

THE MINIMUM DWELLING

HOUSING FOR ALL

Volume I

CONTEXT

Enoncé théorique
Master - Architecture
Ecole Polytechnique Fédérale de Lausanne



2024, Charles Darrousez

This is an open-access document distributed under the terms of the Creative Commons Attribution License (CC BY <https://creativecommons.org/licenses/by/4.0>). Content from external sources is not subject to the CC BY license and their use requires the permission of their authors.

THE MINIMUM DWELLING

HOUSING FOR ALL

CONTEXT

Supervision

Anja Fröhlich
Tiago Borges

Second Professor

Sophie Delhay

À cette maison qui accueillait sept enfants

INTRODUCTION

- 13 **HISTORICAL CONTEXT 1920s**
Politics & Economy

- 17 **HOUSING THE LOW-**
INCOME EARNER

- 18 **- Housing CRISIS &**
Challenges

- 23 **- SOCIAL Housing Programs &**
FRANKFURT

- 31 **ARCHITECT of the 1920s**
ROLE & LIMITS

- 37 **MINIMUM?**

- 41 **CONCLUSION**

“Apartment. n: After the clergy came the nobility, yesterday the bourgeoisie, and tomorrow it should be the worker. And to this regard, a chapter should be added with the title: Worker’s Apartments.”

INTRODUCTION

In 1928, a few architects from European grounds gathered in La Sarraz, Switzerland canton of Vaud, to form what would later become the CIAM, the Congrès International d'Architecture Moderne (as translated to English: International Congress of Modern Architecture). Among them were to be found architects and theoreticians concerned about housing-related problems, such as Ernst May from Frankfurt, Victor Bourgeois from Brussels, Sigfried Giedion from Zürich and Le Corbusier from Paris, to cite only a few. The 1928 congress, which was notably sponsored by the French-Swiss noblewoman Madame Hélène de Mandrot, was intended to create an international avant-garde of modern architecture, based on the paralleled rejection of classicist academies and the advocating of a new architecture that would thrive in its “true economic and social environment”¹. The structure of the CIAM was grounded on annual meetings, congresses, and exhibitions held in European cities among its members. Its objective was to formulate a contemporary program addressing architectural challenges, as outlined in La Sarraz declaration at its foundation.

Shaped by multiple political and cultural influences in the course of its thirty-one years of existence until its dislocation in 1959, the CIAM's actions and political intention have shifted along the outcomes of the debates held in its heart. The composition of its collaborative unit has experienced various fluctuations from its

¹ Mumford. The CIAM discourse on Urbanism 1928-1960. 2000. p.9

origins to its final dislocation, notably due to political events altering European history in the first half of the 20th century. Considering the several variations that have impacted its hegemony across history, this thesis will mainly inspect the themes addressed in CIAM's first three congresses, all of which are marked by a predominance of the 'German-speaking architectural left' members forced to emigrate at the beginning of 1930's political backlash occurring across Europe. The subject of this thesis will particularly focus on the second congress of the CIAM held in Frankfurt-am-Main in October 1929, centering the debate around 'Die Wohnung für das Existenzminimum' ('the dwelling for the living income earner' as formulated by E.May²). The congress aimed to explore housing forms designed for the workers of the lowest classes. It notably took shape in an exhibition of nearly one hundred floor plans, selected from major European cities across the continent. The exhibition sought to articulate architectural possibilities by displaying various European housing typologies theorized about the minimum indispensable for a living being, known as the 'minimum dwelling'.

The eruption of such congress occurred in post-WWI times of economic downturn, housing crisis, and profound societal alterations impacting both working conditions and family structures. These changes were considered the catalyst for CIAM architects to proclaim their "refusal to follow principles dating from former epochs and past structures of society"³. As a result, along with the congress's exhibition of floor plans were conducted several lectures and conferences, one of which was held by architect W.Gropius as a sociological analysis of these changes. Conceived as a detailed examination of European 1920s society, it foremostly aimed to

² May. "The Dwelling for the Living Income Earner". *Die Wohnung für das Existenzminimum*. 1930. p.5

³ Giedion. "The International Congresses of Novel Architecture". *Die Wohnung für das Existenzminimum*. 1930. p.5

determine how societal shifts should be the primary ground for architectural innovation. In the context of the congress, Gropius' inputs have been regrouped in a textual retranscription named 'The Sociological Foundations of Minimum Dwelling for the Urban Populations'⁴, although this name has been translated and reformulated several times after, within different sources. In the context of the exhibition, the sociological analysis constitutes a segment of a broader corpus of texts, including publications from May, Le Corbusier, Giedion, and Bourgeois. However, as this thesis aims to inspect the sociological aspects of the minimum dwelling in light of societal shifts occurring in the 1920s, it will prevail as a breeding ground for this research.

Considering the two discussed materials - the sociological foundations of the minimum dwelling on the one hand and the exhibition of subsistence-level floor plans on the other - this thesis will aim to use the former as a critical lens to analyze the latter through a precise selection of plans. The sociological foundations established by Gropius will be categorized into four main criteria to interpret the plans. These criteria will serve as tools to understand how the typological elements of the minimum dwelling might have addressed societal changes of the 1920s. They will be scrutinized along with historical references and academic publications to delve into Gropius' arguments as well as explore their potential limits. The sociological analysis and the typological examination will be divided into two parts, Catalog Rules and Catalog. They will compose the main development of this research, destined to investigate the typologies of minimum dwellings through a sociological lens. Although they stand together as the main subject of study within this thesis, they also stand as its outcome: they can only be read and deeply understood with the help of a contextual overview that constitutes

⁴ Gropius. *Scope of Total Architecture*. 1962 p.92

the subject of this volume.

To establish a clear framework for utilizing the Catalog Rules volume as a tool for scrutinizing the Catalog volume, the contextual background of CIAM II will be delved into. This exploration will involve examining the history and policies of the 1920s in Europe, with a specific focus on Germany during its Weimar Republic era, and more precisely Frankfurt, the host of CIAM II. The city, particularly significant in the work of Ernst May - also an initiator of the congress - will undergo thorough analysis. Not only does the study of the post-war period in terms of political and social stakes will help to enhance the reader's understanding of the CIAM II and the work of its architects, but it will also provide the historical tools with which the globality of this thesis should be interpreted. It will therefore comprise political and economic investigations for which to understand the housing situation and policies of the 1920s. This will help situate the positions and internal dynamics of the CIAM which eventually led to the establishment of the 1929 congress, destined to 'the living-income earner dwelling'. A concluding section will be dedicated to analyzing early forms of 'workers apartments' and explore their resonance with 'Die Wohnung für das Existenzminimum': What specific characteristics of the minimum dwelling make it a relevant and essential subject for consideration at the close of the 1920s?

HISTORICAL CONTEXT

1920s

POLITICAL SHIFTS

When discussing the significant political transformations that marked the course of Europe's modern development, Holborn notes that "the Political system of Europe as created in 1815 broke down in World War I"⁵. This date symbolizes the initiation of drawing new boundaries throughout Europe, aiming to restore a political equilibrium lost in the early 19th century due to multiple wars that reshaped the European map. Such policies were formulated by the 1815 Congress of Vienna and were to "fashion a settlement which lasted almost exactly a century"⁶ until the outbreak of World War I in 1914. The aftermath of the war resulted in the replacement of key figures who were responsible for the political landscape of European countries. Multiple revolutions at the end of the war enhanced these replacements: the collapse of the German and Austrian régimes of November 1918 put an end to the German Wilhelmine Empire and the absolute dominance of the Kaiser. The February and October revolutions of 1917 led the tsarist régime of Russia to be overturned and signed the immediate rejection of bourgeois standards that were characterizing the Russian Empire. These revolutions announced the emergence of newly established governments, replacing what was considered a "dead and beyond resurrection" in historical Europe⁷. In Russia, the Bolsheviks

⁵ Holborn. "The Collapse of the European Political System, 1914-45". 1949. p.445

⁶ Kissinger. "The Congress of Vienna: A Reappraisal". 1956. p.266

⁷ Holborn. "The Collapse of the European Political System, 1914-45". 1949. p.443

founded the socialist union of Soviet republics, U.S.S.R, putting an end to the ingrained tradition of tsarist autocracy. In Germany, the country switched from a rather rigidly conservative system through its existence as an Empire, to a constitutional federal republic at the end of 1918, named the Weimar Republic. These political transformations had notably the effect of implementing near-universal suffrage elections for the first time in history, exemplified by the 1918 United Kingdom general election and the 1919 German federal election. Following the revolutions that radically altered their political systems and given the increasing inclination of European countries to move away from governing systems inherited from the 19th century, it became apparent that the notion of power underwent profound changes. These alterations affected the perspective through which power should be exclusively held by the State head and the bourgeoisie. When referring to post-war Germany and Austria, Ellinger writes “The revolutions of 1918 at least appeared to put power directly in the hands of the working class”⁸. These events participated in the gradual political recognition of the lowest class and strengthened the idea that their voices could be heard in politics.

ECONOMIC DOWNTURN

If the aftermath of World War I permitted the political entities of Europe to reconsider their balance of power and therefore their models of governance, this period was also characterized by important economic challenges. Firstly, the countries involved in the war on European soil had to face the repercussions of four years of casualties and destruction. These participated in a general decline of European economies, including both defeated and ‘triumphant’ ones. To face the economic consequences following the war, the

⁸ Ellinger. “Socialisation Schemes in the German Building Industry”. 1921. p.7

victorious allies, particularly through the signature of the Treaty of Versailles, compelled the newly founded Weimar Republic to take responsibility for its role in the war through substantial financial penalties. Consequently, not only did Germany have to face the destructive consequences of the war on its economy, but was also financially sanctioned for its responsibility, considered 'total' by the Allies. As a result, the Weimar Republic was to be doomed since its foundation: combining both the weight of the debts and the impact of the war on the country's economy, it resulted in hyperinflation as early as 1921, that devalued the currency and reached its peak in 1923. While referring to this particular year in post-war Germany, "money became so worthless that children could play with stacks of it"⁹, depicting the situation as global chaos. In the economic turmoil caused by the heaviness of its financial reparations, and under a context of hyperinflation, the Weimar Republic received financial support through the Dawes Plan of 1924, initiated by the American and British governments of the time. While this latter funding helped Germany stabilize its economy, the economic difficulties encountered in the years following the First World War have had the result to impact on the structure of society, in which "a large segment of the middle class had been proletarianized"¹⁰. Although this latter aspect was mainly observed in Weimar Germany through the consequence of hyperinflation and economic downturn, it has nevertheless been reminiscent of the post-war economies of the European continent. Consequently, two major tendencies emerged in post-war Europe: firstly, several newly established governmental entities were founded on the rejection of bourgeois standards, correlated with a gradual political acknowledgment of the lower class. Secondly, the economic impact of the war on these nations resulted in a significant increase in the proportion of wage earners

⁹ Raptin. "Political Disorder: The Weimar Republic and Revolt 1918-23." 2014.

¹⁰ Hill. "Inflation and the Destruction of Democracy: The Case of the Weimar Republic". 1977. p.307

among the populations. When interconnected, these two phenomena paved the way for a burgeoning belief that the “State should be seen to meet the demands of the working class for an improved way of life”¹¹. These dynamics were particularly embodied by the housing shortage situation, which although was “acute in 1918, became worse in the years that followed”¹². The explanation of such shortage lies in the combination of increasing demands with that of financial incapacities to properly address them in a context of economic chaos. As a result, the early 1920s were marked by an important housing shortage in industrial cities. While the economic consequences of the war exacerbated this crisis, one should consider the housing shortage as a broader challenge embedded in industrial societies. The discussion on the housing crisis in Europe will, therefore, address its industrial origin and post-war reality, with a particular focus on the model of the worker’s dwelling meant for the masses of the proletariat.

¹¹ Crasemann. “CIAM, Teige and the Housing Problem in the 1920’s”. 1987. p.154

¹² Ibid

HOUSING THE LOW-INCOME EARNER

THE WORKER AND THE INDUSTRY

In its history as a socio-architectural model, the worker's dwelling has gained increasing importance throughout the development of industry on European and American grounds. Before the progress of the Industrial Revolution throughout the 19th century, the home was often the place of employment¹³. Such dynamics illustrate that the economic hegemony of society was predominantly manifested within the activity of the household. While the worker's subsistence gradually relied on resources sought outside the realm of the domestic unit, the focal point of the economy of the State shifted towards the industry, embodied by the image of the factory. Concrete evidence of industrial presence in the shape of 'factory towns' began to emerge in urban areas before the conclusion of the 19th century¹⁴. Embedded with the concept of the factory town was the idea that industrial workers would seek housing next to economic opportunities at their reach. While these were mostly centralized in the growing European and American urban settlements of the Industrial Revolution period, they consequently led to the concentration of these workers in ever-crowded urban housing. In the turmoil of increasing densification and progressive downgrading of building qualities across the aging capitals of Europe, it appears that the concept of the worker's dwelling as a potential new typology was

¹³ Riley. "Evolution in the Worker's Housing Since 1900". 1958. p.854

¹⁴ Ibid

mainly overlooked in late 19th-century Europe. The housing question, seen through political, social, and economic lenses, began to attract increasing attention from western European governments at the beginning of the 20th century. However, it wasn't until the conclusion of the First World War and particularly during the 1920s that it gained central political significance¹⁵. It principally emerged as a response to the housing crisis resulting from the economic challenges, met by struggling economies of post-war Europe.

HOUSING CRISIS & CHALLENGES

While the housing crisis in post-war 1920s Europe has consistently been a focal point on the political agendas of European countries, it primarily inherited social challenges rooted in processes initiated in the late 19th and early 20th century. As argued, the housing shortage is to be considered a by-product of the development of large-scale industry. This latter gained significance in the industrial centers of European cities of the 20th century, both through the rising need for industrial production and the increasing demography in urban areas. Being the first modern mechanized industrial war in history, World War I participated in the massive establishment of factories destined for large-scale production. With economic opportunities being increasingly sought in the modern institution of the factory, a 'natural' flight of population from rural areas resulted in their concentration in industrial cities¹⁶. This major migration of population from the country had the distinctive characteristic of concentrating large masses of workers in one place. This phenom-

¹⁵ Crasemann. "CIAM, Teige and the Housing Problem in the 1920's". 1987. p.153

¹⁶ Teige. "The Housing Problem of the Subsistence Level Population". Translated by Christiane Crasemann Collins. 1987. p.147

enon notably had “in the course of one century reversed the original ratio of rural to urban population”¹⁷, announcing the increasing pressure on the housing industry. This massive influx of demography in the European industrial centers had two major effects on the housing situation: first, the growing demands for housing did not meet the according construction in the immediate post-war period.

A photograph from Düsseldorf: a shed, accommodating 200 persons of whom 70 are children. Source: Teige (1932)



This resulted in the increasing number of apartments, dwellings and housing being rented to those in the capacity of affording them, however without any concern for the number of tenants to inhabit these spaces. As a result, the number of occupants often surpassed the original capacity of these dwellings, leading to scenarios where “anything from 1 to 20, including sub-tenants”¹⁸, could potentially reside in a small apartment. Secondly, facing the demands of the growing proletariat, the housing market was

¹⁷ Ibid, p.148

¹⁸ Ibid, p.150

mostly able to dedicate the newly built dwellings to higher class levels, while “hundreds of thousands of people of the subsistence level vegetated in the unhealthy and often quite inhuman rooms of the tenement blocks”¹⁹. The masses, ‘stacked’ in dwellings of city centers, could therefore barely enjoy the decency of well-conceived spaces: they often resided in nothing more than “old blocks fit only for demolition”²⁰. Due to the housing market’s inability to keep pace with the demographic influx in urban settlements, the living conditions of the poorest levels of the population received only limited concern and appropriate action.

The housing crisis in Europe was also a result of the scant concern given to the social realities of the proletariat. Indeed, in the examination of the workers ‘subsistence level’ during the 1920s, hygienist and public health expert Paul Vogler noted that this level fluctuated between the upper boundaries of the *minimum vivendi*, representing ‘the minimum for one to survive’, and the lower thresholds of the *modus non moriendi*, denoting ‘the minimum for one not to die’²¹. Even for an industrially employed worker, the ‘subsistence level’ worker could fluctuate between these two limits, and this was particularly noticeable in terms of housing access. As of 1918, and in the years following the war, the city of Berlin ceased to record the proportion of vacant dwellings and instead recorded the number of households seeking accommodation. The International Labor Office revealed that the proportion of housing seekers drastically increased in the post-war period to reach a total of 195’000 homeless families in 1922 in the city²². The lack of housing affordable to the lowest income level in the 1920s is rooted in the lack of consideration of the “modus vivendi” level worker. When discussing the acceptable ratio of rent to wages for workers at the subsistence

¹⁹ Ibid, p.151

²⁰ Ibid

²¹ Ibid, p.149

²² International Labour Office, *European Housing Problems since the War*. 1924. p.13



George Grosz: "Poverty is the glow of inner light"
Source: Teige (1932)

level, the housing market considered “normal that rent should represent about 15-25% of average income”²³, corresponding to a full week of work. While this ratio might have been considered acceptable for the middle-class or the better-paid workers in the industry, it failed to address the realities of the subsistence level. A closer examination of the ratio of rent to wage revealed it should fall within the range of 10 to 15%²⁴ to make it affordable for the poorest. The housing market, therefore, failed to propose a reasonable and feasible ratio between the rent and the wages of the tenant. As a result, the needs for housing of the workers were not met within the housing market, as its consideration of the subsistence level did not align with the reality of industry wages. This misconception intensified the housing needs of the masses and contributed to the global housing crisis of the early 1920’s.

Adding to the challenges met by the housing sector in the early years of the 1920s, the housing crisis has also been a result of the limited progress and constrained resources encountered in the housing industry for the construction of living-wage worker’s dwellings. Firstly, the growing tendency of European countries to model their economies on the free market after the war - and thus reinforce industry - had the consequence of impeding the potential reduction of rents through that of building costs²⁵. In an economy that operates under the rule of demand, “the massive demand for inexpensive housing can easily result in an increase in the cost of minimal housing”²⁶, designed to accommodate the subsistence-level proletariat. In the public housing sector, the reduction of rents was paired with the reduction of labor wages, and in parallel, the

²³ Teige. “The Housing Problem of the Subsistence Level Population”. Translated by Christiane Crasemann Collins. 1987. p.149

²⁴ Ibid

²⁵ Ibid

²⁶ Ibid

reduction of housing costs led to a general fall in wages²⁷. In either way, the general reduction of costs implied that either the workers or the tenants had to face lowering life levels. Secondly, the economic downturn experienced during and after the war in Europe led many countries to take political action for their housing situation. This was notably the case of Britain, France, Germany, Austria and Holland. During World War I, these countries introduced emergency rent control measures²⁸ to stabilize rents regardless of the economic conditions. As the housing shortage intensified across Europe in the post-war years, it was widely believed that “the removal of rent controls was politically impossible”²⁹. With controlled rents persisting and building costs remaining high, the housing sector struggled to generate profits, resulting in a large disinterest from private enterprises to undertake large-scale housing construction programs. Given the economic challenges faced by the housing industry and the constrained political responses to remedy the housing shortage, certain countries, including Britain and Germany, reached the consensus that “houses would be built only if the state intervened”³⁰. With the progressive economic resurgence of European economies in the second half of the 1920s and the political ‘dogmas of change’ inherited from the post-war revolutions, some European States began intensifying their political efforts aimed at enhancing the creation of social housing programs, and therefore take action for the housing shortage.

SOCIAL HOUSING PROGRAMS

Considering the political and economic dynamics of the European states, “a view across Europe in the mid/late 1920s would have

²⁷ Ibid

²⁸ Crasemann. “CIAM, Teige and the Housing Problem in the 1920's”. 1987. p.154

²⁹ International Labour Office, *European Housing Problems since the War*. 1924. pp. 17-40

³⁰ Bullock. N. “Housing in Frankfurt 1925 to 1931 and the new Wohnkultur”, 1978. pp. 335-336

found few countries without social housing programs of some sort³¹. If some countries such as Holland and Britain had the financial resources to gradually initiate these programmes in the years following the end of the war, this was not the case for the countries which endured the consequences of heavy reparations, often combined with the weight of the debt. In Germany, the stabilization of currency was granted by the American financial Dawes plan of 1924, and this was achieved by the Austrian government in 1922 using loans negotiated through the League of Nations. Through the stabilization of their economies, these countries gradually met the necessary financial conditions for large-scale housebuilding operations³². This was notably the case for socialist Vienna, which announced a program for building 25'000 dwellings to be built within 5 years³³. In Germany, a total of 2.5 million flats were built in the country between 1919 and 1932, especially after 1924, in the aftermath of the inflationary period.³⁴ As a result of governmental investments, executed through local authorities or public utility organizations, the proportion of Germans living in new flats by 1930 exceeded 14 percent of the total population, representing 9 million new tenants³⁵. The significant commitment of European governments to invest in large-scale housing programs created growing employment opportunities for architects. The German government was to set up a building research agency in 1927, called the Reichsforschungs-Gesellschaft für Bau und Wohnung, dedicated to housing research. It notably employed architects such as Alexander Klein on the question of "new housing standards for the working class" which was to be examined through the model of the small

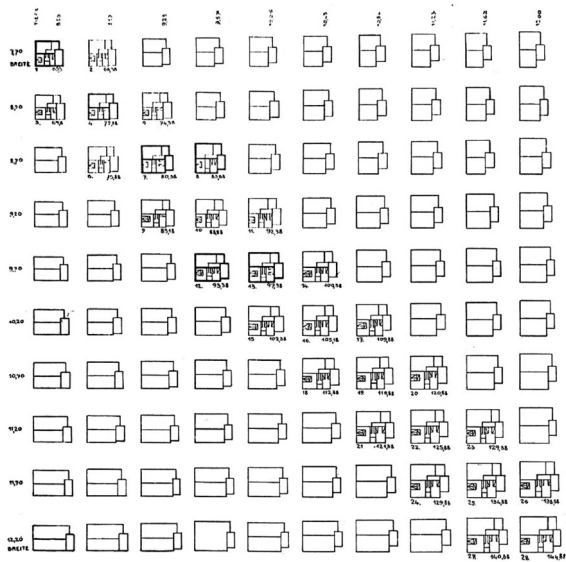
³¹ Crasemann. "CIAM, Teige and the Housing Problem in the 1920's". 1987. p.154

³² Ibid

³³ Gulick. *Austria from Hapsburg to Hitler*, 1948. chapters 9 and 14

³⁴ Saldern. "The Workers' Movement and Cultural Patterns on Urban Housing Estates and in Rural Settlements in Germany and Austria during the 1920s", 1990. p.334

³⁵ Ibid



Plan-efficiency comparison. Source: Klein (1928)

apartment³⁶. Municipalities commissioned architects for large-scale social housing projects, featuring notable names like Martin Wagner and Bruno Taut in Berlin, Otto Haesler in Celle, Walter Gropius in Karlsruhe, and Ernst May in Frankfurt³⁷. This latter city was to exemplify the government's endeavors to address the housing shortage; May curated a team of designers and architects, which included F.Schuster and M.Schütte-Lihotzky from Vienna, designer F.Kramer, architect E.Kaufmann and Dutch architect M.Stam, among others. Their work took form in the proposal of new housing initiatives, especially known as the housing estates.

FRANKFURT: A CASE STUDY

In the 5 years spanning from 1925 to 1930, Frankfurt was to undertake its urban and political expansion. This expansion, called *Das Neue Frankfurt*, was an attempt to address the misery and closeness of old city centers, which were seen as the main cause of the housing crisis in large industrial cities. Consequently, the housing estates of the city of Frankfurt were meant to reduce the population in the city town by means of the settlement in the surrounding countryside of new suburban housing estates³⁸. They took shape in the model of the Siedlungen, a building typology in row construction that usually comprised multi-family housing. This was directly influenced and allowed by the technical possibilities of industrialization and its application in the industry of housing. Typological elements, such as doors, windows, fittings, and flat roof units, were mass-produced and homogenized in the building process. The implementation of standardized units facilitated the

³⁶ Bevilacqua, M. G. "Alexander Klein and the Existenzminimum: A 'Scientific' Approach to Design Techniques". 2010. p.297

³⁷ Crasemann. "CIAM, Teige and the Housing Problem in the 1920's". 1987. p.155

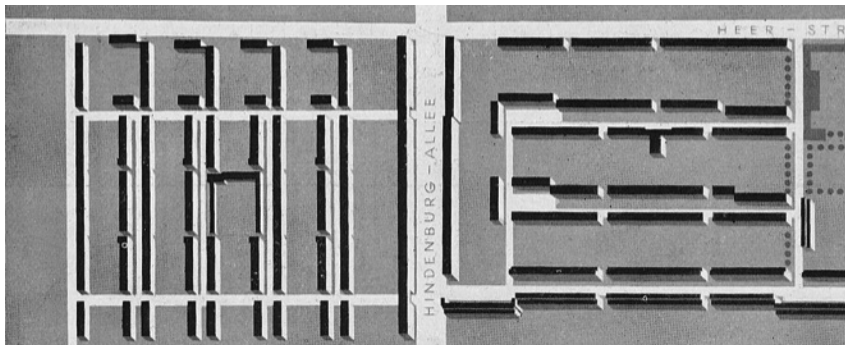
³⁸ Dreyse, Dw. "Architectural guide to eight new Frankfurt Estates (1926-1930)".1988. p.3

ORIENTIERUNGSPLAN FÜR DIE FRANKFURTER SIEDLUNGEN 1926-28



“Orientation Plan for Frankfurt’s Siedlungen 1926-1928
Source: *Das Neue Frankfurt* (1928)

realization of large-scale construction, resulting in “improved quality and lower costs”³⁹ of housing. Although intended to construct 15’000 dwellings to be built over 10 years from 1925 onwards⁴⁰, a total of 12’000 were erected in the first five years of the plan⁴¹, and by 1930, “over 10% of the people of Frankfurt actually could live in housing”⁴² developed under May’s supervision. In Praunheim and Römerstadt Siedlungen, which were the first Frankfurt estates to be initiated, the idea was to develop a design of minimal flats in 3-storey blocks with gardens, meant to accommodate one or two families. The ‘minimal flats’ were designed to accommodate up to 4 persons in a floor area of 40-43 sqm, with standardized furniture and mass-produced kitchen elements added to the flats. This standardization, both in the simplification of working methods and in the industrialization of building elements, was believed to guarantee social progress. Examples of large-scale housing programs such as Praunheim and Römerstadt were conceived as attempts to “give



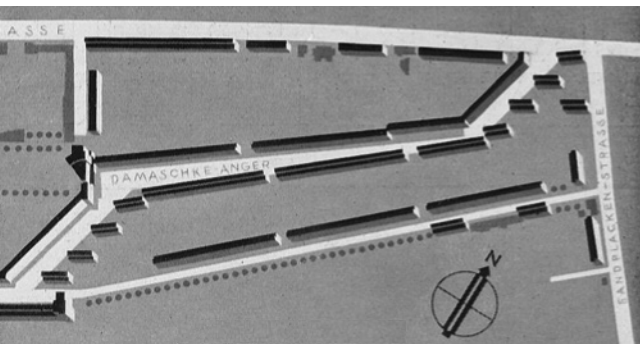
³⁹ Ibid, p.4

⁴⁰ International Housing Association, *Housing in Switzerland and in Frankfurt-am-Main. 1932-1933.* p.70

⁴¹ Dreyse, Dw. “Architectural guide to eight new Frankfurt Estates (1926-1930)”.1988. p.4

⁴² Ibid, p.3

way to new [structures] offering more social justice”⁴³. The model of the Siedlung was therefore founded on a philanthropic initiative that envisioned standardization as a means to ease housing access for the masses. This concept was similarly applied in the publications accompanying the development of the housing program, notably through the creation of *Das Neue Frankfurt* magazine. If the monthly publication aimed to showcase the outcomes of large-scale housing programs, its primary objective was to explore how these initiatives would imply a new way of life for its residents. The magazine featured articles, photographs and contributions from designers, architects and authors. Their discussions spanned a range of topics, from cultural and popular subjects to the promotion of a new model of housing, meant to “provide every family with decent accommodations and living space”⁴⁴. This progressive commitment to the housing question paved the way for a reconsideration of what role architecture should assume.

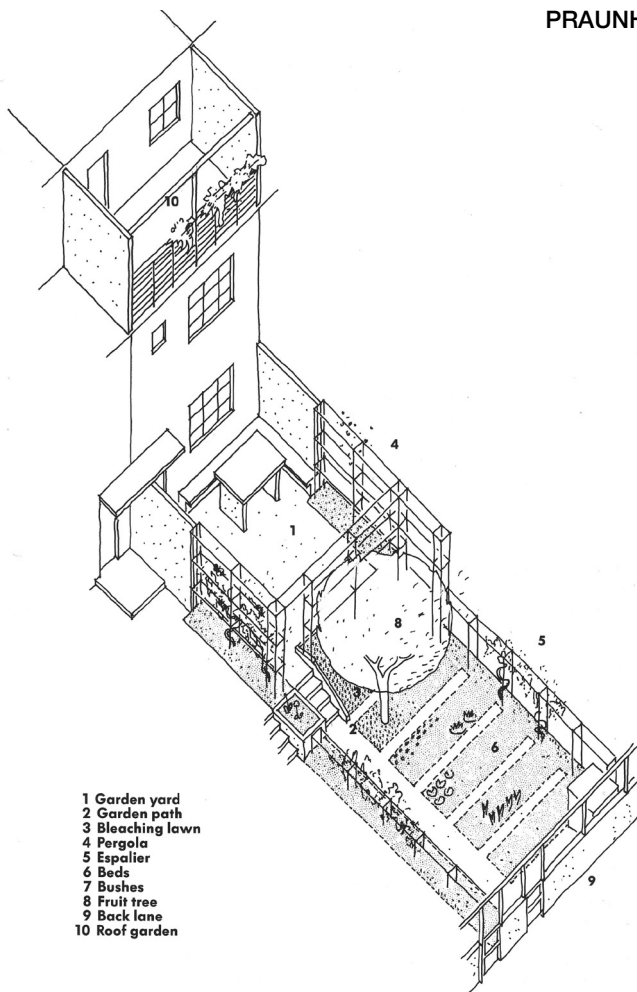


Praunheim
Siedlung
Source: *Das Neue
Frankfurt* (1928)

⁴³ Ibid

⁴⁴ *Das Neue Frankfurt* 1928. Ernst May. April 1928. p.76

PRAUNHEIM



- 1 Garden yard
- 2 Garden path
- 3 Bleaching lawn
- 4 Pergola
- 5 Espalier
- 6 Beds
- 7 Bushes
- 8 Fruit tree
- 9 Back lane
- 10 Roof garden

House garden. Isometric projection. Praunheim
Source: Ernst May Housing Estates. Dreyse (1988)

ARCHITECT OF THE 1920s

ROLE

The growing opportunities for architects to engage in the development of industrial cities mark a distinctive feature of the mid-1920s. With the housing question transitioning into a governmental concern and being tackled through large-scale social housing projects, it subsequently “became a central issue to architects and to architecture.”⁴⁵ Hand in hand with the reassessment of architectural practice came the reevaluation of architecture as a political discipline. The emergence of multiple architectural groups and movements assessed this later point. In Germany, this shift was notably embodied by the rejection from certain architects of pre-revolution standards in architecture. Indeed, the assessment of pre-war architecture as “old-fashioned and irrelevant”⁴⁶ gave way to the *Neues Bauen* (New Building), a German movement that opposed the traditional approach in which architecture should respond to the needs of institutions. Instead, by employing processes of rationalization and standardization, the movement underscored the evolving role of the architect in addressing social concerns. It replaced the emphasis on aesthetics with a prioritization for the ‘needs for the people’, primarily targeting the production of dwellings for “those who traditionally had been voiceless within architecture”⁴⁷. These positions were shared by other groups which advocated a

⁴⁵ Collins. “Concerned Planning and Design: the urban Experiment of Germany in the 1920s”. 1980. pp. 30-47

⁴⁶ Crasemann. “CIAM, Teige and the Housing Problem in the 1920’s”. 1987. p.155

⁴⁷ Ibid

reconception of architecture and of the architect's role, such as the ABC group founded as both theoretical and practical *Beiträge zum Bauen* (Contributions to Building). It partly comprised those of Mart Stam from the Netherlands, as well as Swiss architects Hannes Meyer and Hans Schmidt. Similarly to the *Neues Bauen*, ABC group was founded on the assumption that "the better exploitation of materials meant increased production in a shorter time, thus freeing up greater resources for the greater number"⁴⁸. Aesthetical architecture was to give place to the political action of building; they intended to demonstrate the limits of the Beaux-Arts "capitalist" system, which "hindered social reorganization"⁴⁹. The political debate in which architecture became the medium for social action was reminiscent of both the *Neues Bauen* and ABC group. Although both regrouped a majority of the founding members of the CIAM in 1928, the La Sarraz congress was eventually marked by a divergence in views as to what the 'new architecture' comprised. While the Swiss and German architects (Meyer, Schmidt, May) - the majority of whom were active members in aforementioned programs, groups or movements - called for the accomplishment of social objectives, the position defended by Le Corbusier diverged: "he saw no conflict in attempting to work for a variety of 'authorities' ranging from wealthy private patrons to governments of both right and left"⁵⁰ notes Mumford. For this reason, the apolitical stance of Le Corbusier opposed that of the Swiss and Germans', whose stances were marked by political action to "fit [the architect] into the productive process"⁵¹. The two different views were enshrined in the CIAM's conception: while Le Corbusier posited the existence of a new architecture (Les Congrès Internationaux d'Architecture Moderne), the German title for the organization proclaimed a New Building (Die Internatio-

⁴⁸ Mumford. *The CIAM discourse on Urbanism 1928-1960*. 2000. p.21

⁴⁹ Ibid

⁵⁰ Ibid, p.6

⁵¹ Ciucci, G. "The Invention of the Modern Movement". 1981. p.79

nen Kongresse für Neues Bauen). Although this former name was retained considering the implication of Le Corbusier in La Sarraz congress and his relationship with its secretary, S. Giedion, “the influence of the latter group was clearly evident in the choice of the subject and venue for the 1929 conference”⁵². It is therefore out of social and political concerns that the subsistence-level dwelling was identified as the key problem for architects, as mentioned by May in his introducing speech at CIAM II in 1929.



Die Wohnung für das Existenzminimum, CIAM II
Source: *Das Neue Frankfurt* (1930)

⁵² Crasemann. “CIAM, Teige and the Housing Problem in the 1920’s”. 1987. p.156

LIMITS

While the role of the architect has theoretically shifted from aesthetic matters to social objectives during the 1920s, the intended purpose behind its practice requires nuanced consideration. This is particularly evident in the realm of housing programs, including initiatives like housing estates, which were set in motion by governmental policies and executed by architects of the 1920s: May, Gropius, Wagner, Taut and others. In Frankfurt, although driven by the notion that standardization could address the needs of the industrial masses initially concentrated in the city center, the housing estates had yet manifested their limitations in achieving this goal. In Siedlung Römerstadt, some associations and collectives of inhabitants were created to counter the high rents which “made the housing difficult to let - and impossible for working-class families to afford”⁵³. As a result, in both Siedlungen Römerstadt and Praunheim, the rent for an average one-family house represented 37% of a building-worker’s standard wage⁵⁴, a number that rose at 50% for that of an unskilled worker⁵⁵. These numbers translated two dynamics: on the one hand, as a result of ‘high rents’ “the housing was largely occupied by skilled workers, clerks and officials”⁵⁶. The proportion of tenants who were officials in Praunheim accounted for one-third of all dwellings⁵⁷. On the other hand, the initial intention to address the struggles of the broad masses of the working class was consequently reduced to theory. This was notably perceived within the political reactions associated with the realization of these projects. While the Right criticized the ‘non-German’ trait of its aesthetics and condemned its collectivism,

⁵³ Dreyse, Dw. “Architectural guide to eight new Frankfurt Estates(1926-1930)”.1988. p.15

⁵⁴ Ibid, p.4

⁵⁵ Crasemann. “CIAM, Teige and the Housing Problem in the 1920's”. 1987. p.157

⁵⁶ Bullock. N. “Housing in Frankfurt 1925 to 1931 and the new Wohnkultur”, 1978. p.341

⁵⁷ Dreyse, Dw. “Architectural guide to eight new Frankfurt Estates (1926-1930)”.1988. p.9

the Left attributed the unmet expectations of the housing estates to their exclusion of “the poorest of the poor”⁵⁸, leading to the failure of their attempts. This perspective was underscored by the Communist party which asserted that the housing political agenda merely mirrored a class-oriented capitalist system⁵⁹. While the Left and the Communists acknowledged the initiative undertaken in these projects, they similarly demonstrated the reality of their limits: addressed to answer the needs of the subsistence level, they were nevertheless of much greater benefit to the so-called middle class. These assumptions were reiterated during the CIAM II congress of 1929. Following Ernst May’s invitation to hold the congress in the city of his architectural experimentations⁶⁰, the congress was consequently organized in the city of Frankfurt. In the introductory speech of the congress delivered by May, the architect himself recognized that the rents of the “after-war dwellings are [...] outside the reach of the family with just a living income”⁶¹. May’s acknowledgment underscored the limited results achieved in the architectural practice of the mid 1920s. These limits, especially observed in the German-speaking world (Austria, Switzerland, Germany), appeared to justify the premise set forth by May in the introduction to the CIAM: “Give us dwellings, however small, [...] and, before all, make the rent bearable”⁶². It is foremostly under this statement that the congress was to take place as ‘Die Wohnung für das Existenzminimum’, assuming “that the minimum dwelling was in fact the correct solution to the housing problems of industrial societies”⁶³.

⁵⁸ Ibid, p.5

⁵⁹ Saldern. “The Workers’ Movement and Cultural Patterns on Urban Housing Estates and in Rural Settlements in Germany and Austria during the 1920s”, 1990. p.343

⁶⁰ Mumford. *The CIAM discourse on Urbanism 1928-1960*. 2000. p.27

⁶¹ May. “The Dwelling for the Living Income Earner”. *Die Wohnung für das Existenzminimum*. 1930. p.6

⁶² Ibid, p.5

⁶³ Mumford. *The CIAM discourse on Urbanism 1928-1960*. 2000. p.31

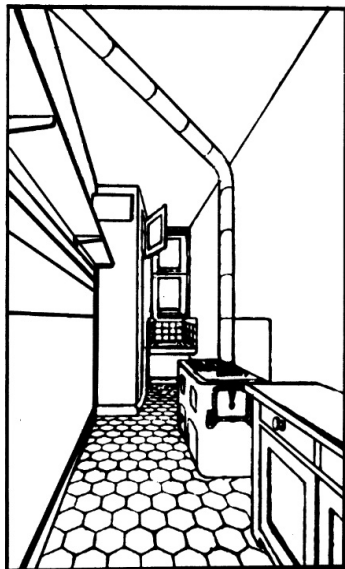
“It is worth recalling that the second CIAM conference in Frankfurt fixed low-rent apartment sizes at 57 to 68 square meters.”

MINIMUM?

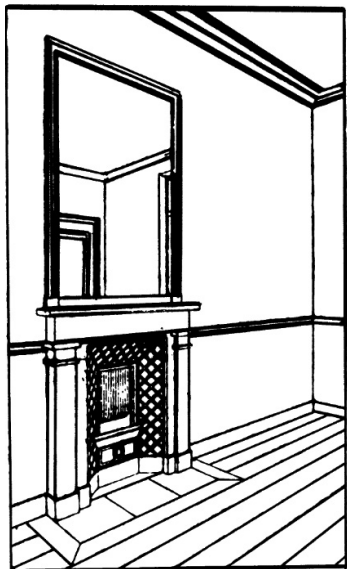
In The CIAM Discourse on Urbanism, architect and historian E. Mumford discusses the dynamics that punctuated the International Congresses of Modern Architecture along the history of its existence. While exploring the extents of the CIAM II's study of investigation, 'Die Wohnung für das Existenzminimum' (or the minimum subsistence dwelling), Mumford puts in perspective the designation of minimum and its significance in the context of the worker's apartment. The author associates the roots of minimal housing with 19th-century philanthropic housing of England and France, which involved the rationalization of the dwelling unit within the smallest possible cubage. One prior example of similar housing was found in late 19th-century Paris. Under Hausmannian reforms, architectural policies favored the construction of 'beautiful buildings' upon assisting worker's housing. Although the prevalence of 'Paris of Cut Stone' was assumed over that of 'Paris of Bricks'⁶⁴, a progressive approach to worker's housing projects began to surface. This is exemplified by Mumford's mention of cooperative apartment building on the Rue Jean-Robert of the french capital, designed by architect Alcide Vaillant (1884). The housing units aimed for lower-rents by reducing the floor area to an average of 40 sqm per family - and to 33 for the smaller units. These were notably smaller than the apartments presented at CIAM II's exhibition, which averaged between 57 to 68 sqm⁶⁵ for families. However, it is key to compre-

⁶⁴ Teyssot. "The Disease of the Domicile". 1988. p.80

⁶⁵ Ibid, p.89



Vaillant, cooperative
apartment building,
perspective views of
the kitchen and of
the common room



Vaillant, cooperative
apartment building,
view

hend that Mumford's mention of Vaillant's work was not intended as a comparative evocation between the CIAM's conception of the 'minimum area' and that of the french architect. In fact, it appears that the late 19th-century philanthropic project seized his attention in the way it reflected "May's efforts to find the minimum dwelling 'ration' based on 'biological' and not economic requirements"⁶⁶. In *The Disease of the Domicile*, author Teyssot lists the composition of Vaillant's minimal units. While these latter ones comprised typological elements reminiscent of bourgeois standards, such as the antechamber and dining room, their aim was to embody the architect's vision of "housing without superfluous luxury, but [...] healthy, and comfortable for nuclear families". The central position of the antechamber suggested a multi-purpose intent; aiming to facilitate house-keeping tasks, provide a space in case of illness and solve problems of ventilation thanks to its position. The kitchen was envisioned as a 'laboratory, a domestic office', completed by a store-room and lavatories connected to public services. This 'Parisian kitchen' aimed at manifesting rationalization of equipment as well as economy of movement, "a forerunner of the 1920s 'Frankfurt Kitchen'" writes Teyssot in 1988. Although these elements were already extensively considered in the 1920s, they nonetheless reflect a more comprehensive understanding of how biological and 'moral' considerations should be embedded in the architectural conception of the minimum indispensable to a living being. While describing his housing units, Vaillant emphasizes that "the work is hygienic and morally edifying", as it identifies the worker's "needs, his aspirations, 'his interior way of life'"⁶⁷, serving as a basis for planning minimal housing. Mumford's rapprochement of CIAM's concerns with Vaillant's philanthropy transcends the idea of a minimum that would be based on size, and thereby, economy. In fact, it aims to

⁶⁶ Mumford. *The CIAM discourse on Urbanism 1928-1960*. 2000. p.31

⁶⁷ Teyssot. "The Disease of the Domicile". 1988. p.89

translate a further conception of minimum, based on the minimum requirements of the worker rather than of the dwelling. Similarly, Vaillant criticizes “the preconceived notion that the modest worker can be housed without considering his personal convenience or aspirations”⁶⁸. Forty years later, this conception still resonates with CIAM’s urgent call for “further co-operations with hygienists and sociologists”⁶⁹ to process the resolution of the minimum dwelling.

⁶⁸ Ibid

⁶⁹ Giedion “The International Congress of Novel Architecture” *Die Wohnung für das Existenzminimum*. 1930. p.7

CONCLUSION

The 1920s is a decade of profound change: both political shifts and economic difficulties are responsible for the alteration of the housing situation on European grounds. Facing a housing crisis and pushed by growing possibilities to develop social considerations in their work, the architects of the 1920s underwent a full reconsideration of their role within society. To address these shifts and work towards a 'new architecture', multiple organizations, groups and congresses were created, among which the CIAM intended to advocate the contemporary challenges met at the time. The 'failure' of the housing social programs developed by many European countries in the post-war period, and especially during the mid-1920s, were a concrete demonstration that 'Die Wohnung für das Existenzminimum' was needed. It was to be theorized in the form of 'the minimum dwelling', a housing meant to accommodate the low-income earner, a figure who has consistently remained voiceless within the practice of architecture. Although the characteristics of the minimum dwelling was primarily to offer an affordable dwelling to all, the architects of the CIAM intended to go beyond this requirement; while the housing construction was traditionally addressed through the perspective of the building - size, costs, construction - it seems that CIAM's conception of minimum dwellings transcended this practical point: only can it be solved if the individual's needs, aspirations and lifestyle are fully studied and understood. The architect's association with hygienists and sociologists appears to be the key to further architectural conception.

These considerations were particularly studied by architect Gropius in the context of the CIAM II congress, and were grouped in his 'Sociological Premises for the Minimal Dwelling of Urban Industrial Populations'. As a result, and considering my personal interest in sociological challenges, the Volume II of this thesis will delve into this work and intend to address the conception of minimum dwelling through the prism of sociology.

BIBLIOGRAPHY

- Bevilacqua, M. G. "Alexander Klein and the Existenzminimum: A 'Scientific' Approach to Design Techniques". *Relationships Between Architecture and Mathematics*. Porto, (June 2010)
- Bullock, N. "Housing in Frankfurt 1925 to 1931 and the new Wohnkultur", *Architectural Review*, clxiii. No. 976, pp. 335-342, (June 1978)
- CIAM. *Die Wohnung für das Existenzminimum*, Verlag Englert & Schlosser, Frankfurt am Main (1930)
- Ciucci, G. "The Invention of the Modern Movement", *Oppositions* 24 (1981)
- Collins, C.C. "Concerned Planning and Design: the urban Experiment of Germany in the 1920s". in: Hirschbach, F.D. et al. (Editors), *Germany in the Twenties: the Artist as Social Critic*, 30-47, Minneapolis (1980)
- Crasemann, C. C. Swenarton, M. "CIAM, Teige and the Housing Problem in the 1920's", *HABITAT INTL.* Vol. 11. No. 3, pp. 153-159 (1987)
- Dreyse, Dw. "Architectural guide to eight new Frankfurt Estates (1926-1930)", *Ernst May Housing Estates*, Fricke Verlag (1988)
- Ellinger, A. "Socialisation Schemes in the German Building Industry", *International Labour Review*, 287-301 (March 1921)
- Gropius, Walter. *The Scope of Total Architecture*. Collier Books, New York, N.Y (1962)
- Gulick, C. A. *Austria from Hapsburg to Hitler*. 2 vols, Berkeley, 1948.
- Hill, Lewis E., Charles E. Butler, and Stephen A. Lorenzen. "Inflation and the Destruction of Democracy: The Case of the Weimar Republic." *Journal of Economic Issues* 11, no. 2 (1977): 299-313.
- Holborn, Hajo. "The Collapse of the European Political System, 1914-45." *World Politics* 1, no. 4 (1949): 442-66.

International Housing Association, *Housing in Switzerland and in Frankfurt-am-Main*. Stuttgart and (1932-1933)

International Labour Office, *European Housing Problems since the War*. Geneva (1924)

Kissinger, Henry A. "The Congress of Vienna: A Reappraisal." *World Politics* 8, no. 2 (1956): 264-80.

Mumford, E. *The CIAM discourse on Urbanism 1928-1960*, The MIT Press, Cambridge, Massachusetts (2000)

Rapten, Pema D. "Political Disorder: The Weimar Republic and Revolt 1918-23." Mount Holyoke College, n.d. Web. (15 nov. 2014)

Riley. H.E "Evolution in the Worker's Housing Since 1900". *Monthly Labor Review*, Vol. 81, No. 8, pp. 854-861 (August 1958)

Saldern, Adelheid von. "The Workers' Movement and Cultural Patterns on Urban Housing Estates and in Rural Settlements in Germany and Austria during the 1920s." *Social History* 15, no. 3 (1990): 333-54.

Teige. "The Housing Problem of the Subsistence Level Population: Summary of the National Reports at the International Congress for the New Building (CIAM), 1930". *HABITAT INTL*. Vol. 11. No. 3, pp. 147-151. Translated by Christiane Crasemann Collins (1987)

Teyssot, Georges. "The Disease of the Domicile." *Assemblage*, no. 6 (1988): 73-97.

Let's meet again in *Volume II* →

