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Photo, front cover: Magnus Rönn. The sculpture on the front page was made in 2009 by granite from Bohuslän in Sweden. The sculpture is designed as a door with an open view to the sea in the west. The artist is Claes Hake.

NORDISK ARKITEKTURFORSKNING
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THINGING ARCHITECTURE: ARCHITECTURAL AFFORDANCE IN COMMUNITY-MAKING

METTE MY MADSEN AND ANNE CORLIN

Abstract

Though mundane things such as potted plants, doormats or Christmas lights are an unavoidable part of residential life in many neighbourhoods, their importance for community-making is rarely taken seriously in architectural design. This article shows how decorations in the transition zones from private to public domains play a pivotal role in informal community-making among residents in Danish social housing, as they offer a highly social – though indirect – way of negotiating atmospheric and communal expectations and coherences. Analysing empirical cases from three typologically different housing estates, we argue that the architectural design heavily influences the extent to which residents can form communities through things. Combining material culture theory and design theory, the article promotes the concept of *thinging architecture* as a means of categorising and identifying architectural elements/design that affords residents community-making through things. The article concludes that *thinging architecture* should play a crucial role in the design of social housing to enable a strong communal life.

Keywords:
community-making, social sustainability, material culture, social housing, thinging architecture

Introduction

The world's population has reached 8 billion and is expected to increase with 1.7 billion by 2050. By then, nearly 7 of 10 people are expected to live in cities (Urban Development, 2023) making Homo Urbanus the defining category of the future of humanity. Consequently, the sustainability of cities has become the main global agenda in contemporary urban development (see e.g., the UN SDGs). Urban sustainability is most often framed as the ecological, environmental or systemic aspects of urban planning and architectural design that address biodiversity (Müller et al., 2010), resources and pollution (Schröpfer, 2016) or the (in)sufficiency of infrastructures (Moretto & Ranzato, 2016). However, as urban populations change, densify, rarify and complexify, understanding and supporting the social sustainability of cities is becoming an ever more pressing matter (Eizenberg & Jabareen, 2017).

This article points to the pivotal role architecture plays in the formation and continuation of local informal communities that are crucial to urban social sustainability. In a traditional perspective on architecture and urbanism, 'informal' means the absence of planning and design in urban expansions, e.g., slum settlements or medieval vernacular cities (Marinic & Meninato, 2022). However, in this article 'informal' does not pertain to the creation of buildings or neighbourhoods. Rather, it describes the way local urban communities form a sense of cohesiveness through a collective, yet unstructured, appropriation of their residential architecture.

The article explores the role architecture plays in informal community-making by focusing on three typologically diverse social housing estates, all located in densely populated suburbs of two major Danish cities. Although social housing accommodates approximately one sixth of the Danish population, its particular residential composition specifically represents some of the emerging urban challenges of many high-income countries: increased immigration, an ageing society and loneliness (see Landsbyggefonden, 2020), making Danish social housing an exemplary case for scrutinising the future role of architecture in urban social sustainability.

In this article, we argue that local informal community-making on the estates does not necessarily take place in a direct dialectic between architecture and people, or even between people and people. It instead unfolds through the mediation of ordinary objects – things such as potted plants, figurines, lanterns, Christmas decorations and doormats – things residents use to alter, claim and negotiate the transitional spaces between public and private domains. To grasp how architectural elements afford community-making through decoration practices, we introduce the concept *thinging architecture*, to identify and unfold the dynamics between architecture, things and informal community-making. By analysing empirical cases from three typologically different

social housing estates, we show how the architectural design heavily influences the extent to which residents can form communities through things. Thus, the article contributes to the field of urban social sustainability with an empirically based, micro-analytical understanding of how and why specific architectural configurations and designs of building features, as well as certain spatial dispositions and structures of estates, have great potential for building for future social sustainability.

The article proceeds by outlining our theoretical framework, stressing the significance of things in community-making and how this perspective contributes to architectural analysis. We then account for the field sites, data and methods. Through three case studies, the paper describes how residents engage in community-making through things and we analyse how specific architectural elements and dispositions of their estates influence their ability to do so. In conclusion, we clarify why the concept of *thinging architecture* may contribute important perspectives on building for informal community-making and social sustainability in the future.

The significance of things

In architectural theory, things are mentioned as means through which people engage and interact with the built environment. Brand (1995) and Owen (1992) describe the constant adaptations and transformations by dwellers, from removing walls and changing facades, to putting up signs and placing or moving stuff as an embedded and ongoing process in the relationship between dweller and building. Other examples highlight the transition zones between the individual dwelling and shared spaces as important arenas for the display of objects such as plaster gnomes, nymphs, lions and frogs (Brown, 1977; Gehl, 1976; Marcus & Sarkissian, 1986). Such adaptations are described as means to claim territory, personalise and add uniqueness. This means architectural scholars connect the opportunities for and acts of decorating with the individual well-being of residents and their joy in watching their own things through the window (Hertzberger, 1991), or as Mäntysalo et al. argue (2019), objects and traces of use may be understood as evidence of the value of and appreciation for the architecture, while the absence of displayed objects may be a sign of the residents' indifference or even neglect (see also Gehl, 1976; Hertzberger, 1991).

Thus, existing theories reveal that mundane things, such as decorative objects, are a prominent aspect of residential areas and are meaningful to the lives of the residents. However, residential ways of using things for identification or individual joy, or to show residents are thriving, all focus on the individual urge to claim territory or personalise living quarters.

However, Dovey (2010) indicates the importance of things for informal community-making by showing how a neighbourhood (settlement) is not constituted exclusively by its stable constructions. Rather, he argues, it should be understood as assemblages of slowly morphing buildings as well as a multitude of 'loose parts' (things) that people place and replace continuously. Through the placement of such loose parts, the public-private divide becomes blurred and highly negotiable. However, this does not amount to chaos but rather to a subtle, co-constituted logic of the neighbourhood that makes it feel and appear like a community (Dovey, 2010, p. 93-96). In the context of social housing in Denmark, Fokdal (2008) makes a somewhat similar observation. She understands objects that residents place in public and semi-public locations as both an interaction with space and a social practice. Through this double bind, the placement of things invests spaces with a communal meaning. For example, she describes how transition zones become arenas for articulating power relations within the larger group of residents through everyday things such as plants, figurines and doormats (ibid., p. 23). Things become a medium through which the architecture is activated in the negotiations over social and communal relations. We follow this architectural approach to the significance of things yet expand its significance by including perspectives from social science and material culture studies:

In modern consumption cultures, people to an increasing extent rely on material goods for both practical and social purposes (Miller, 1987). As material anthropologist Daniel Miller states: "The construction of social relations may be carried out increasingly through the practice of consumption, with goods replacing persons as the key medium…" (Miller, 1995, p. 154). This means we might think of social categories and relationships as established and upheld through things to the extent that things replace the direct link between persons. For instance, anthropological studies of Norwegian working-class homes show that women would unofficially, yet effectively, coordinate the aesthetic materiality of their homes to produce a strictly egalitarian setting for an informal yet equally strict sociality in their community (Gullestad, 1986; 1992; Löfgren, 1987). Thus, the seemingly fully individual home decoration actually proves to be a way of establishing the social norms that shape the community. As such, we might say that decorating works on two levels, as both a manifest function in the communal practice of decorating and a latent function, as decorating is also a social process of establishing e.g., the norms and relations of a community (Merton, 1968). However, the division between the latent and the manifest does not account for the multitude of lived experiences and feelings in a community (Campbell, 1982). Instead, we understand the practice and process of community-making as collapsed into each other (Krøijer, 2015; Maeckelberg, 2009), as the social process of making a community is inherently in the doings of people, just as the social process is inherently constituted by the

practices of people. Thus, the indirect, un-formalised and not necessarily coordinated, practices of people living in close vicinity constitute a social and spatial commonality, a 'flexible culture', continuously confirmed and contested by the multitude of practices, emotions and attitudes of the people involved (Hastrup, 2020). In other words, residents' handling of and negotiations over decorative objects at a given place may be both what the community is and *how* it works. Including this perspective on things as central nodal points in the creation, negotiation and constitution of community allows us to investigate the way things play an important role in the formation of informal communities among residents in the three estates we analyse in this article. We conceptualise the practice of informal community-making through things as *thinging*. In the following section, we elaborate on the meaning of this concept, how we intend to use it and how it relates to architecture.

Thinging and thinging architecture

In design theory, *thinging* is presented as a methodological approach in participatory design (PD), where preliminary design objects are used as mediators for negotiations in a dialectic design process involving and empowering multiple voices in a design project (Binder et al., 2011; Björgvinsson et al., 2012; Ehn, 2008). PD – originally *cooperative design* – emerged in Scandinavia in the 1960s and 70s (Bødker et al., 1995) with the idea that the people affected by a design should also be involved in the development of that design (originally: workplace computer systems (Greenbaum & Kyng, 1991). In PD, the idea of objects in design was transformed away from being merely product-oriented. Instead, objects became matters for polemic involvement, negotiations and dynamic coordination between heterogeneous perspectives and positions in a collective design process (Ehn, 2008). This notion of objects as matters for collective involvement is also how we understand the role of the location of the things of residents, e.g., in the transition zones around their property. These things don't just represent people (e.g., a resident), they are part of an ongoing conversation.

However, in this article we are not concerned with a design process, but with the emic processes of local informal community-making. Thus, what is being created through *thinging* practices is not a design but the community as such. Therefore, our concept of *thinging* as a way in which informal communities self-establish is based on a point made by the social sciences: that material things are highly important to the coordination of norms, aesthetics and moralities that make an informal community recognisable as a community. To account for the properties of things in community-making, we then relate this to the PD approach in which objects can serve as facilitators for negotiations between individuals. This is to highlight how the coordination of informal community-making does not give preference to a consensus of social relations.

Rather, the informal community consists of a dynamic multiplicity of perspectives and positions, held together, so to speak, by certain things – certain objects. Though it may contain aspects of both friction and consensus, it is often, we argue, the engagement in such 'thing-based' negotiations that constitute informal community-making in a neighbourhood. However, *thinging* in residential areas, such as social housing estates, is dependent on an architecture that allows for: 1) the residents' use of decorative things; and 2) that the things are visible to the broader residential population. Consequently, the *thinging* performed by residents can be used as a lens for investigating the role of architecture in relation to informal community-making. To further conceptualise this relational complex, we draw on the idea of architectural affordance.

The concept of affordance was coined by the perceptual psychologist J. J. Gibson to refer to the actionable properties between the physical world (the environment) and an actor (a person or an animal) (Gibson, 1986). Social anthropologist Tim Ingold (1992) further explained the concept as meanings embodied in the materiality of the environment and 'drawn into' the experience of people when interacted with (Ingold, 1992, p. 51). Architecture, through its physicality, composition and materiality, holds affective properties that inspire a certain behaviour in people (Joneshu & Ghanim, 2018). Though not always explicitly conceptualised as affordance, the approach is, for example, prominent in architectural theory, linking the behaviour of people directly to the design of architectural settings (e.g., Gehl, 1971; 2013; Pallasmaa, 2005; Sim, 2020). It is also explicitly formulated in work arguing for the more metacommunicative conditions that architecture set for behaviour (Mäntysalo et al., 2019, p. 18). In our investigation of residents' *thinging* practices, we follow the idea of architecture as affording certain behaviour. However, our cases do not deal with architecture that was intentionally designed to support *thinging*. Rather, we investigate architectural elements that seem to hold an unrealised surplus of affordance that is mobilised by residents for *thinging* practices. Design theorist Donald Norman (2013) suggests distinguishing between two types of affordance: the intentional (actual) and the unintentional (potential). Whereas intentional affordance describes the designed intended use imagined and materialised by designers, unintentional affordance points to potentials of use yet to be realised by the engagement of users. The latter seems apt to describe the uses and appropriations of architectural elements that occur when interacted with by a diverse crowd of residents over time. Following Norman's idea of unintentional affordance, we suggest that certain architectural elements, or combinations of several architectural elements in the housing estates we examine, have various affordance potentials for supporting *thinging* among residents. We conceptualise architecture that affords *thinging* practices as *thinging architecture*. Just as the practice of *thinging* does not give preference to consensus, *thinging architecture* follows the understanding of the public arena as intrinsically frictional

places where identities, interrelations and communities are created and contested through multiplicities of positions and perspectives (Laclau & Mouffe, 2014; Mouffe, 1993). Thus, *thinging architecture* is architecture that allows residents to contest and create communities through things.

Field Sites, methods and data

The empirical material we drawn insights from in this article is based on the interdisciplinary research project Flexible Communities, a collaboration between the Danish National Museum and Aarhus School of Architecture. The primary goal of the research project is to investigate the interrelation of informal communities and various architectural typologies of social housing in Denmark, to provide empirically informed suggestions on how to build for strong communities in future social housing. For this project, researchers, from 2021 to 2023, conducted longitudinal, in-depth studies of five Danish social housing estates representing 100 years of architectural history and building typologies. The five estates were selected to clearly showcase an intentional materialisation of ideas and ideals about architecture and community that were paradigmatic or typical of their time (Flyvbjerg, 2004). This article integrates findings from three cases built in the 1960s, 1970s and 2020s. They represent the typologies of high-rise blocks, terraced houses, dense-low and a new dense-housing, high-rise concept containing different types of dwellings.

To accommodate the complexity due to different typologies and an interdisciplinary approach involving an architect, an anthropologist and a historian, the project applied a mixed set of methods to obtain a multi-sited and dense perspective on each of the estates. Thus, the findings presented in this article rely on an extensive and multifaceted dataset obtained by the combination of methods described in the following five paragraphs. However, activating and analysing all our data goes beyond the scope of this article. Consequently, the article's empirical data should be understood as 'exemplary examples' (Højer & Bandak, 2015) that illustrate our findings particularly well. In the following, we outline our methods, sequencing them according to their relevance to the data used in this article.

Maps and architectural drawings were requested for the three main estates, and analysed to account for access, moveability and the spatial layout and configuration of each estate. These analyses were supported by field trips to the estates, during which researchers conducted semi-structured interviews with residents, took note of people's movements, use and the atmosphere in situ (Butterworth & Vardy, 2008; Gehl & Svarre, 2013). This included photo documentation at the estates, including modifications to the original plan, made over time by residents. At the newest estate, it was possible to conduct interviews with the

architects regarding planning ideals and building-processual modifications to the original designs (Brinkmann & Tanggaard, 2010). The material was used to gain insights into the ideals and ideas of the design for later comparison with the actual use and habitation of estates.

Longitudinal ethnographic field studies were conducted at each estate aimed at identifying informal communities through an abductive approach (Kvale & Brinkmann, 2015). This included repetitive observations of life at the estates, in different seasons, at different times of the day and following a diverse crowd of residents participating in social events – such as communal dinners, club activities, sports and meetings – and in everyday social life – such as hanging out, walking dogs, going to the pub, watching TV or randomly chatting with neighbours (see Cohen, 1987; Geertz, 1998; Kusenbach, 2003 on 'participant observation', 'deep hanging out' and 'going along'). During field studies, researchers had informal conversations with residents and conducted several formal interviews along with photo documentation, mappings and situational note-taking (Spradley, 1979; Sanjek, 1990). The ethnographic presence at the estates documented some of the informal communities that residents were so assimilated into that they were unaware of them. Here things proved to be an important nodal point for the kind of communal social associations that made residents feel belonging, good neighbourship and a positive atmosphere, although this was not explicitly referred to as 'community'.

To further concretise and explore the significance of things to residents, groups of residents were invited to workshops planned by the research team. The workshops aimed at gathering insights into residents' perceptions of and wishes for the estates and communal life. Design artefacts (collages) were used to support ideation and spark debates among the residents (Binder et al., 2011; Koskinen et al., 2011; Schuler & Namioka, 1993). The workshops in particular revolved around indoor common areas, understood as shared areas for informal hanging out or casual meetings between residents and the centrality of 'things' to the residents' negotiation of these social and physical spaces. This was also explored in more practical terms by rearranging rooms.

Also, archival material was retrieved from the three estates (mainly residents' newspapers). This material spanned decades and presented a bottom-up perspective on issues relating to both the social and the built environment that occupied residents throughout the lifetimes of estates (Høghøj, 2021). The residents' newspapers made it evident that many issues revolved around 'things' and that 'things' have continuously been one of the major points for negotiating a communal feeling amongst residents.

One finding of the joint case studies was that things play a major, yet overlooked, role in residents' informal community-making. Another result of the mixed approach was the insight that specific architectural elements, or a combination of architectural elements across scales (from small-scale transition zones to the entire neighbourhood), as well as the connection between different spatialities, could be identified as aspects that afforded *thinging* amongst residents. These elements will be further specified in the following three empirical cases. For each case, we will present our findings on the importance of *thinging* to informal community-making amongst residents, followed by an explanation of how certain architectural elements afford this behaviour.

Case 1: Decorating facades and front gardens for holidays

The prolonged field study made it evident that holiday decorating was an intensified *thinging* practice within almost all estates. On the estates representing dense-low terraced housing typologies, holiday decorations were very elaborate, especially for Christmas, whereas in the new mixed housing concept and the high-rise, there were very few decorations. Though at first glance elaborate decorations may be associated with bad taste, it has long been established by social scientists that holiday decorating is an activity that aids sharing, installing and reinforcing communal ideals and values between neighbours (Miller, 2017; Edensor & Millington, 2009; Werner et al., 1989; Brown & Werner, 1985). Fairy lights, glowing gnomes, Santas, etc. are central things in the informal community-making of neighbourhoods. We now proceed to zoom in on the case from the dense-low estate to demonstrate how Christmas decorating constitutes *thinging* practices and how these practices were afforded by the architecture of the estate.

In the dense-low estate, Christmas decorating is a big event every year. From late November until early January, an intensified social commotion took place as residents lent each other tools and ladders and helped each other decorate and organise or take down and store decorations. Neighbours and acquaintances paid special attention to the elderly who needed help decorating their facades or front gardens. Some neighbours who don't usually have much contact even made an extra effort to coordinate elaborate displays across facades as shown in Figure 1. This indicates that placing, changing and sharing decorative things in the Christmas period provides an incentive to socialise in new ways or to renew social relations across some of the socio-economic differences at the estate. Furthermore, during this decorative period, residents also moved around the estate in new ways. A resident explains: "I heard that Jørgen has brought some new Christmas lights this year. I normally never go to that part of our neighbourhood, but I will be sure to walk over there to see what he has come up with." As this quote shows, Christmas

Figure 1
Coordinated display made by a family of three (downstairs) and an elderly retired man (upstairs).
PHOTO: MADSEN AND CORLIN.

decorations became the nodal point of an intensification of various types of social as well as geographical interactions that crisscross the estate and tie it together in new ways. But, as the concern for elderly residents indicates, decorating also creates caring relations throughout the estate. However, these did not necessarily involve face-to-face encounters. As Julia, an elderly woman, explained: "It is so nice, when I'm in my kitchen and I hear someone standing outside talking about the Christmas decorations. It really makes me happy and I feel that I give something to my fellow residents, which they enjoy." Several other residents also told us how decorating made them feel they were contributing to the neighbourhood something passers-by would enjoy. Thus, decorating created a non-direct yet caring connection between residents of the area.

As decorations spread throughout the estate, it served to create particular geographies imbued with idealistic notions about the community (Edensor & Millington, 2009). This revolved around generosity, collaboration, joint festivities and spreading joy. These notions were, however, not as coherently conceptualised as one might think. This became evident when the decorating tradition was turned into a competition in which the most elaborate design would win. Though many thought this a fun and festive idea, others argued that winners and losers would in

reality be judged by their economic abilities to buy elaborate displays. As income varied greatly across the residential group, the competition was deemed "undemocratic" by its opponents, who stressed that decorating should be a collaborative, generous and joyful event. This example highlights how informal community-making through *thinging* practices can contain multiplex positions and perspectives of many different residents; the diversity of the community only became fragmented after decorating had been formalised as a competition.

Linking thinging to the architecture

To investigate architecture in relation to the act of *thinging* (the role of things and communal effect of *thinging*) (Binder et al., 2011; Björgvinsson et al., 2012; Ehn, 2008) and the architectural features contributing to what we call *thinging architecture,* we follow two main trajectories: 1) Scale as a lens looking at coherence within a city or across spatiality (Adler et al., 2013; Bosselmann, 2012; Krier & Rowe, 1979); and 2) The dynamic perception of place and space, described as the social construction of space, in which the physical space becomes 'real' through human actions within it (Lefebvre, 1991) and the meaning of space is constructed by establishing spatial narratives through practices (de Certeau, 1988).

Scale, as an analytical lens focusing on the interconnection between the spatial configuration and architectural design of the estate, influences the communal effect of *thinging*. As scale is a fundamental term within architecture, we use scale to discuss the coherence within a city or a building (Adler et al., 2013; Bosselmann, 2012) and thereby the coherence – either spatial, visual and/or auditory – between different spatialities, e.g., between the street and the square (exterior) or the room and the corridor (interiors) (Krier & Rowe, 1979). Thus, transitioning from the big scale of compositional layout of the whole neighbourhood, to the middle scale of the transitional zones of front gardens, to the small scale of façade windows shows that it is within this coherence across scale that the *thinging* becomes communal and the *thinging architecture* emerges.

As sketched in Figure 2, the estate consists of an infrastructural tripartition: firstly, car traffic, located on the edge of the estate; secondly, the main paths for bikes and pedestrians, which are located on broader asphalted streets cutting through the estate; and, finally, a mesh structure of narrow paths connecting smaller enclaves of dwellings within the estate while spanning the entire estate. The fine-meshed path structure is targeted at residents who are familiar with the estate and is designed to be eventful, due to shifting spatial experiences and an attractive microclimate and human scale (Udsen, 2008).

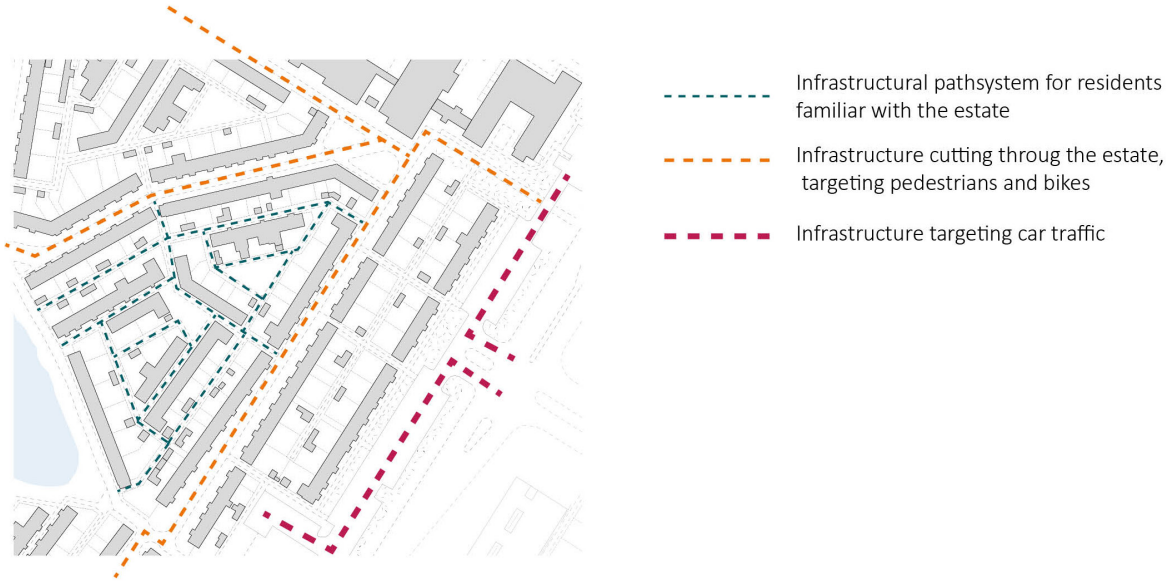

Figure 2
Section showing the estate and its tripartite infrastructure.
ILLUSTRATION: MADSEN AND CORLIN.

The design and hierarchy of the infrastructure offers a variety of networks of paths that support attractive connections, inducing residents to pass each other's homes (Cullen, 2012). The middle scale of the transition zones between the individual dwellings and the public shared space of paths or streets (two parts of the tripartite infrastructure) is designed with small front gardens and spatial entrances with weather porches. Thus, the semi-private zones ´belonging´ to individual homes provide the residents with spatial opportunities for adapting and transforming the area in front of their private dwelling (Brand, 1995; Owen, 1992). According to Mäntysalo et al. (2019), this could also be seen as acts signifying the appreciation and value of the architecture. As shown in Figures 1 and 3, the residents decorate their entrances with lights and various Christmas decks on and around their entrances and front gardens, which face either the asphalted streets or the mesh of small paths. A remark made by Julia, a resident listening to the residents' admiring talk about her decorations, reveals that the window in the house facade constitutes an important coherence between the individual home and the small front garden. Thus, the architecture creates the coherence that allows the *thinging* to become communal. As highlighted in Figure 3, the placement of the window, facing the transition zone, is important, as it provides both visual and auditory connections between the individual kitchen space and the outdoor common street or square space (Krier & Rowe, 1979). Thus, it affords the interaction between the decking and the spectator residents, leading to a sense of community as presented in the empirical descriptions.

Figure 3
Coherence between the window into the private kitchen and the common space of the street.
PHOTO: MADSEN AND CORLIN.

The architectural typologies of dense-low, with front gardens or extended entrance areas, provide ample opportunities for residents to communicate interests, show appreciation or profess identity through things (Brand, 1995; Gehl, 1976; Mäntysalo et al., 2019; Owen, 1992). The visual and auditive connection between the indoor kitchen space and the outdoor front garden created by the facade window, furthermore, makes it possible for the residents themselves to enjoy their decorations (Hertzberger, 1991), contributing to the value and appreciation of the architecture.

The architectural designs of the small front gardens and the weather porches support the 'production of space' (Lefebvre, 1991), as both spatial settings are easily accessed for adaption and transformation (Brand, 1995), which contributes to establishing the meaning of spaces by allowing the residents to engage with and influence their own domain (de Certeau, 1988).

However, the *thinging architecture* in the estate is connected with the coherence across scales between the infrastructure and disposition of the whole neighbourhood and the placement of the windows in the

house facade. We argue that the coherence across scale connects individual and common spaces. It is this coherence of spatial opportunities across scales that enables communication through things to become communal. It supports informal interactions among residents, leading to constant constructions of and changes in the residents' shared narrative, thereby enabling the social construction of space (de Certeau, 1988; Lefebvre, 1991).

The coherence across scale affects how accessible residents are to each other and allows individual engagement with the space (in this specific example acted out through Christmas decorations) to become communal. The attractive streets and paths connect the whole neighbourhood and take the residents past each other's homes, combined with opportunities for adapting and decorating weather porches and front gardens, the visual and auditive connection between the individual home and the common spaces, all of this supports the emergence of informal communities.

Case 2: Decorating front door transitional zones

In the second case, we look at things present all year round in the social housing estates – things such as potted plants, gypsum figurines, doormats, fairy lights and lanterns used for decorating the front door and its immediate surroundings. Such decorations were significantly present in all estates and across all typologies. However, the extent to which residents could engage in and address a community through *thinging* varied greatly according to housing typology, as we will illustrate by comparing the terraced housing and high-rise located on the same estate:

In the terraced houses, the collective negotiations of community through things were investigated over time as trends in decorations slowly changed or spread between neighbours or throughout the terraced housing area. They spread in slow coordination; we might identify this as residents being inspired by each other and coordinating their individual aesthetics. For example, annual purple flowers for front garden decorations became the predominant choice. Also, decorative lanterns and nicely painted stones at some point spread throughout the area. A resident, Lone, explained the significance of the coordinated decorative choices using lanterns as an example: "...I like my lantern when I'm out here smoking, but then there are others who have lanterns too and I like that when I'm out here. It's like a nice atmosphere (in Danish: stemning). It's cosy and the courtyard has a nice atmosphere with all the lanterns." Here atmosphere refers to a feeling of positive social coherence that is established by decorating one's front door area according to an informal yet synchronised aesthetic. It is important to notice that Lone, along with other residents, left her lantern burning even if she was not outside herself, so other residents could enjoy it. Thus, by engaging in

such compositions of decorative objects, residents simultaneously engaged in a non-verbal and indirect negotiation of the kind of caring sociality they wanted for their community. Commenting on the reason for her flower arrangements, another resident expanded on this point: "... It's also for the neighbours, I mean it's nice to look at something nice. It's like it creates an atmosphere here. Yes, an atmosphere. It's like doing something good for the area." As explained here, the informal coordination of 'nice' or 'cosy' things in the front garden became a moral signifier for the community (Romme Larsen, 2011): one should demonstrate caring through the coordinated and considerate management of the front garden, one should not be aesthetically offensive, too far off or individualistic – e.g., not 'wilding' but instead engaging in continuous slow redecorations inspired by the other residents.

In the high-rise buildings, residents placed decorations on or in the immediate vicinity of the door leading to their private quarters (Figure 4). The dominating objects were doormats, half of which were adorned with texts, patterns or illustrations. However, there were also many cases of things stuck directly onto the door, e.g., signs, drawings, beads pegboards or flowers, as well as examples of figurines and painted stones placed in the front door area. A prominent indication of social orientation was that decorative objects were arranged to address passers-by. This was the case for almost all decorated door mats, as it was indeed the case for other decor things. A resident, Mogens, explained the significance of his doormat which read 'Welcome': "I turned it outwards so people can read it and feel welcome. But it's also for myself, so I can find my way home."

Figure 4
Examples of doormats with texts and decorations at doors in the high rise.
PHOTO: MADSEN AND CORLIN.

Decorated doormats were often chosen to engage with the greater community through statements such as "Welcome", or to establish friendliness through humorous descriptions or pictures or they were used to repel or warn passers-by, e.g., "You again!" or warn people of an aggressive pet. But despite their engaging significance, the decorative things in the high-rise rarely changed, as the main decorative things – doormats – were often used for years before being replaced. A resident further e xplained the slow pace of decorations in the high-rise: "I bought the flowers a long time ago and I used to have a figurine of a little lady too. One day she was gone, taken by the janitors! But I still think it clearly makes a difference to the communal feeling if there are a few decorations." Here we see the same caring-by-decorating communal ambition as in the terraced houses. However, Birthe's engagement was somewhat discouraged by the janitors removing parts of it due to fire regulations. At some doors, we also found out-of-season holiday decor, indicating that seasonal decorations mattered to the residents, but also that they did not matter enough to be managed. Some residents gave as reason for their mediocre engagement with decorating that the estate caretakers might reprimand them or remove their decorative things with reference to the strict fire regulations for the narrow stairwells. As such, the active communal thinging of high-rise residents existed to a lesser extent.

Linking thinging to the architecture

Comparing the two different spatial typologies presented in Case 2 (terraced houses and high-rise), we noticed a difference in behaviour in terms of how the residents engage with their spatial surroundings through things and to what extent they express their acts as having a communal agenda.

The coherence across scales varies greatly in the two typologies. The terraced house typology contains spatial similarities as explained in Case 1 (the dense low typology), where each individual home opens up towards its own semi-private small front yard (see Figure 5), which again faces a shared courtyard. The residents all move through this courtyard as the shared parking area lies at one end of the courtyard and the other shared amenities at the other. The small semi-private front yards, transitioning into the bigger common yard, allows for individual adaption and décor (Brand, 1995).

The shared courtyard is designed for various activities: individual, practical everyday practices and communal, social activities. This multiprogram of the space, which can easily be adapted and transformed, supports a common engagement with and production of space in which such engagement constantly contributes to the shared (among the residents within the courtyards) creation and narrative of space (de Certeau, 1988; Lefebvre, 1991). The interaction among e.g., playing children, sitting and spectating adults and residents passing by on their way to and from

Figure 5
The transition zone in the terraced houses.
PHOTO: MADSEN AND CORLIN.

their homes (Stauskis & Eckardt, 2011) are informal everyday practices that all contribute to a social construction of space.

However, directing our gaze towards the high-rise reveals a difference in both the coherence across scales and the spatial design of transition zones.

In the high rise, the connection between the common infrastructure of streets and parking spaces is detached from the individual home. The residents walk from their cars into stairwells (Figure 6, images 1, 2, 3, 4, 5), from where they can either walk or take the lift to their homes. There is no visual or auditory connection between the entrance to the building, the common space of the stairway and the individual home. Residents rarely (apart from residents who live on the same floor) pass each other's homes, as they use the elevator to move between floors. The transition zone in the high-rise therefore becomes a stairwell and a mono-functional space to be used for transit and not, as exemplified by the courtyards in the terraced houses, a space containing several functionalities at the same time (Gehl, 1971; Stauskis & Eckardt, 2011). Being an indoor room for transit additionally makes it subject to fire regulations, further preventing the residents from free engagement with the space, resulting in a lack of opportunities for adapting and decorating it (Brand, 1995; Owen, 1992) and also in limited opportunities to enjoy decorations outside the apartment door, due to the closed wall (see last image, Figure 6) (Hertzberger, 1991).

To sum up, we experienced more *thinging* in the terraced house typology than in the high-rise. In the high-rise, we identified a lack of coherence across scales and a lack of visual and auditory connection in the transition zone between the individual home and the common spaces.

Figure 6
The coherence between the overall estate infrastructure and the entrances to apartments.
PHOTO: MADSEN AND CORLIN.

We also identified a change in the programming of the common space, from a multifunctional space in the courtyards by the terraced houses to a monofunctional stairway space in the high-rise. All three parameters result in an absence of people passing each other's home and a reduced potential for interaction, since no one plays or stays in the common space near the home. Thus, we identified a lack of motivation (and, due to the fire regulations, permission) for contributing to or engaging in the common atmosphere and aesthetics and the social construction of space (de Certeau, 1988; Lefebvre, 1991).

Case 3: Interior Design of a Shared Space

In our final case, we will show how things become pivotal in the engagement with space aimed at creating place attachment among the residents of the co-housing (Relph, 1976), leading to a lack of inclination to use the common space. The practice of thinging emerged during a workshop in Case 3 in which a group of residents were struggling to inhabit their common living room and kitchen.

The Case 3 estate was built in 2020. It is a collaboration between three units in the local municipality and a social housing association within

the same city. The estate is a compact, high-rise building, and the main vision of this estate was to design for community building, preferably across generations. Part of the estate is designated for co-housing, organised in such a way that four apartments share a common kitchen and living room. For residents who live in one of the co-housings, 40% of the square metres they pay rent for is allocated to shared spaces, of which 20% are spaces shared by all fellow residents within the house and the other 20% are spaces shared with fellow residents within the same co-housing.

We discovered a co-housing where the shared living room and kitchen were not being used, even though all the belonging flats were inhabited and had been for a while. Considering the great number of square metres that the residents paid for as part of their rent, we decided to investigate the reason for these non-used shared square metres. For this investigation, we initiated two interior decoration workshops with the residents as a method of exploring this lack of habitation. For the first workshop (Figure 7), we gathered around a big plan drawing of the two rooms, where we cut out drawings of different pieces of furniture and objects to spark conversations about the residents' wishes for the space.

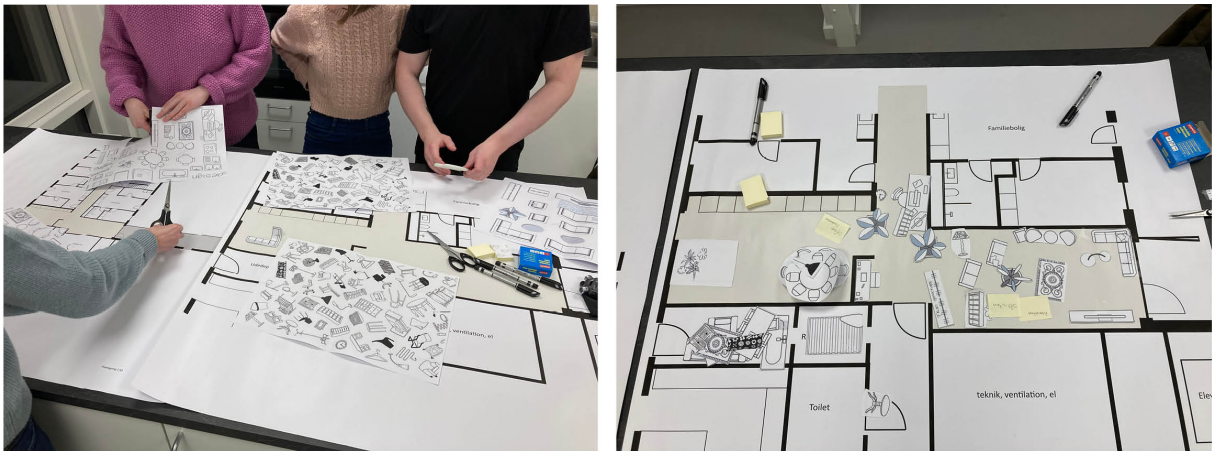

Figure 7
Interior design workshop I, cutting out furniture to spark conversations about the room.
PHOTO: MADSEN AND CORLIN.

As part of the discussion during the workshop, one of the residents stated he needed to share experiences with his fellow residents in the room before making an effort to decorate and organise it. His fellow residents responded to his statement, saying that they felt it was a challenge to obtain such shared experiences without initially decorating the room, because the room was too uninviting to stay in, for which reason no common events or experiences occurred. This led to a discussion of what comes first, the furniture or the experiences, since the shared experiences were struggling to occur, due to the lack of things used to inhabit the room.

In the second workshop (Figure 8), we decorated the living room together, as a means to further investigate the connection between shared experiences and affordance. As shown in Figure 7, we discussed the inhabitation and decoration of the room, while moving furniture around, and ended the workshop with a reflective discussion that was also about the changing atmosphere due to the lighting of the room and how this new decoration might influence the future use of the room.

Figure 8
Interior design workshop II, moving furniture and reflecting on atmosphere and affordance.
PHOTO: MADSEN AND CORLIN.

The second workshop revealed hesitation to initiating more permanent solutions, such as mounting shelves on the wall or suggesting the placement of different things or pieces of furniture in the room. The workshops taught us that the architectural room needed things in order to be occupied by the residents, in order to support social interaction among the residents, However, many residents were reluctant to arrange things in the shared space on their own, as they thought it ought to be a communal decision. Since nobody wanted to risk breaking social norms, the residents felt unable to start decorating the room without any explicit communal decision-making. During the final conversation, doubts about using the room were still being voiced. The room contains a shared kitchen directly connected with the living room, but since all the apartments also have private kitchens, using the shared kitchen on an everyday basis is seen as impractical. During the second workshop, another participant said:

> *I do not perceive that this room has any features, that other rooms in the house can't do better. For example, in my own living room, I have a better couch and a better view and in the small meeting rooms placed around the whole house, I can have an online meeting without disturbing anyone of you who are at home.*

Linking thinging to the architecture

The residents struggled to orchestrate the habitation and shared use of their common space, based on a lack of motivation in each resident to

engage with the common room. Lefebvre describes the "physical space as having no 'reality' without the energy that is deployed within it" (Lefebvre, 1991, p. 13). All places are social (ibid., 1991; de Certeau, 1988) and they are created by human interaction. The missing interaction with the place prevents a shared narrative from arising and thus also prevents the social construction of place. This prevents the room from eventually developing a history that might contribute to additional values that other rooms in the house *can't do better*.

The House of Generations may be perceived as an indoor translation of a dense neighbourhood, with streets (corridors), common squares (common spaces) and individual dwellings (individual apartments). This analytical lens (Cullen, 2012; Krier & Rowe, 1979) reveals a detachment of the overall disposition of the estate, including the infrastructure, from the investigated common space. The common space of the co-housing is located behind a locked door and is therefore not part of people's general movements around the house. The middle scale, or semi-private space, where the common room functions as a transition zone, shows that even though the common space is located to make all residents in the co-housing pass through the space when going to their homes, the room nevertheless has the character of a passage, as it does not contribute any spatial qualities, such as appealing places to spend time or an interesting view. Finally, the small scale of openings in walls reveals the poor visual and auditory connection, both to apartments within the co-housing and to the remaining common spaces in the house.

The room thus lacks the *transitional quality* of being a place where the residents can see or listen to actions going on in the house from a distance (Gehl, 1971) and the residents are prevented from following any actions in the common room from their apartments (Hertzberger, 1991). They need to step out of their door into the room to know what is going on, which makes the connection between the individual home and the common space similar to the example in the high-rise typology in Case 2. What differs from the staircase room in Case 2 is the functional potential of the space. The common space in the co-housing qualifies as both a transit room and a room for staying, playing and other activities. It contains a spatial dimension that allows for several activities simultaneously. Thus, the weakness lies in the connection and coherence across scales (Krier & Rowe, 1979).

The final case study shows that common spaces (specifically rooms which lack experiential values, such as a view and daylight or spatial connections to other rooms) are dependent on the residents' engagement to develop a social construction of space and on an urgent need for a room to obtain special qualities (de Certeau, 1988; Lefebvre, 1991).

Conclusion

Architect Rudolf Perold (2022) challenges us by asking how the discipline of architecture makes itself relevant to the informal city. Although Perold's field of study is informal settlements in Cape Town, we share his concerns about how we might architecturally support un-formalized and multiplex communal being in the city. Because informality consists of multiple, fluxing and complex conjunctions of people, things and spaces, architects will fail in this task if they continue performing a normative and standardised architectural service (ibid., p. 606). As is the case in our article, relevant architecture is not necessarily discovered through bombastic new creations or innovative solutions (on this point, see Krogh & Koskinen, 2020). Instead, we have shown how architectural relevance can be found if we take seriously the uses residents make of property, listening to the possibilities and limits that existing architecture affords. To make architecture that supports informal community-making and thus social sustainability in cities, we need to understand what such communities are made of and how their ongoing negotiations are connected to architectural elements in the built environment. Thus, the clues for new and relevant architecture lie 'out there' with the communities themselves.

In the three case studies presented in this article, we demonstrated that the *thinging* of residents using mundane decorative objects plays a pivotal role in their community-making. Through an analysis of different typologies, we identified certain architectural elements as *thinging architecture* – architecture that affords residents' community-making by means of things. Summing up the architectural analysis across the three case studies, we identify four interconnected attention points of designing for informal communities:

1. There is an overarching link based on coherence across scales, from the disposition of the whole neighbourhood or estate to the architectural design of windows and doors in each facade of the individual homes. This coherence is pivotal to how accessible the residents are to each other and thus to the ease with which informal interactions may occur.
2. The transition zones are important spaces for residents to engage in and create individual expressions, for it is through individual expression they can contribute to the common atmosphere and through this expression they are able to show thoughtfulness for fellow residents.
3. The typology of the common spaces is central: are the spaces purely transit spaces (monofunctional spaces) or could they also contain other activities? (e.g., playing, staying or placing objects) - and thus allow for exchanges between things, actors (e.g., playing children) and spectators (e.g., adults looking out windows in the common room).

4. Visual and auditory connections between the individual home and the common space allow for informal and unintended exchanges between residents, mediated by objects placed in the space.

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