

The Potential of Circulation Spaces in Collective Housing

PART 1



2025, Adrien Fleischer

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The Potential of Circulation Spaces in Collective Housing

PART 1

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Abstract

The distribution system in collective housing is often reduced to its utility function. Due to safety requirements and economic constraints, they are designed as a simple passageway element, minimizing their architectural value and their potential contribution to the residents' quality of life. These spaces, which often cannot be monetized, are forgotten and do not fully exploit their potential to create neighborly relationships and reinforce a community. Yet in a society where the traditional family model is diversifying, forms of collective living are being redefined, opening the way to increased demand for flexible, user-friendly spaces within collective housing buildings.

In this context, this research explores the potentiel of circulation spaces and the tension between fortuitous communal spaces, generated by the distribution to access intimate space, and the chosen communal spaces that result from the building's planning. The potential qualities of distribution spaces in collective housing and their impact on social interactions and the possible appropriation by residents of these incidental spaces is being questioned. By analyzing several buildings using different types of distribution - such as the core, the passageway, the rue intérieure and hybrid configuration - this work aims to demonstrate how these spaces can go beyond

their function of simple circulation to become pleasant places of exchange and community life. The aim is to understand how these typologies influence neighbourhood relations and encourage the emergence of a sense of community.

By comparing eight buildings according to predefined criteria, this research highlights the architectural and social features that contribute to the attractiveness of these spaces. In particular, it examines how distribution can offer spatial qualities in favor of conviviality, meeting the contemporary expectations of residents for collective spaces that are integrated into their daily lives. This study suggests that the design of communal housing should no longer be seen as a simple functional element, but as a catalyst for social interaction and a tool for improving residents' well-being.

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Introduction

The distribution system in collective housing is not just limited to access to the dwellings, but also provides an essential framework for relations between residents. The neighbourhood can be seen as the smallest scale of involuntary interactions that structure urban space. Urban density gives collective housing a role of intermediary scale between the individual dwelling and the city.¹

In this context, distribution spaces play a central but often underestimated role. Historically designed to serve utilitarian functions such as simply giving access to flats, these spaces can nevertheless go beyond their simple status as passage zones. They represent a unique opportunity to introduce moments of conviviality and sharing into the collective residential environment.

Collective housing, initially defined as “*housing that features spaces and facilities for joint use by all residents who also maintain their individual household*”,² represent the majority of modern urban dwellings. The contemporary norm of shared spaces, lifts, staircases, entrance halls or rooftops, however, reveals a paradox between the need for these spaces and their under-exploitation as key drivers for collective life. These areas, described as transitional, are simultaneously public and private, in an ambiguity that reflects their power to transform. They are part of the ‘home’ while still being the outside world.³

1. Moley, Christian. *Les abords du chez-soi : en quête d'espaces intermédiaires*. Paris: Ed. de la Villette, 2006. p.155

2. Kathryn M. McCamant, Charles R. Durrett, “Cohousing in Denmark,” in Karen A. Franck, Sherry Ahrentzen (editors), *New Households, New Housing* (Van Nostrand Reinhold: New York, 1991), p.3

3. N. Haumont, H. Raymond and A. Haumont (ISU), *La Copropriété*, Paris, Centre de recherches d'urbanisme, 1971, p.115

In addition, the creation of social moments within distribution spaces can meet a dual objective: reducing costs by optimising shared spaces and improving residents' quality of life. These spaces can become spaces that bring people together, allowing residents to appropriate them and reinforcing a sense of community. *“Parmi les questions que pose l’habitat, les espaces situés entre la sphère privative du logement et le domaine public sont à l’ordre du jour”*.⁴

The boundary between city and housing is becoming increasingly blurred, revealing unique opportunities to bring the city into the home, transforming distribution spaces into vectors of social interaction. The aim of this study is to reposition distribution spaces at the core of the design of collective housing, not as functional elements, but as architectural tools capable of promoting well-being and community life.

4. C. Moley. *Les abords du chez-soi : en quête d’espaces intermédiaires*. Paris: Ed. de la Villette, 2006. p.5

Methodology

This work is divided into two distinct volumes that are interconnected and complement each other.

The first part is this volume and begins with a historical overview of distribution in communal housing, exploring how they have evolved over time and the different theories that have enriched research on distribution spaces and neighborhood relations. This is followed by a focus on the four different distribution typologies that can be identified in housing buildings. It then discussed eight selected buildings that exemplify the degree of neighborhood interaction they foster and the potential for appropriation by their inhabitants, analyzed through several filters.

The second volume is dedicated to drawings and images that illustrate the communal identity emerging from these buildings. Each building is presented with an image of the entrance, followed by a floor plan highlighting the circulation spaces. On the opposite page, a plan illustrates the friction between the distribution spaces and the communal areas of the building. This is followed by an axonometric drawing of the building's skeleton of distribution. In blue, circulation spaces are marked where fortuitous encounters may occur, and in red, communal spaces dedicated to the inhabitants are highlighted, such as laundry rooms, multipurpose rooms, roof terraces, and

others. It concludes with a drawing showing how inhabitants appropriate the circulation space outside their front doors, extending their private spaces into the communal areas.

Research Question

Despite their primary utilitarian function, how can distribution spaces generate collective living spaces and foster a degree of appropriation by the inhabitants of collective housing buildings? Additionally, how do the tension and paradox between fortuitous encounters facilitated by distribution spaces and the deliberate communal areas planned within the building contribute to creating an enriching neighborhood environment?

HISTORY AND CONTEXT

The genesis of collective housing

Over the 19th century, collective housing buildings developed quickly to accommodate the growing population and the workers who had to feed the factories due to the Industrial Revolution. However, the idea of efficiency, speed and healthiness resulted in small distribution spaces with little interest. But some architects and engineers like Emile Cheysson (1836-1910) and others, question this new working-class habitat and the lack of community ideas that could improve those worker estates. E. Cheysson describes these new neighbourhoods as *“cités ordinaires, qui ressemblent à des casernes ou à des couvents et qui ont l’air de parquer les ouvriers dans un quartier à part, comme dans une sorte de “ghetto”*⁵

He observed that dark, badly illuminated staircases are more dangerous at night than on the public street.⁶ This is why he proposed new suggestions, starting by recommending that the building be accessed by several staircases to eliminate the long, unhealthy and dark corridors, which create a “dangerous” proximity by the inhabitants. Each landing should only give access to two or three flats, and these corridors should also be hygienic, so he proposed making them open-air and well-illuminated. Through this reflection, he touches on the question of the threshold, describing these more intimate stairwells as the extension of the threshold towards the

5. Emile Cheysson,
*La question des
habitations ouvrières en
France et à l'étranger*,
Paris, 1886, p.64

6. idib. p.14

7. E. Cheysson,
*le confort du logement
populaire*,
1904, p.254-271

public street and the illusion of a “chez-soi”, and thus the premise of an intermediary space between the public and the intimate. As well as rethinking the distribution of working-class housing, Cheysson also raised the question of community, which in his vision, translates with the use of courtyards to allow children to play in safety, and he also imagined other facilities that would complement the dwellings, such as communal areas that would reinforce the links between tenants.⁷

The Cité Napoléon, built between 1849 and 1851 to accommodate the working-class population of the 10th Paris district, is a remarkable example of a rethink of the working-class housing estate that responds to the need for density within the city of Paris and with a good quality of circulation space. The reflections on staircases and thresholds resonate with the innovative design of this building by the architect Marie-Gabriel Veugny. The building in a four-story rectangular block surrounding a central rectangular courtyard, which serves as a communal space for the residents.

The structure was a four-story rectangular block surrounding a central courtyard with a glass roof, which served as a communal space for residents and provided natural light to the space. Circulations are made of gateways and passageways overlapping and creating an all-network. The residents of the upper floors do actually open their windows onto this interior

space, and the presence of potted plants at least shows that the people care.⁸



8. H.Hertzberger,
*Lessons for Students in
Architecture*,
4th revised edition.
Rotterdam: 010
Publishers, 2001, p.39

Fig.1 Passageway of the
Cité Napoléon

This working-class housing estate is inspired by an older utopian concept that comes from the phalanstery model imagined by Charle Fourier in the 19th century, and in particular his concept of the 'rue-galerie', which characterizes the circulation within the phalanstery, combining functionality with a pleasant place for meeting and socializing thanks to its natural light and comfortable dimensions. This concept prefigures some distribution types used in modern architecture, such as interior passageways, rue intérieure, and atriums. In fact, Fourier's 'rue-galerie' is much more than a functional space; it is a place designed to embody his ideal of social harmony and to transform movement into interaction.

This utopian building not only introduced innovative approaches to distribution types but also laid the roots for modern collective housing. It combined individual apartments with shared spaces for conversation, reading, and dining, making it a pioneering model and the genesis of collective habitation in Europe. Jean-Baptiste André Godin used this concept to develop the emblematic Familistère de Guise between 1859 and 1884.⁹

9. Kathryn M. McCamant, Charles R. Durrett, "Cohousing in Denmark," in Karen A. Franck, Sherry Ahrentzen (editors), *New Households, New Housing* (Van Nostrand Reinhold: New York, 1991), p.47-48

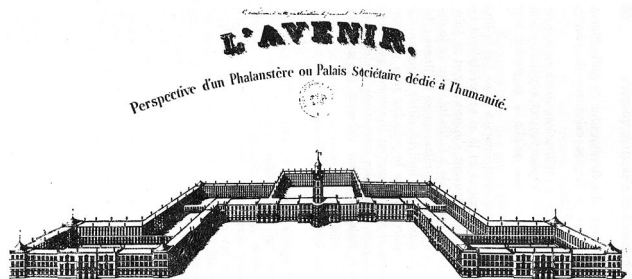


Fig.2 The Phalanstery
by Charles Fourier in *La
Phalange*

Between functional rationality and the dream of conviviality

The interwar period marked a major transformation in architectural and urban approaches. Driven by the response to the housing crisis caused by the war, it led to a boom in social housing and the development of new construction practices. Facing emergency and economic constraints, the quest for efficiency generated uniform projects, often inspired by Taylorism, which architects justified by an egalitarian movement,¹⁰ which could be highly debatable.

These new buildings applied principles of industrial efficiency that favoured standardisation, with rational plans following a uniform logic, in line with functionalist thinking. This movement was part of the principles set out in the Charte d'Athènes (1933), which promoted the separation of urban functions, with streets differentiated according to their purpose: residential streets, promenade streets, transit streets.¹¹

However, this quest for rationality often results in the abandonment of transitional spaces, which are essential for promoting social interaction and quality of life for residents. At the same time, models such as garden cities tried to balance this functional uniformity with more humane forms of housing, but which sometimes turned out to be more oriented to growing individualism. On the other hand, modernist experimentation, such as Le

10. B. Marchand, C. Joud.
*Mix : mixité typologique
du logement collectif
de Le Corbusier à nos
jours*. Lausanne: Presses
polytechniques et
universitaires romandes,
2014. p.11

11. La charte d'athènes,
CIAM IV, 1933

Corbusier's immeuble-villa and Sauvage's immeuble à gradins, attempted to reinvent collective housing with a more social vision of building. Although controversial, these experiments were essentially designed for the upper middle classes.

However, with the emergence of modernist ideas, shared spaces were questioned and discussed as a central aspect of architectural projects. It was in particular with the research carried out by certain Soviet avant-garde architects on the Dom-Kommuna, an architectural and sociological concept developed in the Soviet Union between 1920 and 1930 that reflected the ideas of communism. The concept supports the idea of maximizing shared space while maintaining a private life.¹² Residents have a minimal private space but have bigger communal spaces. One example is the Narkomfin building (1928-1930) by Moisei Ginzburg and Ivan Milinis, which uses corridors for circulation, both inside and out,

12. Pier Vittorio Aureli,
*Domestic space in the
20th century*, Course 6,
Architecture Section,
EPFL, Autumn Semester
2024



Fig.3 East Facade,
Narkomfin Housing

and the first spaces dedicated exclusively to communal living.¹³

It's undeniable today that Le Corbusier was aware of the events happening on the Soviet scene, as Jean-Louis Cohen has shown: *"il y trouve en effet le numéro de Sovremennaja Arhitektura contenant le résultat du travail de recherche engagé par le Strojkom à la fois sur les différentes pièces et sur les types de logements susceptibles de former les maisons communes"*.¹⁴ He left Moscow with Narkomfin's plans and all the theoretical research. He took inspiration from them for his extreme rationalisation of distributive space and optimisation, for example in the unité d'habitation, where he primarily attempts to maximise living space. He did, however, use the 'rue intérieure' as a space for meeting and social life.

13. B. MARCHAND, C. Joud. *Mix : mixité typologique du logement collectif de Le Corbusier à nos jours*, 2014. p.21

14. COHEN, Jean-Louis, *Le Corbusier et la mystique de l'URSS*, 1987, p.154



Fig.4 Aerial view, Unité d'Habitation de Marseille

In 1928, the creation of the International Congress of Modern Architecture (CIAM), with the participation of visionary architects such as Le Corbusier, Walter Gropius, Mies van der Rohe and many others, marked a fundamental step in the evolution of 20th-century architecture and urbanism, reaffirming its four primary functions: to circulate, to inhabit, to work and to recreate. These annual congresses, which continued until 1959, served as an opportunity to promote the principles of the modern movement.

A key moment in this organization was the writing of the Charte d'Athènes in 1933, which established the CIAM's fundamental ideas on urban planning, in particular the separation of the four urban functions set out earlier. These principles had a huge influence on post-war urban planning policies and architectural practices, although they were sometimes criticised for being too uniform and failing to take account the local context. The CIAM was a controversial attempt to rethink the way in which human beings lived together, by integrating modernist values into the design of space. From the time of the Aix congress in 1953 onwards, certain architects began to move away from the overly rigorous principles of the Charte d'Athènes, and began to address more humanist and social questions.¹⁵

15. MOLEY, Christian, *Les abords du chez-soi, en quête d'espaces intermédiaires*. 2006, p.158

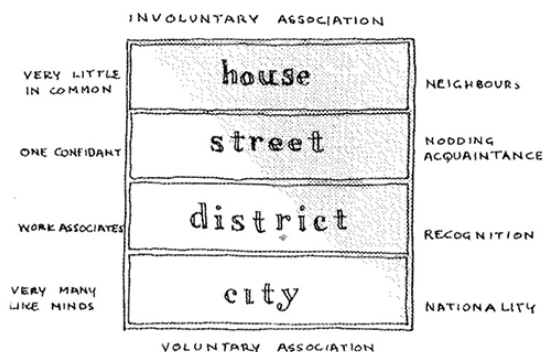


Fig.5 Scale of Association
Diagram, A. & P. Smithson

The intention of those younger members was to rejuvenate CIAM, but instead, a generation conflict started. The result was the secession of a group of architects called Team Ten at the CIAM congress of 1953 in Aix-en-Provence. They had three main criticisms of the CIAM: the rejection of the functionalism of the Athens Charter and its principle of strict separation of functions, the lack of human scale, and the ignorance of social relations and intermediate spaces in favour of an overly mechanical and universal approach.”*In most cases the grouping of dwellings does not reflect any reality of social organization, rather they are the result of political, technical, and mechanical expediency.*“¹⁶

They emphasise the importance of social relations and architecture as tools for structuring communities.¹⁷ These architects, such as Aldo van Eyck, Alison and Peter Smithson, Jaap Bakema, Giancarlo De Carlo

16. Alison Smithson,
*The Emergence of
Team 10 out of C.I.A.M.*
(London, 1982), p.8

17. Heuvel, Dirk van den,
*Team 10, 1953-1981 : In
Search of a Utopia of the
Present.*
Rotterdam: NAI
Publishers, 2005.
p.13

18. MOLEY, Christian,
*Les abords du chez-
soi, en quête d'espaces
intermédiaires*. 2006,
p.112

19. idib. p.118

and many others, are united by the conviction that human relationships must be taken into account when designing housing. The questions that occupied Team 10 are still relevant today, even if the answers are often different now.¹⁸

We also find this investigation of social relations within housing buildings in the work of Alison and Peter Smithson, who questions the functional rationality of collective housing, and proposes a more humanistic approach to it. According to them, relationships are linked to architectural arrangements, and are mediated by the street. This is why, in their Golden Lane Housing project (1951-1952), presented at the Aix-en-Provence congress, they imagined the 'streets in the sky', a passageways which became an outdoor place for socializing, encouraging the emergence of new forms of neighbourliness.¹⁹ The main street leading to the flats was designed as an element of playfulness for human association. The construction of Robin Hood Gardens housing estate did not begin until 1966. The building system allows for a wide variety of housing types, from homes for the elderly to houses for families of different sizes.

This diversity of typology answers a new problematic of the 1960s. As traditional nuclear families become a minority, and single individuals, single-parent households, and young childless couples are raised, the need for diverse apartment types is a necessity.

Collective habitation is particularly well-situated for those new types of households. The moderate-size collective houses with then be established into 60 to 100 dwelling units which is certainly not the case in the Robin Hood Gardens.²⁰

Perhaps that's why we will gradually see the failure of this building. Those very long linear buildings with their walkways on one side of the building are lacking considerably in human scale and threshold, and that's what didn't convince the inhabitants. The spaces the Smithson had imagined and the 'street in the sky' didn't generate a social space appropriate to the relationship between neighbours and the appropriation of the circulation space by its inhabitants. It was the size of this endless corridor that made it impossible to generate different scales of social space, and it was demolished in 2017.²¹

20. Kathryn M. McCamant, Charles R. Durrett, "Cohousing in Denmark," in Karen A. Franck, Sherry Ahrentzen (editors), *New Households, New Housing* (Van Nostrand Reinhold: New York, 1991), p.69

21. MOLEY, Christian, *Les abords du chez-soi, en quête d'espaces intermédiaires*. 2006, p.121

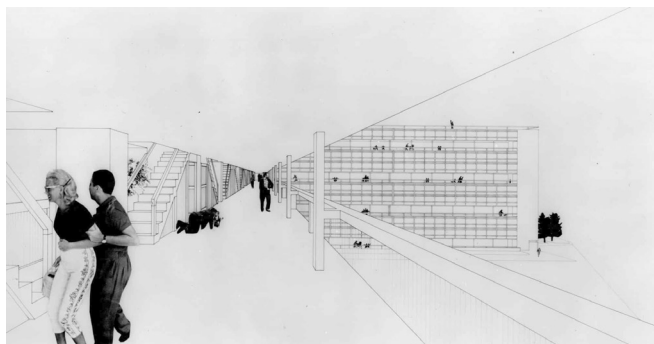


Fig.6 A. and P. Smithson, 'street-in-the-air' collage for the Golden Lane Housing project, 1953

22. Heuvel, Dirk van den, Max Risselada, Nederlands Architectuurinstituut, Team, Nederlands Architectuurinstituut, Team, and Dirk van den Heuvel. *Team 10, 1953-1981 : In Search of a Utopia of the Present*. Rotterdam: NAI Publishers, 2005. p.332

23. idib.

24. Behm, Maaike, and Herman Hertzberger. *Hertzberger's Amsterdam*. Amsterdam: ARCAM/Architecture & Natura Press, 2007. p.110

25. Hertzberger, Herman. *Lessons for Students in Architecture*. 4th revised edition. Rotterdam: 010 Publishers, 2001, p.32

Another interesting member of the Team Ten, is Herman Hertzberger. Even if he only went to two meetings of the team, he describes himself as “much more a product of Team Ten than a participant.” in an interview with Clelia Tuscano in 1991.²² From 1970 to 1999 he was a professor in Delft where his renowned Lesson for Students in Architecture brings together most of his teachings. One of Hertzberger’s main concerns is that buildings should offer more opportunities than the initial purpose for which they are built, and that architects should conceive of buildings as *instruments played by people*.²³ He did a lot of research about the city, social interaction, the question of threshold, how is the public domain, the appropriation by the people, and he considers “the city as a communal living room”.²⁴

In his projects, he will pay great attention to how the housing cells are accessed and a great concern for the neighborhood relations. He often uses surfaces adjacent to the dwelling, which encourages the inhabitants to appropriate them. He questions the relationship between the street on the one hand and a private domain on the other, and makes sure that the distribution infrastructure becomes a favorable place for encounters.²⁵

In the project of Weesperstraat Student Accommodation, built between 1959 and 1966, Hertzberger built a gallery-street on the fourth floor which can be seen as a prototype of a living street. Free from traffic and with a

good view of the city. The inhabitants are safe up there, and even the children can play.²⁶ To make this circulation space a living space, Hertzberger illuminated the passageway with large concrete light blocks. The primary function of of this block is certainly lightning, but its form, their place, and the people crossing it, it offer opportunities for a variety of uses, such as sitting, dining, playing, and working, to the imagination of the inhabitants. They are a small intervention magnetic for spontaneous improvisation of the space.²⁷

26. idib., p.55

27. idib., p.153



Fig.7 Picnic on the light blocks in Weesperstraat

The history of distribution spaces in collective housing highlights a tension between their utilitarian function and their social potential. Initially designed as places of simple transit, their architectural and humanistic dimension gradually emerged through experiments and innovations that responded to the social and urban needs. Although some projects have made significant progress by integrating gathering and exchange spaces, others have emphasized a strictly functional approach, sometimes sacrificing residents' quality of life in favor of economic and spatial optimization.

Today, in a context of urban densification and diversification of family forms, distribution spaces find themselves at a crossroads. They are no longer seen simply as secondary elements, but as opportunities to enrich collective life, reinforce the sense of belonging and re-shape the relationship between the individual and the collective. This shift opens the way to a renewal of the typologies, uses and spatial qualities that characterize today's collective housing projects. But before we take a closer look at the buildings that demonstrate the potential of such spaces, let's first look at the different types of distribution used in collective housing today.

DISTRIBUTION TYPES

There are many different ways of distributing a building project. In the process of my research, I identified four main types, which are discussed here, along with the qualities they bring and the challenges they imply.



the Core

The first type of distribution observed is the core. Often used to save space and cost, this type of layout often only serves 2 or 4 dwellings per landing. With more than eight apartments, developers feel that the common areas are becoming too much of a nuisance, so they tend to use multiple cores to serve as many apartments as possible. This type of distribution can generate walk-through dwellings, but if it's used to save money, the dwellings will never be walk-through, and will often be mono-oriented, which can be a lack of quality.²⁸

At first, this type of distribution was naturally lit, and designed as light towers, acting as facade ornaments, but a tendency to enclose the core in the center of the building and remove natural lighting for economic reasons has defined the way we imagine central circulation cores today.²⁹ In spite of this, staircases are gradually being lit up again, to add quality to these spaces, as in the Mehr als wohning building or the Hammerstrasse, which we'll be

28. Arnold, Françoise. *Le logement collectif : de la conception à la réhabilitation*. 2ème éd. revue et Augmentée. Paris: Le Moniteur, 2005. p.44-47

29. Eleb, Monique, et Monique Eleb. *Les 101 mots de l'habitat à l'usage de tous*. Paris: Archibooks et Sautereau éditeur, 2015, p.59

discussing in more detail later. Today, the use of the elevator also allows great accessibility for all people and at all levels. It's true that when it was introduced in multi-family housing, this device allowed equalized rents for all floors.³⁰

But this type of distribution can be criticized for not being beneficial to the quest for sociability. Even though, you may be closer to your next-door neighbors, you don't know the neighbors who use another stairwell in the same building.

the Passageway

When you choose to move the circulation out to the facade, you're faced with a new type of distribution: the passageway. Originally designed for military barracks, hospitals, monasteries and prisons.³¹

The corridor is gaining in popularity and is used more and more as a distribution system in collective housing. This type of access is ideal for distributing a large number of apartments on the same level, minimizing vertical circulation. It's efficient and flexible in its design, and apartments can easily be light and transverse, thanks to the building's low height. The passageway is also an interesting feature because it creates a collective dimension, if used in a courtyard block type building for example, where the courtyard becomes totally collective.

30. Kathryn M. McCamant, Charles R. Durrett, "Cohousing in Denmark," in Karen A. Franck, Sherry Ahrentzen (editors), *New Households, New Housing* (Van Nostrand Reinhold: New York, 1991), p.43



31. C. Moley, *L'immeuble en formation, genèse de l'habitat collectifs et avatars intermédiaires*, Liège, Mardaga, 1991, p. 96-101

32. Arnold, Françoise.
*Le logement collectif :
de la conception à la
réhabilitation*. 2ème éd.
revue et Augmentée.
Paris: Le Moniteur, 2005.
p.44-47



33. idib.

34. BORSI, Katherina,
EKICI, Didem, HALE,
Jonathan, & HAYNES,
Nick (Eds.). (2022).
Housing and the City (1st
ed.). Routledge, p.216

35. Sbriglio, Jacques.
*Le Corbusier : L'Unité
d'habitation de Marseille
et Les Autres Unités
d'habitation*, 1st ed. Basel,
Birkhäuser, 2004,
p.69

The passageway can be attached to the facade, or set back to create more or less private space, appropriable by the occupants. Nevertheless, it can sometimes be difficult for residents to live comfortably, as the facade over the courtyard needs to be well designed to avoid intimacy problems. Furthermore, with circulation in the open air, distribution is subject to bad weather.³²

the Rue Intérieure

When the number of dwellings on a given floor becomes too high, and circulation needs to remain inside the building, a corridor is required.³³ This is the “Rue Intérieure”, as Le Corbusier theorized and implemented in the unité d’habitation. This central street provides a horizontal circulation that generates fortuitous encounters due to the large number of people using it, served by one or more vertical circulations. This street can easily become a public domain for residents, as it is used by a large number of people.^{34 35}

Even so, this type of distribution cuts the building in two, making it impossible to have walk-through apartments. But when combined with the use of duplex apartments, this constraint can be avoided and even bring other qualities to the apartments.

The Hybrid



The hybrid distribution type is a combination of two or three types of distribution described above. Thanks to this combination, it's easier to generate a typological mix of dwellings, and therefore a mix of neighborhood intentions. It can also generate a multiplicity of possible paths to reach an apartment. If, for example, an interior street is associated with several cores, the inhabitants could use different ways to go home. Even though we know that residents will always tend to use the quickest way to reach their apartment.

On the other hand, it can easily become a labyrinth if the juxtaposition of distribution types is unclear, but it can also be a great benefit. It can also be a type that requires more space than other types of distribution, so the ratio of surface area is not necessarily optimized from an economic point of view.

NEW PERSPECTIVE ON DISTRIBUTION

The distribution of space, often perceived as purely functional and determined by the norms that regulate it, can be rethought. In this chapter, we analyse how certain contemporary architects have succeeded in enriching these space by increasing its community potential and its appropriation by the users. The discussion begins with a brief explanation of the eight case studies, followed by an analysis conducted through various analytical filters applied to the selected projects.

The first filter, Dimension of Space, examines the measurements of circulation areas such as the entrance hall, and the number of apartments per landing. The second, Accessibility and Safety, considers how a sense of security in the dwelling can encourage inhabitants to leave personal belongings outside their front doors. The third filter, Quality of Space, focuses on features that encourage people to spend time in these areas, such as natural light and visual connection. This is followed by the Appropriation by Inhabitants, which examines how residents personalize and take ownership of these spaces. Finally, the last filter explores the connection between Circulation and dedicated communal spaces, investigating how circulation areas integrate with spaces explicitly designed for collective use.

I invite you to consult the second part in parallel, which presents all the graphic elements and pictures that support this discussion.

Introduction to the case study



Hammerstrasse

The Hammerstrasse project, designed by Diener & Diener between 1978 and 1981, is characterized by its 6-core distribution in the central part of the building, and 2 cores that cut through the building with a glass roof at either end. This system is based on a central stairwell with natural zenithal light, serving two or 4 apartments per level. The private spaces of the apartments, mainly facing the street, benefit from a certain privacy thanks to the more closed facades. In contrast, communal spaces and outdoor extensions, such as winter gardens and balconies, open generously onto the central courtyard, fostering interaction between neighbors and a sense of community.

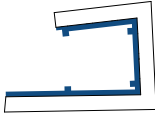
The distribution design also reflects careful attention to urban and social contexts. The central courtyard, accessible and lively, contributes to the building's collective dynamic. The project demonstrates how a central core distribution can integrate functional and social qualities. The stairwells are all walk-through, giving direct access to the street or courtyard. On the top floor, access to a roof terrace available to all offers a communal living space for the residents.

Mehr als Wohnung



The project Mehr als Wohnung by Duplex architekten, built in Zurich in 2015, is a plot building with a central circulation core illuminated by a beautiful zenithal light. It has 6 stories, and each level serves 2 large flats, but as the name might suggest, the intention of this project is to go beyond purely residential units. The specificity of this project lies in the tension between coziness and privacy on the one hand, and community-building opportunities on the other. Each large flat gives access to 5 or 6 small 1- or 2-room satellite flats that share large communal spaces such as a kitchen and living room. The satellite flats represent a new form of communal living.

In addition to this new form of living, each floor shares a laundry room, and the communal spaces of the large flats have large windows overlooking the central core, which means that the circulation spaces and flats are co-visible. The circulation areas are well decorated with plants and furniture belonging to the residents, as well as some shared objects such as a piano on the ground floor, which resonates in the core for all residents.



Siedlung Brahmschhof

The Brahmschhof housing built by Kuhn-Fischer-Hungerbühler Architekten AG in 1991 in Zürich, illustrates a community-oriented residential architecture. This project continues a legacy of social care by offering a diverse array of housing and communal spaces. Organized around a courtyard, the complex integrates an old tree at the center of its communal courtyard while introducing modern architectural solutions with an exterior passageway looking into the courtyard. Helped by the accessible via a public street, a harmonious balance between private and shared spaces can be seen in this project. The common passageway can be accessed from four different stairs, that all lead to the four washrooms which are located on the roof as a social and more energy-independent meeting place where you can dry your laundry in the fresh air.

Designed to accommodate a wide range of residents including families, single parents, young people, and individuals with physical or mental disabilities, its communal facilities include space for social gatherings, as well as a public café, and facilities for children. The balcony of the inhabitant in an extension of the passageway detached from the facade, and look into the courtyard. Most of the apartments have 2 doors for entrance, the main one on a bearing for 2 apartments, and another one from the balcony.

Überbauung Hellmutstrasse



The Hellmutstrasse building by ADP architects, built in 1991 in Zurich, demonstrates a high degree of modularity in apartment layout, which can be transferred from one type to another depending on where the walls are positioned.

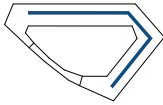
It uses the corridor as a means of distribution, with 3 separate corridors in the facade's redans, all of which connect at the top floor, where there are common terraces. The intermediate landings give access to three apartments, but these landings can be seen as extensions of the dwelling, and connect all the kitchens of the three apartments to each other, creating a small community on the same level, with leisure areas for the residents. In addition, the ground floor features a multi-purpose room for residents, as well as a creche for children. The corridors are generously planted with vegetation, with a large climbing plant running up all four levels.

Unité d'habitation



L'unité d'habitation of Marseille, designed by Le Corbusier between 1947 and 1952, is an iconic work of modern architecture. This monumental 127 meter long, 24 meter wide housing bar houses 337 duplex units, organized around an rue intérieure that promotes social interaction, with more than 50 apartments

on the same floor sharing the same interior street. In addition to the housing, the building integrates a school, a shopping gallery and an impressive roof terrace between mountain and sea. These shared spaces reflect an ambition to create a complete living environment well in advance of its time.



Kalkbreite

Situated in the center of Zurich, the Kalkbreite built in 2014 has a visionary approach to urban housing and mixed-use design. Built on top of a functioning tram depot, the project combines residential, commercial, and communal spaces. Designed by Müller Sigrist Architects for the Kalkbreite Cooperative, the building serves as a good example of integrated urban living. It proposes a public courtyard on the roof of the tram hall, with additional private gardens reserved for the residents.

The circulation inside the building is possible thanks to the “Rue intérieure,” a central corridor that loops through the structure, connects 88 apartments of varying sizes, including flexible “joker rooms” and communal spaces, fostering social interaction and adaptability for the 500 residents and workers.

Wohnen im Ehemaligen Weinlager



The Wohnhaus Weinlager residence, located in Basel's Lysbüchel district, illustrates an innovative approach to architectural rehabilitation and social organization by the architects Esch Sintzel. Designed from the existing structure of a wine warehouse, the project illustrates the transition from industrial space to residential function. The architects have preserved and reinterpreted emblematic structural elements, such as the monumental mushroom-shaped pillars, to create housing with a unique and varied character. These elements, integrated into the spatial organization, generate a typological diversity that allows spaces to be adapted to the varied needs of residents, while at the same time showcasing the industrial aesthetic.

The project is distinguished by the implementation of different distribution strategies that promote social mixing and collective interaction. A "rue intérieure", a truly social artery, crosses the building on the 3rd level, while an inhabited "rue extérieure" takes shape on the top residential floor, reinventing the corridors as meeting and sharing spaces. These circulations are completed with common spaces such as a roof terrace, communal laundry rooms and rooms dedicated to community activities, reinforcing the idea of "living together". This architectural and social model, promoted by the Habitat Foundation,

goes beyond simple housing design. It reflects a vision of accessible and inclusive housing, where common spaces and privacy levels are designed to accommodate a wide range of profiles - families, students, senior citizens or flatmates.



IBeB

The IBeB building in Berlin, by the architects Ifau and Heide & von Beckerath, built in 2018, is a mixed-use building, which includes cooperative apartments, owner occupied, and atelier and apartments for artists. The project has a circulation system that ensures exchange and propels associations between the collective of the inhabitants. At the center of the building, on the first floor, there is the “rue intérieure” that functions as a spacious, interior communal area, fed by natural light from the 2-storey atrium to the roof and with plants and benches. There is also a complex network of stairs overlapping onto another to access all the apartments. There is also another “rue extérieure” on top of the building, with a communal roof garden and a collective meeting place. In addition, at the ground floor, there is a bike parking and café and shops open to the public.

Discussion of the case study

Dimension of Space

The entrance to a dwelling, often considered a simple passage, is in fact an important element in the daily experience of communal living. Its generosity, whether in terms of space or light, plays a crucial role in the perception and use of the building as a whole. When it is qualitative, it encourages spontaneous, unplanned interaction between residents.³⁶ The entrance hall, for example, is much more than a transition between the street and the interior; it is a first impression which, consciously or not, reflects the status of the building and, by extension, of its occupants. A spacious, well-lit and carefully designed hall can transform an anonymous space into a welcoming and rewarding place. “In the hall, you already feel at home.”³⁷

As L. Wittener underlines, designing these shared spaces with care helps to promote social housing. This attention to detail, when supported by visionary architects and developers, goes beyond simple functionality: it becomes a marker of quality, of respect for those who live there, and a tool for social integration. So, in the general economy of collective housing, the generosity of entrances is not a superfluous luxury, but a necessity that testifies to a human approach to architecture.³⁸

36. Kathryn M. McCamant, Charles R. Durrett, “Cohousing in Denmark,” in Karen A. Franck, Sherry Ahrentzen (editors), *New Households, New Housing* (Van Nostrand Reinhold: New York, 1991), p.92

37. Eleb, Monique, et Monique Eleb. *Les 101 mots de l'habitat à l'usage de tous*. Paris: Archibooks + Sautereau éditeur, 2015, p83

38. Laurette Wittner et al, *de l'habitat à l'urbanité*, 1990

This is the case, for example, in the Wohnen im Ehemaligen Weinlager building, which has a generous, bright main entrance for all residents. In addition, they play with the interphone, which shows a cross-section of the building's layout, with the exact location of each apartment, to help visitors and residents find their way around the building (Fig. 7.1). This is also the case for the Kalkbreite, which uses the same interphone display system. L'unité d'habitation also has a single entrance to accommodate its 1,500 inhabitants. We can therefore imagine a high concentration of fortuitous encounters in the entrance hall, while waiting for the elevator (Fig. 5.1).

On the other hand, some buildings have no monumental or remarkable entrance. In Duplex building A, for example, the entrance door seems insignificant, confused with other service or secondary doors. (Fig. 2.1) And other buildings have no main entrance door as such, as in the Siedlung Brahmschhof, where the entrance to the heart of the block is via through porches (Fig. 3. 1). In Hammerstrasse, there is no main entrance for all residents either, due to its core circulation configuration, but the entrances are however monumental, with a double height and a porch that creates the transition between the street and the building hall (Fig. 1.1).

In addition to the importance of the entrance, which is often one of the only distribution spaces to which today's architect pays close attention, there are simply all the other spaces up to the intimate entrance that are important to size appropriately to generate spontaneous interactions among tenants. Varied corridor widths, expansions, alcoves, and materials seem to contribute to socially successful spaces.³⁹

39. Kathryn M. McCamant, Charles R. Durrett, "Cohousing in Denmark," in Karen A. Franck, Sherry Ahrentzen (editors), *New Households, New Housing* (Van Nostrand Reinhold: New York, 1991), p91

The IBeB project demonstrates how the "rue intérieure" can be used for other purposes due to its dimension and atrium. Located on the first floor, it sometimes serves as a large dining space for all the inhabitants. Thanks to the light provided by the atriums and the proximity of a significant number of apartments, it becomes a gathering place for the residents for special events like a big Christmas dinner or a neighbor's party (Fig. 8.6). The same phenomenon can be observed in other buildings with wide corridors that function as streets. For instance, in the Wohnen im ehemaligen Weinlager, children also ride bicycles on the fourth floor, where the "rue intérieure" is located. Similarly, in the Siedlung Brahmschhof, children play on the passageway, which in this case is outdoors (Fig. 3.5). In the Unité d'Habitation, where 58 apartments share the same floor and everyone uses the same elevators (Fig. 5.2), fortuitous meetings are encouraged. Additionally, large circulation spaces foster other types of socialization. In

the Unité d'Habitation, it is common to see children riding bicycles in the corridor. Being far from the actual street, they use the corridor as a substitute (Fig. 5.5).

Accessibility and safety

If we now turn our attention to the accessibility of these spaces, which play a crucial role in creating comfortable, inclusive living conditions, we can look to the work of H. Hertzberger, who has theorized this question. He said *“an open area, room or space may be conceived either as a more or less private place or as public area, depending on the degree of accessibility, the form of supervision, who uses it, who takes care of it, and their respective responsibilities. (...) the choice of architectonic motifs, their articulation, form and material are determined, in part, by the degree of accessibility required for a space.”*⁴⁰

The question of accessibility is also often associated with the feeling of whether or not one has the right to go into a space. If the space is open and welcoming, people are more likely to access it, but if it's hidden and uninviting, it's less attractive. It may also be a question of legislation.⁴¹ Creating a building that is accessible for everyone is not always a good thing for the residents. It can also create problems for residents if people neglect these spaces.⁴²

40. Hertzberger, Herman. *Lessons for Students in Architecture*. 4th revised edition. Rotterdam: 010 Publishers, 2001, p 14,19

41. Ibid. p.15

42. Josph Stübben, *der Städtebau*, Vienne, 1890, p.24

In our case, most of our case studies are in Switzerland, in large cities where it's common to have a high level of accessibility and safety. But this is not the case everywhere, as in France for example, where there are far more fences and obstacles between the street and the private domain.

The Kalkbreite project is very open and attractive, as its inner courtyard is open to the public. It's not unusual for people to come and eat lunch in the courtyard (Fig. 6.2). In the Siedlung Brahmschhof, the inner courtyard is also easily accessible, as are the passageways to the apartments. But, there's a greater sense of privacy, as the kitchens look out onto the courtyard (Fig. 3.6).

However, this easy accessibility can be perceived as a potential source of nuisance, particularly in terms of noise or lack of control over external flows, which is why rules have been introduced at Kalkbreite, prohibiting public access from 8pm onwards. This is also the case at Hammerstrasse, which used to have a courtyard open to all, but is no longer accessible, except on special occasions when the courtyard is let open to everyone. We can therefore conclude that the spaces most likely to welcome individuals from the public domain are generally the courtyards of buildings, although these require management of the tensions between openness and nuisance.

Quality of space

The quality of distribution spaces is often forgotten when creating a project, as already mentioned. But it's easy to make these spaces more pleasant with the use of natural light, color, vegetation, noble materials, or work on transparency that generates covisibility and social contact. These elements influence both their functionality and their potential to create social moments.

At Hellmutstrasse, the passageways are ornamented with large climbing plants that bring color and vegetation to the circulation, while creating a filter between the public domain and the more intimate passageway (Fig.4.1). It's a simple and intelligent choice by the architects to improve the attractiveness of this passageway. In the IBeB project, the architects have also used climbing plants, but at the level of the interior street in the alcoves (Fig. 8.5). Of course, this location is strategic, as the alcoves are naturally illuminated by the roof windows, which allow natural light to reach the rue intérieure. In addition, in this space, the apartments have windows that look out onto the atrium, creating co-visibility between the distribution space and the apartments.

This transparency between distribution and housing is also found in the Mehr als Wohnung building, where the distribution area is naturally lit by a large glass roof that illuminates all the staircases on the 6 floors (Fig. 2.4). But there

are also large glass windows overlooking the circulation from the communal kitchens of each apartment. This creates a high degree of co-visibility, but in this case, transparency isn't a problem for the resident, since they already knows they are in a shared kitchen and have already stepped out of its most intimate sphere.

In addition to the work using light and transparency, color is often used to dynamise the distribution spaces. For example, in the Esch Sintzel building, many architectural elements are covered in colours that reflect the building's former industrial function, as is the use of colour for signage within the circulation areas. Le Corbusier also used colour in the rue intérieure, especially on the flat front doors. In the Diener & Diener project, the use of a light blue colour creates an elegant atmosphere and is emphasized by the natural lighting.

Appropriation

The appropriation of circulation spaces by inhabitants depends on the balance between architectural design and user intervention. As Hertzberger observes, *"the character of these spaces is shaped significantly by who assumes responsibility for their care and arrangement."*⁴³ To help the inhabitant to engage with and personalize such areas, *"the design must provide opportunities, through adaptable forms, basic fittings, that empower*

43. Hertzberger, Herman. *Lessons for Students in Architecture*. 4th revised edition. Rotterdam: 010 Publishers, 2001, p.22

*them to address their specific needs and desires.”*⁴⁴ However, when a space becomes overly public or impersonal, it risks deterring individual involvement, rendering such provisions ineffective, and no one feels that they are responsible of pieces of furniture in the common spaces. Another aspect that sometimes makes it difficult for residents to take ownership is the fire regulations that prohibit objects from being placed on the escape ways.

44. Ibid. p.24

We notice that corridors are often spaces that can be easily appropriated by residents, although an escape way must remain accessible for fire regulation reasons. In the case of the Siedlung Brahmschhof, with the private balconies connected to the passageways, residents tend to extend their private space onto the semi-public areas. In addition, as these are outdoor spaces, there is a large amount of vegetation to decorate the circulation and encourage interaction between residents (Fig. 3.5). This is also the case on the corridor of Wohnen im Ehemaligen Weinlage on the 6th floor, where thanks to its large size, residents leave pushchairs, shopping bags, tables and plants. (Fig.7.6)

In the IBeB building, the rue intérieure is ideal for large gatherings of neighbours, such as a large Christmas meal or a neighbourhood party, which will remain etched in the memories of the inhabitants. A large table can easily be

set up for a collective meal, and its proximity to the flats' kitchens make the performance easier. (Fig. 8.6) At Hellmutstrasse, the smaller landings create proximity between the groups of flats, creating opportunities for interaction and appropriation. Residents often use these spaces for sitting, gardening, or storing their bikes. It is also the proximity of the flats' kitchens that creates this convivial space (Fig. 4.6).

In the Mehr als Wohnung building, a high degree of appropriation is already evident on the ground floor, where you'll find a piano, clothes racks, bicycles and other personal items. The central core, with its natural light and visibility, allows for decorations, plants, and even shared furniture. The communal kitchens adjacent to the circulation spaces further enhance their social use, transforming the boundaries between private and communal zones. (Fig. 2.4; 2.6; 2.7)

Integration with commun spaces

Up to now, we've mainly been talking about distribution spaces, and the fortuitous encounters they generate. But we mustn't forget that in our case studies, there are always community spaces that are programmed, such as laundries, shared terraces, common rooms, parking lots or bicycle rooms. These spaces are also likely to create encounters, but in a chosen way, and their location within the

building can also influence their attractiveness. For example, a communal space close to the entrance can easily generate small meetings between residents. This is the case with the Kelkbreite, which has a relaxation area at the building's main entrance. (fig. 6.4) This building is remarkable for the variety of spaces it offers to the community. What I mean by this is that many of the spaces are not actually living units, but also joker rooms, boxes, working rooms and terraces accessible only to the residents. In this sense, this building responds to the new way of living, by including this notion of remote working and flexibility within the building.

But the desire to bring communal spaces into the building is not limited to the present: the emergence of these spaces can already be seen in the unité d'habitation, with the shopping street at the center of the building, and also the roof terrace, gathering a large number of spaces dedicated to the community (Fig. 5.4). At Hammerstrasse, the staircaise all meet at the top floor, where there is a large terrace accessible to all residents (Fig. 1.6). The same process is used in the Esch Sintzal building, where a large covered outdoor space is used for annual gatherings of the building's residents (Fig. 7.4).

In all these cases, the space dedicated to the community is always at the end of the spatial sequence, so you only go there and meet when you want to.

In the same project, the top floor also hosts the communal washrooms, which for once are not located in the basement, as is usually the case in Swiss collective housing. This is also the case at Siedlung Brahmschhof, which goes even further. In addition to the four laundries on the top floor of the building, the architects also imagined open-air laundry areas next to the washrooms (Fig. 3.4).

Through our various analyses, we have found that the design of circulation spaces has a direct impact on the comfort, sociability and sense of belonging of residents. The study of various architectural examples and distribution typologies reveals that thoughtful choices regarding dimensions, natural light, co-visibility and atmosphere can transform these spaces into real living spaces.

However, this balance can only be achieved with appropriate design and the willingness of residents to create those spaces. When successful, these spaces go beyond their simple utilitarian function to generate a rich and inclusive collective life, capable of redefining the way we live together.

CONCLUSION

Distribution spaces, often reduced to their utilitarian function, have shown throughout this research their potential to go beyond this role to become places of collective life and an opportunity for residents' quality of life. Historically forgotten, they are nonetheless essential and adaptable to contemporary lifestyles. In today's societal and economic context, with an ever-accelerating drive to cut housing costs and the pressure for densification of cities and regulations, the development of this type of space is not very promising. The difficulties of realizing it are few and far between, and would suggest that it is no longer relevant, apart from the rather nostalgic discourse it generates. «*La question reste pourtant actuelle et le restera.*»⁴⁵

45. MOLEY, Christian, *Les abords du chez-soi, en quête d'espaces intermédiaires*. 2006, p.182

Through the analysis of the eight case studies, it became clear that distribution can go beyond the status of a simple transition to become a veritable community space. Whether they are rues intérieures, passageways, or hybrid configurations, spatial qualities like natural light, transparency, co-visibility, and openness significantly shape how residents experience and appropriate these spaces. However, increased accessibility, as seen in projects like Kalkbreite or Siedlung Brahmschhof, must be carefully balanced against residents' valid concerns about safety and potential disturbances.

The intermediate spaces between public and private, such as halls, landings and passageways, play a fundamental role in the residential experience. Their architectural quality, their generosity and their ability to accommodate fortuitous moments of exchange contribute to the construction of an enriching community life. These hybrid spaces combine apparently contradictory notions: openness and privacy, functionality and conviviality, individuality and community.

However, this research also highlights the tensions and paradoxes inherent in these spaces. While their accessibility and attractiveness can enrich community life, they require careful management to prevent them becoming sources of conflict or degradation. Moreover, contemporary standards impose sometimes rigid limits on their design, reducing their potential for innovation and appropriation. It is important to recognize that distribution spaces can function as large community rooms, even replacing dedicated communal spaces when designed thoughtfully.

Finally, traditional and high-quality distribution spaces need to be re-imagined as flexible architectural tools capable of responding to contemporary social and urban challenges. They have the potential to become not only places of passage, but also spaces for living, meeting and community. In this sense, distribution is not simply a functional infrastructure; it is a key component of collective living, essential for reconciling the individual with the collective, and for offering a living environment where the city and the home coexist harmoniously.

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Iconography

Fig.1 Hertzberger, Herman. *Lessons for Students in Architecture*. 4th revised edition. Rotterdam: 010 Publishers, 2001, p 39

Fig.2 Dans *La Phalange*, journal de la science sociale découverte et constituée par Charles Fourier, Paris, T. 1, 1836-1837, p. 1

Fig.3 Marchand, Bruno, and Christophe Joud. *Mix : mixité typologique du logement collectif de Le Corbusier à nos jours*, Lausanne, Presses polytechniques et universitaires romandes, 2014. p.21

Fig.4 Sbriglio, Jacques. *Le Corbusier : L'Unité d'habitation de Marseille et Les Autres Unités d'habitation* 1st ed. Paris, Fondation Le Corbusier, 2004, p.45

Fig.5 *Team X, 1953-1981, In search of an utopia of the present*, NAI publishers, Rotterdam, 2005, p.52

Fig.6 Alison and Peter Smithson, *the Charged Void: Architecture*, New York, The Monacelli Press, 2001, p.87

Fig.7 Picture from Johan van der Keuken and Herman Hertzberger, via <https://www.ahh.nl/images/projecten/woningbouw/StuA/2.jpg>

