3). This engagement ranges from users adding plant pots and planter boxes in public spaces (Publicly-Managed Social Housing and Resident-Managed Courtyard), to hanging flower boxes over balcony railings (Publicly-Managed Social Housing) and planting in existing flower beds and lawn areas (Resident-Managed Courtyard). While Privately-Managed Waterfront's public spaces host a variety of plants in beds and planters, these are designed by the management company and maintained by a professional gardener. Users' planting engagement in Privately-Managed Waterfront is limited to within the railings of personal balconies. The range of textures, tastes, and care embodied by individual planting initiatives in Publicly-Managed Social Housing and Resident-Managed Courtyard exceeded the expectations of the researcher. These aspects also appear meaningful to informants as appreciation and interest in well-kept plants were consistently expressed in the interviews. Planting appears to be a generally accepted engagement action.

The ongoing user engagement associated with planting through the maintenance of plants was observed by watching these traces over time. In Publicly-Managed Social Housing, a neighboring residential building's board placed a wagon on the public sidewalk, chained in

Planting traces

Case 1



Case 2

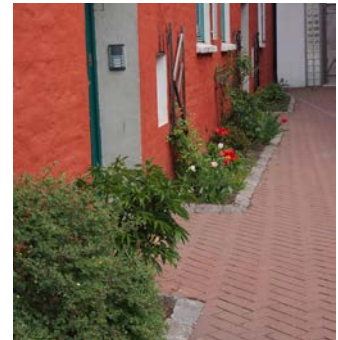


Figure 6-3 Planting by spatial users affects Publicly-Managed Social Housing and Resident-Managed Courtyard, but is little apparent at Privately-Managed Waterfront, where it is only allowed on balconies, as decoration.

place to the building’s downspout. Over time, they planted a small tree and flowers in the wagon, posted a yard sale poster, and removed it after the event. Litter was occasionally dropped into the wagon, but was consistently removed within a few days of incidence. New flowers were added seasonally until the wagon was removed for winter. This example shows consistent attention and engagement through the upkeep of the planting initiative.

Over the course of the study, planting seems to be a growing trend in Resident-Managed Courtyard. A collection of potted plants appeared in one corner of the yard one summer and was upgraded to a small green house the second autumn of the study.

INFORMANT ACCOUNTS OF PLANTING

In all three cases, informants remark that they notice and appreciate the presence of plants: “We have a Norwegian neighbor who has really nice flowers- that one I pay attention to,” (INF-1-1); “Someone in our building took initiative to plant another red currant bush over there. There is some potential to cultivate a bit here and I think that is really nice. There could maybe be even more of that, it would be nice if someone planted some more herbs and things – I think it is really nice when people do that,” (INF 2-1); “They change the plants in the public

spaces here all the time, I am really impressed – I couldn't have done such a good job myself!" (INF 3-1).

A Publicly-Managed Social Housing informant reports an interest in plants inspiring engagement in guerilla gardening in the neighborhood: "My girlfriend and I have planted some things around, to make it nice. We planted some things near the subway station and around the playground here. We think it's fun, so we do it," (INF 1-2).

Resident-Managed Courtyard informants report challenges in maintaining communal planting projects, showing difficulty in managing responsibilities when informal planting projects extend beyond an individual's initiative:

"It is at least me who waters the building's plants – no one else started, so I come down, just so that they don't die. It is always a challenge with 'common land,' right? Each feels less responsibility for that which is common than that which is his own, so some feel responsible and they become dissatisfied with the others, and it is a bit like-'that's life' here," (INF 2-1).

"Each property is supposed to look over the flower bed and walkway outside of their own building, and there are many, as you can see, who don't bother with it," (INF 2-3).

Publicly-Managed Social Housing's manager informant speaks of a lack of will amongst the case's residents to organize and engage in communal planting projects: "There are a lot of nice social housing yards with flowers; our management company offers money for flowers when there are organized residents who will take on the responsibilities, we can't afford a gardener. But no one from this case has applied, or shown initiative," (INF 1-5M). This anecdote echoes the challenge of maintenance and responsibility that management faces in supporting effective physical user engagement.

6.1.3. Bicycle parking outside of provided racks

Bicycle parking outside of designated racks is common in Resident-Managed Courtyard and Privately-Managed Waterfront, where a large number of bicycles lead to competition and creativity with their parking. Publicly-Managed Social Housing shows very few parked bicycles, even at the provided racks- and only one instance of informal bicycle parking (see Figure 6-4). Bicycles in Resident-Managed Courtyard are predominantly inside the courtyard and presumably belong to residents. Those in Privately-Managed Waterfront's common spaces are reported as mostly from visitors, since residents have indoor parking available: "They have put up bicycle racks that they hope people will use, and I see people use them and also park in

Bicycle parking traces

Case 1



Case 2



Case 3



Figure 6-4 Bicycle parking affects Resident-Managed Courtyard and Privately-Managed Waterfront (right) far more than Publicly-Managed Social Housing.

other places there. I have my own bicycle storage in the building, so that is very nice,” (resident informant INF 3-1). A bicycle parked against a column of one of the residential buildings provoked a maintenance issue during the study, causing the management to post a sign threatening the bicycle’s removal (photo in Figure 6-4).

INFORMANT ACCOUNTS OF BICYCLE PARKING

Bicycle parking did not appear as a particular issue prior to observing signage about bicycle removal in Privately-Managed Waterfront and conducting user interviews. The number and regular use of bicycles is reported as a challenge in Resident-Managed Courtyard: “There are a lot of bicycles so they get pushed over, they don’t look orderly, it’s not so nice,” (INF 2-2). This is compounded by the high turnover of residents:

“There are a lot of old bikes that aren’t taken with them when people move out. I remember some of the bikes were there when I moved in and they have never moved. We need to just clip and trash them, but it takes hiring a firm who can come and do all of this and coordinate...I think most of the old bikes are just trash that no one wants, so it is just to cut the locks. You can see some of them are in bad condition and clearly have no owner,” (INF 2-5M).

The Privately-Managed Waterfront bicycle that sparked the warning sign was moved by the owner and did not return (INF 3-3M). The management informant explained: “Bicycles along the edge railing are no big problem – or not one we choose to address anyways...In the sculpture park the bicycles wear very little on the grass unless it’s wet, but then this here (bicycle up against a light bollard) is a problem because it will rub against the post. Then again, the contractor has given us completely wretched bicycle stands, and too few of them, not a single one in the sculpture park, so what can I say?” (INF 3-3M).

Resident informants of Privately-Managed Waterfront consistently report not noticing or being bothered by bicycle parking. The images of informal bicycle parking in the neighborhood, however, sparked mixed feelings - from the ambivalent- “That doesn’t do anything, it’s not something I concern myself with,” (INF 3-4)- to the more emotional- “(*gruff) One shouldn’t bicycle on a lawn as a rule, especially when they’ve made paths and walkways- it is really disrespectful,” (INF 3-5).

6.1.4. Functional airing

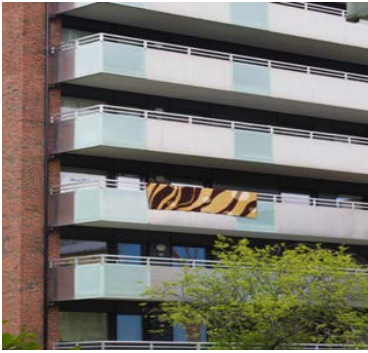
The airing of rugs, bedsheets, and clothing from balcony railings is common in Publicly-Managed Social Housing, despite rules against it- showing it to be a functional need of the residents. Sheets and pillows are occasionally spotted in open windows, or hanging on the yard’s communal drying rack in Resident-Managed Courtyard (photo in Figure 6-5). No functional airing is observed or reported in Privately-Managed Waterfront, where it is forbidden. The researcher interpreted these actions, particularly in the Publicly-Managed Social Housing case, as providing interesting textures and displaying residents’ taste to public spatial users.

INFORMANT ACCOUNTS OF FUNCTIONAL AIRING

Interview accounts of functional airing in Publicly-Managed Social Housing vary greatly based on each informants’ experiences. Non-residents are not particularly bothered by airing: “...if people dry clothes or hang a rug or whatever, I don’t think it’s any problem. That is just fine, it just shows that people live there, so I think it’s nice– there must be people who live there too,”

Functional airing traces

Case 1



Case 2



Figure 6-5 Functional airing commonly affects Publicly-Managed Social Housing, minimally affects Resident-Managed Courtyard, and does not affect Privately-Managed Waterfront.

(INF 1-2). However, two residents reacted strongly against the practice because it generates conflicts: “They shouldn’t hang carpets and things over the balcony. I wouldn’t let them because of the ones who live below. When the ones above wash, it runs down and ruins it for the ones below. I think it should be forbidden, people must consider their neighbors below,” (INF 1-3). These concerns were shared by the manager informant:

“[We have different people responsible for different maintenance tasks, but] what is missing is- whose job is it to tell the residents about basic human manners, like that? (points to woman hanging rug over balcony) That it’s not kind to hang your rug over your balcony railing so that it sends dust and trash to the neighbor downstairs- maybe they don’t know, maybe they don’t care, maybe no one who says it’s wrong, there is no social control here,” (INF 1-5M).

Functional airing comes up very little in the other cases, besides from one comment from a Privately-Managed Waterfront resident: “I’d believe that you can’t hang things there – in the middle of the city center, that doesn’t fit in,” (INF 3-4). This shows a different perspective from the personal experiences shared in Publicly-Managed Social Housing and the researcher’s interpretation of airing.

6.1.5. Bird feeding

Bird-feeding is most commonly observed in Publicly-Managed Social Housing. One bird feeder hanging in a tree shows past bird feeding engagement at Resident-Managed Courtyard, but its lack of adjacent traces of birds or bird feed makes it appear inactive. No traces of bird feeding appear at Privately-Managed Waterfront.

The practice at Publicly-Managed Social Housing intrigued the researcher, as it blatantly disregards signage meant to discourage the practice (see Figure 6-6). The sign, placed by the district government, visually requests that people do not feed pigeons for fear of attracting rodents. The sign stands on a concrete block and looks temporary despite its presence for at least five years. It has been tagged with graffiti on both sides. A near-constant presence of bird food and birds affect the areas around the sign. Many different spatial users – residents and visitors to the area – are commonly observed feeding the birds. Some simply drop food (at times with its packaging), while others scatter food slowly and watch the birds. During the study period, the district removed a tree by the sign to improve lighting conditions and open views to a new wall mural. In the process, the sign was moved about four meters down the adjacent path. The bird feeding and mass of birds followed the sign, showing it to apparently encourage rather than prevent the practice.

INFORMANT ACCOUNTS OF BIRD FEEDING

Publicly-Managed Social Housing's user informants generally reacted negatively to bird feeding, calling it dirty and attributing the practice to specific others. "I think that shop down there sets out old bread for the pigeons, that's fine enough, but I don't know why. It feels dirty with the birds there all the time," (INF 1-2); "So many pigeons- they are like flying rats actually.. and I think it's a tradition with Muslims feeding pigeons, I dunno if it's a tradition but I always only see them feeding the pigeons, there are a lot of feathers and dirt and stuff (*disgustedly), ugh," (INF 1-4). These accounts depart from the wide variety of people feeding birds observed by the researcher.

One resident informant who grew up in Publicly-Managed Social Housing admits:

"We used to feed the pigeons there too for a long time, but I told my mother that she shouldn't just throw a lot of food there-just give a little and watch while they eat it. When they throw a lot of food it causes some problems, rats come. There is a Norwegian woman who has been biking here since I was a kid- she comes from somewhere else with a sack and feeds the birds. I understood that that was her job, so I told my mother to stop!" (INF 1-1).

Bird feeding traces

Case 1



Figure 6-6 Bird feeding markedly affects Publicly-Managed Social Housing, but not the other two cases.

Another long-term Publicly-Managed Social Housing resident explains that perhaps the sign is misleading:

“It says not to feed the birds, but they do it anyways. Maybe some people cannot read and believe it is right to feed the birds there, but it says not to feed the birds and there is a red X, so they must not understand the X nor the words. But those who understand, it is very, very strange that they leave food because it draws rats,” (INF 1-3).

The manager informant from the case corroborates this informant’s theory: “The bird feeding was another reason to take down the tree. They have that sign that no one understands- it is completely meaningless,” (INF 1-5M).

6.1.6. Dog walking

Limited evidence of dog walking appears in all three cases. Particularly Privately-Managed Waterfront is marked by dog urine stains on planters, dog excrement, and active dog walkers (see Figure 6-7). Traces from dog walking are most noticeable in this case, where the light gray color of planters and paving stones shows dark stains from urine easily. During the study,

the M&O company placed signs in many of the planters banning dogs and moved commonly targeted planters away from building entrances.

Publicly-Managed Social Housing and Resident-Managed Courtyard observations show few dogs and only one incident of dog excrement in Resident-Managed Courtyard. These cases appear little affected by dog walking to the researcher, though several informants report differently, demonstrating different perspectives on the same phenomena and how few incidents of a given engagement might stand out more than those consistently leaving many traces.

INFORMANT ACCOUNTS OF DOG WALKING

Publicly-Managed Social Housing and Resident-Managed Courtyard user informants complain about dog owners not cleaning after their dogs: “The ones who come with dogs, some don’t pick up the doo. So that is very, very irresponsible. Everyone needs to be aware of others,” (INF 1-3); “Walking of dogs is not allowed in the yard, we planned to hang up signs about this but no one got around to printing and hanging them. It has been a problem before, one neighbor had a dog and didn’t clean up after it,” (INF 2-5M).

Despite the higher population of dogs observed in Privately-Managed Waterfront, residents seem far more tolerant: “There are many who have dogs here, but that’s fine, it’s ok. It doesn’t matter so much to me because they keep it clean here,” (INF 3-4); “I had a dog so I am just glad for every dog I see and I think the more the better! ...I don’t think I have seen a single dog poo, so that is no problem,” (INF 3-1). Yet, two dog-owning informants acknowledge a soiling problem and blame other dog owners: “It’s not tough to show responsibility, pick up after them, and not let them mark absolutely everything. [The need for the signs is] not so nice – it makes all dog owners look bad...It gets dirty especially around the entrances because so many dogs- once one lets theirs mark, then all the others do it as well,” (INF 3-5). The management informant adds: “What we see is that dog owners use long leashes and have no control over what their dogs do. So, that is dog pee [on the planter] and we have to wash it away, it takes a lot of time. We have our own spray vehicle that we drive around,” (INF 3-3M).

Different users at different cases perceive dog walking differently – the strongest complaints about dog walking coincide with the cases least affected by its traces. Dog walking shows that single and rare incidences of engagement soiling a place might stand out and attract stronger reactions than commonly left traces – a pattern also supported by graffiti tagging.

6.1.7. Desire paths

Lawns in Publicly-Managed Social Housing and Resident-Managed Courtyard are often marked

Dog walking traces



Figure 6-7 Dog walking affects Privately-Managed Waterfront the most, with seldom incidences observed in the other cases.

Desire path traces



Figure 6-8 Making desire paths affects Publicly-Managed Social Housing and Resident-Managed Courtyard, but not Privately-Managed Waterfront.

with desire paths, showing where people commonly walk. These physical markings illustrate that people want to move through the spaces outside of the designed pathways. Privately-Managed Waterfront lawns do not show desire paths, as the management often ropes off areas, posts signage, and re-seeds to prevent the wearing of its few grassy areas.

Winter observations during snow cover make many more desire paths visible in Publicly-Managed Social Housing (see images in Figure 6-8). The amount of footprints observed in the snow further shows the popularity of each desire path.

INFORMANT ACCOUNTS OF MAKING DESIRE PATHS

Desire paths are not mentioned in the interviews, with the exception of one manager complaining about a shortcut passing in front of Publicly-Managed Social Housing's balconies:

“This [path] shouldn't be here! There will always be a path here because it's where the people want to walk, but we can't have a path just on the other side of someone's balcony. We have to set up a fence or something because people will always go the shortest way,” INF 1-5M.

This shows the link between desire paths and maintenance. When the design of lawns is insensitive to desired routes, additional M&O is necessary- reseeding and blocking routes- to prevent the wearing of paths.

6.1.8. Posting flyers

Posting flyers is an engagement action so commonplace that it blends into both the Publicly-Managed Social Housing and Resident-Managed Courtyard cases. This was nearly overlooked as a form of engagement by the researcher, prior to understanding that the action is technically illegal. Active documentation of flyers began in the second observation period, then were supported by reviewing photo and video material from the previous period. Flyers typically cover lampposts, drainage pipes, and utility boxes – advertising everything from activist gatherings to a variety of services like moving and repair work. Despite being illegal, these traces remain for long periods. During the fieldwork, the only poster removal observed was from utility boxes maintained by the traffic department at Resident-Managed Courtyard's exterior. No flyers were apparent, if posted at all, at Privately-Managed Waterfront.

INFORMANT ACCOUNTS OF POSTING FLYERS

Posting flyers was not mentioned in the interviews, nor prompted by the researcher due to late definition of the category. The lack of informants mentioning flyers reinforces how these traces blend into the environment – showing that some forms of rampant, illegal engagement can occur without sparking reaction.

Flyer posting traces

Case 1



Case 2



Figure 6-9 Posting flyers affects most of the downspouts and light posts of Publicly-Managed Social Housing and Resident-Managed Courtyard, but none at Privately-Managed Waterfront.

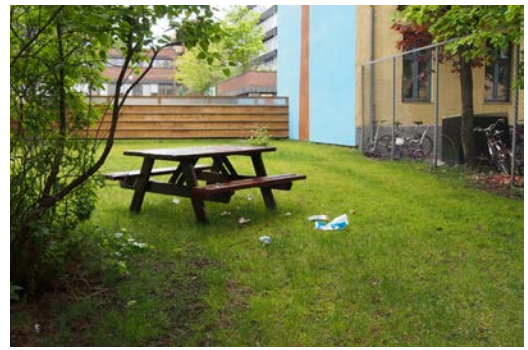
6.1.9. Littering

Littering affects Publicly-Managed Social Housing and Resident-Managed Courtyard often but inconsistently. Sidewalks, lawns, and the space around trash receptacles in both cases, plus Publicly-Managed Social Housing's playground and pathways show a near-constant presence of litter. Trash becomes trapped in shrubs, hedges, and trees in Publicly-Managed Social Housing and is wedged purposefully behind utility boxes in Resident-Managed Courtyard's perimeter. Roughly weekly, substantial piles of litter were observed at Publicly-Managed Social Housing, cleared within one to two days of each incident. Such trash piles were only witnessed once at Resident-Managed Courtyard, but an informant describes it as a common occurrence.

Asides from small litter, large trash – appliances and furniture – is left in common residential spaces. This was witnessed three times near a Publicly-Managed Social Housing entrance, and roughly monthly by Resident-Managed Courtyard's trash receptacles- likely coinciding with residents moving out. At times, the presence of large trash items seem to attract others to contribute. For several months, a pile of wooden pallets left in Resident-Managed Courtyard's yard accumulated before being removed.

Littering traces

Case 1



Case 2



Case 3



Figure 6-10 Littering and trash affects all three cases, though Privately-Managed Waterfront only shows occasional, minor infractions, particularly where design materials trap litter or prevent easy removal.

Litter removal appears inconsistent – it was not possible to establish patterns of maintenance at Publicly-Managed Social Housing and Resident-Managed Courtyard. In contrast, M&O was observed on nearly every visit to Privately-Managed Waterfront. Litter removal along sidewalks and pathways was observed around once a week at Publicly-Managed Social Housing, servicing only small areas and leaving many traces of litter behind. The yard and playground do not appear to be part this weekly service, as they remain soiled for longer periods. Privately-Managed Waterfront is litter-free except for a few small bits that occasionally go overlooked by maintenance.



INFORMANT ACCOUNTS OF LITTERING

Litter is consistently mentioned in informant user accounts of their satisfaction with Publicly-Managed Social Housing and Resident-Managed Courtyard. “[Some of my neighbors] don’t throw the trash in the receptacles, but beside the receptacles instead, or they leave it in the stairs... It is really tiring,” (INF 1-1); “You don’t see who is [littering], but you know there must be some because you see so much of trash. You can’t know who it is doing it or if there are enough workers cleaning – I believe it is both parts,” (INF 1-3); “There are just some small things, like cigarette butts over everywhere even though there are plenty of ashtrays...it is irritating,” (INF 2-1).

Litter deters INF 1-2's desire to use Publicly-Managed Social Housing's playground:

"This playground looks very... dirty, and there is a lot of trash very often. That is the reason that I have not used the place before. I thought today it looks just fine out, but normally there is really a lot of litter in this area. It is poorly maintained, poorly cleaned. You see some [litter] here and there even now and things are often left outside around the trashcans over there. In general the area is awfully... well people don't pick up the trash behind them, to say that. So it is not so nice," (INF 1-2).

Resident-Managed Courtyard informants consistently raise concern over the amount of oversized trash left by receptacles, most often pinpointing specific buildings and rental tenants as responsible:

"Right now it is really fine compared to how bad it can be with the trash around – furniture- clothes- real trash. It is really not nice, especially when you have visitors and you have to apologize to them – oh sorry, it's just that rental building!" (INF 2-3).

"I wish there were not so many old things set out behind that building. They only have rental apartments there, so the people who live there don't care much about the area," (INF 2-5M).

Despite the voiced concerns about rental tenants leaving trash, observation showed this to be an issue at six of the nine building properties, suggesting the issue is more widespread than the two rental properties. Further, board members show confusion and uncertainty regarding who is responsible for removing large trash and sidewalk litter:

"If no one drives their own large trash away then we have to get someone to drive it away...There aren't so many who manage to drive it away, they just put it out to the side there and think they're done," (INF 2-6M).

"One of the buildings got a fee for trash on the sidewalk- I think we also got a fee for cigarette butts on the sidewalk, so we must be responsible for that. But it costs quite a bit [to employ someone to clean this] and it is not a constant problem...I am not completely sure if it is our responsibility to clean around outside the buildings – there is a street, and with littering, it can be people who walk by and just toss – so I think it is a bit unreasonable when it is not certain that the litter comes from the people who live in the building," (INF 2-5M).

A Resident-Managed Courtyard informant explains that piles of trash are sometimes caused by outsiders breaking into the yard:

“I am pleased with the yard maintenance asides from trash...One thing I’ve noticed is, I think one of the doors to the yard is a little broken or easy to get into because strangers come in- especially the gypsies, get in and dig through the trash. I think at least one or two come quite often, so I think it is open somewhere. The only problem is that they throw the trash around as they dig through and make a mess – I don’t care if they want to take some of the trash, that is fine,” (INF 2-2).

By contrast, Privately-Managed Waterfront informant residents are impressed with the management’s ability to quickly address litter. The manager informant explains: “The visitors here are very up and down, maybe 95% are very good to throw away their trash, but then some act like they don’t understand. We struggle with cleaning cigarette butts, snus – that’s what’s worse- it lays all around and is wiped up on the walls,” (INF 3-3M).

Several residents also pinpoint visitors and youth as the most common littering culprits:

“There are some, mostly groups of youth hanging around that just leave all of their trash and trash bags– bags of potato chips and plastic bags with empty beer bottles. Then when the wind blows just a bit everything ends up in the ocean, so they litter enormously and are careless. That is depressing to see especially from the younger generation that claims to be so environmentally aware. Of course, there are people who dirty things everywhere, particularly Norwegians that are used to having someone else pick up after them. They just drop what they don’t have use for without considering even to walk over to the trash can. No – they are luckily not the majority though,” (INF 3-5).

The manager informant explains that bottle pickers are also common to Privately-Managed Waterfront, even during the interview:

“You see now that summer has come, they pop up – bottle pickers (*points out window to a woman digging through a trash can). And, if they take the soda bottles, open the top and pour it on the pavement, then that is littering and we show them away. But if they do as she is doing, just taking the bottles then it’s fine,” (INF 3-3M).

Privately-Managed Waterfront is the only case with employees and resources to actively police littering – the other two cases do not have either the daily maintenance or the security workers on site to react, showing an advantage of private spatial management. These differences demonstrate how property- and management- dependent litter removal is, despite littering’s municipal illegal status.

6.1.10. Graffiti tagging

Graffiti tagging is most visible in Publicly-Managed Social Housing- marking surfaces as diverse as outdoor furniture, light posts, trees, and blank walls. Resident-Managed Courtyard's walls and utility boxes are typical targets of tagging. The amount of graffiti challenges the tracking of new tags and removals – particularly since both tagging and removal of graffiti happen irregularly and piecemeal at Publicly-Managed Social Housing and Resident-Managed Courtyard. Only one whole building facade was cleaned of graffiti at Resident-Managed Courtyard during the course of this study.

While no graffiti was observed in Privately-Managed Waterfront, two early-morning visits observed workers sanding and polishing wood, suggesting the surfaces had received tags the previous nights.

Physical form and design seem to influence tagging, as certain areas are more targeted than others. At Publicly-Managed Social Housing, a large utility box by an entrance had a few large graffiti tags, which were covered by one large tag that appeared as an artistic symbol. That symbol remained for several months, before being tagged over again. Subsequent tags followed within days, eventually covering the symbol. This repetitive tagging happens in Resident-Managed Courtyard where spaces on building facades below the high ground floor windows are frequent graffiti targets. A façade along the main street receives the most tags of the block. Around the corner from it, the building's board hired graffiti removal from its residential entrance, but ignored the building's most targeted façade. The cleaned entrance remained mostly tag-free afterwards, while the rest of the building continued to receive tags throughout the study.

Graffiti removal in Publicly-Managed Social Housing and Resident-Managed Courtyard is handled ad hoc and apart from regular maintenance work. A brick wall with concrete base at Publicly-Managed Social Housing received up to 10 tags in one study period. A window awning was discarded on the ground just below the tagged wall, but was left untouched for weeks, even after the graffiti was cleaned from the wall behind it.

Graffiti removal appears to deter graffiti for at least a couple of months and seems to be most effective when done shortly after each tagging incident. This was witnessed when Resident-Managed Courtyard's only parking meter was washed within two days of being tagged and then was not targeted again. On the other hand, when the adjacent building's façade was cleaned by a contracted firm, it was retagged within a couple months. The other buildings did not undergo large cleanings during the study and graffiti continued to increase on them over time, even during the months that the cleaned facade remained untargeted.

Graffiti tagging traces

Case 1



Case 2



Figure 6-11 Graffiti tagging greatly affects Publicly-Managed Social Housing and Resident-Managed Courtyard. Though reported in interviews, tags were not observed as affecting Privately-Managed Waterfront.

Publicly-Managed Social Housing attempts to dissuade tagging by commissioning street art on local blank facades. The commissioned murals were little targeted during the study, though mural presence did not deter tagging completely. A tag appeared in the lower corner of one mural, along a public sidewalk. It was addressed within a couple of weeks, but rather than cleaning the graffiti, a large blue box was painted over it. The box was slightly off from the mural's shade of blue and its edges were not cleanly masked. This rendered the cover-up more obvious than the tag it covered. The uneven box eventually became a canvas for additional tagging.

ACCOUNTS OF GRAFFITI TAGGING

User accounts of graffiti tagging vary beyond expectations. Most Publicly-Managed Social Housing and Resident-Managed Courtyard user informants are not bothered by the amount of graffiti in their neighborhood:

"I'm not against tagging, I'm for creativity, so... Maybe there could be like more legal painting- that the kids could also paint legally, have a board that someone paints over. I prefer street art, tagging is not as nice but I see where it's coming from," (INF 1-4).

"I don't think the tagging is any problem, no. I think that most of it is very old, and that the wall murals are very positive. I don't feel like as soon as a wall is cleaned that it is tagged again. It is clear there is some tagging happening, but I don't think it is actually a big problem for the neighborhood. But it is also a bit that here you get used to it, and here it is not particularly worse than other places," (INF 1-2).

"I don't think there is any incredible amount of graffiti actually, but some.. some remove or wash it more often, that's clear. I once tried to report it and got an answer back from the police that it is not vandalism, so that I can't report it online...They said I have to go down to the station to report graffiti. I guess they don't have the competence to follow up on these cases," (INF 2-6M).

Stronger sentiments against graffiti are expressed in other Resident-Managed Courtyard interviews and by Privately-Managed Waterfront informants:

"The tagging is not nice, it is something I notice, I really don't like it, it's not pretty, it's frustrating- we get tagged sometimes on the front of the gate and we paint over it, so we try to do what we can. It is generally part of the insalubrity of some of the streets around here, but I would be happy if it was gone," (INF 2-4).

"Yes, unfortunately I have seen graffiti out around, it is entirely lacking respect. If you've seen that cube that is out in the sculpture park, that is artwork in itself, but

someone has written on in with graffiti,” (INF 3-5).

Beliefs of how effective it is to remove graffiti also show a variety of perspectives:

“Oslo municipality has determined that graffiti within the inner city should be removed within 24 hours – that is the official policy as decided by the city council- (slight pause) - Do you know what it would cost if we managed to follow up on all the graffiti within 24 hours? That is completely insane! We would need 20 men to run around in every property every day to check if there is graffiti – not a chance! So with graffiti, if you are smart, you’ll tag in the autumn because I don’t remove graffiti in the winter, [the water and soap would] ruin the building mass when it freezes. So, in the winter I don’t clean graffiti. If it is inside, or particularly bad words or racism, then I go ahead and paint over it instead,” (INF 1-5M, from municipal housing management company).

“[The tagging] is too bad, but it just keeps happening, so there is not much to be done. There is worse graffiti on some neighbor buildings in area, they can call a service that just paints over it, but then more tagging happens so there is little motivation,” (INF 2-1).

“Our building has painted many times over graffiti. And I think, because we have been quick to remove it that we are not targeted as much as some other buildings. We have an agreement with a firm to take it off at once. I think most of the buildings have similar agreements too,” (INF 2-3, long-term resident, former building board leader).

“Tagging is impossible to avoid, but we try to remove it at once. Scribbles on the wooden benches, we take a polishing machine and get rid of it right away, *right away*. Stickers – very popular to set up stickers – we take them away! All the time,” (INF 3-3M).

These quotes show that feelings towards graffiti tagging and its removal are contestable, varying considerably depending on the immediate context. One infraction can be acceptable or go unnoticed, blending into the generally tagged urban environment of Publicly-Managed Social Housing or Resident-Managed Courtyard’s exterior. At the same time, a single instance can stand out as something to be addressed immediately in a well-maintained area like those of Privately-Managed Waterfront and the interior of Resident-Managed Courtyard.

6.1.11. Vandalizing and breaking

While the Broken Windows Theory would have hypothesized vandalism to be a problem in the Publicly-Managed Social Housing case due to many broken elements at the start of the

study, few instances of new vandalism were observed during the study. Glass to one building's entrance door was broken once; hedges and swings were damaged multiple times.

Management reactions occurred after repetitive instances of Publicly-Managed Social Housing's swings being broken. It was unclear whether the broken chains were the result of vandalism or excessive use. Each time a chain was observed broken, response came within a week – the broken swing was removed. Twice during the study, both swings were taken down for several months, and then replaced. No notices were issued regarding the swings' replacement.

Repetitive vandalism's relationship to spatial management was also evidenced by some often trodden hedges in Publicly-Managed Social Housing. A line of hedges was planted in late autumn of 2012, lining the public pathway and blocking access between the pedestrian path and front lawn of a housing building. Several plants were broken and displaced soon after planting. Residents began to pass regularly through the gaps – their passage compacted the soil, making desire paths through the lawn. Children were observed hopping over and running through the hedge when crossing from the lawn to the playground. Most of the remaining plants died in the winter and were replaced by the contractor in spring 2014. By the following summer, desire paths and gaps between the plants appeared again. Brown and broken plants were strewn behind those remaining, showing where children had pulled them out. Litter from the paths and the lawn collected at the base of the plants. Residents used the renewed desire paths daily, taking a shortcut to the balcony gates from the public path. While the manager informant explained wanting to restore the hedges and hinder residents from crossing the lawn, the contractor refused a second replacement under the original warranty, due to the problem being vandalism rather than a planting error (INF 1- 5M). This episode illustrates the difficulty different management entities in Publicly-Managed Social Housing have in responding to ongoing acts of vandalism – even when incidents are few in number.

The participatory action project by the researcher at Publicly-Managed Social Housing also resulted in vandalism. Stands that had been placed along paths in playground were pushed over the first night and covered in tags. After setting the stands back in place, they were repeatedly overturned until the fourth and final day of the project, when all the stands were damaged- kicked in with pieces scattered about the playground and park. Despite adjacency to the district government's urban renewal office, which had funded the project, and an advertised online feedback forum, no one reported this vandalism, showing ambivalence among spatial users- perhaps due to expecting local vandalism.

By comparison to the other cases, one broken window was witnessed in Resident-Managed Courtyard, which was boarded but not replaced during the study. One morning a plastic stool

Vandalism and breaking traces



Case 1



Case 2

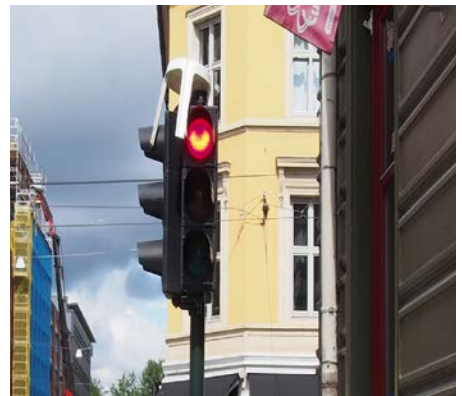


Figure 6-12 Vandalizing and breaking affects Publicly-Managed Social Housing and Resident-Managed Courtyard, though mostly through long-standing, unaddressed instances rather than new occurrences. No effects of vandalism were observed at Privately-Managed Waterfront.

appeared on a traffic light along Resident-Managed Courtyard's busy exterior sidewalk- it was removed within two days. No vandalism was witnessed or or reported at Privately-Managed Waterfront.

ACCOUNTS OF VANDALIZING AND BREAKING

Only prompted Publicly-Managed Social Housing informants discussed vandalism, limiting accounts to the vandalism of the hedge line. They offered explanations that show awareness of the ongoing vandalism:

"The hedges are all torn up but that has to do with, well that is what the problem is here. That there live very many people who don't wish to have it nice around them –maybe there isn't an understanding for that either...These problems certainly have something to do with a lot of people not feeling like they belong to the area. The ones living here didn't choose it, they are placed here by the municipality, some maybe want to be here, but others have such big problems that they don't care so much about it," (INF 1-2).

"The hedges along the path are very nice now, it took some time...when they planted them, there were kids who pulled up the plants... Now there is finally some green there, but it took time," (INF 1-1).

"Yes, it's coming back to me now- the hedges were getting torn...actually I think my daughter might have torn some of them, walking by, (*laughs nervously)," (INF 1-4).

"It is very bad...because someone planted these, right? and someone pulled them out, and some walk through. I think they should close it at this end (points to end by trash shed), because here it is open, so residents come from the building and they walk on the grass and it presses on the grass and it will be bad, so if they closed it here, then people would have to go around here (on the asphalt path), so then it could look nice," (INF 1-3).

The Publicly-Managed Social Housing management informant explains the difficulty in responding to the recurring vandalism:

"The hedges are really tragic – there are some things that went very wrong in the renovation and those are a part of that. If I had unlimited money and people I would just plant a new hedge and be done with that. The plants froze the first year because the contractor planted far too late...we got them to replace them the next year and they got ruined again. When I said these are under warranty, they replied, yes, but it is the residents who damaged them...This here (*points to plants pulled up at roots) is not the contractor's mistake, this is from some children who have played, right? But we

should know that they will never get the chance to grow- we have to establish things that are much more hardy and consistent over time,” (INF 1-5M).

Vandalism is a unique challenge to the publicly administered maintenance of Publicly-Managed Social Housing, which struggles to find resources to respond to unexpected and destructive engagement. Design and hardy material selection show potential in aiding management’s prevention of vandalism, but some elements remain vulnerable to user actions and require responsive maintenance over time.

6.1.12. Other personal interest initiatives

Other personal interest initiatives encompass all types of engagement exercising efficacy that do not fit into the previously discussed categories (see examples in Figure 6-13). These take many different forms in the cases:

- Moving outdoor furniture to accommodate different uses and groups (Publicly-Managed Social Housing and Resident-Managed Courtyard)
- Adding personal outdoor furniture (Resident-Managed Courtyard)
- Leaving toys on lawn (often in Resident-Managed Courtyard, twice in Publicly-Managed Social Housing)
- Adding graffiti message sign (Publicly-Managed Social Housing)
- Mounting parabolic antennae, despite regulation (Publicly-Managed Social Housing)
- Hiring the painting of wall murals (Publicly-Managed Social Housing)
- Adding a bicycle ramp (Publicly-Managed Social Housing)
- Leaving ashes in common grills; leaving one-use grills (Resident-Managed Courtyard)
- Adding balconies with property board permission (Resident-Managed Courtyard)
- Setting up a kitchen garden with yard board permission (Resident-Managed Courtyard)
- Sitting in roped-off lawn area and climbing on sculptures despite regulation (Privately-Managed Waterfront)
- Hanging a lost hat on roping post, a lost baby sweater on tree stake (Privately-Managed Waterfront)

Following the graffiti message sign that was added at Publicly-Managed Social Housing saw how users reacted to a controversial personal engagement. The sign was added after a street festival, fit into the wall base of a residential building. On it were the words, translated from Norwegian: “We all must whore ourselves out, sometimes.” It appeared to be a tag on the building for three days before falling away from the building, revealing itself to be a sign made from a material matching the wall’s base. The sign was face down on the lawn for several

Other personal interest initiative traces

Case 1



Case 2



Case 3



Figure 6-13 Other personal interest initiatives affect many parts of Resident-Managed Courtyard's interior, and occasionally appear at Publicly-Managed Social Housing. At Privately-Managed Waterfront, these do not leave longstanding physical effects, so must be observed as they happen or before addressed by M&O.

days before being broken into pieces. The pieces were first arrayed in a nearby shrub and then were collected two weeks later, tucked into a neat stack and wedged under an adjacent wooden fence. They remained there for many months afterwards; the lack of proper disposal suggests that they went unnoticed by M&O actors. This shows that users notice such personal engagements and some may react destructively to messages they disagree with, or simply when material opportunity (the loose sign) presents itself.

As the responsive management of Privately-Managed Waterfront erased most traces of engagement, witnessing personal interest initiatives in action offered the only evidence that they occur. This was shown by youth and sunbathers crossing and sitting within roped off



areas of the site's sculpture park. M&O had placed barriers and signs requesting that visitors keep a distance, which went unheeded. These actions left no immediate or long-term trace, but were witnessed in action, offering evidence that some users act against regulations. A similar situation of youth climbing on sculptures offered evidence that regulations and high responsibility do not prevent engagement actions altogether, even most traces of it are erased.

ACCOUNTS OF OTHER PERSONAL INITIATIVES

The interviews were not very successful in eliciting general comments about spatial users taking personal interest initiatives in the common spaces. Several reactions to specific examples provide an idea of the range of attitudes these engagements can inspire in the different cases,

along with potential reasons for or against personal engagement. A theme of care being necessary for users to approve of engagements became apparent.

Publicly-Managed Social Housing informants expressed frustration for the lack of constructive initiatives in the neighborhood:

“The balcony gets very dirty, especially in winter. I thought we could set one day where everyone washes their balcony, because when one does it, it runs down to the neighbors’ and they complain...I made a system spreadsheet where everyone could wash in one day, starting with the upper floors then going down and gave it to the superintendent to post, but he didn’t want to hang it up, or well, maybe he just forgot it, he was interested in the idea, but the deadline went and he didn’t hang it,” (INF 1-1).

“It is a bit of a problem in the area that children do not take care to keep it nice... Last winter I built a snowman with my daughter, then went into a café – when we came back 15 minutes later it had been completely kicked over,” (INF 1-4).

Resident-Managed Courtyard informants very readily provided accounts of the kitchen garden, showing general support since the area had been unused for a long time prior, since the removal of rusty play equipment:

“I think [the kitchen garden] is super-positive and really great that they took initiative. It is not an area that I have any use for and I think it is great if people take advantage of space that no one else is bothering with,” (INF 2-1).

“Go for it-it was so dilapidated there and looked like such crap, it is better to do something there than not use it at all. It is a bit of a private initiative, I would totally support doing that in a more formal way. But I think it’s good- it isn’t taking away an area that is being used, so I think that is positive, even if it is not necessarily the most aesthetic setup,” (INF 2-4).

Exception to this support included a couple critiques regarding individual use of common space and the garden occasionally appearing disorderly:

“The kitchen garden was entirely a private initiative. So, but yeah maybe there could be more of such, as long as it doesn’t get to be too much,”(INF 2-6M).

“Now someone has started an herb garden or something there, but they are just two people who have gotten permission to use a lot of space that should be communal. We should be in agreement about which areas are used for what... I think those pallets

outside the door belong to the people with the garden. All winter that whole area was kept really awful, it looked very ugly. I think if we are letting some people have so much space in the back yard, then they have to keep things looking nice,” (INF 2-3).

Privately-Managed Waterfront informants spoke comparatively negatively about personal initiatives and expressing themselves in common spaces: “It would be macabre, I believe. It is a matter of personal taste for people to just do what they want to,” (INF 3-4).

Some considered the crossing of roped off lawn areas to be disrespectful: “They’ve tried to take care of the green areas as well as possible here and sometimes they have to set up roping to keep people off and give the grass a chance to grow in peace. There are some who don’t respect that and that is quite petty,” (INF 3-5).

Privately-Managed Waterfront’s management informant rejects the idea of residents personalizing anything in the common areas with an emphatic head shaking: “No – that would be completely crazy. They can come with input, come with wishes, but they don’t decide. Then we’d have to run around in circles- if they were to decide, ‘No, I won’t have that sign there,’ where we placed it and then we’d have to take it away. They might not understand the function of the sign, the need for it,” (INF 3-3M). He further explains personal initiatives in common space as contrary to the investment pressure the property management faces:

“The most important task we have is to manage the plus/minus eight billion NOK investment here and make that money grow- so that someone who owns an apartment can get more money when they sell it, that they get higher rental income because of the locale. Everyone sees what we do outside, it’s like an open window where everyone sees and that has a lot to say about the prices- if it looks like a backyard, then the prices will fall down. It’s incredibly important that it’s nice out there, and there are always people who say it should be clean and nice and in order- that there should be systems that make it generate more money,” (INF 3-3M).

Personal interest initiatives – much like most of the other categories of engagement- can be positive and personally important, but still interpreted negatively by others. Evidence of physical engagement shows the very different extents to which individual users affect the built environments of three Oslo cases. Their efficacies affect other users, who may be encouraged, ambivalent, or offended by the same traces in a given environment. Physical user engagement can add interest and texture, or deteriorate parts of the environment. As physical user engagement fulfills personal needs, potentially at the expense of others, mediating actions are necessary to balance the needs of the acting individuals against those of other spatial users.

6.2. Potentials for spatial management to mitigate through regulation

Spatial managers can attempt to balance the needs of spatial users by establishing regulations—as illustrated using the methodological framework in Figure 6-14. Findings regarding established regulations address the research sub-question of what potentials spatial management has to mitigate engagement. This subchapter outlines the observed and documented established formal regulations and potentially regulating management practices, together with informant accounts of spatial management at each case. The actual effectivity of these in mitigating efficacy is further analyzed in Chapter 7.

6.2.1. Formal regulations established in the cases

Formal regulations give spatial management a basis for acting to control use and engagement in common spaces. Document review of municipal laws (Oslo-Municipality, 2007), property house rules (Lisakvartalet, 1998a; Sameiet, 2014), and the rental contract for the social housing residents (Oslo-Municipality, 2015) illuminated most of the regulations that are in place at the case (see Table 6-1¹⁷ on the following pages). Additionally, regulations were observed when physically signposted at each site (marked with an asterisk in Table 6-1). Observations further witnessed relative enforcement of the established regulations. Interview data showed user

17 A full chart of the formal regulations established at each case is provided in the Appendix, while a selection of those most relevant to the physical user engagement findings are listed in Table 6-1.

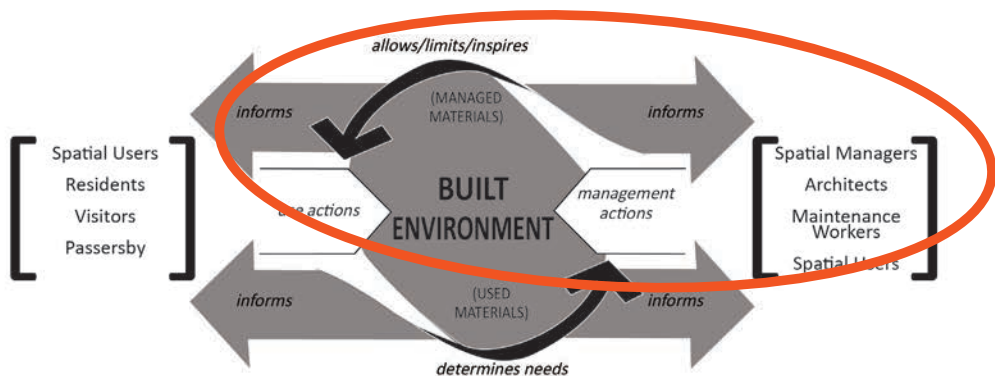


Figure 6-14: Regulation works through the management actions side of the methodological framework.

knowledge of the regulations- the source documents were often mentioned by informants, and copies of the case-specific documents not available online were provided by informants. Beyond that, interview data showed that knowledge of specific regulations varies amongst informants. When prompted about the rules that apply to common spaces, the residents in Privately-Managed Waterfront mentioned more rules than the other two cases.

6.2.2. Management practices with the potential to regulate

Beyond the formal regulations and maintenance reactions to physical user engagement that potentially limit efficacy, spatial management practices exercised through environmental materials may also regulate user efficacy. These are evidenced as visual regulations and regulating design changes over the course of the study.

VISUAL REGULATIONS

Regulations that are visually sign-posted in the three cases (denoted with asterisks in Table 6-1), are presented as visual data in Figure 6-15. A full chart of signposted regulations is included in the Appendix. Observable differences are found in the amount of visual rules and regulations across the three built environments. Privately-Managed Waterfront both displays and enforces far more rules than the other two cases. In some cases, the signposted rules are stricter than their formally documented counterparts, such as Privately-Managed Waterfront not allowing grilling and designating open hours for public swimming. Signage regarding the latter was changed during this study to match the municipal ordinance for quiet after 11pm, after protests and media attention called it social exclusion (Riaz, 2014).

POTENTIALLY REGULATING DESIGN CHANGES

Together with signage, other materials placed by management intend to regulate use and engagement (see images in Figure 6-16). While this was not observed at Resident-Managed Courtyard, Publicly-Managed Social Housing illustrates two examples. The hedge line, which was planted to keep users off the lawn was rendered unsuccessful by vandalism. More successfully, the district government running the urban renewal project painted a well-tagged concrete platform yellow before a street festival, which thereafter remained clean for over a year before the next graffiti infraction.

Several design changes aimed at regulating engagement were witnessed in Privately-Managed Waterfront. The management installed temporary signs with rules about using the public spaces at the waterfront. These were removed, edited, and replaced as permanent elements integrated into buoy stands the following year. Most users abide by the rules, though some

Table 6-1 Established regulations across cases as apply to the categories of physical user engagement; asterisks (*) refer to signposted regulations.

Regulation	Regulation effective			INF knowledge			Legend
	1	2	3	1	2	3	
Flower pots and such must hang on the inside of the balcony for this reason and to hinder water running down.			⊗	○	○	●	⊗ formally regulated and responded to
All are urged to ensure that they have an orderly balcony that is maintained tidy.			⊗	○	○	●	⊕ formally regulated, but little or not responded to
It is not allowed to change the outside of the balcony or balcony rails.			⊗	○	○	●	not regulated against
Clothes or rugs cannot be hung to dry on the balcony, fences, or in windows.	⊕		⊗	◐	○	●	● Informants knowledgeable
Bicycles, sleds and baby carriages must not stand in entrances*	⊗	⊕	⊗	●	●	●	◐ Knowledge varied among informants
Bicycles should be parked in the bicycle room. Bicycles that are chained to light posts, etc will be removed.*			⊗	○	○	●	○ Regulation unknown or was not named by informants
No feeding pigeons*	⊕			●	○	○	
Ownership of pets cannot inconvenience users of the property.	⊗	⊗	⊗	●	●	●	
Dog excrement should be picked up by owner.*	⊕	⊕	⊗	●	●	●	
Dogs should be kept on a leash			⊗	○	○	◐	
It is forbidden to dirty by painting, marker, or spray cans any surface towards a public place.	⊕	⊕	⊗	●	●	●	

Decorating

Functional Airing

Bicycle parking

Bird Feeding

Dog walking

Graffiti

It is forbidden to hang up or deploy announcements and posters without municipal permission.	⊕	⊕	⊗	○	○	○
Lawns and plantings must be respected and protected in summer and winter.	⊕	⊕		⊗	○	○
Not allowed to put cigarettes out on the outside of the building.			⊗	○	○	○
It is forbidden to break glass or throw glass, bottles, nails, paper, cigarette ends, fruit peels, or other trash.	⊕	⊕	⊗	●	●	●
Trash must be placed in trash cans and not cast out.	⊕	⊕	⊗	●	●	●
The leaving of trash, furniture, appliances, etc. is not allowed.	⊕	⊕	⊗	◐	◐	●
Keep area clean, no littering*	⊕	⊕	⊗	◐	●	●
Recycling rules*		⊕	⊗	○	◐	○
It is not allowed to mount parabolic antennas or such on the body of the building.	⊕		⊗	○	○	●
If you move benches and tables, remember to move them back afterwards.		⊕		○	○	○
Common areas cannot be physically changed without particular treatment by the board.			⊗	○	○	●
No playing on the sculptures*			⊗	○	○	◐

Posting Vandalizing and breaking

Littering

Other Personal Initiatives

Signage and regulating materials

Case 1



Case 2



Case 3



Figure 6-15 Examples of material regulations at the three cases – these materials – from bollards to rules signs – are set in place by management actors with the intention to affect particular behaviors and uses of space.

do not notice the signage. After finding that traffic entering the island's parking garage was difficult to control, the management added signage and pavement markings to designate traffic direction and standing areas for taxis. Some taxis abide by these, others not- the markings became difficult to see on the paving stones during the study, wearing away with time. More effectively, Privately-Managed Waterfront site furniture is moved and placed in response to how it is used. When the public areas closest to swimming piers became very popular amongst visitors, a set of lounge-able, concrete chairs were moved to a less-used part of the site to minimize visitors staying for long periods at the original location (INF 3-3M). Months later, much of the public space between the swimming access and nearest building was filled with



a large planter. The planter buffers users from nearing the building's façade and reduces the amount of space for use and staying. Railings were simultaneously added around some of the adjacent water edges for winter plowing safety (INF 3-3M), though their installation appears to be driven by limiting swimming access (INF 3-4), which it also affects.

6.2.3. Informant accounts of spatial management's regulation at each case

Interview data offers accounts of spatial management practices that illuminate how managers might mediate user engagement. This subchapter presents interview outtakes¹⁸

18 A full chart of relevant quotes is provided in the Appendix.

Materials added by management

Case 1



Case 3



Figure 6-16 Material changes during the study by management actors. These affect use of space and hold the potential to mediate user engagement by encouraging, discouraging, enabling, or inhibiting actions.

under dimensions from the interview guide: knowledge and distribution of local regulations, perceptions of the regulations, and how satisfied informants are over spatial management practices, including regulation enforcement. These perspectives are interpreted alongside engagement findings in Chapter 7 to determine spatial management’s enforcement and effectivity in regulating engagement.

KNOWLEDGE AND DISTRIBUTION OF LOCAL REGULATIONS

The interviews polled informant knowledge of the regulations at each case and found very little awareness of regulations beyond the municipality’s night-quiet rule at Publicly-Managed Social Housing and Resident-Managed Courtyard. A Publicly-Managed Social Housing resident explained a sense of the rule- “I don’t have any information about rules for the outdoor areas.



Maybe there is something, late at night we don't hear music," (INF 1-1). A Resident-Managed Courtyard rental tenant was also unaware of further rules for the yard- "I don't really know of any rules. I was told not to plant anything in the grass areas. There are some rules for my building, like not making noise at night and maybe throwing away trash," (INF 2-2). A board leader of one of the buildings at the same case gave a possible explanation for others' lack of awareness: "We have rules, I don't remember how they are published anymore. The most important is it should be quiet at night and everyone should take their trash with them and clean the grills after use," (INF 2-3).

However, a lack of awareness was also found regarding knowledge of signposted rules. Most informants were ignorant to the existence of such signage in all cases. A long term resident

even stated a need for signage that already exists at Publicly Managed Social Housing (Figure 6-17):

“Everyone needs to be aware of others, there should be signs that say ‘don’t litter,’ ‘clean up after your dog’ – I don’t know how it should be written, but I would like to see these signs to make people take care. They need signs because not everyone is polite – they don’t all clean up after themselves...I think signs would help, also with pictures,” (INF 1-3).

Privately-Managed Waterfront informants also remarked little awareness of the rules signage in their neighborhood. A weekly commuter resident owner and building board leader explained, “There are luckily no big signs here either that say, ‘it’s forbidden with this or forbidden with that.’ Luckily there has been relatively little need- the municipal laws guide the outward limits of most things with noise and such,” (INF 3-5). A long-term resident owner and retiree prompted with photos of the signage stated, “I haven’t seen those signs, but I think it’s good that they put them up saying what you should do, that’s nice,” (INF 3-4).

However, the informants in Privately-Managed Waterfront did show more awareness of the rules in place for the properties than those of other cases- all resident informants of the case were able to name several local rules. One resident described them, “There are not so many spoken rules here, it is more of a ‘social discipline’ that applies here, and general manners,” (INF 3-5). Another was more specific, “You cannot put up some awful marquis or something that would break the expression... You are not allowed to hang out clothes or anything to air, so maybe that is a bit strict, but at the same time it is nice since we have balconies that face each other,” (INF 3-1).

Manager informants at all cases were clear about what rules exist and how they are distributed at each site. The Publicly-Managed Social Housing manager referred to property rules listed in the blanket rental contract for social housing properties and emphasized, “It’s more like keep it calm, don’t air things, don’t hang rugs or sheets over the balcony,” (INF 1-5M). The yard board leader of Resident-Managed Courtyard explained that the yard rules could be better distributed, “The rules have been posted, um, before. But maybe they are too weakly visible... It’s like that it should be quiet after 11 and...residents who have animals have to clean up after them,” (INF 2-6M). The manager informant at Privately-Managed Waterfront was more explicit:

“Yes, there are rules, our rules...[The spaces] should be accessible, but it comes down to being accessible over the residents getting to sleep at night...The signposted rules are rules of order, how we think people should behave here. They weren’t planned- no one saw how popular this would be,” (INF 3-3M).



Figure 6-17: Graphic rules sign at Publicly-Managed Social Housing.



Figure 6-18: Rules signs at Privately-Managed Waterfront, which informant residents report not noticing.

These responses from the different managers allude to different manners of setting and enforcing regulations. Publicly-Managed Social Housing requires tenants to sign under the rental document that they will follow general rules. Resident-Managed Courtyard relies on residents respecting the rules with loose distribution of them. Privately-Managed Waterfront makes and adapts property-specific regulations in response to particular user behaviors. All three explain the need for rules as respecting residents' needs.

USER PERCEPTIONS OF THE REGULATIONS

The interviews offered several user perspectives regarding the need for, and interpretation of, local rules. Different attitudes exist towards regulations in the three cases. Publicly-Managed Social Housing informants blamed other spatial users for not following the regulations: “I don’t think that anyone wants to take care of the area here, they don’t follow the rules, people don’t care anymore,” (INF 1-4). One Publicly-Managed Social Housing resident pointed out: “In other parts of the city they have rules about trash sorting and special colored bags, but we don’t have that system here, the residents don’t hear anything about it,” (INF 1-1), showing a perception that the neighborhood is overlooked by the municipality.

Resident-Managed Courtyard informants seemed wary of imposing or enforcing regulations, trusting that everyone will act respectfully and clean up after themselves:

“There are a lot in our building board who try to hang up posters and signs about ‘please sort your trash’ and such, but really this has no effect. One can hang up as many sour notes as they want and it just has no effect... There is not much the cooperative board can do, we can send messages to the residents, but that doesn’t mean they will listen. As long as that information is not completely personalized, from what I’ve experienced, it doesn’t have a meaning,” (INF 2-1).

“There used to be some kind of reservation system for using the picnic tables when you have a big group, but I am not so sure if there still is. Sometimes people just post a sign that says ‘reserved,’ so I think now it is up to the people, but others respect it, so it works,” (INF 2-5M).

Privately-Managed Waterfront differs again from the other cases. All resident informants agreed with the rules that are in place as “common sense,” as one described:

“Residents cannot do just what they want to on the balconies- I think they are lovely buildings so it is so important that they have an idea of how it should look. So the rules that are there are positive – passable restrictions for my part at least...I am not so difficult, I don’t find any rules missing, I think the rules that are there just work so great in practice!” (INF 3-1).

Only one from that case voiced the view that regulations should be limited: “I follow with the fewest possible rules, but to take care for the things that can be adhered to, rather than some kind of regulation regime that no one cares to or knows how to uphold. I don’t think anyone needs unnecessary rules,” (INF 3-5). Most important to this case’s informants was that the property is well-kept. While that notion is common across the cases, the managers’

perceptions of the need for regulations vary quite a bit. Putting it most simply, the Resident-Managed Courtyard manager informant said they are just after “pure common sense,” (INF 2-6M), corresponding to the least strictly regulated case. The Publicly-Managed Social Housing manager also alluded to relaxed enforcement, explaining “We’re not out to take out people who break the rules in order to give them a lesson, but we have to uphold the other neighbors’ well-being and safety,” (INF 1-5M). The Privately Managed Waterfront manager spoke more strongly, stating, “There should be rules about how people should behave,” (INF 3-3M). Each of these describes the rules established at their own case as seeking common sense and taking care of the residents’ interests, showing the same relative goals but different means of actual rules and enforcement. What each manager considers reasonable varies depending on the specific behaviors and resident needs they encounter in their context.

SATISFACTION OVER SPATIAL MANAGEMENT PRACTICES

General satisfaction over spatial management practices varies across the sites, with informants generally supporting spatial management practices in Privately-Managed Waterfront: “We are extremely pleased with the maintenance of the outside areas. There are new plants steadily – it is nearly too great! It is very pretty and orderly here, that I must say – quite!” (INF 3-1).

Informants often commented upon spatial management’s variability over time in Resident-Managed Courtyard, showing that their satisfaction depends on consistent service delivery:

“There is someone who clips the grass, and the very basic things, but if you look at it over a longer period, it has been a little off and on...It seems like there have been some cuts in that type of maintenance sometimes, the plants just begin to grow totally wild. But now, now it looks quite ok,” (INF 2-1).

Two Resident-Managed Courtyard informants describe instances where board members lacked knowledge behind the management decisions they made. One was painting hardwood picnic tables that had come with special instructions for their upkeep after the yard’s design. The oversight in painting them “effectively kills the wood and risks its rot,” (INF 2-3). The second was allowing a façade to be painted after it had been waxed to make graffiti easier to wash off. The building board overlooked this and gave a youth club from the first floor unit permission to repaint the wall, covering the wax. The contract with the graffiti removal company that had waxed it is since obsolete and the repainted wall displays many graffiti tags, (INF 2-6).

Informants distrust and are skeptical to spatial management in Publicly-Managed Social Housing: “I am not pleased with the maintenance of the playground area, I have not seen anything happen, or any changes, even though they talk about them in the urban renewal project. I will be pleased when I see that something is actually done! The outdoor areas need

to be rebuilt and be cleaned. Someone has to take responsibility for this,” (INF 1-3). A social housing resident noted improvement in the housing yard since the property’s renovation, “The upkeep of the outdoor areas [around the housing buildings] has been very good recently, they clip the grass all the time now, every two to three weeks maybe. And it is very nice with the trash system for large items and receptacles for bags. That is very nice, and that they have planted some more things where we live,” (INF 1-1). Informants from all cases show support for the provision of well-kept spaces, regardless of the varying amounts of regulation associated with them.

6.3. Efficacy through civic user engagement

Civic user engagement offers another form for spatial users to affect management actions and the built environment (illustrated over the methodological framework in Figure 6-19). A variety of civic engagement forums were found that show how users can exercise efficacy in the case environments. Engagement opportunities, outcomes, and informant accounts of engaging civically are presented in the following sections. The effects of civic engagement are analyzed in Chapter 7 to interpret and compare the extent that the forums enable user efficacy.

6.3.1. Opportunities for civic user engagement

Interviews and documents provided the primary data about forums where users can engage civically at the three cases. Facebook pages and websites from the municipality, district governments, and property management companies were reviewed together with documents that describe forums for participation- including the functions and operation of property boards, invitations to hearing meetings and dugnad events, and opportunities to report maintenance issues. Observation supplemented this by finding physical signage about events and forums for reporting issues. Interview accounts provided further detail about user knowledge of, and experience within, the forums.

City-wide, the website of municipal Department of City Environment invites reporting some types of local environment problems- predominantly those relevant to sidewalks, streets, and pathways which fall under the categories of pruning, grass clipping, out-of-order street equipment, plowing/gritting, streetlights, bus stops, potholes, signs, drainage, full trash cans/ litter, and tagging (Bymiljøetaten, 2016).

Contacting spatial managers to report issues can prove difficult. In Publicly-Managed Social Housing, the property map (www.seeiendom.no) demonstrates the parceled ownership

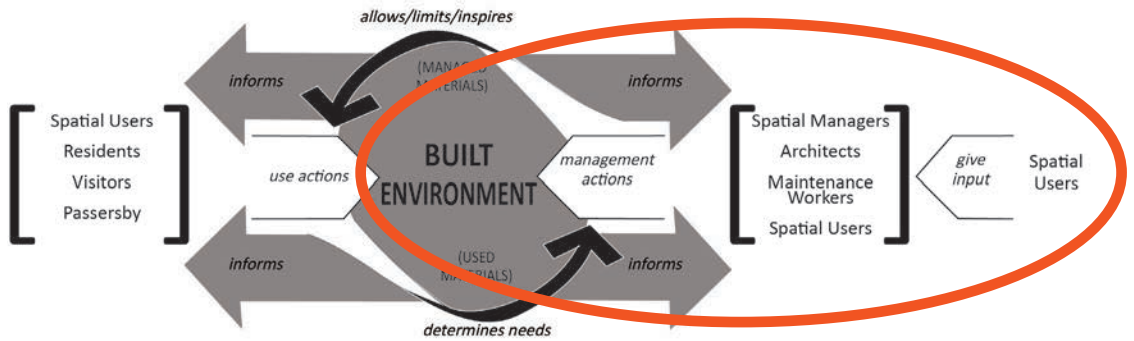


Figure 6-19 Civic user engagement influences management actions, as illustrated over the methodological framework.

by the district government, student housing organization, municipal department of city environment, and the municipal social housing property manager. Contact information for the section responsible for the playground’s management is not publically listed and requests to the district government are directed to a generic email address. It took several weeks before the researcher received a response that directed contact to the employee responsible for the district’s outdoor spaces. Email exchanges confirmed the delimitations of responsibility and difficulties in responding to reported maintenance problems. This exchange corroborates reports from a place analysis report by Brattbakk et al. (2005) which describes the district’s reliance upon unskilled, inconsistent voluntary taskforces for many maintenance tasks, resulting in many reported environmental issues going unaddressed – for example, broken benches in public spaces.

In Resident-Managed Courtyard, the property map reveals the common yard as legally divided across the nine building properties. The yard’s “Rules for well-being” explain it as one entity, cooperatively managed by a board of representatives from each of the nine properties (Lisakvartalet, 1998a). Its bylaws call for the board organizing two *dugnad* events and two board meetings each year (Lisakvartalet, 1998b). These documents are not completely followed- one board meeting and one *dugnad* are typical yearly and only three properties sent representatives to the 2014 board meeting. The *dugnad* event that occurred during the study was initiated by residents that are not on the board (INF 2-5M).

In Privately-Managed Waterfront, the property map shows all of the public space around the buildings as one property, owned by the company that developed the site. Exception is made for the sculpture park and museum areas, which are owned by a public-private trust. Signage, the neighborhood’s marketing website, and informants all direct visitors to contact the same M&O company as the rest of the neighborhood. A two-part book documents and illustrates

the site's design and development processes and describes the extent of civic participation offered. The book claims that the public vote on the competition entries was just a tool used in a power play that did not give the public any real choice about how the area would be developed (Jenssen, 2008, p. 121). A statistically low turnout (21,000 votes) further challenged the legitimacy of the participation process, which aimed to "delegate the decision basis away from the local politicians' responsibility" (Jenssen, 2008, p. 72). This symbolic participation had the positive effect of resolving conflicts between the planning department and the city council. The city council's decision followed the popular vote and determined the outcome of the competition, undermining the winner chosen by the professional jury.

6.3.2. Outcomes of civic user engagement

Observation and informant accounts reveal few physical effects of civic engagement in the three cases' built environments. The visible effects found were: tree removal resultant of neighborhood activist groups' complaints (Publicly-Managed Social Housing), the absence of bike sheds at some properties resultant of residents' protests (Resident-Managed Courtyard), new balconies resultant of a few owner residents' engagement with three building boards (Resident-Managed Courtyard), and exquisite upkeep aided by residents' active reports to M&O staff (Privately-Managed Waterfront). While the latter case is quick to address resident input, they do not appease all complaints or suggestions – when a resident reported the gardener's plant selection as weeds, the management offered that the resident's building board pay for the plants' replacement after confirming with the gardener that the plants were intended. The plants were not replaced until the regular turn of the season (INF 3-3M).

Connections between built environment effects and the participation processes behind them are not entirely straightforward in typical spatial user experience. Observing the effects of civic engagement required supplementation of interview accounts to explain what came out of formal processes. As such, gaps in informant knowledge limited this study's findings. The municipality has an online platform for reporting maintenance needs, but its centralized nature distances it from specific sites and it does not publish everyone's reports, making it difficult to assess the platform's results. The low and wavering spatial quality and cleanliness of the areas that the municipal agency administers in Publicly-Managed Social Housing and Resident-Managed Courtyard do not allude to a high level of response, if users there are reporting problems. On the other hand, Privately-Managed Waterfront's sustained high quality of maintenance helps to demonstrate that user concerns are addressed in a timely fashion, suggesting Privately-Managed Waterfront's forum for reporting issues to be more effective than the city agency's.

In Publicly-Managed Social Housing, researcher participation in two district government public hearing meetings observed civic engagement opportunities under the neighborhood's urban renewal project. Both meetings shared information with participants, but offered no open discussion forum. Instead, mid-meeting, participants were invited to join focus groups to comment on specific themes. The resultant groups divided participants, preventing anyone from hearing the concerns raised in all of the groups. The meetings were well attended, with around 50 participants, though the participants' demographics appeared less diverse than the population that uses the neighborhood's public spaces. The meetings gathered comments on the design programming of a nearby park (which remains undecided at the close of this study three years later). The overarching urban renewal project did act on some concerns raised in the meetings. A local politician was successful at assembling interests to lobby for the removal of several trees in order to improve lighting at the playground and adjacent pathways. However, after the removal of the trees, several residents complained via Facebook forums that the lighting still was not sufficient- the tree removal did not address burned out bulbs or poorly placed lighting elements. One building neighboring the study site took it upon themselves to add a spotlight, which illuminates their wall mural as well as one previously dark corner of the site.

Attending five other urban renewal project meetings and workshops (organized by the district government and facilitated by design consultants) witnessed more sharing of information along with requests for volunteers to take on local responsibilities and small projects. These workshops and calls for voluntary action offered more collaborative and responsibility-delegation forms of civic user engagement. The meetings attracted many of the same attendees as the hearing meeting – residents already active in local organizations. Few participants resided in the studied social housing property, questioning representativeness that the forums reach. At the scale of the social housing property, the projects that affected the residents, like the renovation and new yard playground, were conceived of by professional actors with resident interests in mind, rather than through implementing resident input or collaboration.

A *dugnad* event at Resident-Managed Courtyard was observed. Joining five resident participants, the researcher witnessed lively and congenial conversations about the building and yard, which revolved largely around gossip sharing. The group mentioned the board's wealth of resources, but lack of members taking charge. Interest was shared in a neighbor building's coming addition of new balconies, sparking discussion about potentially adding balconies to their building. Balconies were added to the building by the end of the study, suggesting that the *dugnad* helped the residents communicate and organize collaboratively. While board members described plans to install play equipment and renovate the yard, no physical changes beyond balcony additions were witnessed during the study. The board's hiring

of a new groundskeeper did result in improvements to routine maintenance in the yard, visible through weeded pavers, mulched plant beds, and trimmed hedges just after the start of this study.

No formal civic engagement was observed in Privately-Managed Waterfront. During the walk through the site with the manager informant, several residents greeted, expressing familiarity with him and one approached casually with a building maintenance question, showing the commonness of resident reporting. Interviews confirm that changes to the design and physical placement of planters are not subject residents' or commercial tenants' approval. Users can take initiative to offer feedback, but that does not necessarily change the M&O company's plan or implementation. Rather the M&O company takes the role of "looking out for the residents' and tenants' interests," (INF 3-3M).

6.3.3. Informant accounts of engaging civically

The interviews offered insight on how users civically exercise efficacy, particularly regarding informants' likelihood and motivations to participate, knowledge of participation forums and contacts, feelings of ineffective or unfulfilled participation in respect to process outcomes, and reports of successful, inclusive participation (see Appendix for full table of relevant quotes). The conversations with informants about participation vary greatly by case due to the different opportunities presented at each- Publicly-Managed Social Housing informants spoke mostly about their ability to report maintenance issues and their participation in urban renewal project meetings, while board participation was more discussed in the other two cases.

LIKELIHOOD AND MOTIVATIONS TO PARTICIPATE

Publicly-Managed Social Housing informants are generally not very likely to report upkeep problems in the yard, playground and sidewalks- despite wide acknowledgement of maintenance issues there. They rather overlook or avoid problems such as graffiti and litter. Questions about likelihood to report issues in the outdoor areas unintentionally yielded responses about likelihood to report illegal activities to the police, which all Publicly-Managed Social Housing informants responded that they would.

Publicly-Managed Social Housing informants explained their motivation to civically engage in urban renewal project meetings as due to wanting to see positive local change (INF 1-1, 1-4). A neighbor resident informant explains different extents of participation by motivation having "something to do with the awareness of people...some are very aware and others are not -some are not so engaged, you find both extremes in Tøyen," (INF 1-2). Other informants express the sentiment that "many who live here, particularly in the social housing, don't care to have it nice," (INF 1-4, similar by INF 1-1, 1-3, 1-5M). Hesitance to participate seemed to

stem from distrust in particular forums: “[The public housing management] went around to every apartment with a survey form, but they did nothing with those responses [in the property renovation],” (INF 1-1). Feeling unheard in the district’s hearing meetings is another demotivation: “I only went to a public hearing meeting in the neighborhood once, and I felt like I was very much an outsider,” (INF 1-1).

Resident-Managed Courtyard’s board member informants mention little resident input, particularly about the yard. Most residents only contact their nearest board member neighbor, “the ones who have taken contact with me are ones that know I am in the board- I don’t think the others know who I am or that I am in the board,” (INF 2-5M). Resident informants report little likelihood of reporting problems unless they are quite serious, explaining that there are too few problems to matter “things are quite well maintained overall,” (INF 2-1, 2-4). Motivation for participation on the boards largely follows personal interests for bettering the property and maintaining the value of personal investment. All current and former board-member informants demonstrate a “somebody’s got to do it” attitude (INF 2-1, 2-4, 2-5M, 2-6M). The greatest challenge they name is lack of time, i.e. “We have a surplus in the coffers. I could go and build the playground I want out there, but then I question it because it takes a lot of time and effort that I don’t necessarily want to use right now on that,” (INF 2-4). Others also cite high resident turnover and the growing rental population as hindering recruitment of residents to participate on the boards.

While Privately-Managed Waterfront informants very readily report issues to their M&O company, they are still challenged to encourage building board participation. A board leader informant explains that many residents would rather elect others to make property decisions, they “vote for up-and-going board leaders who are used to lead, maybe they trust them to keep things in order,” (INF 3-5).” There is no reason for many to participate or seek *dugnad* events because “everything is taken care of outside – we simply pay for that in the common expenses,” (INF 3-1). A further challenge for participation in Privately-Managed Waterfront is that many residents travel and have multiple homes: “there are a lot who don’t live here permanently or have another home either in another country or in another place in Norway. That means that maybe you don’t get people with extremely strong connections to the management and such here,” (INF 3-5).

KNOWLEDGE OF CIVIC ENGAGEMENT FORUMS AND CONTACTS

The interviews showed little awareness of participation forums and relevant contacts. This hinders civic engagement in Publicly-Managed Social Housing and Resident-Managed Courtyard. While Publicly-Managed Social Housing’s informants know who to contact for building and property maintenance issues, they consistently answered incorrectly when asked

which responsible entity they could contact about the playground and public pathways. None mentioned awareness of the municipality's website for reporting local environment issues or of the signage offering a telephone number for the playground-responsible district. Owner-resident informants in Resident-Managed Courtyard consistently report the ability to contact their nearest board member, but rental tenants are less informed. A rental tenant explains: "Now I know someone from the board, so I can talk to him directly and I get an answer right away, but before it could take a lot of time, I got no answer and I didn't know who to contact or how anything functions. That was difficult," (INF 2-2). A yard board member further elaborates that "[The residents] surely would engage more if engagement was facilitated.. There is no email account for feedback and the current board members do not use the Facebook page. So the board doesn't have a particular way to be reached, we haven't advertised ourselves," (INF 2-6M). Privately-Managed Waterfront's informants described a low-threshold for reporting maintenance issues. However, not all informants were aware of who their local property board members are (INF 3-1, 3-4).

FEELINGS OF INEFFECTIVE OR UNFULFILLED PARTICIPATION IN RESPECT TO PROCESS OUTCOMES

Accounts of the most recent design and renovation projects on the sites reveal informants' feelings of inefficacy. A Publicly-Managed Social Housing resident (INF 1-1) reported several attempts to engage residents that resulted in no apparent outcome – to affect the renovation, to organize balcony cleanings, to engage local children in decorating mailboxes. The management informant admits to renovation decisions and installation of the new playground being "established and implemented by us...with no particular influences from the outside," (INF 1-5M). Resident-Managed Courtyard's yard design also encompassed several resident wishes that went unfulfilled, due to designers overruling decisions:

"We thought we were being heard in the system – with main points: to have different small pockets and a lot of greenery... We wanted everything in a kind of old-fashioned style and an outside space that could be used when it rains. We didn't get those last things...The landscape architect worked with us and listened, but in the end it seemed like the architect overruled her and steered the project away from our input," (INF 2-3).

More recently, the board in Resident-Managed Courtyard has been hesitant towards participation because it is seen as time-consuming and potentially conflictual (INF 2-5, INF 2-6M).

Privately-Managed Waterfront informants described their input to design packages as being limited to offering a collective yes or no, rather than affecting details or options: "We got a package from the developer for the entrance design...The board recommended it at the yearly meeting, but then there was a big debate about it because it changes the expression of the

entrance. There was a great deal of engagement around that. But we could only give a yes or no to the package in the end,” (INF 3-5). The management informant confirms the practice: “[The M&O company] owns all the way into the building wall, so we decide how to move the planters around in front of the businesses and condos. Occupants have their wishes and can take them up to the board, or tell me if there is a problem and I would come see if we can do something about it,” (INF 3-3M).

REPORTS OF SUCCESSFUL, INCLUSIVE PARTICIPATION

Only informants from Resident-Managed Courtyard offer accounts of successful and inclusive participation that extends beyond reporting maintenance issues and board members’ engagement. Residents organized their own *dugnad* in 2014, with help from the yard board. This forum revealed particular inclusion by involving rental tenants as well as owners. Informants report that 15-20 residents attended –“Enough people came. Some were there for the whole day and we got a lot done- the ones who use the yard most came,” (INF 2-2). Another particularly successful engagement in Resident-Managed Courtyard was reported as activism during the redesign of the yard- “When the bicycle sheds were being built they were two to three meters high and awful, big, ruining the view from the first and second floors- my building and a couple others actually protested and stopped some of them from being built,” (INF 2-3).

In sum, many forums for civic user engagement can be found in the three cases, but the knowledge that users have of them, the participation within them, and their effects upon the built environments vary significantly. Forums where input is not guaranteed to result in change across the cases appear to inhibit resident wills to engage civically. The differences in forum effects show variation in the extents of efficacy enabled, as the next chapter analyzes.

7. ANALYSIS: EFFICACY ENABLERS AND INHIBITORS

Contents:

7.1. Effects of physical user engagement

7.1.1. How urban design inhibits and enables physical user engagement

7.1.2. Enablers and inhibitors within trace production

7.1.3. Regulation as an inhibitor of physical user engagement

7.1.4. Extent of physical user engagement at each case

7.1.5. Extent of effective regulations at each case

7.1.6. Enablers and inhibitors of user efficacy from physical engagement

Analyzing Chapter 6's findings reveals what enables and inhibits spatial users' environmental effects and the comparative extent of user efficacy and spatial management at the three cases. The first two subchapters deconstruct the actions and effects of physical and civic user engagement findings. This informs the third subchapter's comparative analysis of exercised efficacy based on the theoretical framework.

7.2. What enables and inhibits the effects of civic user engagement?

7.2.1. Extent of efficacious civic user engagement at each case

7.2.2. Enablers and inhibitors of user effects from civic engagement

7.3. Extents of effects upon the built environment

7.3.1. Effects upon the environmental heterogeneity

7.3.2. Mechanisms of spatial management that mediate extent of user efficacy

7.1. Effects of physical user engagement

Sorting the physical user engagement findings by category and intentionality demonstrates that physical user engagement has a range of affecting the built environment, which transcends intentionality (Table 7-1). The actions within the engagement categories of personal interest initiatives, vandalizing, and graffiti tagging produce the widest range of unique traces in the built environment. Each category of engagement affects the three cases to different extents, with Privately-Managed Waterfront (Case 3) being affected by only a narrow range of actions (bicycle parking, graffiti tagging, littering, and personal interest initiatives).

Most of the physical user engagements observed in Publicly-Managed Social Housing and Resident Managed Courtyard (Cases 1 and 2) intentionally changed environmental

Table 7-1: Physical user engagement traces by case and intentionality, numbers indicate unique trace types present - see expanded chart with trace descriptions in Appendix.

Engagement Category	Case 1	Case 2	Case 3
Decorating	2	3	
Planting	2	2	
Functional airing	1	1	
Bicycle parking	1	1	1
Bird feeding	2	1	
Dog walking	2	1	3
Making desire paths	1	1	
Graffiti tagging	13	7	1
Posting flyers	3	4	
Vandalizing	7	3	
Littering	6	4	2
Personal initiatives	7	8	4

Legend:		
Intentional changes	Incidental changes	Not conclusive

conditions. These likely vary by whether they were planned ahead of time or happened spontaneously in reaction to the environment – distinguishing between adding of balconies and climbing on sculptures, for example. This difference alludes to different inhibitors that might be effective in preventing the planned or spontaneous actions, despite both being enabled by the design and materiality of the built environment. Dog walking traces, desire paths, and a portion of littering traces are attributed to incidental engagements resulting from use. The number of incidental traces that mark the environment show that intention is not a prerequisite for enabling physical user engagement.

7.1.1. How urban design inhibits and enables physical user engagement

The urban design analysis maps the physical engagement activities by category and location of trace left, showing that each case's design affects engagement in different manners. The maps and captions below Figures 7-1 through 7-6 (across the following six page spreads) explain pertinent relationships discovered in each case between trace location and semi-public areas, potentials for informal surveillance, social use, and other trace type prevalences. To reflect upon the regulation of municipal law work, findings for each case are distributed over two maps that distinguish legal and illegal engagement categories. The analyzed urban design principles illuminate several design-engagement relationships, despite no trends appearing consistent across all three cases. The variety of relationships in this analysis shows that none of the principles are universal or working alone to enable or inhibit physical user engagement.

Boundaries in Publicly-Managed Social Housing and Resident-Managed Courtyard enable both legal and illegal physical user engagement by providing semi-public spaces where 1) spatial users are comfortable in engaging by adding furniture, plants and toys (particularly in Resident-Managed Courtyard, see Figure 7-7); 2) litter is trapped (example in Figure 7-9); and 3) informal surveillance is low, screening activities like graffiti and vandalism from view (see example in Figure 7-8). This relationship is particularly illustrated with Publicly-Managed Social Housing's tagged walls and fences. Resident-Managed Courtyard's semi-public pockets are bordered by designed landscape elements, whereas Publicly-Managed Social Housing's semi-public areas are mostly leftover, un-designed spaces. This may explain why Resident-Managed Courtyard informants described a sense of comfort and belonging, particularly to the pockets closest their building entrance. This is also supported by the observations of the pockets encouraging use and engagement (see Figure 7-3). The few examples of legal engagement in Resident-Managed Courtyard's more open areas are attributable to other conditions – the kitchen garden was placed where the board permitted and dedicated plant beds were designed by each building entrance. While the central picnic tables and non-anchored items tend to move around the yard, they are often placed in pocket corners when not grouped centrally (where

Case 1: Legal engagement traces mapped over analyzed zones

Legend:

Analyzed zones:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

Social gradient:

- Often many stayers
- Sometimes some stayers
- Occasionally few stayers

Legal physical engagement:

- Decorating
- Planting
- Functional airing
- Bicycle parking
- Bird feeding
- Dog walking
- Personal initiatives
- Desire paths

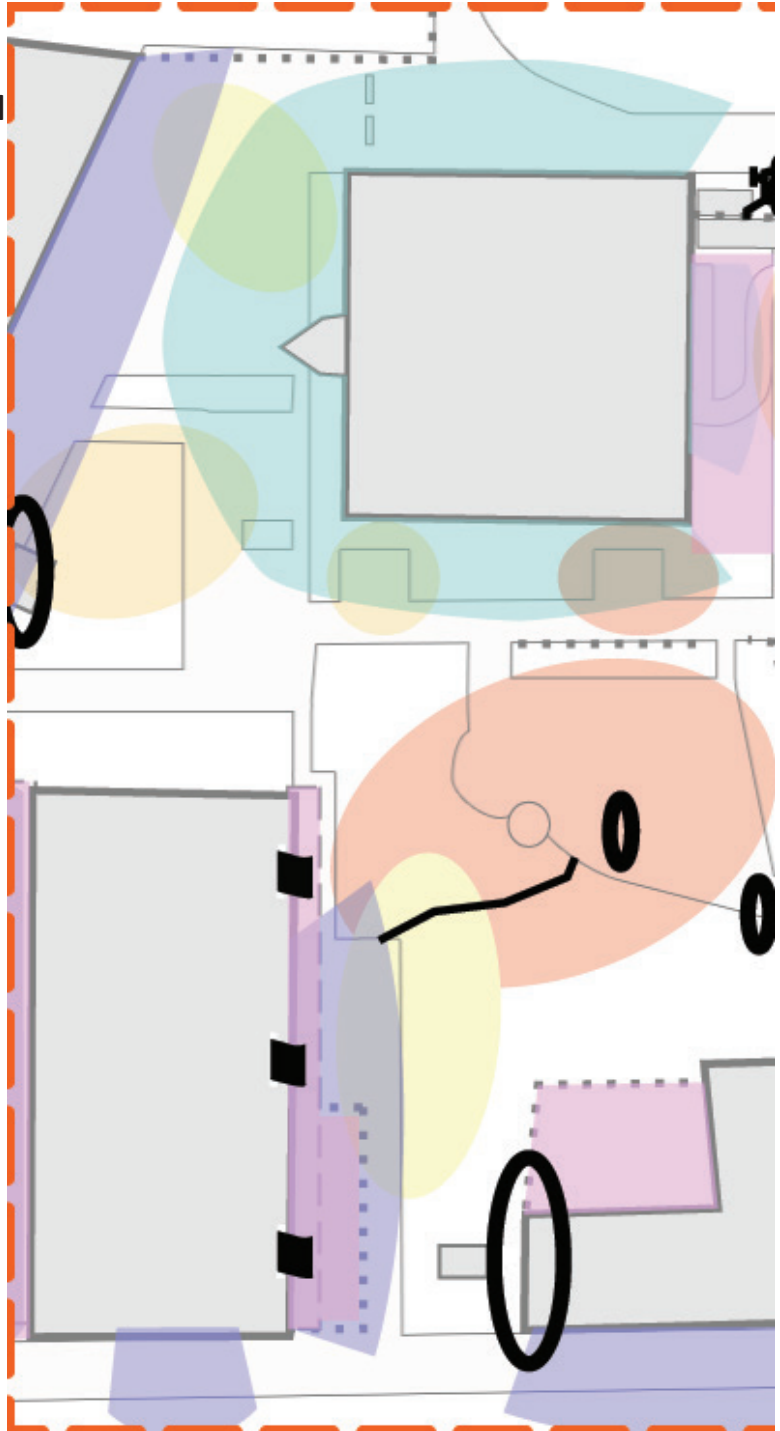
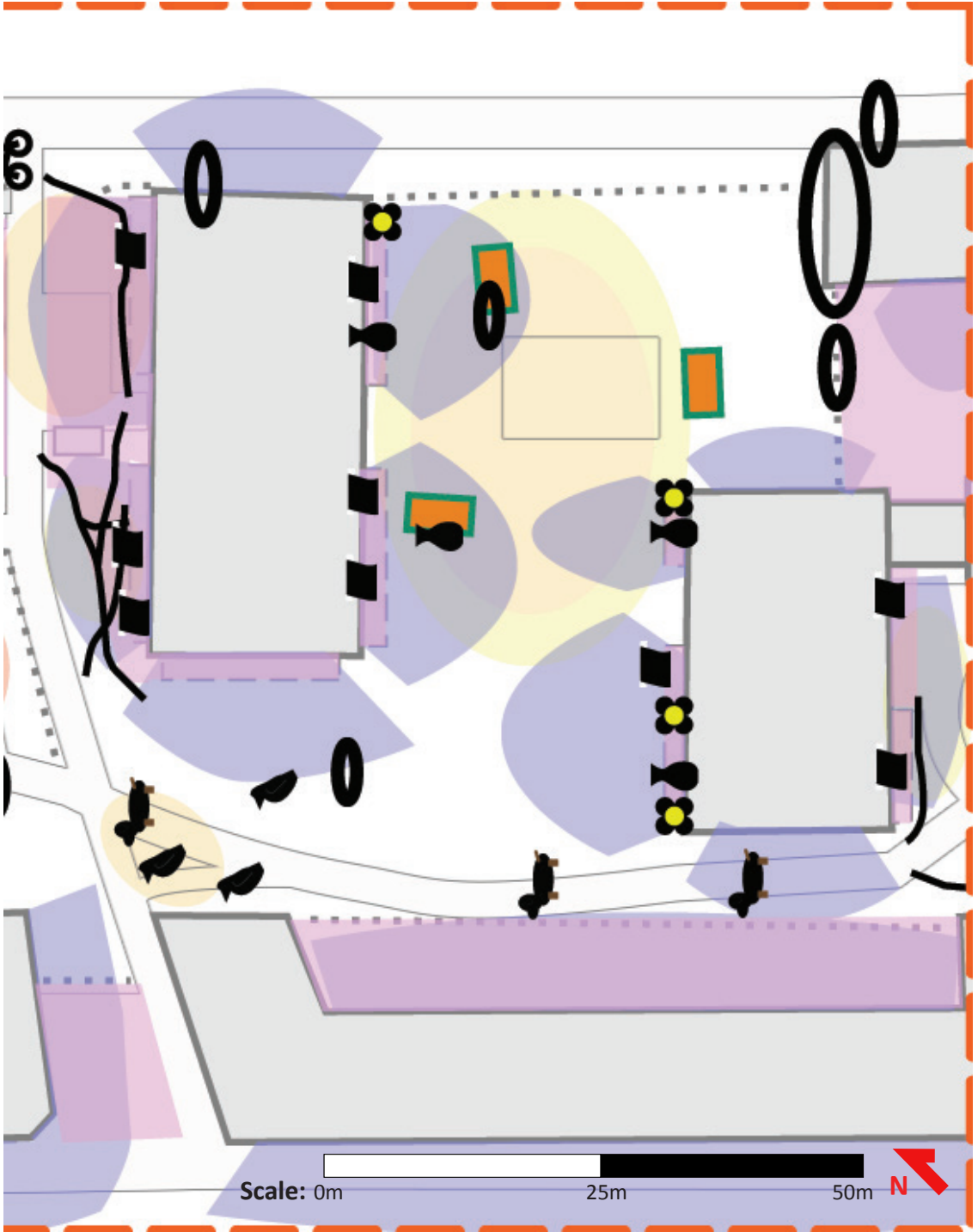


Figure 7-1: Mapping Publicly-Managed Social Housing’s legal physical user engagement traces show personal interest initiatives and legal engagements are mostly performed in open, viewable areas or on balconies - where they can be displayed. The moveable quality of the yard’s picnic tables enables user engagement of rearranging, while also providing a social amenity. The desire paths clearly are encouraged by the accessible ground floor balconies. The activity of bird feeding creates a social space by drawing people and offering an attraction despite the immediate lack of site furniture or other amenities.



Case 1: Illegal engagement traces mapped over analyzed zones

Legend:

Analyzed zones:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

Social gradient:

- Often many stayers
- Sometimes some stayers
- Occasionally few stayers

Legal physical engagement:

- ✕ Vandalism
- ✖ Litter
- ✱ Graffiti tagging

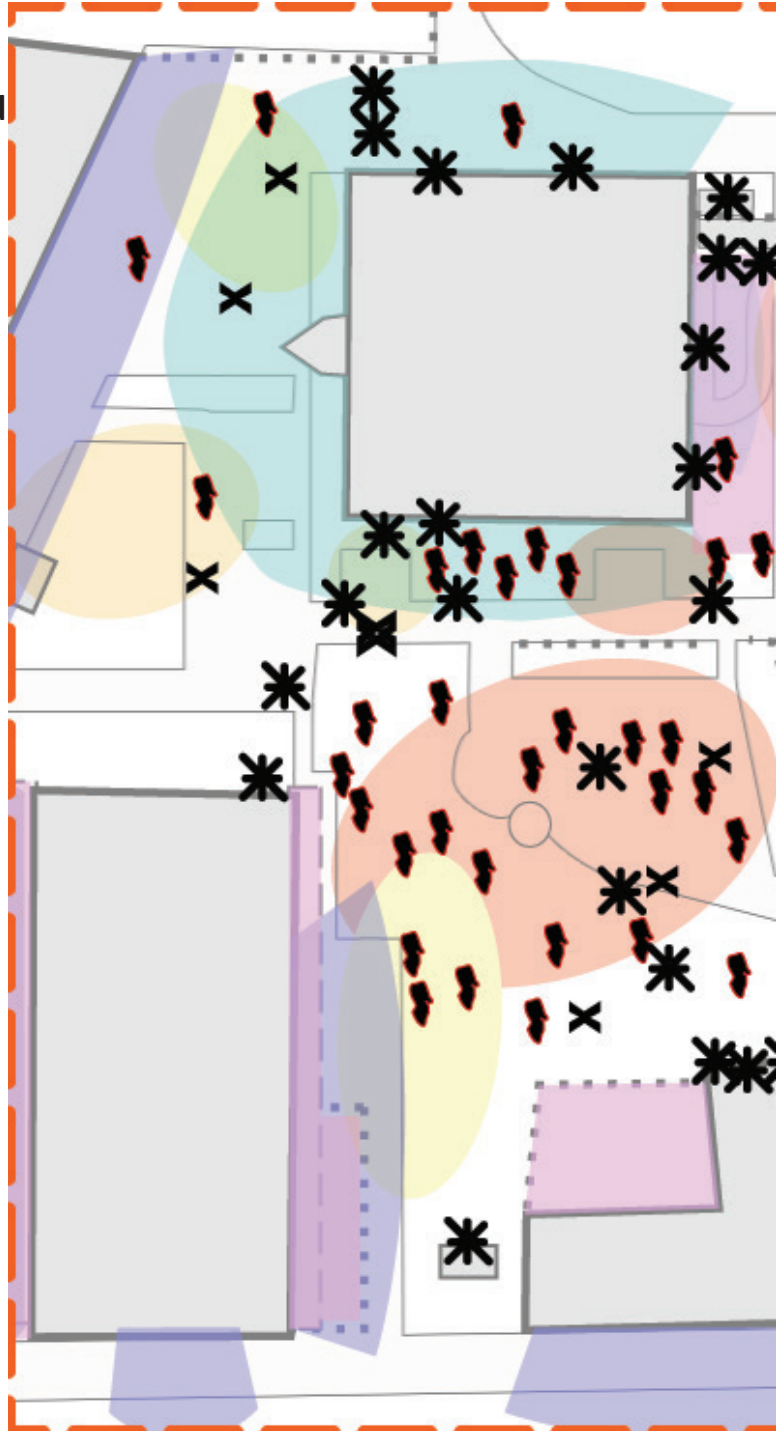
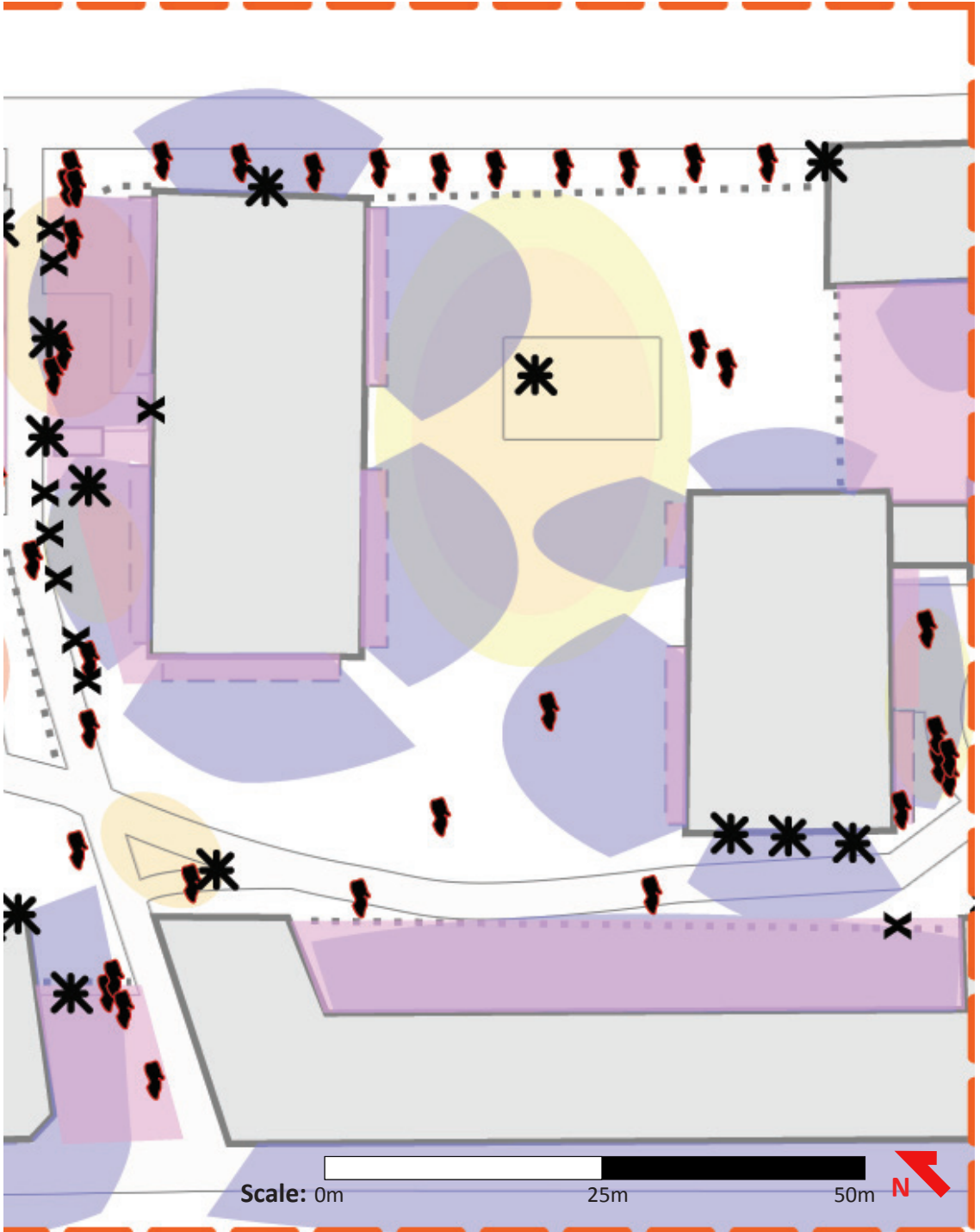


Figure 7-2: Mapping Publicly-Managed Social Housing’s illegal physical user engagement traces shows that vandalism and graffiti are particularly common in, though not constricted to, semi-public zones that have low visibility. The capacity for informal surveillance is not found to deter these behaviors. Boundaries - like fences and hedges - as well as social areas coincide with large amounts of litter – the former due to physically trapping it and the latter due to supporting the most potential litterers. Amenities in the highly social area of the public playground are targets of vandalism and graffiti.



Case 2: Legal engagement traces mapped over analyzed zones

Legend:

Analyzed zones:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

Social gradient:

- Often many stayers
- Sometimes some stayers
- Occasionally few stayers

Legal physical engagement:

- Decorating
- Planting
- Functional airing
- Bicycle parking
- Bird feeding
- Dog walking
- Personal initiatives
- Desire paths

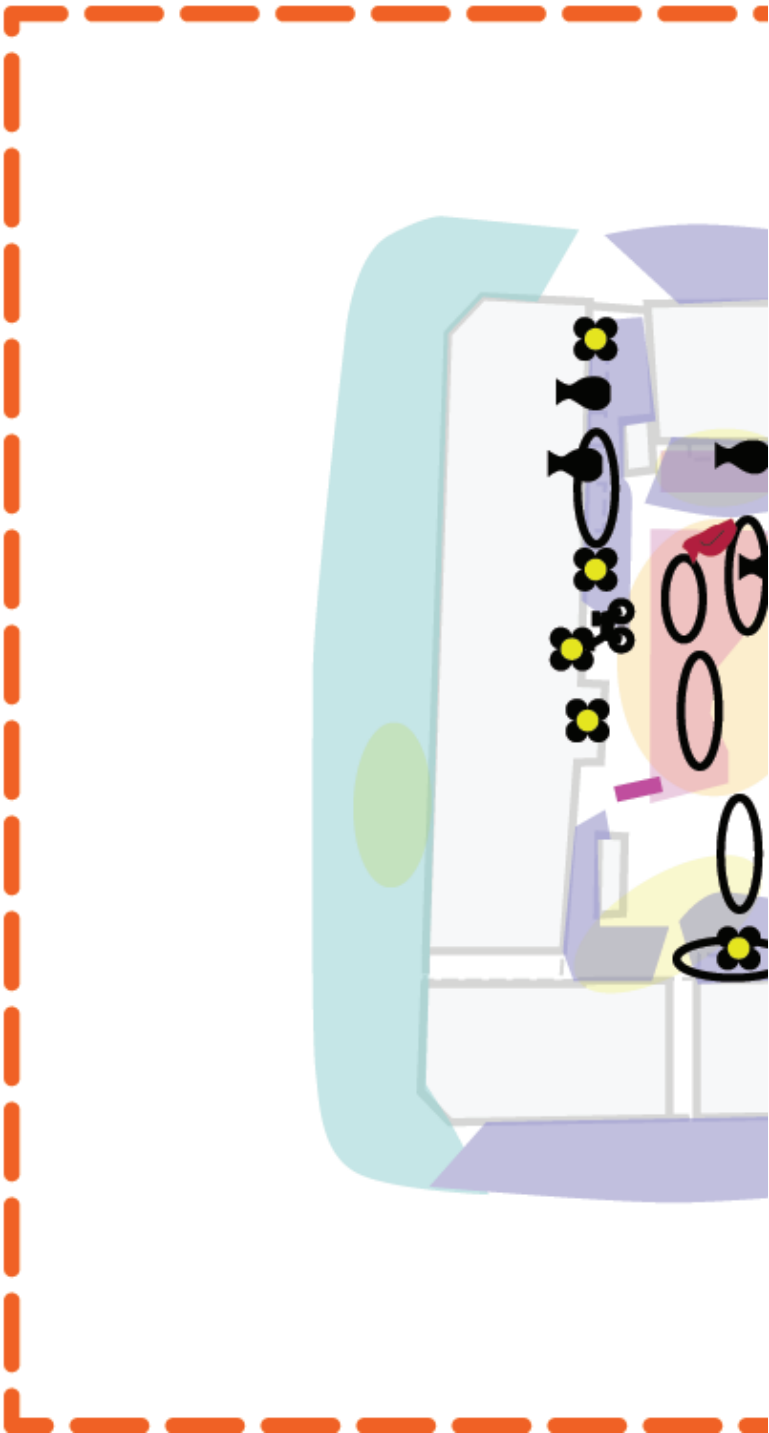
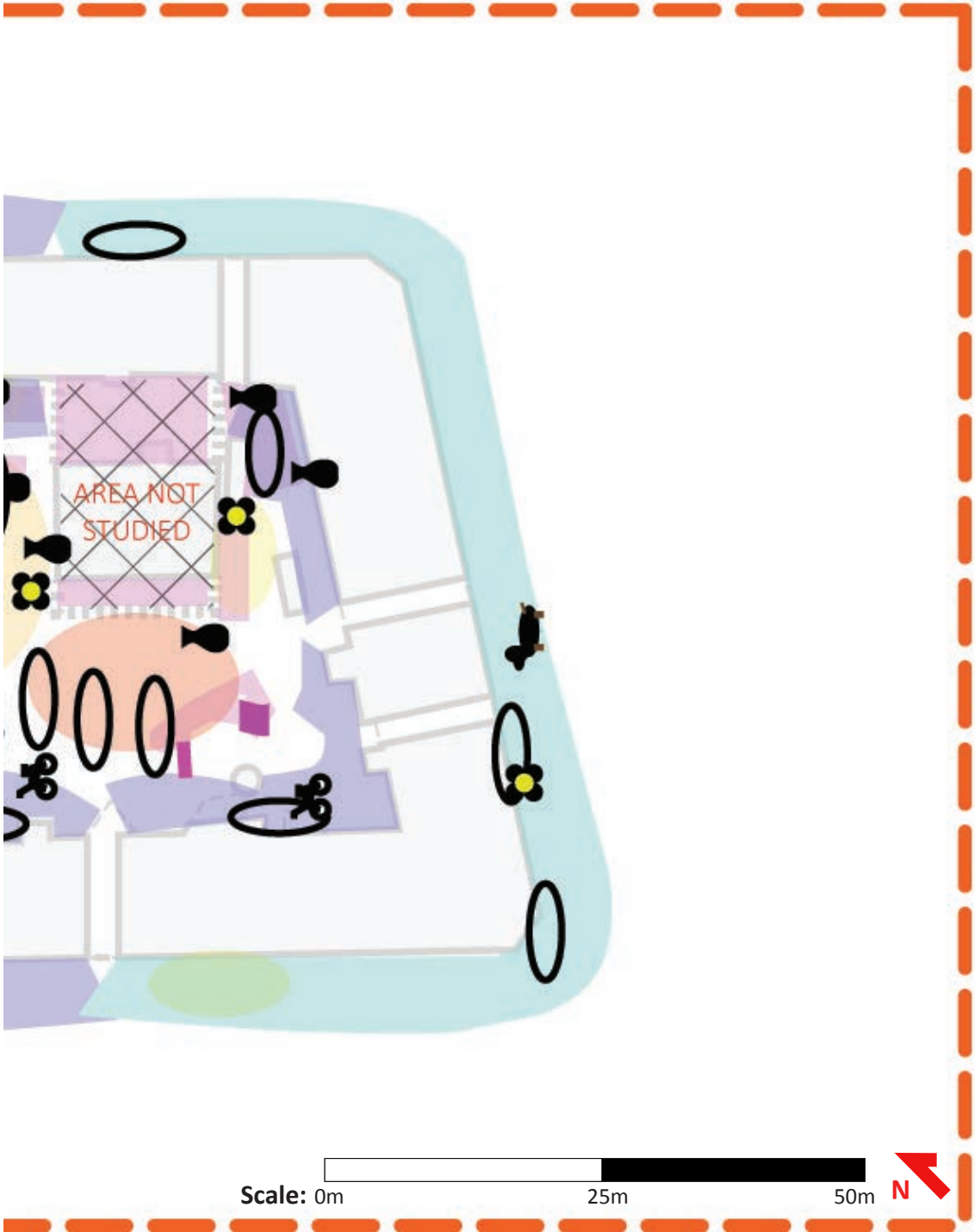


Figure 7-3: Mapping Resident-Managed Courtyard’s legal physical user engagement traces shows that most legal engagements happen in the designed semi-public pockets within the courtyard. Moveable furniture provides flexible social spaces along with enabling engagement. Only shopkeepers engage legally outside the block with decoration, signage, and flowers along the sidewalks.



Case 2: Illegal engagement traces mapped over analyzed zones

Legend:

Analyzed zones:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

Social gradient:

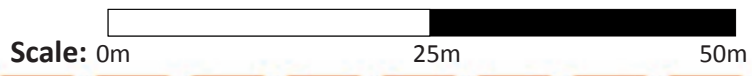
- Often many stayers
- Sometimes some stayers
- Occasionally few stayers

Legal physical engagement:

- Vandalism
- Litter
- Graffiti tagging



Figure 7-4: Mapping Resident-Managed Courtyard’s illegal physical user engagement traces shows that most litter, graffiti, and vandalism happen outside the block, along sidewalks and the exterior building facades. Graffiti is often concentrated at recessed building entrances where it coincides with low visibility. Informal surveillance is not found to deter graffiti - high first floor windows, solid doors, and limited opening hours of commercial units likely detract from potential surveillance.



Case 3: Legal engagement traces mapped over analyzed zones

Legend:

Analyzed zones:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

Social gradient:

- Often many stayers
- Sometimes some stayers
- Occasionally few stayers

Legal physical engagement:

- Decorating
- Planting
- Functional airing
- Bicycle parking
- Bird feeding
- Dog walking
- Personal initiatives
- Desire paths

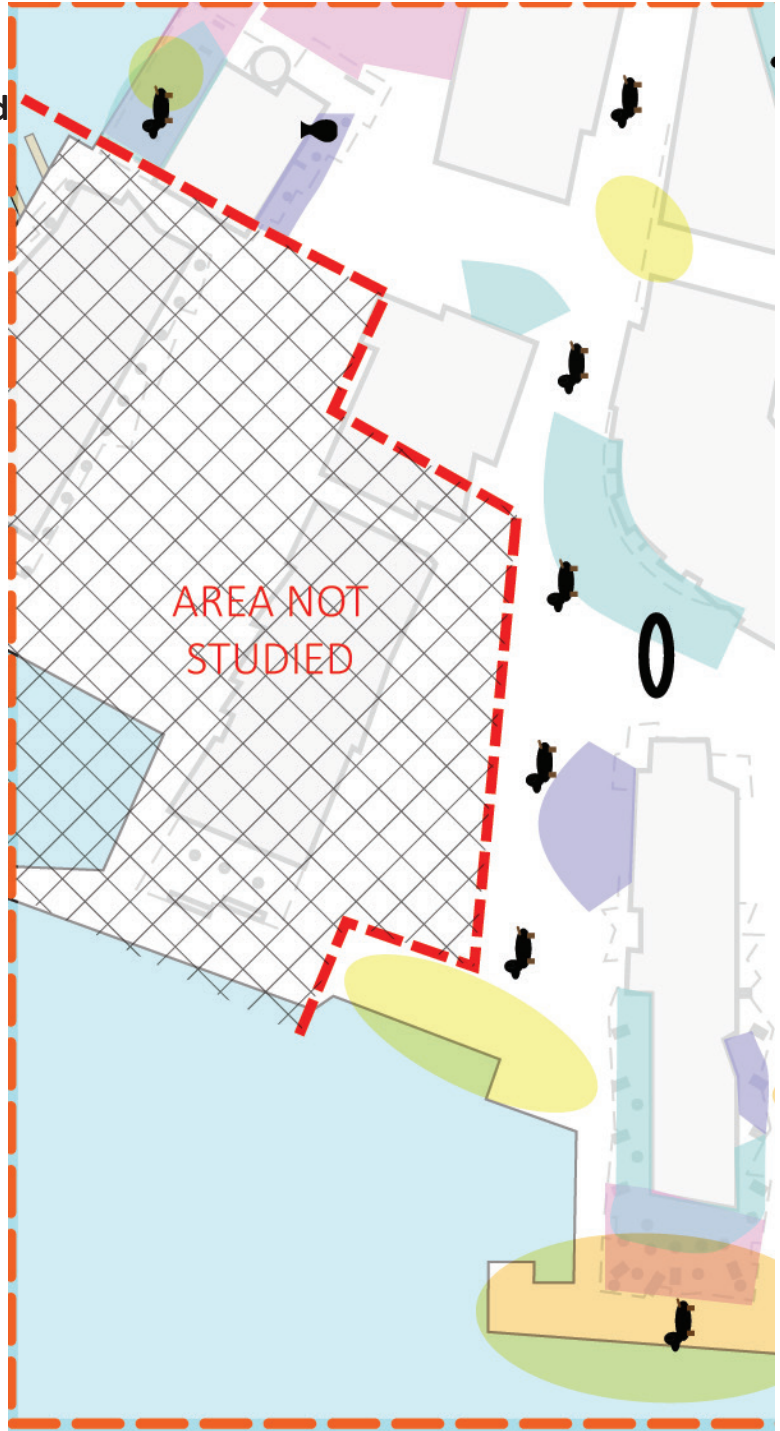
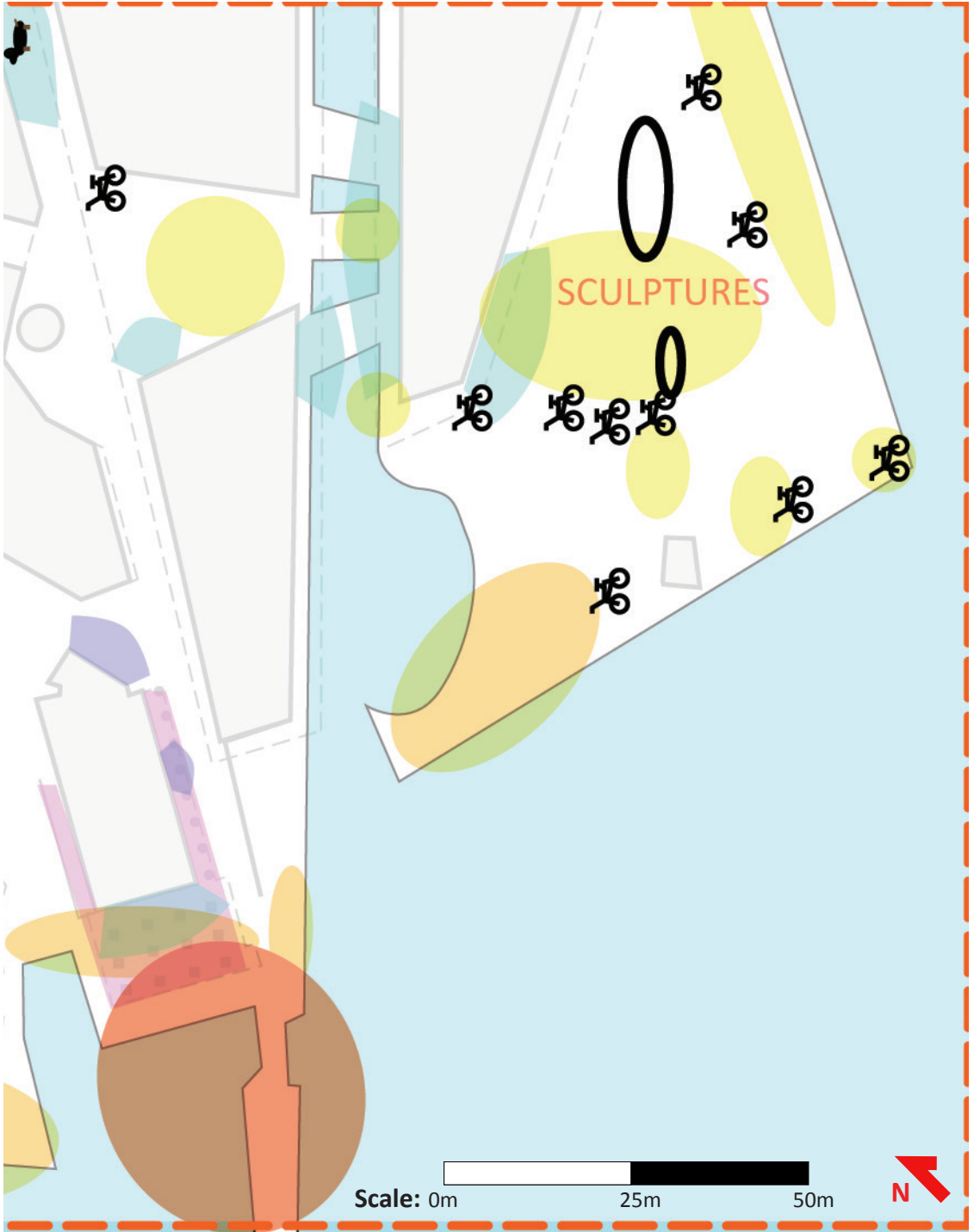


Figure 7-5: Mapping Privately-Managed Waterfront’s legal physical user engagement traces shows that while balconies should act as semi-public spaces, few are viewable from public areas. Few of these encourage decoration and planting engagement, perhaps due to lack of the display quality demonstrated in Publicly-Managed Social Housing. The overall small amount of engagement demonstrates little correlation with the urban design, apart from bicycle parking, which tends to happen on the fringe of social areas.



Case 3: Illegal engagement traces mapped over analyzed zones

Legend:

Analyzed zones:

- Semi-public
- Informal surveillance (24 hours)
- Informal surveillance (08-16:00)

Social gradient:

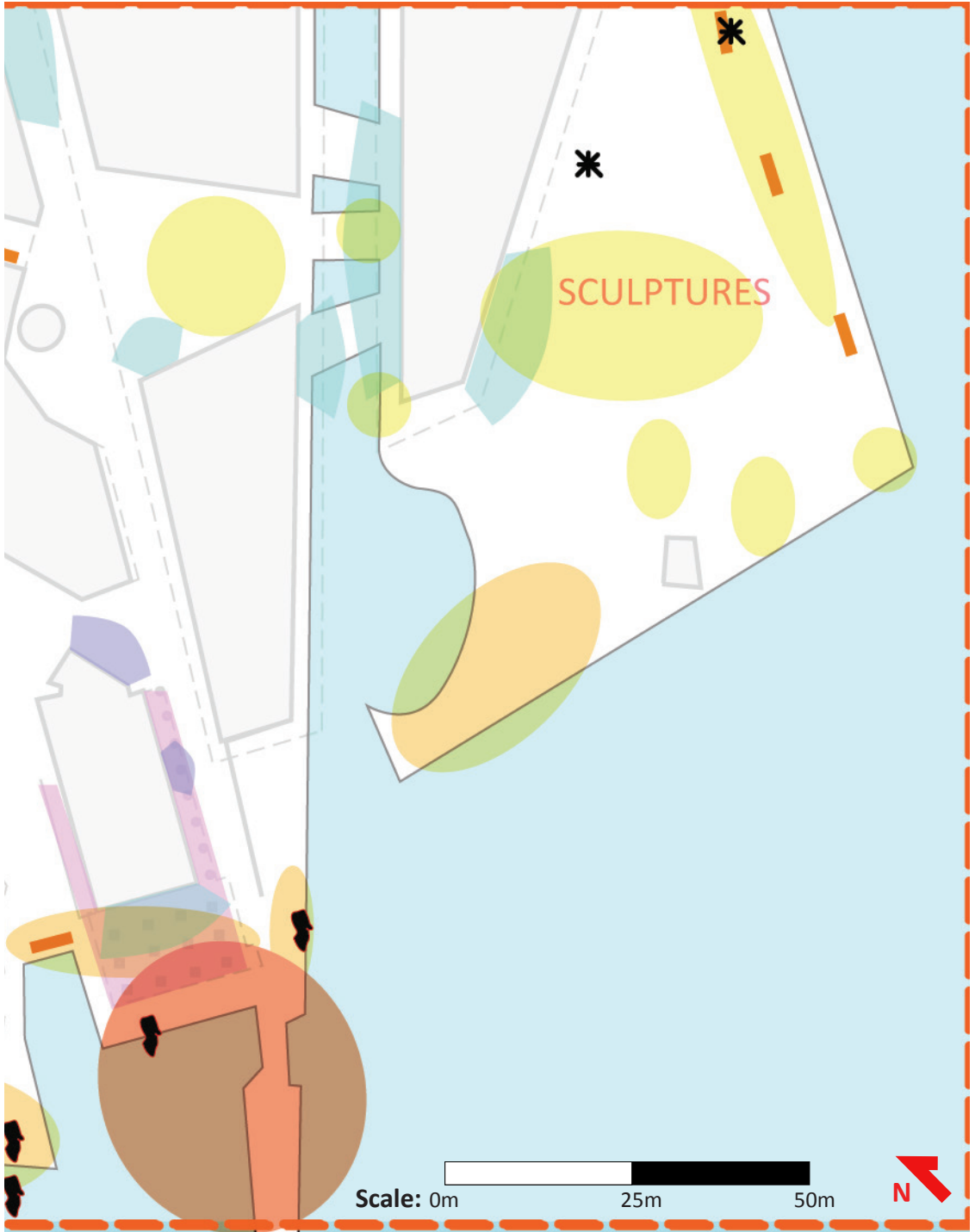
- Often many stayers
- Sometimes some stayers
- Occasionally few stayers

Legal physical engagement:

- ✘ Vandalism
- ♠ Litter
- ✱ Graffiti tagging



Figure 7-6: Mapping Privately-Managed Waterfront’s illegal physical user engagement traces shows coincidence between litter and the most social areas, where people spent the most time. Graffiti is only reported on wooden bench surfaces and one sculpture - the lack of traces prevents further information about how urban design enables or inhibits illegal engagement in this case.



the only space that accommodates large gatherings is found). The lack of illegal engagement in the semi-public areas of the yard contrasts with the block's exterior, where illegal acts mark entrances, facades, and public sidewalks. The only distinguishable spaces in Privately-Managed Waterfront- asides from difficult-to-view balconies- are areas loosely defined within columns and under overhangs. These are slightly screened and hold a different character than the open areas, yet display no personalized connections to residents- likely due to proximity to office frontages and the site amenities being chosen exclusively by the M&O company.

Informal surveillance does relate to graffiti tags occurring in areas that are sheltered from view – particularly in the entrance niches and portals of Resident-Managed Courtyard, the blank walls of Publicly-Managed Social Housing, and under high windows in both cases. However, graffiti is also commonly seen in these cases directly beside and between commercial – and to a lesser extent, residential- windows (see Figure 7-2 and Figure 7-4). This suggests little graffiti artist regard for informal surveillance, particularly after the open hours of commercial storefronts. In Publicly-Managed Social Housing, tags are even sprayed directly in front of a security camera, rendering formal surveillance ineffective in inhibiting the engagement. Litter and vandalism in all cases seem unaffected by proximity to building porosity – with windows targeted for vandalism in Publicly-Managed Social Housing and Resident-Managed Courtyard. Privately-Managed Waterfront is not particularly designed for informal surveillance, with its blank walls and indirect views to public spaces due to overhangs and narrow open spaces.



Figure 7-7 Designed semi-public spaces can enable legal engagement by encouraging personalization (Resident-Managed Courtyard).



Figure 7-8 Leftover or accidentally bounded semi-public spaces that have little informal surveillance can enable illegal engagement like graffiti tagging (Publicly-Managed Social Housing).



Figure 7-9 Boundaries like fences can catch litter and screen engagement activities from informal surveillance, as in this fence and graffiti-targeted wall surface at Publicly-Managed Social Housing.

This case is designed to rely upon formal surveillance, with numerous security cameras and patrolling personnel. However, these measures do not completely prevent undesirable behaviors – beyond observed litter, the interviews revealed that graffiti, bicycle theft, and public defecation occur on the site. The active M&O response to these prevents most of the actions from leaving observable traces (see lack of traces in Figure 7-6). Across the cases, informal surveillance alone, or the lack thereof, does not appear to determine or deter illegal engagement. Actual views, mixed use, timing, occupancy, local awareness, resident reporting, and maintenance reactions may be of equal to, or greater importance than, the presence of ground level and public-space-facing windows.

Visibility appears to be a factor in legal physical user engagement, but not in the sense of informal surveillance. Rather, many engagements occur in areas that are visible from the public spaces, which enable engagement through offering a display platform for decorations, plants, and other personal initiatives. Decorating and planting engagements in Resident-Managed Courtyard often occur near building entrances- likely affecting local identity while affording ease in tending. Because the outdoor spaces and balconies of Publicly-Managed Social Housing are designed to maximize visibility across the site, they become arenas for display to passersby, encouraging engagement that seeks an audience.

Social areas support engagement to some extent across the cases. This is not surprising, since people tend to stay where there is something to do or see. Staying areas align with bird feeding engagement (Publicly-Managed Social Housing) and personal interest initiatives (all cases). Moveable seating affords a form of engagement in itself in Publicly-Managed Social Housing and Resident-Managed Courtyard – witnessed by users employing it to adapt areas to meet their needs. This is reinforced by the decoration of moveable furniture in both cases. The high use of social areas also coincides with illegal engagement, particularly with litter in all cases. Especially littered are the areas immediately around benches and picnic tables in Publicly-Managed Social Housing and at the water’s edge seating steps at Privately-Managed Waterfront. Graffiti and vandalism in both Publicly-Managed Social Housing and Resident-Managed Courtyard are more prevalent in passing-by areas rather than in staying areas, though broken benches and swings at Publicly-Managed Social Housing show exceptions to that pattern.

Trace absences offer a summary of information regarding design elements’ effectiveness in inhibiting engagement and use. In all cases, boundaries such as fences and walls limit movement. Publicly-Managed Social Housing’s poorly lit pathways and poorly maintained amenities inhibit use and contribute to trapping litter. Resident-Managed Courtyard’s locked gates and overgrown hedges physically and psychologically inhibit users’ feeling of belonging. Along Privately-Managed Waterfront’s shaded, narrow public spaces, railings, uncomfortable

seating, and lacks of attraction deter staying in the site’s interior spaces. Planters, roping, and sculptural elements further constrict open, useable spaces.

Less effective attempts of design regulating behavior are the hedges and security elements in Publicly-Managed Social Housing and signposting of rules at all cases. Signage is overlooked and ignored in all cases- it is even commonly tagged and vandalized at Publicly-Managed Social Housing. The lack of observable engagement traces at Privately-Managed Waterfront limits this research from determining the specific effectiveness of its security cameras and other design moves that may inhibit trace-leaving engagement.

7.1.2. Enablers and inhibitors within trace production

The number of engagement actions and enabler materials in the findings offers a comparative overview of trace type production across the three cases (Figure 7-10). Privately-Managed Waterfront stands out with far fewer possibilities to produce traces than the other two. The different numbers of trace types produced at each case represent a variety of engagement enabled by material opportunity and acted-upon wills to engage at each site.

Over the three cases, 31 unique enabler materials were found within the observed traces, listed with their prevalences noted in Table 7-2. The comparison demonstrates Publicly-Managed Social Housing and Resident-Managed Courtyard to have high material opportunity in comparison to Privately-Managed Waterfront. Different qualities of the enabler materials allow their manipulation, adaptation, or marking. For example, walls that are smooth, not graffiti-protected, and reachable from ground level enable graffiti tagging. Ground surfaces materials can enable different actions – asphalt is capable of displaying chalk markings, lawns the passage of people with desire paths. Several of these enabler materials offer multiple

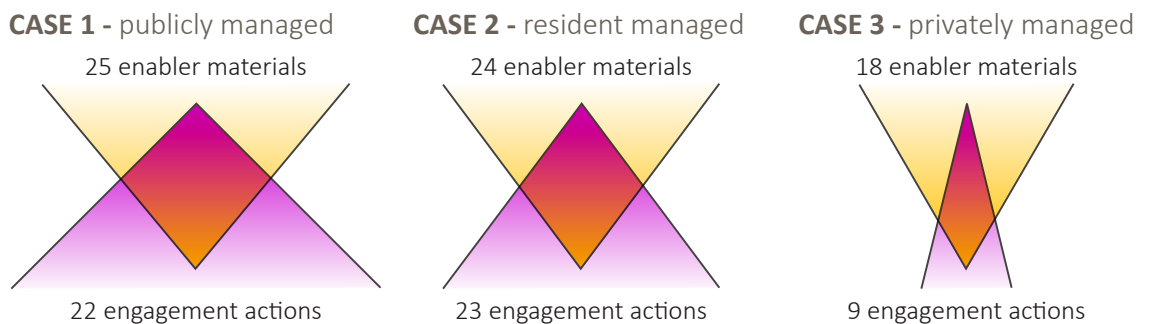


Figure 7-10 Trace type production found in the cases

Table 7-2 Enabler materials and their prevalences at the three cases.

<u>Enabler Material</u>	<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
wooden bench surfaces	●	●	○
balcony railing	●	○	●
downspouts	○	●	●
communal trash receptacles	●	●	●
doors	●	●	●
gates	○	●	○
flat ground surfaces	●	●	●
lamp posts	●	●	●
signs	●	●	●
trees	●	●	●
walls	●	●	●
windows	●	●	●
planter boxes	○	◐	●
lawn	●	●	◐
utility boxes	●	●	◐
asphalt surfaces	●	●	
hedges	●	●	
picnic tables	●	●	
moveable furniture	◐	●	
wooden fence	●	◐	
playground equipment	◐	○	

<u>Enabler Material (cont'd)</u>	<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
balcony gate	●		
concrete board building base	●		
concrete pavers	●		
concrete traffic barriers	●		
drying stand		○	
work sign		○	
traffic light post		◐	
roping post			●
sculptures			●
tree stake			●

<u>Legend</u>	
	not prevalent
○	low prevalence
◐	medium prevalence
●	high prevalence

interaction opportunities that enable multiple forms of engagement (see Appendix for full chart of engagement trace types).

Analyzing the physical engagement trace findings demonstrates 35 unique actions behind them, which can be compared to determine how acted-upon wills to engage enable trace production. The enactment of engagement actions to produce traces is dependent upon the will of the actor as well as the presence of enabler materials (i.e. graffiti-proof coating would prevent the act of tagging despite a present will to engage) – showing neither aspect to determine trace production alone. Table 7-3 compares the acted-upon engagement actions where the associated enabler materials were present in all three cases. Several of the actions leave traces with different qualities, depending on which enabler material they interact with (marked with an asterisk* in Table 7-3). The differences in how prevalently these actions were performed at the three cases demonstrate different wills to engage. Privately-Managed Waterfront shows a far lower will to engage than Publicly-Managed Social Housing and Resident-Managed Courtyard, which hold similar numbers of enacted engagement actions. It was beyond the scope of this research to analyze the psychological aspects behind the will to engage or intentions behind engagement – the concept of will to engage was approached as a precedent to performing an engagement action. Beyond psychological factors, the different wills to engage may be explainable by presence of regulation or maintenance actions that inhibit trace leaving, as are analyzed in the following sections.

7.1.3. Regulation as an inhibitor of physical user engagement

Comparing the prevalence of traces and regulations demonstrates that regulations are effective in inhibiting engagement in some circumstances, but not all. Table 7-4 summarizes the relative prevalence of traces from each engagement category alongside the extent to which they are regulated or maintained against.¹⁹ The full analysis that compares specific trace types' prevalences against regulation and material opportunity is included in the Appendix. This analysis shows that the different regulations in place vary in how much they affect use and engagement possibilities. Privately-Managed Waterfront distinguishes itself as having the most enforced regulations. Resident-Managed Courtyard has comparably few regulations and substantially less enforcement. These gaps in enforcement open possibilities for physical user engagement, whether or not intended by each case's spatial management.

19 Regulation effectiveness in these charts was determined by the presence of established regulation plus observed and reported enforcement of each regulation or maintenance act, as corresponds to enacted engagements.

Table 7-3 Engagement actions and prevalence of derivative trace-production where material opportunity is present at all three cases. Asterisks (*) denote actions that interact with different materials to produce multiple trace types.

<u>Engagement action</u>	<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
tagging*	●	●	○
walking dogs on lawn	◐	○	●
leaving food or liter*	●	●	○
adding (informal) planters	○	◐	
planting flowers and plants	○	●	
playing with toys and leaving them out	◐	●	
posting posters and flyers*	●	◐	
shoving litter behind and leaving on utility boxes	○	●	
breaking*	●	◐	
drawing with chalk*	○	◐	
hanging, maintaining decorations over railings	◐	○	
making/using desire paths	●	○	
making, placing bicycle ramp	○		
mounting parabolic antennae	◐		
painting/hiring wall mural art	◐		
airing rugs/ clothes	●		
adding outdoor furniture		●	
building/ maintaining a kitchen garden		○	

<u>Engagement action (cont'd)</u>	<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
hanging bird feeders		○	
hanging, maintaining wall decorations		◐	
placing chair on lamp post		○	
placing/using grill (and leaving it out)		◐	
allowing dog urine that stains			●

<u>Legend</u>	
	not prevalent
○	low prevalence
◐	medium prevalence
●	high prevalence

Enforced regulations inhibit engagement’s efficacy, particularly in Privately-Managed Waterfront, where regulated-against forms of engagement are rarely observed to leave traces. The fact that engagement still occurs shows that regulations do not always prevent engagement. By comparison, lacks of regulation enforcement in the other two cases inadvertently enable engagement – both Publicly-Managed Social Housing and Resident-Managed Courtyard show a relationship between relaxed enforcement of rules and high prevalences of traces, particularly within the categories of posting flyers and littering.

The sum of these analyses demonstrates that neither enabler material presence nor enforced regulation fully determine or prevent trace production in the three cases. Behaviors that blatantly break established regulations still produce traces across the cases (all graffiti, littering, vandalism, most posting flyers, mounting of parabolic antennae, etc), though management reactions to those traces can be effective in inhibiting their observation, prevalence, and longevity.

Table 7-4 Summary of the categories of physical user engagement against effective regulation in the three cases. Regulation tables in Chapter 6 and the full charts in the Appendix elaborate upon the regulations and cite sources. The full physical user engagement table in the Appendix elaborates with trace descriptions under each category and a comparison of material opportunity alongside regulation effectiveness and trace prevalence.

<u>Engagement Category</u>	<u>Prevalence</u>			<u>Regulated</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Decorating	●	●	○	◐	○	●
Functional airing	●	◐	○	◐	○	●
Bicycle parking	○	●	●	◐	◐	●
Bird feeding	●	○	○	◐	○	○
Dog walking	◐	○	●	◐	◐	●
Graffiti tagging	●	●	○	◐	◐	●
Posting flyers	●	◐	○	◐	◐	●
Vandalizing and breaking	◐	○	○	◐	◐	●
Littering	●	●	○	◐	◐	●
Other personal interest initiatives	●	●	◐	◐	◐	●

<u>Prevalence Legend</u>		<u>Regulation Legend</u>	
●	traces from category highly prevalent	●	formally regulated and responded to
◐	few traces from category	◐	formally regulated, but little or not responded to
○	one or o traces observed from category	○	not regulated against

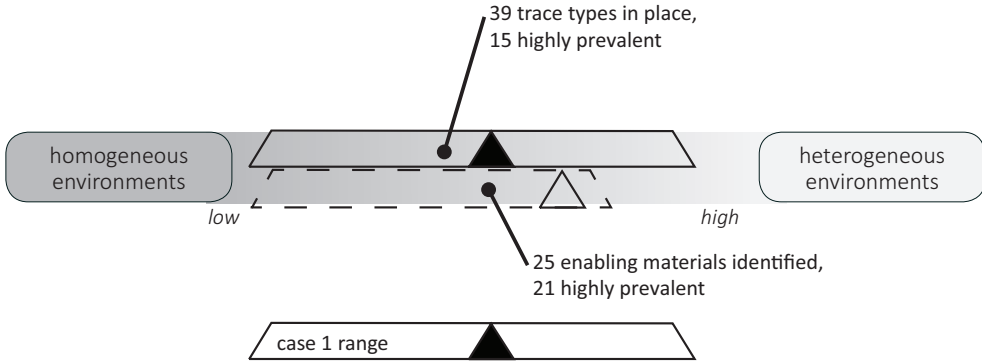


Figure 7-11 Physical user engagement - material opportunities vs. those actualized, Publicly-Managed Social Housing.

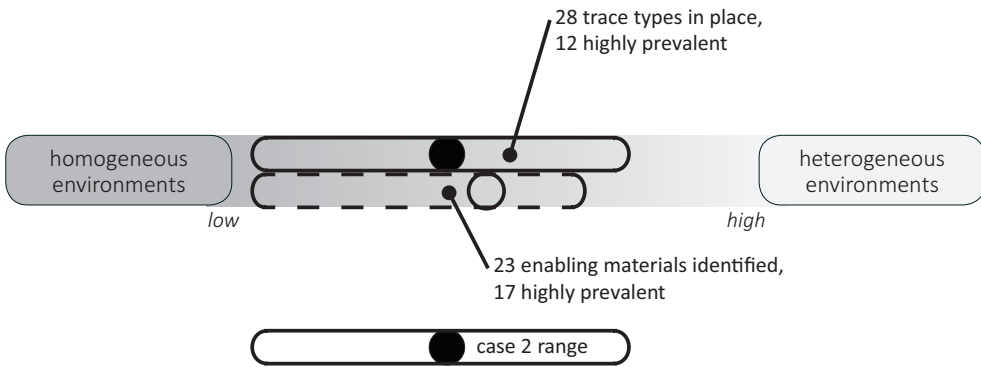


Figure 7-12 Physical user engagement - material opportunities vs. those actualized, Resident-Managed Courtyard.

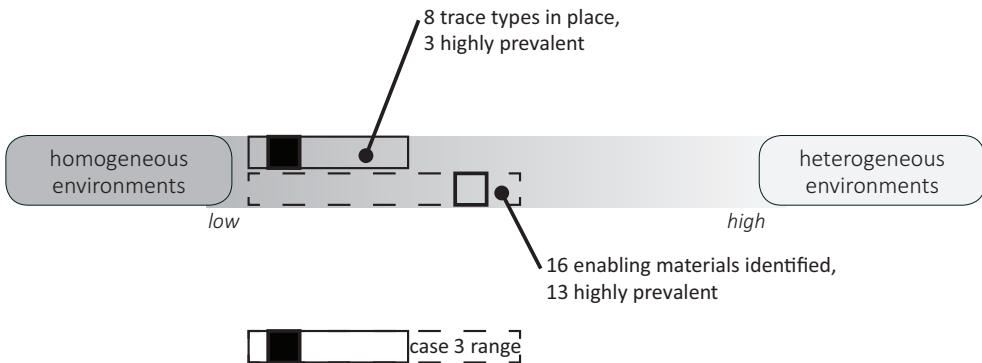


Figure 7-13 Physical user engagement - material opportunities vs. those actualized, Privately-Managed Waterfront.

7.1.4. Extent of physical user engagement at each case

To summarize the opportunities and limitations of exercising efficacy through physical user engagement, the analysis results are charted over the theoretical framework (see illustrations in Figures 7-11 through 7-13). Ranging from homogeneous to heterogeneous environments, the cases with more traces, and those whose traces affect the environment the most, demonstrate themselves to be the most heterogeneous. The resultant efficacy from physical user engagement is determined by the number and prevalence of trace types showing actual engagement and enabler materials offering the potential for producing traces. Highly prevalent trace types are visually weighted as filled shapes, while opportunities are visualized as dashed ranges in the illustrations.

Figure 7-11 and Figure 7-12 show that Publicly-Managed Social Housing and Resident-Managed Courtyard surpass their material opportunities due to multiple trace types produced from many of their enabler materials. Privately-Managed Waterfront (Figure 7-13) on the other hand has very few actual traces, showing that many enabler materials are not acted upon. This leaves the case with a wide range of unfulfilled opportunities beyond the actual efficacy found to have been exercised. Publicly-Managed Social Housing offers the widest range of opportunities to exercise efficacy through physical user engagement.

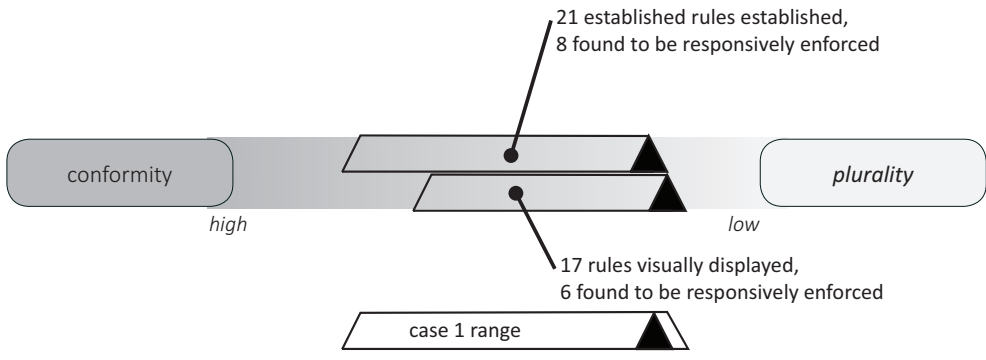


Figure 7-14 Formal regulations - those established vs. those enforced, Publicly-Managed Social Housing.

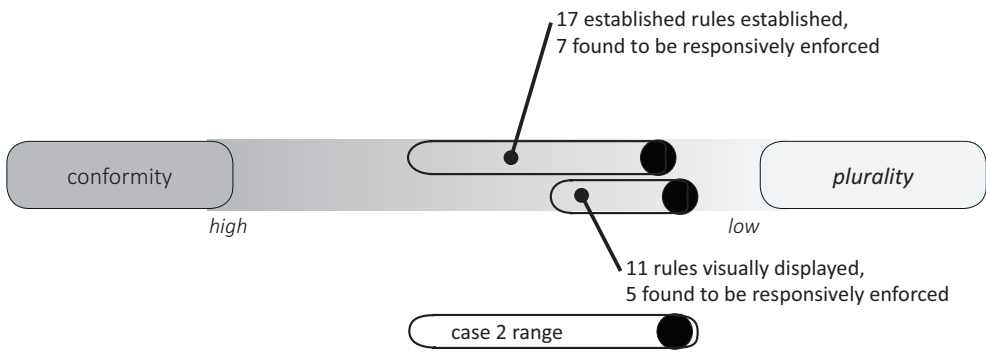


Figure 7-15 Formal regulations - those established vs. those enforced, Resident-Managed Courtyard.

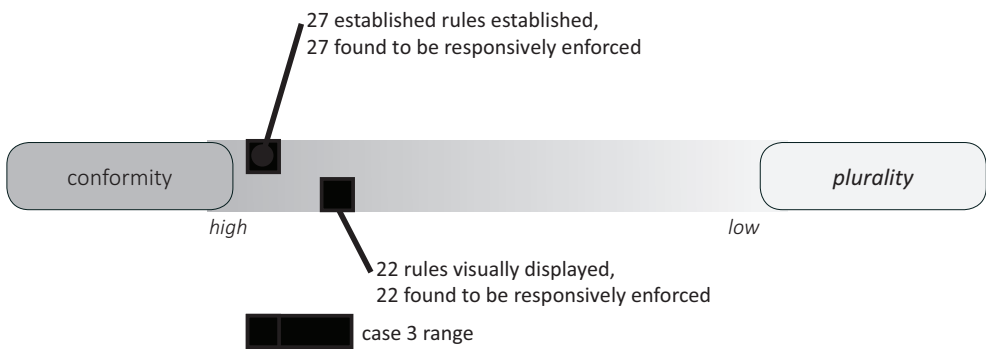


Figure 7-16 Formal regulations - those established vs. those enforced, Privately-Managed Waterfront.

7.1.5. Extent of effective regulations at each case

Charting the regulations' effectiveness along the framework places each case within a range from conformity to plurality (illustrated in Figures 7-14 through 7-16). High conformity connotes numerous and effective case regulations – resulting in a high degree of inhibiting behaviors and engagement opportunities. Each case's placement along this range is based upon the number of established regulations, weighted as the number actually enforced (represented as a filled shape in the illustrations) and compared with the number of signposted, visually displayed rules, and their enforcement. These illustrations visually compare the range of regulations that are established, displayed, and actually enforced at each case. Publicly-Managed Social Housing and Resident-Managed Courtyard favor the plurality side of the range due to low numbers of enforced regulations, while Privately-Managed Waterfront stands out as enforcing all of its many rules. The graphics further illustrate the potential for Publicly-Managed Social Housing and Resident-Managed Courtyard to shift towards conformity if more of the established rules start being enforced.

7.1.6. Enablers and inhibitors of user efficacy from physical engagement

This subchapter's analyses show that several aspects of an urban residential environment's design and M&O can enable and inhibit physical user engagement. Designs that provide flexibility through open, flat surfaces and moveable amenities enable users to accommodate their use needs and be creative in decorating or implementing personal interest initiatives. This enablement may be enhanced by the integration of semi-public pockets – designed, intimate spaces where people feel comfortable and are able to identify, increasing the will to engage. Further, visibility and lines of sight are important design elements for enabling engagements that display and for increasing feelings of safety and neighborly trust that promote spatial use. Attention to design details through the properties of environmental materials – particularly to how adaptable and mark-able they are – can inspire and enable or inhibit many forms of engagement, from decorating to graffiti tagging. On the other hand, spaces that are overly designed with fixed-in-place or uncomfortable amenities limit the possibilities users have to adapt the environment to their needs and to feel like they belong. The rigidity in design inspires anonymous, rather than personal, relationships with the environment.

Anonymity is an inhibitor of physical user engagement. The will to engage depends on trusting others to respect initiatives and is likely enabled by general feelings that other spatial users care. Unmaintained environments deter use and inhibit users' wills to engage. Overly maintained spaces that remove all traces from previous user engagements can inhibit further engagement, as users feel constrained in their engagement opportunities and do not trust

that their traces will remain. An extremely responsive management may also contribute to local social pressure that inhibits the will to engage through worry of what neighbors might think – each person’s initiatives are likely to stand out extra due to non-conformity. Beyond maintenance responsiveness, regulations inhibit engagement when they are well-enforced, and enable engagement when they are few or slackly-enforced. User awareness and support of enforced regulations factor into this, since the regulations that users are unaware of or disagree with show a greater tendency of being broken, regardless of the enforcement mechanisms in place.

7.2. What enables and inhibits the effects of civic user engagement?

Analyzing the number of participation forums available, who they invite, and how much they affect the built environment builds a picture of how the three cases offer efficacy through civic user engagement. Comparing the extent of efficacy from this type of engagement across cases reveals what enables and inhibits participation from affecting the built environment.

Summarizing the findings from section 6.3, Table 7-5 (on the following pages) provides an overview of the opportunities for, and outcomes of, civic user engagement in the three cases. Resident-Managed Courtyard is the only of the three that runs *dugnad* events. The table shows that many spatial management actors invite civic user engagement and a variety of each forum’s results. Few physical built environment results were discovered from these forums, even from those connected to renovation or construction projects. Many of the forums (i.e. all of the board opportunities) serve resident owners, and few invite all, or all potential, spatial users. The municipal forums open to all residents of the city do not give particular weight to user input among other attendees. Spatial users from all three cases show little awareness of these municipal forums, especially in Publicly-Managed Social Housing.

7.2.1. Extent of efficacious civic user engagement at each case

Comparing the different opportunities for civic user engagement across who is invited, who actually participates, and to what extent that input affects the built environment compares the extent each forum offers efficacy at each case. Each forum is charted over the theoretical framework by case, within a range from conflict avoidance to open debate (see Figure 7-17). Figures 7-18 through 7-20 visualize the range of opportunities each case has for engagement and shows which forums are the most active. While Publicly-Managed Social Housing (Figure 7-18) and Privately-Managed Waterfront (Figure 7-20) have the most forums for civic engagement, the most active forums tend towards low-efficacy, aiming towards consensus-

building. Resident-Managed Courtyard's forums offer greater efficacy in the built environment (Figure 7-19).

7.2.2. Enablers and inhibitors of user effects from civic engagement

The relative rankings of the previous analysis show that enabling civic user engagement's effects upon the built environment can be achieved through providing opportunity to engage, inspiring inclusive participation in engagement forums, and implementing user input.

Opportunities to engage civically can enable heterogeneous user efficacy when they involve a broad group of diverse users. Spatial managers can easily enable involvement from users with personal interests in the subject a forum addresses, in a personal investment, or in participation and political forums in general. The motivations and actual engagement of spatial users in a forum affects the extent managing actors can gather representative and implementable input from it. Motivating participants requires trust in the forum and in its provision of efficacy. Non-effective or non-implemented user inputs inhibit efficacy and users' wills to engage. Similarly inhibiting to civic engagement's efficacy are defunct forums, or those operating with unclear goals and unclear effects in the environment. This analysis shows that efficacious civic engagement requires forums that are directed towards implementing different users' input in the physical environment.

7.3. Extents of effects upon the built environment

Compiling the extents of efficacy (charted at the end of the previous two sub-chapters) in Figure 7-21 compares the cases by the extent that each is affected by user engagement and spatial management practices. The summary supports the pattern expected by the theoretical framework in Resident-Managed Courtyard and Privately-Managed Waterfront tending towards one side of the ranges through the three fields. However, Publicly-Managed Social Housing diverges from the pattern by crossing from the left (low efficacy) to the right (higher efficacy) side of the framework between the first two fields. This aberration illustrates the significance of regulation enforcement, as the lack of enforcement affords the case flexibility in use and trace production that approaches more environmental heterogeneity than would otherwise be expected.

Table 7-5: Civic user engagement opportunities per case and spatial management phase. The main phase, “In the everyday” connotes ongoing forums, not limited in time to design or renovation projects.

WHAT/ WHEN	WHO	HOW	BY WHOM	RESULTS
Publicly-Managed Social Housing:				
In the everyday –				
<i>Playground</i>	all users	Can report to phone number signposted	District government	Informants reported not being familiar with sign/forum; little used and complaints rarely followed up
<i>Paths/ sidewalks</i>	all users	Website, not signposted – can report: pruning, grass clipping, out-of-order street equipment, plowing/gritting, streetlights, bus stops, potholes, signs, drainage, full trash cans/litter, tagging	Municipal Department for City Environment	No informants reported being aware of this forum or actor on the site. Difficult to know where their responsibility area and how reported concerns are prioritized and when they are addressed, as the forum is citywide.
<i>Residential yard and buildings</i>	all residents and neighbors	Can report to phone number or occasional workers on site	Property management	Informants reported using the service for problems inside the buildings, but not in the yard, more likely to call police about serious infractions and not likely to report minor maintenance issues.
	all residents	Residents’ board – not consistently active	District government and Property management	Has depended upon property tenants over time and been largely inactive and defunct for many years.
Design/renovation process and other occasional-				
<i>Residential property renovation</i>	Residents	Invited to answer a survey (prior to renovation and in early, non-implemented design phases)	Property management, previous designers	Informants reported their survey responses not being addressed in the renovation. A previous design firm had run participation processes with the residents but their suggestion for the yard’s remodeling went unbuild as the management determined the design not maintainable or sustainable in the given social context.
<i>Neighborhood urban renewal</i>	Neighborhood residents	Hearing meetings and workshops	District government	Uneven representation of neighborhood demographics observed. Resident informant felt unwelcome and unheard.
Resident-Managed Courtyard:				

In the everyday –					
Residential yard and buildings	Resident owners (not renters)	Take part in or forward concerns to their property board, which can forward them to the yard’s board.	Building cooperative boards and Yard board	Board informants report receiving (and asking for) little information from residents, contact information not well distributed.	
Design/renovation process and other occasional-					
<i>Yard design (1990s)</i>	Resident owners (not renters)	Design hearings, working group	Architect and landscape architect	Informant reports few of their ideas adapted into the design, but still needed to actively protest certain elements from being built.	
<i>Dugnad</i>	All residents	Invited yearly to yard dugnad	Yard board plus organizing residents	Provides seasonal yard cleaning and planting.	
Privately-Managed Waterfront:					
In the everyday –					
<i>Residential spaces and buildings</i>	Residents and commercial tenants	Online forum, phone and personal contact at management company office/ on site	Property management	Complaints and maintenance input welcomed and often addressed from individual level. Consultation not practiced when changing the design of outdoor areas, at most offer veto power over set packages.	
<i>Residential buildings</i>	Resident owners	Take part in or forward concerns to their property board, which can forward them to the user forum.	Property board	Three people from each property form a board that makes decisions on behalf of apartment owners and opens issues for debate by all owners once a year.	
Design/renovation process and other occasional-					
<i>Ongoing renovations and maintenance work</i>	Resident, commercial board members, investors	“User forum”	Property management	Board that can debate maintenance budgets and works – informant member describes it more as information exchange though management explains its intent of deliberation.	
<i>Neighborhood design and construction (2012-2014)</i>	All Oslo residents	Vote on idea competition	Oslo Municipality	The public was invited to vote on the winning entry to the design/idea competition before the site was developed. Non-representative participants and no role in changing the design solutions.	

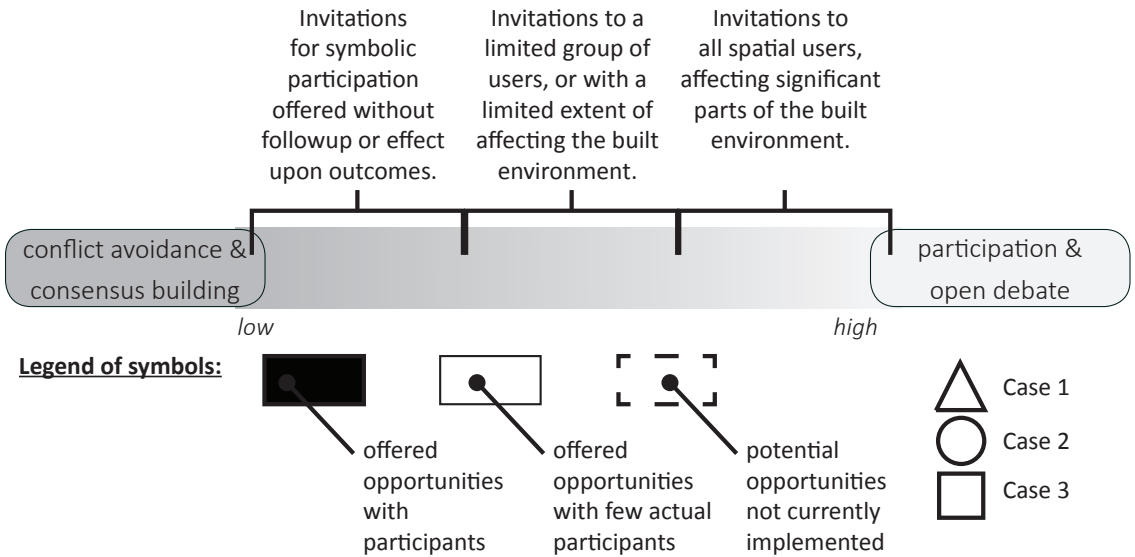


Figure 7-17 Key explanation of the following graphic representations of the analyzed extent of civic user engagement.

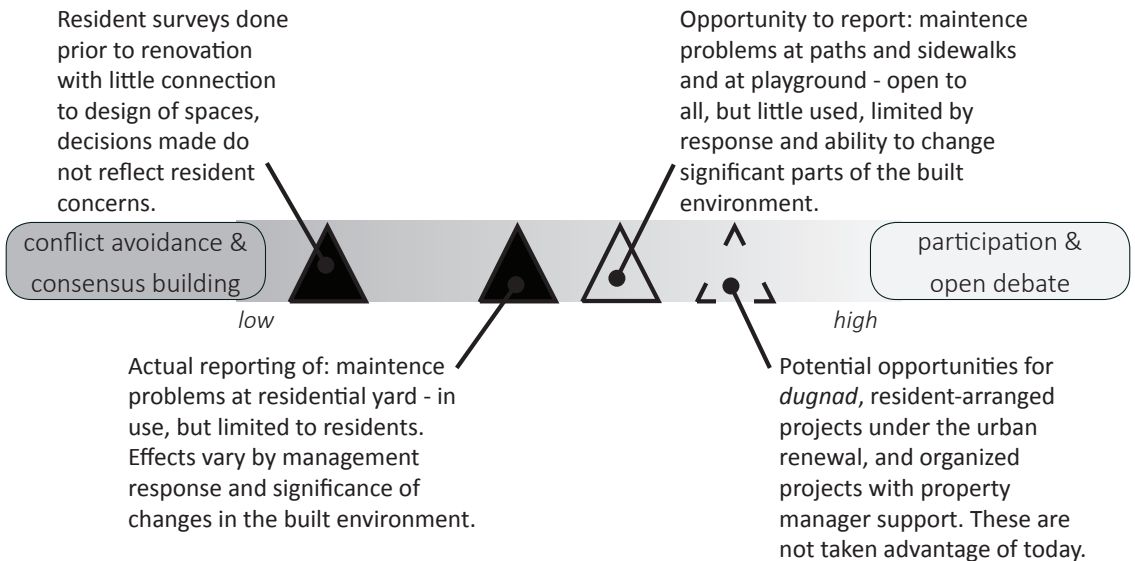


Figure 7-18 Civic user engagement, Publicly-Managed Social Housing - Several opportunities are available, but those actualized tend towards symbolic participation and low efficacy.

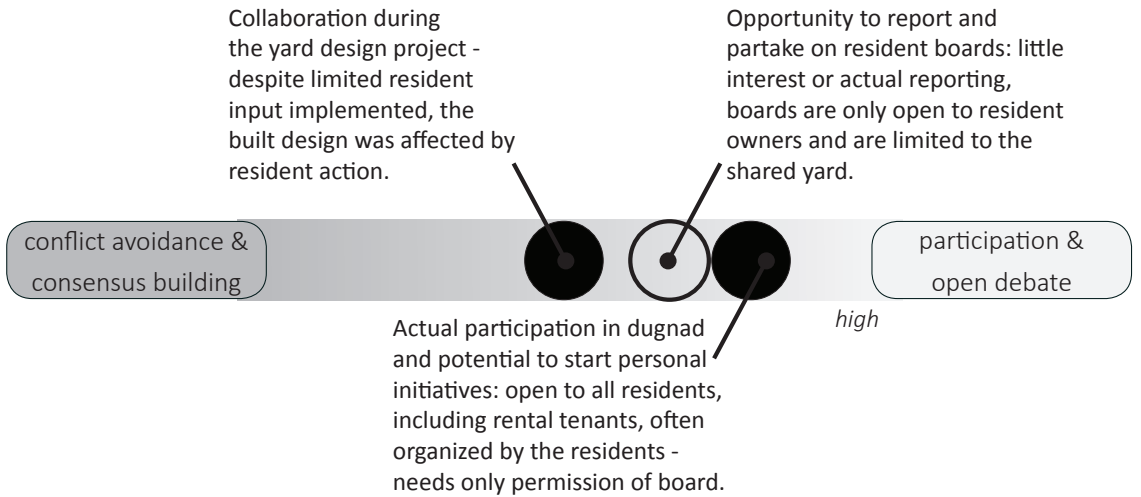


Figure 7-19 Civic user engagement, Resident-Managed Courtyard - Several opportunities for different users to affect the environment are actively in use.

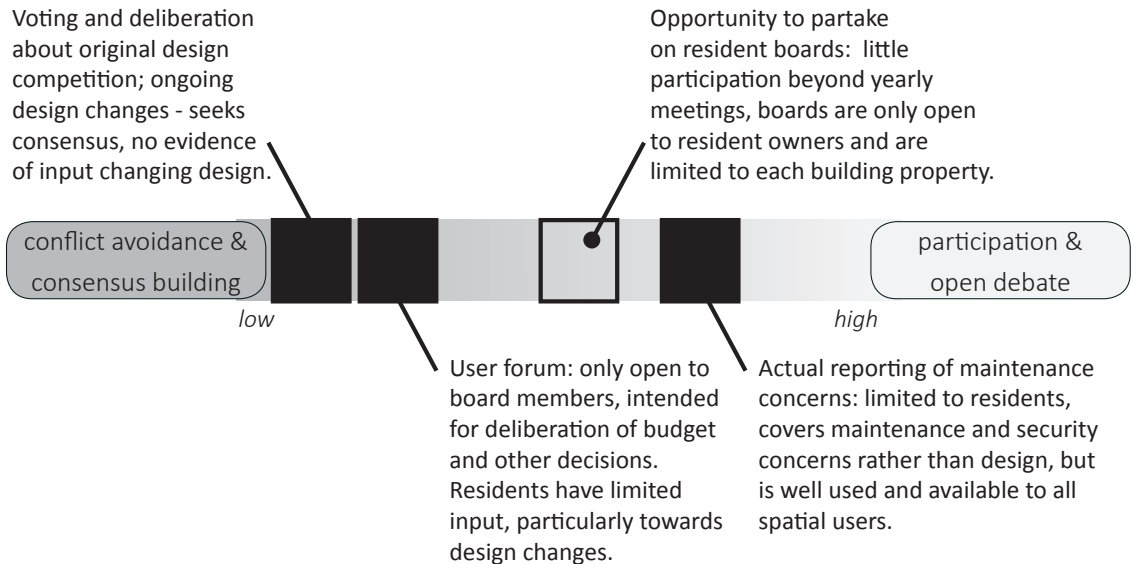


Figure 7-20 Civic user engagement, Privately-Managed Waterfront - Reporting of maintenance issues is the only forum open to all spatial users that offers the potential to affect the environment.

7.3.1. Effects upon the environmental heterogeneity

These comparative scales can be further weighted to account for existing heterogeneity in the physical environment, which the traces of engagement have worked upon. Figure 7-22 presents a weighted version of the comparison, illustrating how different design approaches 1) affect environmental heterogeneity alongside user engagement (Case 2: Resident-Managed Courtyard), or 2) attempt to produce them in the absence of engagement (Case 3: Privately-Managed Waterfront).

A proportion of Resident-Managed Courtyard's civic user engagement contributed directly to the quality of the built environment (i.e. resident input in the design process and protests stopping construction of a few bicycle sheds, and resident owners petitioning the boards to add balconies), rendering the case's environment reflective of multiple user intentions and needs over time. The built environment is more heterogeneous as a sum of civic and physical engagement, together with users and designers modifying design features – the yard and each building has been renovated at different periods since initial construction.

Privately-Managed Waterfront's environmental heterogeneity contrasts by being designed rather than personally reflecting the different individuals' dwelling actions or evolving over time. Its design intentionally involved multiple architects, professionalizing the production of heterogeneity through different building designs (despite one style being set for the open spaces they shape). This differs again from Publicly-Managed Social Housing, which was master-planned for consistency and conformity of design, with renovations that have maintained an environmental homogeneity (all the buildings have the same balcony facades, no particular colors are employed, landscaping elements are standardized, including limited types of trees and shrubs planted over the site).

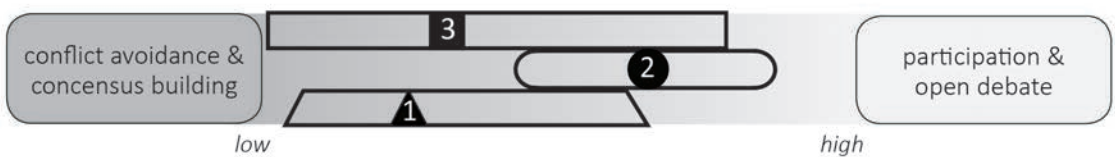
The difference between the weighted and non-weighted comparative analyses recognizes that urban design does not determine, but can affect, environmental heterogeneity by working in juxtaposition (Privately-Managed Waterfront) or in parallel (Resident-Managed Courtyard) to physical user engagement (see top field of Figure 7-21 and Figure 7-22).



Physical user engagement - material opportunities vs. those actualized

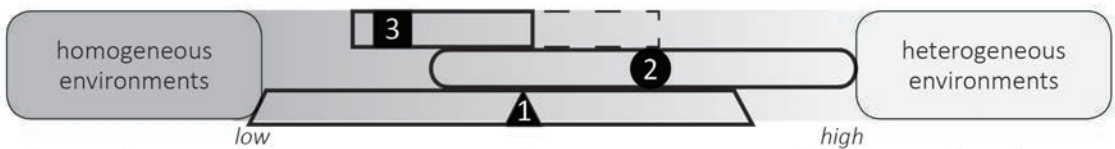


Regulations - established vs. those enforced



Civic user engagement - opportunities vs. those actualized

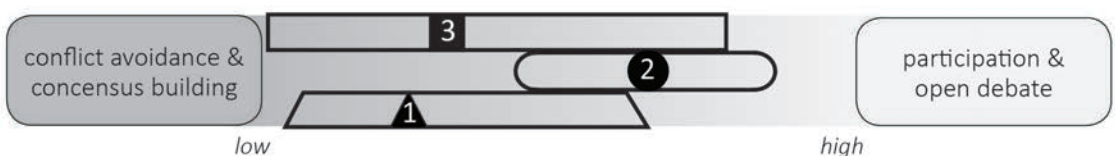
Figure 7-21 Snapshot of how the cases compare using the theoretical framework - Ranges of potential are represented with an unfilled shape, while the solid figures give weight to actualized engagement and enforced regulation.



Physical user engagement - material opportunities vs. those actualized



Regulations - established vs. those enforced



Civic user engagement - opportunities vs. those actualized

Figure 7-22 Weighted case comparison to reflect design heterogeneity beyond physical user engagement. Shifting the physical user engagement ranges to reflect heterogeneity designed into the environment illustrate Case 2's high degree of heterogeneity that has developed over time. Case 3 still holds a lesser degree of heterogeneity, despite design intentions for it.

Table 7-6 Spatial management mechanisms that mediate user agency in the built environment.

<u>Spatial management mechanism</u>	<u>Enabling and inhibiting user efficacy</u>		
	<u>Publicly-Managed Social Housing</u>	<u>Resident-Managed Courtyard</u>	<u>Privately-Managed Waterfront</u>
Invitation to engage civically	Open invitation, but limited marketing surrounding urban renewal process; Residents symbolically invited through surveys	Board membership available to resident owners; One-time participation in design process open to resident owners; dugnad events open to all residents	Public invited to vote on design competition entries; Board membership available to resident owners; “user forum” membership available to board members; All residents can report maintenance problems and concerns
Implementation of civic engagement input	Very little evidence of civic input implemented to change physical outcomes on the site	Implementation of personal initiatives possible with board permission.	Board members can reject design packages but not alter them, partial input from user forum affects management budget
Enforcement of regulations	Few regulations consistently enforced	Some regulations consistently enforced	All regulations consistently enforced, with aid of on-site security personnel
Provision and upkeep of materials and designs	Property management changes spaces to prevent or discourage particular uses, designers less familiar with local use propose unsustainable solutions rejected by property management. Prevents provision of vulnerable materials. District management withholds maintenance to keep costs down and inhibit repeated vandalism	The yard board struggles to keep up with the growth of the vegetation, maintenance of pavers, and large trash disposal. Acting on lack of maintenance knowledge can be detrimental to materials, but most tasks are contracted out, so material conditions follow variable service delivery	Property management uses and adapts materials and site furniture designs to affect user behaviors; site materials are actively maintained to inhibit detrimental acts
Responsivity to user changes	Generally low and variable responsivity, attributed to budget and varying competence of contracted workers. Certain responses are prioritized, including safety issues and offensive graffiti	Accepting of most changes, variable responsivity to issues with slack attributable to little board interest in arranging additional service provision beyond the superintendent’s regular contract	Very high responsivity to all user changes, accomplished by consistent, site specific, maintenance and security workers and thorough, frequent input by active residents

7.3.2. Mechanisms of spatial management that mediate extent of user efficacy

Spatial management most directly affects the extent of user efficacy in the cases through how they negotiate the practices of: inviting users to engage civically, implementing civic engagement input, enforcing regulations, providing and maintaining materials and designs, and responding to user changes (see Table 7-6 for summary).

Each mechanism relates to slightly different nuances regarding how and why spatial management mediates user efficacy in urban residential environments. These need to be discussed in light of existing literature, and in relation to disciplinary knowledge, in order to answer the dissertation's research question.

8. HOW SPATIAL MANAGEMENT MEDIATES USER EFFICACY, A DISCUSSION

Contents:

8.1. Spatial management mediates civic engagement and its efficacy potential

8.1.1. Providing opportunities to engage civically

8.1.2. Governing who engages civically

8.1.3. Implementation of user input

8.2. How each discipline mediates user efficacy

8.2.1. Policy makers mediate user efficacy by providing laws and influencing M&O

8.2.2. Urban planning mediates user efficacy through regulating public access and influencing design and M&O administration

8.2.3. Design mediates user efficacy through form giving, material selection and influencing M&O

8.2.4. Maintenance and operations mediate user efficacy through enforcing regulations, responding to engagement and implementing user input

8.3. Setting margins of spatial management

Spatial management mediates user efficacy in residential urban spaces through providing opportunities for, regulating, and reacting to engagement that changes the built environment. It needs to enable and limit user efficacies in order to balance the needs and desires of individual users with those of the collective. As the three Oslo cases demonstrate, this mediation occurs with different degrees of sensitivity to users' efficacy needs. Table 8-1 summarizes the conditions that enable and limit efficacy, opening a discussion over how different spatial management practices affect them. The practices illuminated by these three cases link to diverging influencers behind them, including management goals, resources, investment pressures, input from local residents, and synergies between management disciplines. These influencers play a significant role in setting social agendas and agencies that are conveyed explicitly and implicitly through spatial management's practice.

The indirect links between civic engagement and user efficacy warrant a separate discussion that begins the chapter. Following that, the roles policymaking, urban planning, urban design, and maintenance and operations (M&O) hold in mediating user efficacy are discussed against each discipline's ideals. In sum, each discipline's practice can be evaluated against its own ideals and in how it influences the practices of others. Seen together, the potentials for efficacy mediation offer information for setting margins of spatial management practice, as the last subchapter describes.

Table 8-1: Conditions that enable and limit users' effects in the built environment – synthesized from Chapter 7.

	Effects from Physical User Engagement	Effects from Civic User Engagement
Enabling	<ul style="list-style-type: none"> – identifiable, visible, personalize-able space – open and semi-public areas, – moveable/adaptable/mark-able materials, – presence of traces of previous engagement, – users' will to engage, – few or little-enforced regulations 	<ul style="list-style-type: none"> – invitation/knowledge of engagement forums – implementation of user input – will, time, interest to participate – trust in forum and feeling of efficacy – requests for input directed towards the built environment
Limiting	<ul style="list-style-type: none"> – anonymous, defiled, uncared-for spaces – fixed amenities, lack of flexible materials – erased/absent traces of engagement – distrust in fellow users to care for initiatives – well-enforced regulations 	<ul style="list-style-type: none"> – missing or defunct forums for participation – narrow invitation or participant group – non-prioritization of participation – distrust or disinterest in forums – history of non- or poorly implemented input

8.1. Spatial management mediates civic engagement and its efficacy potential

For users to affect the built environment through civic engagement, spatial managers need to implement change based upon user participation. Short of that, the participation remains symbolic. While symbolic participation may hold benefits like making participants feel included and offering them a sense of community (Manzo & Perkins, 2006), it offers no actual efficacy to change the built environment without input implementation. As a predecessor to implementing input, spatial managers mediate engagements' exercise of efficacy through how they run civic forums, by influencing when and who engages along with the geographical scale where input is invited.

8.1.1. Providing opportunities to engage civically

Virtually any type of spatial manager can facilitate civic engagement by inviting users to participate in forums- politicians, planners, designers, and the many M&O actors: i.e. contractors, repair people, litter and trash collectors, gardeners, graffiti removers. The types of input each manager can use from spatial users, and the extent they invite collaboration, varies greatly (Dempsey, Smith, & Burton, 2014; Fors, Molin, Murphy, & van den Bosch, 2015).

This study's three cases witness the following managing entities inviting civic engagement: city council, city agency for urban environment, district government, property management companies, designers, and property boards.

Different management actors enable or limit user efficacy using participation forum goals – exercising social agendas or implicating them. Some aim at collecting information to assist M&O responsiveness, like the management company's invitation to reporting maintenance issues at Privately-Managed Waterfront. Others hold a primary goal of informing attendees of established plans and plan options, like the district government's public hearings at Publicly-Managed Social Housing. Different understandings of participation emerge from these motivations, ranging from information dispersal and manipulation to valuing input, collaboration, and participant empowerment (cf. Arnstein, 1969). Among these actors, the district- and municipal- led forums leaned towards the symbolic and information dispersal, while the property scale ones approached empowerment and actual efficacy. This finding aligns with planners' use of participation as a tool to build consensus and facilitate efficient decision-making (cf. Forester, 1999; Fainstein, 2009). In Norway, participation is required by law for new developments, but few planners, politicians or developers employ it beyond the required information meetings (Hanssen, 2015) – the only exception found in these cases was the municipal vote on competition entries at Privately-Managed Waterfront. Some designers choose to invite participation in order to incorporate local ideas and encourage users to feel a sense of ownership over new projects (Cooper-Marcus & Francis, 1997), though these cases show how those ideals are not always fulfilled. Publicly-Managed Social Housing and Resident-Managed Courtyard both had designers survey and collaborate with residents, though only Resident-Managed Courtyard implemented some of the input. Property management and M&O practitioners also often justify employing participation processes to meet specific ends, such as inviting user input and voluntary work to improve service provision (Fors et al., 2015). This type of input is important to both managers and residents in Privately-Managed Waterfront and could likely be encouraged to increase responsiveness at the other two cases.

While implementing user input offers efficacy, indirect mediation of efficacy can result when input affects spatial regulation, design, and material choices. Herein, civic user engagement can enable or limit opportunities for physical user engagement, by implementing such input. Both Resident-Managed Courtyard and Privately-Managed Waterfront rely on civic engagement to establish local, property-specific regulations and to approve redesigns. These M&O opportunities for civic engagement are contrasted by the Publicly-Managed Social Housing's management company's uniform and standardized rules across its properties that are based upon professional definition of residents' needs rather than upon input (INF 1-5M). The public administration model exemplified here demonstrates a government perspective of deciding for

the people, while the community model allows residents to decide fully (Resident-Managed Courtyard) and the market model follows a governance perspective of bringing concerns of the community together with professional and investor interests (Privately-Managed Waterfront). The latter arguably dilutes residents' efficacy by inviting external actors' input.

Neglecting to provide or regularly administer civic engagement opportunities inhibits user efficacy. Defunct and irregularly run forums in these cases linked primarily to lack of resources (Publicly-Managed Social Housing and Resident-Managed Courtyard) and lacks of interest or effort by property managers (particularly Resident-Managed Courtyard). Resident-Managed Courtyard and Privately-Managed Waterfront managers described a fear of people using participation forums for personal, individual agendas that could oversteer others' as a reason to limit participation (INF 2-6M, INF 3-3M). This risk is relevant to cases where few residents engage, as those who do can exclude the rest (Campbell, 2005; Fainstein, 2009). In Privately-Managed Waterfront, personal agendas – i.e. distaste in certain colors or balcony decoration styles- are debated at meetings, requiring property board facilitation (INF 3-5). The wills of board members to spend effort and time on such situations varies with personality, as seen in Resident-Managed Courtyard's inconsistent board activity over time. The residents who engage found it difficult to prioritize administration tasks over personal time, particularly when considering the potentially time-consuming facilitation of conflict-laden participation (INF 2-3, 2-4, 2-5M, 2-6M).

8.1.2. Governing who engages civically

Understanding the differences in the extent of civic user engagement's efficacy calls into question *which* users are invited to engage. By determining who is invited and at what scale participation forums are run, spatial managers can govern whose efficacy the forums enable. Selective invitations and closed forums do this through allowing only certain users to participate, while other factors might just discourage segments of the population (Campbell, 2005). The municipal and district government agencies' forums for participation in Oslo are open to the general public. The forums run by each property's management largely exclude non-owners. Only dugnad invitations in Resident-Managed Courtyard and the reporting of maintenance issues in Publicly-Managed Social Housing and Privately-Managed Waterfront include resident-renters as well as owners. Rental and short-term tenants appear to be distanced from the spatial management of Publicly-Managed Social Housing and Resident-Managed Courtyard, reporting little awareness of responsible entities. Significant personal effort in Resident-Managed Courtyard transcends that limitation – a renting informant's extra measures resulted in permission to start a kitchen garden. Many forums are simply not well advertised, limiting the range of participants. Few Publicly-Managed Social Housing

informants (1-1, 1-2 and 1-4) are aware of public hearings and the management entities they can report to: “in the midst of other responsibilities in real life, that little effort [to find out who is responsible around here] is enough to stop me. You just don’t do it just because you don’t know where to call, even if it would not be very difficult to find out,” (INF 1-4).

Spatial users who are not invited to forums are prevented from exercising efficacy through civic engagement. The inability to reach a representative sample and lack of clear communication are known to be common challenges to meaningful participation beyond the symbolic (Campbell, 2005). These cases illustrate those challenges in that few forums attract the same diversity of participants as their spaces accommodate in users. The forums that only include owners rather than all residents, or all spatial users, do not represent everyone who is affected by the space – rental tenants are overlooked in Resident-Managed Courtyard and alternative user subgroups like local graffiti artists, for example, are not involved in any of the cases. Efficacy from civic engagement is limited to the users who are invited and are interested enough to participate. This limitation can be intentional, for example as Resident-Managed Courtyard limits participation in order to make decision-making effective and minimize potential conflict (INF 2-5M). Theory on participation shows that exclusion also often results unintentionally, from managers not sensitively adapting participation forums to particular situations or user groups (Campbell, 2005). This situation likely describes why renters are left out of the traditionally structured property boards in Resident-Managed Courtyard and Privately Managed Waterfront. It is further important that those who run participation forums make all those who attend feel welcome and heard in order for their engagement to seem meaningful, otherwise they risk alienating some: “My mother and I were at a public hearing once, but I felt like I was very much an outsider. They were maybe not so interested in us...so we left and didn’t go back to another,” (INF 1-1).

Few civic engagement forums in these three cases invite, or could accommodate, all spatial users. While the municipal government entities invite the public, those who attend are not necessarily potentially affected users. In Privately-Managed Waterfront’s public vote on competition options, there were no existing users since the development was not yet built. In district hearings, such as those for Publicly-Managed Social Housing’s urban renewal project, anyone can attend, whether or not they use the spaces affected by the participation. Property management forums only invite owners or tenants. In sum, many of the civic user engagement forums overlook enabling the efficacy of some spatial users, while some offer arguably superfluous efficacy to people little affected by forum outcomes.

Closely tied to the question of who is invited is whose voices are heard and prioritized. In this study, only Privately-Managed Waterfront includes commercial and investment interests with those of residents in their user forum. Non-resident spatial users are not invited to the forum,

even though decisions made there affect the use and regulation of publically accessible spaces. This exclusion in participation, typical of privately managed public spaces, risks prioritizing commercial interests to the extent that some users are excluded from using public space – particularly those not partaking in, or potentially detracting from, local commercial activities (Loukaitou-Sideris & Banerjee, 1998; Carmona & De Magalhaes, 2006). The perception of this risk being realized at Privately-Managed Waterfront often sparks media attention – journalists blame the property management company for restricting swimming access and banning bottle-pickers. The prioritization of commercial agendas over spatial users encourages comparatively restrictive management practices. The actual efficacy of residents in Privately-Managed Waterfront’s user forum is also questionable, as one of its representatives describes it to be for sharing information rather than deliberation. Here, those affected by restrictive management practices are limited from participating civically and inhibited from effecting change in the practices.

With different prioritization, residents can also undervalue commercial needs. Resident-Managed Courtyard’s commercial interests hold a maximum one-to-four part say in each property board. They offer little input and are even overlooked in property matters at times - one of the buildings’ boards hired graffiti removal for their residential entry gate but not for the adjacent, often tagged storefront in its first floor (INF 2-4). Few of the block’s businesses use or give input to the yard board (INF 2-6M). While both Resident-Managed Courtyard and Privately-Managed Waterfront are concerned with the investment of their resident owners, the investments are not so high that external investors are invited into Resident-Managed Courtyard. Local resident investors’ can be prioritized in, and dominate, the case’s participation forums. This keeps decisions closer to the locally affected spatial users, whereas Privately Managed Waterfront’s eight-billion NOK investment invites international interests to take part. Widespread financial interests invite far more non-local agendas to participation forums, potentially demoting the voices of residents and everyday spatial users.

8.1.3. Implementation of user input

Spatial management enables user efficacy through civic user engagement when user input is implemented, and affects the built environment. Spatial management in these cases does not consistently implement input, not all of the forums are explicitly intended to affect the built environment, and not all of the users are included. As participation processes can be run symbolically to give information, manipulatively to encourage a consensus, or more efficaciously to let participants affect and even manage outcomes (Arnstein, 1969), the amount of efficacy enabled depends largely on how the processes are followed up. Several of the civic engagement forums in these cases tend towards the symbolic rather than efficacious- geared

towards giving information or seeking consensus (see left side of Chapter 7's 'Extent of civic engagement efficacy' graphics). The Privately-Managed Waterfront's competition voting was symbolic in lacking the intent of determining the winner. Slightly less symbolic are the case's user forum and resident boards as they offer veto power, but no efficacy to propose or adjust redesigns. Publicly-Managed Social Housing's survey results are not clearly integrated in the renovation outcome. Resident-Managed Courtyard's residents thought they were being heard in their courtyard's renovation, but elements they had rejected in workshops were still built.

Symbolic or unsuccessful participation forums may indirectly affect user efficacy. Campbell (2005) suggests that participation should be rated based on the common experience and identity shaped by it, which may have positive effects upon sociality and social capital. This implies that forums that do not directly offer efficacy in the built environment might build trust and indirectly encourage participation in forums that do affect the environment. This study found relationships between trust and participation, though it was beyond the scope of the research to test for other benefits of participation. Further research that investigates efficacy alongside place attachment and the softer benefits of participation could consider the psychology behind feelings of efficacy rather than its physical effects. This research shows that the presence of participation forums does not guarantee inclusivity or ensure engagement, and that implementing user input from the forums is a manner of enabling user efficacy.

8.2. How each discipline mediates user efficacy

The spatial management disciplines of policymaking, urban planning, urban design, and maintenance and operations (M&O) hold great power in mediating user efficacy. The relational nature of the methodology illuminates particular roles as well as interrelationships that show how the disciplines' practices influence each other. In this manner, the findings offer lessons learned for practitioners together with hypotheses for further research.

8.2.1. Policy makers mediate user efficacy by providing laws and influencing M&O

In the three cases, municipal policy mediates user efficacy through its influence on the practice, budget, and delegation of M&O work, along with mandating civic user engagement forums. As laws and police ordinances are set for the municipality, they apply equally to all three cases, setting basic goals for spatial management to ensure sanitation and safety. However, the enforcement of these policies at each site depends on local policing and follow-up by M&O workers, resulting in variable law infractions, cleanliness, and upkeep across different properties in the city.

To mitigate such variation in service provision, Oslo's city council issues ordinances that attempt to standardize M&O practices, such as the graffiti removal example. Policy states that all graffiti in the inner city should be removed within 24 hours of infraction, but observations show most Publicly-Managed Social Housing and Resident-Managed Courtyard graffiti remains far longer. These two cases show how unreasonable the ordinance's goal is in particular contexts; informants cite high costs, labor demands due to how often graffiti is sprayed, plus risks to building materials in winter as deterrents of immediate graffiti removal. It is far more cost effective to remove many instances of graffiti at once rather than remove each as it occurs. Privately-Managed Waterfront demonstrates an option for achieving this ordinance, drawing upon a privately funded maintenance budget to cover costs and employing multiple, full-time superintendents, graffiti cleaners, and security personnel that can constantly police the neighborhood.

This ordinance's varied support and implementation at the different sites results in different visual qualities that might reinforce spatial users' feelings about graffiti. Most properties do not have the resources for consequent removal and many managers may not feel the need to take such a hard stance against graffiti. Spatial users in the first two cases remark graffiti as part of living in the city; few are bothered by graffiti tags, even to the point of not noticing many of them in their daily environment. New graffiti in Publicly-Managed Social Housing and Resident-Managed Courtyard often blends into the already tagged environments, going unnoticed while a single unaddressed incident in Privately-Managed Waterfront stands out as disrespectful and incites residents to report it as quickly as possible. Different people weigh quality preferences and concerns differently – even spatial managers cannot agree on a standard definition of local environmental quality (Carmona & de Magalhaes, 2007; Dempsey, 2008). The manager informants from this study's three cases all describe their local quality judgements as based upon "common sense" and working for "the good of the residents," (INF 1-5M, 2-6M, 3-3M), yet they provide significantly different levels of cleanliness and maintenance.

Policies that attempt to standardize built environmental conditions and associated M&O practices attempt sweeping limitations of user efficacy. Such standards are intended to apply universally, not accounting for heterogeneous dynamics, preferences and patterns, or even for the M&O resources available to particular properties. When mismatched to these contextual aspects, standards are not implementable and can work against their goals. Graffiti taggers, litterers, and noisy spatial users exercise efficacy at all three sites despite municipal ordinances. The ordinances can only affect how long traces of these engagements remain if local M&O follow the standards set. Policies that intend to limit efficacy can only do so to the extent they are enforced and enforceable. Graffiti likely proliferates because it is illegal; some people appreciate the texture it provides in cities (Brighenti, 2010) – enforcing an ordinance against it

is bound to meet challenges. Such ordinances are intended to define and encourage consistent spatial quality, but overlook the subjective nature of environmental quality (Carmona & de Magalhaes, 2007) and inconsistencies of urban life. When M&O are unable to meet municipal standards due to lack of resources, inconsistencies in maintenance levels become explicitly visible between properties. Such differences visually reflect the socioeconomic differences that affect the resources each M&O has to work with, potentially encouraging prejudices. In this study, the area whose residents have the most resources (Privately-Managed Waterfront) spends the most on M&O. They hold the highest environmental quality and ability to limit efficacies that challenge it. This situation is very different from Publicly-Managed Social Housing, whose tenants are dependent upon municipal funding and its allocation to maintain their common spaces. Reflexive assessment of enforceability is needed when setting municipal standards for spatial quality; otherwise, they may contribute to environmental detriment rather than consistent quality.

It is important that policies are in place to ensure provision of basic spatial needs in all urban spaces of a city. Resident surveys in the U.K. point to collective needs in built environmental quality as safety and security, cleanliness, and fulfillment (Carmona & de Magalhaes, 2007). Safety and comfort in urban spaces are important precursors to their being used (Gehl, 1987) and encouraging senses of belonging that encourage people to engage (Korpela, 1989; Abu-Ghazze, 2000). Presuming these basic needs to be roughly universal, their provision might support municipal policies that limit litter, vandalism, and other risks to health and safety. These basic concepts weigh more importantly than whether the environment is aesthetically pleasing (Carmona & de Magalhaes, 2007), reinforcing why standardizing an aesthetic aspect like graffiti removal is particularly contestable. The Oslo police ordinance elements that regulate urban space deal primarily with safety and sanitation – qualities that case informants also describe as prerequisites for engagement – “maybe if the space was better maintained they could teach the kids to want to take care of their home area,” (INF 1-4). Informants remark not wanting to engage in Publicly-Managed Social Housing and the exterior of Resident-Managed Courtyard, where safety and sanitation ordinances are commonly breeched or unenforced. The most constructive engagement in this study was found in the courtyard of Resident-Managed Courtyard, where maintenance levels are high and the enclosure supports feelings of safety. These results suggest that user efficacy is indirectly encouraged by policy that keeps urban spaces safe and clean.

While municipal policy influences minimal levels of M&O for all urban spaces, it plays additional roles in mediating user efficacy in publically maintained properties. Publicly-Managed Social Housing’s urban space is maintained by three public agencies (Department of City Environment, district government and the semi-public property manager), each of which

are affected by city council decisions. Resident-Managed Courtyard's exterior sidewalks also come under the purview of the Department of City Environment. Municipal policies determine the operational budgets of these agencies, which are then allocated to cover M&O expenses across the properties each is responsible for. The city council also delegates responsibility over different aspects of residential environments – determining the scope of duties for different agencies and governmental offices. Publicly-Managed Social Housing, being municipally owned social housing, illuminates the fragmentation resulting from this delegation most extremely – none of the three agencies coordinates their M&O work despite property adjacencies. Within the housing property, the responsibility for physical and social aspects of residential environment is divided by the city council delegation. While the city council delegates responsibility, no one at the municipal level holds oversight or coordinates the responsible entities to ensure inter- and intra- agency communication or to assess service delivery. Different M&O tasks are outsourced, performed in isolation and the quality delivered varies; the fragmentation easily results in poor service delivery and poor spatial quality (cf. Carmona, De Magalhaes, & Hammond, 2008). The reduced spatial quality – lack of cleanliness or safety – might then indirectly discourage users from engaging and limit their efficacy.

Beyond affecting the will to engage, municipal fragmentation discourages civic user engagement. Even when users want to report issues encountered in urban space, the fragmentation makes it challenging to find out which governmental entity is responsible. Finding responsible entities and the correct contact person regarding Publicly-Managed Social Housing's urban spaces takes great effort. Then, when the responsible entities receive reports requesting maintenance work, they often do not have the resources to react because their budgets are established and allocated over different properties on an annual basis. Limited resources hinder the responses to sudden and unforeseen M&O needs in particular (INF 1-5M; Dempsey et al., 2014). The lack of flexibility in these bureaucratic structures often results in user input going unaddressed and maintenance quality that worsens towards the end of the year. The added difficulty in negotiating municipal entities to report input, together with no guarantee of response can discourage engagement and leave spatial users feeling like they have no efficacy.

In order to sensitively mediate user efficacy, policymakers need to analyze the case-specific results of their policies and regulations. Without that reflexivity, destructive behaviors may inadvertently dominate public spaces, alienating individuals and overcomplicating M&O work; policy can work against itself rather than supporting collective government goals like health, safety, and equity.

8.2.2. Urban planning mediates user efficacy through regulating public access and influencing design and M&O administration

Urban planning's ideals of public access and politically driven practices affect the design, functionality, and administrative form of M&O - enabling and limiting user efficacy in residential urban spaces through these facets. As this research's three cases were planned in different eras, different physical planning and political paradigms influenced them. The ideological influences here lay formal and administrative groundwork that affect the practical differences in each case's physical form, user population, and administration form.

Physical planning paradigms idealize different formal characteristics in the provision of residential open spaces, determining which users potentially have efficacy through access. The late baroque Resident-Managed Courtyard encloses common space within a city block, limiting access to residents. The modernist Publicly-Managed Social Housing loosely defines common spaces between and around parallel linear apartment blocks, distinguishing a residential yard without limiting public access. The contemporary Privately-Managed Waterfront provides only spaces for the public, leaving little distinction or separation in the ground plane to denote resident or semipublic spaces. Semipublic space- which is important for allowing residents to mingle with their neighbors before entering the public realm (Gehl, 1987)- thereby figures strongly in Resident-Managed Courtyard, less in Publicly-Managed Social Housing, and least in Privately-Managed Waterfront. Privately-Managed Waterfront offers roof terraces and indoor lobbies²⁰ for resident mingling rather than ground level semi-public spaces. These differently planned physical forms support three different regulations of public access. Privately-Managed Waterfront provides publicly accessible spaces for the rest of the city, demonstrating recent planning stipulations for Oslo's new residential developments (Hofstad, Saglie, & Hanssen, 2015). Publicly-Managed Social Housing is public by way of its municipal ownership, while Resident-Managed Courtyard's yard is private.

These different access regulations result in different users who can potentially exercise efficacy. A limited number of users can act upon the more intimate, enclosed space of Resident-Managed Courtyard, while any passersby might engage with its perimeter public sidewalk and the publically accessible common spaces of Publicly-Managed Social Housing and Privately-Managed Waterfront. This range of access, together with the formal differences that emphasize them, can alter the extent to which users feel they belong in the spaces, likely indirectly affecting their use and wills to engage (cf. Korpela, 1989). Resident-Managed Courtyard supports the hypothesis that those who feel they belong are the most likely to engage in non-detrimental manners – seen through the case courtyard's high levels of physical user engagement juxtaposed to the high occurrences of graffiti, litter, and vandalism on its more

20 Case 3's roof terraces and lobbies were not studied due to lack of physical and visual access.

anonymous, public exterior. The belonging and care aspects of resident efficacy build a case for the provision of semi-public space in planning – to give residents a familiar threshold between the private spaces within buildings and the public spaces of sidewalks and public plazas. Semi-public spaces are more inter-personal, encouraging communication between neighbors (Madanipour, 2003) and allow physically separate zones that can be regulated to mediate efficacy. Urban residents' significant need for personalizing their shared environment can be supported in semi-public spaces without infringing on the needs of public users that must be considered in public spaces. Such semi-public space provision could avoid the controversial problematic apparent in Privately-Managed Waterfront, where the M&O company infringes on the perceived rights of the public in order to support its residents' needs.

The associated political paradigms that drive planning affect how resources are used and properties are administered, which in turn affect M&O's mediation of user efficacy. Oslo's traditionally high instance of owner-occupied apartments shows how politics have led to rental tenants being overlooked in traditional property management structures. Resident-Managed Courtyard follows a traditional model of owners holding shares in the common space and making decisions together, while Publicly-Managed Social Housing demonstrates the ideal of government (in this case, municipal public departments) providing for the people. Privately-Managed Waterfront departs from these communal ideals with an influence of neoliberalism, as private, market-driven actors take on state duties in order to deliver better quality service more efficiently. The municipality uses deviations from its public space standards – the case's higher quality of materials and underground parking – as justification for demanding that Privately-Managed Waterfront's spaces be privately maintained. That decision was reinforced by the political stipulation of the quality of materials and open space, included when the municipality sold the land (Jenssen, 2008). Thus, political decisions can be seen to affect planning practices and zoning requirements, which connect directly to M&O operations. These relationships affect how property administrations prioritize resident, business, and public interests (cf. Carmona et al., 2008). When governments delegate M&O responsibility to private actors, common spaces can be designated public by way of public access planning regulations, though this does not guarantee that those who come to administer them are motivated to safeguard public interests (Carmona et al., 2008). Without governmental checks and balances over public space M&O administration, particular user groups or parts of the public may be excluded from using and exercising efficacy in some spaces, despite their planned intentions for serving all.

8.2.3. Design mediates user efficacy through form giving, material selection and influencing M&O

Designers of residential urban spaces mediate user efficacy by determining how flexibly the environment and its materials can be used. Design flexibility that enables user efficacy includes open, but distinguishable spaces where users have physical freedom to engage as well as access to materials that enable and tolerate personalization, adaption, moving, or marking.

Urban design reinforces planning goals that limit which users can exercise efficacy by detailing the physical separations and enclosures of common space. Resident-Managed Courtyard's enclosure with gates, locked doors, and deep portals physically restricts access to residents only – reinforcing the planning decision that determined its enclosed courtyard administered by a board of resident owners. Members of the public are physically limited to only engaging with the accessible perimeter sidewalks and exterior of the block. Fences and hedges in Publicly-Managed Social Housing show design attempts to screen and demarcate some spaces, but neither are continuous nor sturdy enough in execution and longevity to control access in the same manner as Resident-Managed Courtyard. As such, the design there inadvertently opens the potentials for passersby to engage in the residents' yard. Privately-Managed Waterfront's only demarcations in the ground plane are formed by building masses, steps, and overhangs- offering no access obstructions outdoors. However, their redesign that filled an open area with planters inhibits access and deters staying.

Consequently, different types of engagement follow enclosed and open spatial designs. Very little graffiti and litter plagues Resident-Managed Courtyard's inner yard, even though those forms of engagement are prevalent outside its block. The intimate access that the enclosed courtyard design provides coincides with the most personal interest initiatives, decoration, and planting engagements found in the study. The physical enclosure offers a measure of control over space while also defining the courtyard as a semi-public, interstitial space between the private homes of each apartment and the public sidewalks. The design reinforces the more personal quality of the courtyard by defining small pockets with hedges where users can engage and impose their interests upon common space- as evidenced by leaving furniture and toys outside, planting berry bushes, and starting a kitchen garden. Many of the types of engagement there display care by demonstrating a high level of general maintenance quality and orderliness, along with personal initiative (cf. Nassauer, 2011). The maintenance in the courtyard is higher than outside the same block, evidenced by graffiti remaining on exterior walls, litter remaining in the sidewalk, and a broken window remaining broken during the study. By contrast, graffiti and litter mark the resident yard of Publicly-Managed Social Housing just as much as the surrounding buildings and public sidewalks. More constructive, personalizing

engagements are rare in Publicly-Managed Social Housing and Privately-Managed Waterfront, only witnessed on balconies (decoration, functional airing, and planting engagements) and in single instances otherwise (i.e. decoration of common picnic tables, building a bicycle ramp, hanging a lost sweater). While partially screened pockets that occur in Publicly-Managed Social Housing due to topography, plants, or fencing also enable a great deal of physical engagement, these are dominated by graffiti tagging and littering, lacking the element of care that Resident-Managed Courtyard's design enables.

Designs that include moveable amenities offer efficacy in their potential to adapt and rearrange spaces to meet different needs. The engagement of moving furniture figures highly into Publicly-Managed Social Housing and Resident-Managed Courtyard – where the design enables these personal interest initiatives by providing sufficient open space and moveable site furniture. Other flexible, adaptable materials further enable engagement – untreated, blank, ground-level wall surfaces enable graffiti tagging and display, balcony railings enable functional airing, planters, and other decorations. Little-designed open areas enable creative uses and engagements, only limited by M&O and users' wills- as evidenced by Publicly-Managed Social Housing's bicycle ramp, Resident-Managed Courtyard's added planters, and Privately-Managed Waterfront's bicycle parking, for example. Many of Privately-Managed Waterfront's highly designed spaces limit physical engagement by offering smaller open spaces between elements, fixing site furniture in place, and using non-moveable planters to distance spatial users from building surfaces.

Design elements can also indirectly mediate efficacy, by affecting whether users are encouraged to engage in different ways. Publicly-Managed Social Housing's wide, open spaces turn its buildings' numerous balconies into viewing platforms that display individual engagements of hanging decorations or airing rugs. In contrast, the composition of buildings, floor heights, and public space renders Privately-Managed Waterfront's balconies difficult to see from the ground floor – not offering an audience to residents' potential engagements. Dark, ground-floor recesses in the building masses of Publicly-Managed Social Housing and Resident-Managed Courtyard offer low visibility, which host a great deal of graffiti and littering engagement – these behaviors are likely encouraged by the design's prevention of informal surveillance. Privately-Managed Waterfront's high level of design and designed details throughout the site might affect the opposite of this – the visibly high level of professional care may discourage efficacy that affects the space. This hypothesis could be tested with further research, as it is supported by critiques of iconic-designs controlling use and minimizing place authenticity (i.e. Carmona et al., 2008; Southworth & Ruggeri, 2011).

Urban design also has clear impacts on M&O, which can indirectly mediate user efficacy. Highly designed spaces built of expensive materials increase investment pressures. This is

exacerbated in public spaces, as expensive-to-maintain designs are exposed to a lot of use, resulting in exorbitant maintenance costs (Carmona et al., 2008). This risk led the municipality to force Privately-Managed Waterfront's private M&O funding and administration. The private actors with responsibility here then regulate use substantially in order to preserve the design and materials. Designers can mitigate this tendency towards over-management limiting user efficacy by coordinating designs with pre-established M&O budgets and expectations of usage, (Dempsey et al., 2014), but this case shows how usage of public space can be easily underestimated. The better-suited design elements are to actual use and a local maintenance budget, the less user efficacy needs to be limited in the name of preventing wear and tear.

8.2.4. Maintenance and operations mediate user efficacy through enforcing regulations, responding to engagement and implementing user input

M&O includes the administration, local regulation, and everyday maintenance of residential urban spaces; it mediates user efficacy by regulating and responding to use and traces of engagement in the built environment. As discussed earlier, the form of spatial administration affects how M&O request and handle user input, determining the extent that participation forums can offer civic efficacy. M&O relationships to physical user engagement vary with engagement type and situation, but this study suggests that the types of influencers behind each administration form affect what they prioritize and the extent of user engagement they allow.

An obvious M&O argument against allowing physical user engagement is risks to local environmental quality, as M&O tasks revolve around sustaining the environment. The preoccupation with upholding spatial quality in an efficient manner can challenge the allowance of physical user engagement, depending on how quality is defined. Some properties (like Privately-Managed Waterfront) offer little room for the expression of personal tastes, while others embrace leaving decisions up to residents, resulting in loose space that values different expressions (cf. Franck & Stevens, 2006). M&O can be reluctant to allow user input because users might not understand the work's importance, or because inviting multiple expressions could "create chaos" (INF 3-4). These views are reminiscent of Appleyard's (1979) explanation that professionals ignore the symbolic value of the built environment in order to depoliticize it, because "personal expression in the public environment has traditionally been regarded as improper," (p. 146). Apparently little has changed in the many years since his writing, but at the same time, neither professionals nor the public tend to care for impersonal projects, "the cult of the impersonal can be worse than the cult of personality," (Appleyard, 1979, p. 147). Impersonal, homogenous spaces are rendered inauthentic and sterile when over-management erases traces of how they are inhabited (Sorkin, 1992; Franck & Stevens, 2006). A visitor

informant to Privately-Managed Waterfront alludes to this quality: “it is hard to get a sense for how it would be to live there. There are so many tourists and you don’t really see the people who live there – it doesn’t feel like a (residential) neighborhood. There is also not much to do there, or reason to be there,” (INF 3-2).

One manner that M&O mitigates the exercise of user efficacy is in determining local regulations, beyond the municipal laws that affect common spaces. The composition and inspiration of these local regulations vary across the three cases, aligned with form of spatial administration. Publicly-Managed Social Housing’s public administration applies a list of rules to all their properties in the city, conveying it to residents through a common rental contract. Resident-Managed Courtyard has a minimal set of rules established when the common courtyard was renovated – these can be revised at any time by the yard’s board members, giving the community the administration rights over its communal space. Privately-Managed Waterfront’s private management company establishes and posts property-specific rules in its public spaces. In addition, each of the cases’ building boards approves and may change their own rules. These locally established rules significantly affect user efficacy in Publicly-Managed Social Housing and Privately-Managed Waterfront, by controlling personal behaviors such as planting, decorating, and performing other personal interest initiatives in common spaces.

The established regulations of each case vary less than the extent to which they are enforced at the three cases. M&O in Publicly-Managed Social Housing and Resident-Managed Courtyard are not consistent in their enforcement of municipal regulations- as clearly evidenced by the constant, even if changing, presence of litter and graffiti. Non-enforcement here enables these illegal forms of engagement by allowing them to leave traces. Publicly-Managed Social Housing’s M&O purposefully takes a flexible stance towards graffiti removal, only prioritizing the immediate removal of offensive tags, as a manner of balancing budget realities with the city’s regulation (INF 1-5M). Enforcing local regulations limits engagement actions like decoration, planting, and personal interest initiatives on balconies and in the public spaces at Privately-Managed Waterfront. These engagements occur with seldom response at Publicly-Managed Social Housing, rendering users greater efficacy despite similar regulations. Publicly-Managed Social Housing’s flexibly enforced regulations allow residents to hang flower boxes, rugs, and parabolic antennae over balcony railings and on walls. M&O’s enforcement of regulations makes them effective in the built environment, correcting infractions and providing visual evidence that a place is cared for, through orderliness (Carmona et al., 2008). However, limiting personal textures may make places less sociable, by keeping neighbors from knowing about each other’s preferences and identity (Murphy, 2016), offering additional support to place-keeping’s case for flexible, place-based maintenance and regulation (Dempsey et al., 2014).

Responding to use of the built environment is integral to M&O's upkeep of place and environmental materials, but timely and effective responsiveness can limit and discourage user efficacy. Both Publicly-Managed Social Housing and Privately-Managed Waterfront demonstrate responsiveness through attempts to stop users walking on lawns – the former with a hedge line that is vandalized, the latter with roping that is occasionally crossed. M&O attempts to limit engagement are rarely fully effective. Privately-Managed Waterfront demonstrates the most responsiveness of the cases as they have full time M&O employees who patrol ongoing use, respond quickly to regulation infractions, and erase traces of engagement. The case's M&O further regularly redesigns spaces to deter uses they determine as problematic- moving and installing planters and site furniture to deter people from particular areas, adding signage that communicates local regulations, marking pavement to regulate traffic, and installing railings that limit swimming access. While it is possible that some of these measures are not intended directly to limit use, they result in, and are interpreted as, limiting users nonetheless. Similarly limiting use in Publicly-Managed Social Housing is M&O inaction, as seen in the lack of swing replacement, which limited users' ability to swing while reducing the number of repairs. These responsive-to-use M&O practices limit efficacy through placing environmental materials that minimize the possibilities and wills spatial users have to engage.

M&O responsiveness also regulates spatial use by responding to and erasing traces of use in the environment. Privately-Managed Waterfront demonstrates the clearest examples of responsiveness to user changes, where M&O makes a point of responding to all traces as quickly as possible – taking a zero-tolerance stand on graffiti and litter in particular. Their conscientious, rapid, and thorough responses made it difficult for this research to find traces of engagement. Such immediate removal of traces of engagement prevents spatial users from encountering them. Interview accounts report that destructive engagement like littering, graffiti, and public defecation does happen here, even though almost no signs of these acts remain visible in the physical environment. Not encountering traces keeps users uninformed of what actions and behaviors happen in space, so they do not know what engagement is possible. The responsive erasure of traces seeks to prevent further infractions – sending the message that marking the environment is not tolerated (INF 3-3M). A similar mindset in Resident-Managed Courtyard was expressed in informants' belief that timely removal of graffiti prevents the reoccurrence of tagging on the most responsive properties. However, observations in both Publicly-Managed Social Housing and Resident-Managed Courtyard show responsive graffiti removal only to lengthen the amount of time between tagging incidents rather than prevent them. Further research could test whether the lack of trace response encourages repeat engagements. These cases suggest that low responsiveness to decorating and planting encourage other similar engagements that express identity and adapt spaces to fit user needs. M&O can allow traces of engagement when they are constructive or relatively innocuous, contributing authentic, place-

based textures to environments that represent the people who dwell there (Franck & Stevens, 2006).

The attitude of erasing visible traces of user behaviors, undesirable (or so-called *antisocial*) behaviors in particular, mirrors Wilson and Kelling's (1982) Broken Windows Theory – a common spatial management reference that supports clean and responsively maintained environments (i.e. Carmona et al., 2008; Dempsey et al., 2014). The theory posits that neighborhoods are more likely to be targeted for crime after traces of antisocial behavior, like broken windows, go unaddressed (Wilson & Kelling, 1982). A lack of caring for space is thought to encourage further vandalism and detriment. However, subsequent study of the broken windows premise illuminates overlooked factors that may be more responsible for the behavior patterns than physical detriment. The perception of anti-social behavior is higher in neighborhoods with high levels of social housing (Baum, Arthurson, & Han, 2015) and in those with high social diversity or many minority residents (Sampson & Raudenbush, 2004) – regardless of the state of maintenance. Actual traces of disorder in residential environments correlate unevenly with perceptions of disorder depending on a place's population and social relationships. A broken window in a well-to-do neighborhood affects people's fear and proclivity towards antisocial behavior less than in a multicultural or marginalized neighborhood (Sampson & Raudenbush, 2004). While Publicly-Managed Social Housing is social housing and houses a diverse population, its low M&O responsivity enables social as well as anti-social behaviors. Low responsivity can be positive in offering spatial users the flexibility to reflect their lifestyles and meet needs – such as airing carpets, drying laundry, decorating common amenities, planting flowers, and building a bicycle ramp. Further, the wills to clean up dirty, polluted, or vandalized places, the formation of friends' groups and local security watches show that disarray and antisocial behavior can encourage stewardship engagement (Svensden, Campbell, Sonti, & Baine, 2015). Few social or stewardship behaviors are evidenced in Privately-Managed Waterfront, where M&O responsivity leaves little action to be done in the eyes of residents. The extent that antisocial behavior affects user behavior is not as conclusive or universal as the Broken Windows Theory projected (Sampson & Raudenbush, 2004), opening for more research on how traces of all kinds of engagement affect user behaviors in particular contexts.

Collaborations that enable user efficacy can directly and indirectly benefit M&O work. Users can engage themselves to aid in maintenance tasks- as reported by some residents shoveling snow in or willingness to maintain common plants in Resident-Managed Courtyard. Here, M&O can welcome the help despite doubts over whether residents' interests are sustainable; Publicly-Managed Social Housing's administration permits planting projects only for organized groups with long-term maintenance plans to prevent overloading strained maintenance

resources- the prerequisite to organize hinders engagement. Research into voluntary green space maintenance work has demonstrated that while individual users' interests over time can waiver, the active involvement of management professionals through dialogue and partnerships can sustain that engagement (Young, 2011; Jones, 2002). These concerns show a need for collaboration between M&O workers and users, so that efficacy may be enabled and sustained alongside maintenance goals (Dempsey et al., 2014).

Indirectly, M&O may benefit from allowing user efficacy as it can encourage stewardship in common spaces. Exercising efficacy that demonstrates care,²¹ shows "that people are involved with a place," potentially snowballing so others are more likely to care for, voluntarily clean, and watch over cared-for spaces (Nassauer, 2011, p. 321). These contagious benefits of stewardship have been evidenced in green spaces with the work and formation friends' groups (Jones, 2002), as well as in neighbors encouraging each other's lawn care in residential neighborhoods (Chowdhury et al., 2011). Resident-Managed Courtyard's residents' flexibility in decorating and adjusting the common space relates to their participation in *dugnad* activities and voluntary maintenance tasks. In the absence of *dugnad*, Publicly-Managed Social Housing and Privately-Managed Waterfront tenants defer maintenance issues and aesthetic site elements to the management companies. User responsibilities are relegated to reporting maintenance issues. Privately-Managed Waterfront has professionalized care, which results in a well-maintained condition that might also help users to be aware of, and quick to report, environmental aberrations. All Privately-Managed Waterfront informants spoke of the low threshold for reporting issues. However, professional maintenance does not always align with the responsivity of that case – Publically-Managed Social Housing shows how the services residents rely on can disappoint them by neither meeting desirable standards of cleanliness nor providing aesthetic expressions that residents can identify with. Properties where M&O is challenged to provide the appearance of care may have the most to gain from encouraging user stewardship engagement.

8.3. Setting margins of spatial management

Decoupling low maintenance responsivity from the largely taken-for-granted Broken Windows Theory and seeing case-specific effects of M&O offers a nuanced interpretation of how spatial management can respond to user efficacy. The exercise of individual user efficacies has to be mediated when spaces of significant personal meaning and everyday experience are shared amongst many, but how that mediation occurs should be reflexive and property-specific. This study looked at three very different residential properties with different intentions for public

21 Nassauer (2011) defines care as "protecting or maintaining what we pay attention to," (p. 321).

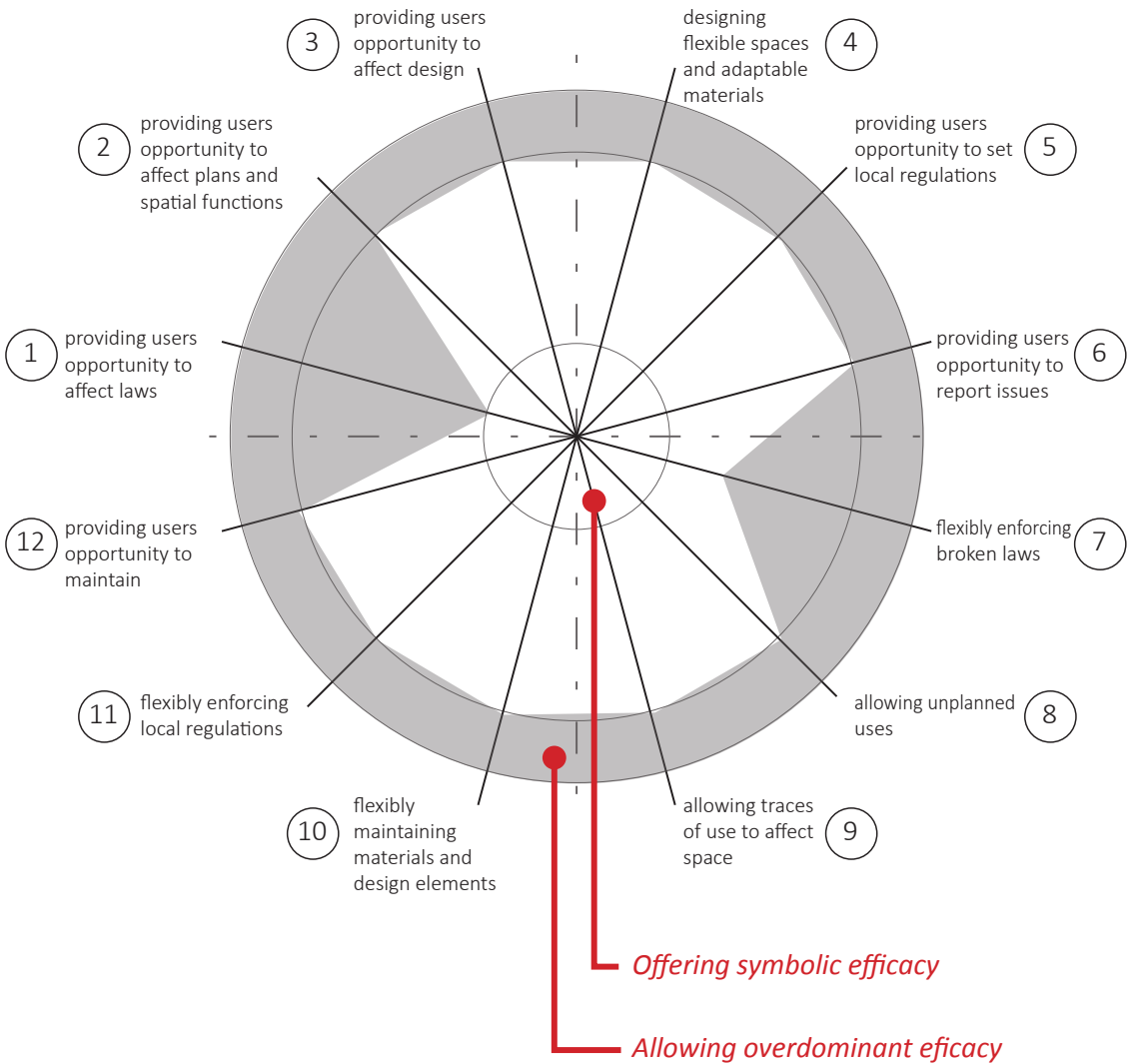


Figure 8- 1 Environmental efficacy enablement circle: How spatial management can enable user efficacy; distance from center illustrates extent of user efficacy enabled. Margins of spatial management that can be set to limit user efficacy are represented in gray. Numbers key each mechanism to its description in the text.

access and different management goals set to serve and prioritize different user groups. Different levels of regulation, maintenance, and allowed user efficacy are appropriate in different types of urban spaces. The work and regulations set by spatial management need to respond to the activities, design, materials, and resources of a specific site – narrowing or broadening flexibility of practices to limit or encourage particular behaviors. With space-specific evaluations of which efficacies should be allowed, encouraged, limited, prevented, or corrected for, spatial management might hinder inefficient, superfluous practices and reflect critically upon unenforceable regulations and unmaintainable design elements. This sort of reflexivity can lead spatial management practices to purposefully encourage constructive (for example locally desirable, inclusive, and social) behaviors that promote positive social relations and stewardship, while mitigating the destructive (environmentally or socially detrimental). Such a reflexivity would locally determine whether municipal and local regulations are reasonably enforceable, suggesting a need for municipal checks and balances to ensure and provide basic spatial needs of health and safety, as well as inclusive access to and use of public spaces. Individual efficacy could be locally enabled beyond a symbolic level, allowing users to affect the environment in manners that display identity and aid in the caring for space. The point where particular individual initiatives or behaviors become *overdominant* and risk infringing upon others' use, inclusion, health, safety, or wellbeing in space can be determined by case as a margin for spatial management to limit efficacy. Figure 8-1 illustrates potential areas for efficacy and associated margins for spatial management, summarizing how policy makers, planners, designers, and M&O professionals can determine the extent they encourage and limit user efficacy.

Beginning with the upper left quadrant of Figure 8-1 and working clockwise- the potentials for enabling and the considerations for limiting user efficacy can be considered by spatial management realm. Numbers in parentheses in the following text key to the circled numbers by each point on the figure. Policymakers can invite user input through voting and participation forums that affect laws (1), which in turn govern the use of urban spaces. As such law work is seldom adapted and intends to ensure health and safety of the general public, it may require a significant margin of management, as illustrated. In other realms, user efficacy can be allowed up until its exercise overdominates by excluding engagement of other users or deteriorating the environment beyond what local M&O can reasonably address. In the planning and design realms, users can be invited to civically engage to affect master plans for, and designs of, residential open spaces (2), the functions they provide and how their access is regulated for the public or specific user groups. Efficacy here must be mediated to ensure that individual agendas do not overrun those of the collective user group, as well as to ensure that the spaces built are structurally safe, environmentally healthy, and function in manners needed by the municipality as a whole. Spaces can be designed to support specific uses and functions as user

input informs, and/or to remain open to adaptation with open and flexible designs (3). The extent of design should be limited to ensure that the space and its materials are maintainable and that adaptations do not harm the local environment or exclude particular users from public spaces (4).

Continuing around the circle enters the realm of M&O. Here, users can be invited to give input in setting the regulations of space (5) and reporting maintenance issues (6). Efficacy from these civic forums should be limited in order to balance different personal agendas and keep M&O tasks within a reasonable and sustainable budget – determinable by consideration of local resources. The lower half of the graph departs from civic engagement opportunities and deconstructs M&O responses to spatial use and physical engagement. The more flexibly that municipal laws are enforced on a site, the more illegal engagement is enabled, suggesting a larger margin for limiting this form of user efficacy (7). Exception can be made in instances that municipal laws or ordinances are deemed unreasonable or too detailed to be addressed in a specific property, as seen in Publicly-Managed Social Housing and Resident-Managed Courtyard's flexible enforcement of the graffiti-cleaning ordinance. As uses of space, especially those that are not planned, can be detrimental to the environment or exclude other users, the enforced limitation of use has to be locally determined (8) – as seen in Privately-Managed Waterfront's M&O adding signs that forbid dog walking at planters, which become stained when marked. The traces left by physical engagement may similarly require limitation based on local considerations (9) – as Publicly-Managed Social Housing demonstrates in prioritizing the removal of graffiti tags that are racially offensive, for example.

Both the wear and tear on materials and user behaviors that deviate from local regulations inform spatial managers of the actual needs users have in space. Deviances can therefore reflect upon regulations that are perhaps too strict or design elements that are not hardy enough for a particular context. Local awareness then offers an alternative or supplement to polling users for their preferences- offering another basis for how strictly particular local regulations should be enforced and how thoroughly particular design elements should be maintained (10). Regulations whose infractions do not harm the physical or social environment can be handled less responsively than those that do (11). Broken or misused design elements can be removed or replaced with something hardier that suits the uses demonstrated in a space.

Finally, users can be brought on board to help with the maintenance of space (12) – through forums like *dugnad* for example, or in specific tasks like litter collection or snow shoveling. Enabling this form of efficacy can encourage user awareness of the work that goes into maintaining residential urban spaces and inspire more constructive engagement actions. Complete delegation of maintenance tasks to spatial users risks inconsistency and detriment to the environment, as seen in Publicly-Managed Social Housing's district-maintained picnic

tables being left to disrepair because maintenance resources were not in place without skilled volunteers. When balanced, the benefits of users exercising efficacy through performing maintenance tasks can extend beyond improving the physical quality of the space to encourage stewardship and community amongst involved users – as seen in Resident-Managed Courtyard's *dugnad*.

All disciplines in spatial management hold responsibility for identifying local risks to their work as well as how their decisions could burden the work of others. The spatial management mechanisms on the top half of the illustration invite user efficacy in determining the form and functionality of residential urban spaces, while those on the lower half invite them to adapt these aspects over time. Each line represents an axis between these realms, where efficacy exercised on one side may balance the other. These lines engender hypotheses for future research: When users greatly affect the design of a space, they might have less need to adapt its elements later – as Resident-Managed Courtyard hints; when users can easily affect maintenance levels by taking contact with M&O, they might have less need to perform maintenance tasks themselves – as witnessed at Privately-Managed Waterfront. Thus, efficacy can be enabled within the margin of management to allow users to affect space while M&O prevents and responds to the most detrimental uses and exclusive behaviors. As this study's interviews evidence, some uses and patterns are more acceptable in some spaces and to some people than others, offering a challenge for management to be aware of local opinions and repercussions. This study suggests that inviting users to engage in civic engagement forums could be a fitting arena for spatial managers to poll opinions, drawing user differences out for discussion. Such participation forums could better relate spatial management decisions to user preferences, confirming elements this research's interviews revealed – for example, that Privately-Managed Waterfront residents are happy with the enforced regulations, but visitors are less so; that Publicly-Managed Social Housing's non-prioritization of graffiti removal is more acceptable than its inconsistent response to litter; and that Resident-Managed Courtyard residents would benefit from having a system in place to regularly remove large trash. Thus, social repercussions and agendas behind or resulting from spatial management practice could be made more explicit.

To summarize the different ways that these areas for user efficacy are enabled and limited in the three cases of this research, Figures 8-2 through 8-4 chart the findings over the efficacy enablement circle. The white spaces illustrate where the spatial managers limit efficacy—whether purposefully or as an inadvertent result of their practices. While Privately-Managed Waterfront offers opportunities for civic engagement, its M&O offer little flexibility or tolerance for user efficacy that adapts the built environment. Publicly-Managed Social Housing shows an opposite dynamic, where users' adaptations are largely enabled despite few forums for civic engagement. Resident-Managed Courtyard roughly balances the two. The spatial managers of

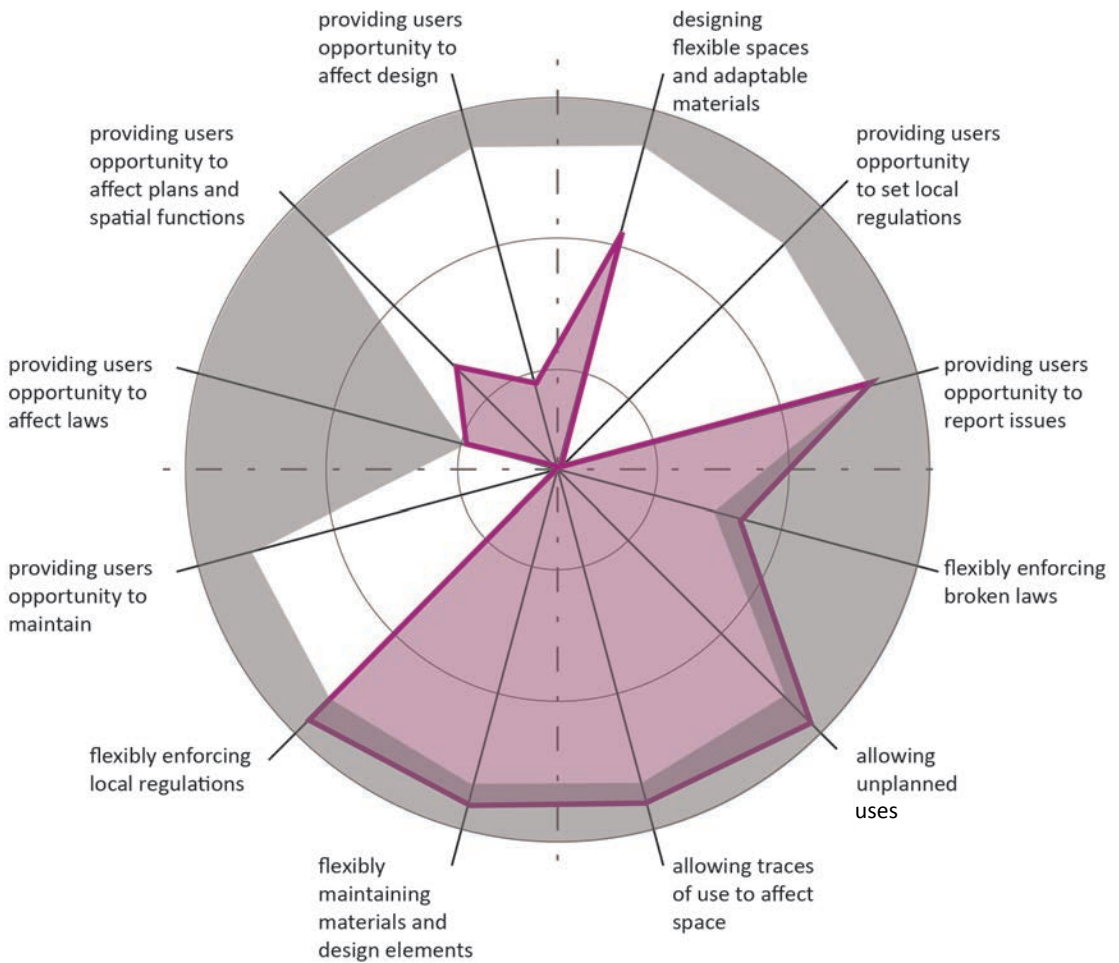


Figure 8-2 Spatial management-enabled user efficacy, Publicly-Managed Social Housing - The relative efficacy enabled is represented as a colored field, showing that efficacy in this case is mostly enabled by the case's M&O. In some M&O realms, efficacy is even enabled to the extent of potentially deteriorating the environment - illustrated where the colored field overlaps the gray margin.



Figure 8-3 Spatial management-enabled user efficacy, Resident-Managed Courtyard - This case shows a great deal of efficacy enabled in different management realms, through both design and M&O.

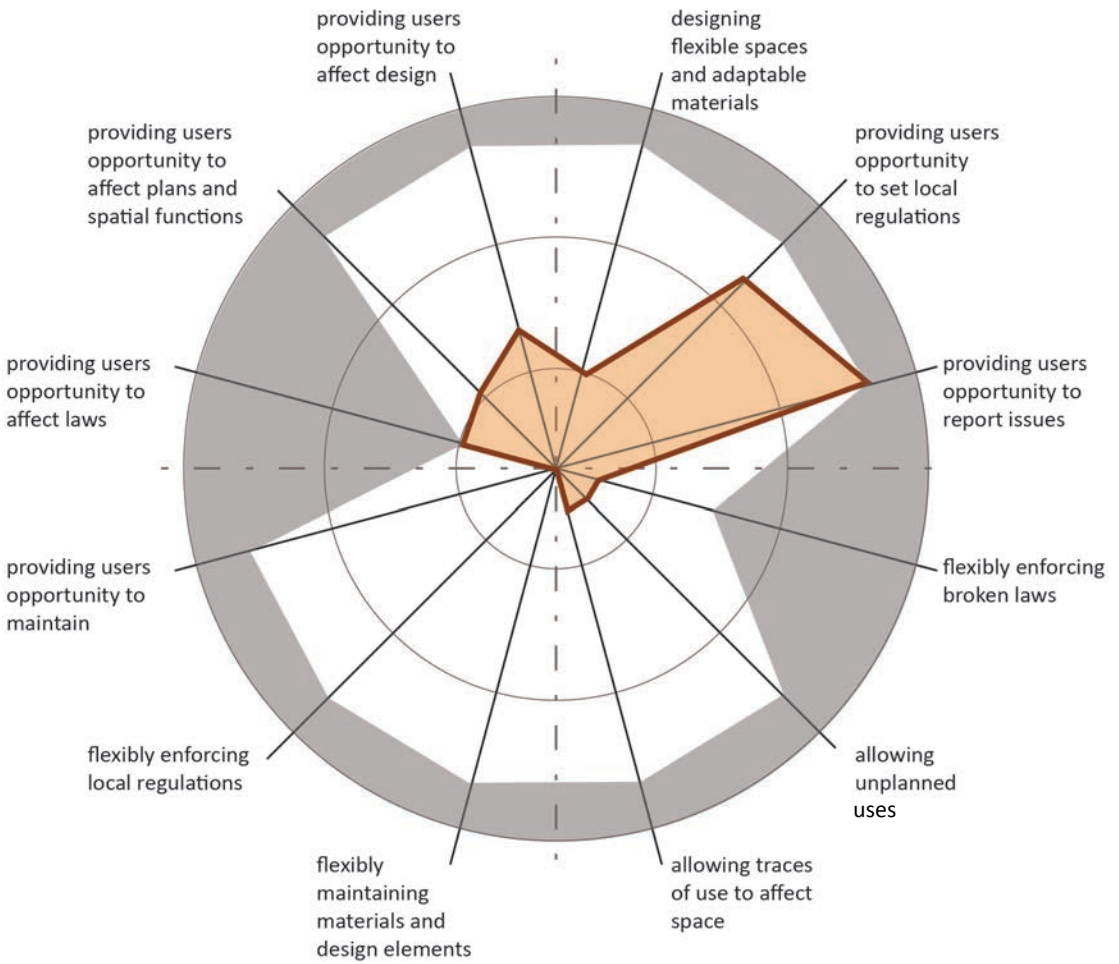


Figure 8-4 Spatial management-enabled user efficacy, Privately-Managed Waterfront - This case has some enabled efficacy in design and reporting, but few areas of the case’s spatial management offer users efficacy beyond the symbolic.

these cases clearly have different intentions – both in the extent they support public spatial users and the level of environmental quality they deem necessary for their residents. The public nature of the outdoor spaces immediately around Publicly-Managed Social Housing and Privately-Managed Waterfront drives decisions to inhibit user efficacy that might disturb residents, though simultaneously limits residents' from addressing their efficacy needs. Resident-Managed Courtyard's semi-public yard allows space that can enable residents' efficacy between the private spaces of home and the public ones of the block's exterior. Further research could compare these observed margins against the intentions of each spatial manager to test how they believe they address user efficacy needs. The many minimal to symbolic efficacy levels in Privately-Managed Waterfront and the many overdominant efficacies of Publicly-Managed Social Housing respectively suggest over- and under- management.

Setting reflexive margins for spatial management, which address case context and the dynamics of different disciplines offers an alternative to standardizing M&O practices. It offers a basis for providing for the general user base while sensitively supporting individual users and fitting M&O tasks to local budgets and resources. Such a reflexive take on spatial management practice could result in more textured, heterogeneous urban spaces that maximize residents' individual efficacy. Spatial managers can consider the individual and social implications of their practices when setting local margins, explicitly understanding their role in affecting who is included, whose interests are represented, and for whom quality is provided in residential urban spaces.

9. REFLECTIONS

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The spatial management disciplines of policy-making, urban planning, urban design, and maintenance and operations (M&O) work together to enable and limit how users can change residential urban spaces, mediating their efficacy. User efficacy can be enabled by spatial management's facilitation of physical and civic engagement, implementation of user input, flexible enforcement of regulations, and reflexive response to physical changes in the built environment. User efficacy that excludes or infringes upon other users or deteriorates the environment can be limited by imposing and enforcing regulations. Such regulations should be evaluated by how enforceable they are and the extent of harm from exclusion or deterioration infractions would cause at a specific urban space. The disciplines involved in spatial management influence each other's need for regulation and resources for enforcement, determining how local margins of practice can be set to balance user efficacy.

This research has documented effects of user input, physical engagement, and environmental detriment alongside those of spatial management's facilitation, regulation, and maintenance through three Oslo cases to demonstrate a wide range of means in user efficacy mediation. It identifies how particular influencers of investment and standard practices linked to public, private, and community administration models translate into enablers and inhibitors of user efficacy. Different spatial management practices afford residents of

the same city different extents of potential efficacy in the built environments closest to their homes, depending on the property where they reside. The results of this research show that there is room for spatial managers to more explicitly address how their practices and synergies across disciplines affect users' capability to adapt residential urban spaces to meet their needs.

While no one can fully predict or control the exercise of user efficacy, this research provides knowledge for assessing spatial management practices and decisions against their influencers and against how they affect users. This knowledge supports exercising sensitivity and urban space-specific reflexivity when setting margins for spatial management work. Reflecting over this research's approach, methodology, and findings, this chapter describes a new perspective for assessing spatial management and critiques past insensitivity to the many roles users play in affecting residential urban spaces.

9.1. An ANT perspective for assessing spatial management

This research's adaptation of ANT challenges three common characteristics of spatial management research. It shifts the focus from process and organization to physical effects, studies the work of different professional disciplines in light of each other, and tackles temporality in understanding past behaviors through the marks experienced in everyday environments. These allow the research to break past typical research delimitations with the deployment of ANT's relationality and prioritization of practical effects. The approach discourages the "shortcut" of explaining complex dynamics with simplified social constructions and theories (Latour, 2005, p. 41). However, its ability to handle complexity suits it uniquely to the difficult arena of the built environment, where spatial managers practice. The approach and methodology offer a new perspective for tying the field of spatial management together through the effects of its practice. By traversing disciplines, the approach enables exploration of phenomena that each disciplinary knowledge base overlooks, opening research potentials to comment upon how governance affects physical space, how spatial management affects dwelling behaviors, how urban design and materiality can constrain and enable users, and how agency in the built environment is heterogeneous, composed of the work and behavior of many individuals.

9.1.1. Reflections on the research approach and methodological framework

This research brings a post-structuralist, social science approach into spatial management research, allowing this study to connect different types of knowledge and practice through the environment's materiality. In the theoretical background, the approach bridged different theoretical realms (urban design, dwelling, governance, spatial management) through how

they affect spatial management practices, seeking environmental heterogeneity. It further supported tracing interrelationships between user and management practices through how they physically affect the built environment, showing the condition of environmental materials to hold key clues to the practices that transpire upon them. Its focus on tracing phenomena back to influencing entities opens a broad realm for future reflexive research where spatial management can be approached through the intentional and unintentional physical outcomes of policy, planning, design, administration, and maintenance practices. By recognizing material effects of practice together with the potential efficacy of heterogeneous spatial users, the approach can guide spatial management research to consider the ethics of its practice by asking who is affected and served by the management of urban spaces. This ethical question is particularly significant for considering the social justice implications of the different access and rights users have in urban spaces based on their planning and development intentions as public, semi-public, or private spaces.

The early decision to use ANT in this project affected the research's methods, data collection, and analysis- revealing strengths and weaknesses. Frameworks are not typical of ANT research, as they risk simplifying the explanations between dynamics that are case- and instance-specific (Latour, 2005). However, this dissertation's theoretical and methodological frameworks aided the organization of the presentation and argumentation of the data material without predetermining relationships. The theoretical framework operationalized issues discovered to be important during the empirical research and offered a basis for comparing ranges of spatial management effects. The methodological framework flexibly guided the fieldwork in seeking and reconstructing interrelationships and influencers. Many iterations of it evolved during the course of the research to reflect findings. A major adaptation showed users' potential to hold agency on both the use and management actions sides of the framework, becoming potential managers, or influencers to management through civic user engagement. The fieldwork thus adapted the frameworks rather than the framework predetermining expectations from the fieldwork. ANT's deployment focused attention upon effects in the built environment and opened inquiry to the multiple possible actions, actors, and influencers. In particular, this orientation allowed the consideration of unintentional actions and effects alongside intentional ones (cf. Kärholm, 2007).

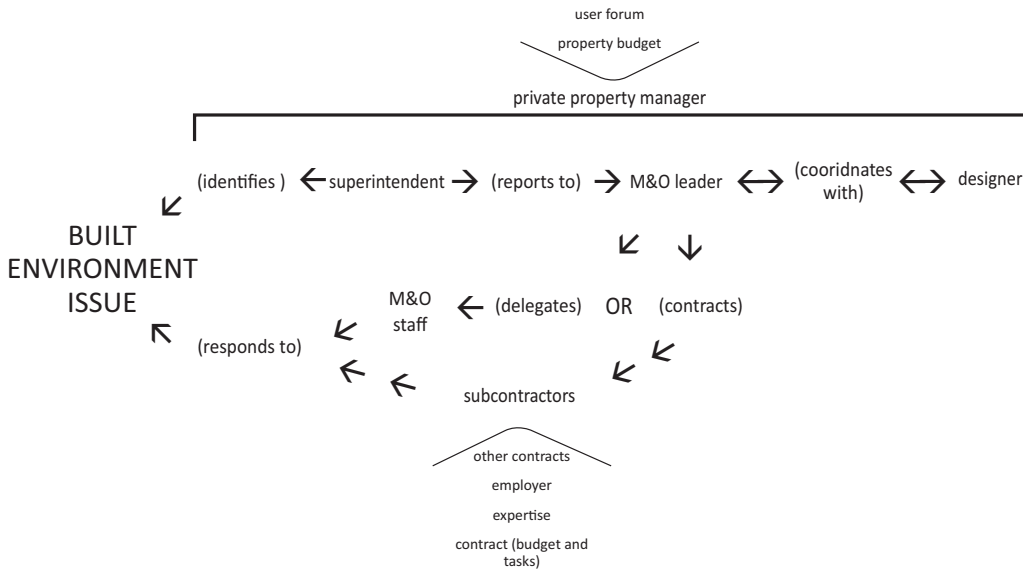
The approach reinforced the temporality of the built environment by seeing single instances within chains of actions that influenced effect production and agency. Research attention turned away from the organizations, formal processes, and contractual limits in spatial management work to focus instead upon how built environment changes came about. Despite limited observation and follow-up time at the three cases, the approach allowed observed instances to be traced back and forward in time through influencers and affects,

reconstructing episodes that everyday users experience. The temporal aspect of the study could be strengthened further with additional material to incorporate older, periodic, or historic documentation of the spaces, linking findings to greater patterns of changes in each environment. Repeated studies over time could ascertain which phenomena are typical and which are fleeting. This would be particularly interesting for Privately-Managed Waterfront due to the newness of its inhabitation and its great potential for change, judging by the significant changes this study witnessed over the first few years of its occupancy.

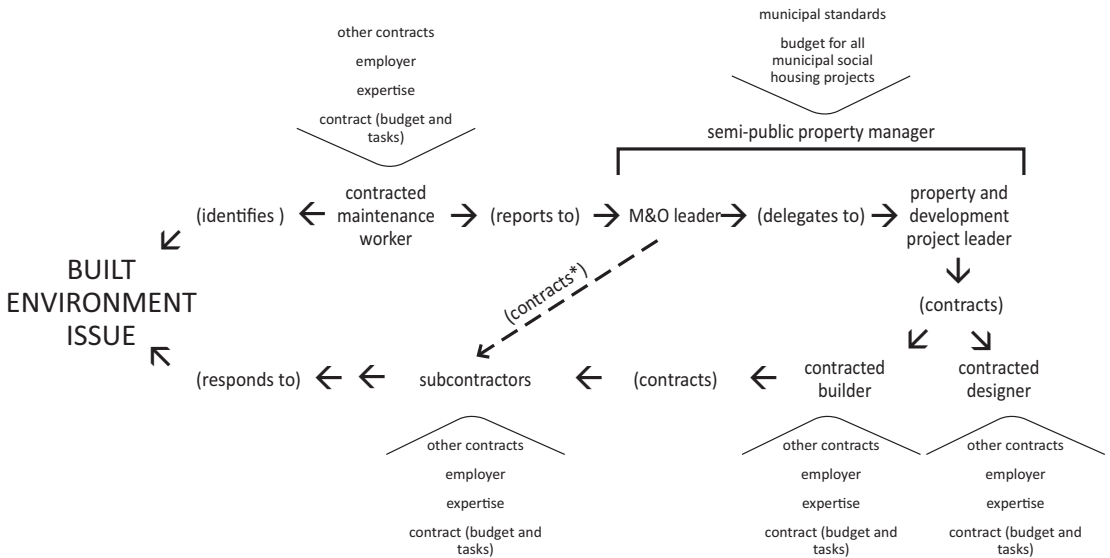
The methodological framework's central focus on changes in the built environment was simultaneously a strength and a downside. It provided an exciting angle by uncovering connections, use, and management patterns through their physical traces. These physical effects revealed a great deal about the users, management realms, and tensions within and between them, but could not demonstrate everything that happens in a space. Findings and explanations in this study were limited to what was observable, experienceable, and inferable. The absence of traces was as telling as the presence, useful in the analysis as they are a part of daily experience- "absences make themselves known in routine passages, in everyday encounters and in the management of ordinary affairs," (Meier, Frers, & Sigvardsson, 2013, p. 424). The approach's dependence upon perception left the perspective of the researcher similarly limited to that of other spatial users. In this manner, the approach was true to everyday experience as subjectivity was embedded, forcing the acknowledgement of multiple explanations and misinterpretations potentially derived from the same built environment (cf. Kusenbach, 2003). This perspective could benefit spatial managers by emphasizing how many different individuals interpret the physical effects of their work in urban spaces.

9.1.2. Implicating administration form and influencers behind spatial management

Maintenance and operations (M&O) workers have a strong tacit knowledge of how users affect space, though their responses to those effects vary with their administration, boundaries of responsibility, typical practices, contract terms, and the social patterns and physical properties of their sites. Particularly administration models and property resources were seen to influence different M&O responses to use in these cases. Privately-Managed Waterfront demonstrated advantages in having local contact with residents and the resources to quickly respond to user efficacy – even when the response required design changes and substantial construction. Full time, local M&O oversight enables the company to consider use and maintenance issues as relate to form of space. This reflexivity allows them to find solutions that address several issues at once, for example- installing railings dissuaded skaters and swimmers while increasing safety for winter plow operators. The case's responsivity is enabled by budgeting, oversight,



Privately-Managed Waterfront –private administration model



*for projects under 500,000 NOK

Publicly-Managed Social Housing – public administration model

Figure 9-1 Flow of responsibility and influencers in public and private M&O administration forms. Orthogonal brackets group entities under the same company while the open brackets list some potential influencers behind each entity.

decision-making, maintenance, and renovation responsibilities all being held by one on-site entity. By contrast, publically administered Publicly-Managed Social Housing has to report an issue up through different departments its property management company, which then must consider instances in light of maintenance needs across other properties and allocate resources accordingly. These bureaucratic steps make the response less direct, with significant changes exacerbating this by requiring public bid and external contractors. These two extremes demonstrate different abilities to respond to M&O issues in privately and publicly administered urban spaces (see diagram in Figure 9-1). The difference has significant implications for whether, how quickly, and how thoroughly maintenance issues can be addressed.

Similar to most western cities, in Oslo the public administration of municipal properties requires public bidding on delivering services for most superintendent, maintenance, design, and construction work. This results in the property manager neither directly employing, nor having direct oversight over the workers who identify and respond on-site to built environment issues. It also compounds the number of external considerations and influencers that might play a role in the quality of the service delivery (partial lists above and below the rounded brackets of Figure 9-1). The two property managers have different influencers as well, particularly in where they get their funding and how many properties they have to consider. Public administration limits M&O's ability to find and respond directly to issues on particular sites, like at Publicly Managed Social Housing, distancing those who make spatial management decisions from those who fulfill them in the built environment. Resident-Managed Courtyard's community model of administration blends aspects of the public and private – residents are on site so can identify issues locally, though they contract in skilled superintendents and maintenance workers for most tasks. Both residents and workers can report issues to the property board, which determines solutions that fit its property-specific budget. The fragmentation of responsibility and contested resources from public administration slows responsiveness in manners that do not hinder private or community administered M&O because these models have local oversight. The chains of influence and responsibility affect each case's will to create, and ability to enforce, regulations. Both public and private administration models establish many local regulations in the spirit of streamlining their workload. This research shows the how the effective enforcement of regulations at Privately-Managed Waterfront is possible due to its private resources, whereas Publicly-Managed Social Housing's municipal budget struggles to meet the municipality's expectations. Resident-Managed Courtyard's administration is able to recognize their limited ability to respond and accordingly creates few regulations. Resident-Managed Courtyard and Privately-Managed Waterfront are most quickly able to adjust their spatial management practices based on local needs and resources.

This research approach's illustration of influencers behind spatial managers distinguishes the different administration models by the agendas they exercise in affecting the built environment. The more entities that influence spatial management decisions, the more diluted residents' and spatial users' inputs become. Efficacy over the built environment can be transferred to actors that are not in place every day or are little personally affected by the urban spaces in question. Following patterns typical to privately managed public spaces and residential neighborhoods, social agendas and levels of local quality are set and justified by promoting a certain style as an investment, even to the point of suppressing the interests or identities of those who live there (cf. Carmona, De Magalhaes, & Hammond, 2008; Fraser, Bazuin, & Hornberger, 2015). Contrary to this is the more traditional pattern of Resident-Managed Courtyard, where owners hold a stake through their personal investment and are the primary voices invited into decision-making. Publicly-Managed Social Housing's duty to uphold municipal ordinances drives the safeguarding of both its vulnerable residents and for the general public, overcoming biases that could exclude some groups in the other cases. The significant investment behind the development of Privately-Managed Waterfront enables its iconic standard of design and exceptional quality of maintenance, but also draws upon national attention, commercial actors, tourism, and marketing that extend well beyond the neighborhood and residents' interests. As the manager informant explains, the private management company has to work to support the investment.

While private- and community- administered management and the influencers behind them may satisfy the preferences of resident owners, questions may be posed as to their suitability in supporting other spatial users. Privately-Managed Waterfront residents' and public spatial users' interests are relegated to the management company. The drive to protect personal investments likely increases resident owners' wills to maintain spaces to a high standard in both Resident-Managed Courtyard and Privately-Managed Waterfront, similar to evidence from Home Owner Associations self-imposing high maintenance standards (i.e. Fraser et al., 2015). While the resident owners hold some choice, Resident-Managed Courtyard's renters and Privately-Managed Waterfront's public spatial users have little input, despite being included in access rights to their respective case's urban spaces. The extent that these administration models are encouraged to provide for non-owning residents is questionable. This point is particularly salient to the question of how well these models are suited to providing public space- Privately-Managed Waterfront often appears on the brink of exclusionary practices. Resident-Managed Courtyard's model could quickly become privatized space. Although it currently functions reasonably well as a semi-public common space, its management needs would change drastically if the courtyard were suddenly mandated as publicly accessible. Without forums to poll and respond to broader user interests, it is difficult to know whom spatial management in residential neighborhoods should serve. These research results

question whether non-governmental administration models should be charged with serving the general public in the absence of oversight that can safeguard public user interests and supplement the resources necessary for maintaining publically used spaces.

9.1.3. A united perspective of spatial management

This research's approach enables a consideration of spatial management that unifies different professional disciplines through their related practices in providing and sustaining residential urban spaces. Rather than separating study of how a space looks, how it is lived, and how it is governed, the approach emphasizes the relationships between these dimensions. This allows research to consider the work of each relevant profession in light of how it affects others. Policymaking sets the basis for M&O work, design materializes planning goals that determine access, M&O response, and maintenance over time determines the longevity of design decisions. Spatial management disciplines affect residential urban spaces together, reemphasizing the need to consider how their practices are interrelated throughout the course of a space's lifetime. Spatial management is not just property management or maintenance of green spaces; it is both of these, working together with urban spaces' design, planning, and policymaking.

Place-keeping's similarly united perspective of spatial management arrives at many of the same lessons, despite its approach from institutions. Separating design from management – place-making from place-keeping- threatens the sustainability of urban spaces (Burton, Dempsey, & Mathers, 2014). To keep spaces functional and of interest to users, their design has to enable their use, while their maintenance upholds or positively adapts their design to meet changing needs over time (Dempsey, Smith, & Burton, 2014). Bettering the collaboration between the institutions can better the results of their practice in the built environment (Dempsey et al., 2014) – a need evidenced by this research in the difference between fragmented public administration and unified private administration. This dissertation further suggests that separating place-making and place-keeping from user efficacy threatens the resilience of residential urban spaces by producing unrealistic maintenance expectations and social anonymity. These aspects together can discourage users from caring for space, draining maintenance resources, and reinforcing a negative cycle of decay. Prior to the emergence of place-keeping, spatial management researchers often simplified the complexities of spatial management and overlooked the possible synergies amongst the responsible professions (Dempsey et al., 2014). Approaching spatial management from its effects in the built environment, as this research, forces the practices to be seen together and in relation to each other. A united spatial management could be studied for how its institutions work together, as place-keeping aims, or through how it affects the experience and lives of spatial users,

following this dissertation. Further research on the effects produced by spatial management practices might lead each discipline to better define its practical goals through what it can socially influence in urban spaces.

9.2. User efficacy beyond participation forums

This research illuminates users' abilities to affect built environments beyond participating in forums of civic engagement. Overlooking and not acknowledging different forms of user engagement allow spatial management to practice insensitively, with the risk of providing and maintaining spaces that do not accommodate users' needs or support their wellbeing. Insensitivity to users' efficacy potentials is embedded in providing forums for civic engagement that are exclusive or only symbolic, in regulating behaviors without considering context, and in restricting material opportunities for physical engagement. While spatial management holds the agency to provide opportunities in these realms, opportunity alone does not guarantee the inclusive exercise user efficacy. Opportunities and traces of exercised efficacy can encourage and guide those who want to contribute and have unfulfilled needs from their local common spaces. These user practices, in return, can encourage personal connections to the environment and to others who share it. In terms of user efficacy, this dissertation addressed knowledge gaps by describing users' ability to change the built environment and the challenges of heterogeneous individuals dwelling together. The methods and findings offer insights into previously overlooked aspects of user efficacy in the built environment, commenting upon the social implications and contemporary state of urban space provision in Oslo. As many of the discovered phenomena are likely similar in other western cities, this research highlights both local risks and hypotheses that could be further tested for prevalence across different contexts.

9.2.1. Reflection on the methods in approaching user efficacy

The methodology used in this research departed from prior studies on user efficacy, by seeking the effects of exercising efficacy rather than the psychology behind it. Addressing efficacy alongside spatial management practices created two tracks for the research design to cover, affecting the dimensions of efficacy that each method needed to approach. These strengths and weaknesses of the research design steered the research questions and tasks as well as defined gaps in the findings. In particular, the focus on observation led this research to emphasize physical elements and changes, rather than how users interpret change. The observation findings documented environmental changes, but could not weigh how important they are to particular users. The positive side of this was the research's ability to illuminate the significant role that materials play in connecting people through experience, perception,

and interpretation. Interviews aimed at getting a sense for how others perceive efficacy acts, but the connections back to observation data depended on informants clearly accounting for what they notice and experience – a typical shortcoming of interviews in naturalistic research (Kusenbach, 2003). This research averted this problem by holding the interviews in situ and using photographs to support conversations and aid informants' recollection – measures if employed across a larger body of informants might approach more pointed, generalizable conclusions about user perceptions of efficacy.

Observation's greatest vulnerability is the reliance on researcher attention to overcome biases while they perceive and document. The supplementation of interviews aided this by incorporating other viewpoints, but still left gaps regarding issues where the researcher and informants were either unfamiliar or oblivious. Supplementing observation with video and photo addressed these gaps, proving crucial to catching phenomena the researcher was blind to during initial field visits. The visual data from these methods enriched researcher's observation ability, allowing more instances of user efficacy to be documented than the field notes alone contained.²²

The research design had to choose a particular seasonal and daytime focus, which affected which behaviors could be observed. As a result, few instances of efficacy exercised in winter or at night were observed. The second observation period and occasional follow up visits proved useful for documenting longer-term efficacy and management cycles, despite prolonging the fieldwork. This prolongation forced the interviews to be scheduled during rather than after the observations, compromising the amount that observation data could influence the interview guides. Possibly as a result of this, the interview data tended towards civic engagement, despite its original aim to focus on physical engagement. Most residents spoke about contributing to their neighborhoods through civic forums, appearing not to consider physical contributions to the same extent. This pattern was likely triggered by the interview guide and reinforced the research's need to consider both forms of engagement together.

Scheduling and holding interviews about user efficacy held further challenges. As informants had to volunteer, those who participated were likely more engaged than the average user from each case. Members of the general population were difficult to meet and few volunteered or found time to contribute. Therefore, user availability and willingness became decisive factors for informant selection, despite intentions to seek different types of informants. Resident-Managed Courtyard's gatekeeper acquaintance, highly engaged residents, and enclosed courtyard eased meeting informants – it was the only case where residents introduced the

22 This proved particularly useful when posting flyers was added to the list of engagement types towards the end of the fieldwork period – review of visual data supplemented sparse notes about flyers as they largely blend into the environment.

researcher to additional informants. Publicly-Managed Social Housing proved difficult due to the anonymity of spatial users, the lack of local organizations, and the sensitive social circumstances surrounding many of its residents – including addiction, criminality, and unstable mental health. Participating in the local street festival aided in meeting potential informants, though only one from a list of five found the time to interview. Privately-Managed Waterfront’s informants were the most difficult to enlist as residents were relatively new to the area, extremely busy, and seldom identifiable in the public spaces. The manager informant in Privately-Managed Waterfront served as an unexpected gatekeeper, introducing 20 locally engaged residents – two of whom agreed to interviews. While the in situ interviews were most useful at guiding the conversation to the built environment, scheduling them was challenging. Walking interviews were originally planned along typical everyday pedestrian routes, but this fell through due to 1) time constraints and unwillingness from informants, 2) researcher difficulty in recording references to physical space while conducting the interviews, 3) variable weather and evening darkness when the most informants were available. Most of the interviews were stationary, depending on supplemented photographs rather than walking experiences. Additional walking interviews, spontaneous “pop-up” interviews, and/or focus-group interviews could have benefited the study by increasing the number of perspectives surveyed and better focusing conversations with informants.

Participatory Action Research (PAR) could have introduced more informants, though it would have demanded greater resources, research assistance, and integral cooperation with the managers of each case. These weaknesses limited focused and analyzable data from the project at Publicly-Managed Social Housing. The method simultaneously held risks in potentially swaying results away from a true ethnographical study, as it affects space and tests reactions to artificial settings rather than authentic. Participating in this community event proved a low threshold approach to gaining contact with users. If more pointed, the method could have collected additional user perspectives and inquired specifically about interpretations and willingness to engage. It, however, does not transcend the inherent sampling bias of interviews, since informant participation remains voluntary. The method is worthy for further consideration in spatial management research, where it might be developed to test user reactions to specific management and design interventions or users’ likelihood to engage with particular environmental materials, for example.

This dissertation’s results and research design are context and time dependent, as changing circumstances in each of the cases may affect local dynamics differently in the future. Publicly-Managed Social Housing may review their spatial management coordination after the urban renewal project is complete; Resident-Managed Courtyard may renovate its yard; Privately-Managed Waterfront may change practices further as the site becomes more populated and

visitation numbers even out. As such, this dissertation presents a snapshot of current practices in Oslo, showing the dynamics that are possible in the city's residential urban spaces from 2012 to 2016.

9.2.2. Synergies between user efficacy and spatial management

This research shows that both the exercise of efficacy and user feelings of efficacy can be affected by spatial management practices. Practices that offer opportunities for physical and civic engagement encourage users to have feelings of efficacy by informing them of ways they can affect common spaces. While the research did not aim to test the strength of such felt efficacy, it does show that spatial management affects the extent individual users can exercise efficacy by physically changing their surroundings. Focusing upon the effects of efficacy illustrates the tensions that can occur when the efficacy of one clashes with others' needs in shared built environments. The exercise of different user efficacies needs to be enabled and limited in residential urban spaces in order to balance the needs of individuals with those of the collective. User engagement can be constructive in addressing user needs and adapting spatial features to suit them. It can likewise be destructive in changing the condition of space in manners that deteriorate the environment or detract from other users' wellbeing or ability to use the space. Constructive and destructive engagements may be judged differently, likely depending on individual preferences, local expectations, and the adjacent context (Appleyard, 1979). The results of this research suggest that with contextual knowledge and information about users' preferences and expectations, spatial management can sensitively prioritize their practices to enable locally constructive, and inhibit locally destructive engagements. Finding this local balance in spatial management could allow room and flexibility for the most users to contribute constructively to the environment – encouraging heterogeneously textured, identifiable residential urban spaces that sustainably maintain safety, health, and functionality.

The enablement of users' efficacy to engage constructively can benefit spatial maintenance work. Attentive users can report issues quickly to those who can respond, as seen in Privately-Managed Waterfront. Users that voluntarily take on maintenance tasks can ease the M&O workload when contracted superintendents are insufficiently attentive or resources do not meet maintenance needs. The latter has been exploited in countries like the UK, where municipalities cut funding for public M&O and local volunteers are recruited to supplement service delivery, with various levels of success (Carmona et al., 2008). Successful implementations of voluntary M&O typically have close collaboration with professionals, including ongoing supervision and skill training (i.e. Nannini, Sommer, & Meyers, 1998) – showing how user volunteers cannot replace professional M&O. However, engaging in such voluntary work and other constructive initiatives likely encourages users to take care of

everyday spaces by increasing satisfaction and encouraging place attachment (Steg & Vlek, 2009; Vaske & Kobrin, 2001; Svendsen, Campbell, Sonti, & Baine, 2015). These connections to place can encourage user awareness and environmental behaviors, potentially reducing litter and increasing informal surveillance (Vaske & Kobrin, 2001), instigating cycles of stewardship. Cases like allotment and community gardens often rely on such a principle for M&O - spatial users' individual interests encourage their efforts to clean, maintain, cultivate, and watch over common spaces (i.e. Glover, Shinew, & Parry, 2005; Ohmer, Meadowcroft, Freed, & Lewis, 2009; Eizenberg, 2012). In residential areas, stewardship aligns further with dwelling, where territoriality research has shown residents likely to decorate and maintain spaces that they identify with, as part of presenting themselves to the world. While these behaviors are traditionally paired with single-family housing, they have also been shown to occur in semi-public entrances and yards of multifamily housing (Abu-Ghazze, 2000). Engaging in property upkeep can also be encouraged for social purposes, as seen when homeowners associations "create and govern through community by reinforcing in homeowners a sense of being in common," (Fraser et al., 2015, p. 21). Herein, encouraging user efficacy from constructive engagement may offer opportunities for spatial management to mitigate budget challenges while encouraging inclusive, caring communities.

9.2.3. User efficacy under threat in Oslo's residential urban spaces?

Residential environments in central Oslo exhibit a wide range of exercised user efficacy, bringing to question whether residents should have different potentials for efficacy depending on where they live. The range of efficacy discovered relates differences amongst the spatial management practices that invite participation, regulate space, and maintain or design the materials of the built environment across three properties. Finding that these differences exist in close proximity to one another illuminates current threats and possibilities for Oslo's residential urban spaces. Two increasingly common trends – the privatization of urban space development and the delegation of maintenance responsibilities – are directly limiting user efficacy in these cases. Understanding that these trends are likely to proliferate beyond the three selected cases, the research's results identify the following threats to user efficacy in Oslo:

PARTICIPATION FORUMS ARE SELDOM DIRECTED TOWARDS USERS AFFECTING THE BUILT ENVIRONMENT.

Little evidence exists of participation forums' effect upon these built environments. Symbolic, non-efficacious participation limits user efficacy from civic forums and risks inhibiting feelings of efficacy when participants repeatedly see no results from their engagement.

DECISION-MAKERS WITH RESPONSIBILITY FOR RESIDENTIAL URBAN SPACES LOSE CONTROL OVER SERVICE DELIVERY DUE DELEGATION TO PRIVATE CONTRACTORS.

While municipal planners regulate access to urban spaces and publish goals for their functionality, M&O delivery determines how those goals are executed. Private M&O can limit how the public can use publicly accessible space. Contracted service provision can deteriorate spatial quality and function when not held to the terms of the contract. The M&O actors are distanced from the decision makers who the public can report to, limiting municipal checks and balances over M&O service delivery. Clearer accountability for spatial quality may be achieved by local superintendents being held responsible to keeping spaces functional for their intended users. This research suggests room for the municipality to critique local environmental standards against M&O resources available and to oversee service providers, particularly outsourced firms that may have few incentives to provide for spatial users.

HIGH DEVELOPMENT AND DESIGN COSTS TRANSLATE INTO CONSTRICTED USER EFFICACY.

Iconic design and expensive construction materials require high initial investments and significant ongoing maintenance budgets. Property managers protect these by imposing extra local regulations, limiting public use of space, and minimizing user input in the local environment. While that control enables the maintenance of aesthetically pleasing spaces, when paired with housing, it denies local residents the ability to adapt their environment. Transferring M&O costs to residents and external investors further distances the interests behind spatial management from those of the general public. This dynamic warns that if private developments are made responsible for providing public space, they should be developed and designed less competitively to ensure that spatial quality can be maintained for the public. To simultaneously meet residents' needs for efficacy, semi-public spaces that buffer the private from the public should be included in residential developments. To give the public more efficacy, offering spatial users a forum for reporting issues in public space that traverses property ownership might be a route for supporting needs in both privately and publically maintained public spaces.

POOR RESPONSES TO DESTRUCTIVE USER ENGAGEMENT SUPPORT SOCIAL DIVIDES.

Traces of engagement offer a silent form of communication between heterogeneous users of urban residential spaces. As such, their regulation and erasure by spatial management hinders users' personal identity and attachment to common spaces. This research suggests that at the worst, unenforced regulations and non-responsivity to maintenance issues can amplify prejudice.²³ User interpretability of M&O issues shows that spatial

23 This was evidenced by blame for poor spatial quality directed towards *others* at each case i.e.: "I think the *Muslims* have some kind of culture for feeding the birds," (INF 1-4); "the *tenants in that building* don't care if this place is nice," (INF 1-2, 1-3, 1-4); "only the *rental tenants* don't care about the

managers need to be aware of the social repercussions of their practices, particularly where heterogeneous populations share space.

The inequities of user efficacy opportunities across these three properties describe potential threats to social justice, particularly if they are part of larger patterns or common practices in the municipality. Policymakers and urban planners must understand how their goals and policies are being carried out on the ground and to what extent local, everyday urban spaces support the larger goals of the municipality. In addition to assessing public spaces post-occupancy, oversight across different levels of responsibility can connect state and municipal goals with their property-specific implementations. Otherwise, any social goals related to spatial management risk being lost in the many translations that occur between policy, plan, design, local administration, and the delivery of maintenance and construction services. These disciplines together shape the built environment and their practices affect local relationships between urban residents. Spatial management practices that inadvertently constrict user efficacy risk sustaining urban spaces that do not support the city's diverse users, as they neither encourage constructive user behaviors nor discourage detrimental and exclusive ones.

9.3. Concluding reflections

This research developed an approach to inquire about the implicit and explicit social effects that follow from management practices in residential urban spaces. Its foundation in urban space phenomena has produced findings that do not easily fit into any single preexisting theory or framework. It thereby was able to consider new questions and uncover new relationships, even if leaving open-ended explanations. It proved capable of illustrating the complex dynamics involved and varieties possible in managing residential urban spaces. Its results show that spatial management cannot determine or fully prevent user efficacy; the mediating roles that policy-making, urban planning, urban design, and maintenance and operations can hold are layered on top of social contexts and individual wills that influence the desire to engage. Additional hypotheses behind these latter mechanisms have been pointed out throughout this dissertation.

9.3.1. Gaps in the material and room for further research

The poststructuralist ANT approach put materials and effects first, rather than emphasizing socio-economic demographic trends or political paradigms. It illuminated specific relationships

space and leave their trash," (INF 2-3, 2-4, 2-5) "some of the *visitors* don't respect that normal people live here and need quiet to sleep at night," (INF 3-3M, 3-4, 3-5).

that produced changes, rather than approaching generalizations or seeking to explain trends through social constructions. It created adaptive theoretical frameworks rather than applying and testing those previously established.

Existing frameworks, like bridging social capital (i.e. Putnam, 2000), for instance, might hold potential in extracting further information regarding wills to engage, preferences of spatial quality and management's effects on relationships between neighbors – though these dimensions were beyond the scope of this research. Environmental and community psychology approaches could further have illuminated other facets of the research theme, including place attachment, willingness to engage, the interpretation of others' engagement in the built environment, and potentials for engagement to create shared values. The limitation of research scope was guided by ANT and by the desire to understand the effects of actions in the built environment. The gaps left beyond this offer critique to the approach in its overlooking the depth of perceptions, meanings, and intentionality involved in practices, though they simultaneously keep the research from simplifying complex, instance-specific phenomena. Room remains for adjacent, supplementary research to fill these environmental psychological gaps, as are commonly approached through quantitative surveys (i.e. Kaiser & Wilson, 2006; Scannell & Gifford, 2010). The go-along walking interviews method used in this research could also be developed further to approach psychological factors. These approaches in further researcher may prove better suited for illuminating different attitudes about engagement, connecting them with personal preferences, socio-cultural prejudices, and population demographics – as for example studies of environmental detriment perception linked to ethnic diversity (i.e. Sampson & Raudenbush, 2004; Baum, Arthurson, & Han, 2015). The strength of this research's approach, by comparison, is the illumination of individual perspectives, influencers, and specific interactions, with materials as well as people and organizations.

Similarly, institutional or economics approaches to this research theme could have supplemented greater information regarding the role of maintenance budgets and contract terms at each case and how different internal organizations affect spatial management's work. Such research could focus more on the overarching mechanisms of decision-making, responsivity, and regulation enforcement, though it would have overlooked the physical effects of these in the built environment, which this dissertation could reconstruct. Studying civic engagement processes in depth, with more participant observation and interviews, could have provided additional details regarding how user input is attracted and what aids or hinders its implementation in the residential environments. The timeframe of this study allowed only an overview of civic engagement opportunities, which focused on the role spatial managers have to affect the types of participation and efficacy they enable.

The gaps and related themes for study offer many potentials for future research. The findings and hypotheses from this study could be further compared against additional cases, or scaled up for greater testing. One direction for spatial management research that has received little empirical attention academically is to better understand how the different forms of spatial administration serve different users and can safeguard public needs. In particular, comparing cases of privatized management of public space could seek potentials for employing the form's advantageous local, consistent, and responsive qualities apart from supporting commercialization and exclusion. This line of inquiry could inform a merger between private management's optimal service delivery and government's ideals of supporting inclusive, resilient, and holistically sustainable urban spaces for all.

9.3.2. Conclusions

Limitations of user efficacy in residential urban spaces should be considered on a case-by-case basis in order to safeguard and encourage user engagement where it can be environmentally constructive. The ideal of balance of management and efficacy over time would offer a basis for supporting the needs of general users while allowing flexibility for some individual inputs, particularly in spaces close to homes. Margins of spatial management need to be both place-specific and flexible, so that they can adapt over time, address specific user needs and accommodate changing resources. Without continuously revisiting the policies and practices of spatial management through their effects and outcomes in the built environment, spaces may be maintained to suit no one, in spite of attempts to accommodate everyone. Spatial management professionals must be aware of, and held accountable for, the social as well as the physical effects of their decisions.

In contemporary cities, where public resources are increasingly threatened, new ways to address, relate to, and collaborate with heterogeneous populations are needed to maintain urban residents' wellbeing in the spaces they share. Urban residents need a range of spaces – from private to semi-public and public – in order to fulfill their dwelling needs. The urban spaces nearest home hold particular meaning by offering potential connections to place and to other spatial users through the expression and experience of heterogeneous identities. This heterogeneity can make authentic and interesting urban spaces, but only to the extent that users' efficacies are enabled. Anonymous spaces, high investment pressures, strict regulation of spatial use, and gaps as well as excesses in maintenance all threaten opportunities for user efficacy. The provision and design of public spaces alone cannot determine liveliness, inclusivity, and resilience. Sustaining rather a range of urban spaces that are identifiable and adaptable by users over time can encourage these qualities. Context-sensitive, flexible,

and reflexive spatial management can support user engagement that suits residential urban spaces to their heterogeneous identities and needs. With reflexive, explicit practice and a greater understanding of user efficacy, the spatial management of residential urban spaces can encourage and enable spatial users to contribute constructively to the built environment.

10. REFERENCES

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11. APPENDIX

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11.1. Project letter (Prosjektbrev)



Norges Miljø og
Biovitenskapelige
Universitetet

Institute for
Landskapsplanlegging

Dato:
24.04.2014

Prosjektbrev om forskningsprosjekt:

Uteområdeforvaltning og beboerengasjement i lokale bymiljø
PhD forskningsprosjekt ved Instituttet for Landskapsplanlegging
Norges Miljø og Biovitenskapelig Universitetet – 2013-2016

Forskningsprosjektet handler om uteområder i nærheten av boligstråk i Oslo – hvor godt driftes de og hva tenker de som bruker dem eller bor i nærheten om byliv, fysisk design, pynt og vedlikehold/drift. Hvem påvirker stedene i nærheten av din boligplass? Hva slags motivasjon kunne oppmuntre dine naboer til å bidra positivt til det lokale bomiljøet?

Dette forskningsprosjektet inneholder to primærstudier for å få informasjon om bruk og oppfatning av byrom – en er en observasjons-studie og den andre er en intervju-studie med lokale beboere og stedsbrukere.

FILMING OG OBSERVASJON - Under observasjons-studien filmer jeg og tar bilder av fysiske elementer i bymiljøet med fokus på de som viser:

- Synlige tegn på vedlikeholdsnivå og krav.
- Forskjellig bruk og misbruk av uteområder (f.eks. søppel i gaten, graffiti, blomsterpotter, fine benker, osv.).

Om du har en mening eller relevante historier å dele om dette området, så vil jeg gjerne høre om det! Ta kontakt med Melissa for å avtale en tid for en gåtur.


GÅTUR INTERVJU – Bli gjerne med og ta en 'gåtur', med meg! Under turen går vi rundt ditt nabolag sammen og prater om det vi ser – et slags uformell intervju. Vi skal drøfte deres meninger av området og stedenes forvaltningsnivå mens vi går og du er invitert å dele historier og dine egne erfaringer og opplevelser. Om du tillater det vil jeg ta bilder av området under turen og kanskje ta opp lyd for mine egne notaters skyld. Lyd filene skal slettes etter at notatene er transkribert og alle ansiktene sladdes fra bildene før eventuelle deling eller publisering. All informasjon jeg får under turene vil holdes konfidensielt uten persondataopplysninger – jeg spør bare om å få bruke din gateadresse eller postkode som et referansepunkt.

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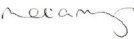
FRIVILLIG OG ANONYM DELTAGELSE Det er frivillig å delta i dette prosjektet, og man kan når som helst trekke seg uten begrunnelse. I dette tilfellet vil opplysningene da bli anonymisert og evt. opptak slettes. Data fra disse to studiene samles inn til min doktorgrads forskningsprosjekt. Antatt ferdigstilling av prosjektet er slutten av 2016 (31.12.2016). Om du bidrar vil dine meninger og kommentarer kunne bli inkludert (hele anonymt) i min skrevne avhandling dokument og i artikler som publiseres til akademiske tidsskrifter. Bilder og filmopptak som inneholder gjennkjennelige folk skal ikke distribueres, presenteres eller publiseres uten å sladdes ansikter. Alle slike datafiler (inkl. notater, bilder og filmer) som er primærdata i forskningsprosjektet skal oppbevares kryptert via universitetets sikkerhetssystem hvor jeg er den eneste med tilgang.

Etter avsluttet prosjekt vil primærdata anonymiseres - alle ansikter skal være sladdet fra filmer og bilder, og eventuelle lydopptak og skriftlig personopplysninger skal være slettet – slik at ingen enkeltpersoner kan gjenkjennes. Disse anonymiserte filene skal oppbevares i minst 10 år ved NMBUs database (bare tilgjengelig via en kvalifisert instituttansatt), i henhold til universitetets regler for primærdata.


Videre spørsmål kan sendes til melissa.murphy@nmbu.no.

Takk for tiden og innspill!

Med vennlig hilsen,



Melissa A. Murphy, M. Sc. Byekologiske Planlegging
PhD stipendiat, prosjektleder



← Dette er meg, Melissa Murphy, en byromsforsker fra universitetet i Ås. Gjerne hils om du får glimt av meg i ditt nabolag! Hyggelig å bli kjent med andre mens jeg studerer.

2

Translation of project letter text:

Project letter regarding research project: Management of outdoor areas and resident engagement in the local urban environment. PhD research project with the Institute for Landscape Architecture and Spatial Planning, NMBU- 2013-2016

The research project deals with outdoor areas near residential neighborhoods in Oslo- how well they are maintained and what the people who use them think about their urban life, the physical design, decoration and maintenance. Who can affect the places near your home? What kind of motivation could encourage your neighbors to contribute positively to the local environment?

This project contains two primary studies seeking information about the use and experience of urban space- one is an observation study and the other is an interview study with local spatial users. Filming and observation- During this study I will film and take photos of physical elements in the urban environment with focus on those that show: signs of maintenance level

and needs; different use and misuse of outdoor spaces (littering, graffiti, flower pots, benches, etc). If you have an opinion or relevant story to share about this area, I would love to hear it! Get in touch with Melissa to schedule a walking interview.

Walking interviews- Join me for a walking interview! We will walk around your neighborhood together and talk about what we see- a type of informal interview. We can discuss your opinions of the the area and the place's maintenance level while we walk and you are invited to share stories and your own experiences there. If you allow, I will take photos of the area during the walk and record sound for my own notes. Sound files will be deleted after the notes are transcribed and all faces blurred from photographs before sharing or publishing. All the information I receive during walking interviews will be held in confidentiality without personal data about you. I ask only to use your street address or postal code as a reference point.

Voluntary and anonymous participation: It is voluntary to participate in this project and you may withdraw your participation at any time without cause. In the case of withdrawal, any recordings will be deleted. Data from these studies is collected as part of my PhD research which has an estimated finish date of the end of 2016. If you contribute, your words, thoughts and comments will only be included anonymously in my dissertation and in scientific articles associated with it. Photographs and video files that contain recognizable people will not be distributed, presented or published without the blurring of faces. All associated data files (including notes, images and videos) which are primary data in the research project will be stored encrypted on the university's secure server, in a folder where I have the only access.

After the end of the project, the primary data will be anonymized- all recognizable images blurred from film and photos. Audio and written notes with personal data will be deleted so that no individual person can be recognized from the material. These anonymized files are stored for at least 10 years on NMBU's server (accessible only to a qualified employee), following the universities rules for primary data.

Additional questions can be sent to melissa.murphy@nmbu.no. Thank you for your time and input!

Photo text- This is me, Melissa Murphy, a public space researcher from the university in Ås. I'm happy if you greet me if you recognize me in your neighborhood! Nice to become known with others while I study.

11.2. Data collection questions and interview guides

Questions to guide the data collection during observation and interview phases were determined early and are presented in the sections below, followed by case-specific interview guides used in each case (in Norwegian language).

ACROSS CASE QUESTIONS – OBSERVATION PHASE

- What management actions are observable in the case
- What kind of material quality variations exist?
 - Materials with higher maintenance needs
 - Misused or unmaintained materials
 - New materials
 - Actors responsible for materials
- Which areas/elements do people use, how does this relate to quality/upkeep level?
- What materials have been added by residents or users? (purposefully, accidentally?)
 - What material conditions have been changed? (how? by whom?)
 - What preconditions allowed (or rules dissuaded) those changes?

The base interview guides were written based on research interests before beginning the study. The following section has their adaptation to each case with respect to preliminary observations, intended first for residents and spatial users. Questions were adapted, specified and added throughout the research to ask the most relevant information of different types of informants, particularly the management actors towards the end of the research. As the interviews were semi-structured, these guides predominantly offered a starting point and checklist for open discussions.

INTERVIEW GUIDE FOR RESIDENT/USER INTERVIEWS

The questions here are listed by objective. In practice they are elaborated upon and adapted to each informant, case, and interview situation.

Informant background

- How often do you use the outdoor areas here?
- Do you live here (/how long have you)?
- Do you rent or own?
- What do you think of the neighborhood here in general?
- Do you identify personally with the neighborhood?
- Are you here most weekends (in summer) or do you travel away (cabin or similar)?

Civic engagement habits and identity

- How do you generally feel about the neighborhood/the case property?
- Do you identify personally with the building and area around, does it represent you?
- What kind of feedback do you have in your building or area?

- Are you a member in your building's (or yard's) board? (why/why not?)
- Have you tried to start any initiatives here in the property? (why/why not, how did it go?)
- Have you taken contact with anyone about problems in the area?
- Do you have the opportunity to participate in 'dugnad'? Do you participate?
- Do you participate in other local meetings about the area? (why/why not?)
- What is your motivation to participate in the things you do here?
- Is there anything that you would change about your neighborhood?

Comments on the place, things people change, uses and desired uses

- How pleased are you with the yard/outdoor areas here?
- How do you use the space? When (special seasons, days, hours)?
- Which parts of the space do you use most? What is your favorite/least favorite space?
- Do you have a balcony? How/how often do you use that?
- How private do you think the area is? Too private, too public?
- Were you involved in the design/renovation processes here?
- Have you planted flowers or decorated your balcony or the outdoor areas here?
- What do you think about others planning flowers or hanging decorations here?
- Is there anything you would like to do/have here but cannot?

Reflections over and knowledge of management actors and local rules

- Do you know if there are rules about how you can use or decorate this space?
- How satisfied are you with the upkeep of the area? (quality and how often)
- Do you know who to take contact with if there is a problem, like litter for example?
- Do you feel well versed in who has responsibility over the area?
- If you see a maintenance problem, how likely is it that you would contact someone about it? (who would you contact?)

Perspectives offered towards changes made and towards other spatial users

- Do you know many of your neighbors? (your building, adjacent buildings)
- Do you talk to your neighbors about problems or wishes for the area?
- How engaged in the neighborhood are most people who live here?
- Do you think that the residents could contribute more to the common areas here? (how/why? Do you think they want to?)
- Do you think most people take care of (and obey the rules of) the outdoor areas here?
- How do you feel about (observed case-specific issues, example: carpets, graffiti, bicycle parking)?

INTERVIEW GUIDE FOR MANAGEMENT ACTOR INTERVIEWS

The questions here are listed by objective. In practice, they are elaborated upon and adapted to each informant, case, and interview situation.

Organization

- Can you describe your organization's main tasks in the area and your role?
- Does your organization have a 'vision' or goal for maintenance here?
- Who determines the tasks you perform?
- How are the tasks conveyed? (written agreement for example, can I get a copy?)
- What resources do you use for tasks? (budget, employees)
- Do you have enough resources to perform the expected tasks?
- Who determines your budget? (where does it come from?)
- Are there other maintenance actors here?
 - Responsibility for what/what area? (neighbor parcel for example)
 - Do you collaborate with the others? Who coordinates?
 - Are there any problems here that are outside your responsibility?
 - Do you find that maintenance tasks are well coordinated between the actors?

Communication

- What kind of communication do you have with other maintenance actors here?
- How do you communicate? (common information, maintenance needs, fulfilled tasks)
- What do you think about communication between the other maintenance actors?
- What about the residents- how you communicate with them?
 - How can residents contact you over issues? And other spatial users?
 - Do you think it's easy for them to reach you?
 - How often do you get feedback from residents (or users)?
 - What kind of input do you get from residents (eg. complaining, complementary)? Is it useful?
 - Do you need more input from residents? (or users?)
- What kind of people use the outside spaces here?
- How do people use the site?
- Are there any rules for the use of the outside spaces?
 - How are they published / communicated?
 - Who has contributed to them?
 - Do most people follow them?

Standards

- How are the rules enforced?
 - What rules do you have responsibility to enforce?
 - Do you prioritize you some of the rules – what is most important to enforce?
 - How quickly do you respond when rules are violated? (Gladly give examples)
 - What do you think about the rules in general?
 - Are they enough / too much?
 - Are there more / fewer that you would recommend?
- What kind of challenges do you have here? (are there problems that happen often?)
- How much here have residents changed?
 - Can residents personalize common areas?
 - What do you think about personalization of public areas? (Decorations,

hobbies, plants, etc.)

- Is graffiti tagging a problem here? How (/quickly) do you respond?
- How do you get information about maintenance needs?
- How often are you in the area? Do you feel familiar with the standard there? Are you pleased with the standard?
- Who sets the standards for maintenance here?
- Do you think that the place meets the expected standard? What could be improved?
- How are maintenance tasks followed up? Do you report? (To whom, how often?)
- Do you think that any of the physical outdoor areas receive more attention and priority?
- Are certain tasks prioritized? (Which should be prioritized?) [I supplement with pictures here, asking 'Is this an issue here?']

Attitudes

- What kind of pressure do you get from elsewhere? (politics, economics, afraid of being held responsible, etc.)
- Do spatial users change much here physically? (what, how often? What does it do with quality/maintenance needs?)
- What qualities of the outside spaces are most important for you to uphold?
- What kind of input did you have when areas were designed?
- What do you think about the design of the outside spaces with regard to maintenance? (any design decisions that help your work, make it more difficult?)
- Do residents contribute to maintenance here? (How? How often? How could they? Do you think they want to?)
- Do you think that most people take care of the outside spaces?
- What do you think about dugnad (voluntary work)- is it relevant here? (/why not?)

11.3. Interview guides in Norwegian

11.3.1. Case 1 Intervjuguide

- Bør du i en av disse bygninger?
- Hvor lenge har du bodd på Tøyen?
- Eier eller leier?
- Hvor ofte bruker du området (lekeplass, hagen med picnic-bordene)?
 - Hvilken del av området?
 - Hva slags bruk?
 - Spesielle årstider, dager, timer?
 - Er du her på de fleste helgene eller reiser du bort?
 - Har du en balkong? Hvor ofte bruker du den?
- Hva synes du om Tøyen generelt? og nabolaget her?
 - Identifiserer du personlig med bygningen og området? Føler du at området representerer deg?
 - Hvor fornøyd er du med nabolaget generelt? Lekeplass? Hageområdet?
 - Er det andre typer bruk at du vil ha/se her i området?
 - Hva ville du endre om området?
- Hva slags innspill og bidrag har du i ditt hus, i bakgård, i kvartalet?
 - Er du med i noen lokale grupper, finnes det en borrettslag/styre til bygning?
 - Har du tok kontakt over problemer eller med nye initiativer i området?
 - Har du mulighet og tar du del i dugnad?
 - Har du plantet blomster, pyntet balkong, eller deltok i pynting av bygning/området?
 - Deltar du i andre lokale møter om området, beboermøte f.eks? Hvorfor/ikke?
 - Følger du med Tøyensatsning og andre myndighet tiltak her? Hvorfor/ikke?
 - Hva er din motivasjon når du bidrar, eller hva ville gjør deg å bidra mer?
- Er du kjent med mange av naboene dine?
 - Fra din bygning kontra de nabobygninger?
 - Prater dere om nabolag (ønsker eller problemer)?
 - Tror du at beboere her vil er mer eller mindre engasjert en på andre steder (finnes mange nabolag aktiviteter?)
- Er du fornøyd med vedlikehold av lekeplass, hagen, og lokale fortau rundt omkring?
 - Frekvens/konsistens av vedlikehold rundt omkring?
 - Kjenner du til om det finnes regler for bruk eller dekorasjon fra din bygning/for bakgård (formell eller uformell)?
 - Synes du at folk flest tar hensyn til reglene og ta vare på uteområder her?
 - Hvem kan du ta kontakt med om det er et problem/søppel f. eks?
 - Synes du at kriminalitet er et stort problem her, om ja, i hvilken spesifikk steder?
 - Føler du godt kjent med hvem har ansvar rundt omkring?
 - Om du vise et vedlikeholdsproblem (eller annet type problem), hvor sannsynlig er det at du tar kontakt med noe?

- Synes du at beboere kunne/skulle bidra mer til fellesområdene her?
 - Hvordan f.eks?
 - Tror du at de har lyst til å bidra?

PEKE UT OG DRØFTE:

- Kan du vise meg din favoritt del av området?

Hva synes du om:

- Graffiti/tagging
- Ødelagt utstyr swing på lekeplass
- Hekkene planter
- Balkonger (blomsterpotter og tepper)
- Sitteplassene rundt omkring lekeplass
- duer/fugl mating
- søppel
- nye søppelkanne og balkong fra renovasjonen

Kan du introdusere meg til andre som bor her? Er du kjent med noen naboer eller lokale grupper at jeg kan ta kontakt med for intervju?

11.3.2. Case 2 Intervjuguide

- Adresse:
- Hvor lenge har du bodd her?
- Eier eller leier?
- Hvor ofte bruker du området (bakgård)?
 - Hvilken del av bakgården
 - Hva slags bruk?
 - Spesielle årstider, dager, timer?
 - Er du her på de fleste helgene eller har du en hytta f.eks.?
- Hva synes du om kvartalet generelt? og bakgården?
 - Identifiserer du personlig med bygning og området? Føler du at området representerer deg?
 - Hvor fornøyd er du med nabolaget generelt? Og bakgården?
 - Er det andre typer bruk at du vil ha/se her i bakgården?
 - Hva ville du endre om nabolaget eller kvartalet?
- Hva slags innspill og bidrag har du i ditt hus, i bakgård, i kvartalet?
 - Er du med i borrettslag/styre til huset? Og til Lisakvartalet?
 - Har du tok kontakt over problemer eller med nye initiativer i området?
 - Tar du del i dugnad?
 - Har du plantet blomster, pyntet balkong, eller deltok i pynting av bygning/området?
 - Deltar du i andre lokale møter om området?
 - Hva er din motivasjon når du bidra, eller hva ville gjør deg å bidra mer?
- Er du kjent med mange av naboene dine?
 - Fra din bygning kontra de andre bygningene (synes du at alle i kvartalet bruker bakgård likt, er det nok plass til alle)?

- o Prater dere om kvartalet (ønsker eller problemer)?
- o Tror du at beboere her vil er mer eller mindre engasjert en på andre steder (med dugnad eller nabolag aktiviteter?)
- Er du fornøyd med vedlikehold av bakgård, av lokale fortau uten kvartalet?
 - o Frekvens/konsistens av vedlikehold rundt omkring?
 - o Kjenner du til om det finnes regler for bruk eller dekorasjon fra din bygning/for bakgård (formell eller uformell)?
 - o Synes du at folk flest tar hensyn til reglene og ta vare på bakgården?
 - o Hvem kan du ta kontakt med om det er et problem/søppel f. eks?
 - o Føler du godt kjent med hvem har ansvar rundtomkring?
 - o Om du vise et vedlikeholdsproblem, hvor sannsynlig er det at du tar kontakt med noe?
- Synes du at beboere kunne/skulle bidra mer til fellesområdet her?
 - o Hvordan f.eks?
 - o Tror du at de har lyst til å bidra? (eller betaler f.eks)

PEKE UT OG DRØFTE:

- Kan du vise meg din favoritt del av bakgård/kvartalet?

Hva synes du om:

- Kjøkkenhagen
- Palettene nær kjøkkenhagen
- Graffiti utenfor kvartalet
- Utstyrsskapene langs veien
- Sykkel parkering hulter til bulter
- Hver eiendom virker å ha litt forskjellige vedlikeholds nivåer

Er du kjent med noen naboer som du kunne anbefale til meg for intervju?

11.3.3. Case 3 Intervjuguide

- Adresse:
- Hvor lenge har du bodd her?
- Eier eller leier?
- Hvor ofte bruker du felles uteområdene rundt omkring?
 - o Hvilken uteområder?
 - o Hva slags bruk?
 - o Spesielle årstider, dager, timer?
 - o Har du en balkong, bruker du den ofte?
 - o Er du her på de fleste helgene eller har du en hytta f.eks.?
 - o Hvilke typer bruk tror du er mest vanlige i Tjuvholmen? (turister, museum/restaurant besøkende, rekreasjonsbruk av skulpturparken og stranden, ...)
 - o Hvilke typer bruk er «uvanlige»- kan aldri/sjelden observeres på Tjuvholmen? (f.eks. hjemløse, gateartister, politiske manifestasjoner ...)
 - o Er det noe som lokale beboere opplever som særlig problematisk/ forstyrrende ved bruk av offentlige rom?
 - o Er det andre typer bruk at du vil ha/se her i Tjuvholmen?

- o Ønsker du mer tydelig skille mellom private og offentlige rom?
 - Hvordan kunne det oppnås?
- Hva synes du om Tjuvholmen generelt som et bosted? og fellesrommene?
 - o Identifiserer du personlig med bygning og området? Føler du at området representerer deg?
 - o Hvor fornøyd er du med nabolaget generelt?
 - o Hva ville du endre om nabolaget?
- Er du fornøyd med vedlikehold av nabolaget?
 - o Frekvens/konsistens av vedlikehold rundt omkring?
 - o Hvor viktig var vedlikeholdstjenester for deg når du vurdert å kjøpe leilighet her?
 - o Har din bygning spesielle regler til balkong bruk? (f.eks dekorasjon, pynting)
 - Hvordan er slike regler publiserte?
 - o Kjenner du til om det finnes regler for bruk av fellesområder (formell eller uformell)?
 - Hvordan er de reglene publisert?
 - Er du enig med reglene, er de strenge nok/for strenge noe å endre?
 - o Synes du at folk flest tar hensyn til reglene og ta vare på offentlige rom?
 - o Har du sett noen vedlikeholdsproblemer i nabolaget (forsøppling, graffiti, hundelufting, osv)?
 - o Hvem kan du ta kontakt med om det vær et problem i uteområder- søppel f. eks?
 - Er det sannsynligvis at du ville ta kontakt?
 - o Føler du godt kjent med hvem har ansvar rundt omkring?
- Hva slags innspill og bidrag har du i ditt hus, i bakgård, i kvartalet?
 - o Er du med i borrettslag/styre til huset?
 - o Har du tok kontakt over problemer eller med nye initiativer i området?
 - Hvordan tar du kontakt?
 - o Har dere og tar du del i dugnad?
 - o Har du plantet blomster, pyntet balkong, eller deltok i andre pynting av området (fysisk eller med innspill)?
 - o Deltar du i andre lokale møter om området?
 - o Hva er din motivasjon når du bidrar, eller hva ville gjør deg å bidra mer?
- Er du kjent med mange av naboene dine?
 - o Fra din bygning kontra de andre bygningene? (er det lett å bli kjent)
 - o Prater dere om nabolaget (ønsker eller problemer)?
 - o Tror du at beboere her er mer eller mindre engasjert en på andre steder (finnes det dugnad eller andre beboer aktiviteter?)
- Synes du at beboere kunne/skulle/ville bidra mer til fellesområdet her?
 - o Hvorfor ikke? eller Hvordan f.eks?
 - o Tror du at de har lyst til å bidra? (eller heller betaler f.eks)

PEKE UT OG DRØFTE:

- Kan du vise meg din favoritt del av nabolaget?
- Har du la merket til/hva synes du om:
 - Solforhold rundt omkring
 - Sykkel parkering
 - Offentlige badeplassene
 - Plantekassene
 - Hundelufting – er det et problem? (Har du hund?)
- Er det nok folk (boende folk?) rundt omkring?
- Folkemengde forskjell- at nesten ingen bruker noen plasser nær bygninger, og så mange i andre områder?

11.4. Photos used in the interviews

Photos used in the interviews, Case 1.



Photos used in the interviews, Case 2.



Photos used in the interviews, Case 3.



11.5. Interview schedule and list of informants

	Code	Date of interview	Description of informant (anonymized per NSD)
Case 1	INF 1-1	2014-07-18	RESIDENT, female, 20-30 years old, immigrant, Tøyen social housing resident since childhood, met through a neighborhood activist organization.
	INF 1-2	2014-09-15	SPATIAL USER, male, 30-40 years old, Norwegian, father of a toddler, architect, resident of a neighboring property, met in situ on playground.
	INF 1-3	2014-12-17	RESIDENT (formerly), female, 40-50 years old, immigrant, mother, long-term Tøyen resident, met through participation in urban renewal project meetings.
	INF 1-4	2015-05-12	SPATIAL USER, female, 20-30 years old, resident of neighbor property, European student, mother of toddler, met through PAR project.
	INF 1-5M	2015-06-26	MANAGER, representative from property management who has held leadership positions and is familiar with the property.
Case 2	INF 2-1	2014-06-04	RESIDENT OWNER, female, 30-40 years old, long-term resident, previously engaged in property board, met through dugnad event.
	INF 2-2	2014-06-15	RESIDENT RENTER, female, 20-30 years old, immigrant student, met at her kitchen garden in the courtyard.
	INF 2-3	2014-06-12	RESIDENT OWNER, female, 50-60 years old, artist, resident since before the courtyard's renovation, formerly active in yard board, met through gatekeeper.
	INF 2-4	2014-07-01	RESIDENT OWNER, male, 30-40 years old, European immigrant, new board leader of his building, met him through dugnad event.
	INF 2-5M	2014-10-09	RESIDENT-MANAGER, female, 30-40 years old, European immigrant, mother, member of yard board and building property board, met through work – this informant served as gatekeeper.
	INF 2-6M	2015-09-02	RESIDENT-MANAGER, male, 30-40 years old, leader of yard board during study, met through gatekeeper.
Case 3	INF 3-1	2014-11-11	RESIDENT OWNER, female, 50-60 years old, new resident, acquaintance of a colleague.
	INF 3-2	2015-02-28	SPATIAL USER, female, 30-40 years old, new mother, European immigrant, occasional visitor to case, met as personal acquaintance.
	INF 3-3M	2015-06-12	MANAGER, representative from property management who has held leadership positions and is familiar with the property.
	INF 3-4	2015-08-18	RESIDENT OWNER, 60-70 years old, long-time resident in area, met through manager informant.
	INF 3-5	2015-09-14	RESIDENT OWNER, 40-50 years old, commuting resident, building board leader and user forum representative, met through manager informant.

11.6. Observation time log

<u>Case</u>	<u>Date</u>	<u>Weather</u>	<u>Start</u>	<u>End</u>	<u>Total</u>	<u>Period*</u>
3	15-Apr-14	sun, chill, wind	11:50	12:30	00:40	pm01
1	24-Apr-14	sun, warm	13:30	14:45	01:15	pm02
1	26-Apr-14	sun, warm	15:20	17:00	01:40	pm03
2	29-Apr-14	sun, chill, wind	09:45	10:00	00:15	am02
1	29-Apr-14	sun, chill, wind	10:00	10:45	00:45	am02
2	5-May-14	sun, ptcloud	12:30	13:50	01:20	pm02
1	5-May-14	sun, ptcloud	13:52	14:15	00:23	pm02
3	8-May-14	gray, chill, damp	14:30	15:40	01:10	pm02
2	9-May-14	gray, still, bright	14:45	15:00	00:15	pm02
1	9-May-14	gray, still, bright	15:05	16:00	00:55	pm03
1	13-May-14	ptcloud chill rain	14:00	14:45	00:45	pm02
2	14-May-14	ptcloud sun warm	14:30	15:30	01:00	pm02
3	16-May-14	ptcloud	08:05	09:30	01:25	am01
1	16-May-14	ptcloud	09:40	10:30	00:50	am02
2	16-May-14	sun warm	19:40	20:00	00:20	pm04
3	19-May-14	sun warm	11:35	13:00	01:25	pm01
1	19-May-14	sun warm	13:20	14:00	00:40	pm02
2	22-May-14	sun warm	18:50	19:30	00:40	pm04
3	27-May-14	sun warm	18:30	19:25	00:55	pm04
2	28-May-14	sun chill	09:45	10:00	00:15	am02
1	28-May-14	sun chill	10:10	11:15	01:05	am02
2	1-Jun-14	sun warm	19:00	20:00	01:00	pm04
3	2-Jun-14	sun warm	14:40	15:15	00:35	pm02
2	4-Jun-14	gray chill	14:55	16:40	01:45	pm02
1	10-Jun-14	ptcloud sun warm	19:00	19:30	00:30	pm04
2	12-Jun-14	sun warm	13:00	15:10	02:10	pm02
3	16-Jun-14	sun warm	15:40	16:45	01:05	pm03
3	23-Jun-14	sun comfortable	19:50	22:15	02:25	pm04
1	27-Jun-14	gray chill	13:55	14:30	00:35	pm02
2	1-Jul-14	sun chill	11:00	12:15	01:15	pm01
1	18-Jul-14	sun warm	10:55	12:05	01:10	am02
1	30-Jul-14	sun chill	15:30	15:40	00:10	pm03
1	15-Sep-14	sun comfortable	14:00	15:45	01:45	pm02
3	1-Oct-14	ptcloud comfortable	14:00	14:45	00:45	pm02
2	9-Oct-14	lt rain chill	13:50	15:30	01:40	pm02
1	30-Oct-14	chilly, clear	15:45	16:15	00:30	pm03
3	11-Nov-14	gray, chill	16:00	17:30	01:30	pm03
2	12-Feb-15	sun, cold	13:30	13:45	00:15	pm01
1	12-Feb-15	sun, cold	13:50	16:00	02:10	pm02

Observation time log, continued:

<u>Case</u>	<u>Date</u>	<u>Weather</u>	<u>Start</u>	<u>End</u>	<u>Total</u>	<u>Period*</u>
3	28-Mar-15	sun, cold	12:15	13:00	00:45	pm01
1	28-Mar-15	sun, cold	13:20	13:55	00:35	pm01
2	28-Mar-15	sun, cold	14:15	14:30	00:15	pm02
1	25-Apr-15	cloudy, chilly	11:00	17:30	06:30	pm
1	26-Apr-15	sun, comfortable	13:00	14:30	01:30	pm01
1	27-Apr-15	sun, comfortable	14:00	15:00	01:00	pm02
1	28-Apr-15	sun, comfortable	20:00	21:00	01:00	pm04
1	12-May-15	cloudy, chilly, rainy	13:35	14:50	01:15	pm02
1	15-May-15	sun, comfortable	10:00	10:45	00:45	am02
3	15-May-15	sun, comfortable	11:15	12:30	01:15	am02
3	14-Jun-15	sun, comfortable	09:00	10:45	01:45	am01
1	26-Jun-15	sun, comfortable	12:00	13:35	01:35	pm01
3	18-Aug-15	sun, chilly	08:50	10:25	01:35	am01
2	1-Sep-15	rain, chilly	16:40	18:20	01:40	pm03
3	14-Sep-15	rain, chilly	07:20	08:40	01:20	am01

total

61:58:00

***Legend: time periods in a typical Oslo weekday**

am00	early morning	00:00-07:00 (not studied)
am01	morning rush	7:00-9:00 morning commute
am02	mid-morning	9:00-11:30
pm01	noon	11:30-13:00 lunch time
pm02	afternoon	13:00-15:00
pm03	afternoon rush	15:00-16:30 afternoon commute
pm04	evening	17:00-21:00
pm05	night	21:00-23:59 (not studied)

Detail breakdown of primary observation period I (until 1 July 2014):

	<u>am01</u>	<u>am02</u>	<u>pm01</u>	<u>pm02</u>	<u>pm03</u>	<u>pm04</u>	<u>Overall</u>
Case 1	0	2:40:00	0	3:38:00	2:35:00	0:30:00	9:23:00
Case 2	0	0:30:00	1:15:00	1:15:00	0	2:00:00	10:15:00
Case 3	1:25:00	0	2:05:00	1:45:00	1:05:00	3:20:00	9:40:00
totals	1:25:00	3:10:00	3:20:00	6:38:00	3:40:00	5:50:00	29:18:00

11.7. Full chart of formal regulation findings

Regulation	Case 1	Case 2	Case 3
<i>Municipal police by-law, Oslo. (Politivedtekt, 2007)</i>			
No riots, congestion, noise or disturbances to the public peace and order, night quiet from 23:00 - 06:00.	⊗	⊗	⊗
No setting or hanging of signs, containers, or stands that can hinder mobility or access for everyone to a public place.	⊗	⊗	⊗
Skateboards and similar vehicles must respect other movement and can be forbidden by the police in particular public places out of respect to others or the setting.	⊗	⊗	⊗
Construction and maintenance work must rope off parts of public places and place signs to prevent danger, but only for a limited time period negotiated with the police and local government.	⊗	⊗	⊗
Property owners must removal of snow and ice that threatens to fall from the roof into a public space.	⊗	⊗	⊗
It is forbidden near and in public places to break glass or throw glass, bottles, nails, paper, cigarette ends, fruit peels, or other trash except in functional trash cans.	⊕	⊕	⊗
It is forbidden to dirty by painting, marker, or spraycans any surface towards a public place – on or by buildings, streets, paths, parks, constructions, installations, or vehicles.	⊕	⊕	⊗
It is forbidden to hang up or deploy announcements and posters in places other than dedicated boards without municipal permission.	⊕	⊕	⊗
Property owners to keep sidewalks clean of litter.	⊕	⊕	⊗
<i>House/property rules (Lisakvartalet, 1998; OsloKommune, 2015; Sameiet, 2014):</i>			
It is not allowed to mount parabolic antennae or such on the body of the building, including façade, roof, chimney or balcony railings.	⊕		⊗
Clothes cannot be hung to dry on the balcony, fences, or in windows.	⊕		⊗
It is not allowed to air rugs or clothes on the balconies, stairways, or in windows.	⊕		⊗
Neighbors must not disturb each other with unnecessary noise after 22:00 .	⊕		
Particular respect must be exercised between 17 and 19:00	⊕		
No play is allowed in the yard after 22:00.	⊕		
Trash must be placed in trash cans and not cast out.	⊕	⊕	⊗
Bicycles, sleds and baby carriages must not stand in entrances	⊗	⊕	⊗
It is forbidden to park cars and motorcycles in the yard area.	⊗	⊗	⊗
Ownership of pets cannot inconvenience users of the property.	⊗	⊗	⊗

Full chart of formal regulation findings (continued).

Lawns and plantings must be respected and protected in summer and winter.	⊕		
Seating areas can not be reserved by leaving personal property.		⊕	
If you move benches and tables, remember to move them back afterwards.		⊕	
Dog excrement should be picked up by owner.		⊕	⊗
The leaving of trash, furniture, appliances, etc is not allowed.	⊕	⊕	⊗
All entry doors should be kept locked		⊕	⊗
Not allowed to put cigarettes out on the outside of the building.			⊗
Show due care to the interior and exterior common areas.			⊗
Washing and reparations that use oil and other products are not allowed in the common areas.			⊗
“Common areas can not be physically changed without particular treatment by the board. Large changes should be proposed at the yearly meeting where a simple majority is decisive. The board can do smaller additional work for common use and well-being.”			⊗
Items that shield or can fall from the balconies must not be installed. Flower pots and such must hang on the inside of the balcony for this reason and to hinder water running down.			⊗
Proper respect to neighbors should be taken with cleaning of balconies.			⊗
“The balconies have railings of clear glass such that they are easily seen from the street. Out of respect to the residents’ wellbeing, all are urged to ensure that they have an orderly balcony that is maintained tidy.”			⊗
“It is allowed to grill on balconies with gas or electric grill as long as it meets the requirements of fire safety. Those who grill must ensure that food smells do not reach neighboring apartments more than necessary. Charcoal grill is not allowed on the balconies, show respect to your neighbors!”			⊗
It is not allowed to change the outside of the balcony or balcony rails. Protection from wind or sun is allowable with the board’s acceptance.			⊗
Painting of walls and roof inside of the balconies is not allowed.			⊗
Jacuzzis are not allowed on the balconies.			⊗
Bicycles should be parked in the bicycle room. Bicycles that are chained to light posts and such in the common areas will be removed.			⊗

11.8. Full chart of signposted regulations

Regulations sign-posted in outdoor areas	Case 1	Case 2	Case 3
Keep area clean, (image)	⊕	⊕	⊗
Recycling rules... (image)		⊕	⊗
Lock doors to ports (image)		⊕	
Do not leave large trash or furniture (image)	⊕	⊕	⊗
No feeding pigeons (image)	⊕		
Clean up after your dog	⊗		⊗
No littering	⊕		⊗
Quiet after 23:00	⊕		⊗
No parking with exception of work vehicles	⊗		⊗
No dumping trash/large items outside of containers	⊕		
Be respectful to other users of the area			⊗
No loud noises between 11pm and 7am			⊗
No playing of music between 8pm and 7am			⊗
Please keep the area tidy and clean			⊗
The area is camera monitored			⊗
No grilling/BBQing			⊗
Swimming area is open from 06:00 - 23:00, swim at your own risk			⊗
Embarking and disembarking is allowed, but no mooring.			⊗
Because this is a swimming area, it is not allowed to fish			⊗
The sculptures are installed for visual pleasure and view. They are not suitable for playing with, and therefore the area around the sculptures are not prepared to prevent accidents. We kindly ask you and your children to pay attention to this.			⊗
Dogs should be kept on a leash			⊗
The park is open from 07:00 to 23:00			⊗

Legend			
⊗	formally regulated and responded to (potentially limiting engagement)	⊕	formally regulated, but little or not responded to (potentially enabling engagement)
			not regulated against (potentially enabling engagement)

11.9. Extended chart of interview data about regulation and spatial management practice

<p>Prompting question</p>	<p>Case 1</p>	<p>Case 2</p>	<p>Case 3</p>
<p>What rules over (use/decoration) of (common) spaces/balconies) do you have here?</p>	<ul style="list-style-type: none"> - INF 1-1 – “I don’t have any information about rules for the outdoor areas. Maybe there is something, late at night we don’t hear music...” - INF 1-4 – “I haven’t heard about any rules for the balconies, but I know I am not allowed to paint inside the apartment. And you’re not allowed to have a baby carriage outside of your place. They’ve put locks on the doors at each level also – I usually hear about the student housing manager wanting to add restrictions, like ‘we’re going to make it harder to get into the building,’ but it just makes it more difficult and uncomfortable, especially for the ones who live here with kids. They don’t offer nice social events, I feel like it’s only restrictions.” 	<ul style="list-style-type: none"> - INF 2-1 – “Mostly it is that you are not allowed to make noise out here at night after bedtime especially since most of the bedrooms face the yard...I am sure they are written in some kind of block rules.” - INF 2-2 – “I don’t really know of any rules. I was told not to plant anything in the grass areas. There are some in my building, like not making noise at night and maybe throwing away trash.” - INF 2-3 – “We have rules, I don’t remember how they are published anymore. The most important is it should be quiet at night and everyone should take their trash with them and clean the grills after use.” - INF 2-4 – “The rules are usually posted at the beginning of Spring, in every building, but it is just to be quiet after 11 and clean up after yourself.” - INF 2-5 – “I don’t know of any rules for decoration or use of the yard – I think people are free to do what they want if they don’t disturb others.” 	<ul style="list-style-type: none"> - INF 3-1 “You cannot put up some awful marquis or something that would break the expression... You are not allowed to hang out clothes or anything to airing or so- maybe that is a bit strict, but at the same time it is nice since we have balconies that face each other.” - INF 3-1 “We have not gotten any rules about using the outdoor spaces, it must just be the normal demands of not much noise after 11:00. I don’t think we have any special rules here.. They cannot very well do much, it is public space.” - INF 3-5 “There are not so many spoken rules here, it is more of a “social discipline” that applies here and general manners.” - INF 3-5 – “All the building boards have their own house rules that explaining irritating behaviors that are not allowed on balconies- but that is really just to concretize human manners...It’s mostly about respecting others.”
<p>What do you think of the rules?/Are there any additional rules that you think are needed here?</p>	<ul style="list-style-type: none"> - INF 1-1 “In other parts of the city they have rules about trash sorting and special colored bags, but we don’t have that system here, the residents don’t hear anything about it.” - INF 1-2 - “It was completely idiotic to set up that fence between the yard and the street – it is the dumbest I have seen. If 	<ul style="list-style-type: none"> - INF 2-1 – “There are a lot in our board who try to hang up posters and signs about ‘please sort your trash’ and such, but really this has no effect. One can hang up as many sour notes as they want and it just has no effect... There is not much the cooperative can do about it, we can send messages to the residents, but that doesn’t mean they 	<ul style="list-style-type: none"> - INF 3-1 – “There were some who wanted more regulation of the swimming hours, that case was in the news last summer. We don’t live near the waters’ edge and have never been disturbed by the swimmers though, so I think it’s nice they can use the area.”

<p><u>Prompting question</u></p>	<p><u>Case 1</u></p>	<p><u>Case 2</u></p>	<p><u>Case 3</u></p>
<p>What rules over (use/decoration) of (common spaces/balconies) do you have here?</p>	<ul style="list-style-type: none"> - INF 1-1 – “I don’t have any information about rules for the outdoor areas. Maybe there is something, late at night we don’t hear music.” - INF 1-4 – “I haven’t heard about any rules for the balconies, but I know I am not allowed to paint inside the apartment. And you’re not allowed to have a baby carriage outside of your place. They’ve put locks on the doors at each level also – I usually hear about the student housing manager wanting to add restrictions, like ‘we’re going to make it harder to get into the building,’ but it just makes it more difficult and uncomfortable, especially for the ones who live here with kids. They don’t offer nice social events, I feel like it’s only restrictions.” 	<ul style="list-style-type: none"> - INF 2-1 – “Mostly it is that you are not allowed to make noise out here at night after bedtime especially since most of the bedrooms face the yard.. I am sure they are written in some kind of block rules.” - INF 2-2 – “I don’t really know of any rules. I was told not to plant anything in the grass areas. There are some in my building, like not making noise at night and maybe throwing away trash.” - INF 2-3 – “We have rules, I don’t remember how they are published anymore. The most important is it should be quiet at night and everyone should take their trash with them and clean the grills after use.” - INF 2-4 – “The rules are usually posted at the beginning of Spring, in every building, but it is just to be quiet after 11 and clean up after yourself.” - INF 2-5 – “I don’t know of any rules for decoration or use of the yard – I think people are free to do what they want if they don’t disturb others.” - INF 2-1 – “There are a lot in our board who try to hang up posters and signs about ‘please sort your trash’ and such, but really this has no effect. One can hang up as many sour notes as they want and it just has no effect... There is not much the cooperative can do about it, we can send messages to the residents, but that doesn’t mean they 	<ul style="list-style-type: none"> - INF 3-1 “You cannot put up some awful marquis or something that would break the expression... You are not allowed to hang out clothes or anything to airing or so- maybe that is a bit strict, but at the same time it is nice since we have balconies that face each other.” - INF 3-1 “We have not gotten any rules about using the outdoor spaces, it must just be the normal demands of not much noise after 11:00. I don’t think we have any special rules here.. They cannot very well do much, it is public space.” - INF 3-5 “There are not so many spoken rules here, it is more of a “social discipline” that applies here and general manners.” - INF 3-5 – “All the building boards have their own house rules that explaining irritating behaviors that are not allowed on balconies- but that is really just to concretize human manners...it’s mostly about respecting others.”
<p>What do you think of the rules?/Are there any additional rules that you think are needed here?</p>	<ul style="list-style-type: none"> - INF 1-1 “In other parts of the city they have rules about trash sorting and special colored bags, but we don’t have that system here, the residents don’t hear anything about it.” - INF 1-2 - “It was completely idiotic to set up that fence between the yard and the street – it is the dumbest I have seen. If 	<ul style="list-style-type: none"> - INF 3-1 – “There were some who wanted more regulation of the swimming hours, that case was in the news last summer. We don’t live near the waters’ edge and have never been disturbed by the swimmers though, so I think it’s nice they can use the area.” 	<ul style="list-style-type: none"> - INF 3-1 – “There were some who wanted more regulation of the swimming hours, that case was in the news last summer. We don’t live near the waters’ edge and have never been disturbed by the swimmers though, so I think it’s nice they can use the area.”

<p><u>Prompting question</u></p>	<p><u>Case 1</u></p>	<p><u>Case 2</u></p>	<p><u>Case 3</u></p>
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<p>What do you think of the rules?/Are there any additional rules that you think are needed here?</p>	<ul style="list-style-type: none"> - INF 1-1 “In other parts of the city they have rules about trash sorting and special colored bags, but we don’t have that system here, the residents don’t hear anything about it.” - INF 1-2 - “It was completely idiotic to set up that fence between the yard and the street – it is the dumbest I have seen. If 	<ul style="list-style-type: none"> - INF 3-1 – “There were some who wanted more regulation of the swimming hours, that case was in the news last summer. We don’t live near the waters’ edge and have never been disturbed by the swimmers though, so I think it’s nice they can use the area.” 	

<p>Prompting question</p>	<p>Case 1</p>	<p>Case 2</p>	<p>Case 3</p>
<p>What rules over (use/decoration) of (common) spaces/balconies) do you have here?</p>	<ul style="list-style-type: none"> - INF 1-1 – “I don’t have any information about rules for the outdoor areas. Maybe there is something, late at night we don’t hear music.” - INF 1-4 – “I haven’t heard about any rules for the balconies, but I know I am not allowed to paint inside the apartment. And you’re not allowed to have a baby carriage outside of your place. They’ve put locks on the doors at each level also – I usually hear about the student housing manager wanting to add restrictions, like ‘we’re going to make it harder to get into the building,’ but it just makes it more difficult and uncomfortable, especially for the ones who live here with kids. They don’t offer nice social events, I feel like it’s only restrictions.” 	<ul style="list-style-type: none"> - INF 2-1 – “Mostly it is that you are not allowed to make noise out here at night after bedtime especially since most of the bedrooms face the yard...I am sure they are written in some kind of block rules.” - INF 2-2 – “I don’t really know of any rules. I was told not to plant anything in the grass areas. There are some in my building, like not making noise at night and maybe throwing away trash.” - INF 2-3 – “We have rules, I don’t remember how they are published anymore. The most important is it should be quiet at night and everyone should take their trash with them and clean the grills after use.” - INF 2-4 – “The rules are usually posted at the beginning of Spring, in every building, but it is just to be quiet after 11 and clean up after yourself.” - INF 2-5 – “I don’t know of any rules for decoration or use of the yard – I think people are free to do what they want if they don’t disturb others.” 	<ul style="list-style-type: none"> - INF 3-1 “You cannot put up some awful marquis or something that would break the expression... You are not allowed to hang out clothes or anything to airing or so- maybe that is a bit strict, but at the same time it is nice since we have balconies that face each other.” - INF 3-1 “We have not gotten any rules about using the outdoor spaces, it must just be the normal demands of not much noise after 11:00. I don’t think we have any special rules here... They cannot very well do much, it is public space.” - INF 3-5 “There are not so many spoken rules here, it is more of a “social discipline” that applies here and general manners.” - INF 3-5 – “All the building boards have their own house rules that explaining irritating behaviors that are not allowed on balconies- but that is really just to concretize human manners...It’s mostly about respecting others.”
<p>What do you think of the rules?/Are there any additional rules that you think are needed here?</p>	<ul style="list-style-type: none"> - INF 1-1 “In other parts of the city they have rules about trash sorting and special colored bags, but we don’t have that system here, the residents don’t hear anything about it.” - INF 1-2 - “It was completely idiotic to set up that fence between the yard and the street – it is the dumbest I have seen. If 	<ul style="list-style-type: none"> - INF 2-1 – “There are a lot in our board who try to hang up posters and signs about ‘please sort your trash’ and such, but really this has no effect. One can hang up as many sour notes as they want and it just has no effect... There is not much the cooperative can do about it, we can send messages to the residents, but that doesn’t mean they 	<ul style="list-style-type: none"> - INF 3-1 – “There were some who wanted more regulation of the swimming hours, that case was in the news last summer. We don’t live near the waters’ edge and have never been disturbed by the swimmers though, so I think it’s nice they can use the area.”

11.10. Summary of local accounts of civic user engagement by interview objective

Likelihood to participate		
<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
Little likelihood reported of informant spatial users taking contact about upkeep problems in the yard, playground and sidewalks despite wide acknowledgement of the same recurring problems.	All board member informants spoke of little input from residents, particularly about the yard. Residents predominantly contact only with the nearest neighbors. "The ones who have taken contact with me are ones that know I am in the board - I don't think the others know who I am or that I am in the board," (INF 2-5M)	Some skepticism cited for the future of board meetings based on hearsay from other properties in the area, "There are a lot who don't live here permanently or have another home either in another country or in another place in Norway. That means that maybe you don't get people with extremely strong connections to the management and such here," (INF 3-5).
Informants reported being more likely to report illegal activities to the police, than to report maintenance issues like litter or graffiti.	Resident informants report little likelihood of reporting problems unless they are quite serious.	"[Resident owners] vote for up-and-going board leaders who are used to lead, maybe they trust them to keep things in order," (INF 3-5).
Knowledge of participation forums and contacts		
<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
All informants seemed well versed in how to contact their residential property responsible (public housing management, student housing management, cooperative board)	Rental tenants are not invited to participate in either board and receive little information. A rental informant mentioned not knowing who to report to while owner informants unanimously report going to their building board leader.	All resident informants well versed how to contact the property management company and reported it as a low threshold, responsive go-to for all kinds of problems in the neighborhood.
Only incorrect knowledge reported of who is responsible for playground despite signage. Informants showed little knowledge of the paths and sidewalks responsible or frequency of maintenance and litter removal.	A renter expressed frustration - "Now I know someone from the board so I can talk to him directly and I get an answer right away, but before it could take a lot of time, I got no answer and I didn't know who to contact or how anything functions. That was difficult," (INF 2-2).	
Aware informants reported relying on a local activist group and social media to find out about local news and report problems – those not involved in the activism or social	An original, but no longer active, board member reports, "It would be good to show what people do here, who is involved, we used to hang things inside the doorways	

Summary of local accounts of civic user engagement by interview objective (continued).

media were (shown and reported to be) little aware of possible reporting avenues and local actors.	and portals it gets cluttered very quickly. But that is what is missing, a common information place,” (INF 2-3)	
	“[The residents] surely would engage more if engagement was facilitated.. There is no email account for feedback and the current board members do not use the Facebook page. So the board doesn’t have a particular way to be reached, and we haven’t advertised ourselves much either.... It’s a two-way thing. You have to give in order to get something back - give the opportunity to get feedback. But we didn’t do that.” (INF 2-6M)	
Motivations to participate		
<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
“[Engagement] has something to do with the awareness of people because I don’t think people are very – well some are very aware and others are not – you find both, but some are not so engaged, you find both extremes in Tøyen.” (INF 1-2)	Motivations reported for participation on the building boards: personal interest in bettering the place and having power to fix small problems (3 responses) and maintaining the investment (1 response), and most typically, “because somebody’s gotta do it” (INF 2-4; 4 responses of the 5 who had been board members).	Personal interest - “I was part of a condo board where I lived before, I felt I had something to add. I like to engage myself in one way or another and I didn’t have any other duties apart from work, so I said yes to this here. I have a bit of a political interest but I don’t engage myself in party politics, so I bring my skills here instead,” (INF 3-5).
	Participation on the yard board followed the same motivation, with far fewer being involved (4 attended the 2014 meeting) despite a pool of 9 properties that should send representatives - “If others engaged themselves I would let them happily – I don’t really want to sit in the board.” (INF 2-5M)	
Reasons not to participate		
<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
Social housing resident informant wary and distrusting of the	Informant owners from 4 different properties converge in reporting	Two resident informants conveyed no interest or time to participate

Summary of local accounts of civic user engagement by interview objective (continued).

<p>management’s resident survey prior to the property’s renovation.</p>	<p>that building boards struggle to get and maintain the mandatory 3 board members due to 1) low and time-limited interest 2) high resident turnover, and 3) growing number of apartment owners renting out units and living remotely.</p>	<p>(due to work and frequent travel), nor awareness of who their board leader is. Informants note paying the management company, who does a good job. “I think the residents contribute enough, they have the meeting once a year and I believe if there is anything special beyond that then the board takes care of it,” (INF 3-4).</p>
<p>Not everyone feels invited to, or interested in, the district’s public hearing meetings- “I only went to a public hearing meeting in the neighborhood once, and I felt like I was very much an outsider.” (INF 1-1)</p>	<p>“We have a surplus in the coffers. I could go and build the playground I want out there, but I then question it because it takes a lot of time and effort that I don’t necessarily want to use right now on that.” (INF 2-4)</p>	<p>There is no dognad offered, nor interest expressed in it. Resident informants report unanimously not having any reason for dognad because “everything is taken care of outside – we simply pay for that in the common expenses,” (INF 3-1).</p>
<p>Accounts of ineffective or unfulfilled participation in respect to process outputs</p>		
<p><u>Case 1</u></p>	<p><u>Case 2</u></p>	<p><u>Case 3</u></p>
<p>“[The public housing management] went around to every apartment with a survey form, but they did nothing with that. I believe that they were really going in to check how many live in the house, how many beds there were because I know there are many who are dubious here, reporting more or less than actually live in the house in order to get support from NAV. So I think that visit was about that indirectly.” (INF 1-1)</p>	<p>In the yard re-design, a long term resident informant reflects, “the residents had wanted to be a part of the design... We thought we were being heard in the system – with main points: to have different small pockets and a lot of greenery... We wanted everything in a kind of old fashioned style and an outside space that could be used when it rains. We didn’t get those things...The landscape architect worked with us and listened, but in the end it seemed like the architect overruled her and steered the project away from our input,” (INF 2-3).</p>	<p>Board leader informant explains extent to which their residents were invited to participate in entrance redesign- “We got a package from the developer for the entrance design...The board recommended it at the yearly meeting, but then there was a big debate about it because it changes the expression of the entrance. There was a great deal of engagement around that. But we could only give a yes or no to the package in the end,” (INF 3-5).</p>
<p>Management admits that decisions were made based roughly on resident requests over the years, but changing and aging populations might have made them less relevant by the time they were implemented - “This backyard stood barren and not particularly used for many, many years – we</p>	<p>Yard board members report an amount of resistance to participation due to the extra time it would take and potential for tension. Responding to the question of whether it would be advantageous for the yard that more residents gave feedback, board member “Somewhat - it</p>	<p>Two views expressed regarding the property’s user forum - “All the board members sit and decide what standards we keep here in the maintenance. We make a budget and they can say “this is too much” or “we should have more” and we work from that.” (INF 3-3M). A board leader who attends the</p>

Summary of local accounts of civic user engagement by interview objective (continued).

<p>saw a need to do something with the area here. The residents always wanted something or other, but at the same time there is always a big overturn of renters and different interests. What some wanted a while ago maybe changed since the children have grown and have different wishes today. But the new playground was established and implemented by us...with no particular influences from the outside.” (INF 1-5M)</p>	<p>depends on what kind of feedback you get as well. But mostly it would be good to get feedback, so probably... Maybe more would want to give feedback if they had a better possibility to make something better, but of course they might also use it as a way to give input to other things that they are concerned about,” (INF 2-6M).</p>	<p>meetings reports- “Each board can participate in the user forum. Umm, ya, (*laughs a bit uncomfortably) what to say, it’s a little..One gets an amount of common information from the developer that they can take back to their property board, but it’s not a decision-making organ – it’s not that we make decisions together with all the other boards to any real degree, it’s more that we assemble our interests.” (INF 3-5)</p>
	<p>“I can say I didn’t use as much time as I could have wished to have used.. but an hour a week anyways – sometimes more or less.” (INF 2-6M)</p>	<p>“[The property management company] owns all the way into the building wall, so we decide how to move the planters around in front of the businesses and condos. Occupants have their wishes and can take them up to the board, or tell me if there is a problem and I would come see if we can do something about that,” (INF 3-4M).</p>

11.11. Physical user engagement traces by case and intentionality

Category and description	Case 1	Case 2	Case 3
Decorating	X	X	
over balcony railings	X	X	
on picnic table	X	X	
Wall decorations		X	
Planting	X	X	
in informal planter boxes	X	X	
in boxes hanging over balcony railings	X		
in existing beds		X	
Functional airing	X	X	
Rugs/sheets/clothes hanging on railing	X		
Clothes/sheets on drying stand		X	
Bicycle parking	X	X	X
Bird feeding	X	X	
Bird feed on ground	X		
Birds	X		
Bird feeders in trees		X	
Dog walking	X	X	X
Dogs being walked	X	X	X
Urine stains			X
Defecation	X		
Making desire paths	X	X	
Graffiti tagging	X	X	X
on walls, signs, utility boxes, doors and gates, downspouts, receptacles	X	X	
on play equipment, fences, trees, barriers	X		
on wooden bench surfaces	X		X
Chalk drawings on walls	X	X	
Chalk drawings on ground	X		
Posting flyers	X	X	
on lamp posts, utility boxes, downspouts	X	X	
on doors		X	
Vandalizing	X	X	
Missing plants in hedge	X		

Broken swings	X		
Broken picnic tables	X		
Broken balcony gate	X		
Opening/upsetting trash receptacles	X		
Broken roadwork sign		X	
Broken window	X	X	
Chair on top of light post		X	
Displacing, throwing concrete pavers	X		
Littering	X	X	X
on ground	X	X	X
around receptacles	X	X	X
behind utility boxes	X	X	
at picnic tables	X	X	
in trees	X		
in empty planters	X		
Personal initiatives	X	X	X
Moved furniture	X	X	
Added furniture		X	
Adding planters	X	X	
Toys left on lawn	X	X	
Added graffiti'd sign	X		
Mounted parabolic antennae	X		
Ashes in common grills		X	
Wall mural art	X		
Addition of balconies		X	
Set up kitchen garden		X	
Sitting in roped off area			X
People climbing on sculptures			X
Lost hat on roping post			X
Lost baby sweater on tree stake			X
Added bicycle ramp	X		
Added one-use grills		X	

X's denote trace presence observed more than once.

Legend:		
Intentionally changes	Incidental changes	Not conclusive

11.12. Full analysis chart of physical user engagement against material opportunity and regulation effectiveness

Enabler material	Material Prevalence			Engagement Action	Trace Prevalence			Effective Regulation		
	Case 1	Case 2	Case 3		Case 1	Case 2	Case 3	Case 1	Case 2	Case 3
picnic tables	●	●		decorating or altering picnic tables	●	○		⊕		⊗
walls	●	●	●	hanging, maintaining on walls		◐				⊗
balcony railing	●	○	●	hanging, maintaining over railings	●	○				⊗
planter boxes	○	◐	●	planting flowers and plants	○	●				⊗
balcony railing	●	○	●	airing rugs/clothes	●					⊗
drying stand		○		airing sheets/clothes		○				⊗
flat ground surfaces	●	●	●	parking bicycles outside designated areas	○	●	●			∅
trees	●	●	●	hanging bird feeders	●	○				⊗
flat ground surfaces	●	●	●	leaving bread on ground to feed birds	●			⊕		⊗
planter boxes	○	◐	●	dog peeing			●			⊗
lawn	●	●	◐	walking dogs on lawn	◐	○	●		⊕	⊕
lawn	●	●	◐	making/using desire paths	●	○				⊗

Decorating | Planting | Functional Airing | Bicycle parking | Bird Feeding | Dog walking | Desire Path

		Legend	
		●	⊕
asphalt surfaces	●	⊕	⊗
walls	●	⊕	⊗
communal trash receptacles	●	⊕	⊗
concrete traffic barriers	●	⊕	
doors and gates	●	⊕	⊗
downspouts	○	⊕	⊗
playground equipment	◐	⊕	
signs	●	⊕	⊗
trees	●	⊕	⊗
utility boxes	●	⊕	⊗
walls	●	⊕	⊗
wooden bench surfaces	●	⊕	⊗
wooden fence	◐	⊕	
lamp post/door/ downspout/ utility box	●	⊕	⊗
windows	●	⊗	⊗

Graffiti tagging

Posting
Vandalizing and breaking

Full analysis chart of physical user engagement against material opportunity and regulation effectiveness (continued)

Enabler material	Material Prevalence			Engagement Action	Trace Prevalence			Effective Regulation		
	Case 1	Case 2	Case 3		Case 1	Case 2	Case 3	Case 1	Case 2	Case 3
picnic tables	●	●		breaking picnic tables	◐			⊕	⊗	
playground equipment	◐	○		breaking swings	●			⊕		
work sign		○		breaking/knocking over/moving			◐		⊕	
concrete pavers	●			picking up/moving/throwing	○			⊕		
hedges	●	●		removing, damaging	●			⊕	⊗	
balcony gate	●			using, breaking	○			⊗		
picnic tables	●	●		leaving litter after using	◐		○	⊕	⊗	⊗
planter boxes	○	◐	●	leaving litter in box	○			⊕	⊗	⊗
trash receptacles	●	●	●	leaving, dropping litter around	●		●	⊕	⊕	⊗
flat ground surfaces	●	●	●	littering, dropping trash	●		◐	⊕	⊕	⊗
utility boxes	●	●	◐	shoving litter behind and leaving on boxes	○		●	⊗	⊗	⊗
trees	●	●	●	throwing/leaving litter in	◐			⊕	⊗	⊗
flat ground surfaces	●	●	●	adding planters	○		◐			⊗

Vandalizing and breaking (cont'd)

Littering

		Legend													
		●	high prevalence (observed every visit)	●	●	○	low prevalence (observed less than three times)	⊗	formally regulated and responded to	⊕	formally regulated, but little or not responded to	⊗	⊕	⊗	not regulated against
walls		●	adding balconies	●	●	○									⊗
flat ground surfaces		●	adding outdoor furniture	●	●	○		∅							
flat ground surfaces		●	building/maintaining a kitchen garden	●	●	○									
sculptures			climbing on sculptures	●	●	○									⊗
roping post			crossing the barriers	●	●	○									⊕
tree stake			hanging found sweater on stake	●	●	○									
roping post			hanging a found hat on a post	●	●	○									
flat ground surfaces		●	making, placing bicycle ramp	●	●	○		∅							⊗
walls		●	mounting parabolic antennae	●	●	○		⊕							⊗
walls		●	painting/hiring wall mural art	●	●	○									⊗
traffic light post			placing chair	●	●	○							⊗		
concrete building base		●	placing graffiti sign	●	●	○							⊗		⊗
flat ground surfaces		●	placing/using grill (and leaving it out)	●	●	○		∅					∅		⊗
flat ground surfaces		●	playing with toys and leaving them out	●	●	○		∅					∅		⊗
moveable furniture, flat ground surfaces		●	rearranging and moving outdoor furniture	●	●	○									⊗

Personal interest initiatives