Living with the Street

Transition Zones Between Home and Public Realm in High-Density Housing

Research Thesis
Graduation Project

Advanced Housing Design

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the requirements of the Graduation Studio.

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WERKSPOOR

abstract

This paper explores the role of transition zones—the spatial and social thresholds between private dwellings and the public street—in shaping livable, safe, and socially connected urban environments. With Amsterdam as a case study, the research situates itself within the urgent context of urban densification and the construction of large-scale residential blocks. Historically, Dutch streets and stoops embodied spaces of encounter and personalization, but over time mass production, zoning laws, and functionalist housing approaches diminished the quality of these intermediary zones. Building upon the writings of Jane Jacobs, Herman Hertzberger, Jan Gehl, Aldo van Eyck, Christopher Alexander, and others, this paper argues that transition zones are crucial for stimulating social interaction, fostering a sense of ownership, and softening the divide between public and private realms.

Through a literature review, case study analysis, and site-specific research on Amsterdam's Strandeiland, this paper establishes the principles and dimensions that make transition zones successful. It further critiques contemporary large housing blocks where collective circulation spaces often fail to create meaningful social environments. The study concludes by outlining a set of architectural strategies to integrate attractive, functional, and adaptable transition zones into high-density urban developments. The final part of this graduation project will consist of a research by design process, testing these principles in practice through the design of a new residential block in Amsterdam.

assignment

The Netherlands is currently facing an urgent housing shortage. To address this, it is estimated that one million new homes need to be constructed by 2030, with an additional million required between 2030 and 2040 (Rijksoverheid, 2023). This challenge is driven not only by immigration, but also by shifting living standards: Dutch households increasingly demand more living space per person, while the average household size continues to decline. As a result, the need for housing is both quantitative and qualitative.

Given the limited space in the Netherlands, most new housing will be added within existing urban areas, increasing their density. In Amsterdam, the city has laid out its spatial ambitions in the *Omgevingsvisie Amsterdam 2050*, which outlines a goal of constructing 150,000 new dwellings through inner-city densification strategies (Gemeente Amsterdam, 2021). Rather than expanding outward, the vision emphasizes building within the current urban footprint, preserving green spaces and strengthening urban life. One of the key areas for this development is Strandeiland, a newly created artificial island in the IJmeer.

In response to these developments, this graduation project aligns with the ambitions of the *Omgevingsvisie*. It takes the form of a high-density residential building in Amsterdam, designed as part of the city's densification strategy. The central research assignment investigates how spatial transition zones—the buffer spaces between the private home and the semi-public or public realm—can contribute to social interaction, safety, and livability in high-density housing environments.

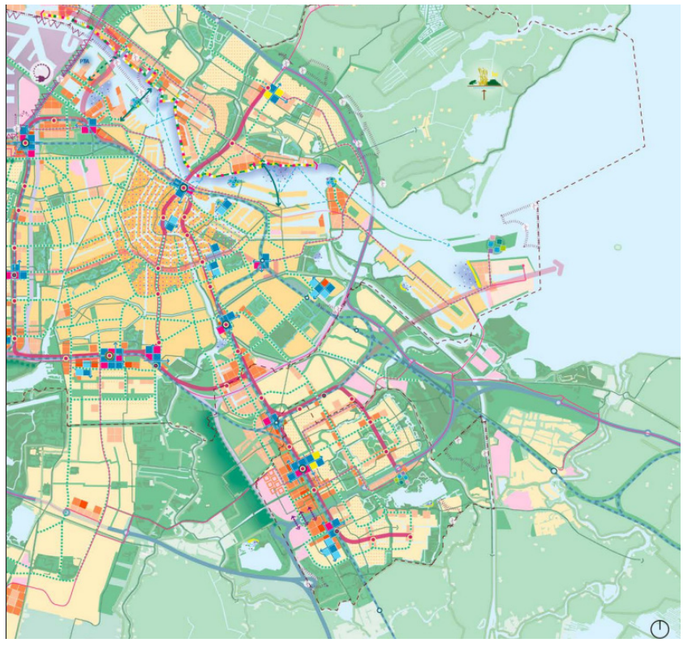
Large urban housing blocks are efficient in addressing the housing crisis but often neglect the human experience of residents. Circulation spaces, galleries, and collective entrances are typically designed for functional efficiency rather than for social value, resulting in anonymous environments that discourage interaction. This graduation assignment is therefore twofold:

Research Task: To develop a scientific and theoretical understanding of transition zones, their historical evolution, cultural meaning, and architectural implications.

Design Task: To translate these insights into design principles for large-scale housing blocks in Amsterdam, with specific attention to the integration of thresholds, stoops, galleries, and shared spaces.

This paper fulfills the first part of the assignment: building a comprehensive research foundation that informs the subsequent research-by-design phase, which will culminate in the architectural design of a high-density residential building in Amsterdam.

New housing development in the Houthavens. (Gemeente Amsterdam, 2021)



'Omgevingsvisie Amsterdam. (Gemeente Amsterdam 2021)

introduction

Urban housing in Amsterdam faces two interconnected challenges: increasing density and preserving quality of life. The municipality's Omgevingsvisie sets ambitious targets—150,000 new dwellings for 250,000 residents—by promoting compact, high-density building blocks (Gemeente Amsterdam, 2020). While this approach is spatially efficient, history warns of the risks: in periods of housing shortage, mass-produced housing blocks often prioritized quantity over livability, resulting in alienating environments (Jacobs, 1961; Hertzberger, 1991).

A key spatial element often overlooked in such developments is the transition zone. This intermediary realm—whether a stoop, porch, balcony, or shared gallery—acts as a social and psychological buffer between public and private life. Transition zones enable casual encounters, visual contact, and territorial claims, all of which are essential to building community (Gehl, 2011; Alexander et al., 1977). Without them, housing risks becoming purely functional and socially anonymous.

This paper takes the transition zone as its central object of study. It investigates its historical roots in Dutch stoop culture, its reinterpretation by post-war architects such as Aldo van Eyck and Herman Hertzberger, and its contemporary challenges in large-scale housing. Ultimately, the research seeks to answer:

How can spatial transition zones between the private dwelling and the (semi-)public realm enhance social interaction, ownership, and perceived comfort in high-density urban environments?

theoretical framework

The concept of the transition zone has been explored by several influential urban thinkers and architects:

Jane Jacobs (The Death and Life of Great American Cities, 1961) emphasized "eyes on the street"—the natural surveillance and safety generated by active street life. For Jacobs, stoops, shopfronts, and windows created an everyday stage for informal interaction and mutual trust.

Herman Hertzberger (Lessons for Students in Architecture, 1991) introduced the concept of the "in-between space"—a realm neither fully private nor fully public, but open to appropriation. He argued that entrances, galleries, and thresholds should invite personalization, as ownership strengthens care and responsibility.

Aldo van Eyck advocated for human-scale architecture where playgrounds, thresholds, and interstices acted as connectors of community, resisting the abstraction of modernist planning.

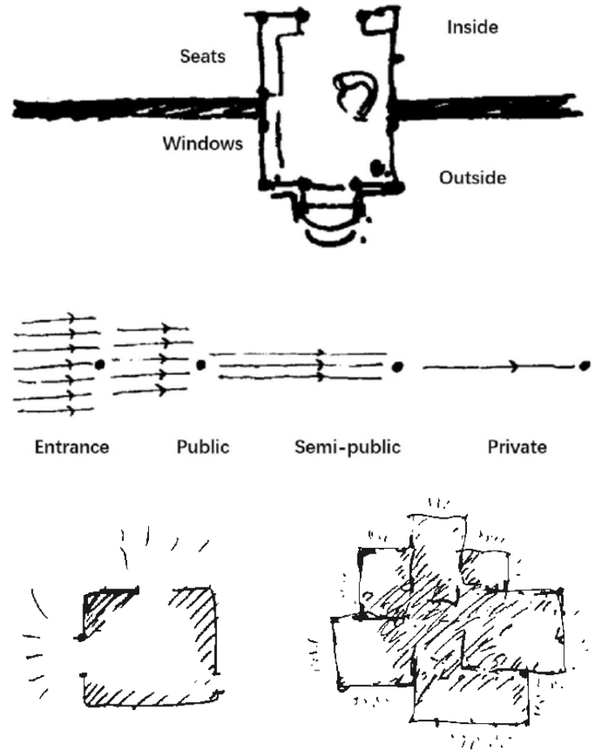
Jan Gehl (Life Between Buildings, 2011) demonstrated that urban vitality depends on small-scale encounters, seating, visibility, and the prioritization of pedestrians and cyclists over cars.

Christopher Alexander (A Pattern Language, 1977) articulated threshold-related patterns—stoops, entrance transitions, semi-private gardens—that support personalization and community.

Rolf Mannerjahn and other urban theorists have contributed morphological studies of how façades and streets co-produce social atmospheres, reinforcing the importance of carefully dimensioned public-private interfaces.

De stoep: de ontmoeting tussen huis en straat (2015) provides a specifically Dutch perspective on the role of the stoop as a transitional element. The book highlights how the stoop historically mediated between the domestic interior and the public street, offering residents both a physical threshold and a social stage. It documents how stoops facilitated appropriation, personalization, and informal encounters, and how their decline in modern housing typologies has led to the erosion of everyday social contact in urban streetscapes.

Together, these thinkers and books provide a theoretical grounding for understanding the transition zone as a social condenser: a place where ownership, identity, and interaction are negotiated through architectural form.



Sketch by Christopher Alexander illustrating the transition zone. (Alexander, 1977)

methodology

The research employs a mixed-method approach combining:

Literature Review
Analysis of theoretical writings by Jacobs, Hertzberger, Van Eyck, Gehl, Alexander, and others, supplemented by contemporary research on urban livability, stoop culture, and transition zones.

Historical Analysis
Tracing the evolution of the Dutch street and stoop from the 17th century through post-war reconstruction to today's high-density projects, highlighting changes in ownership and personalization.

Case Study Research
Observation of existing Dutch and European housing projects, analyzing sidewalk dimensions, street widths, vegetation, and façade articulation, as documented in previous research phases.

Site Analysis
Investigation of Strandeiland in Amsterdam as a representative site for densification, assessing its urban morphology, public realm design, and opportunities for integrating transition zones.

Comparative Analysis
Identifying qualitative and quantitative parameters (e.g., sidewalk width, transition depth, ownership strategies) that contribute to successful transition spaces, and applying them to the Amsterdam context.

This methodological triangulation ensures that the research is both theoretically grounded and empirically tested, forming a solid basis for the subsequent design phase.

research aims

The aims of this research are as follows:

Conceptual Aim
To define the transition zone as a critical spatial and social interface in architecture, moving beyond simplistic terms like 'public' and 'private'.

Analytical Aim
To evaluate the success factors of transition zones—including scale, ownership, personalization, and human contact—through literature, case studies, and site analysis.

Contextual Aim
To assess how Amsterdam's current densification policies and large-scale housing strategies can integrate transition zones that foster livability rather than anonymity.

Practical Aim
To formulate design principles for transition zones in high-density housing blocks that can inform the research by design phase of this graduation project.

analysis

the history of the street and stoop

Introduction

The history of the street is inseparable from the history of social life in cities. Streets are not only infrastructures of movement; they are also spaces of encounter, visibility, and everyday negotiation between private and public realms. Within this continuum, the stoop and other transitional elements have historically played a defining role. In the Dutch context, the stoop (de stoep) emerged as a semi-private extension of the home, mediating between the intimate domestic interior and the collective world of the street.

This chapter traces the evolution of streets and stoops in the Netherlands and beyond, showing how their spatial, cultural, and social roles shifted under the pressures of urbanization, modernization, and functionalist planning. It argues that the decline of the stoop as a lived architectural element corresponds to a loss of informal social infrastructure — a concern that underpins contemporary debates about densification and the design of large housing blocks.

Streets as Social Spaces

From the earliest cities, streets have functioned as multivalent environments — channels of circulation, but also places of trade, celebration, protest, and play. In medieval European towns, narrow streets allowed for constant interaction between residents, merchants, and travelers. The façades of houses were not rigid barriers but permeable thresholds, often spilling into the public space with workshops, benches, and stoops (Gehl, 2011).

The Dutch Golden Age cities of the 17th century provide a particularly clear example. Here, urban form and domestic life were tightly interwoven: canals, narrow plots, and townhouses shaped a rhythm where the front door and stoop were not marginal details but essential interfaces of social life. As De stoep: de ontmoeting tussen huis en straat (2015) shows, the stoop was more than a functional entry platform. It was a stage where residents performed domestic routines — cleaning, chatting, selling goods — while maintaining a visible connection to the street. This layering of activities blurred the line between private and public, creating a shared zone of semi-ownership.

The Dutch Stoop Tradition

'De stoep' became a characteristic Dutch contribution to urban morphology. Functionally, it addressed practical needs: it elevated the entrance above damp or flood-prone ground levels, provided access to cellars, and created a buffer against mud and traffic. Socially, however, it became a platform of encounter. Residents personalized their stoops

with plants, benches, or goods, while children played at their edges.

As the book De stoep argues, stoops enabled a specific form of negotiated privacy: homeowners could remain connected to public life while retaining a sense of control over their immediate threshold. This dual function — exposure and withdrawal — made the stoop a crucial architectural mediator. In fact, it exemplified what later theorists like Hertzberger (1991) would call the "in-between space."

By the mid-19th century, however, changes in urban policy began to erode the stoop's significance. The introduction of uniform sidewalks for pedestrian safety, combined with rising hygienist ideals, gradually shifted stoops from private extensions to neutral, municipal space. After the Dutch Housing Act (Woningwet, 1901), large-scale social housing projects prioritized efficiency and repetition, leaving little room for individualized stoops. The modernist pursuit of standardization marginalized these micro-arenas of urban life.

Post-War Modernism and the Loss of 'de Stoep'

In the post-war era, the urgency of reconstruction and the ideology of functionalist modernism further accelerated the decline of traditional stoops and thresholds. Streets were

widened for traffic, pedestrian life was relegated to sidewalks, and housing was produced in mass, repetitive blocks.

Transition zones in these projects were often reduced to corridors, stairwells, or galleries — spaces optimized for circulation rather than socialization. Although efficient, they lacked the personalization and ownership that stoops once afforded. As Jacobs (1961) observed, such anonymous environments weaken the "eyes on the street" effect, diminishing both safety and vibrancy.

By the 1970s, architects like Aldo van Eyck and Herman Hertzberger explicitly criticized this development. They argued that the loss of in-between spaces created alienation and anonymity in cities. Van Eyck's playgrounds and Hertzberger's schools and housing projects sought to reintroduce human-scaled thresholds where interaction could naturally occur. Yet despite these efforts, in large-scale housing blocks the challenge of designing meaningful transition zones persisted — a challenge that remains urgent today.

The Stoop as a Precursor to the Contemporary Transition Zone

Looking back, the stoop can be seen as the archetype of the transition zone. It embodied many qualities contemporary theorists advocate:

Visibility and safety (Jacobs, 1961): residents overlooking the street.

Ownership and personalization (Hertzberger, 1991): residents shaping their stoops with furniture, plants, or decorations.
Human scale and encounter (Gehl, 2011; Van Eyck, 1962): stoops inviting play, sitting, and spontaneous meetings.

Pattern of thresholds (Alexander, 1977): layered sequences between house and city.

The stoop's decline highlights what is at stake in contemporary urban densification: when thresholds are erased or collectivized, cities risk losing the small-scale interactions that build community. Conversely, by reintroducing stoop-like qualities into high-density blocks, architects can re-establish the street as a living social fabric rather than a mere transit corridor.

The history of the street and the stoop illustrates a broader tension in urbanism: the balance between efficiency and human experience. While modern planning often sacrificed stoops and transition zones for the sake of rational order, the social costs of this decision are increasingly evident. For Amsterdam, facing a new wave of densification on sites like Strandeiland, this history offers a lesson: transition zones must be reintegrated into the DNA of housing design if the city is to grow without sacrificing livability.

This historical grounding sets the stage for the next chapter, which will examine transition zones as spatial interfaces in theory and practice, exploring their psychological, social, and architectural dimensions.

analysis

transition zones as spatial interfaces

Introduction

While the previous paragraph traced the historical emergence and decline of the stoop, this chapter develops a conceptual understanding of transition zones as contemporary architectural and urban phenomena. Transition zones are not fixed typologies but interfaces: spatial thresholds that regulate movement, visibility, and social interaction between the domestic interior and the public realm. They can be as modest as a doorstep or as elaborate as a shared gallery, yet their social significance lies less in form than in how they enable appropriation, ownership, and everyday use.

Defining the Transition Zone

In architectural discourse, the transition zone is often positioned as a "third realm" — neither fully private nor entirely public. As Hertzberger (1991) described, it is the "in-between": a space of ambiguity where the rigid boundaries of ownership blur and negotiation occurs. Jacobs (1961) and Gehl (2011) likewise recognized these areas as essential for natural surveillance, comfort, and social life.

Key qualities of transition zones include:

Buffering: Softening the shift from private to public, providing security and privacy while maintaining openness.
Visibility: Allowing visual contact between residents and passersby, creating "eyes on the street" (Jacobs, 1961).
Appropriation: Enabling personalization through plants, furniture, or decoration, reinforcing ownership (Hertzberger, 1991).
Encounter: Offering opportunities for spontaneous, low-threshold interactions (Gehl, 2011).
Identity: Reflecting cultural values and ways of living, as seen in the Dutch stoop tradition (De stoep: de ontmoeting tussen huis en straat, 2015).

These dimensions underline that transition zones are not simply functional circulation areas but social condensers embedded in the architectural form of housing.

Typologies of Transition Zones

Transition zones manifest in diverse typologies depending on building scale, cultural context, and urban morphology:

1. Individual Thresholds

- Stoops, front gardens, porches, and balconies.
- Characterized by strong ownership and personalization.
- Support frequent micro-interactions between residents and passersby.

2. Shared Thresholds

- Galleries, corridors, stairwells, and communal entrances.
- Often efficient but risk anonymity, as ownership is diffuse.
- Can succeed when designed with spatial generosity and opportunities for personalization.

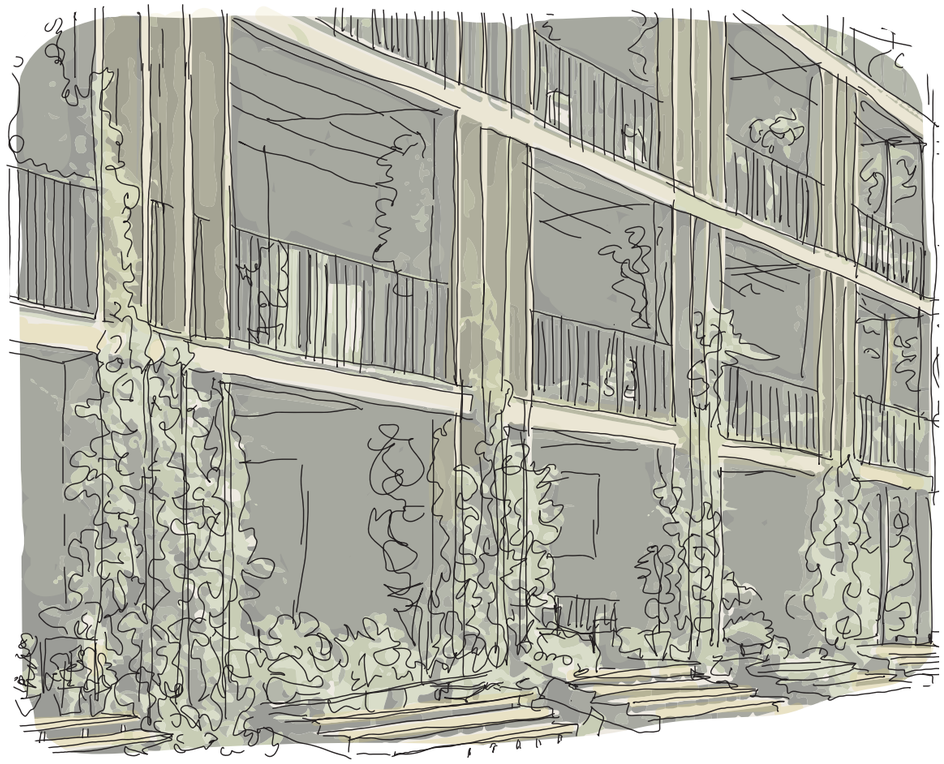
3. Collective Transitional Spaces

- Courtyards, semi-public gardens, or interior streets.
- Provide shared ground for socialization but require clear rules of use and maintenance.

These categories highlight the gradient from personal ownership to collective responsibility. As studies show, zones directly linked to the individual dwelling tend to foster stronger engagement than those shared by many.

Ownership and Personalization

The success of transition zones depends largely on ownership — both real and perceived. Residents are more likely to maintain, personalize, and care for spaces they feel belong to them, even if only



symbolically. Hertzberger argued that architecture should leave "open ends" that residents can appropriate, transforming abstract design into lived space.

In practice, this may mean providing a ledge for flowerpots, a recess for a bench, or sufficient width in a gallery to accommodate seating. Without such opportunities, transition zones risk becoming sterile. As 'De stoep' demonstrates, even small gestures of appropriation create signals of care and invite interaction. Conversely, shared galleries or corridors without clear identity often trigger passivity: responsibility becomes diffuse, leading to neglect.

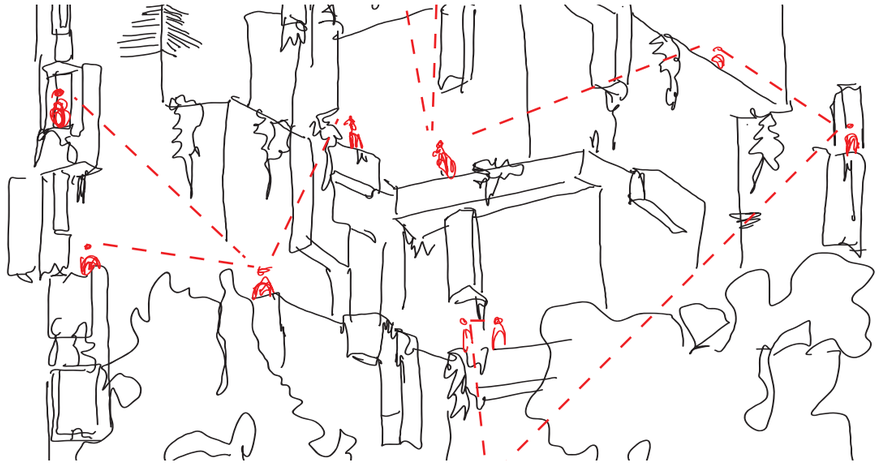
Scale and Human Connection

Transition zones must also be understood in relation to scale. At the scale of the single dwelling, a stoop or porch fosters direct eye-level engagement between resident and passerby. At the scale of the housing block, collective courtyards or semi-public gardens can sustain neighborhood bonds if designed with human proportions.

Jan Gehl (2011) stresses that human interaction thrives at short distances — eye contact, gestures, and brief conversations occur within a few meters. Transition zones that respect these proximities enable a "dialogue across the threshold." Aldo van Eyck similarly warned against abstract mega-structures that erase scale, arguing instead for spaces that "recognize the child, the neighbor, the passerby."

In high-density blocks, galleries, atriums, or plinths must therefore be carefully dimensioned. A gallery that is only wide enough for walking functions as pure circulation; one that is broadened, furnished, and visually open can become a social stage.

The Psychological Dimension



Beyond spatial qualities, transition zones hold a psychological significance. They create a "safe zone" (Lofland, 1973) where residents can engage with public life without fully exposing themselves. Sitting on a stoop, leaning from a window, or stepping into a semi-public courtyard allows for graded participation in social life — from watching silently to engaging actively.

This layered exposure is crucial in dense cities, where anonymity and alienation are common. Transition zones give inhabitants a sense of control: they can choose when and how to participate. This flexibility makes the urban environment more inclusive and less intimidating, especially for vulnerable groups such as children or the elderly.

Challenges in Large-Scale Housing

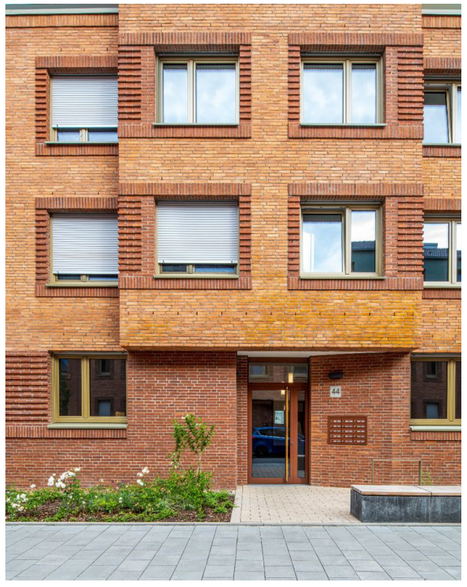
Despite their importance, transition zones are often neglected in large-scale housing developments. Corridors and galleries are typically designed with efficiency in mind, minimizing floor area rather than maximizing social potential. As noted in the research presentations, such spaces often discourage eye contact and conversation, fostering withdrawal instead of connection.

The problem is not inherent to large housing blocks but to their design priorities. When circulation is seen as mere logistics, social dimensions disappear. Yet if these spaces are reconceived as layers of encounter, they can recover some of the stoop's qualities — even in high-density contexts.

Conclusion

Transition zones are vital spatial interfaces where the domestic and the civic intersect. They buffer, connect, and mediate — offering safety, visibility, ownership, and interaction. Historically exemplified by the Dutch stoop, these zones are today under threat in the rationalized, large-scale housing block. Reclaiming their potential requires rethinking thresholds not as residual or purely functional spaces but as architectural opportunities for community-making.

This sets the stage for Chapter 3, which examines how these insights play out in the contemporary Dutch street and in Amsterdam's current densification agenda.



analysis

the contemporary dutch street

Introduction

The contemporary Dutch street is shaped by centuries of cultural traditions, regulatory frameworks, and evolving urban policies. While the historical stoop embodied a rich dialogue between house and street, today's streetscapes reflect a more complex negotiation between density, mobility, sustainability, and livability. Amsterdam, facing rapid growth and the pressure of large-scale housing production, illustrates both the challenges and opportunities for reintroducing qualitative transition zones.

Policy Context: Amsterdam's Omgevingsvisie

Amsterdam's Omgevingsvisie 2050 outlines an ambitious growth strategy: 150,000 new dwellings to house 250,000 additional residents by mid-century. The key principles include:

Compact city model: densification within existing boundaries rather than suburban expansion.

Polycentric structure: strengthening multiple cores to reduce pressure on the historic center.

Sustainable mobility: prioritizing cycling, walking, and public transport over cars.

Green city: embedding ecological networks and climate resilience in urban form.

In this vision, large-scale residential blocks on newly developed artificial islands such as Strandeiland play a central role. With high FSI values (floor space index), these blocks promise efficient land use and sustainability. However, without careful design, they risk repeating the mistakes of earlier mass-housing eras: anonymity, lack of ownership, and socially sterile environments.

Dimensions of the Contemporary Street

Field research and design exercises show that the quality of transition zones is directly linked to the physical dimensions and spatial logic of the street.

Sidewalk Width: 1.5–2.0 meters is generally sufficient for walking and small appropriations such as benches or flowerpots. Sidewalks that are too narrow discourage personalization, while overly wide sidewalks risk emptiness if not activated.

Street Width: A comfortable proportion between building height and street width is crucial. In mid-rise housing (5–6 stories), widths of 12–20 meters support liveliness; in higher blocks, wider streets may be necessary to prevent a canyon effect.

Greenery: Vegetation softens the hardscape and creates microclimates, but must be balanced with visibility to avoid feelings of insecurity. Small front gardens or planters offer residents opportunities for ownership.

Mobility Hierarchy: Streets dominated by cars reduce opportunities for spontaneous encounters. Prioritizing cycling and walking, as Amsterdam increasingly does, enhances the potential for street life.

These dimensions echo Jan Gehl's (2011) findings: human-scale proportions and visibility are prerequisites for meaningful public life.

The Dutch Street Culture Today

Despite modernization, Dutch street culture retains some of its traditional openness. Large windows at eye level, minimal fences, and direct visibility into living rooms are still common features — striking to international visitors. This openness, rooted in cultural values and climate considerations, creates a distinctive relationship between house and street.

Yet, paradoxically, contemporary large-scale housing often undermines this tradition. Shared galleries and internalized circulation corridors disconnect residents from the street, while plinths without active functions result in dead façades. The historical stoop culture illustrates what is possible, but the dominant logic of efficiency often silences such qualities in modern developments.

Strandeiland: A Testbed for Densification

Strandeiland, one of Amsterdam's newest artificial islands, offers a living laboratory for these questions. Planned as a high-density, sustainable neighborhood, it

embodies the city’s ambition to grow within limits. The Pampusbuurt area, where building blocks range from 5 to 9 stories, reflects the compact city model.

The site chosen for this graduation project consists of two blocks totaling 12,120 m², designed to accommodate around 580 dwellings at an FSI of ~2. While density targets are clear, the architectural challenge lies in ensuring that these blocks support social interaction, ownership, and identity through well-integrated transition zones.

The masterplan emphasizes sustainable transport (cycling, public transit), mixed demographics, and diverse housing types. However, without attention to micro-scale thresholds — stoops, galleries, shared gardens — the risk remains that Strandeiland could reproduce the anonymity of earlier mass housing experiments.

Case Observations: Strengths and Weaknesses

Observations from both existing Dutch neighborhoods and early Strandeiland studies reveal recurring patterns:
Strengths:

- Active plinths (shops, cafés, workspaces) on boulevards foster engagement.

- Streets prioritized for cyclists and pedestrians create safer, more sociable environments.

- The Dutch tradition of window openness remains a latent asset for social visibility.

Weaknesses:

- Galleries and internal corridors designed solely for circulation discourage appropriation.

- Uniformity in façades limits opportunities for identity expression.

- Collective spaces often suffer from diffuse responsibility, leading to neglect.

These findings highlight the tension between macro-scale efficiency and micro-scale livability.

Towards a contemporary transition zone

The question for Amsterdam today is whether the qualities of the stoop can be reimagined for high-density blocks. This does not mean literally reproducing 17th-century thresholds but translating their essence:

- Clear zones of semi-ownership where residents can leave a chair, bicycle, or plant.

- Architecturally framed thresholds (setbacks, recesses, terraces) that invite appropriation.

- Active street edges that maintain permeability and visibility.

- A balance of collective and individual spaces, avoiding total collectivization of thresholds.

Such design moves could revive the stoop's cultural DNA in a new urban context, reinforcing Amsterdam's tradition of streets as stages of daily life.

Conclusion

The contemporary Dutch street reflects both historical continuity and pressing new challenges. While policy ambitions demand density, the lived experience of residents depends on micro-scale interfaces between house and street. Strandeiland, as a flagship project of Amsterdam's densification, crystallizes this dilemma: without integrated transition zones, density risks becoming synonymous with anonymity.

The next chapter turns inward, analyzing how transition zones within large-scale building blocks can be designed to overcome these challenges and generate a sense of ownership, safety, and social cohesion.

analysis

transition zones in building blocks

Introduction

If the street is the backbone of urban life, the housing block is the cell through which this life is articulated. Within the block, transition zones serve as critical interfaces between the private dwelling and the larger public or semi-public environment. In small-scale, low-rise housing, these thresholds often emerge naturally as stoops, porches, or front gardens. In large-scale, high-density blocks, however, the design of such zones is more complex: circulation spaces, galleries, and plinths must not only move people efficiently but also sustain ownership, identity, and interaction.

This chapter examines how transition zones operate within building blocks, drawing from both historical precedents and contemporary design challenges. Using the case of Strandeiland as a place for experimentation, it argues for reimagining galleries, façades, and plinths as social stages, rather than treating them merely as circulation or technical necessities.

The Problem of the Gallery and the Corridor

One of the most persistent challenges in large housing blocks is the shared gallery or corridor. While functionally efficient, such spaces often fail socially. As noted in both theory and empirical research, they tend to:

- Minimize eye contact and encourage residents to withdraw.

- Produce anonymity due to diffuse responsibility.

- Limit opportunities for personalization or appropriation.

This echoes Jacobs' (1961)

critique of "dead" urban spaces that prioritize efficiency over interaction, and Hertzberger's (1991) call for appropriable in-between spaces. Galleries that are too narrow or monotonous operate as transit tunnels rather than lived environments.

Yet the problem is not insurmountable. By widening galleries, integrating seating, or orienting living rooms rather than bedrooms towards them, such spaces can be transformed into semi-public thresholds. The key lies in designing for staying as well as moving.

Ownership and Responsibility in Shared Spaces

A recurrent theme in both literature and fieldwork is that shared responsibility often leads to neglect. When many residents share a single gallery, courtyard, or entrance, the sense of ownership weakens. The Dutch stoop tradition shows the opposite: small, individualized thresholds generate strong care and personalization.

Hertzberger argued that architecture must create clear invitations for appropriation. Even minimal interventions — a recess, ledge, or widened step — can signal to residents that the space is "theirs." In high-density blocks, this means designing micro-zones within collective thresholds where individuals can claim space. Without this, collective areas remain abstract, leading to passivity.

The Active Plinth

At ground level, the plinth plays a decisive role in how housing blocks engage with the street. Research on a certain chose plot highlights different façade typologies:

Boulevard Side (West): Here, plinths can host active functions such as shops, cafés, or workspaces. By integrating commercial or communal programs, the plinth becomes a vibrant edge, reinforcing Jacobs' principle of "eyes on the street."

Residential Streets (North/South): These quieter streets call for residential stoops, broad sidewalks, and semi-private extensions where residents can personalize their thresholds. This creates a softer, more intimate interface.

Park Side (East): Facing green areas, façades can open more freely, supporting balconies, terraces, and informal personalization. The threshold here mediates not only between private and public but also between dwelling and landscape.

A well-designed plinth therefore avoids dead façades and instead creates active, varied edges that strengthen both street life and resident identity.

The Inner Facade: Reimagining the Gallery

The interior façade of housing blocks presents another challenge. Often lined with bedrooms or storage spaces, galleries are reduced to lifeless passages. Observations from previous research suggest alternative strategies:

- Positioning living rooms along galleries instead of bedrooms, creating activity and natural surveillance.

- Broadening galleries to allow space for seating, plants, or play.

- Designing galleries with daylight, views, and variety, avoiding long monotonous corridors.

- Encouraging residents to see galleries as extensions of their homes, rather than neutral hallways.

Such strategies echo Hertzberger's idea of the adaptable in-between and Alexander's patterns of entrance transitions. By activating galleries, the housing block can internalize the qualities of the stoop at a collective scale.

Collective Courtyards and Semi-Public Interiors

Many Dutch housing blocks include interior courtyards or semi-public gardens. These spaces hold great potential for community-building but often suffer from unclear ownership. If residents perceive them as nobody's responsibility, they quickly deteriorate.

Design strategies to counter this include:

-Dividing courtyards into smaller sub-spaces that can be appropriated by clusters of residents.

-Providing programmatic anchors (playgrounds, seating, communal gardens) that encourage use.

-Ensuring visual and physical permeability from the street, avoiding isolation.

Aldo van Eyck's playgrounds illustrate how even small interventions can transform anonymous voids into meaningful places of encounter.

Towards a System of Transition Layers

What emerges from this analysis is the need for a layered system of thresholds within the housing block:

- Street Threshold (plinth, stoop, or shopfront): Where the block meets the city.

- Building Threshold (entrance, lobby, gallery): Where collective circulation connects dwellings.

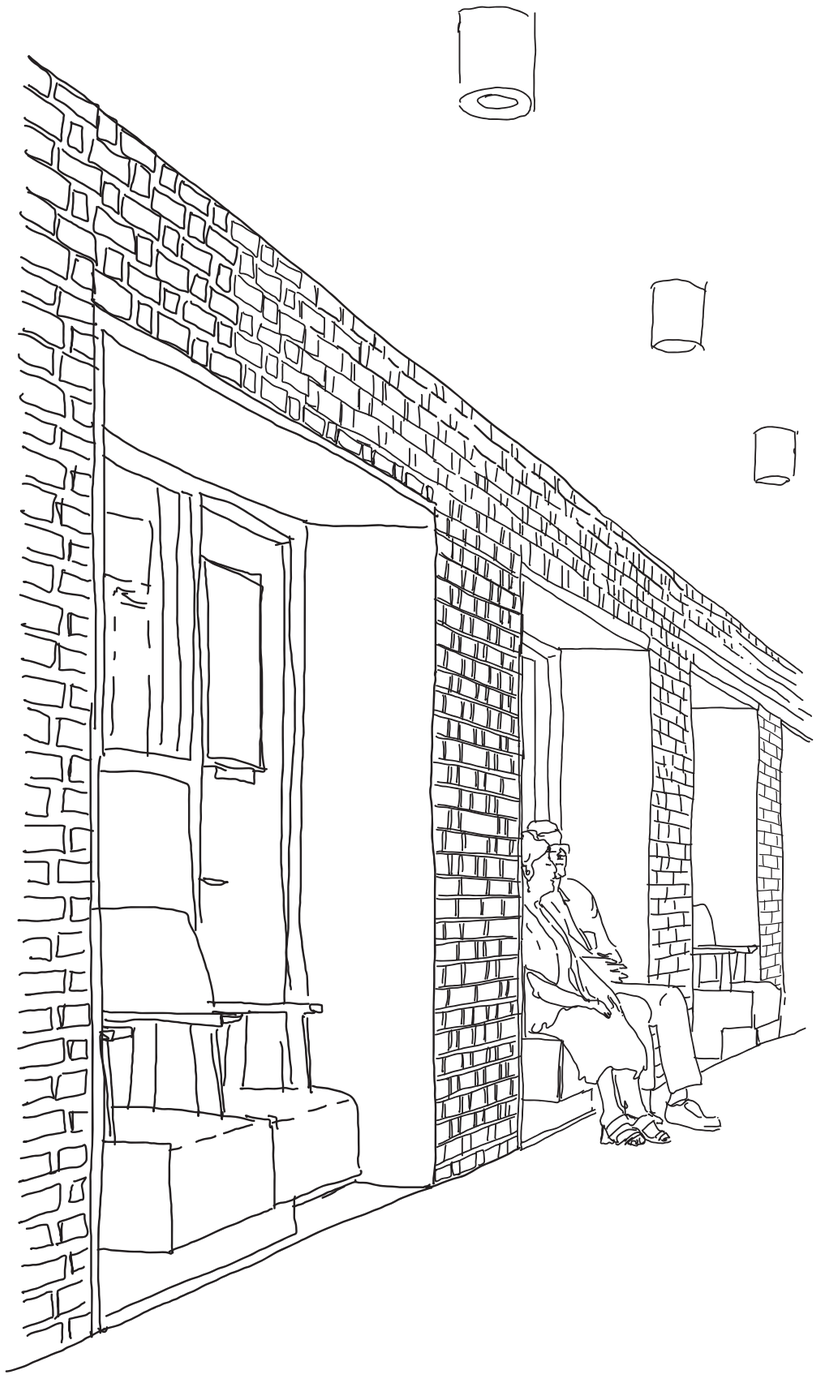
- Dwelling Threshold (doorstep, balcony, recess): Where the resident asserts ownership.

When these layers are designed in continuity, they create a gradual spectrum from private to public. When neglected, the result is fragmentation, anonymity, and disconnection.

Conclusion

Transition zones within building blocks are decisive for the social quality of high-density housing. The gallery, the plinth, and the courtyard can either reinforce anonymity or act as catalysts for community, depending on their design. The lessons of the Dutch stoop tradition, combined with insights from Jacobs, Hertzberger, Gehl, and Van Eyck, point to a clear conclusion: large housing blocks must integrate individualized, appropriable thresholds within collective frameworks.

The next chapter synthesizes these findings into a set of design principles for contemporary housing blocks, forming the bridge between research and the design phase of this graduation project.



analysis

towards design principles

Introduction

The preceding chapters have demonstrated that transition zones are essential to urban livability. Historically embodied in the Dutch stoop, these thresholds facilitated appropriation, ownership, and everyday interaction. Theoretical contributions from Jacobs, Hertzberger, Gehl, Van Eyck, Alexander, and others have reinforced the idea that in-between spaces act as social condensers. Contemporary challenges in Amsterdam's densification agenda, however, show that transition zones are often neglected or reduced to functional corridors and anonymous plinths.

This chapter synthesizes the research findings into a set of design principles for transition zones in large-scale housing blocks. These principles provide a conceptual and practical bridge to the next phase of this graduation project: research by design on Strandeiland.

Principle 1: Prioritize Human Scale

At the core of successful transition zones lies the human scale. Streets and façades that respect eye-level contact, appropriate distances, and comfortable proportions foster interaction.

Street widths should align with building heights, generally between 12–20 meters for mid-rise blocks, wider where necessary for taller structures.

Sidewalks must allow for more than circulation: 1.5–2.0 meters is the minimum, but broader sidewalks support benches, planters, or play elements.

Thresholds should allow residents to sit, stand, and interact at eye level with passersby.

Gehl (2011) emphasizes that small distances enable social contact, while Van Eyck's interventions remind us that even minor human-scale spaces can have profound social impact.

Principle 2: Enable Ownership and Personalization

A recurring theme across literature and observations is that ownership leads to care. Residents are more likely to maintain and appropriate spaces they perceive as "theirs." Architecture should therefore:

Provide micro-zones within galleries or courtyards where individuals can claim space.

Encourage personalization with built-in opportunities (planter ledges, recesses, niches, adaptable furniture).

Recognize the difference between formal ownership and perceived ownership: the latter often has more impact on behavior and maintenance.

The Dutch stoop exemplified how even minimal thresholds supported appropriation. Reintegrating this logic into collective housing blocks is essential for livability.

Principle 3: Design for Interaction, Not Only Movement

Many contemporary thresholds fail because they are designed solely as circulation spaces. Successful transition zones are places to stay as well as move.

Galleries should be wide enough to host seating or planting, not just passage.

Entrances and lobbies should act as meeting spaces, not anonymous foyers.

Plinths should mix functions — residential, commercial, and communal — to activate street life.

Jacobs (1961) warned that efficiency without vitality results in sterile environments. The gallery or courtyard should thus be reconceived as a social stage, not a transit tunnel.

Principle 4: Balance Greenery and Visibility

Greenery enriches transition zones, but it must be carefully balanced. Dense vegetation can obstruct sightlines and compromise safety, while barren hardscapes discourage use.

Small front gardens, planters, or trees along sidewalks provide opportunities for appropriation.

Courtyards should integrate both open sightlines and shaded, intimate zones.

Vegetation should reinforce, not undermine, the principle of natural surveillance ("eyes on the street").

This principle bridges Jacobs' emphasis on safety with Gehl's advocacy for ecological, comfortable environments.

Principle 5: Layer Thresholds from Private to Public

Effective transition design requires a gradient of spaces. Instead of abrupt shifts from dwelling to street, layers create comfort and flexibility. A robust system includes:

- Dwelling Threshold: The doorstep, balcony, or recess directly controlled by the resident.

- Collective Threshold: The gallery, courtyard, or lobby shared by a cluster of residents.

- Block Threshold: The plinth or façade engaging with the street.

- Street Threshold: The public realm of sidewalks and roads.

Christopher Alexander (1977) called this the "entrance transition" pattern. When designed in continuity, these layers prevent anonymity and

allow residents to calibrate their engagement with the city.

Principle 6: Adapt to Context and Edge Conditions

The design of transition zones must respond to site-specific conditions. Research on Strandeiland illustrates how different block edges require different approaches:

- Boulevards: Active plinths with retail or horeca stimulate vibrancy.

- Residential side streets: Stoops, broad sidewalks, and semi-private extensions create intimacy.

- Park-facing façades: Balconies and terraces mediate between home and landscape.

- Interior façades: Living rooms facing galleries and broadened passageways transform internal thresholds.

This contextual differentiation prevents uniformity and strengthens identity.

Principle 7: Design for Flexibility and Longevity

Transition zones are not static. Over time, residents adapt, personalize, and reinterpret them. Architecture should therefore be flexible, offering open frameworks rather than fixed prescriptions.

Provide adaptable structures (movable partitions, modular furniture, flexible balcony systems).

Anticipate future demographic shifts and allow thresholds to evolve accordingly.

Accept that ambiguity is productive: as Hertzberger (1991) argued, spaces that resist total definition invite appropriation.

Synthesis

These seven principles — human scale, ownership, interaction, greenery, layering, contextual adaptation, and flexibility — provide a roadmap for reintegrating transition zones into large-scale housing blocks. They do not dictate a single form but instead articulate qualities that sustain social interaction and livability.

Conclusion

The research demonstrates that transition zones are not marginal or decorative but fundamental to the success of housing design. By embedding these principles into the DNA of large blocks, Amsterdam can densify without sacrificing livability. The next stage of this graduation project — the research by design — will apply and test these principles within the specific site of Strandeiland, translating theoretical insights into architectural form.

conclusion

Revisiting the Research Question

This research set out to answer the central question:

How can spatial transition zones between the private dwelling and the (semi-)public realm enhance social interaction, ownership, and perceived comfort in high-density urban environments?

Through a historical analysis of the street and stoop, a theoretical review of key architectural thinkers, and an exploration of Amsterdam's current densification context, the study has shown that transition zones are indispensable social interfaces. They are not residual or secondary spaces but primary architectural devices that mediate between the intimate world of the home and the collective life of the city.

Key Findings

The research yields several key insights:

- Historical Lessons

The Dutch stoop historically exemplified how a simple threshold could sustain ownership, personalization, and informal encounters.

Its decline in the 19th and 20th centuries illustrates how modernization and mass housing often erased these qualities, leading to more anonymous environments.

- Theoretical Foundations

Jacobs emphasized safety and vitality through eyes on the street.

Hertzberger introduced the in-between space as a site for appropriation and care.

Van Eyck, Gehl, and Alexander all reinforced the importance of human-scale thresholds and layered transitions.

De stoep: de ontmoeting tussen huis en straat (2015) highlighted the cultural significance of stoops in Dutch street life.

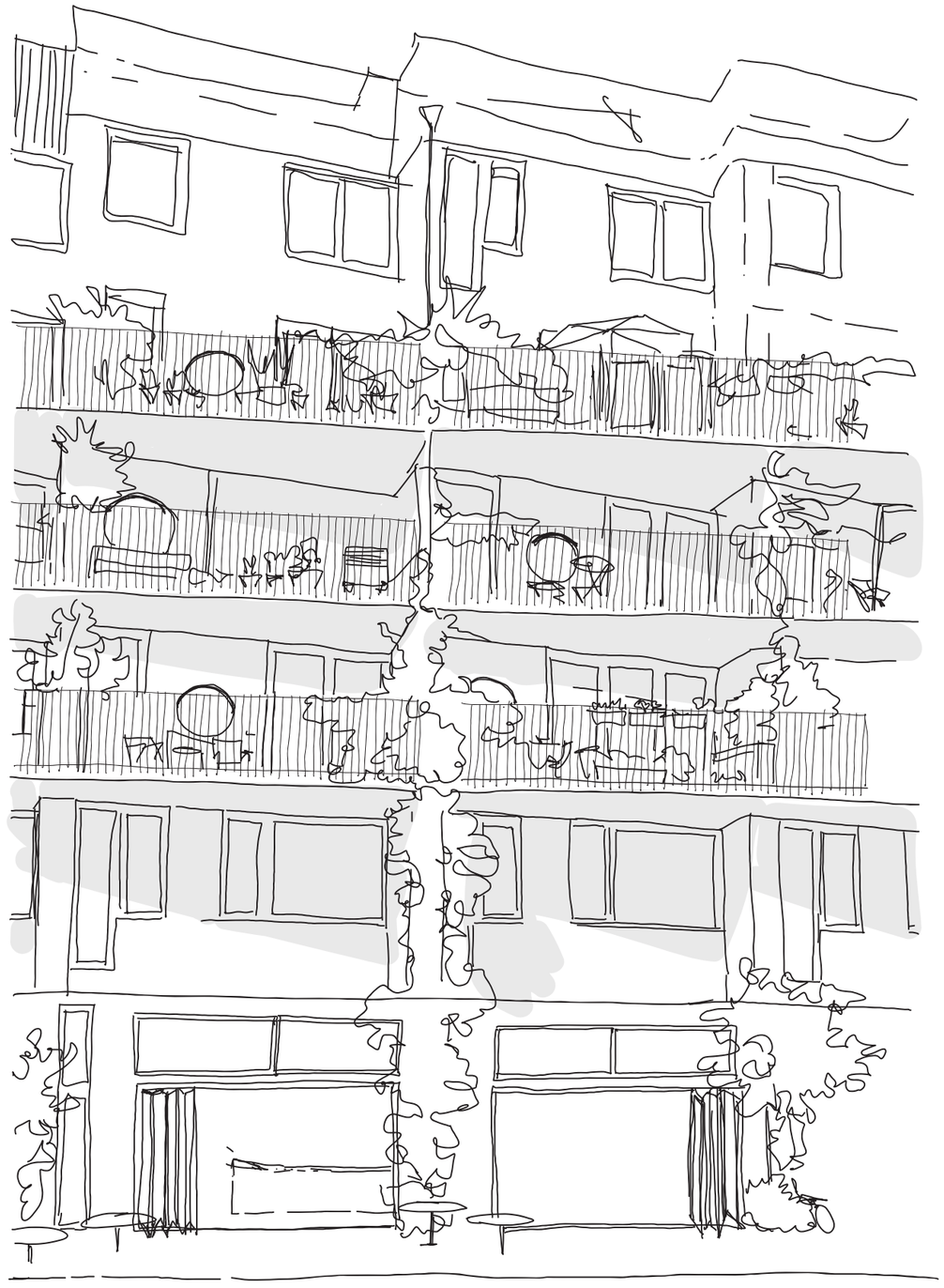
- Contemporary Dutch Street

Amsterdam's densification policy (Omgevingsvisie) promotes compact, high-density housing but risks anonymity if micro-scale thresholds are ignored.

Dimensions of sidewalks, street widths, and greenery are crucial for comfort and encounter.

- Building Block Challenges

Galleries and corridors, when designed only for circulation, foster withdrawal and neglect.



Plinths, if inactive, create dead streets; if activated, they generate vibrancy.

Collective courtyards succeed when they provide sub-spaces for ownership and fail when responsibility is diffuse.

- Design Principles

Seven principles emerged: human scale, ownership, interaction, greenery, layering, contextual adaptation, and flexibility. These together form a framework for integrating transition zones into large blocks.

Contribution

The contribution of this research lies in reframing transition zones not as incidental byproducts but as architectural and social infrastructures. By combining historical, theoretical, and empirical insights, it offers a structured framework for embedding transition zones into high-density housing. This framework is particularly relevant for Amsterdam's future developments, where the challenge is not merely to build more, but to build better.

Implications for Amsterdam and Strandeiland

Amsterdam's Strandeiland represents both an opportunity and a risk. As a new artificial island with ambitious density targets, it can either repeat the mistakes of earlier mass housing or become a model of livable density. The integration of well-designed transition zones will determine which path it takes.

At Strandeiland, the differentiation of edges (boulevards, residential streets, park fronts, and interior façades) offers opportunities to tailor thresholds to context. If realized thoughtfully, the stoop's legacy can be reinterpreted for the 21st century, producing a new urban vocabulary for high-density housing that is socially rich and spatially resilient.

Transition to Research by Design

This written research forms the foundation for the second part of the graduation project: research by design. The next phase will test the identified principles through architectural proposals for a housing block on Strandeiland. This process will involve:

- Spatial Experimentation: Developing block typologies and façades that integrate appropriable thresholds.

- Design Testing: Translating theoretical principles (human scale, ownership, interaction) into concrete design elements.

- Iterative Reflection: Using design as a method of inquiry to refine and challenge the theoretical framework.

By bridging theory and practice, the research by design phase will not only validate but also expand the findings of this paper, offering architectural strategies that can inform both academic discourse and real-world housing development.

Final Reflection

The story of the stoop reminds us that architecture is never neutral: the smallest threshold can shape how people see, greet, and care for one another. As cities densify, these micro-spaces become even more critical. Transition zones, when well designed, can transform anonymous housing into neighborhoods of belonging.

The future of Amsterdam's housing lies not only in numbers but in the quality of the spaces between home and street. By rediscovering the stoop's lessons and reimagining them for high-density blocks, architects can ensure that the compact city remains not only efficient, but also human.

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appendix

Reflection

This reflection evaluates the process, methods, and preliminary outcomes of my graduation project Living with the Street – Transition Zones Between Home and Public Realm in High-Density Housing.
Across the graduation semester, the project has unfolded as a continuous interaction between research and design, in which theoretical insights about transition zones informed spatial experimentation, and emerging design challenges generated new research questions.

The purpose of this reflection is to show:
- whether my chosen approach worked,
- how and why specific methods were successful or insufficient,
- how feedback from mentors shaped the project,
- how I learned from my own design iterations,
- and how the final part of my graduation will be filled in.

Relation to the Master Track and Programma

My thesis bridges the broader frameworks of Advanced Urban Housing, the Architecture track, and the MSc AUBS (Architecture, Urbanism and Building Sciences) programme:

Within Architecture, the project reflects the discipline's responsibility to translate social, cultural, and spatial theories into built form.

Within Urbanism, it addresses the complexity of densifying Amsterdam under policy frameworks like Omgevingsvisie 2050.

Within AUBS, it relates research and design in a cyclic, mutually reinforcing process.

The theme of transition zones sits precisely at the intersection of these fields: it is architectural in form, urban in impact, and societal in purpose.

Reflection on the Approach: How and Why It Worked

Research Methodology:
My methodological structure—literature review, historical analysis, site research, case study comparison, and design principle formulation—proved effective for several reasons:

1. Historical research provided conceptual depth.
The rediscovery of the Dutch stoop, its cultural meaning, set the beginning.
2. Theoretical grounding in Jacobs, Hertzberger, Gehl, Van Eyck, Alexander, and De Stoep offered a strong conceptual base for evaluating transition spaces.
3. Analytical site research on what was written about Strandeiland allowed the theory to connect with local conditions and planning realities.
4. Case study comparison highlighted recurring problems—monotonous galleries, weak ownership, inactive plinths—and provided concrete technical precedents.
5. Design principles emerged naturally from the research rather than being imposed prematurely.

Overall, the approach did work: each research method enriched the next, creating a layered understanding that was directly applicable to the design phase.

Limitations of the Approach
Several challenges emerged:

- The historical and theoretical research was extensive, but translating abstract concepts like "ownership" or "in-between space" into measurable design parameters was initially difficult.
- Some research questions only became visible during the design process, requiring iterative return to literature or case studies.

Despite these limitations, the cyclical method—moving back and forth between research and design—allowed the project to evolve constructively.

Influence of Research on Design and Vice Versa

This project intentionally placed research and design in dialogue. Key examples:
Research > Design

- The stoop as a historical threshold informed the design of semi-private zones along quiet residential streets.
- Gehl's human-scale distances influenced street widths, balcony depths, and façade articulation.
- Alexander's layering of thresholds informed the private > collective > street gradient across the block.

Design > Research

- Exploring block massing revealed practical conflicts between density and permeability, prompting further study on interstices and porous blocks (group work).
- Gallery design issues forced deeper analysis of shared responsibility and ownership in literature.
- The desire for an active, socially engaging plinth led to additional interest and research on mixed-use programs and public-private interfaces.

Reflection on Feedback From Mentors

Feedback from my mentors helped in sharpening both research and design.
Key feedback themes:

1. Make the concept spatial
I was encouraged to continuously translate conceptual ideas about transitions into concrete spatial strategies. This pushed me to move from abstract principles to measurable dimensions.
2. Use your conclusions
I was advised to actually use clear conclusions from my thesis and implement them in the design.

Reflection on my way of working

My approach combined analytical thinking with iterative design exploration.
- Theoretical grounding, which gave depth to the design decisions.
- Consistent documentation and diagramming, allowing clear communication of ideas.

Challenges included:
- Difficulty in early stages to simplify complex theoretical material into design tools.
- Time spent revisiting earlier choices when new insights appeared. However, these challenges were also learning opportunities.

Academic and Societal Value of the Project

Academic Value:
- The project contributes to discussions about livable density and urban thresholds.
- It integrates historical, sociological, and architectural theories into a practical design framework.
- It treats transition zones as an architectural system rather than incidental leftovers.

Societal Value:
In the context of the Dutch housing crisis—and Amsterdam's densification strategy—this project shows that:
- Large housing blocks can be dense and humane.
- Social interaction and ownership are not luxuries but essential to resident well-being.
- Transition zones can combat anonymity by fostering everyday micro-interactions.

Ethical Considerations
The project addresses:
- Safety through natural surveillance
- Psychological comfort via gradations of exposure
- Community-building rather than isolation

Value and Transferability of the Project

The strength of the project lies in its transferable framework:
- The design principles apply to other densification sites in Amsterdam (Sloterdijk, Schinkelkwartier, Amstelkwartier).
- They can be adapted to different block sizes, climates, and cultures.
- The threshold layering system could guide policy, urban design, or façade design independently.

The project does not propose one architectural form but a method for designing transition-rich housing.

The last part of the Graduation Phase

The second part—research by design—will apply the findings to a complete architectural proposal for a residential block on Strandeiland.

Planned next steps:
1. Cohesion

Compile all the findings and creations into one final presentation
2. Model-making and spatial testing

Physical and digital models to test transitions at human scale.
3. Final synthesis

A complete architectural design supported by diagrams, sections, and detailed transition zones.

Final Reflection

This graduation project has reinforced a central insight:

Architecture lives in its thresholds. Between the private interior and the public street lies the realm where people meet, observe, negotiate, and belong. Transition zones—whether stoops, galleries, plinths, or courtyards—are small in size but much bigger in social impact than we would think.

As Amsterdam densifies, the challenge is not only to build more housing but to build better housing. This project aims to show that large building blocks can host moments of warmth, identity, and encounter if their thresholds are thoughtfully designed.

The last weeks will focus on turning these ideas into presentable architecture—bridging research and reality to propose a building that embodies livable density, meaningful transitions, and everyday urban life.