Samuel Mathers

Common Rooms in the City

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Collective Space Built by Housing

Introduction

"Ordinary things contain the deepest mysteries."[1]

It is easy to believe that the characteristics of modern housing transcend our own culture and are somehow immutable. However, this apparent ordinariness contains within it a risk, as Evans notes "everything ordinary seems at once neutral and indispensable." Such a delusion is dangerous as it hides the power held within ordinary domestic arrangements, as well as the origin and purpose of such organisation.[2]

The binary of public and private has long been established and theorised, however, it is now clear that a third category exists – that of collective or common space.[3] Many studies have focused on the architecture of public and private space, both interior and exterior. Colin Rowe and Fred Koetter's book Collage City deals exactly with this question of urban space and understanding in terms of public and private. They also go as far as to question the ability of this binary to completely describe spaces, suggesting the need for an in-between space. However, little exists by way of research into the specific architecture of collective space.

This text aims to answer the following questions: Firstly, by means of this introduction, what is the role of collective space in the city? Subsequently, is there an architecture that is specifically collective, and if so what are its discernible qualities?

Looking back through recent history, one can see specific moments where the public-private binary has been subverted, knowingly or not, through the creation of spaces that celebrate collectivity. A study of some of these projects can perhaps provide inspiration for architects today dealing with the ambitious task of constructing collective space.

The public, the private and the common

Within the discussions around open space in the city, the strength of the public-private dichotomy tends to disguise the existence of a third category: collective space. Within architecture, there is

1 Robin Evans, "Figures, Doors, Passages" in *Translations from Drawing to Building and Other Essays* (Cambridge, Mass.: MIT Press, 1997), 56.

2 Ibid.

3 Elinor Ostrom's research into the commons has greatly advanced understanding of this field. In 2009 she was awarded the Nobel Memorial Prize in Economic Sciences for her 'analysis of economic governance, especially the commons.'

only limited understanding of this topic, which is much better developed in other disciplines according to the idea of the 'common'. The lack of research into this field has lead to a theoretical blind spot when considering intermediate spaces between public and private. In many cases spaces that don't fit completely into either category are instead described according to their *relative* publicity or privacy, resulting in terms such as 'semi-public' or 'semi-private'. These classifications deny the equally important status of collective space as complementary to the other two components within urban space. The lack of precision concerning collective space and the flexibility gained from such ambiguity are two factors that have led to the large proliferation of collective space in urban environments compared to its more fragile alternatives.[4] However, further research into this field will prove useful in responding to the challenges posed by the contemporary city, especially as the our understanding of the commons develops.

The tension between public and private, the 'fragile alternatives' to collective space, was a main theme of the research into the archipelago city completed by Koolhaas and Ungers. The tension they describe, results from the contemporary city's "inability to combine a traditional form of public space, offering cohesion and a sense of community, with the extensive desire for individuation that is also part of contemporary society."[5] Despite their work pre-dating recent discussions on commons, one can already sense a potential response to this condition in the form of collective space, defined by Lara Schrijver as "something in between the traditional idea of the public and the private, acknowledging the pluralism of an individualised society without giving up the idea that a larger cohesive framework is possible."[6]

The fragility of the public-private dichotomy can be observed in the growing number of city spaces that can't be assigned to either category. However, the fact that a space is neither public nor private does not mean that it is 'collective'. If this were true, one might be lead to the ridiculous conclusion that gated communities or shopping centres should be considered as commons.

4 Valentin Bourdon, "Les formes architecturales du Commun" (PhD diss.,Ecole polytechnique fédérale de Lausanne, 2020), 263.

5 Lara Schrijver, "The Archipelago City: Piecing together Collectivities. Urban Formation and Collective Spaces," *OASE*, 71 (2006), 18–37. Retrieved from https://www.oase-journal.nl/en/Issues/71/TheArchipelagoCityPiecingTogetherCollectivities

6 Ibid.

In reality many of these 'in-between' spaces are better understood as 'privatised public space' or 'publicly accessible private space'. As such, the demise of traditionally public and private space has not resulted in a 'City as Commons', but rather a proliferation of 'urban enclaves'. This condition is summed up by Stavrides, integrating the metaphor of Koolhass and Ungers, when he states "the contemporary metropolis is 'an archipelago of "normalised enclosures"'."[7]

Instead, in order to create truly 'collective' or 'common' spaces in a city, there must firstly by a substitution of rules and governance from the local authority in favour of decisions made by people inhabiting the space. As Stavrides explains,

> "Understood as distinct from public as well as private spaces, 'common spaces' emerge in the contemporary metropolis as sites open to public use in which, however, rules and forms of use do not depend upon and are controlled by a prevailing authority. It is through practices of commoning, practices which define and produce goods to be shared, that certain city spaces are created as common spaces."[8]

The difference in terms of governance leads to a subsequent difference in character when comparing public space to common space. This difference is ultimately due to the fact that public space exists because of an authority who have an interest in maintaining the image of stability, while common space is a constant negotiation.

> "Whereas public space necessarily has the mark of an identity, *is* (which means *belongs to* an authority), common space tends to be constantly redefined: common space *happens* and common space is shaped through collective action."[9]

These clarifications allow one to understand that common space is distinct from public space, but it is important to highlight that such a distinction does not require, or result in, total separation

7 Soja, Ed. W. (2000) *Postmetropolis: Critical Studies of Cities and Regions* (Malden MA:Blackwell, 2000), 299, quoted in Stavros Stavrides, *Common Space: The City as Commons* (London: Zed Books, 2016), 19.

8 Stavrides, *Common Space*, 2.

9 Ibid, 106.

common

/ˈkɒmən/

adjective

— *usual*; the same in a lot of places or for a lot of people

— *shared*; belonging to or shared by two or more people, or things

— *low class*; typical of a low social class

noun

— *land*; an area of grass that everyone is allowed to use, usually in or near a village

from the public realm. On the contrary, perhaps the most important characteristic of common space is its "infinite openness to the Other or the newcomer".[10] Stavrides also insists upon this point,

> "Commoning, if it to avoid being trapped in new forms of enclosure, needs to open itself up to otherness. Expanding commoning gains its power from this always-risky, often unpredictable, sometimes dangerous but always-intense encounter with an 'outside' that may threaten but also enrich an 'inside'."[11]

Despite external threats that pose a risk to the very existence of collective space – one thinks immediately of the predatory nature of the real-estate, driven by soaring land values – there is a need to remain open to outsiders. It can thus be understood that any attempts to enclose collective space, will ultimately fail, as it is the openness to the city that gives collective space its strength. In addition, according to Stavrides, any collective space that is completely enclosed would be better described as "collectively privatised space,"[12] that is, space which "repels strangers and discourages 'felicitous encounters'."[13] The risk of enclosing common space, is that it may easily converted to "enclaves of privilege or misery – enclaves of collective privilege or collective misery."[14] A further comparison can be made to the enclosures of early capitalist agricultural enterprises, where "the common is corralled as property."[15]

At this point it may be helpful to clarify some definitions. For the purposes of this text we will continue with the definition of 'common space' as defined by Stavrides: space brought about through the practices of commoning, through *action*, in which inhabitants decide for themselves what should be shared and on what terms. Collective space, on the other hand, we shall define as space designed to be shared. Collective space does not necessarily produce a commons in and of itself, but through its form and relationship to adjacent public and private space, it offers the opportunity for 'practices of commoning' to take place.

10 Jacques Rancière, *Dissensus: On Politics and Aesthetics* (London: Continuum, 2010), 59, quoted in Stavrides, *Common Space*, 169.

11 Stavrides, *Common Space*, 76.

12 Ibid, 101.

13 Michael Hardt and Antonio Negri (2009) *Commonwealth* (Cambridge, MA: Harvard University Press, 2009), 254, quoted in Stavrides, *Common Space*, 101.

14 Stavrides, *Common Space*, 261.

15 Michael Hardt, (2010) 'The Common in Communism', *Rethinking Marxism,* 22/3 (2010), 346–56, quoted in Stavrides, *Common Space*, 101.

collective

/kəˈlek.tɪv/

adjective

— of or shared by every member of a group of people

noun

— an organization or business that is owned and controlled by the people who work in it

Architecture and sociability

This previous distinction between 'common' and 'collective' has been made because this research is interested in the idea of the common from the specific point of view of architecture. Architecture has as its goal the production of space, space for people to inhabit in whatever way they see fit. Architecture cannot force people to use space in any particular way or another. Since the 'commons' or 'common space' should be understood as space resulting from 'commoning processes', that is, from *action*, it is not possible for architecture to construct commons. Indeed, even if some kind of commons was achieved alongside an architectural project, the architecture alone would not be enough to sustain it. In a similar way it is quite easy to imagine a commons making use of a building that, when first designed, had no collective aspirations. This is often the case with squats and community land trusts, and perhaps similar to the somewhat normalised condition of student flat-shares in bourgeois family apartments. However, just because architecture cannot, and indeed should not, force a way of living onto people, it can nonetheless *enable* alternative forms of living.

The capacity for architecture to effect social relationships is made productive in the arrangement of different spaces, the articulation of the boarders that separate one from the other, and the use of devices that transcend these boarders to connect. Robin Evans explains the relationship between architecture that constructs space and the social life of the people that inhabit it when he writes:

> "If anything is described by an architectural plan, it is the nature of human relationships, since the elements whose trace it records – walls, doors, windows and stairs – are employed first to divide and then selectively re-unite inhabited space."[16]

16 Evans, "Figures, Doors, Passages", 56.

"The most mysterious, the most charged of architectural forms are those which capture the empty air."[17]

Alison and Peter Smithson

The figurative void

If we are to consider the creation of space that is differentiated from, but nonetheless open to, public space, this already suggests a critique of tendencies developed during the modern period. At the beginning of the twentieth century, architects and urban designers had the tendency – benevolent at first – to consider the ground plane as a single continuous public surface. According to this model buildings are placed like objects in an open field and preferably raised on polities, reducing any demarcation of the ground to an absolute minimum. These ideas have been criticised by numerous authors over the years, but in some respects the tendency to consider buildings as objects remains with us today.

One critique of modern urbanism develops according to an understanding of 'figure-ground', and is one of the main themes in the work of Colin Rowe and Fred Koetter in their book Collage city. In their text they explain how the traditional notion of figure and ground was essentially inverted by modernism. In the historic city, public space was structured, taking the form of streets and squares. The public space, or 'void', could be considered as 'figure', carved out of a built mass which constituted the 'ground'. With the arrival of modernism this relationship swapped, with buildings now taking on the role as 'figure', as free-standing objects on a limitless open space: the 'ground'. To illustrate the contrast between the two tendencies, Rowe and Koetter make a comparison using "a solid and a void of almost identical proportions": Le Corbusier's Unité d'habitation, and Vasari's Uffizi. They note:

> "For, if the Uffizi is Marseilles turned outside in, or if it is a jelly mould for the Unité, it is also void become figurative, active and positively charged; and while the effect of Marseilles is to endorse a private and atomised society, the Uffizi is much more completely a 'collective' structure."[18]

It is clear that for Rowe and Koetter, the question of what is considered figure and what is ground is also linked to the ability

17 Alison and Peter Smithson, "The Space Between," *Oppositions* 4 (1974), 78.

18 Colin Rowe and Fred Koetter, 1978. Collage City (Cambridge, Mass.: MIT Press, 1978), 68.

001 Unité d'Habitation view, © SPADEM from Rowe and Koetter, *Collage City*, 69.

002 Unité d'Habitation plan, from Ibid.

of a space to function as a collective space. For them, the existence of collective space depends, first, upon the recognition of the collective. The capacity to recognise a collective, however, within a public, or 'multitude', requires a 'ground or field' against which it can be read. According to Rowe and Koetter the modern city, the city of infinite open space, does not fulfil such criteria and as such one cannot associate it with the idea of collective space:

> "Certainly, in considering the modern city from the point of view of perceptual performance, by Gestalt criteria it can only be condemned. For, if the appreciation or perception of object or figure is assumed to require the presence of some sort of ground or field, if the recognition of some sort of however closed field is a prerequisite of all perceptual experience and, if consciousness of field precedes consciousness of figure, then, when figure is unsupported by any recognisable frame of reference, it can only be enfeebled and self-destructive."[19]

The construction of clearly recognisable voids, where buildings are considered fields against which collective identity can be formed, is the first step in the creation of collective space. Rowe and Koetter explain the power of these figurative-void spaces, which, when considered as unified entities, can be considered "not only

19 Ibid, 64.

003 Uffizi plan, from Ibid.

004 Uffizi view, Mansell Collection, from Ibid.

as habitable *poché* but as an urban room". This point is illustrated by means of another example, the courtyard of the Palais Royal, which they describe "as providing a clear differentiation between an internal condition of relative privacy and an external, less comprehensible world … The Palais Royal thus becomes an instrument of field recognition, an identifiable stabilizer and a means of collective orientation. The combination provides a condition of mutual reference, complete reciprocity, relative freedom."[20]

Thus we understand that in the construction of collective space, according there is the need to consider the void as 'figure', and, as such, the architecture as 'ground'. This reversal, where void is 'made figurative', would allow collective identities to be recognised and perhaps even strengthened. Open spaces in the city are also able to gain a specificity, something not available in absolute spatial freedoms of the *ville radieuse*, which are "without interest",

> "… rather than being empowered to walk everywhere – everywhere being always the same – almost certainly it would be more satisfying to be presented with the exclusions – wall, railings, fences, gates, barriers – of a reasonable constructed ground plane."[21]

This last quotation leads to the final point: that of the threshold between collective space and that which surrounds it.

20 Ibid, 82.

21 Ibid, 66.

"d'un côté, il y a moi et mon chez-moi, le privé, ...
de l'autre côté, il y a les autres, le monde, le public,
le politique"[22]

Georges Perec

Common thresholds

Through the research of Koolhaas and Ungers, we understand the contemporary condition of the city as one in which public space is not able to provide the same field of reference as in the past. However, Rowe and Koetter reveal that, while public space may remain a fragile basis on which to imagine a new perceptual field or 'ground', it may be possible to construct such a field at a collective level. For this to happen, individual buildings themselves should take on the role of 'ground' to structure a void as 'figure' – an 'urban room' where a collective identity can be recognised.

An important consideration, however, is the relationship of these 'urban rooms' to the outside. This relationship concerns both the transition to public space and to private space, and is defined by the thresholds that lead to these two outer worlds. The edges that define collective space are made all the more important because of the difficult task of making a strong enough definition of the limits of what is collective, while, at the same time, remaining open to the outsider or the newcomer. As mentioned previously it is openness that gives strength to collective space. If a space held in common is enclosed the inevitable assumption is that it becomes "collectively privatised space" or, put simply, a gated community.

The character of the thresholds that define collective space should be complex, neither giving complete enclosure nor complete exposure. Instead the thresholds should work to distinguish one space from another while at the same time connecting. Stravrides uses the term "threshold spatiality" – "a spatiality of passages which connect while separating and separate while connecting" – to describe this condition, which he considers to be characteristic of collective space. Stavrides continues in explaining that, by definition, "common spaces are porous spaces, spaces in movement and spaces-as-passages."[23] The threshold is thus understood as a double-functioning element, a device that separates at the same time as connecting, an edge but also a passage. At first these tendencies may seem contradictory, but both of these aspects are crucial in the design of truly collective space.

22 Georges Perec, *Espèces d'Espaces* (Paris: Galilee, 1974), 73.

23 Stavrides, *Common Space*, 168.

Collective Space Built by Housing

"Town planning is making space with housing as its material"

Housing is one of the most common type of building in any city, and so it plays a key role in structuring of the public space – as stated ever so succinctly with the title of a recent issue of *Urban Planning*, "Housing Builds Cities".[1] Housing is also, by its very nature, composed of a number of separate living units, and, as such, is deeply concerned with the private lives of individuals. Housing buildings, understood at the most basic level as spaces for individuals to live in the city, can then be understood as a mediators between public and private worlds. It seems sensible that a research into collective space would look to housing, as it represents the moment of confrontation between the public and private, while on a more basic level, it is a space of inhabitation – a fundamental act in commoning practices. Thus, in attempting to understand the specific qualities of 'collective architecture', this research focuses entirely on collective spaces built by housing.

The research is organised through a series of case studies of housing buildings that contain, as a key part of the project, a collective space. The case studies are grouped in pairs according to the specific architectural strategy used to create this space. These pairs of examples do not offer an comprehensive view of all the variation that exists within their respective themes; whether they are concerned with urban forms specific to a country, such as the '*Siedlung*', or much more general, as in the case of the 'Block'. However, by choosing to include two examples per theme it is hoped that the general principles of each category are made clearer. Each case study starts with a brief introduction followed by a explanation of the historic context of the project. This is followed by an analysis of the form of the collective space in each, and its relationship with public and private space. 'Public space' mostly refers to the street running through or adjacent to a project, while 'private space' always refers to the interior living spaces of the individuals who have access to the collective space. The intention of this last part is to understand the specific character of the collective space by means of the thresholds to the outside in each case, or, as described previously, according to the 'threshold spatiality' of each example.

The projects are each illustrated by images, which are arranged in such a way as to illustrate the points made about the form of each collective space and its relationship to the public and private worlds. The images are from a variety of online and printed sources, which of course lends a level of inconsistency to the layout. However, it is hoped that what is lost in consistency is gained in diversity, which may indeed prove to be the preferable outcome. A final spread in the case studies contains a redrawn section through the project, each included at the same scale. The choice of the section, as opposed to plan or elevation, was initially made because such drawings were rarely available (or at least not as readily available), and so out of curiosity I attempted to provide the missing information. An additional reason for this choice comes through the understanding of the importance of thresholds that define collective spaces, albeit one that was only understood later. Thresholds can of course be understood to a certain extent in plan, but in many cases they involve a vertical dimension, which lends itself to the section.

The following selection of case studies tries to show the variety of ways in which collective space can be constructed though housing. The examples are diverse but not exhaustive, and hope to make clear the guiding principles of collective space as well as the potential for variation.

1 Luca Ortelli, Chiara Monterumisi and Alessandro Porotto, eds., *Urban Planning*, vol. 4 no. 3 (2019). Retrieved from https://www.cogitatiopress.com/urbanplanning/issue/view/134

Terrace

005 *Previous:* Bedford Square, Source: https://bloomsburysquares.com/bedford-square/

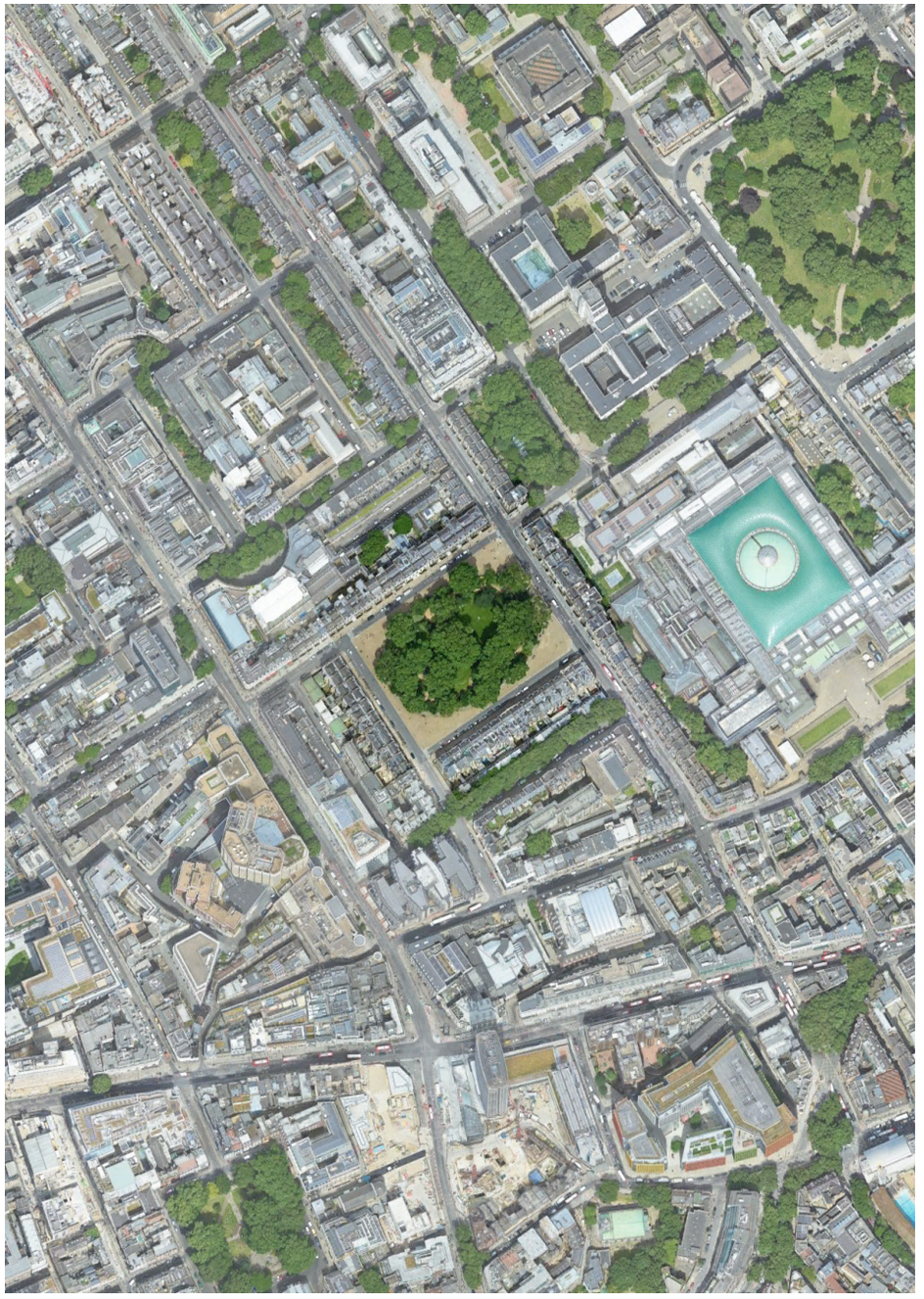
Bedford Square is a garden square in Bloomsbury, a neighbourhood in London's West End. The square marked the beginning of a second period of development in the area where pasture land was transformed into a planned estate, with an irregular grid of streets originating from the former field boundaries.[1] The layout of the square and its terraced houses are believed to have been designed by Thomas Wriothesley, and it was constructed between 1775-83 by Robert Crews and William Scott.[2] This is the first square to have an imposed architectural uniformity and, as such, it would be highly influential in the development of residential neighbourhoods in London throughout the late 18th and 19th century. Bedford Square remains one of the best examples of a Georgian Square in London, to the extent that the Camden History Society call it "the great survivor of the Golden Age of domestic architecture in London."[3]

The square consists of four rows of terraced houses along each edge, holding a open space at its centre. Streets provide access to the square at its four corners and continue along each side, along the front of the terraced houses. To the other side of the street and separated from it with an iron railing there is the collective space, a garden in the form of an ellipse. Two gated entrances, at the centre of each of the long sides of the square, maintain exclusive access for residents of the houses that overlook the space. For each side of the square, the group of terraced houses is given a unified palatial façade. The houses at the centre of each are finished in stucco and have decorative plasters and pediments. The houses at the ends of each block are also given a special attention, with iron balconies to the first-floor windows and balustrades above the cornice line. Ornamentation is very reduced for the rest of the houses, with only simple lines marking the first-floor level and cornice line, and rusticated arches for the main entrances. The terraced houses are stepped back and raised slightly from the pavement line, as is common with the typology. This shift gives a certain privacy to the ground floor, as well as light and air, and direct access via a small stair, to the basement.

1 "Bedford Square," Historic England, accessed December 26, 2020, https://historicengland.org.uk/listing/the-list/list-entry/1000245.

2 *Survey of London: Volume 5, St Giles-in-The-Fields, Pt II*. Edited by W Edward Riley and Laurence Gomme. (London: London County Council 1914). *British History Online*, accessed December 26, 2020, http://www.british-history.ac.uk/survey-london/vol5/pt2.

3 F. Peter Woodford, *Streets Of Bloomsbury & Fitzrovia*. (Camden: Camden History Society, 1997).



006 Emil Otto Hoppé, *Bedford Square*, 1930, photograph, from *The Image of London.*

007 Bedford Square façades, 2011, from urban75.org

Historic context

The land of the Bedford Estate in Bloomsbury originated as the estate of Thomas Wriothesley, later Earl of Southampton, who acquired them following the dissolution of the monasteries in 1545.[4] Later, through inheritance and marriage, the estate passed to the Russell Family, Dukes of Bedford, who would be responsible for residential development of the area in the late eighteenth century.

The development of squares such as Bedford square relied on speculative builders and developers. In this way, the landowner, in this case the Duke of Bedford, planned out the future neighbourhood and set rules for design of future construction. Plots of land would then be leased to a builder who would build according to the given rules and rent out the houses. Once the lease expired, usually after 99 years, the land and any buildings on it then returned to the landowner.

4 Ibid.

5 Hermann Muthesius, *Das Englische Haus, Bd. 2 (1904)*, trans. Dennis Sharp (London: Frances Lincoln, 2007), 147.

008 First, second and fourth class Georgian house designs, from John Summerson, *Georgian London*, 127.

Form

The English terraced house is one of the most pervasive urban forms in the country. The type is characterised by a near monotonous repetition of one house after another, separated by party walls. The plot width for each individual house measures between 6 and 9m, and they are built in long, uniform rows, the effect of which leads some to label them as "dreary in the extreme".[5] This negation of the individual in favour of the ensemble provides one understanding of the terraced house as collective architecture.

> "The basic form of the house has remained constant for a hundred and fifty years; it is a six storeyed, extremely narrow-fronted terrace-house entirely lacking in and individuality."[6]

Beyond the mere repetition of one house after another in series there is also, especially in Georgian examples, a tendency to give

6 Ibid, 148.

009 Bedford Square Garden evolution: 1775, 1820, 1850 and 1890, from Mark Fisher, *Departed: Bedford Square*.

a unified expression to a row of terraced houses. Houses within such kinds of terrace where particularly popular around 1800, that they "seemed preferable to a good-sized detached villa."[7] Such classical motifs are also present in the Georgian proportions, even in instances where ornamentation is reduced to a minimum. As Muthesius states in his analysis of the English Terraced House, Georgian façades were based on the "principle of the column:"

> "The ordinary Georgian façade, where no actual columns appear, is a perfect example of what we mean by the 'underlying division'. The low rusticated ground floor represents, in character and proportion, the pedestal of the column and the base of the temple; the column, the Order, is represented by the main floor and the small floor above. Then follows an actual part of the Classical decoration, the cornice; and above it the blocking course, or a further small storey, corresponds at least vaguely to the frieze or the gable."[8]

6 Ibid, 148.

7 Stefan Muthesius, *Das Englische Reihenhaus (1939)*, trans. (New Haven & London: Yale University Press, 1982), 7.

8 Ibid, 230.

010 Charles William Prickett, *A view looking north along the terrace of Georgian houses on the east side of Bedford Square*, 1930, © Historic England Archive.

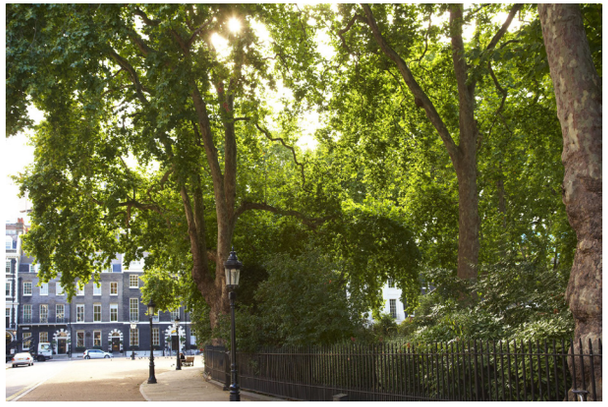
Relationship to public space

If we understand collective space to be in a space between public and private, then a unique quality of the English garden square is the placement of this space in the middle of the public realm, rather than as a transition space leading to more private spaces. Such a position gives the collective space an immense representative quality within the city and perhaps extends certain benefits of the green space to the city at large. However, the need to maintain exclusive access, to protect such a space from merging into the public realm, limits the openness to outsiders. While the residents do not live themselves in a 'gated community,' their collective space is, in fact, 'gated.' As such, any benefits to the city that the 'publicness' of the collective space may bring can be considered to be purely representational. Given the fact that the houses facing a garden were (and continue to be) more expensive, it could perhaps be argued that by placing the garden, such a restricted space, in public, class divisions are also openly displayed, and perhaps even celebrated, in public.

The question of access is important when considering Bedford square. As previously mentioned, the green space is, as is the case for many of London's garden squares, only accessible to residents of the houses fronting onto the square (apart from on specific days when it is open to the public). This logic can be questioned in any case, but it becomes even more difficult to justify when most of the houses are now occupied by offices and institutions, no longer functioning as homes. It is also interesting to note that while the streets of the Bedford Estate are now fairly integrated into the city centre of London, access for non-residents was, for long periods much more limited. The whole of the Bloomsbury Estate was once enclosed with a system of gates, put in place in the early nineteenth century for "the protection and privacy of residents". These gates and lodges were eventually removed between 1891 and 1893; those protecting Bedford Square in 1893.[9]

It is interesting to note that at the same time as Ebenezer Howard's ideas were gaining influence, Hermann Muthesius, a

9 *Survey of London: Volume 5, St Giles-in-The-Fields, Pt II*



011 Derek Kendall, *Exterior view of Bedford Square from the south-east*, 2007, © Historic England Archive.

012 Laura Caplan, *Bedford Square Garden*

013 Anthony Rau, *Railings and Gates to Private Garden in Middle of Square*, 2004, source: Historic England Archive

014 David West, *Bedford Square, Bloomsbury*, 2008, Creative Commons

German architect, saw parallels with the typology of the terraced house and its capacity of integrating open space in the city:

> "The whole of London is dotted with squares like this and their fresh and well-tended flower-beds and lawns not only help considerably to make living in these quarters endurable but sometimes almost give the area the appearance of a garden city…"[10]

The current landscape design, despite being the same for more than one hundred years, was not in fact the original layout. The decision to alter the layout reveals the changing approach to the design of open space in the city. The original garden layout consisted of perimeter shrubbery (laurustinus, holly, laurel, privet and sorbus) and path, with serpentine paths from the edges to central feature (at first planted but by 1870, replaced by a hexagonal pavilion). In the late nineteenth century the design changed to create a central open lawn by moving the pavilion to one side and removing the paths that crossed the centre. The space between the perimeter path and the railings was broken at times with small open areas of grass, each marked with a mature plane tree. At these moments where the shrubberies are broken, additional planting is placed on the inside of the perimeter path. This arrangement maintains a certain level of privacy to the garden while at the same time offering glimpses in and out of the garden. This process of masking space only to then reveal it at specific moments gives the garden a picturesque quality, commonly associated with English landscape design and thought to be to be motivated by an interest in the sublime. By intentionally creating views that pierce the enclosure of the green space the street is included as part of the garden; people on the street are given an opportunity to participate in the life of the collective space inside, even if only quite superficially. The interest in a picturesque kind of landscaping within these squares would eventually become so characteristic as to become their defining feature. As Muthesius notes, what is unique with

10 Muthesius, *Das Englische Haus, 149.*

the planning of the Georgian squares is the attempt to introduce 'natural' landscapes into the denser parts of towns.[11]

With the rise of car use through the late 20th century, the streets surrounding the garden became more hostile towards pedestrians, reducing the intensity of this relationship between street and square. However in recent decades traffic calming measures, such as widening the pavements next to the railings, have helped to restore the connection between the inner garden and the surrounding public realm.

Relationship to private space

Despite our current reading of the terraced house as a strategy for producing collective urban forms, it should be noted that in many ways the terraced house was a tool for separation and differentiation: separation of suburbs from the city, separation of living from working, and separation of functions and family members in individual rooms. The development of Bloomsbury, and adjacent neighbourhoods, being at that time on the fringes of central London, where considered some of the first instances of suburbanisation. Initially this form of life was reserved for the upper-middle and upper classes but would soon be seen as aspirational by the working classes. As well as a continual emulation of the upper classes by the working classes, the upper classes also felt a moral duty to encourage this kind of living in reaction to the insalubrity of working-class housing in the city. Indeed, by the late nineteenth century, with the proliferation of terraced house, the separation of work and dwelling place became common even for the working classes.[12] It must be noted, however, that woman's work would continue to be done at home, be that domestic work or home crafts. "Selfcontainedness," as used by Stevenson, is the precise albeit clumsy word that describes this new focus on the home as a dwelling for one family.[13] In this way, the terraced house, due to its intense proliferation throughout the country, represents an early dissemination of the idea of the truly private single family home,

11 Muthesius, *Das Englische Reihenhaus, 147.*

12 Ibid, 39.

13 J. J. Stevenson, *House Architecture, Vol. II* (London, 1880), 154.

015 Eric De Mare, *Street view of Bedford Square with parked cars*, c.1960s, © Historic England Archive.

016 Eric De Mare, *Exterior detail view of 34 Bedford Square showing the front door*, 1945-1980, © Historic England Archive.

017 *Overleaf:* Bedford Square, Bloomsbury, 2016, source: rexfeatures.com

standing in opposition to the public life of the city

The tendency to separate continues into the interior, as Muthesius writes: "separation and differentiation are the guiding principles in the development of the domestic plan."[14] In the same way, the spatial differentiation also extended to the classification of the outside spaces whereby the character of the street is completely different to the rear: "the polite street versus the back, the latter signifying service."[15] The importance of the collective garden is heightened through the fact that the houses to which it belonged had no other comparable form of outside space. While it is true with the terraced house type there is also an exterior space to the rear, it was only in later developments that this would be used as a garden. Separation is once again a feature when considering the relationship between the house and the collective space. In nearly all of London's garden squares, the collective space and the private interior are separated by the public street. Due to this condition, one can understand that the representative nature of the collective space is perhaps more important than its use value. This may be a interpretation influenced too much by the contemporary situation, where traffic and parked cars only serve to reinforce the character of the street as a divider rather than connector. However, given that the ground floor of the terraced house is raised from the level of the street, and that the main representative space is, in fact, the front room on the first floor (*piano nobile*) – one can appreciate that the value of the collective space is at least as much in its *prospect* as in its *aspect*.

14 Muthesius, *Das Englische Reihenhaus,* 42.

15 Ibid. 143.

Section through Bedford Square, London.
Drawing by author.

Royal Crescent

The adaptability and flexibility of the terraced house is one of the reasons often given to explain its proliferation throughout England. Such characteristics are often when speaking about the internal arrangement and the variety of forms of living it allows, with houses usually built as single family homes, but at times transformed into multiple flats and even in some cases returned to function as a unified home. This same flexibility can be seen in its ability to adapt to various site conditions, and the variety of collective spaces it can create beyond that of the Georgian square. Examples of such spaces exist across the country, but Bath is a city that merits a special mention due to the sheer variety and ambition of its collective spaces, all created using the same basic unit of the terraced house.

Historic Context

The Georgian development of Bath can be summarised with the urban sequence of square – circus – crescent. First is Queen's Square (begun 1729 and completed in 1736,[15] by John Wood the Elder), which marks the beginning of the Georgian expansion of Bath outside the old town. The square is characterised by uniform Palazzo façades that are 'heavy handed and literal',[16] but behind which the investors or future residents would each build their own terraced house. After following Gay Street to the north, one arrives at The Circus (1754-58 by John Wood the Elder),[17] formally King's Circus, where the terrace houses enclose a circular space. The curved façades are composed of three orders stacked, one on top of the other, plus a parapet. The circus was originally paved surface, 'wall-to-wall',[18] but today plane trees stand within an unenclosed lawn at its centre. Royal crescent, is reached by a short walk along Brock Street and forms the final part in the spatial sequence. The crescent (1767-74 by John Wood the Younger)[19] is the largest and the most regular of the three spaces. Despite its size and the obvious comparison with palatial structures, such as

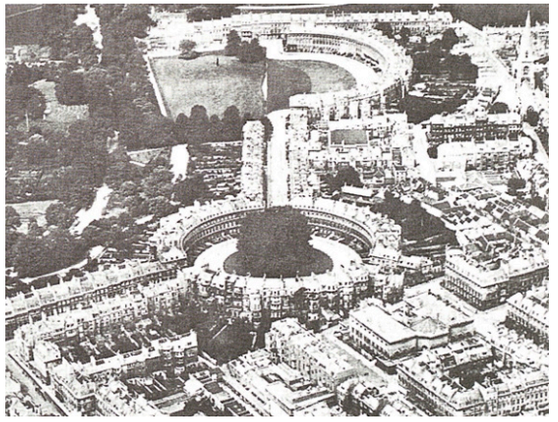
15 Nikolaus Pevsner, *North Somerset and Bristol. The Buildings of England* (London: Penguin, 1958), 121.

16 Peter Smithson, Bath: Walks Within the Walls (Bath: Bath University Press, 1980), 15.

17 Pevsner, *The Buildings of England,* 129.

18 Smithson, *Walks Within the Walls,* 11.

19 Pevsner, *The Buildings of England,* 130.



018 Mowbray Green, *The north side of Queen Square, taken from the south-west*, 1870-1930, © Historic England Archive.

019 Philip Edmund Wils Street, *Looking south-east across the Circus towards Gay Street from the east end of Brock Street*, 1919, © Historic England Archive.

020 The Circus, 1764, and the Royal Crescent, 1769 – Air View, from Giedion, *Space, Time and Architecture* (Cambridge, Mass.: Harvard University Press, 1941), 147.

021 *Overleaf:* Philip Edmund Wils Street, *The Royal Crescent, westerly half from S.E*, 1919, © Historic England.

022 Bath Herald, *Thanksgiving service on 19th July 1919 in the Royal Crescent*, 1919, source: bathintime.co.uk

023 Reginald Frank Wills, *A view looking towards the Royal Crescent from the allotments in the Royal Victoria Park showing war damage to number 17*, 1945, © Historic England Archive.

Versailles,[20] it is "unmistakably a collection of separate houses." The repetition along its length is so absolute that the only adjustment is the doubling of the two central columns, a motif picked up again on turning the corner to the flat sides. In this way "the 'centre' is barely stated"; and through its sheer "completeness" all irregularities to do with the sizes of the individual houses, and their slight variations in window size and floor level, are absorbed into the whole.[21]

Form

The three urban spaces – the square, the circus, the crescent – have a strong relationship to each other and, through their varied forms, show the research into urban forms that was a major preoccupation during the Georgian development of Bath. Their interrelatedness also stems from the fact that it was a Father and Son who constructed them – John Wood the Elder, and John Wood the Younger. Despite the incredible spatial variety of these examples, they are all constructed from terrace houses for which the basic principles remain the same: single family dwellings of two rooms per floor, built in rows, and unified by a facade that attempts to negate, as much as possible, the expression of each individual house. Another noteworthy point is that despite the architectural rigour and grandeur of certain constructions, especially in Bath, terraced houses have almost always been constructed by speculative builder-architects.

The large lawn at the centre of Royal Crescent is the collective space shared by the residents of the houses. This space is held by the curved facade of the houses on the one side, while remaining completely open on the other. A public park is on this side, which, combined with the downward slope of the terrain in this direction, works to exaggerate the image of a single building open to the landscape.

20 Sigfried Giedion, *Space, Time and Architecture: The Growth of a New Tradition* (Cambridge, Mass.: Harvard University Press, 1941), 148.

21 Smithson, *Walks Within the Walls,* 11.

024 *Opposite:* Quintin Lake, *The Royal Crescent, Bath*, 2010, © quintinlake.com.

Relationship to public space

The collective space of the crescent relates to public space in a similar way to that of Bedford Square. Rather than following a spatial continuum of public – collective – private, the public street sits between the collective and the private. The collective space of the crescent is also, much like the garden square, enclosed with an iron railing, with gated access to residents only.

However, here is where we start to find differences between these two examples, which are mainly to do with the relative openness of the crescent compared to the square. This openness is first understood in terms of the view from the pavement where instead of looking through shrubberies, broken in such a way as to create picturesque views of the world inside, the view is unobstructed. Indeed one has no problem in seeing the lawn the lawn in its entirety and the building as it curves around to make the other side. The ground even falls away gently from the line of the iron railing, adding to the sense of theatricality whereby those in the collective space take on the role of actors in a play. This theatrical atmosphere is then augmented because of the second difference compared to Bedford Square – the open side of the collective space. Along this straight edge there is no fence or enclosure but instead what is referred to as a 'ha-ha'. This functions as a kind of retaining wall, built into the slope, that restricts access from the park, but maintains an unobstructed view of the landscape from the collective space and houses. Through this open side the collective space gains a kind of directionality that did not exist in Bedford Square, leading us to imagine that if we can understand the collective space as a stage, then the open landscape is the backdrop.

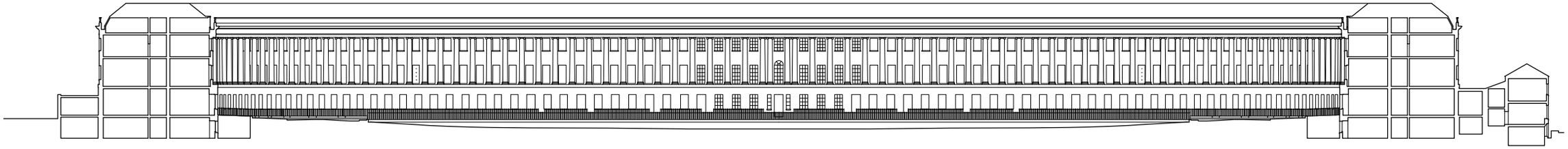
025 *Opposite:* Quintin Lake, *The Royal Crescent, Bath*, 2010, © quintinlake.com.

Relationship to private space

The collective space of the crescent has an incredibly similar relationship to the private spaces of the house as that of Bedford Square. As mentioned previously, the houses are separated from the collective space by the street, and, as in Bedford Square, they are set-back from this street behind a sunken courtyard. The ground floor is not, however, raised significantly from the level of the pavement and so the bridges that connect to the houses do not contain steps, but instead have a gentle incline. The change of level, as a means of granting privacy to the ground floor front room, is not as necessary because the depth of the sunken courtyard is more than twice that of Bedford Square. The change of level is also not needed to gain a better view of the collective space and the landscape because as previously described, it is already slightly lowered from the level of the pavement, and there are no trees or shrubs that might disrupt the view.

026 Jeremy Shatford, Bath Royal Crescent, 2014, source: fotocommunity.com

027 Adrian Pingstone, *Royal Crescent viewed from a hot air balloon, on a dull September evening*, 2005, Creative Commons.



Section through Royal
Crescent, Bath.
Drawing by author.

Block

028 *Previous:* Unknown author, View of Hornbækhus from Borups Allé, 2018, source: http://hicarquitectura.com/.

The *Hornbækhus*, approximately three kilometres north-west of central Copenhagen, was designed by Kay Fisker and constructed between 1920 and 1923. It consists of a perimeter block surrounding a large, park-like courtyard, said to be inspired by terraced house arrangements in England. The building is Fisker's first *Karré* – the name given to buildings such as this that define vast internal courtyards – but this is a debut on a grand scale as the courtyard itself measures approximately 57 by 157 metres. The building that frames this space houses some 290 apartments, distributed by 29 'double' stair-wells, across five floors. This particular arrangement offers every apartment one main stair to the street, and a back stair that provides a direct link between their kitchens and the courtyard. Access to the courtyard from the street is provide by means of two large openings, centrally placed on the short sides.

The building has its long sides facing *Ågade* and *Borups Allé,* where it presents itself as a five storey homogeneous block, not unlike its neighbours. Only on a second glance does one recognise the qualities particular to this building: in particular, its enormous size and the relentless repetition of its façades, created from just one window used more than 2000 times. If you arrive on *Borups Allé* (perhaps by bike as is more common in Copenhagen), you might notice one of two irregularities in the building's geometry: the almost imperceptible bend in the façade facing this street. The second irregularity comes from the non-orthogonality of the two short façades adjacent to this street. Turning onto *Hornbækgade* we see one of these façades and observe how its flatness is brought into sharp relief, through the eclectic mix of bay windows and mouldings of the building opposite. At the centre of this side there is an exception on the ground-floor, a break in the rhythm of windows and entrance doors. Here an larger opening – as tall as the doors, but wider – provides the entrance to the collective space that is the internal courtyard.

The courtyard is taken up, almost entirely, by a large garden, surrounded by a thick hedge. This was originally designed by Gudmund Nyeland Brandt. On entering the courtyard from the

029 Unknown author, View of Hornbækhus from west, c.1922, source: hicarquitectura.com/.

030 Unknown author, View of Hornbækhus Courtyard, c.1930, source: hicarquitectura.com/.

street, one doesn't immediately enter the garden. Instead there is an outer ring of cobble stones, and a gravel path that encircle the garden. The back stairs of the apartments exit onto this cobble-stoned area. Within its depth, between the building and the lawn, a variety of functions are held: clothes lines, playgrounds, garden sheds, and bin stores. Depending on the space, these are sometimes screened from the apartments with hedges.

The central lawn is accessed at each end, where the perimeter hedge breaks and is replaced by several column-like trees. By substituting the hedge with trees at these entrances, combined with the slightly lower level of the lawn relative to the outer paved area, one is granted a view across the whole garden, before stepping onto the lawn. The garden originally conceived of as a single unified space, with a continuous perimeter hedge, broken only once at each end to create entrances. Today, however, there are additional breaks in the this hedge, making it more permeable along its length, but reducing the significance of the main entrances. Recent planting, including some low hedges and shrubberies, also attempt to that divide the space and give it a more informal character.

Historic context

Following the first world war, there were severe housing shortages in Denmark, leading to the creation of the first non-profit housing association in 1915. However it was only in 1922, when the state began funding public housing, that a number of very large public housing projects were able to take place. With this, housing associations started construction on projects in Copenhagen's outer districts, on land provided by the city. In general, neoclassicism was used as a tool to rationalise architectural language and form. The uniformity and rhythm implied by neoclassicism also offered a means to achieve a more economical mode of construction, one that countered nineteenth century eclecticism in Danish architecture. Kay Fisker's *Hornbækhus* at Borups Allé, was one of these

such projects.

As a proponent of Danish Functionalism, Fisker sought to find a balance between what he termed "Internationalism" and "National Romanticism,"[1] between global and local, leading him to coin the phrase "the functional tradition." Within these two movements he saw a negation of the building tradition of a place by the moderns, while with the eclectic styles of historicist movements, there was too much emphasis on individualisation. Reflecting on this period in a later journal article, Fisker writes:

> "We must remember that those architects, who are able to put to order our cityscape and our landscape and who are able to create a human environment containing good dwellings as a framework for the good life, are more valuable to society than those who create the individual and sensational artwork."[2]

Fisker reacts against what he sees as the chaotic and experimental architecture of his time, for him "*architecture is order*,"[3] Rather than putting too much emphasis on any individual or any specific personality, he instead promotes mundane or common architecture . "It is the neutral, anonymous architecture which should characterize our milieu and it is this we should struggle to improve (…) Ordinary architecture should be *anonymous* and *timeless*." [4]

Fisker was not, however, arguing for a 'national' architecture to counter that proposed by the modernists. He would later plainly say "The notion of national architecture is unhealthy." Instead, he argues that it would make more sense to replace the idea of national architecture with a regional one. In hindsight, such a statement almost sounds like a premonition of Kenneth Frampton's *Critical Regionalism,* developed in his book 'Modern Architecture: A Critical History' (1980). However, in the next sentence, Fisker admits that regional variation in architecture seems to vanish "due to technical expansion," and betraying his modernist tendencies, he predicts that "in the future, constructions will be identical in

031 *Opposite:* Unknown author, *View of the Hornbækhus from Ågade Looking East*, 2018, source: http://hicarquitectura.com/.

1 Kay Fisker, 1960. "Internationalisme contra nationalromantik. Brydninger i nordisk arkitektur omkring århundredskiftet," *Arkitekten*, 22 (1960): 369-387.

2 Kay Fisker, "Københavnske boligtyper fra 1914 til 1936," *Architekten,* 6-7 (1936): 120.

3 Kay Fisker, 1964. "Persondyrkelse eller anonymitet," *Arkitekten*, 26 (1964): 522.

4 Ibid.

Leopoldville and Kansas City ... the Ballerup Scheme [a Copenhagen suburb, MS] might as well be situated in Uganda."[5]

Form

The courtyard block exists in many cities across many countries as a popular typology of collective space. That being said, the common formula is for each plot of land, for each house within a block to have its own area of open space behind the building. This is invariably connected to ownership arrangements and the prevalence of speculation as a means of guaranteeing a city's housing supply. Indeed it is speculation that exposes the vulnerabilities of the traditional courtyard as found with the *immeuble de rapport* of Paris, or the *Mietskaserne* in Berlin. In these cases intensive speculation led to the extension of the building into the courtyard, which eventually became little more than a light-well.

The *Hornbækhus* is a reaction against this context. The single unified courtyard enclosed by a continuous perimeter block celebrates the collective. The courtyard is made possible because of improvements in central heating technology, which allowed equipment and storage previously occupying the courtyard to be placed in the basement. However it was also Fisker's choice not to place kitchens as annexes in the courtyard, or to articulate the stair on the surface of the facade. In this way, both the courtyard and street façades have a similar expression – that of a singular volume whose surface is unified through a repetition of a discrete elements.

On the street facade, one can understand this repetition as a way of exaggerating the dimensions of the block and thus perhaps celebrating the new scale or speed at which contemporary life takes place. As Martin Søberg writes:

> "But even if the dimensions would seem to contradict the existing scale of the city, we might as well consider it an attempt to adjust to a new vision of urbanity … to the modern city of mass production and unforeseen speed …"[6]

032 *Opposite:* Unknown author, *View of the Hornbækhus from Ågade Looking North-west*, 2018, source: http://hicarquitectura.com/.

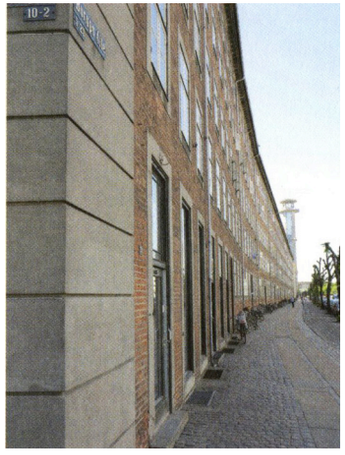
5 Ibid.

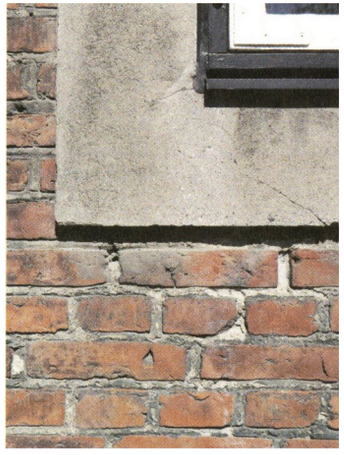
6 Martin Søberg, "Kay Fisker's Classical Principles for Modern Housing," in *Reflecting Histories and Directing Futures: Proceedings Series 2019*, ed. Anne Toft, Magnus Rönn & Ewen Wergeland (Nordic Academic Press of Architectural Research, 2019), 71.

This balance between internationalism, the scale and repetition, and the local, the use of materials and the communal gesture of the courtyard mirrors very closely the understanding of scales in processes of commoning today – an acceptance of the global, but, at the same time, a renewed focus on the local. The near-identical treatment of the internal and external façades, with a flatness that highlights their geometric precision, implies a equal respect for the structuring of public and collective life. The *Hornbækhus* is a radical project because of the contrast it brings together of the somewhat traditional, individual elements, such as the windows and doors, and the more abstract whole created through their repetition – the building as the image of the collective.

Relationship to public space

When looking at the façades, once again the complexity of the *Hornbækhus* is not immediately evident at first glance. Through the use of similar elements – a window repeated more than 2,000 times – and their similar composition facing both the street and courtyard façades, one could have the impression that the expression is the same to both. On closer inspection, one realises that this is not the case. To the street, the windows are placed flush with the brick facade, and are surrounded by a thick frame of plaster. From the oblique view of the street, reflections in the windows create large horizontal bands across the façades, dematerialising its massive brick walls. Together with the gentle curve following that of *Borups Allé* – which in itself reveals a certain desire to blend in – the effect is almost that of a curtain, hung from the cornice and drawn taut by plaster quoins at each end. For the courtyard facade, the same elements are used, but they are assembled in a slightly different way. Here the windows are slightly recessed, and have lost their plaster surrounds. By revealing a minimal depth of the facade, a stronger face is made to the more intimate, collective space. The chamfered internal corners exaggerate further the embrace of the enclosure. Through such careful articulation of these few de-





033 Unknown author, *View of the Hornbækhus Street Entrance*, 2018, source: http://hicarquitectura.com/.

034 Corner detail, from Bates, Krucher, Leuschner, eds., *Hornbækhus* (Munich, TU Munich, 2013).

035 Window detail, from Ibid.

036 Unknown author, *View of the Hornbækhus Courtyard*, 2018, source: http://hicarquitectura.com/.

037 Courtyard Entrance from Street, from Bates, *Hornbækhus*.

038 Apartment Entrance to Courtyard, from Ibid.

tails, the building is able to remain homogeneous while presenting two slightly different characters: a light-weight anonymity towards the city; and, internally, an expression of collective strength.

The entrances to the collective space from the street are located at the centre of each short side. They are not distinguished in any special way from the regular entrances other than having a greater width. This larger opening was constructed rather differently to what is represented in the original elevations of the project. In the original documents an arched opening is shown, which, while measuring the same height and width as what was built, would have given a rather more monumental character to the courtyard's entrance. This entrance is gated, guaranteeing access for residents and for city services or maintenance vehicles, while restricting access to the public. Only those who live in the building, can enjoy the collective space. For everyone else, we need to hope that the gate might be left open for us to be lucky enough to catch a glimpse of the garden inside.

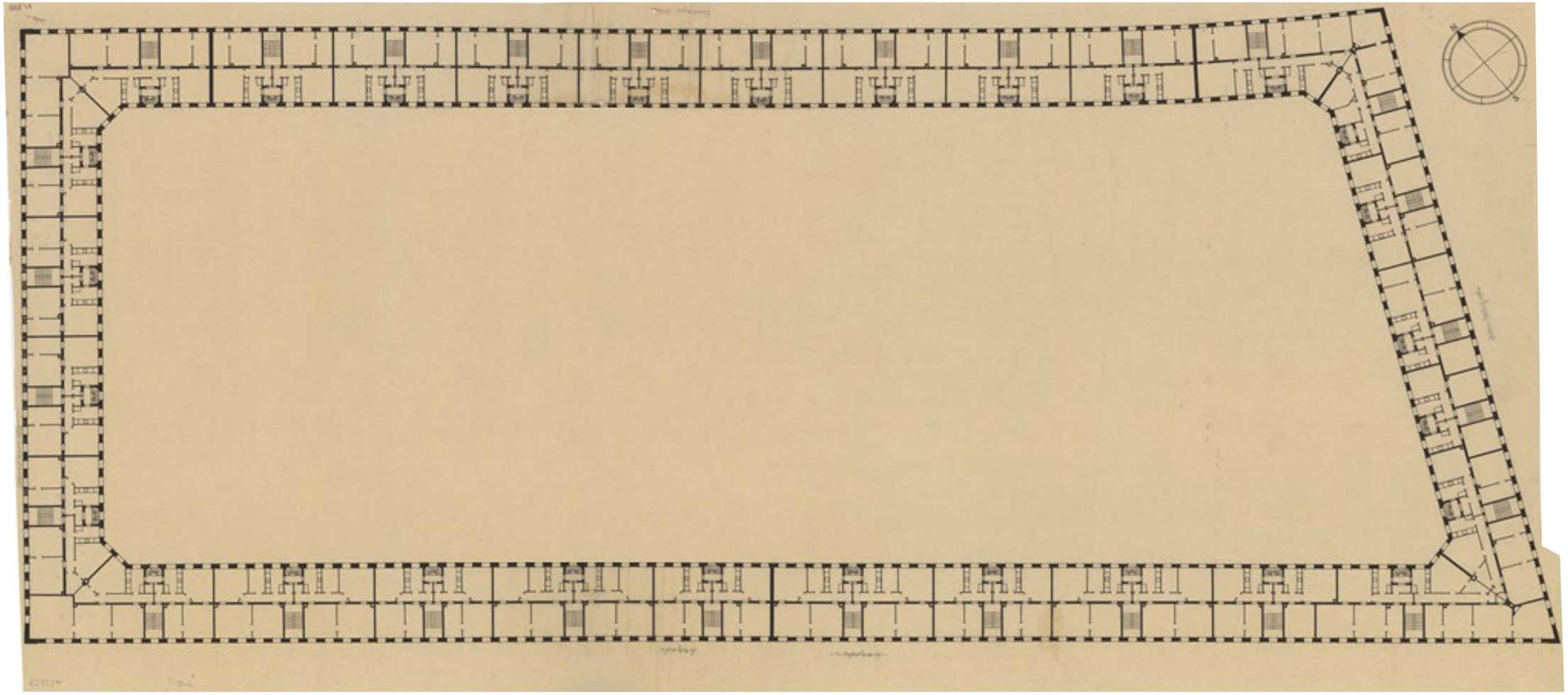
Relationship to private space

The planting in the garden is maintained in such a way as to allow a view across the collective space, from the ground floor apartments, which are in fact raised half a storey above street level. The apartments are accessed from the courtyard via a series of 'back stairs' that lead directly to their kitchens. This arrangement means every apartment gas a direct connection to the collective space, but more specifically it is a route that did not cross the perhaps more 'representative' main entrance to the apartments. To enjoy the collective space residents of the *Hornbækhus* do not have to leave their apartments as they would to go to the city, instead they go through a back door, which, one can imagine, gives a certain sense of ownership of the garden, and increases their ability to appropriate the space. This connection to the garden is all the more critical given the fact that the apartments themselves do not contain any form of private external space in the form of loggias or balconies.

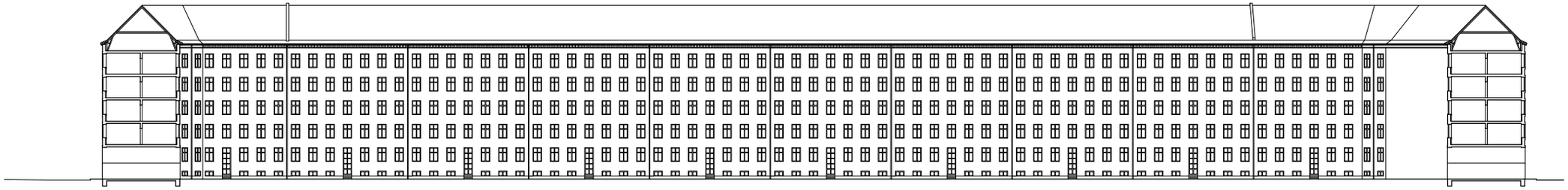
039 *Opposite:* View of Courtyard Entrance, from Ibid.

040 *Overleaf:* View of Courtyard Garden, from Ibid.

The interior arrangement is structured around a central spine wall, running parallel to the façades. This wall is as continuous as the façades, but is broken with doors that allow all apartments to have a view to the street and to the courtyard. The internal doors are aligned with the windows, which increases the feeling of light and air within the rooms. Living areas are placed facing the street while kitchens and bedrooms facing the courtyard, as is the case with more traditional courtyard buildings in Copenhagen. This perhaps also adds to the distinction, made physical through the spine wall and the 'double stair', of representative interiors facing out towards the street, while more private spaces facing the courtyard perhaps give it a more intimate quality, even if the facade openings that create this connection are the same inside and out.



041 Kay Fisker, *Hornbækhus typical plan*, 1922, Danmarks Kunstbibliotek.



Section through
Hornbækhus.
Drawing by author.

Klose-Hof

The block as a means of structuring collective space is not something that belongs only to Danish architecture. Indeed, it may be one of the most common devices used to define space held in common. Among all the cities where one can find examples of such an urban strategy, Vienna stands out as having the most numerous and indeed some of the most ambitions.

Klose-Hof is a square perimeter block to the north of the city centre, designed by Josef Hoffmann and constructed between 1924 and 1925. The building containing apartments on four storeys, plus attic and basement. Compared to other Höfe in Vienna, Klose-Hof is quite unique in being free on all four sides, as well as its relatively understated formal expression. Both of these qualities give it, in Hofmann's own words, a "stereo-metric geometry" with "an unexpected presence".[7] One of the more unusual features within this project, however, is the presence of a building at the centre of the courtyard, that despite being only six storeys tall, could easily be described as a tower because of its slender proportions and its disconnection from the block within which it stands. The ground floor of this building holds a gymnasium.[8]

Historic context

Following the first world war, Vienna found it self as the capital of a newly independent Austria. The period of change also brought with it a newly elected social-democratic city government (in 1919), whose radical programme for government would result in this period being called 'Red Vienna'. Another important factor was Vienna eventual independence from the state of Lower Austria, which created favourable conditions for the social-democratic government to manage the financing of the large-scale projects to follow.[9] At this point in time a large proportion of the city's working class population were living in the *Mietskasernen* (literally 'rental barracks'). These were speculative constructions, understood by city officials to be sub-standard, as they created unhy-

7 Josef Hoffmann, *Josef Hoffmann,* ed. Giuliano Gresleri (Bologna: Zanichelli, 1981), 138.

8 Alessandro Porotto, *L'intelligence Des Formes: Le Projet de Logements Collectifs à Vienne et à Francfort* (Genève: Métis Presses, 2019), 103.

gienic living conditions in which disease thrived.

Eventually the city started building its own housing in response to the poor living conditions faced by many of its residents. The first Hof was Metzleinstalerhof (252 units), by Robert Kalesa, was constructed in 1919 by Robert Kalesa, and later completed by Hubert Gessner, where it took on its final form as a open courtyard building. This was only the beginning, however, as in total, the period know as Red Vienna would go on to build 58,000 homes in the form of Höfe, with an additional 5,000 if one counts *Siedlungen* or garden-city projects.[10] Klose-Hof is one such example of a Hof built during the time of Red Vienna.

Form

The decision to build new housing in Vienna in the form of Höfe, that is, according to a courtyard typology, can be seen to have political meaning. As Alessandro Porotto remarks:

> "The courtyard principle opens to all directions and the whole ensemble converges towards a point at the centre of the courtyard. Differences between apartments are absorbed by the collective space of the courtyard, in which is translated the equality of the masses. The *Gartenhof*, thanks to collective facilities and its capacity to welcome several programmes useful to social politics, becomes the space belonging to all inhabitants, capable of cancelling the exceptions that characterise the private aspect of housing. The courtyard becomes the space of equality and of social justice."[11]

The political implications of the courtyard is only increased when the access to all apartments takes place through such a space, as is true of Klose-Hof, and nearly always the case in the Viennese Höfe. The form of the building has been altered recently due to the addition of glazed lift-shafts which are attached to almost all

9 G. Kähler, *Wohnung und Stadt: Hamburg-Frankfurt-Wien*, (Braunschweig/Wiesbaden: F. Vieweg, 1985).

10 The exact number of units is not known for certain. In this instance data has been taken from the list of projects during Red Vienna estiblished by Manfredo Tafuri, 1980 and Hautmann and Hautmann, 1980.

11 Porotto, *L'intelligence Des Formes,* 119.

042 View of Klose-Hof from Street, from Porotto, *L'intelligence Des Formes.*

043 Julius Scherb, *Klose-Hof (Volkswohnhaus), Wien, 1924-25, Architekt: Josef Hoffmann*, source: Landesmuseum Oldenburg

existing stair-wells, protruding from the facade into the pavement. Where previously the stairwells were recessed slightly from the principle facade, now there has been an somewhat clumsy inversion of this condition. This can also be considered an inversion of the political intentions of the project as residents, especially those on the upper floors, would more than likely prefer to use the lift which is accessed from the street rather than the courtyard. In this way, the force of the central collective space as a equaliser capable of absorbing differences is reduced.

Relationship to public space

The Red Vienna Höfe share many strategies for addressing public space with the buildings of the existing city. What is different is the way in which the courtyard is made into the focus for each project, as Carlo Aymonino notes:

> "The first 'blocks' constructed by the municipality of Vienna are not very different from those constructed for profit: they have, however, in their courtyards, a lesser built surface, the homes are provided with essential services, they do not lack the facilities needed for housing; but the urban structure that they partially define, the relationship with the street and with the existing buildings are more or less identical; thus the new interventions are comparable to that which was made before and constitute a partial, but real, alternative of improvement, precisely because they are placed within an interpretation of the development of the city from the inside, within its form."[12]

He also understands that through emphasis on the courtyard for access, the Höfe acquire an introverted character, especially due to the highly controlled positioning of the entrances to the courtyard itself:

12 Carlo Aymonino, *Origini e sviluppo della città moderna* (Padua: Marsilio, 1965), 50.

044 Alessandro Porotto, *View of Klose-Hof Street Facade*, from Porotto, *L'intelligence Des Formes*, 222, fig. 58.

045 Alessandro Porotto, *View of Klose-Hof Street Entrance*, from Ibid.

046 Alessandro Porotto, *View of Courtyard Looking North*, from Ibid.

> "Often, on the courtyard side, as opposed to that of the street, they appear a lot less ridged and more articulated than on the outside. It is possible to access the staircases, not from the street, but from the interior courtyards, which, while having a practical justification, further reinforces the impression of intentional isolation."[13]

Klose-Hof is no exception to this general introverted character. Not only can one describe it as introverted, but, in Hoffmann's own words, "more than any other previous intervention, Klosehof is not afraid to proclaim its monumentality as a closed world that rejects its surroundings."[14] While the use of the courtyard as the primary access to the apartments gives the project an inward-looking character, it might also make appropriation of this space more difficult. In contrast, the Hornbækhus provides every apartment with a direct route to the collective space separate to that which leads to the street, which could be understood to give residents a greater potential to appropriate the central space.

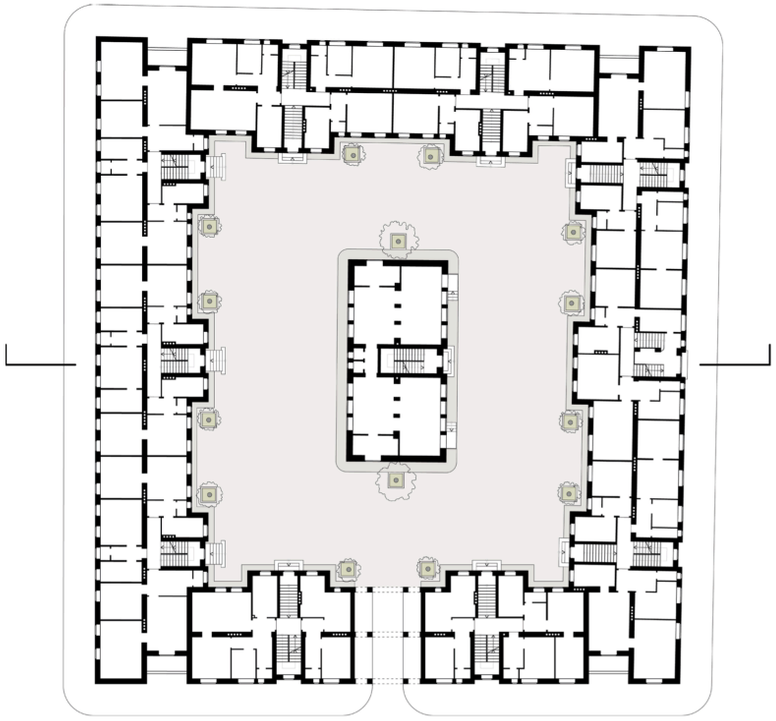
Relationship to private space

As previously mentioned, the apartments are all accessed from the courtyard, giving it a special importance in the project. The apartments themselves contain a broad typological variation, among them a variety of sizes and aspects. The one consistent feature however, even for the apartments having only a single-aspect, is that they all have a view towards the courtyard. In the limited exceptions where this is not possible, at the corners of the building, the apartments have a recessed loggia facing the street. The central spine wall is a feature common to both Klose-Hof and Hornbækhus, but its affect on apartment typologies is less consistent in Klose-Hof. In Vienna, the wall is broken at every stair and while some apartments have rooms on both sides, thus achieving a dual-aspect, many are confined to one side of the division, as is commonly the case within the Viennese Hof typology.

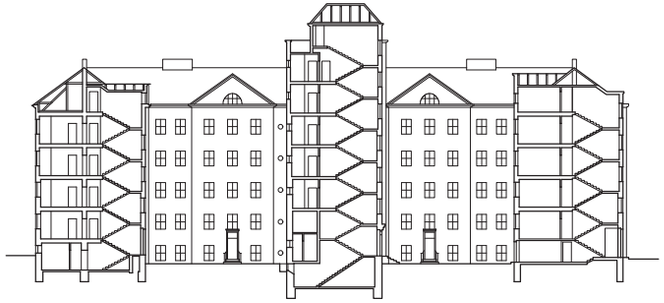
13 Carlo Aymonino, *Gli alloggi della municipalità di Vienna* – 1922-1932 (Bari: Dedalo, 1965), 37.

14 Hoffmann, *Josef Hoffmann*, 142.

047 Alessandro Porotto, *View of Courtyard Looking East*, from Ibid.



048 Alessandro Porotto, *Klose-Hof Ground Floor Plan*, from Ibid.



Section through Klose-Hof, Vienna.
Drawing by author.

Siedlung

049 *Previous:* View of Collective space within the Hufeisensiedlung, source: withberlinlove.com.

The *Großsiedlung Britz*, designed by Bruno Taut and Martin Wagner and constructed between 1925 and 1933, is a housing estate in Neukölln, a district to the south of Berlin's city centre. One part of the project, a large horseshoe-shaped building, has become emblematic of the estate to the extent that the project is most commonly referred to as the *Hufeisensiedlung* (Horseshoe Estate). It is this building, and the collective open space within it, that is the focus of our attention.

The flat, open side of the horseshoe faces Fritz Reuter Allee, where it sits back from the street line of neighbouring houses, creating an extended pavement planted with trees. From this space, one has an elevated view into the space inside the horseshoe between two single-storey, pavilion-like buildings that frame the main entrance. Passing through this opening and descending a monumental flight of steps, one reaches the level of the garden – the collective space of the project – which slopes down to a pond at its centre. The steps are in red brick, the same material used for the building's socle and other façade details. A path wraps around the central green space and later connects to streets outside via passages that cut through the ground floor of the horseshoe at three locations. Around the central space, there is a layer of private gardens associated with the apartments in the horseshoe, which itself forms the final layer and encloses the space. The building is three storeys tall, raised slightly from the ground to offer light and ventilation to the basement, and with an attic above. The roof, which slopes towards the outside of the horseshoe, is hidden behind a parapet that creates a new horizon-line. The façade, in white plaster, is regular and repetitive, with only two kinds of openings: square windows and large rectangular loggias, the interiors of which are painted sky-blue.

050 Hufeisensiedlung Construction Site, 1926, Public Domain, source: https://world-heritage-estates-berlin.com/hufeisensiedlung/

051 View over collective space, c. 1933, from Thilo Hilpert, *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt* (Berlin: TU, 1980).

Historic context

The *Hufeisensiedlung* was, along with similar projects across several German cities, designed in response to extreme overcrowding and unhygienic conditions in city-centre housing. In 1920 the administrative boundary of Berlin expanded to the form we know today by incorporating several adjacent districts, both urban and rural. This adjustment almost doubled the population of the city, now totalling 3.9 million, and made the city the third largest in the world, after New York and London. As the population continued to grow, the problems of overcrowding and hygiene became particularly acute. The prevalent form of housing in Berlin consisted of four- to five-storey *Blockrandbebauung* (perimeter blocks), built mostly during the 19th century and most often extended to the rear creating a number of small courtyards. These housing buildings were called *Mietskasernen* (rental-barracks) and were notoriously dark and difficult to ventilate, which subsequently led to unsanitary conditions and the spread of infectious disease.

Published in 1898, Ebenezer Howard's book *To-morrow: A Peaceful Path to Real Reform*, is the first introduction of the idea of the garden city as a response to poor living conditions in the city. In the following decades, Howard's ideas would go on to inspire the design of two garden cities in the UK: Letchworth and Welwyn. However, with its second edition in 1902, entitled *Garden Cities of To-morrow*, Howard's influence spread beyond the borders of the UK and, notably, is found in the spirit of the German *Siedlungen*.[8]

The *Siedlung* is a specific form of housing development built on the periphery of Germany's cities, with a focus on light, air and sun as a guiding principle. This resulted in large estates of two to three storeys, with generous outside areas in the form of balconies, loggias, private gardens as well as shared green spaces. Examples are mostly concentrated in Frankfurt, but *Siedlung* were also developed in Berlin as in other large cities in Germany. Furthermore, because of the need to house large numbers of working-class people, a great deal of attention was given to the efficiency of the

8 Approximately translated in English as 'housing estate' or 'residential district.'

proposed family apartments, which in turn lead to the concept of *Existenzminimum*. This can be understood as a kind of research into the reduction of the standard 2-3 room family apartment to its absolute minimum dimensions, while at the same time providing each flat with modern conveniences such as bathrooms and functionally designed kitchens.

Form

The design of the horseshoe works to create a collective space at its centre that is differentiated from, but at the same time connected to, both the more public street as well as the more private apartment interior. For Taut, the design of this space, the *Außenwohnraum*[9] was a particular focus, that requires special attention and its own specificity.[10] The uniquely collective character of this space can be attributed its form and the design of thresholds that separate, or rather connect to, adjacent spaces, be them more public or more private. The gradation of public to private in the horseshoe occurs in the following order: street – collective space – private gardens – private apartments.

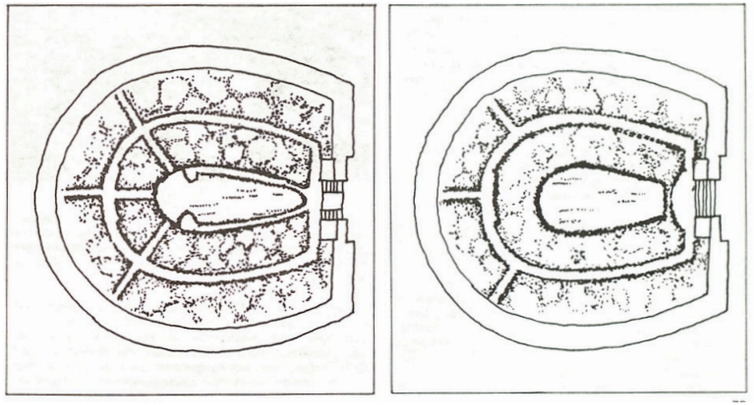
The question of form or structure is the first topic of investigation, and one that was of particular interest to Taut. Indeed, when designing the buildings of the *Siedlung,* Taut understood their unity would be what would give character to the collective spaces:

> "Outdoor living room does not mean something like the single house garden or the balcony of the apartment house, but more in the sense of urban space, essentially defined by the walls of the Siedlung buildings."[10]

The shape of the Horseshoe Estate is one of its most unique and remarkable features of the *Großsiedlung Britz*, but the reasons behind creating such a form do not immediately seem clear. The explanation of Taut seems at first fairly pragmatic, as he explains:

9 English translation: 'Outdoor living room'

10 Hilpert, *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt* (Berlin: TU Berlin, 1980), 34. Translation by author.



052 Hiepler, Brunier, *The Horseshoe*, 2016, from https://divisare.com/.

053 Diagrams illustrating the original courtyard deign by Leberecht Migge (*left*)and the realised layout, from Hilpert, *Hufeisensiedlung in Britz, 78*.

> "The form of the plan … is not the result of a preconceived artistic idea, but from social needs, and movements of the land: two depressions with ponds, one of which is a rather regular basin and therefore surrounded by a regular arch, giving rise to the shape of a horseshoe…"[11]

Taut's explanation describes that the choice of the horseshoe was influenced by the existing conditions of the site. However, as David Haney observes, plans of the site show that in fact a considerable amount of manipulation was required "to turn a shapeless depression into a perfect horseshoe shape."[12] Another influence, however denied by Taut, may be his own interest in the forms produced by "the biological power of nature," where one might be able to make the comparison between the horseshoe and a drawing of a bloom-like island from his earlier expressionist period.[13]

Despite these somewhat tenuous explanations, it is clear in any case that Taut, with his emphasis on 'social demands' of the 'outdoor living room', was positioning himself at odds with the dominance of 'sun theory' in urban planning. This was common tendency towards the end of the 1920s that prioritised the orientation of building over their ability to structure the open space around them, and as such often ignored the possibility of the exterior areas to function as social space.[14]

Relationship to public space

The *Hufeisensiedlung* manages to create an enclosed courtyard space that has a collective atmosphere, but at the same time, it is open to the public realm. The staircase that connects to the street is monumentalised, almost as an invitation to passers-by to participate in the life of the collective space. Through this kind of elevated entrance into the horseshoe, combined with its circular form, one can draw parallels to sports stadiums (or even the coliseum) – structures of intense collective identity.[15] However, a significant

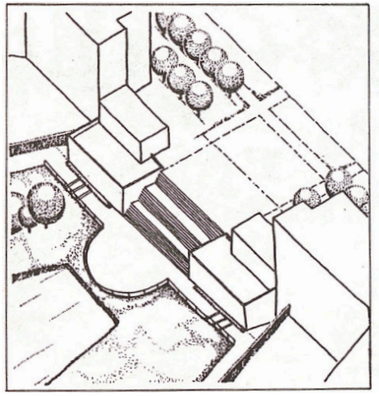
11 Bruno Taut, "Neue und Alte Form im Bebauungsplan," in *Wohnungswirtschaft*, 3, no. 24 (1926), 198.

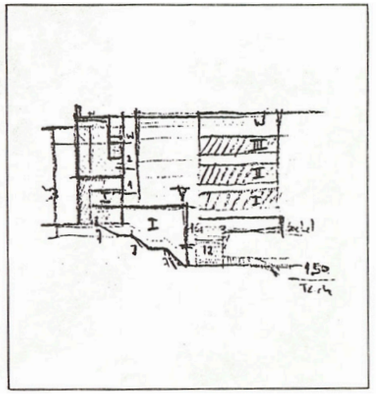
12 David Haney, *When Modern Was Green*. (Hoboken: Taylor and Francis, 2012), 183.

13 M. Schirren, "Weltbild, Kosmos, Proportion: Der Theoretiker Bruno Taut," in W. Nerdinger *Bruno Taut: 1880-1938* (Stuttgart: Deutsche Verlags-Anstalt), 91-113; "Der Wormser Rosengarten," GK 8, 1906, 55.

14 Hilpert, *Hufeisensiedlung in Britz*, 34.

15 Bruno Taut himself included a picture of an American stadium that is strikingly similar to the Horseshoe in *Die Neue Baukunst in Europa and Amerika* (Stuttgart, 1929).





054 Hiepler, Brunier, *The Horseshoe Park Entrance*, 2016, from https://divisare.com/.

055 Diagrams illustrating the public entrance, from Hilpert, *Hufeisensiedlung in Britz, 46*.

056 *Opposite:* Hiepler, Brunier, *The Horseshoe Street Passage*, 2016, from https://divisare.com/.

difference lies in the fact that the flat edge of the horseshoe, with its single, large opening, gives the structure a strong directionality that is missing in most 'arena' references. This is an indication that the main entrance, with its pavilions that once held public programs, holds a privileged position in the composition of the project. A similar kind of directionality to the collective space can also be found in the 'closes' of Welwyn Garden City. Held between the public street to one side and the private areas on the other, this space differs from other collective space, such as Bedford Square in London, by having a specific orientation.

This kind of openness to the public realm allows the Horseshoe building to fulfil what Stavros Stavrides explains as a necessary part of the common – that of remaining open to newcomers, and importantly "not producing closed collective identities."[16] This perhaps makes the *Hufeisensiedlung* a better example of *Siedlung* in terms of collectivity, which are often criticised for their relative disconnection from the existing city. As Stavrides notes, the planning of such *Siedlungen* "reduced them to precarious urban enclaves with no power to influence the rest of the city by establishing networks of commoning."[17]

Relationship to private space

Surrounding the collective space there is a ring of private gardens, separated from the path that encircles the collective space by a hedge. Access to these gardens is from the houses themselves, where a back door opens out from the stairwell. Originally, the gardens were planned to be divided into three terraces, giving each apartment its own plot of land. This demarcation has since be erased and the gardens are now only associated with the ground floor apartments, but the terracing and the steps that connect each level remain in most cases. In comparison to the monumental connection to public space, the thresholds leading towards these private spaces are much more downplayed. The space of these gardens is of course useful from a functional perspective, but their

16 Stavros Stavrides, *Common Space: The City as Commons* (London: Zed Books, 2016), 5.

17 Ibid, 113.

role in distancing the collective space from the private apartments is perhaps equally important. This, combined with the terracing, allows the apartments to have a degree of privacy while remaining in communication with the collective space.

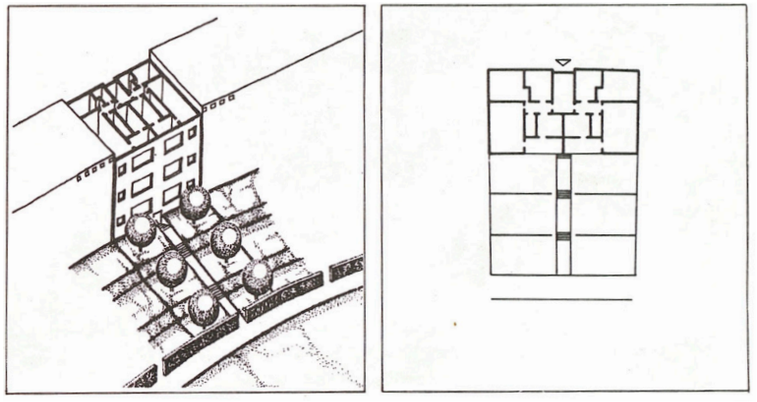
Through both the form of the collective space, and its relation those of a more public or private character, Taut's interest in topography becomes clear. The form of the horseshoe itself is explained, in part, as a response to the previously existing topography and pond. The project uses this topography and adds to it through the use of the monumental stair as well as the more subtle terracing of the gardens. These devices allow Taut to create thresholds that differentiate the spaces and define their relationship to each other.

It is also perhaps pertinent to consider the specific design and subsequent use of the central collective space. Initially, plans were drawn by landscape architect Leberecht Migge that proposed the green space around the pond as a social meeting place for residents "with a combination of beach, benches and lawn to relax on." However, the final design was implemented by Ottokar Wagler, from Neukölln's garden department, who, despite incorporating some of Migge's ideas, gave the pond and central lawn a more representative character.[18] Although the changes that were made may not have been huge – the overall geometry of the space remained the same – it surely impacted the possibility of giving the central space a truly collective character through use and appropriation by residents and outsiders. Indeed, is was noted that the central green space was only used occasionally when the first residents moved-in after construction was complete, with the possible explanation that new inhabitants of the horseshoe, mainly working-class families, were not used to having access to such a space, while also having inhibitions because of its symbolic importance.[19]

In addition, despite the incredible effort in imagining new kinds of urban forms that celebrate collectivity, there was little innovation in terms of the housing typologies. The radical nature of

18 Ben Buschfeld, *Bruno Tauts Hufeisensiedlung* (Berlin: Nicolai, 2015), 54.

19 Hilpert, *Hufeisensiedlung in Britz*, 79.



057 Hiepler, Brunier, *The Horseshoe Private Gardens*, 2016, from https://divisare.com/.

058 Diagrams illustrating the terraced private gardens, from Hilpert, *Hufeisensiedlung in Britz, 48*.

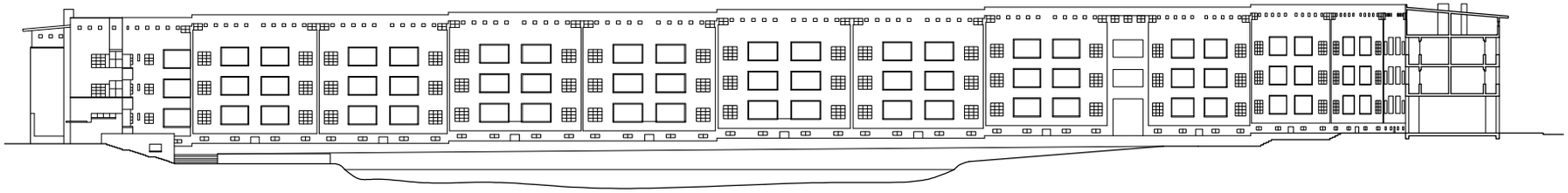
the *Existenzminimum* lay in its ability to provide homes with light, air and modern conveniences, for huge numbers of working-class families. Despite this, it can also be said that in the typological choice, that of the typical apartment, albeit shrunk to its minimum possible dimensions, there was also increased atomisation of society into self-sufficient nuclear families. Bruno Taut himself believed in the idea of the home as a creation of the woman and focused mainly on increasing the efficiency of domestic labour rather than seeking more radical collectivising solutions.[20] The interior of the apartments was thus understood as a problem involving the separation of functions and efficient, frictionless flows. In typological terms, as is the critique of Karel Teige, the *Existenzminimum* was merely an exercise in reproducing the bourgeois apartment in miniature.[21]

059 *Opposite:* Hiepler, Brunier, *The Horseshoe Access to Private Gardens*, 2016, from https://divisare.com/.

060 *Overleaf:* Hiepler, Brunier, *The Horseshoe Collective Space,* 2016, from https://divisare.com/.

20 According to Bruno Taut's essay "The New Dwelling, the Woman as Creator," the housing estate was, for women, both workplace and home.

21 Karel Teige, *The Minimium Dwelling*, 1932, trans. Eric Dluhosch (Cambridge, Mass.: MIT Press, 2002).



Section through
Hufeisensiedlung.
Drawing by author.

Siedlung Bruchfeldstrasse

If the *Großsiedlung Britz* can been seen as an exception in the typology of the *Siedlung* due to the importance given to collective space, then it is not the only example of such an exception. The city that is most well-known for the proliferation of *Siedlungen* is not, in fact, Berlin, but Frankfurt, and it is here were we find another unexpected variation of the typology - the *Siedlung Bruchfeldstrasse*.

Bruchfeldstrasse is a *Siedlung* in Frankfurt in the form of a closed courtyard, composed with buildings positioned according to a comb-like arrangement on both sides. The main entrance is at the centre of the western short side, while on the eastern side, a special building holds a nursery school and some collective facilities. At the centre of the courtyard there is a collective garden, within which areas are delineated for the private use of residents of the ground and first floors. Instead of garden space, the second floor apartments were have roof terraces that face the courtyard.

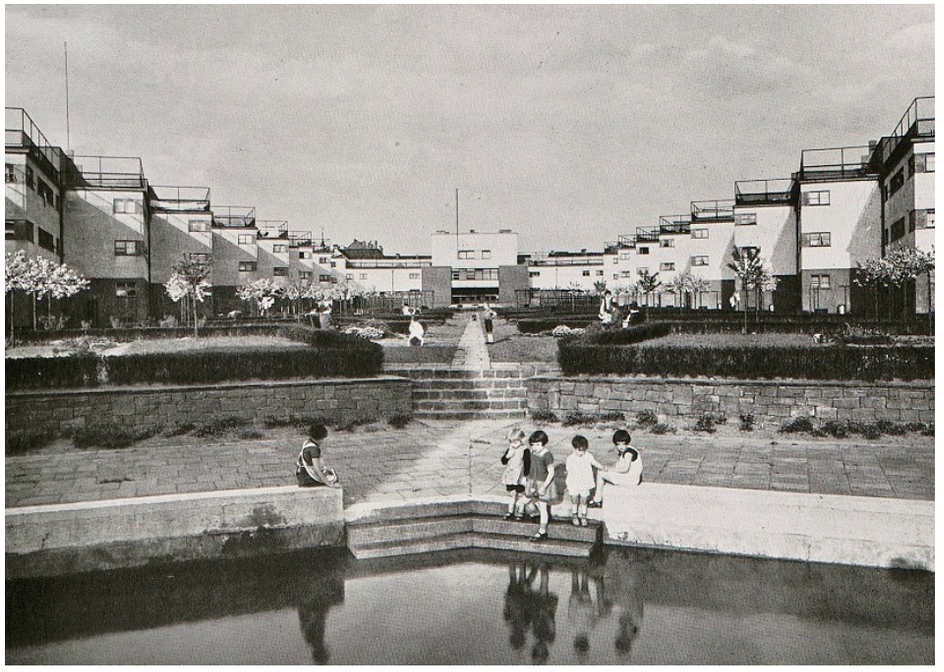
Historic context

Before the arrival of Ernst May in 1925, housing conditions in Frankfurt were much the same as in many other German cities. After the first world war there was a severe lack of housing, which was worsened by the fact that living styles also changed such that there was now a larger number of smaller family units. In 1923, there were around 12,000 people looking for a place to live, but by 1924, this number had risen to 15,000.[21] The housing problems were to be addressed by Ernst May, who was engaged by the mayor of Frankfurt at the time, Ludwig Landmann, and given the role of *Dezernent für Städtebau* (Head of Urban Development), a postion created specially for him. May was chosen because of his previous experience and because of his reputation as a "socially engaged architect, technical expert in urban development and housing: a 'builder' [*Macher*] rather than an 'artist' [*Kunstler*]."[22] With his construction program, *Das Neue Frankfurt* (The New

21 S. Henderson, *Building Culture. Ernst May and the New Frankfurt Initiative, 1926-1931* (New York: Peter Lang Publishing, 2013)

22 G. Kähler, *Wohnung und Stadt: Hamburg-Frankfurt-Wien* (Braunschweig/Wiesbaden: F. Wieweg, 1985), 219.

061 Dr. Paul Wolff, *Bruchfeldstraße Settlement, Frankfurt AM*. 1927, © Dr. Paul Wolff & Tritschler, Historical Picture Archive, Offenburg.

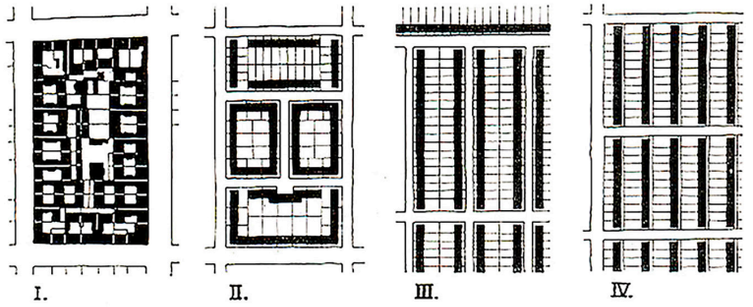


062 Hermann Collischonn, *View through the 'Zigzackhof'*, 1927, from, Ernst May, ed., *Das Neue Frankfurt*, 4-5 (1930), 119.

063 Unknown Author, *Courtyard of the block of flats on the Bruchfeldstraße*, c. 1930, © DAF, Bestand Grünflächenamt.

064 Unknown Author, *View of the courtyard from the roof*, c. 1930, source: andrewlainton.wordpress.com

065 Street View of Zigzag Buildings at Bruchfeldstrasse, source: archipicture.eu.



066 Diagrams illustrating the process of modern urban development, contained in *Das neue Frankfurt,* 2-3 (1930).

Frankfurt), Ernst May was responsible for around 11,000 new homes, built between 1925 and 1930.[23]

Bruchfeldstrasse, built between 1926 and 1927, represents one of the first *Siedlung* designed by May in Frankfurt. The project is in Niederrad, previously a small village but incorporated into the municipality of Frankfurt in 1900. In contrast to other projects of *Das Neue Frankfurt* the site was not a large expanse of open land, but rather a series of large parcels within existing street network.

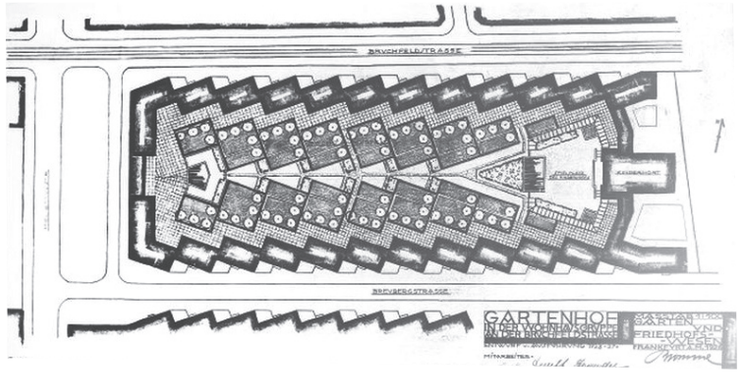
Form

Ernst May explained the development of the city with the help of a diagram published in *Das Neue Frankfurt*. The principle of the *Siedlung* in most cases follows the third of forth variant of urban form as described in the sequence, but as we have seen with the *Großsiedlung Britz* there are exceptions to this. The case of the Hufeisensiedlung in Berlin has a particularly special form, one that was enabled and even, in part, inspired by its situation on open land on the edge of the city. The unusual form of the *Siedlung Bruchfeldstrasse*, however, is more easily understood as a compromise between the principles of modern construction – the specific focus on light and air – and the constraints of the road layout in an already existing neighbourhood. Herbert Boehm explains, in

23 D. W. Dreysse, *May-Siedlungen. Architekturführer durch acht Siedlungen des neuen Frankfurt 1926-1930* (Frankfurt am Main: Fricke-Verlag, 1987).

24 Herbert Boehm, "Baulanderschliessung in Frankfurt a. M. Früher und heute," *Das neue Frankfurt*, no.1 (5) (1927): 105-112

067 Plan of the courtyard with garden layout at Bruchfeldstrasse, sourse: Landesamt für Denkalpflege, Hessen.



an entirely logical way, the reasons behind the 'zig-zag' form at Bruchfeldstrasse:

> "If special circumstances such as existing roads, the shape of the land or the position alongside green spaces or water surfaces force the roads to be oriented east-west, the disadvantage of the north-facing orientation of one of the building façades will be compensated for by making suitable building types in these cases, by arranging them in comb form (e.g. Niederrad)."[24]

In this way the zig-zag houses at Bruchfeldstrasse, despite at first glance appearing perhaps more unusual that the horseshoe in Berlin, actually represent a more 'normal' response to their site, to achieve the desired internal environment. The formal inventiveness used to reach such ends is, nonetheless, remarkable. However any kind of integration within the existing urban situation must be seen as an exception to the compositional rules of *Siedlungen*, which was always built on open land free of existing structures. As Alessandro Portto explains, "contrary to [the Viennese] Höfe, the Siedlung doesn't adapt to all urban situations, as it essentially corresponds to a type of construction that necessitates features – both physical and to do with landscape – that only the countryside, vacant land outside the city, can guarantee."[25]

25 Porotto, *L'intelligence Des Formes,* 99.

068 Alessandro Porotto, *Courtyard entrance at Bruchfeldstrasse*, from Porotto, *L'intelligence Des Formes*.

069 Street entrance with two doors at Bruchfeldstrasse, source: archipicture.eu.

070 *Opposite:* Raimund McClain, *View of Private gardens at Siedlung Bruchfeldstrasse*, 2013, source: Texas Tech University Library.

Relationship to public space

The access to the collective space from the street is placed at the centre of the western end, facing Melibocusstraße. The street is significantly wider along this short edge, creating a kind of public square, framed with the help of buildings on the other side of the street that are also part of the project. A path cuts across the square which runs on axis to the opening that leads to the collective space. The opening consists of a large gap in the three-storey volume that encloses the courtyard, with the same housing block as found in the comb formation framing either side. Through this gap, one can see the tops of the trees on the other side, while a single storey volume ensures a continuity of the ground floor enclosure and holds a gated entrance at its centre. Within this single-storey volume, either side of this entrance, there are rooms for community use.

Relationship to private space

The apartments are raised from the level of the courtyard and the street by a half level. This shift allows light and air to the basement and offers a level of privacy to the ground floor living spaces. On the courtyard side the apartments are separated from the truly collective parts of the courtyard by a layer of private gardens for use by the ground and first floor residents. This is a similar strategy to the *Hufeisensiedlung,* however the shared space is quite different in form at *Bruchfeldstrasse:* consisting of more generous spaces at either end and a path connecting them through the centre.

From the street the access arrangement is unusual in that for every stairwell, to the centre of each part of the 'zig-zag', there is not one, but two front doors. One of these doors could be considered 'primary', leading to the apartments on the upper floors, while the other 'secondary' door is more of a service door, leading only to the basement. The stair serves two apartments per floor, and continues to the top-floor roof terraces. The only connection between the collective space and the houses is through the base-

ment. This takes the form of an external stair and a door on the courtyard side leading to the basement where a passage connects to the front service door. This means that the quickest way from the apartments to the collective space involves going down the stairs, out onto the street, back in though the service door, down more stairs to the basement, along a passage, through the back door, and up a half-flight of stairs where one finally arrives in into the courtyard. In this way the route between the two could be considered somewhat laborious.

If the physical connection between the apartments and the courtyard seems tenuous, a more direct relationship is achieved visually. The comb-like arrangement of the blocks, not only optimises the light conditions, but it also gives each apartment an oblique view down the length of the courtyard, rather than just across to the opposite side. This makes the most of the elongated propositions of the collective space, while also focusing the view towards the building at the eastern end. This building is a nursery school and also contains many collective facilities for the neighbourhood. By orientating the houses in this way, there is a celebration of the collective ambitions of the project.

071 *Opposite:* Raimund McClain, *View of Courtyard Entrances at Siedlung Bruchfeldstrasse*, 2013, source: Texas Tech University Library.

072 *Overleaf*: Raimund McClain, *View of Collective Space at Siedlung Bruchfeldstrasse*, 2013, source: Texas Tech University Library.

Section through
Bruchfeldstrasse.
Drawing by author.

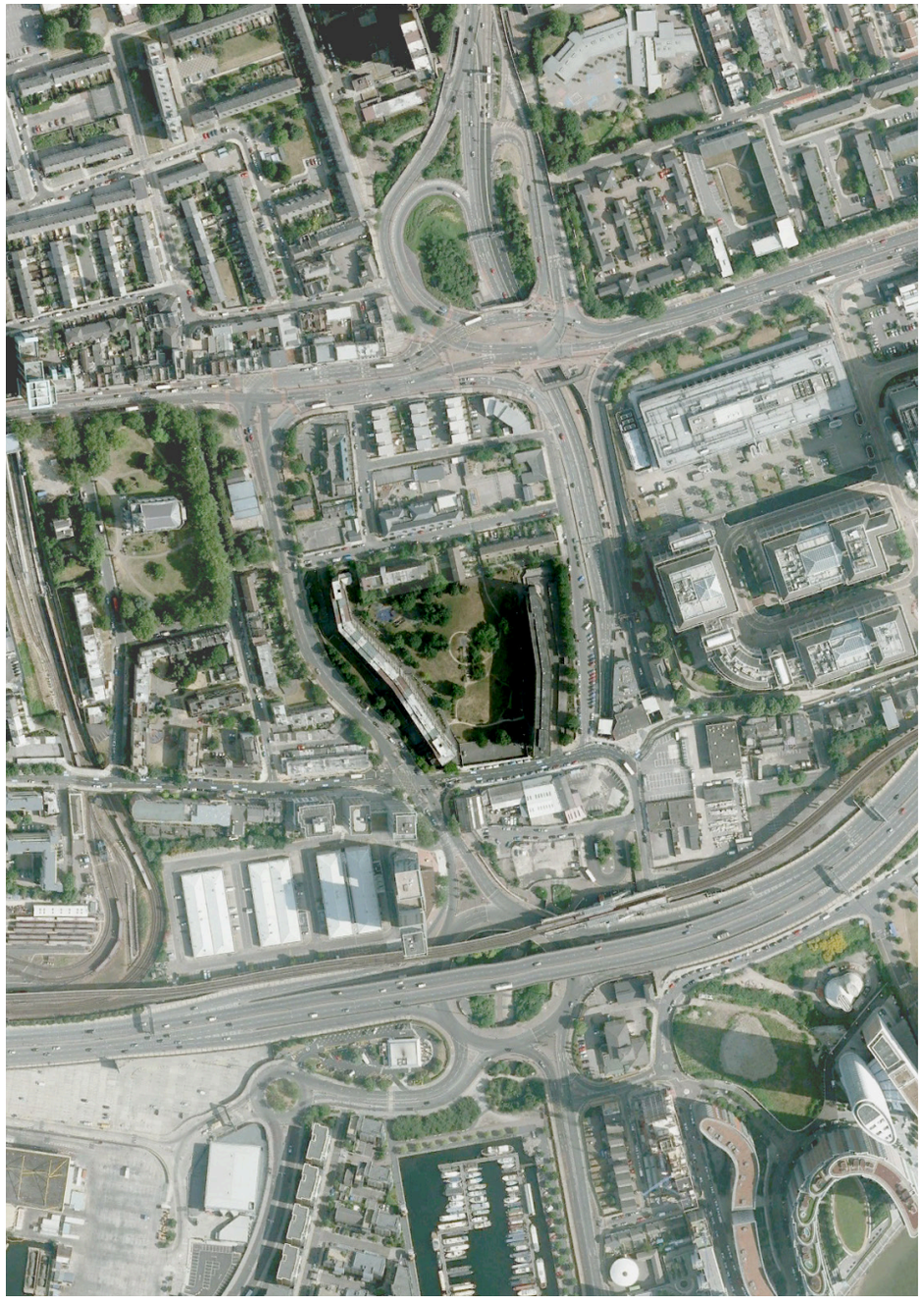
Bar

073 *Previous:* Sandra Lousada, *Robin Hood Gardens Courtyard*, 1972, © The Smithson Family Collection.

Robin Hood Gardens, a social housing estate in London's East End, was designed by Alison and Peter Smithson. The project was initiated by the Greater London Council in the mid-60s, with construction complete in 1972. It consists of two long concrete bars, containing just over two hundred maisonette apartments, either side of a central green space. The bar to the east is ten storeys high, while the one to the west is seven stories. Access to the homes is provided via decks on the outward-facing façades, every third floor, or to use the term famously coined by the Smithsons, 'streets in the air.'

The bar to the west has already been demolished, as is the fate of the eastern one, according to the agreed redevelopment plans for the site. Such plans will see the two bars replaced with a series of separate buildings that will triple the number of housing units on the site. Part of the green space will remain, but it will be reduced in size and different in its form. Once the work is complete, the character of this collective space will be drastically different. This text attempts to describe and analyse collective spaces as complete entities, and as such the following chapter will concern itself with the project before its demolition.

Busy roads surround the site on three sides: to the east, the Blackwall Tunnel Northern Approach; to the north, the East India Dock Road, a major east-west artery; and, to the west, Cotton Street, which connects these main roads to the Isle of Dogs and Canary Wharf. Poplar High Street, to the south, is comparatively quiet, although it still sees a steady steam of buses on their way to Blackwall DLR station, and bicycles travelling along Cycle Superhighway 3. Arriving on foot from Poplar High Street, one is first greeted by the 'heads' of the two bars, the taller one peering out from behind the one in front. An entrance on this side is articulated in the joint between the 'head' and the 'body' of the bar, where a triple height loggia welcomes residents to the 'street in the air' on the second floor. The loggia looks back towards the high street, and, through a opening in its upper part, offers a view from the



street to the space on the other side, and the other bar beyond.

Moving closer to the building, one notices that along this street, as with the street on the eastern side, there is a tall, continuous acoustic barrier in the form of a concrete wall, leaning slightly over the pavement. The entrance on this side is an exception where the wall breaks, and access is provided to the lift and stair lobby, bridging across the 'moat' of garages and service spaces on the lower level.[1] If we walk past this entrance and continue along the high street we come across a more typical entrance situation, as found on the more porous north and south sides. The concrete wall stops after it turns the corner and is replaced by a sunken games area along Poplar High Street. This space is enclosed with a low wall topped with a mesh fence and on either side there is a route to the space contained between the bars.

The central green space is still not immediately visible from the street, despite the relative porosity of the north and south sides. Only after entering the site, passing the games area and leaving the noise of the street behind, does one suddenly find oneself in the large garden, the collective space of the project, framed on both sides by the concrete bars. This space consists of a continuous lawn with several small hills, the tallest of which reaches almost two storeys high. Paths lead along each side, next to the bars, but respect the privacy of the ground-floor flats by keeping a distance. The paths connect to entrances of the stairwells, located at either end and at one or two moments where the bar folds along its length, creating a gap – an exception – in the repetition of flats. Such an exception is readable from outside, in the form of the building and the composition of their façades, and allows the entrances to recognisable from a distance. The stairs and lifts lead up through the building and connect to access decks at every third floor on the street-facing façades. These provide access to the maisonette apartments of various sizes. The layout of the flats in both bars is such that 'quiet spaces' – kitchens and bedrooms – are on the inside, facing the collective space, while 'noisy spaces' – the decks and living rooms – are on the outside, facing the city.

1 Alison and Peter Smithson, *Ordinariness and Light* (London: Faber and Faber, 1970), 192.

074 Street View of Robin Hood Gardens from West, source: archipicture.eu.

The façades of the bars, similar towards the street and garden, are made up of a number of pre-cast concrete elements repeated many times over. Identical windows are placed in long horizontal bands, but divided by a system of projecting mullions. These mullions, along with projecting sills on the street facade form part of the strategy to reduce noise transfer between flats and from external sources. Seen from an oblique view, the windows disappear behind these vertical fins and the bars appear quite abstract. In this way the rhythmic repetition of their vertical fins works to unify the bars, disguising the reality that is the repetition of individual units.

075 *Opposite*: Abdul Kalam, *Robin Hood Gardens Entrance from Poplar High Street*, © Abdul Kalam.

076 *Overleaf*: Gili Merin, *View of Collective Space at Robin Hood Gardens*, 2017, © Gili Merin.

Historic context

The Smithsons' theoretical work in the field of housing long preceded the construction of Robin Hood Gardens, which was their first opportunity to build their ideas. Two decades before its construction, in 1952, they entered the Golden Lane Housing competition which, despite their loosing, generated ideas that would go on to inspire Robin Hood Gardens and as well as the work of other architects across Britain and internationally.

During the 1953 CIAM (*Congrès Internationaux d'Architecture Moderne*) the Smithsons put forward their understanding that modern society provided no natural groupings above the level of the family. With this claim, but also because of their belief that architecture itself can form valid social entities, they proposed a series of 'scaled unities' based on traditional forms of association: the house, street, district and city. This approach was presented using their sociologically informed 'Hierarchy of Association' diagram, and their 'Urban Re-Identification Grid'. This proposition was intended as a revision of the 1933 Athens Charter, replacing the 'functional' hierarchy (dwelling, work, transportation, and recreation) with a hierarchy of *human* association.[2] The Smithsons were inspired by the ambition of the modern period, but they also understood some of its short-comings, especially regarding what they called 'human association'. In a text written sometime after, the Smithsons state, in a succinct way, "The task of our generation is plain - we must re-identify man with his house, his community, his city."[3]

However it is important to note that this revaluation didn't propose a historicist revival of traditional urban forms. As the Smithsons wrote in their *Team 10 Primer* "it is the idea of street, not the reality of street, that is important – the creation of effective group-spaces fulfilling the vital function of identification and enclosure making the socially vital life-of-the-streets possible."[4]

The project for Robin Hood Gardens has its beginnings in 1963 when the London County Council (LCC) acquired series of small sites in the area of Robin Hood Lane, for which the Smith-

2 Annie Pedret, 2020. "CIAM 1953: discussing the charter of habitat". *Team10online.org*.

3 Smithsons, *Ordinariness and Light*, 18.

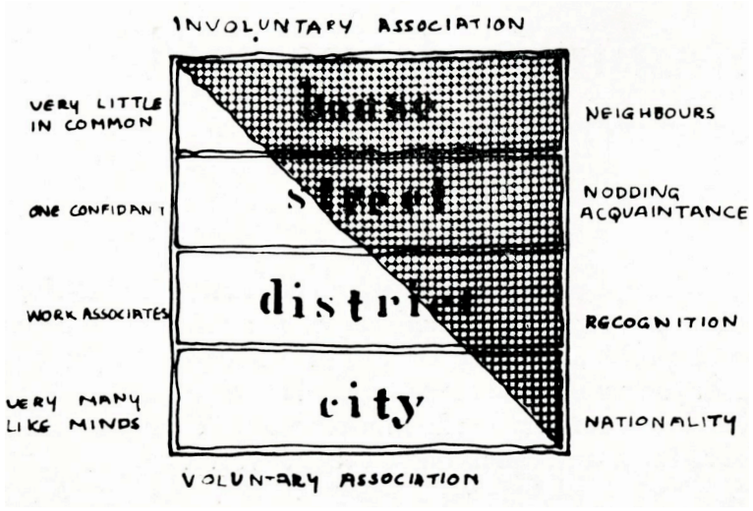
4 Allison Smithson. "Team 10 Primer 1953-62." *Ekistics* 15, no. 91 (1963): 349-60.

077 Sandra Lousada, *Robin Hood Gardens seen from the Blackwall Tunnel Northern Approach*, 1972, © The Smithson Family Collection.

078 Sandra Lousada, *View of East Block at Robin Hood Gardens*, 1972, © The Smithson Family Collection.

079 Alison and Peter Smithson, Hierarchy of Association Diagram, from Smithsons, *Ordinariness and Light*, 61, fig. 48.

080 *Opposite*: Ioana Marinescu, *View of Facade and Service Moat at Robin Hood Gardens*, 2009, source: bauwelt.de

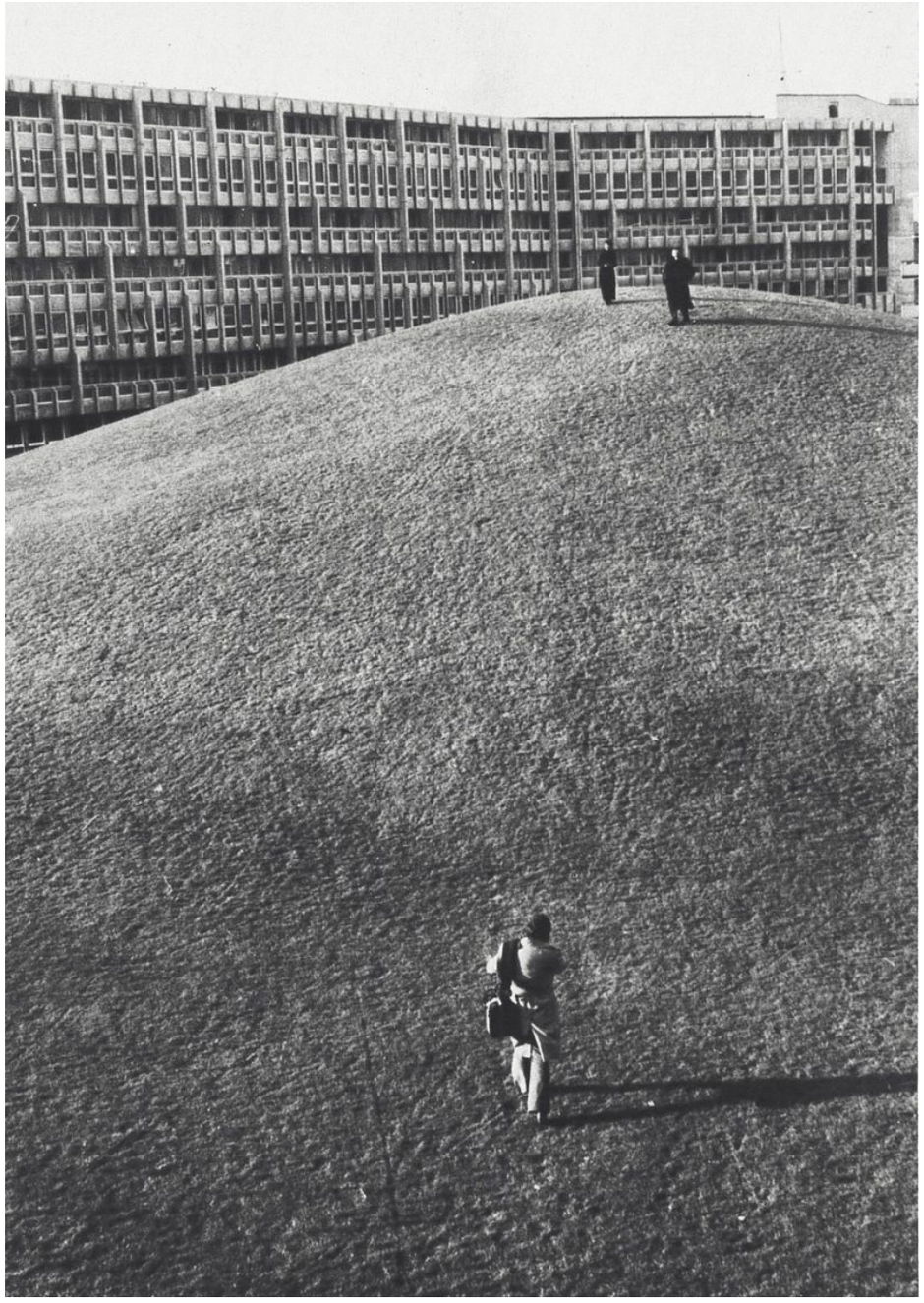


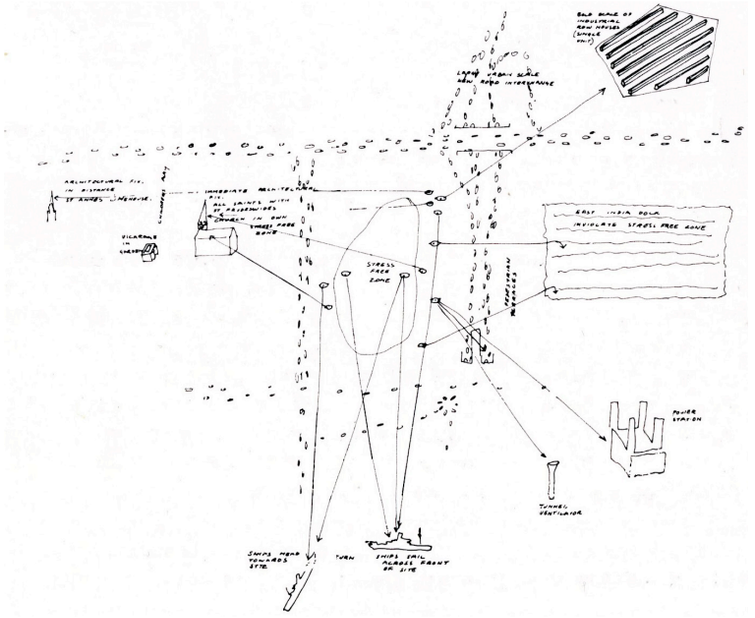
sons proposed two deck-access buildings with the intention that they could one day join together. In 1965 the Greater London Council (formally LCC) decided to accelerate a slum clearance program and demolished a series of tenement blocks – Grosvenor Buildings – on a neighbouring site. In 1966, Alison and Peter Smithson were given the new consolidated site and a new programme brief to Parker Morris standards.[5]

For the Smithsons it was their first opportunity to test their theories on housing, in particular to test potential forms that might work according to their 'hierarchy of association,' such as the street. In their own words, the Smithsons saw Robin Hood Gardens as "a demonstration of a more enjoyable way of living, in an old industrial part of a city. It is a model, an exemplar, of a new mode of urban organisation."[6]

5 Smithsons, *Ordinariness and Light*, 188.

6 Smithsons on housing video.





081 *Opposite*: Sandra Lousada, *View of Courtyard Mound Robin Hood Gardens*, 1972, source: bauwelt.de

082 Alison and Peter Smithson, Robin Hood Lane, Visual connections of the people to their district, from Smithsons, *Ordinariness and Light*, 191, fig. 184.

Form

In the middle of the site there is an open green space, protected from the noise and pollution of the busy roads by the bars to the east and west. The façades of the bars, read only as horizontal bands of windows and balconies, broken by vertical acoustic fins, create a unity to the enclosure of the space. The repetition of these elements is a deliberate attempt to disguise the individual flats and instead give an identity to the whole. This can be understood as a direct result of the Smithsons research into human association and identity. As they explain, repetition, or 'sameness', is an important tool used to create such new associations:

> "Things should not be different without reason. Things of the same order should be as alike as leaves. To construct an 'estate' where each house is different is not to identify but to destroy the possibility of them making greater sense together. Houses are cells of districts, as districts are of towns, and without sameness houses will add up to nothing."[7]

7 Smithsons, *Ordinariness and Light*, 40.

The Smithsons also had a particular interest in the void, or more specifically, the ability of architecture to give character to the space around it. Such an idea was so pervasive in their work that they decided to name their monographs *"The Charged Void: Architecture"* and *"The Charged Void: Urbanism"*. They explain this choice by referring to "architecture's capacity to charge the space around it with an energy which can join up with other energies, influence the nature of things that might come ... a capacity we can feel and act upon but cannot necessarily describe or record."[8]

Robin Hood Gardens is most well know, perhaps infamously, for its 'streets in the air'. However, it was actually the creation of the large 'inviolable' quiet open area between the bars, the collective space, that the Smithsons considered to be the highest priority.[9] The space is conceived of as a 'stress-free zone,' and the level of attention given to it represents a change in priorities developed through their research on urban housing. This shift is particularly apparent when comparing this project to the earlier competition entry for Golden Lane, which would otherwise be the source of many of the ideas finally realised at Robin Hood:

> "For since the first deck studies in 1952 we have become in our bodies aware of the stresses that urban noise and traffic movement induce, and realise that for the present time our most important need is for quiet places. To achieve a calm pool in this particular place, we have played down that idea of 'linkage' which was the main theme of the earlier 'Golden Lane' studies. In a sense we have replaced an image of the city in which connectedness was stressed with one in which the survival of the 'person' and the 'thing' within the ever-changing communications net is held to be pre-eminent."[10]

The original character of the collective space was thought of as a kind of abstract English landscape, with several grassy mounds – the biggest reaching almost two storeys high – and four sunk-

8 Alison and Peter Smithson, *The Charged Void: Architecture* (New York: The Monacelli Press, 2001), 11.

9 Smithsons, *Ordinariness and Light*, 194.

10 Smithsons, *Ordinariness and Light*, 194.

083 Sandra Lousada, *View of Deck in Robin Hood Gardens looking South*, 1972, © The Smithson Family Collection.

084 Sandra Lousada, *View of Grass Mound in Robin Hood Gardens*, 1972, © The Smithson Family Collection.

en circular spaces in concrete. The intention with such a design was, at least in part, to discourage ball games on the lawn, and so maintain a quiet, peaceful character.[11] The mounds remain intact but with the removal of some elements, and the addition of others, the clarity the space has been reduced. For instance, planting now divides the lawn while ad-hoc interventions by residents and the authorities give the space a more informal character.

Relationship to public space

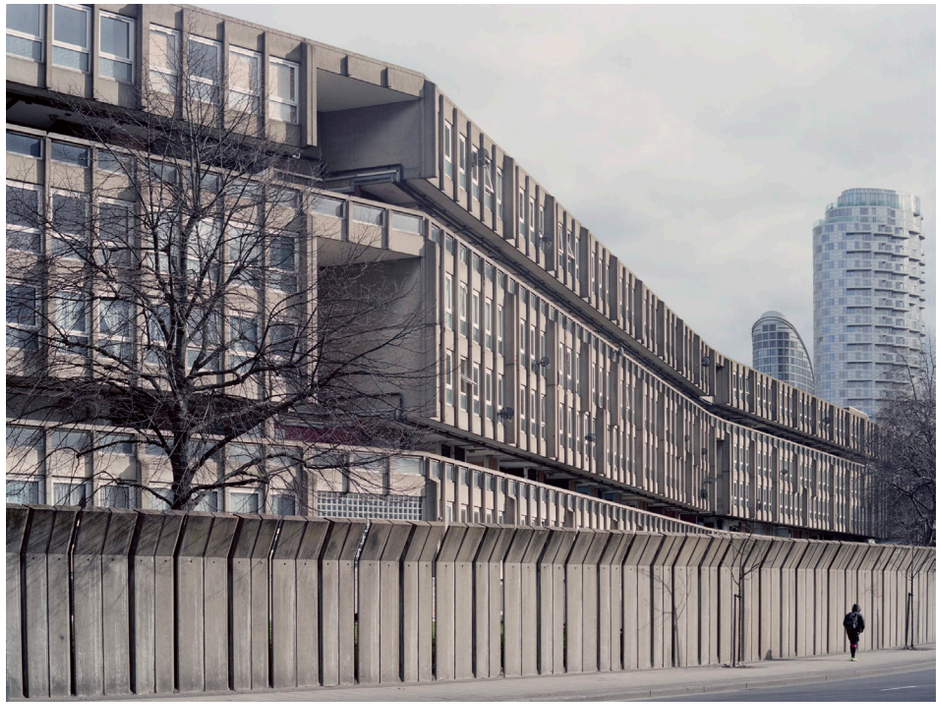
The two bars follow the streets to the east and west of the site, which implies a sensitive response to the city and its fabric. This could be seen to be a more nuanced approach, and a second important departure from the Golden Lane project. This shift of emphasis is important as it represents a larger reflection on the modernist ideals of figure-like buildings occupying the infinite void of the ground. Instead, the Smithsons propose to make the void figurative, framed of the bars on either side. The figure-ground relationship is reversed, at least partially, echoing a position that would be elaborated years later in the book of Colin Rowe and Fred Koetter.[12]

However, despite this shift, the project's connection to public space and to the city more generally remains lacking. At ground level, on the east and west sides, the ten-foot tall acoustic barriers and parking 'moat' contradict the ambition to relate to the existing city, giving the buildings a highly defensive character. Despite the relative porosity of the north and south sides of the site, the passages are very discrete, leaving the connection between the public realm and the collective space somewhat fragile and ambiguous. Such design decisions could be understood through the importance placed on the car during much of the twentieth century. This is true in the defensive structures needed to mitigate the noise and pollution of ever-increasing road infrastructure, and the over-provision of space for the cars of the residents themselves.

In describing the inspiration behind the space, the Smith-

11 Smithsons on housing video.

12 Colin Rowe & Fred Koetter, *Collage City* (Cambridge: MIT Press, 1978).



085 Rory Gardiner, *View of Robin Hood Gardens from Cotton Street*, 2016, © Rory Gardiner.

086 Abdul Kalam, *Robin Hood Gardens Street Facade*, © Abdul Kalam.

087 Sam Mellish, *Robin Hood Gardens*, 2016, © Getty Images.

088 Gili Merin, *View of Robin Hood Gardens from Service Moat*, 2017, © Gili Merin.

sons often made the comparison to a Georgian Square.[13] The obvious distinction between the two is the complete removal of traffic from the space, which again can be understood as a response to the problem of traffic. Later, the Smithsons go on to give a more specific reference for collective space, both in scale and traffic-free nature:

> "It is the size of that at Gray's Inn, which as near as anything can be is the model for this whole operation."[14]

Another moment of deviation from the reference of the garden-square is the fact that the collective space at Robin Hood Gardens is left open to the public. This openness is not a condition found in either the Georgian square or in Gray's Inn, both of which are enclosed spaces accessible to those living in the adjacent houses. The decision to diverge from these previous examples and make the collective space open to everyone was partly due to an 'open-space deficiency' in the area, which meant there was a planning requirement 'to provide two-thirds of an acre per thousand per on out of residential land'.[15] Despite these good intentions, critics have suggested that this requirement to be open to the public results in the collective space feeling too general and having too many potential users. This undermines the ability for residents who live in the bars to appropriate the space. The challenges of the site also make the character of the collective space more problematic: on the one hand it is required to be open to the public; while, on the other, the heavy traffic on the surrounding streets forces the project to be introverted and defensive. This contradiction leads to the collective space having its ambiguous relationship to its surroundings, where it is left unclear whether it 'belongs' to the residents of the bars, or to the city outside.

13 Smithsons on housing video.

14 Smithsons, *Ordinariness and Light*, 194.

15 Ibid, 193.

Relationship to private space

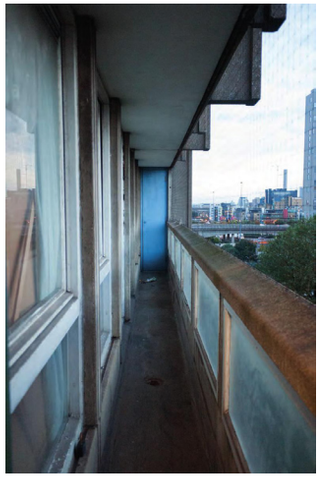
The flats are all accessed directly from the collective space; either directly, as in the case of the ground-floor pensioner's flats, or indirectly, by way of the entrances to the stairwells that climb to the decks on the opposite side. The pensioner's flats are separated from the main path of the collective space by a planted area, originally left as open lawn but since designated as private gardens for the ground-floor flats. The rest of the flats are reached via the network of decks, with lifts at the ends of each bar and additional stairs to the centre. The decks are emblematic of the project, carrying the ambitious title of 'streets in the air' because they were intended to be a new form that could support the vibrancy of traditional street scenes in London's East End. In a first text written at the time of the Golden Lane project, the origin of the deck access idea, Peter Smithson describes the ambition of the device:

> "Our aim is to create a true street-in-the-air, each street having a large number of people dependant on it for access, and in addition some streets are to be thoroughfares – that is, leading to places – so that they will each acquire special characteristics – be identified in fact. Each part of each street-in-the-air will have sufficient people accessed from it for it to become a social entity and be within reach of a larger number at the same level.
>
> Streets will be places and not corridors or balconies.
>
> Where a street is purely residential, the individual house and garden will provide the same lively pattern as a true street or square – nothing is lost and elevation is gained.
>
> Thoroughfares can house small shops, post-boxes, telephone kiosks, etc. – the flat block disappears and vertical living becomes a reality. The refuse chute takes the place of the village pump."[16]

16 Smithsons, *The Charged Void: Architecture*, 86.

089 Derek Kendall, *General view of the west elevation of the east block of flats, showing the entrance to the lift and stairs, with Capstan House and the Global Switch building behind*, 2009, © Historic England Archive.

090 Rory Gardiner, *View of Entrances to Ground floor flats*, 2016, © Rory Gardiner.



091 Jessie Brennan, *Balcony of Larger Apartment*, 2015, from Jessie Brennan, *Regeneration!* (London: Silent Grid, 2015).

092 Abdul Kalam, *Robin Hood Gardens Front Door*, © Abdul Kalam.

093 Karl Eriksson, *Robin Hood Gardens Balcony*, from Karl Eriksson, *Robin Hood Gardens: A Choreographed Demolition*, Masters Thesis, Chalmers University of Technology (2014).

The Smithsons would never build their Golden Lane project, but the research into 'streets-in-the-air' continued was carried forward into Robin Hood Gardens. The evocative imagery implied when talking about these 'streets' is continues, even when the Smithsons explain even more banal aspects, such as the size of these spaces:

> "The deck itself is wide enough for the milkman to bring his cart along, or for two women with prams to stop for a talk and still let the postman by."[17]

The width of the decks also dilates to create 'eddy places' outside the front doors; "where the dwelling takes a piece of the deck for itself, so your doormat is not kicked aside by the passers-by, and you can put out a few pots of plants, or leave parcels."[18] At the lift cores these decks create triple-height loggias, which were also intended as social places. However, despite the intended generosity of the decks and the romantic narrative imbued in their design, the reality of their character and use was quite different. Only one year after construction was complete, Anthony Pangaro writes of the apparent failure of the 'streets in the air':

> "The wide access galleries are primarily circulation spaces and are only incidentally available for neighbourhood exchange. The outdoor areas adjacent to the dwelling units [eddy places] miss their chance to serve as front porches or stoops because they allow no definition of private territory or any sense of occupant ownership. The dwelling units are all but disconnected from the 'street' (imagine the difference if there were only a kitchen window on it, and a real stoop), and turn away from the link to the rest of the estate. The 'street-in-the-air' is therefore only a shadow of what it is meant to be – there are no real play spaces (except the stairwells), no gathering spaces, and no activity connections to indoor communal spaces ... the thing that remains is only a corridor."[19]

17 Smithsons on housing video.

18 Smithsons on housing video.

19 Anthony Pangaro, "Beyond Golden Lane, Robin Hood Gardens," in *Architecture Plus* (1973), 41.

On the other hand, the relationship of the decks to the collective space was equally problematic. As Pangaro notes, "the real action at Robin Hood Gardens is on the ground, and the only real connection to it is via that great interrupter, the elevator."[20] Such a tenuous connection would only be made more fragile with the regular defacing and vandalism of the lifts.

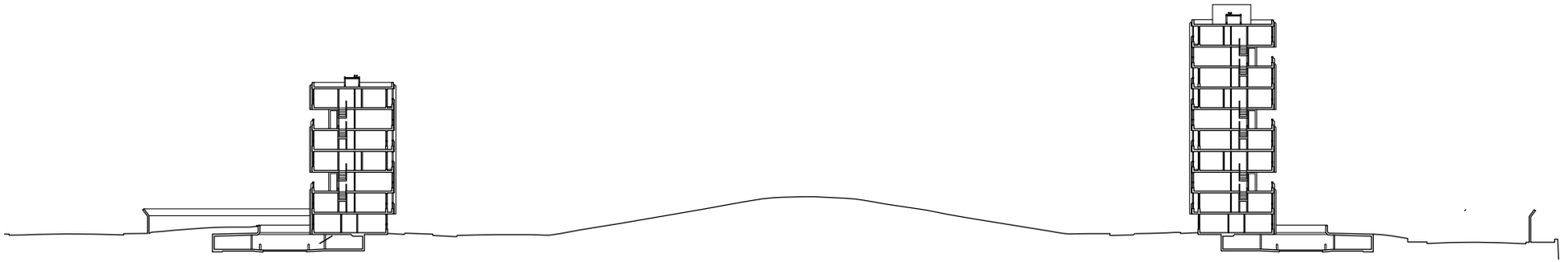
Despite the decline and soon-to-be total demolition of Robin Hood Gardens, some other projects from a similar epoch have managed to avoid a similar fate. The Alexandra Road Estate, completed between 1972 and 1978, was granted Grade II listed status in 1993, making it the first post-war council housing estate to be listed. The Golden Lane Estate, built around 1960, gained Grade II listed status in 1997; while Park Hill in Sheffield, which integrates a variation of 'streets in the air', was given grade II listed status in 1998. It wouldn't be true to say that the design of Robin Hood Gardens was entirely to blame for its downfall, especially given the difficulties posed by the site as well as the neglect cause by lack of investment in maintenance. That being said, by making a comparison with other projects of the same time – projects that shared many of the general principles as Robin Hood Gardens – one can maybe understand how specific details can contribute to the success or failure of a project.

It is a sad twist of fate that a social housing project bearing the name of 'Robin Hood' should be demolished and replaced by a property development where only fifty percent will remain 'affordable'. Instead of "steal from the rich and give to the poor," it seems in the case of Robin Hood Gardens, it is literally the opposite that is true.

20 Ibid, 42.

094 Gili Merin, *View of Robin Hood Gardens Duing Demolition*, 2017, © Gili Merin.

095 *Overleaf:* View of Robin Hood Gardens from South-east, source: archipicture.eu.



Section through Robin Hood Gardens.
Drawing by author.

Golden Lane Estate

The Golden Lane Estate is a social housing complex in the City of London, designed by Chamberlin, Powell and Bon and constructed in two phases between 1953 and 1962. The project consists of four sunken pedestrian courtyards, defined by a series of parallel bars containing maisonette apartments. Additional bars, containing different typologies, are placed at right-angles along the east and west edges of the site; which, together with a leisure centre and a sixteen storey tower in the middle, complete the definition of the four collective spaces, giving each a specific character.

Historic context

In 1951 the Corporation of the City of London acquired almost fives acres of land on its northern boundary with the borough of Finsbury. The land was in the ward of Cripplegate, where the warehouses of the garment district had been lying in ruins since the bombing raids of the second world war. When the City secured the land, all that was left were deep basements filled with rubble. That same year, the Public Health Committee of the City of London organised an open competition to build flats, a community centre and children's playground.[21]

The competition attracted 178 entries including the heavily discussed, but ultimately unplaced, submission of Alison and Peter Smithson, as mentioned in the previous chapter. In February 1952, Geoffrey Powell was named the winner, who subsequently formed a partnership with Peter Chamberlin and Christoph Bon. The three architects had agreed to each submit a proposal individually, but according to the understanding that they would work together if either of them won.[22]

Several extensions were made to the site and the project developed accordingly. A first phase included the bars to the east and the central tower, while those to the west came later. Crescent House, the last building to be built, shows the architects' move towards a "heavier aesthetic" after 1955. This evolution is clearly visible in the Barbican Estate, just south of Golden Lane.

21 "Golden Lane Estate Designed Landscape," Historic England, accessed Jan 4, 2020, https://historicengland.org.uk/listing/the-list/list-entry/1468840

22 Ibid.

096 *Opposite*: John Maltby, *Great Arthur House, Golden Lane Estate, Finsbury, London*, 1956, © RIBA Collections.

097 Harry Kerr, *Workmen build a water tank, shaped like a pagoda, on top of a block of residential flats in Golden Lane, Aldersgate*, 1956, © Getty Images.

098 *Previous*: James O Davies, *General view showing the Golden Lane Estate in the foreground, from the south-south-east*, 2010, © Historic England Archive.

099 *Opposite*: Anthony Rau, *Great Arthur House Including Boiler House*, 2007, © Anthony Rau.

Form

The collective space at Golden Lane takes the form of four courtyards, each with its own character: the piazza, the pond-garden, the recreation yard and the lawn. Despite the natural ground level being flat, there is a variety of levels across the site connected with stairs and ramps. This originates from 1952, when the site was cleared of rubble and deep basements of previous buildings were discovered. These excavations informed the landscape design, allowing each of the courtyards to be partially sunken and each containing a variety of ponds, lawns and planted areas.

Geoffrey Powell's original competition winning scheme involved a similar series of sunken courtyards but they were arranged symmetrically, with a broad north-south route and a piazza to the centre. In later stages the basic concept remained the same, but went through a number of revisions. The changes increaseed the size of the courtyards, which were consider "too enclosed and oppressive"[23] in the competition scheme, by increasing the height of the blocks and thus reducing their number. The project also developed away from its initial symmetric composition: each courtyard now had its own proportions, and there was a specificity to the connections between each. The north-south axis, for example, was reduced in size and terminated at the centre of one of the courtyards with a circular 'bastion'.[24] This feature gives perhaps the strongest hint of the practice's interest in picturesque compositions, albeit using the most formal of means. It remains unclear, however, whether this was thought of as "a medieval relic or an eighteenth-century garden feature."[25]

Chamberlin Powell and Bon were greatly influenced by the ideas of the early moderns, with Geoffrey Powell admitting when asked about their sources, "we were all into Le Corbusier, rather."[26] However, despite Powell's admiration of Corbusier, the practice was critical of some modern principles, especially those relating to urbanism. Miller Freeman reflects in a recent article, "Powell was not, however, enthralled by Corbusier's urban prescriptions" which produced 'handsome, but essentially sterile' landscapes."[27]

23 "Housing in Golden Lane, London: Architects Chamberlin, Powell and Bon," *The Architectural Review* 725, no. 121 (Jun 1, 1957), 414.

24 Historic England, "Golden Lane Estate Designed Landscape."

25 Elain Harwood, *Chamberlin, Powell and Bon: the Barbican and beyond* (London: RIBA Publishing, 2011), 34.

26 Geoffrey Powell in conversation, August 1989.

27 Miller Freeman, "Golden Years," *Building Design* (Feb 18, 2000), 20.

100 Christopher Redgrave, *General view of the Golden Lane estate, looking north across a water feature towards Bayer House*, 2019, © Historic England Archive.

101 Anthony Rau, *Recreation Centre And Tenants Hall Including Baths Gymnasium And Nursery*, 2007, © Anthony Rau.

102 Richard Partridge, *Basterfield House*, 2018, © Richard Partridge.

In contrast Chamberlin Powell and Bon have a deep admiration for the historic city, and position themselves firmly against suburban tendencies. This of course translated into their work at Golden Lane, as they describe:

> "... we attempted to make Golden Lane truly urban as, for instance, Florence or Oxford City are truly urban. … We strongly dislike the Garden City tradition with its low density, monotony and waste of good country, road, curbs, borders, paths in endless strips everywhere. We like strong contrast between true town and true country."[28]

This urban quality is insisted upon by the architects on several occasions, and perhaps is partly achieved through the fact they were solely responsible for the landscape design, giving a powerful formal charter to the spaces. "There is no attempt at the informal in these courts . We regard the whole scheme as urban. We have no desire to make the project look like a garden suburb."[29] As such the landscape features often followed strong geometries, partly also in consideration of what would be robust enough to survive. Another consideration was the pattern of the landscape from the upper apartments.[30]

In their work, Chamberlin Powell and Bon also emphasised the importance of the space held between buildings, as they explained in 1980, "one of our principal interests has been the creation of places – not just buildings."[31] In their research into the 'place-making' capacity of architecture, Elain Harwood notes that the practice also looked to classical references such as Hadrian's Villa and monastic cloisters. Other common references for them include the quadrangles of the Inns of Court, and Georgian Squares.[32] Of course, the influence of these examples is clearly visible in Golden Lane, which bases itself around a series of open courtyards. It is interesting to note that these last examples were also cited by the Smithsons in their explanations of Robin Hood Gardens, however in Golden Lane they inspire an altogether

28 "Men of the Year 1952," *Architects' Journal*, vol. 177, no. 3020 (15 Jan 1953), 72.

29 Geoffrey Powell, "Golden Lane Housing Scheme" *Architectural Association Journal*, vol. 72, no. 811 (April 1957), 216.

30 Elain Harwood, "Post-War Landscape and Public Housing," *Garden History* 28, no. 1 (2000), 109.

31 "Chamberlin Powell and Bon," Muriel Emanuel, ed., *Contemporary Architects* (London: Macmillan, 1980), 148.

32 Harwood, *Chamberlin, Powell and Bon*, 3.

different result. While with the Smithsons, whether their entry for the Golden Lane competition or their actually-realised Robin Hood Gardens, discussion focuses almost exclusively on the building themselves. As for the Chamberlin Powell and Bon's Golden Lane, Ian Nairn, in his acerbic postwar guide to London, pays it a odd compliment when he reflects, "the buildings themselves … are unimportant compared with the spaces between them."[33] Indeed, as he continues, it is clear that the project lives up to its ambition to be 'truly urban':

> "There are half a dozen ways of crossing the site: along corridors, under buildings, down steps and up ramps. And it is all meant to be used. The space itself, continually fluctuating and flickering, new views always opening and faster than the eye can take them in …"[34]

The north façades of each of the bars are relatively sober, with large flat brick piers obscuring the entrance recesses. On the south facade, however, the crosswalls extend beyond the interior to divide the balconies, and the volume of the bedroom sits forward of the glazing line of the living room below. These details give an appropriate sense of scale, and balance the individualisation of each flat with the unity of the whole; the bars can almost be read as a collection of houses stacked on top of each other.

Relationship to public space

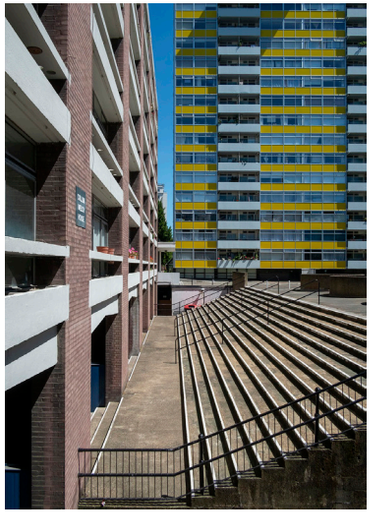
The site is open to the city on all sides, but the primary entrance is from the south, where the pavement of Fann Street extends into the estate, creating a public piazza in front of Great Arthur House. Crescent house holds the western side, where a pub – The Shakespeare – marks the corner in a typically London way, while an adjacent section of the ground floor is left open to provide a route from Goswell Road. From this first and most public courtyard, a series of pedestrian routes continue across the estate, connecting to

33 Ian Nairn, *Nairn's London* (London: Penguin Books, 2014), 76.

34 Ibid.

103 Richard Partridge, *Great Arthur House*, 2018, © Richard Partridge.

104 Anthony Palmer, *Basterfield House (six-storey maisonette block) with Bayer House on the right, Golden Lane Estate, Finsbury, London,* 2015, ©Riba Collections.



105 Circular Bastion at Golden Lane Estate, source: modernestates.com.

106 Large stair leading from public piazza at Golden Lane Estate, source: modernestates.com.

the bars of maisonettes and to the collective spaces. These public routes remain at ground level as they cross the site, while the collective courtyards are in each case on a lower level. In general the pedestrian routes pass along the northern facade of the bars, while overlooking the sunken courtyard on the opposite side. Stairs and ramps connect the level of the collective space with that of the public path. These elements take on a variety of forms, such as the circular bastion leading from the north-south route east of the tower, to the lawn in front of Basterfield House; or the more monumental stair connecting the piazza with the tennis courts on the other side of Cullum Welch House. In each case there is a change in level that differentiates public from collective, and it is the particular way in which these levels are connected, among other things, that gives each courtyard its specific character.

Beyond the attention to given the ground plane, the arrangement of the blocks themselves also functions to define space. As Harwood explains using the example of Great Arthur House, the tower at the centre:

> "The central block provided an eye-catcher while closing vistas in the manner advocated by Gordon Cullen in his contemporary 'townscape' studies for the Architectural Review – themselves indebted to the nineteenth-century writings of Camillo Sitte, then newly translated into English by Gibberd's ideas on 'town design'."[35]

Harwood notices this tendency in the positioning of Great Arthur House, but the same strategy is used with other buildings and landscape features across the site. In this way, the Golden Lane Estate, by integrating Gordon Cullen's ideas of 'townscape', represents a critique of earlier modern principles.[36] Indeed it is this attention to the arrangement of the bars and the enclosure of space that, despite its relative openness to the city, gives the estate a relatively introverted character. According to Historic England, the body responsible for the listing of buildings, this character had

35 Harwood, *Chamberlin, Powell and Bon*, 31.

36 Barnabas Calder, "Brutal enemies? Townscape and the 'hard' moderns," in *Alternative Visions of Post-War Reconstruction* ed. John Pendlebury, Erdem Erten, Larkham Peter (London: Routledge, 2014), 199-215

been decided at an early stage in the project:

> "Powell deliberately restricted views out of the site. He believed that the residents would not want to look at the surrounding bomb sites and war-damaged buildings, so turned the estate inwards."[37]

The dereliction and ruin of the surrounding neighbourhood would seems a reasonable justification to turn the estate in on itself, but it is interesting to consider the relevance of such a strategy today. Rather than being surrounded by open space and rubble, the site now finds itself in an increasing dense urban neighbourhood. While the Golden Lane Estate was considered dense for its time, the quality and amount of its open space is a luxury that recent developments in the area have not managed to replicate (the obvious exception being the Barbican, constructed in the decades following Golden Lane, also by Chamberlin Powell and Bon). The introverted nature of Golden Lane today acts as a kind of resistance towards certain hostile tendencies of the contemporary city, where commercial interests seek to capitalise on every possible opportunity. With land prices reaching dizzying levels, it is the real estate market that poses a particular threat. A recent case involves the proposal of a private apartment block to the south of the estate, large enough to overshadow Bowater House and two nearby schools. The project provoked considerable protest, particularly from residents of Golden Lane, with artists and writers creating banners that were hung on the balconies of Bowater House facing the site.[38] The campaign was not successful and the "luxury apartments" are under construction. In describing the desirability of the location, the marketing material shamelessly, but altogether quite predictably, cites the nearby open spaces of Golden Lane and the Barbican. Naturally, this case leads to one to wonder if there's anything more architecture can do to resist neo-liberal modes of development, the tendency of which is to privatise all that is public. In this example it seems there is even an attempt to privatise,

37 Historic England, "Golden Lane Estate Designed Landscape."

38 Elizabeth Hopkirk, "Artists and writers protest against Golden Lane development," *Building Design* (17 Oct, 2017).

107 Anthony Rau, *Oblique View Across Courtyards at Golden Lane Estate*, 2007, © Anthony Rau.

108 John Maltby, *Great Arthur House, Golden Lane Estate, Finsbury, London*, 1956, © RIBA Collections.

109 Anthony Rau, *Stanley Cohen House Including Canopies And Retaining Walls To Golden Lane*, 2007, © Anthony Rau.

110 John Maltby, *Stanley Cohen House, Golden Lane Estate, Finsbury, London*, 1956, © RIBA Collections.

or at least draw profit from, that which is collective, such as the open spaces of Golden Lane.

It could be argued that if anything the estate has only become more introverted over the years, perhaps as a response to the external pressures and changing urban condition within which it finds itself. Perhaps the largest change in the estate's porosity has been towards Golden Lane on the eastern boundary. Originally the division between Golden Lane and the courtyard on this side was marked with an open colonnade, providing a link with the Peabody estate opposite, but in the 70s a brick wall was added. The wall not only restricts the visual connection between these spaces, but also includes gates that can be shut at night to provide access to residents only.[39]

Relationship to private space

Most of the apartments have a collective space on both sides. The bars containing the maisonettes have their entrances along their north façades. The individual apartments are either entered from a kind of colonnade at ground level, or via external decks on every other floor above. There are two stairs per bar, external but sheltered, with views over the street the courtyard respectively.

To the south side of each bar is a sunken courtyard. The maisonettes on the upper floors can reach this space via the decks and stairs, the ground floor maisonettes on the other hand, have direct connection. This is provided by means of a break in their balconies, where a short stair continues to the level of the courtyard. For each courtyard this strategy is developed in a slightly different way. The most elaborate threshold between the ground floor flats and their adjoining collective space can be found in the central courtyard next to the community centre. In this case, the short stair exits the balcony as before, but then lands on a system of shallow terraces making up the difference in height. The platforms are connected to each other, and eventually to the level of the courtyard, by a few stairs running perpendicular to

39 Historic England, "Golden Lane Estate Designed Landscape."

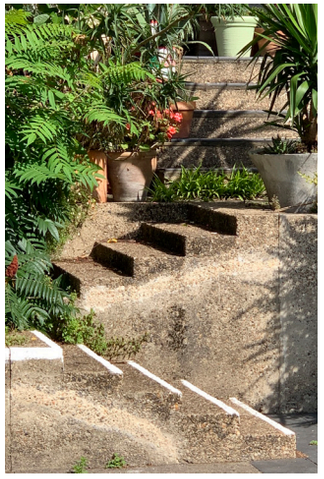
those mentioned previously. This layout is necessary because of the greater depth of the collective space, allowing the two floors of the community centre to correspond with those of the landscaping. The terracing also provides a deeper threshold between the courtyard and their homes, and offers a space that is very open to appropriation. Both of these factors are important because of the more public nature of this specific courtyards due to its proximity to the street and the adjacency of the community centre. This particular example reveals the understanding that Chamberlin, Powell and Bon had of the specificity of each courtyard, and of the thresholds between adjacent spaces. These connections where often developed in section, which was seen as a crucial mode of design according to Peter Chamberlin:

> "… constant thinking in three dimensions is of supreme importance. Designing in section is complementary to designing on plan, and burrowing down into the ground may be as important as climbing up into the sky."[40]

As suggested by Chamberlin, the 'three dimensional' design of the collective space is not limited to the ground plane, as can been seen on top of Great Arthur House. Chamberlin was responsible for the design of this collective space, a roof garden across three levels, for use by the residents of the upper floors of the building. Originally this space had trees planted in concrete tubs next to the stairs, leading to a shallow pool, with steeping stones and a timber pergola. An addition stair led to a viewing platform integrated into a structure housing a water tank and machine rooms for the lifts. These final elements are treated in a sculptural way, creating perhaps the most obvious reference to the work of Le Corbusier on the Estate. The roof garden was closed in 1981 following a suicide, but the hard structures survive.[41]

40 Peter Chamberlin, "Architects' Approach to Architecture," *RIBA Journal*, vol. 76, no. 6 (June 1969), 233-5.

41 Historic England, "Golden Lane Estate Designed Landscape."

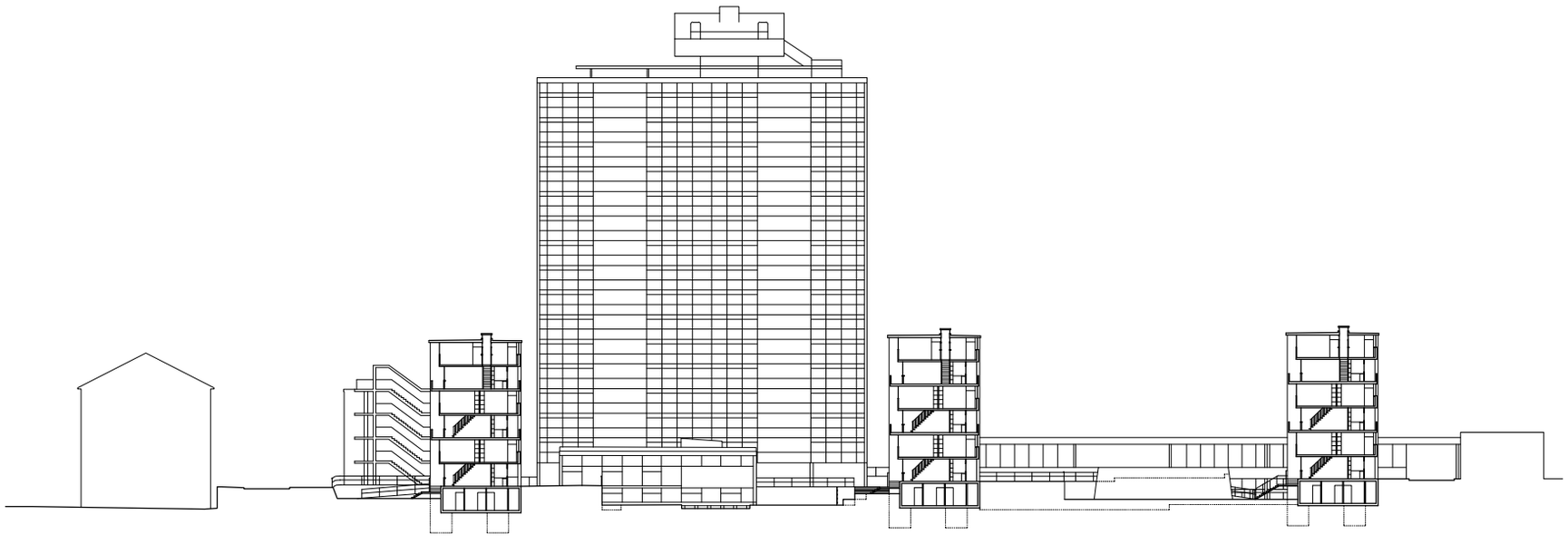


111 Christopher Redgrave, *General view of the Golden Lane estate, looking north across a water feature towards Bayer House*, 2019, © Historic England Archive.

112 Detail of terraces adjacent to Bayer House, source: https://www.barbicanliving.co.uk.

113 John Maltby, *Roof Garden of Great Arthur House,* 1956, © RIBA Collections.

114 *Overleaf*: James O Davies, *Exterior view of a maisonette block with red panels on the Golden Lane Estate*, 2010, © Historic England Archive.



Section through Golden Lane Estate.
Drawing by author.

Conclusion

At the beginning of this paper we asked whether there is such a thing as a 'collective' architecture, and if so, what are its discernible qualities. Every example discussed in the previous pages contains a 'collective' space, that is, a space intended to be shared by the residents, and depending on the example, more or less open for use by outsiders. In each case this space has a specific character, one that is distinct from the associated public or private realms that surround it. Thus it seems clear that the answer to the first part of this question "is there such a thing as 'collective' architecture?" is "yes." This first part of the question is easier to answer than the second, which, however more challenging, would perhaps be more useful. The difficulty in being specific about the 'discernible qualities' of collective architecture is that the previous examples show not only that collective space is possible, but they also that it is possible within a variety of forms. Instead of explaining the specific qualities of collective space it would seem more productive to summarise some key principles that have been observed in the previous examples. These exist within three categories: *form* (the geometry of the space, the qualities of the façades), *arrangement* (the position of public, private and collective relative to one another), and *threshold spatiality* (the limits that define one space from another, and the question of porosity).

Form

The notion of the 'figurative void', whereby buildings take the position of ground, was discussed in the introduction. According to this notion, buildings, when considered as 'ground', create a field upon which one can recognise collective identities. It was thus understood that a consideration of void as 'figure' (and building as 'ground') would be a key characteristic in the design of collective space. It is indeed true, that each of the examples discussed are based on an idea of void as figure, but there are variations. We understand these variations better by splitting this topic, the topic of form, into 'geometric clarity' and 'facade unity'.

If we take as a starting point the understanding of a figurative void as a characteristic of collective space, as discussed in the introduction, then it seems only natural that the use of clear geometries would be feature in the examples that were to follow. The early examples of the 'terrace' are testament to the formal inventiveness that could be said to characterise this type, while the 'block' examples show variations on a more classic urban form. With the examples of *Siedlung*, we see a renewed interest in alternative collective forms, but it should be noted that the examples shown are not very representative of the majority of project in this category. In general in the *Siedlung*, urban forms tended to prioritise technical considerations over social ones. Finally, with the bar we have a much looser formal sensibility compared to every previous example. One could see these examples as attempting to bridge the gap between traditional urban forms and those of the early modernist period. This is made explicit by the architects themselves when they discuss their references, where the typical Georgian Square is specifically mentioned. The idea of the picturesque was also something first mentioned with the 'terrace' only to come back in Robin Hood and Golden Lane, giving a satisfying circularity to this text. However the reluctance to return fully to the strict forms of the past could also be read as a willingness to go beyond the rigid structure of Georgian urban space. This is especially true of Golden Lane, where the courtyards are of course rectilinear, but the buildings are shifted to achieve asymmetric view and areas of greater and lesser intensity.

After the shape of the space's boundary, comes the character of its surface. By this we mean the expression of the façades that face the collective space. The use of repetition to create an overall unity to the façades can be seen as a recurring theme shown in every one of the previous examples. This is a strategy that complements geometry of the form in the creation of the 'background' of collective space. However, as with the notion of geometry there is a certain amount of variation between the projects concerning their 'facade unity'. The tendency is first seen with the terrace

houses, where there the individuality of each house is suppressed in favour of the whole row, or indeed crescent. In these examples there is even a tendency to build 'palaces' with many houses placed in a row. The proportions of the facade nonetheless reveal the classical influences of the time, where there is a good deal more emphasis place on the first floor than the ground, and even more so the second or attic spaces. Fisker's Hornbækhus develops the theme of monumentality, but with even greater overall unity. The overall project uses only one kind of window, repeated in a regular grid, with no exceptions for bathrooms or stairs. The effect is that of total unity, where subtle changes to the detailing of the facade project this unity as lightness to the street and as strength to the courtyard. Later examples bring up some difficulties, as in the case of Robin Hood Gardens. Here the unity of the façades, achieved by means of horizontal bands of windows and vertical concrete fins, could be seen as alienating, with the Smithsons themselves noticing that residents were very tentative about appropriating the facade. Perhaps there is too much suppression of the individual, or not enough opportunity for self-expression. It is perhaps the use of a traditional window in the Hornbækhus gives it a more gentle character, despite its repetition arguably being more ruthless.

Arrangement

An understanding of the idea of 'collective' or 'common' implies an idea of something that exists between the public and private. From this notion, it could easily be assumed that collective space would follow this logic and present itself as a transition between the public and private realm, according to the sequence:

public – collective – private

However, having now had the opportunity to learn from a variety of examples, it can be seen that this is not always true. In fact, it is only true in the case of Klose-Hof, which is representative of most

Viennese Höfe, and Robin Hood Gardens, while other examples use different strategies. The terrace house is unique in its positioning of the collective space, surrounded on all sides by public streets, giving the sequence:

collective – public – private

The *Siedlungen* examples are similar, as their connection between apartment and collective space takes place again via the street: in the Hufeisensiedlung, the back door of each stairwell leads only to the private gardens which have a view, but no connection, to the collective space, while at Bruchfeldstrasse the basement passage to the courtyard is only accessible via a second front door from the street. The collective space in Berlin is of course vastly more open to the public than that in Frankfurt. Fisker's Hornbækhus offers another alternative arrangement, where the collective space is surrounded by private space. The primary sequence here is:

public – private – collective

This is made possible by the private stair that provides a direct connection between the apartments and the courtyard, without touching the public realm. There is a connection between the courtyard and the street in the form of an opening at either end, but since this is gated it does not constitute a particularly meaningful level of openness to the public. It could be argued that in the case of Bedford Square, while it is also inaccessible to outsiders, the collective space, maintains a greater openness to the public by virtue of being surrounded by public space rather than private.

The last example, Golden Lane, is the only example that achieves a more circular relationship of these three spatial categorisations. This means that wherever there is a collective space, it is always bordered by a public path on one side and private apartments on the other, where each of these boarders are permeable. In essence the sequence is the same as those mentioned before,

the only difference is that it repeats. This arrangement is possible because of the fact that there are multiple collective spaces in the project in the form of sunken courtyards, each with a pedestrian route on one side and maisonette apartments on the other. The space is then accessed from both by means of steps and ramps. The example of Golden Lane is perhaps one of the best in terms of creating collective spaces that are distinct from the public and private realms, while remaining directly accessible to both. It is particularly remarkable how these spaces have managed to remain open to the public given the increasing density of the city that has grown around it. Of all the examples shown it is also perhaps the only one to be situated within a 'public' that has changed quite so drastically since its construction – and to survive such changes.

Threshold Spatiality

The notion of 'threshold spatiality' was discussed at the beginning of this paper as a defining characteristic of collective space, providing definition to the edges while maintaining the always-important openness to the outside. The thresholds that structure collective space are understood as a devices that separate at the same time as connecting, as edges but also as passages. This was left somewhat abstract with first discussed, but now, with the help of various examples, we understand what this means in a more concrete way.

Each of the projects listed have their own specific combination of thresholds, each constructed in a different way giving each space its specific character. Given the diversity of tools and their many combinations it is useful to make some categories. These could be: level changes (ramps, steps, ha-ha, etc.), ground textures (grass, stone, etc.), constructed elements (walls, fences, doors, gates, etc.) and natural elements (trees, shrubs, water). This categorisation is not intended to be scientific, and indeed some elements could be considered to fit into more than one category – is water a 'ground texture' or a 'natural element'? is a ha-ha a 'level change' or a 'constructed element'? The answers to these questions

are not as important as the potential for understanding that these groupings might bring. That being said, the ambiguity of certain elements allows us to avoid a systematisation of design, where an element is understood to have only one function.

Changes in level is first, by which we mean the articulation of the ground plane using sunken levels, terraces and raised walkways, with the connection of each with stairs and ramps, or their deliberate disconnection. We can observe this as a technique in the Hufeisensiedlung, where the sunken garden is connected to the public with a grand stair, while on the opposite side the private gardens are also terraced. Equally, we see this technique at play in the terrace, whether in London or Bath, where the houses are raised from the street offering relative privacy to the interior. This same move can also be understood as a means of improving the visual connection to the collective space, where a physical connection is lacking it is compensated by a view. At the Royal Crescent in Bath a ha-ha is used on the southern edge. This device is effectively a retaining wall, designed in such a way as to restrict access but maintain an open view over the landscape from the elevated side. Perhaps the most ambitious example, as far as ground articulation is concerned, is Golden Lane, where the numerous courtyards are in each case sunken. This simple strategy allows an incredible porosity to the estate, where in every case the collective space is crossed by a public route to one side, while giving clear definition to each open spaces. An incredible inventiveness is visible in the means of crossing between these levels at Golden Lane, where a variety of stairs, ramps, terraces and the previously mentioned 'bastion' give each courtyard its own specific character.

Changes in ground texture is more subtle, but involves the changing surface of the ground as a means of spatial definition. One can think of the paths that cross the lawn in Bedford Square or Robin Hood Gardens, the brick steps of the Hufeisensiedlung, the cut stone paths in Bruchfeldstrasse. The Hornbækhus makes particular use of changing ground texture in its courtyard where there is a an outer ring of cobblestones, followed by a band of gravel, and at the centre a large lawn.

Constructed elements are what one thinks of first when thinking of architecture. Here we understand walls, pierced with windows and doors, but equally important are devices more related to landscape design such as fences, railings, gates. The railings of Bedford Square are surely a protagonist in this category, both in their position marking the perimeter of the collective space and along the edge of the pavement, before the drop of the sunken yard to the front of each house.

Finally there are the natural elements – plants, trees, bushes and living things. A common thread across all examples is the presence of nature and green as a means of creating collective space, but it is also made productive in the structuring of boundaries and thresholds. Hedges divide private gardens from collective space in both *Siedlungen*, and are equally used to create a boundary around the lawn in the Hornbækhus. Trees and shrubs are particularly crucial in Bedford Square where they form a permeable boundary around the central lawn. The experience is heightened by breaks made in the planting that create picturesque views into the garden. Golden Lane, despite maintaining a considerably more urban character, also makes use of natural elements. One such example is in the courtyard of the community centre. Here we find a pond with stepping stones that divides the space, creating a distance between part of the courtyard used more by residents, and an area for access to the community centre.

The examples explored in the previous pages show only small selection of the vast numbers of collective spaces already in existence. However they reveal the variety that is possible using only a few different strategies. It is the combination of different devices – that could maybe be grouped according to form, arrangement and threshold spatiality – that defines the character of a collective space in the city. In the process of defining a space for collective use, all while remaining open to newcomers, we find the potential for collective space to become common rooms.

Bibliography

Aymonino, Carlo. *Gli alloggi della municipalità di Vienna – 1922-1932.* Bari: Dedalo, 1965.

Aymonino, Carlo. *Origini e sviluppo della città moderna.* Padua: Marsilio, 1965.

Bates, Stephen; Krucker, Bruno; Leuschner, Katharina; eds. *Robin Hood Gardens: building register*. Berlin: TU Munich, 2012.

Bates, Stephen; Krucker, Bruno; Leuschner, Katharina; eds. *Hornbækhus: building register*. Berlin: TU Munich, 2012.

Bates, Stephen; Krucker, Bruno; Leuschner, Katharina; eds. *Hornbækhus: building register*. Berlin: TU Munich, 2012.

Bates, Stephen; Krucker, Bruno; Leuschner, Katharina; eds. *The English Terraced House: building register*. Berlin: TU Munich, 2012.

"Bedford Square." Historic England. Accessed December 26, 2020. https://historicengland.org.uk/listing/the-list/list-entry/1000245.

Blau, Eve. *The Architecture of Red Vienna.* Cambridge, Mass.: MIT Press, 1999.

Boehm, Herber. "Baulanderschliessung in Frankfurt a. M. Früher und heute," *Das neue Frankfurt*, no.1 (5) (1927): 105-112.

Bourdon, Valentin. "Les formes architecturales du Commun" PhD diss., Ecole polytechnique fédérale de Lausanne, 2020.

Brennan, Jessie. *Regeneration! Conversations, Drawings, Archives and Photographs from Robin Hood Gardens.* London: Silent Grid, 2015.

Buschfeld, Ben. *Bruno Tauts Hufeisensiedlung*. Berlin: Nicolai, 2015.

Calder, Barnabas. "Brutal enemies? Townscape and the 'hard' moderns." In *Alternative Visions of Post-War Reconstruction.* Edited by John Pendlebury, Erdem Erten, Larkham Peter. London: Routledge, 2014.

Chamberlin, Peter. "Architects' Approach to Architecture." *RIBA Journal*, vol. 76, no. 6 (June 1969): 233-5.

"Chamberlin Powell and Bon," edited by Muriel Emanuel. *Contemporary Architects*. London: Macmillan, 1980.

Dreysse, D. W. *May-Siedlungen. Architekturführer durch acht Siedlungen*

des neuen Frankfurt 1926-1930. Frankfurt am Main: Fricke-Verlag, 1987.

Evans, Robin. "Figures, Doors, Passages." In *Translations from Drawing to Building and Other Essays*. Cambridge, Mass.: MIT Press, 1997.

Fisker, Kay. "Internationalisme contra nationalromantik. Brydninger i nordisk arkitektur omkring århundredskiftet." *Arkitekten*, 22 (1960): 369-387.

Fisker, Kay. "Købehavnske boligtyper fra 1914 til 1936" *Architekten*, 6-7 (1936): 120.

Fisker, Kay. "Persondyrkelse eller anonymitet." *Arkitekten*, 26 (1964).

Fisker, Kay. "The Moral of Functionalism." In *Nordic Architects Write*, edited by Michael Asgaard Andersen. Abingdon: Routledge, 2008: 35-39/

Freeman, Miller. "Golden Years." *Building Design* (Feb 18, 2000): 20.

Giedion, Sigfried. *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge, Mass.: Harvard University Press, 1941.

"Golden Lane Estate Designed Landscape." Historic England. Accessed January 4, 2020. https://historicengland.org.uk/listing/the-list/list-entry/1468840.

Haney, David. *When Modern Was Green*. Hoboken: Taylor and Francis, 2012.

Hardt, Michael and Negri, Antonio. *Commonwealth.* Cambridge, MA: Harvard University Press, 2009.

Hardt, Michael. "The Common in Communism." In *Rethinking Marxism*, 22/3 (2010)

Harwood, Elain. C*hamberlin, Powell and Bon: the Barbican and beyond*. London: RIBA Publishing, 2011.

Harwood, Elain. "Post-War Landscape and Public Housing," *Garden History* 28, no. 1 (2000): 109.

Hautmann, H. and Hautmann, R. *Die Gemeindebauten des roten Wien 1919-1934*. Vienne: Schönbrunn, 1980.

Henderson, S. *Building Culture. Ernst May and the New Frankfurt Initiative, 1926-1931*. New York: Peter Lang Publishing, 2013.

Hilpert, Thilo. *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt*. Berlin: TU Berlin, 1980.

Hoffmann, Josef. *Josef Hoffmann*, edited by Giuliano Gresleri. Bologna: Zanichelli, 1981.

Hopkirk, Elizabeth. "Artists and writers protest against Golden Lane development," *Building Design* (17 Oct, 2017).

"Housing in Golden Lane, London: Architects Chamberlin, Powell and Bon," *The Architectural Review* 725, no. 121 (Jun 1, 1957): 414.

Kähler, G. *Wohnung und Stadt: Hamburg-Frankfurt-Wien*. Braunschweig/Wiesbaden: F. Vieweg, 1985.

"Men of the Year 1952." *Architects' Journal*, vol. 177, no. 3020 (15 Jan 1953): 72.

Muthesius, Hermann. *Das Englische Haus, Bd. 2* (1904). Translated by Dennis Sharp. London: Frances Lincoln, 2007.

Muthesius, Stefan. *Das Englische Reihenhaus* (1939). Translated. New Haven & London: Yale University Press, 1982.

Nairn, Ian. *Nairn's London.* London: Penguin Books, 2014.

Ortelli, Luca. "Architecture ancrée dans le quotidien. Kay Fisker et ses compagnons de route." In *Matières*, 12, edited by Bruno Marchand. Lausanne: PPUR, 2020.

Ortelli, Luca; Monterumisi, Chiara; and Porotto, Alessandro, eds. *Urban Planning*, vol. 4 no. 3 (2019). Retrieved from https://www.cogitatiopress.com/urbanplanning/issue/view/134.

Pangaro, Anthony. "Beyond Golden Lane, Robin Hood Gardens," in *Architecture Plus* (1973).

Pedret, Annie. "CIAM 1953: discussing the charter of habitat." Team10online.org. Accessed December 26, 2020. http://www.team10online.org/team10/meetings/1953-Aix.htm.

Perec, Georges. *Espèces d'Espaces*. Paris: Galilee, 1974.

Pevsner, Nikolaus. *North Somerset and Bristol. The Buildings of England.* London: Penguin, 1958.

Porotto, Alessandro. *L'intelligence des formes: le projet de logements collectifs à Vienne et Francfort.* Geneva: MétisPresses, 2019.

Powell, Geoffrey. "Golden Lane Housing Scheme" *Architectural Association Journal*, vol. 72, no. 811 (April 1957): 216.

Rancière, Jacques. *Dissensus: On Politics and Aesthetics.* London: Continuum, 2010.

Riley, W. Edward and Gomme, Laurence, eds. *Survey of London: Volume 5, St Giles-in-The-Fields, Pt II*. London: London County Council, 1914. British History Online. Accessed December 26, 2020. http://www.british-history.ac.uk/survey-london/vol5/pt2.

Rowe, Colin and Koetter, Fred. *Collage City*. Cambridge, Mass.: MIT Press, 1978.

Schirren, M. "Weltbild, Kosmos, Proportion: Der Theoretiker Bruno Taut." In *W. Nerdinger Bruno Taut: 1880-1938*. Stuttgart: Deutsche Verlags-Anstalt.

Schrijver, Lara. "The Archipelago City: Piecing together Collectivities. Urban Formation and Collective Spaces." *OASE*, 71 (2006): 18–37. Retrieved from https://www.oasejournal.nl/en/Issues/71/TheArchipelagoCityPiecingTogetherCollectivities.

Smithson, Alison. "Team 10 Primer 1953-62." *Ekistics* 15, no. 91 (1963): 349-60.

Smithson, Alison and Peter. *The Charged Void: Architecture*. New York: The Monacelli Press, 2001.

Smithson, Alison and Peter. "The Space Between." *Oppositions* 4 (1974).

Smithson, Alison and Peter. *Ordinariness and Light.* London: Faber and Faber, 1970.

Smithson, Alison and Peter, *The Smithsons on Housing* (video). BBC, 1970. Accessed December 26, 2020. https://www.youtube.com/watch?v=UH5thwHTYNk.

Smithson, Peter. *Bath: Walks Within the Walls.* Bath: Bath University Press, 1980.

Soja, Ed. W. *Postmetropolis: Critical Studies of Cities and Regions.* Malden, MA: Blackwell, 2000.

Søberg, Martin. "Kay Fisker's Classical Principles for Modern Housing." In *Reflecting Histories and Directing Futures: Proceedings Series 2019*, edited by Anne Toft, Magnus Rönn & Ewen Wergeland, 55-74. Nordic Academic Press of Architectural Research, 2019.

Stavrides, Stavros. *Common Space: The City as Commons.* London: Zed Books, 2016.

Stevenson, J. J. *House Architecture, Vol. II.* London, 1880.

Summerson, J. *Georgian London.* London: Pleiades Books, 1945.

Tafuri, Manfredo. *Vienna Rossa. La politica residenziale nella Vienna socialista, 1919-1933*. Milan, Electa, 1980.

Taut, Bruno. "Neue und Alte Form im Bebauungsplan." In *Wohnungswirtschaft*, 3, no. 24 (1926).

Teige, Karel. *The Minimium Dwelling* (1932). Translated by Eric Dluhosch. Cambridge, Mass.: MIT Press, 2002.

Woodford, F. Peter. *Streets Of Bloomsbury & Fitzrovia*. Camden: Camden History Society, 1997.

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001 Unité d'Habitation view, © SPADEM from Colin Rowe and Fred Koetter, *Collage City* (Cambridge, Mass.: MIT Press, 1978), 69.

002 Unité d'Habitation plan, from Ibid.

003 Uffizi plan, from Ibid.

004 Uffizi view, Mansell Collection, from Ibid.

005 Bedford Square, 2013, source: https://bloomsburysquares.com/bedford-square/.

006 Emil Otto Hoppé, *Bedford Square*, 1930, photograph, London, from Emil Otto Hoppé, *The Image of London* (London: Chatto & Windus, 1930)

007 Bedford Square façades, 2011, source: http://www.urban75.org/blog/the-timeless-georgian-architecture-at-bedford-square-bloomsbury/

008 John Summerson, *Georgian London* (London : Pleiades Books,1945), 127, fig. 16-18.

009 Bedford Square Garden evolution: 1775, 1820, 1850 and 1890, from Mark Fisher, *Departed: Bedford Square*, 2018, http://conversations.aaschool.ac.uk/departed/.

010 Charles William Prickett. *A view looking north along the terrace of Georgian houses on the east side of Bedford Square*, 1930, photograph, Historic England Archive, https://historicengland.org.uk/, © Historic England Archive

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012 Laura Caplan, *Bedford Square Garden*, Pinterest, https://www.pinterest.com/pin/508414245404680822/.

013 Anthony Rau, *Railings and Gates to Private Garden in Middle of Square*, 2004, photograph, Historic England Archive, https://historicengland.org.uk/, © Mr Anthony Rau.

014 David West, *Bedford Square, Bloomsbury*, 2008, Creative Commons, https://commons.wikimedia.org/wiki/File:Bedford_gardens.jpg.

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017 Bedford Square, Bloomsbury, 2016, source: rexfeatures.com.

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020 The Circus, 1764, and the Royal Crescent, 1769 – Air View, from Giedion, Space, Time and Architecture (Cambridge, Mass.: Harvard University Press, 1941), 147.

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022 Bath Herald, *Thanksgiving service on 19th July 1919 in the Royal Crescent*, 1919, source: bathintime.co.uk.

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025 Ibid.

026 Jeremy Shatford, *Bath Royal Crescent*, 2014, https://www.fotocommunity.com/photo/bath-royal-crescent-jeremy-shatford/34366118.

027 Adrian Pingstone, *Royal Crescent viewed from a hot air balloon, on a dull September evening*, 2005, Creative Commons, https://commons.wikimedia.org/wiki/File:Royal.crescent.aerial.bath.arp.jpg.

028 Unknown author, *View of Hornbækhus from Borups Allé*, 2018, source: http://hicarquitectura.com/2018/03/kay-fisker-hornbaekhaus-copenhagen-1922/.

029 Unknown author, *View of Hornbækhus from west*, c. 1922, source: Ibid.

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034 Corner detail, from Bates, Krucher, Leuschner, eds., *Hornbækhus* (Munich, TU Munich, 2013).

035 Window detail, from Ibid.

036 Unknown author, View of the Hornbækhus Courtyard, 2018, source: http://hicarquitectura.com/2018/03/kay-fisker-hornbaekhaus-copenhagen-1922/.

037 Courtyard Entrance from Street, from Bates, Krucher, Leuschner, eds., *Hornbækhus* (Munich, TU Munich, 2013).

038 Apartment Entrance to Courtyard, from Ibid.

039 View of Courtyard Entrance, from Ibid.

040 View of Courtyard Garden, from Ibid.

041 Kay Fisker, *Hornbækhus typical plan*, 1922, drawing, Copenhagen, Danmarks Kunstbibliotek, http://kunstbib.dk/samlinger/arkitekturtegninger/vaerker/000013850.

042 Unknown Author, *View of Klose-Hof from Street*, from Alessandro Porotto, *L'intelligence des formes: le projet de logements collectifs à Vienne et Francfort* (Geneva: MétisPresses, 2019).

043 Julius Scherb, *Klose-Hof (Volkswohnhaus), Wien, 1924-25, Architekt: Josef Hoffmann*, source: Landesmuseum Oldenburg.

044 Alessandro Porotto, *View of Street Facade*, from Alessandro Porotto, *L'intelligence des formes: le projet de logements collectifs à Vienne et Francfort* (Geneva: MétisPresses, 2019), 222, fig. 58.

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050 Unknown Author, *Hufeisensiedlung Construction Site*, 1926, Public Domain, source: https://world-heritage-estates-berlin.com/hufeisensiedlung/.

051 Unknown Author, *View over collective space*, c. 1933, from Thilo Hilpert, *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt* (Berlin: TU, 1980).

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053 Diagrams illustrating the original courtyard deign by Leberecht Migge (*left*)and the realised layout, from Thilo Hilpert, *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt* (Berlin: TU, 1980), 78.

054 David Hiepler and Fritz Brunier, *The Horseshoe Park Entrance*, 2016, photograph, from https://divisare.com/projects/321806-bruno-taut-martin-wagner-hiepler-brunier-the-hufeisensiedlung.

055 Diagrams illustrating the public entrance, from Thilo Hilpert, *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt* (Berlin: TU, 1980), 46.

056 David Hiepler and Fritz Brunier, *The Horseshoe Street Passage*, 2016, photograph, from https://divisare.com/projects/321806-bruno-taut-martin-wagner-hiepler-brunier-the-hufeisensiedlung.

057 David Hiepler and Fritz Brunier, *The Horseshoe Private Gardens*, 2016, photograph, from https://divisare.com/projects/321806-bruno-taut-martin-wagner-hiepler-brunier-the-hufeisensiedlung.

058 Diagrams illustrating the terraced private gardens, from Thilo Hilpert, *Hufeisensiedlung in Britz.1926-1980. Ein alternativer Siedlungsbau der 20er Jahre als Studienobjekt* (Berlin: TU, 1980), 48.

059 David Hiepler and Fritz Brunier, *The Horseshoe Access to Private Gardens*, 2016, photograph, from https://divisare.com/projects/321806-bruno-taut-martin-wagner-hiepler-brunier-the-hufeisensiedlung.

060 David Hiepler and Fritz Brunier, *The Horseshoe Collective Space*, 2016, photograph, from https://divisare.com/projects/321806-bruno-taut-martin-wagner-hiepler-brunier-the-hufeisensiedlung.

061 Dr. Paul Wolff, *Bruchfeldstraße Settlement, Frankfurt AM.* 1927, photograph, Historical Picture Archive, Offenburg, https://www.1854.photography/2019/06/light-and-shadow-dr-paul-wolff-tritschler/, © Dr. Paul Wolff & Tritschler.

062 Hermann Collischonn, *View through the 'Zigzackhof'*, 1927, photograph, from Ernst May, ed., *Das Neue Frankfurt*, 4, 5 (1930), 119.

063 Unknown Author, *Courtyard of the block of flats on the Bruchfeldstraße*, c. 1930, photograph, https://www.bauhauskooperation.com/kooperation/project-archive/magazine/understand-the-bauhaus/two-rooms-kitchen-avantgarde/, © DAF, Bestand Grünflächenamt.

064 Unknown Author, *View of the courtyard from the roof*, c. 1930, photograph, https://andrewlainton.wordpress.com/2017/02/page/4/.

065 Unknown Author, S*treet View of Zigzag Buildings at Bruchfeldstrasse*, photograph, http://www.archipicture.eu/Architekten/Germany/May%20Ernst/May%20Ernst%20-%20Bruchfeldstrasse%20Settlement%20Frankfurt%206.html.

066 Diagrams illustrating the process of modern urban development, drawing, from Ernst May, ed., *Das neue Frankfurt*, 2-3 (1930).

067 Plan of the courtyard with garden layout at Bruchfeldstrasse, drawing, Landesamt für Denkalpflege, Hessen, https://denkxweb.denkmalpflege-hessen.de/159260/

068 Alessandro Porotto, *Courtyard entrance at Bruchfeldstrasse*, 2019, photograph, from Alessandro Porotto, *L'intelligence des formes: le projet de logements collectifs à Vienne et Francfort* (Geneva: MétisPresses, 2019).

069 Street entrance with two doors at Bruchfeldstrasse, photograph, http://www.archipicture.eu/Architekten/Germany/May%20Ernst/May%20Ernst%20-%20Bruchfeldstrasse%20Settlement%20Frankfurt%206.html.

070 Raimund McClain, *View of Private Gardens at Siedlung Bruchfeldstrasse*, 2013, photograph, Texas Tech University Library, https://ttu-ir.tdl.org/handle/2346/47897/discover?query=bruchfeldstrasse&submit=.

071 Raimund McClain, *View of Courtyard Entrances at Siedlung Bruchfeldstrasse*, 2013, photograph, Texas Tech University Library, https://ttu-ir.tdl.org/handle/2346/47897/discover?query=bruchfeldstrasse&submit=.

072 Raimund McClain, *View of Collective Space at Siedlung Bruchfeldstrasse*, 2013, photograph, Texas Tech University Library, https://ttu-ir.tdl.org/handle/2346/47897/

discover?query=bruchfeldstrasse&submit=.

073 Sandra Lousada, *Robin Hood Gardens Courtyard*, photograph, https://amp.theguardian.com/lifeandstyle/gallery/2016/jan/30/concrete-concept-in-pictures, © The Smithson Family Collection.

074 Street View of Robin Hood Gardens from West, photograph, http://www.archipicture.eu/Architekten/Grossbritannien/Smithson%20A+P/AS&PS%20-%20RobinHoodGardens%20London%201.html.

075 Abdul Kalam, *Robin Hood Gardens Entrance from Poplar High Street*, photograph, https://www.abdulkalam.co.uk/portraits#1, © Abdul Kalam.

076 Gili Merin, *View of Collective Space at Robin Hood Gardens*, 2017, photograph, https://www.stylepark.com/en/news/robin-hood-gardens-london-brutalism-architecture-alison-peter-smithson, © Gili Merin.

077 Sandra Lousada, *Robin Hood Gardens seen from the Blackwall Tunnel Northern Approach*, 1972, photograph, © The Smithson Family Collection, https://municipaldreams.wordpress.com/tag/glc/

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079 Alison and Peter Smithson, *Hierarchy of Association Diagram*, drawing, from Alison and Peter Smithson, *Ordinariness and Light* (Cambridge, Mass.: MIT Press, 1970), 61, fig. 48.

080 Ioana Marinescu, *View of Facade and Service Moat at Robin Hood Gardens*, 2009, photograph, https://www.bauwelt.de/themen/bilder/Robin-Hood-Gardens-1972-2012-Alison-Peter-Smithon-New-Brutalism-London-2119093.html.

081 Sandra Lousada, V*iew of Courtyard Mound Robin Hood Gardens*, 1972, photograph, https://www.bauwelt.de/themen/bilder/Robin-Hood-Gardens-1972-2012-Alison-Peter-Smithon-New-Brutalism-London-2119093.html.

082 Alison and Peter Smithson, Robin Hood Lane, Visual connections of the people to their district, from Alison and Peter Smithson, *Ordinariness and Light* (Cambridge, Mass.: MIT Press, 1970), 191, fig. 184.

083 Sandra Lousada, *View of Deck in Robin Hood Gardens looking South*, 1972, photograph, from Alan Powers, ed., *Robin Hood gardens : re-visions* (London: Twentieth Century Society, 2010), © The Smithson Family Collection.

084 Sandra Lousada, *View of Grass Mound in Robin Hood Gardens*, 1972, photograph, from Alan Powers, ed., *Robin Hood gardens : re-visions* (London: Twentieth Century Society, 2010), , © The Smithson Family Collection.

085 Rory Gardiner, *View of Robin Hood Gardens from Cotton Street*, 2016, photograph, https://divisare.com/projects/315338-rory-gardiner-utopia, © Rory Gardiner.

086 Abdul Kalam, *Robin Hood Gardens Street Facade*, photograph, https://www.abdulkalam.co.uk/portraits#1, © Abdul Kalam.

087 Sam Mellish, *Robin Hood Gardens*, 2016, photograph, http://kvadratinterwoven.com/a-brutal-end-for-robin-hood-gardens, © Getty Images.

088 Gili Merin, V*iew of Robin Hood Gardens from Service Moat*, 2017, photograph, https://www.stylepark.com/en/news/robin-hood-gardens-london-brutalism-architecture-alison-peter-smithson, © Gili Merin.

089 Derek Kendall, *General view of the west elevation of the east block of flats, showing the entrance to the lift and stairs, with Capstan House and the Global Switch building behind*, 2009, photograph, https://historicengland.org.uk/, © Historic England Archive.

090 Rory Gardiner, *View of Entrances to Ground floor flats*, 2016, photograph, https://divisare.com/projects/315338-rory-gardiner-utopia, © Rory Gardiner.

091 Jessie Brennan, *Balcony of Larger Apartment*, 2015, photograph, from Jessie Brennan, *Regeneration!* (London: Silent Grid, 2015), © Jessie Brennan.

092 Abdul Kalam, *Robin Hood Gardens Front Door*, photograph, https://www.abdulkalam.co.uk/portraits#1, © Abdul Kalam.

093 Karl Eriksson, *Robin Hood Gardens Balcony*, from Karl Eriksson, *Robin Hood Gardens: A Choreographed Demolition*, Masters Thesis, Chalmers University of Technology (2014), https://estatedocbox.com/70121362-Architects/Robin-hood-gardens-a-choreographed-demolition.html.

094 Gili Merin, V*iew of Robin Hood Gardens Duing Demolition*, 2017, photograph, https://www.stylepark.com/en/news/robin-hood-gardens-london-brutalism-architecture-alison-peter-smithson, © Gili Merin.

095 View of Robin Hood Gardens from South-east, photograph, http://www.archipicture.eu/Architekten/Grossbritannien/Smithson%20A+P/AS&PS%20-%20RobinHoodGardens%20London%201.html.

096 John Maltby, *Great Arthur House, Golden Lane Estate, Finsbury, London*, 1956, photograph, https://www.architecture.com/image-library/ribapix.html?keywords=Golden%20Lane%20Estate, © RIBA Collections.

097 Harry Kerr, *Workmen build a water tank, shaped like a pagoda, on top of a block of residential flats in Golden Lane, Aldersgate*, 1956, photograph, https://www.gettyimages.ch/detail/nachrichtenfoto/workmen-build-a-water-tank-shaped-like-a-pagoda-on-top-nachrichtenfoto/3428550?adppopup=true, © Getty Images.

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102 Richard Partridge, *Basterfield House*, 2018, photograph, http://architecture.100realpeople.co.uk/gle-basterfield-house.php, © Richard Partridge.

103 Richard Partridge, *Great Arthur House*, 2018, photograph, http://architecture.100realpeople.co.uk/gle-great-arthur-house.php, © Richard Partridge.

104 Anthony Palmer, *Basterfield House (six-storey maisonette block) with Bayer House on the right, Golden Lane Estate, Finsbury, London*, 2015, photograph, https://www.architecture.com/image-library/ribapix.html?keywords=Golden%20Lane%20Estate, ©Riba Collections.

105 Circular Bastion at Golden Lane Estate, photograph, https://www.modernistestates.com/rent/golden-lane-estate-5/.

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108 John Maltby, *Great Arthur House, Golden Lane Estate, Finsbury, London*, 1956, photograph, https://www.architecture.com/image-library/ribapix.html?keywords=Golden%20Lane%20Estate, ©Riba Collections.

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110 John Maltby, *Stanley Cohen House, Golden Lane Estate, Finsbury, London*, 1956, photograph, https://www.architecture.com/image-library/ribapix.html?keywords=Golden%20Lane%20Estate, ©Riba Collections.

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113 John Maltby, *Roof Garden of Great Arthur House*, 1956, photograph, https://www.architecture.com/image-library/ribapix.html?keywords=Golden%20Lane%20Estate, ©Riba Collections.

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