

Dwelling Cells, the City and the Autonomy of Architecture

Katharina Borsi

University of Nottingham

Abstract

Hans Scharoun projected his Siedlung Charlottenburg Nord of 1955 and his Siedlung Siemensstadt of 1929 as a partial realization of his urban vision for a radical restructuring of Berlin after WW2. For Scharoun, “the mechanical decentralization” as he paraphrased the bombing of Germany's cities, presented the opportunity to reconstruct a new spatial and social order. His urban figure of a decentralized urban landscape, organized through three parallel bands of development for work, housing and leisure, all connected by transport infrastructure, prescribed the interrelationships between meticulously defined functions. The residential cell, a grouping of around 5000 inhabitants, Scharoun saw as the basis of the ‘structure’ of the ‘new city’ in its mediation between the subject and the metropolis. For Scharoun, Charlottenburg-Nord exemplified how the *Gestalt* of the scalar relationship between the dwelling, the cell and the city, describe and inscribe a seemingly natural socio-spatial structure conditioning the social and economic equilibrium of the city.

Scharoun’s status within modernism tends to be classified within an alternative tradition, one whose expressivity and plasticity are read as true functionalism in its response to use and context, and in opposition to the geometric, rational, and classicizing tendencies of Le Corbusier, Gropius and Mies. While this classification, based on formal difference and variation, reveals distinctions and variations in design approaches, it does not offer an understanding of architecture’s contribution to housing beyond its realization of the architectural project.

Conversely, the recent decade has seen a number of publications re-evaluating modernism’s social project as a key part of the process of rationalization and normalization of society throughout the twentieth century. From this perspective, architecture’s contribution is seen as a form of social engineering through its description and inscription of social order; its spatial articulation of the needs and

norms of individuals, families and groups within the urban population – thus providing distinct spaces for the social as fields of intervention. In the context of this literature, Scharoun's Siemensstadt and Charlottenburg-Nord exemplify architecture's spatial and organizational capacity for supporting the conceptualization and structuring of social relationships. However, this interpretation of architecture in the service of social engineering cannot evaluate the importance of distinctions in design approaches, or the value of design in the evolution of the field.

This paper proposes typology as a mode of spatial reasoning that drives not only architecture's immanent processes of evolution and experimentation, but also its engagement with its 'outside'. Architecture's design process is registered on the surface of the drawing, where it encounters and enfolds a terrain of dispute across disciplines about how to house and group the urban population. This perspective allows a reading of Siemensstadt and Charlottenburg -Nord as instances of typological reasoning specific to architecture and strategic in its operation in the broader discourse of urbanism.

1. Introduction

Scharoun's drawing 'three stages of housing development in Berlin's Northwest' of 1960 (Figure 1) exemplifies his ideal conception of the city as an urban landscape. The drawing highlights three residential 'cells', the perimeter blocks at Nonnendamm, built by Siemens for their employees in 1910; the Siedlung Siemensstadt, planned by Hans Scharoun and Martin Wagner in 1929; and Scharoun's Siedlung Charlottenburg Nord of 1954. In the drawings they perform as formally and functionally differentiated urban segments, arrayed in a linear urban structure of alternating bands of industry, residential areas and parkland. For Scharoun, it is only Charlottenburg-Nord that came to realise what he called an effective residential structure, a partial realisation of his urban vision for a radical restructuring of Berlin after WW2. For Scharoun, "the mechanical decentralization" as he paraphrased the bombing of Germany's cities, presented the opportunity to reconstruct a new spatial and social order, represented in the 'Collective Plan' (Figure 2)ⁱ. The residential cell, a grouping of around 5000 inhabitants, Scharoun saw as the basis of the 'structure' of the 'new city' in its mediation between the subject and the metropolis.ⁱⁱ For Scharoun, Charlottenburg-Nord exemplified how the *Gestalt* of the scalar relationship between the dwelling, the cell and

the city describe and inscribe a seemingly natural socio-spatial structure conditioning the social and economic equilibrium of the city.

Given the extensive bibliography concerning architectural modernism and its social project, the vagueness surrounding architecture's disciplinary contribution to the evolution of housing and the development of the city is surprising. The recent decade has seen the resurgence of a critique on modernism's contribution to the project of ordering modernity; where it has been described as a key player in the social engineering of individuals, families and groups of the urban population through the spatial articulation of their needs and norms, and the provision of distinct domains of social intervention. However, this interpretation of architecture in the service of social engineering cannot evaluate the importance of distinctions in design approaches, or the value of design in the evolution of the field.

In architectural and urban histories, the modernist Siedlungen are described as a radical break from the past by their proponents and critics. Particularly Siemensstadt, with its buildings by Gropius, Forbat, Bartning, Henning and Scharoun, is understood to exemplify the achievements of the modern movement. As the rationale for its recent listing as a UNESCO world heritage site declares, Siemensstadt exemplifies delivering innovative housing and urban typologies in the service of ameliorating housing conditions at the time.ⁱⁱⁱ In this dominant narrative, architectural type and social content have an immediate correlation; which does equally not allow distinction between design approaches, or their contribution in moving the field forward.

For example, Scharoun's status within modernism tends to be classified within an alternative tradition, one whose expressivity and plasticity are read as true functionalism in its response to use, context, culture and place, and in opposition to the geometric, rational, and classicizing tendencies of Le Corbusier, Gropius and Mies van der Rohe.^{iv} While this classification is based on variations in design approaches, it does not clarify if these are instances of variation or evolution within the field of architecture, not how they contribute to the formation of housing beyond their realization of the architectural project.

Contrary to Scharoun's enthusiasm for the new man and the new city of the 1950s, and indeed to the innovation codified in the UNESCO listing, I have previously located the advent of the scale of the neighbourhood as constitutive of a key transformation in the conceptualisation of the city in the early twentieth century.^v The perimeter blocks of Nonnendamm (Figure 1) are exemplary of a moment in which the neighbourhood becomes generalised as a domain of formal and spatial experimentation that correlates with a domain of discussion and negotiation across disciplines about the health and welfare of the urban population. In other words, since the early twentieth century the typological experimentation with planimetric, sectional and three dimensional adjacencies and distances, activates and enfold the demands on adequate housing as articulated by the disciplines of social reform. Particularly the graphic, as architecture's principal tool, helps in providing a surface of engagement whereby demands from architectures' outside, such as the function of housing, encounters and negotiates architecture's inside, the possibilities of the material of architecture. In turn the drawing helps to draw into negotiation a broad, yet defined domain of expertise and stakeholders.

In what follows I want to trace lines of continuity of socio-spatial reasoning from the 1910s to the Siedlungen of Siemensstadt and Charlottenburg, but also highlight the typological capacity for evolution and differentiation. In this trajectory, architecture's impetus for formal experimentation is propelled into action by the generalisation of the scale of the neighbourhood. And yet, the work of typology cannot be reduced to its contribution to the discursive problem field of the domestic family and the neighbourhood.

2. Charlottenburg Nord – the complete resolution of a neighbourhood

Scharoun's preliminary site plan of Charlottenburg Nord (Figure 3) shows his concept of a dispersed urban landscape. Here, the *Gestalt* of the neighbourhood is a loose configuration of elements interspersed with the landscape. Folded, angled and fanned rows are staggered and distributed as if to insinuate movement, seemingly interlocking the ground plane with the park space beyond. Most noticeable are the long many folded rows at the lower part of the site, whose north south orientation dominate the implied movement vector and funnel into a larger open space, around which a number of deeper, also folded shapes are outlined in plan.

By contrast, Scharoun's drawing 'site plan of the large settlement Siemensstadt' (Figure 4) presents a balanced juxtaposition between the clear geometries of the figure and the notation of the ground. The drawing focuses on the few key components of the urban context– the large traffic artery linking to the site situated at the southern edge; the public park *Volkspark Jungfernheide* defines the northern boundary, the lines of the tram and the light railway line that curves across the site. It is these key elements against which the shaded lines and curves of the architectural figures appear to be set in a spatial dialogue, their form and arrangement seemingly counter-posing the key elements of the site, and their interrelationship structuring a sequence of solid and voids.

South of the railway Scharoun designed the gateway to the *Siedlung*, juxtaposing a stepped building lining the street and an angled linear slab to create a funnelled space leading into the *Siedlung*. The majority of the *Siedlung* lies north of the rail line. Here, the 'space of the middle' – the central green space that Scharoun sought to protect with its old trees as a space for association, play and the location of a school, is set off against the set of short parallel rows by Haering, the long row by Gropius to the west and the rows by Forbat to the east. Bartning's long curved building forms the spine of the settlement, its long sinuous line mirroring the curvature of the rail line, providing protection and containment for the *Siedlung*.

Looking backwards, Scharoun critiqued the restrictions imposed on the design of Siemensstadt. He argued that in the 1930s he and his collaborators were forced to argue rationally and respond to the 'demands for light, air, and the demands of the tenants for the principally equal quality of the dwelling etc'. In the planning of Charlottenburg Nord, Scharoun sought to exceed these technical-organisational demands in favour of a focus on man himself.

It is no longer enough to consider the relationship between dwelling to man; instead the relationship dwelling – man – cell – community is the basis that exclusively can lead to new results. This disallows beginning with technical or rental administrative issues. It predisposes a gestalt image, an idea as image and driving concept. ...^{vi}

The Gestalt was not a pre-given figure, but required research into its essential condition, meaning identifying the very composition of a complete neighbourhood whose social, biological and professional structure had yet to be identified.

Scharoun could convince the director of the building society to commission a survey from the Institute of Urbanism at the Technical University Berlin, under the leadership of Scharoun. This survey identified the existing 'structure' of the population, extrapolating its natural conditions combined with a reasoned assumption of its further development. By focussing on four districts adjacent to Charlottenburg Nord, the study identified population development over time, household size and household members including the number of children, in relation to the professional status of the head of household, the proximity of workplaces, and the number and distribution of services. From these data Scharoun identified a threshold of around 450 inhabitants that allowed a natural symbiosis of a proportional cross section of all dwelling types as well as their required services and facilities of retail, culture and education.

The tables (Figures 6& 7) show the proposed dwelling range, minutely listing household size, classified according to the professional status of the head of household, ranging from self employed to employed, workers, unemployed, cohabitation and a special column for the over 65s. The rows further differentiate those with and without children over 15; those with children below 15 with and those without supervision. Whereas the overall dwelling range implies a complete cross section of Berlin's household structures,

the composition of the individual cells show slight variation – cell one appears to cater strongly for the self-employed; whereas cell 6 has been assigned twenty-two 5 people households with unsupervised children. The documentation does not reveal the logic of this distribution; it can be assumed that it was equally based on existing patterns of residential occupation.

Complementing the dwelling range Scharoun concludes his research report with a function diagram (Figure 8) correlating sixteen cells with a detailed list and location of services. Together, the survey, the dwelling range and the diagram forge an ideal structure of a neighbourhood, based on the identification of the constitution and breadths of household types, transposed into a seemingly natural and ideal correspondence of their needs and their spatial articulation.

Much to Scharoun's frustration, both his overall design of Charlottenburg Nord and the breadth of his dwelling range were curtailed. (Figure 9). A decision was taken that a street bisects his residential cells, undermining Scharoun's logic of a complete cross section of society. Each residential cell also only contained 36 different types of dwelling plans, nonetheless a high number for the delivery of social housing. Unsurprisingly, it was predominantly the large households and those without employment, which were not implemented.

3. Dwelling and the room of the middle

The ranges of dwelling plans show a variety of solutions, different in size, number of bedrooms, and different configurations, according to the different dwelling types Scharoun had identified (Figures 10 & 11).

One can immediately notice the playful variation of the plans. Typically, bedrooms and kitchen are tightly and economically planned, whereas skewed angles are used to perceptually open up the living room, provide connection to the balcony or allow a change in the directionality of the space.

In many cases the dwelling plans are assigned to several household types; without any identifiable correspondence between the household structure and the plan. Others are more clearly assigned to a particular group of subjects. For example, the atelier type, at the highest point of the building is reserved for the category of the self-employed, an atelier with a large north-facing window overlooking the roof scape of the Siedlung and the park. Other configurations were conceived as a possible symbiosis between dwellings. For example Scharoun placed a studio flat next to a 3 bed room flat accessed by the same landing, to enable the housing of an elderly relative adjacent to this family (Figure 15). Another example is his flat for cohabitation, whereby two identical spaces combining sleeping and living spaces are mirrored around a central kitchen area. (Figure 14). There is also the lecturer –dwelling, an organization of the plan in which a study space is aligned next to the living rooms, dividable by a gliding wall. We might also notice that in the majority of his plans, the living room is not only represented with a focus on a common table, but often has a specially designated working zone, often accentuated in a recess between a wall and a window.

Scharoun wrote:

“The germ of a dwelling should follow the organic formation of the community being housed. *While we fail to acknowledge this, we always tend towards the opposite model of a community structure imposed form above, which we experienced so destructively under Hitler.* The living room must be more of a room

of the middle than a workroom, but also something other than the traditional *Gute Stube*. The room should serve the communal demands of our work together. It should encourage the technical and moral progress of mankind and facilitate the continuing development and mutual interconnections which the technical age suggests. In such a room conversations should be possible between workbench, drawing table and writing table, promoting the contacts which bring the friends together in their work.'^{vii}

In Scharoun's model of domesticity the living room is more than the locale of family togetherness, more than the retreat from work or the supervision of child play. Instead his quote clearly describes the space of the home as the grounding for the development of the self, for the cultivation of interests and pursuits, the manual or intellectual improvement and its further cultivation through debate and exchange (Figure 15). The single workspace so prevalent in his dwelling plans can be seen as testimony to the cultivation of the autonomous individual within the space of the home.

4. Siemensstadt dwellings

In contrast to Scharoun's complete conceptualisation and resolution of the neighbourhood in Charlottenburg Nord, in Siemensstadt, the programme, the number and size of flats, as well as the decision on Zeilenbau was given. Whereas other Siedlungen in the 1920s explored new construction techniques, the hyperarticulation of the most minimal dwelling plan, in Siemensstadt the building society perceived the exploration of new construction methods as too great a risk. It prescribed the programme of 1678 dwellings; divided into 1, 5/2, 2.5/3 and 3.5 rooms, whereby the vast majority - 1425 were delivered as 2 and 2.5 rooms. In addition were planned 11 shops, five offices and central washing and drying station. Equally, the delivery of Zeilenbau was inscribed in the programme, the formals and spatial articulation of the rows, and the internal organisation of the dwellings was left to the architects.

Each of Scharoun's three buildings has its own dwelling type. Similarly to his plans in Charlottenburg Nord, bedrooms and kitchens are tightly planned and more emphasis is given to the articulation of the living room, its intersection with the outside through the orientation of the openings and its expansion through the shape and orientation of the balcony.

In the plans of his battleship (Figure 17), the adjacent apartments alternate in their main orientation, their balconies and living rooms facing alternative the entrance space or the garden. Scharoun suggested that the narrow and long form of the living room receives a 'scalar increase through the fragility of the balcony gondola'.^{viii} In his smallest dwelling plan, in the angled entrance building, the living room is oriented east-west; across the depth of the building. Counter posing to what Scharoun perceived as the tightness of dwelling space at the time, he describes how 'the sequence of daylight variegates and emphasises the 'spaciousness of the room'^{ix}

We might also argue that with the given floor area and a relatively determined figure in plan, the main focus of the experimentation lay in the affective properties' of the façade and the design moves that focussed on the interpenetration between the inside and the outside.

Similar to Scharoun, also Hearing foregrounds drawing the internal and external space together as the governing principle for his plan (Figure 18). The balconies are accessible from both the kitchen and the living room. He stated

'From the balcony thus results a formally and functionally distinct sphere, that mediated between the rows and the surrounding greenery as much as between the individual parts of each block. This interrelationship is social in so far as the semi private area of the balcony has been formed as a transition between the private sphere of individual dwellings and the public one of the whole Siedlung.'^x

Both Gropius and Format (Figure 19 7 20) promote a rational subdivision of the dwelling plan to allow maximum flexibility. Gropius argues that

'Due to the varying needs of those in need for dwellings, I hold up that the form of the flexibly variable dwelling plan, in which the determination of the individual rooms is not rigidly fixed, as the most efficient. Dependent on the nature of employment, number of heads and personal wishes the family can exchange the rooms at will, since none of the rooms is a through room.'^{xi}

Gropius plan organization repeats identical dwelling units, within which the two of the so called 2 and a half room apartments are aligned and are identical in size, allowing occupation at will. Forbat proposes flexibility of occupation through the possibility of different internal subdivisions. The larger of his two dwelling plans can be organised in 4 different variations.

If we focus for a moment on the work of architecture in the delivery of these plans, then we might agree that both sets of plans – Siemensstadt and Charlottenburg Nord register a series of design moves that correlate adjacencies, proximities and distances articulated in the disposition of enclosures, in the positioning of walls, in the interpenetration of zones, design moves that wrap walls around groups of subjects as Haering describes it, or, to refer to Scharoun, allow the orchestration of orienting towards another and away from each other.

In other words, both sets of plans project iterations of the possibilities immanent to architecture against the programme of the family. More specifically, we can read this plans as the surface of engagement upon which the demands on the family – its protection from the outside and its interiorisation; the orchestration of health and sanity dwelling habits, the moral imperative of adequate separation between family members as well as the celebration of the beneficial togetherness are brought into contact with the material and organisational capacities of architecture. Thus on the one hand, the science of the dwelling plan helps to make the project of the family thinkable and practicable through its organisation, its grouping and distribution of subjects in a desirable way, it also means that the dwelling plan constitutes a distinct domain of engagement with architecture and its outside; it provides a domain of discussion about the very constitution of the family and its norms, its betterment and minimal dimensions.

In other words, the strategic role of the plan provides the intersection of the typological process of reworking, re-interpretations and experimenting with the formal, spatial and organisational materials capacities of architecture, with the discursive problem field of the family; a domain that carries a key political role in the governing of the city and individuals; a domain that brings together a whole range of expertise concerned with the health, welfare and economic propensity of the urban population.

I will return to this strategic dimension of the drawing in a moment, but first I want to expand on a comparison on the work of architecture in the three dimensional figuration of buildings.

5. Figurations

If the dwelling plans provide the architecturally specific contribution to the multi-disciplinary discussion surrounding the family ; the figuration of Siemensstadt buildings, their coherence and distribution and the design of the neighbourhood have the corresponding task to help the very definition of the concept of the neighbourhood.

Peter Blundell Jones proposed that Scharoun's residential cells in Charlottenburg Nord were designed from the inside out, whereby the internal figure of the dwelling was allowed to find its own form; and in turn expressed on the outside.^{xii} Nonetheless, we might also agree that these buildings present a complex figuration whereby the internal organisation - the organisation of the dwelling plan, the distribution of its rooms in relation to its opening and orientation toward the sunlight; and the grouping of flats are in negotiation with the figuration of the segment of the row, in plan, section and volumetrically. The disposition of the angled segments to each other in plan, the staggering of their height in section and their distance from each other are equally experimentations seeking to define the space between them; to sectionally integrate the articulated ground between them to provide the alternation between forecourt and flowing parkland. Landscape design and topography further accentuate the importance and differentiation of the convex and concave void space between the rows (Figure 21).

If we compare this to Scharoun's entrance buildings at Siemensstadt, we might recognise that here the internal organisation was subordinated to the given outline of Zeilenbau; nonetheless, also here we can recognise the complex architectural design process of negotiation between internal organisation, figuration and external integration.

Scharoun designed the gateway to the *Siedlung*, juxtaposing a stepped building lining the street and an angled linear slab to create a funnelled space leading into the *Siedlung*

(Figures 22 to 24). The stepped building lining the street, colloquially called the 'battle ship', through its referencing of ship building motive, is characterised by a plastic modulation of the façade, through the stepped repetition and the gondola shaped balconies. The gondola shape of the balconies give the appearance of opening out into the void space, supported by the deep colour of their internal walls that insinuate greater depth and providing contrast to the white taut surface of the façade. With the intention of interconnecting inside and outside space, Scharoun dissolves the plane of his façade into multiple, mediating components. As Anne Maire Jaeggi has noted, in the pedestrian approach to the Siedlung, Scharoun's facades appear to increasingly open up, emphasising the movement and directionality of the space. ^{xiii}

The roof level is given emphasis through the modulation by the deep cuts for the roof terraces, whereas the ground level is accentuated and opened up at the stepped edges to accommodate retail, accentuating their presence further.

The façade composition and key motifs reference one of Scharoun's favourite motives of borrowing from shipbuilding. Overall the façade and the stepped outline in plan render this slab a vivacious, rhythmic organising element that is juxtaposed to its more serenely articulated slab opposite. The building façade angled away from the entrance to the Siedlung shows a quieter organisation, whereby the loggias are the structuring elements. On its western side, the Battle ship is joined by a curved building that follows the existing street layout, its façade structured by protruding stair cores with adjoining balconies which give the curve a dynamic rhythm.

The dialogue between the two entrance façades find its continuation between the dialogue between the front and the back of all of Scharoun's buildings. Each has differently articulated facades, correlating the internal organisation of the dwellings with a distinctive articulation of the spaces bounded by the facades. Scharoun explicitly underscores the distinctiveness of the building's adjoining void spaces: 'the quiet, wide open garden courtyard with old trees'^{xiv} has an entirely different character than the dynamic entrance space. The 'equal value of the external spaces'^{xv} also led him to arrange the dwellings alternately towards the garden space or the entrance space, which furthermore allowed him the sequence of directed balconies. ^{xvi} Scharoun

explained : 'Apart from the organisational issues I was especially interested in the formation of the spatiality and the interconnection between internal and external space.'^{xvii}

Similarly, it is easy to recognise how Haering's deep plasticity of the façade articulates an affective tension and sectional integration of the buildings' inside and outside (Figure 25) . The seemingly pulsating depth of his rendered drawing visualises what Haering saw as the mediating sphere of the balcony, the transition between the private sphere of individual dwellings and the public one of the whole Siedlung. His short rows, perceptually bounded by Bartning's Long curve in the south, offered defined articulated spaces (Figure 26).

By contrast, Gropius, Forbat, Bartning and Henning deploy a more reduced vocabulary in their figuration and external expression. Each proposed different front and back articulations. For example, 'Classically severe, rational and of a proportional brilliance', is how architectural critic Huter describes Gropius buildings^{xviii}. The sharp contours and crisp lines of his buildings foreground the pure simplicity in their figuration (Figures 27 & 28). The suppression of any protruding elements, the planar integration of window openings and the fine render support the planar articulation of the façade, a taught surface stretched over a volume. The window openings are tied together as bands through darkly glazed brick infill; underlining the horizontality of the façade, while the recessed, glazed stair cores with their protrusion over the roof provide the vertical rhythm. A small plinth also rendered with darkly glazed bricks allows the long white stretch to seemingly float above the ground. Towards the garden side, the protruding double loggias provide a light vertical relief in the length of the facade.

Despite the simplicity and reduction of Gropius figures, the corner solution demonstrates a plastic maturity in the disposition of elements. Here it is not so much the perceptual sectional integration between inside and outside spaces that perform the affective relationship between the building and its adjoining space, nor is it the plastic modulation of its figure in plan and section. Instead Gropius long elevation provide a quiet, serene datum against which the space of the park flows, defining the space by the scale and weight of its presence.

By comparison, the design strategies in the buildings of Siemensstadt with their pre-given notional figure of Zeilenbau effected a subordination of the internal organisation and external figuration to the given volume, nonetheless we could also identify an objective of a sectional perceptual integration and affective charge towards the void space between buildings.

While we might describe these design approaches with the rational, the organics, the expressive or the functionally severe, performatively, both the figurations in Siemensstadt and Charlottenburg Nord are geared towards the coherence and differentiation of the Siedlung as a whole.

It is this performative continuity we can trace from Jansen's Tempelhofer Feld, to Siemensstadt to Charlottenburg Nord^{xix}. Also Jansen's drawing of 1910 (Figure 29) can be read as registering a play with solids and voids, the warping of lines, the sectional integration between the articulated façades and differentiated ground planes - all immanently architectural explorations of how to cohere and differentiate a distinct segment of the urban fabric. The design moves in Siemensstadt and Charlottenburg Nord can be read as an amplification of formal experimentation of each of the key components- the plan, the roof, the façade, the figure and the ground - each has been taken up, hyperarticulated and reconfigured, but all in the service of problematizing the very definition of the individual, the family and the collective.

In an unpublished manuscript of 1928, Scharoun characterises the architectural capacities of the 1920s in the following way:

“next to symmetry now appears asymmetry;
imbuing Rhythm, stretching and dissolving the surface,
the use of materials with new static laws allows an eccentric hold on the
horizontal,
instead of the decorative or protective function of the façade, it receives an
autonomous life;

the surface treatment, from which emanates the sensual affect for the perceiver evolves into a science etc.”^{xx}

In short, just as in the field of music, the sensation and value of each single instrument is newly conceptualized and deployed such that a new orchestral unification occurs. Here the modernist contribution is resituated in the sheer amplification of formal variation – in the ongoing orchestral de- and recomposition. However, architecture's impetus for experimentation corresponds well to the on-going problematisation of how to house and group the urban population; in fertilising the discussion across expertise and disciplines about the very constitution of the individual, the family and groups of the urban population; their propensities and needs; structuring their intimacies and togetherness as a space of privacy and freedom.

Jaques Donzelot and Michel Foucault have described the institution of the family as intensely ambivalent.^{xxi} It was constructed as a differential set of relations that simultaneously set up responsibilities between family members while promoting the autonomy of each individual. The family's privacy and unity became a strategy in the technology of government, the effectiveness of which consisted in addressing the individual on the level of subjectivity itself. If Foucault and Donzelot are right, then the withdrawal and spatial interiorisation of the modern family—that is, the carving out and continuous problematisation of domestic space—is necessary to fulfil the aspirations and expectations of that family. The intimate space of care that we assume unites us within the family is thus structured by the promotion of each individual's autonomy. The idea of the home as a recognised norm that guarantees our autonomy also allows for the possibility of criticizing the home's stifling and oppressive imposition of that norm.

Architecture's impetus for experimentation, formal variation and innovation and the constitutive ambivalence of the family as an institution provide a fertile ground for the ongoing critique and relentless reinterpretation of the space of the domestic and the domain of the neighbourhood.

Seen through the lens of problematisation; the idea of the home as a recognized norm that guarantees our autonomy also allows for the possibility of criticizing the home's stifling and oppressive imposition of that norm. The tension we could see in the formal variations addressed at the function of housing is based on the same terrain as the continual critique of housing as normative. The subject that so eagerly pursues individual freedom is the same as the one that comes to be problematized in and through the configuration of the domestic.

The problematisation of the home and scale of the neighbourhood drawing upon our individuality is still with us today. Current research into sustainable and resilient community continues to problematize the neighbourhood not only in terms of its size and constitution, but also in promoting social capital and participation in the planning process; individual and collective ownership over space; implementing measures for supporting individual and collective health and welfare as a strategy of government targeting the autonomy and self-fulfilment of individuals with the aim of harnessing capacities for resilience in the face of economic hardship or environmental threats.

6. The Transposition of Architectural Concepts

To end I want to return to a typological trajectory that leads from Scharoun's battleship, his residential cell in Charlottenburg Nord, to his extension for the Technical University in Berlin in 1968. Displaced across time, context and function; the typological continuity and evolution of design strategies demonstrates architecture's relatively autonomous process of evolution, its capacity to evolve and rework its field and its urban strategy.

Hermkes' building of the Architecture Faculty at the Technical University in Berlin is a primary element in the composition of Ernst Reuter Platz; also masterplanned by Hermkes (Figure 30). Exemplary of its time; this junction served as an iconic demonstration of modernist planning; its scale responding to an urban strategy of long vistas and car centric planning; the grouping of tall buildings serving as visual datum and performing as a dialogue of visual correlation and reorientation.

The primary urban performance of Hermkes solitaire corresponds to that which Pavlos Phillippou has identified as the conventions of cultural and civic architecture's handling of the ground and its relation to the entry vector, which entails coupling the traditional grounding with a sectional sequence of road, open space, podium-socle (as a disengagement device), formal entrance, imposing foyer-atrium, thus granting access to the building's main spaces (Figure 31).^{xxii}

In Hermkes building, the internal organisation does not rely on a dominant entrance atrium; instead the entire sectional organisation provides a performative integration between the internal atrium that cuts across the whole building. The multilevel spaces activated by diagonal stairs are a core part of the collective life of the faculty; combining open crit and event spaces with circulation space between studios, and engaging visually with the urban realm (Figures 32&33).

Scharoun's extension to the East provides a secondary entry vector; and it is here that his so-called 'room in the middle' is not only a descriptive, but a performative category, activated by a re-orchestration of built elements. Scharoun's extension wraps around a secondary public space; internally grouping and distributing key functions of the faculty – the library; the museum; lecture halls and the cafeteria are arrayed and distributed next to a double height interconnected circulation and atrium space. Here Scharoun's insistence on the intersection of internal and external space; and his desire to promote collective intellectual action have been articulated by the complete visual dissolution of the façade; by the multiplication of the ground level and a sectional stratification that allows the formal and programmatic interpenetration of internal and external void spaces that truly perform as a space of the middle (Figure 34).

Whereas Hermkes solitaire provides the foreground of its urban figure Scharoun's extension provides an important background addressing the challenge of drawing the institutional and public life together in an adversarial urban context. Here the dissolved plasticity of the envelope; the manipulation of the figure, the planimetric and sectional experimentation with the ground and the stratification of the building section come

together as an example of architecture's capacity of typological differentiation in the pursuit of an urban strategy of intensification.

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ⁱ See Hans Scharoun, lecture exhibition "Berlin plant...First Report" 5.9.1946 in Peter Pfankuch: Hans Scharoun: Bauten, Texte, Entwuerfe. Schriftenreihe der AK, Band 10 1993

ⁱⁱ 'Nest-like... a mediation between the chaos of the metropolis and the forlorn individual') Scharoun, quoted in Geist/Kürvers 1989, S. 333.

ⁱⁱⁱ <http://www.unesco.de/kultur/welterbe/welterbe-deutschland/berliner-siedlungen.html> (accessed 12/9/15)

^{iv} see Peter Blundell, *Hans Scharoun: eine Monographie*, Karl Kramer Verlag, Stuttgart, 1979 and Colin St John Wilson "The Other Tradition of Modern Architecture: The Uncompleted Project" Black Dog Publishing, 1995

^v Katharina Borsi, *Drawing the region: Hermann Jansen's vision of Greater Berlin in 1910*, in *Journal of Architecture*, Volume 20, Issue 1, 2015, pp.47- 72

^{vi} Hans Scharoun in *Bau und Wohnung*, Stuttgart 1927, p.109

^{vii} Hans Scharoun: "Die Jungfernheide", 1930, in Hans Scharoun: Vom Stadtwesen und Architektursein". *Architextbook No. 10* Duetmann, 1986

^{viii} *Ibid*, p.6

^{ix} *Ibid*.

^x in Annemarie Jaeggi, "Die Planungs und Baugeschichte der vier Siedlungen, Grossiedlung Siemensstadt", in: Norbert Huse, *Vier Berliner Siedlungen der Weimarer Republik*, Ausstellungskatalog, ADK Berlin 1984, p 39

^{xi} Walter Gropius, cited in Jaeggi "Die Planungs und Baugeschichte der vier Siedlungen, Grossiedlung Siemensstadt", in: Norbert Huse, *Vier Berliner Siedlungen der Weimarer Republik*, Ausstellungskatalog, ADK Berlin 1984, p 43

^{xii} Peter Blundell, 1979

^{xiii} Annemarie Jaeggi, "Die Planungs und Baugeschichte der vier Siedlungen, Grossiedlung Siemensstadt", in: Norbert Huse, *Vier Berliner Siedlungen der Weimarer Republik*, Ausstellungskatalog, ADK Berlin 1984

^{xiv} Hans Scharoun: "Die Jungfernheide", 1930

^{xv} *ibid*.

^{xvi} Hans Scharoun, *Bauwelt*, Berlin 1930, Heft 46

^{xvii} *Ibid*.

^{xviii} Karlheinz Huter: *Architektur in Berlin 1900 1933*. Dreseden 1987

^{xix} see Hermann Jansen, 'Vorschlag zu einem Grundplan für Gross- Berlin', in *Wettbewerb Gross-Berlin, 1910; die preis- gekrönten Entwürfe mit Erläuterungsberichten* (Berlin, Wasmuth Verlag, 1911), pp. 1–22.

^{xx} Hans Scharoun, around 1928 unpublished manuscript, *in*: Peter Pfankuch: Hans Scharoun: Bauten, Texte, Entwuerfe. Schriftenreihe der AK, Band 10 1993, p.82

^{xxi} For the argument of the following paragraphs, see K. Borsi, 'The Strategies of the Berlin Block', in, V. Di Palma, D.Periton, M.Lathouri, eds, *Intimate Metropolis: Urban Subjects in the Modern City* (Abingdon, Routledge, 2006), pp. 132–152. Michel Foucault, *The History of Sexuality. Vol.1. An Introduction* (Harmondsworth: Penguin 1978 [originally published in French as *Histoire de la sexualité, Vol I: La Volonté de savoir* (Paris: Gallimard, 1976)]); Jacques Donzelot, *The Policing of Families* (Baltimore: Johns Hopkins, 1997 [originally published in French as *La*

police des familles (Paris: Minuit, 1977, 2005]).

^{xxii} Pavlos Philippou, *Cultural buildings' genealogy of originality: the individual, the unique and the singular*, in *Journal of Architecture*, Volume 20, Issue 6, 2015, pp.1032 -1066

FIGURES

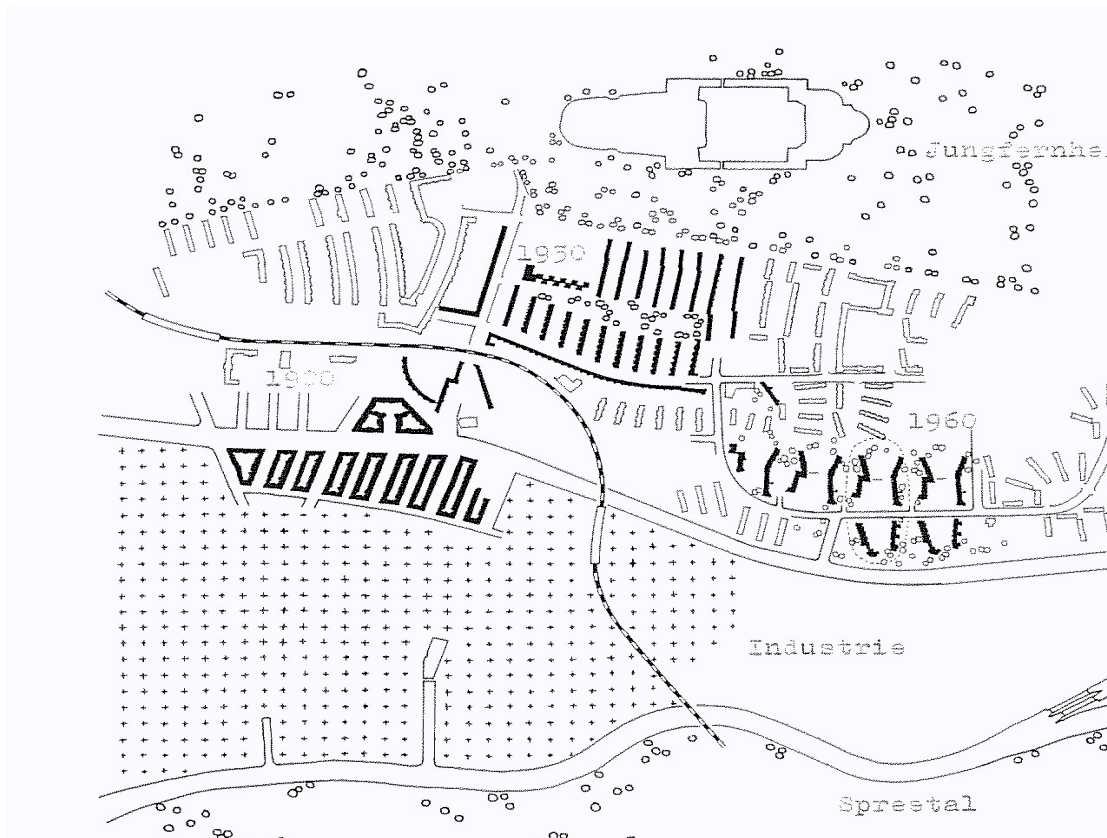


Figure 1 Hans Scharoun. Three stages of housing development in Berlin's Northwest.
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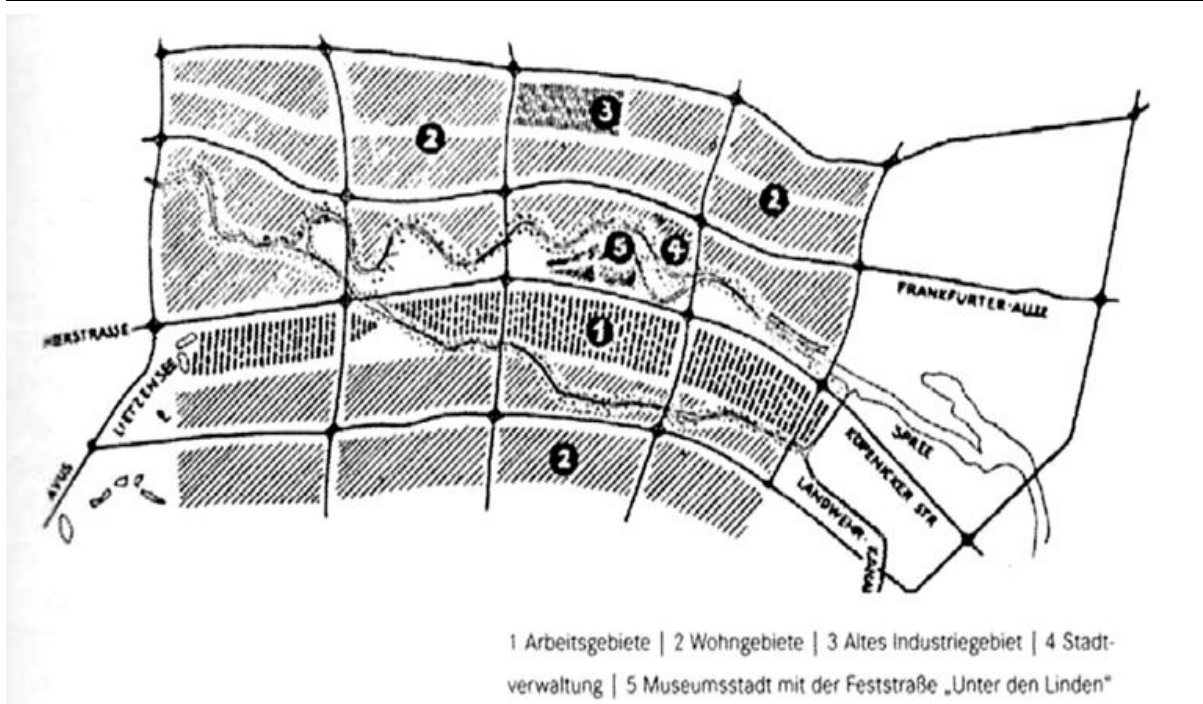


Figure 2 Hans Scharoun. Kollektivplan. ©Baukunstarchiv Akademie der Künste Berlin
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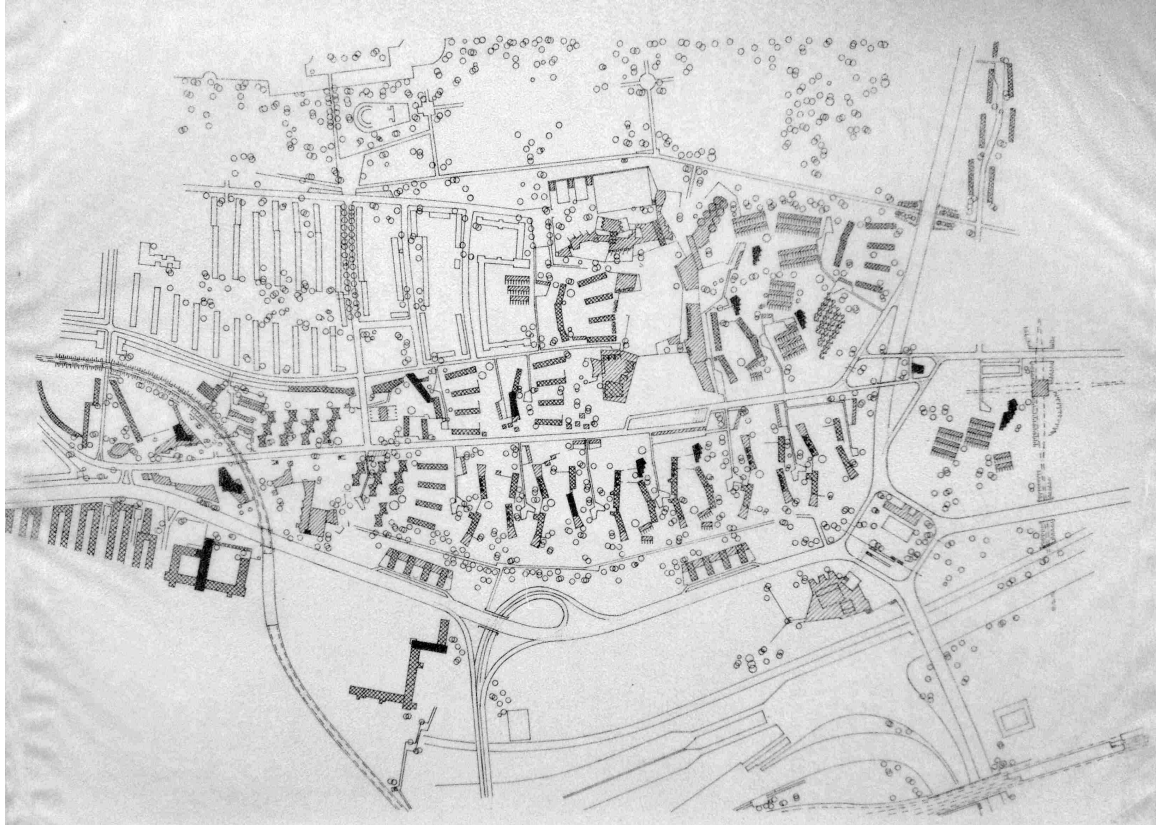
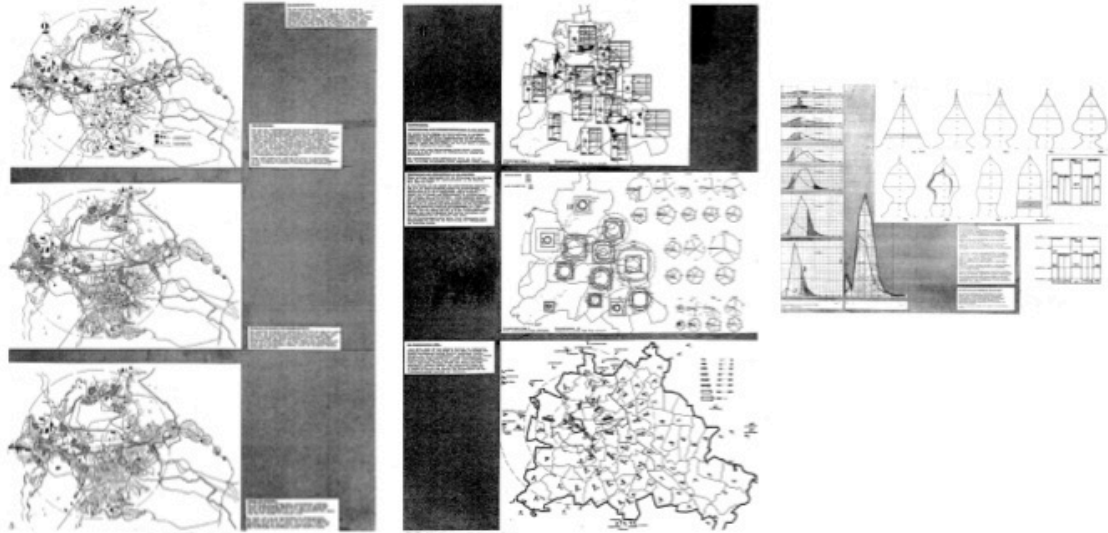


Figure 3: Hans Scharoun. Preliminary site plan Charlottenburg Nord ©Baukunstarchiv Akademie der Künste Berlin Scharoun WV 196, 1



Figure 4: Hans Scharoun. Site plan of the large settlement Siemensstadt
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Figure 7: Hans Scharoun: Strukturanalyse

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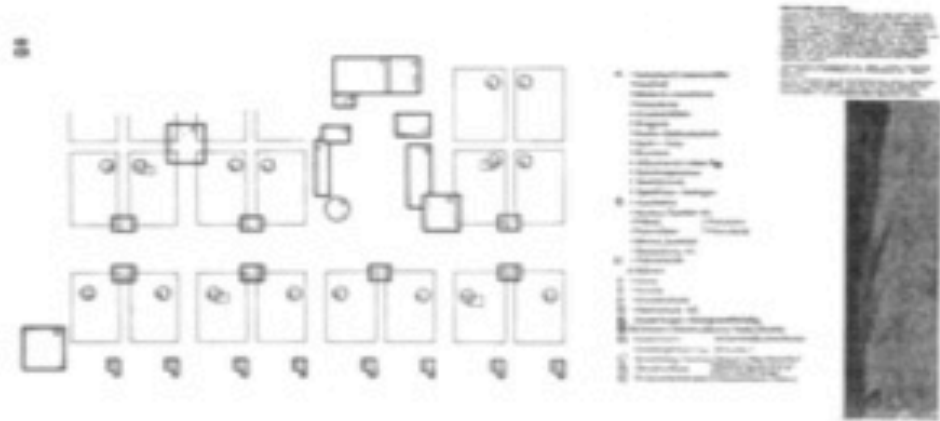
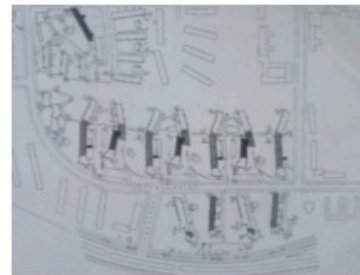


Figure 8 Hans Scharoun Function Diagram

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Figure 9: Bauamt Charlottenburg: Siedlung Charlottenburg Nord
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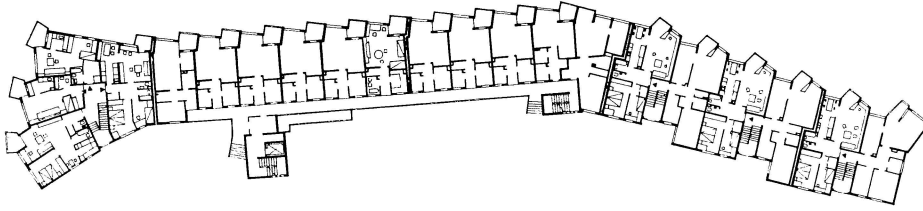


Figure 10: Hans Scharoun: Wohngehoft, Charlottenburg Nord
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Figure 12,13,14, 15 : Hans Scharoun: Dwelling types 4B, 1AF, 2E, 2F
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Figure 16: Living room apartment Hans Scharoun
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Figure 17: Hans Scharoun; Photographs and plans entrance buildings Charlottenburg Nord

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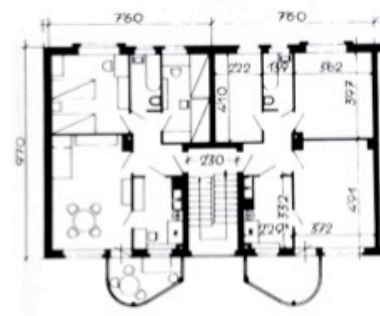
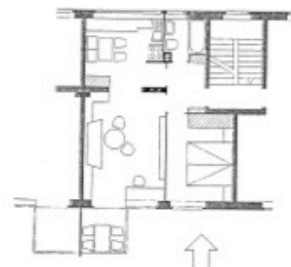


Figure 18: Photographs and plans House Hugo Haering
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Leubergenghaus von Walter Gropius.
Der Zwei-Betten-Typ hat 42 m² Wohnfläche,
4,5 m² Balkon. Das Foto gibt den Blick
aus der im Grundriß 1 : 250 dargestellten Wohnung
wieder = der Baukörper
bildet ein nach West und Nord offenes L.



Otto Bartnigs „Langer Jänner“
mit Zweispännern als 2-Betten-Typen, 45 m² Wohnfläche,
4 m² Balkon

Figure 19: Photographs and plans House Walter Gropius and Otto Bartnig
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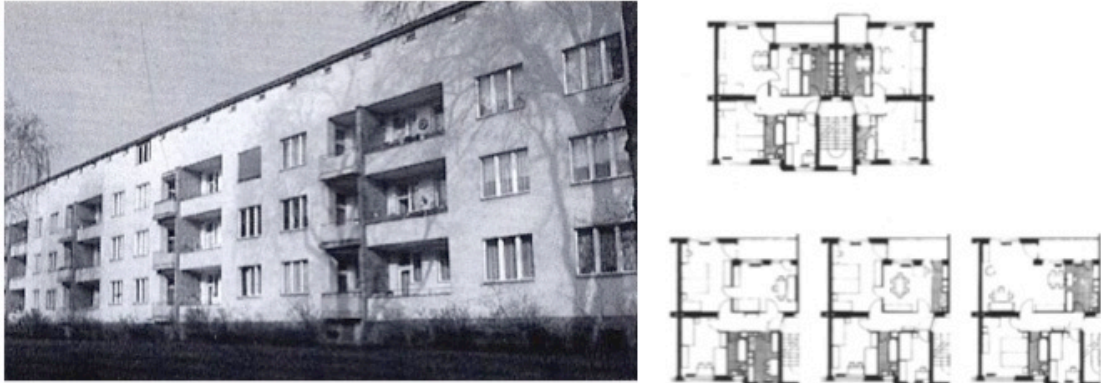


Figure 20 Fred Forbat Siemensstadt

© Karlheinz Huter: Architektur in Berlin 1900 1933. Dresden 1987, p87

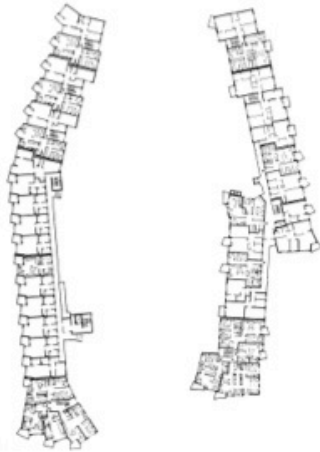


Figure 21 Charlottenburg Nord
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Figure 22 Hans Scharoun Entrance buildings Siemensstadt
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Figure 23 Hans Scharoun Entrance buildings Siemensstadt
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Figure 24 Hans Scharoun Entrance buildings Siemensstadt
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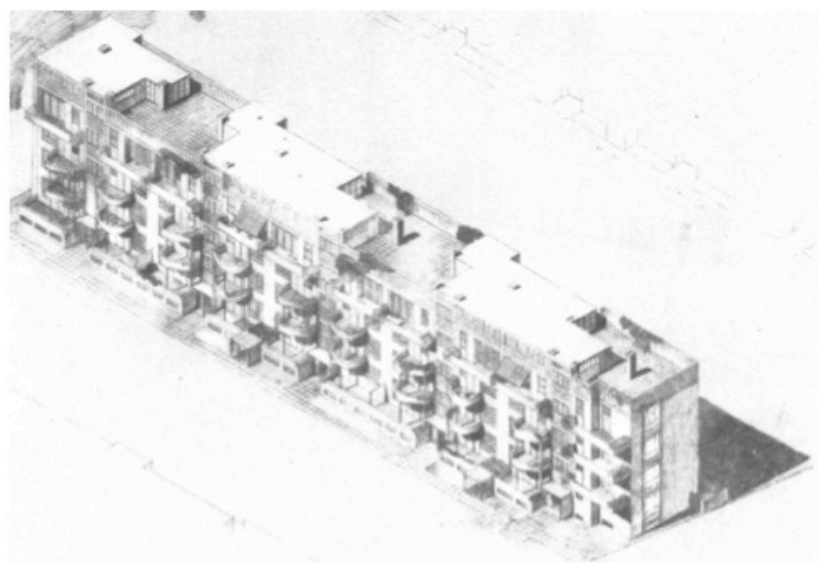


Figure 25 Hugo Häring Isoletrie Siemensstadt
©Sabine Krämer Hugo Häring (1882-1958) Wohnungsbau Theorie und Praxis, Karl
Krämer Verlag; Stuttgart 1985, p48



Figure 26 Hugo Häring Residential Courts Siemensstadt
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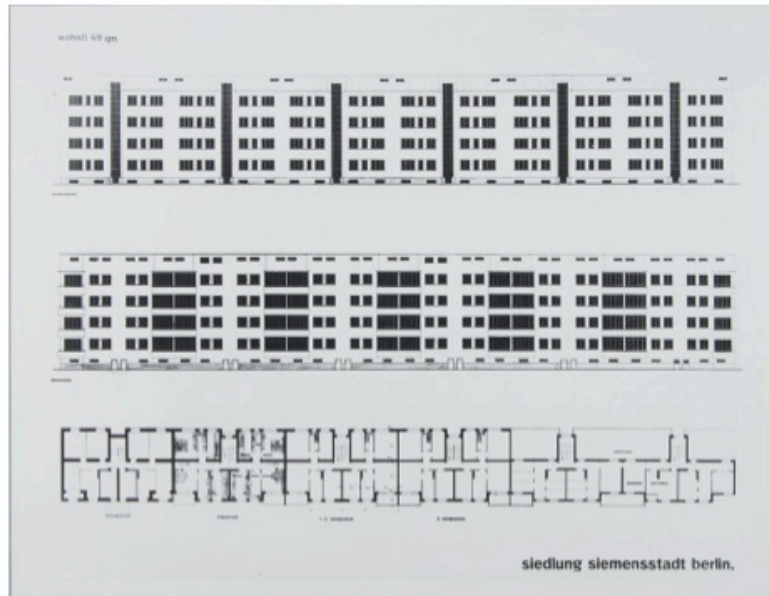


Figure 27 Walter Gropius Housing Development, Berlin-Siemensstadt, 1929-1930
©Harvard Art Museum, Object No.BRGA.41.80



Figure 28 Walter Gropius Housing Development, Berlin-Siemensstadt, 1929-1930
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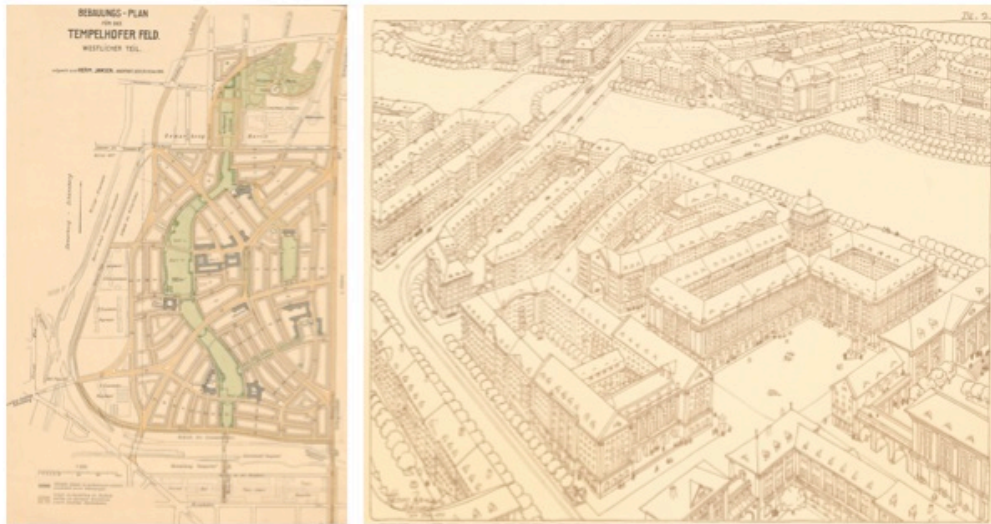


Figure 29 Hermann Jansen, Greater Berlin Competition 1910: plan and aerial view of proposed development

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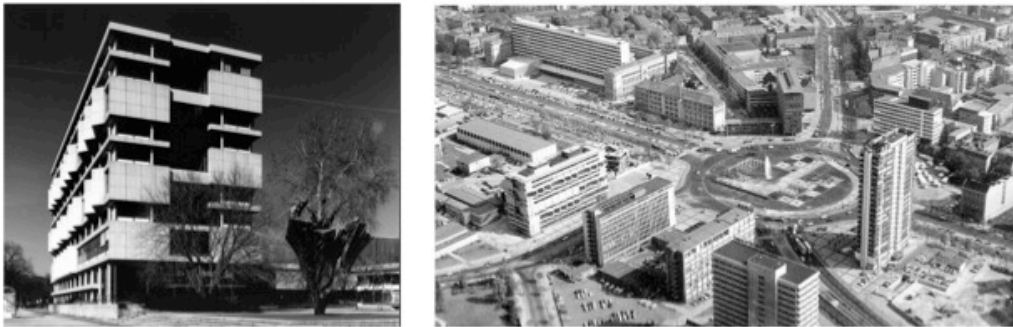


Figure 30 Bernhard Hermkes/ Hans Scharoun Architecture building Technical University Berlin & Aerial Ernst Reuter Platz
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Figure 31 Bernhard Hermkes/ Hans Scharoun Architecture building Technical University Berlin
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Figure 32 Bernhard Hermkes Architecture building Technical University Berlin
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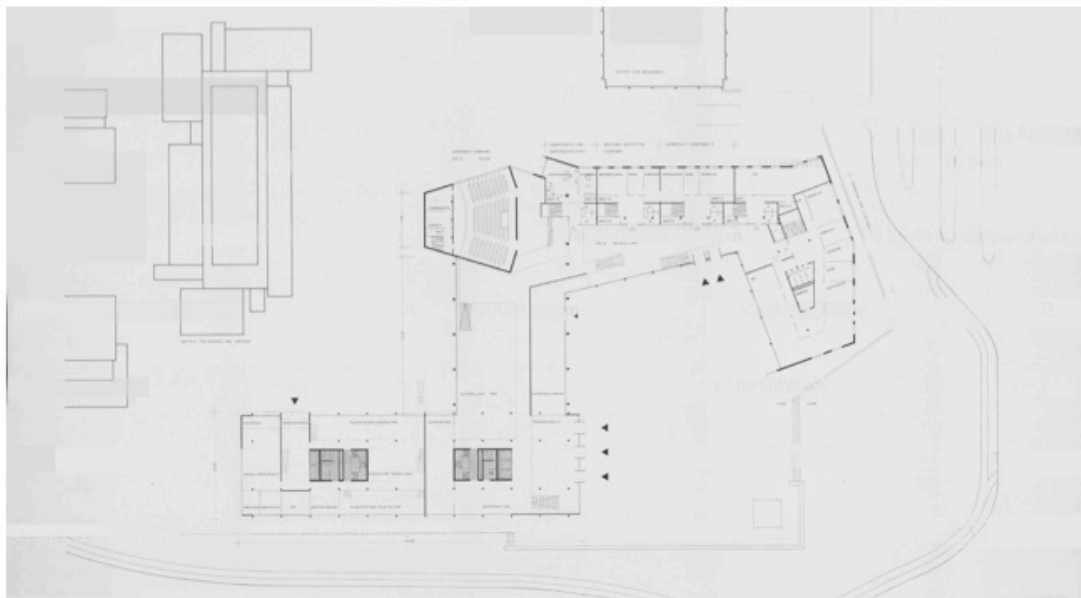


Figure 33 Bernhard Hermkes/ Hans Scharoun Architecture building Technical University Berlin
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Figure 34 Hans Scharoun Architecture building Technical University Berlin
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