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Susan R. Henderson
srhender@syr.edu

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Rationalization Takes Command
Zeilenbau and the Politics of CIAM

May: This year and next, the city will build a large number of inexpensive units . . . In Praunheim we have already built eighty flats for childless couples that rent for only 30 marks a month. We plan to build several hundred more next year, with rents of hopefully no more than 35 marks.
Lang, KP: But we have 20,000 people seeking housing!
May: Herr Lang, as I have told you before, and will yet again, you give me more money, and I’ll give you more housing.¹
—City Council Debate, 1927

Despite extensive construction since 1925, the number seeking housing with a certificate of urgency has remained steady; in fact, demand rose by 1,500 per annum, if we include cases of secondary urgency. It is clear that the 1925 plan is insufficient to solve the housing shortage, and that there can be no thought [at this time] of tackling the renovation of insalubrious dwellings in the old town.²
—Ernst May addressing the CIAM Congress of 1929

The building of settlements goes on unabated!
In spite of repeated newspaper reports of a decline in Frankfurt’s settlement-building program, just last week we finalized an agreement with the city to move forward with three major projects: 1. The third and last segment of Praunheim will be undertaken immediately and completed to its full extent. 2. Construction will commence on the new settlement of Westhausen and its 1500 houses by September 15, 1929. We will build it with our prefabricated plate system. 3. The site plan has been approved for the new settlement called Goldstein. The settlement will be finished over the next five years and will consist of approximately 8,500 units, and house some thirty to thirty-five thousand people. It will comprise an entire new town.³
—DNF, 1929
By 1928, May had completed the first phase of construction on major settlements, built several schools and had plans in the works for more, and plans, too, for public buildings—health facilities, social clubs, and libraries. But the new year brought further economic and political strife from which Weimar would not recover. Early in the year, foreign aid bolstering reconstruction was withdrawn, then, Gustav Stresemann—a hero of the Republic—died and conservative and reactionary factions in the government began their ascension. Late that year, the US stock market crashed and set-off a worldwide depression.

In Frankfurt, settlement projects began to go without funding, even as the housing situation worsened. There were desperate concessions, increased partisan rancor, and disillusion. The Hochbauamt came under intensified scrutiny by the press and politicians, while it faced new obstacles, having yet to overcome the old. Forced into an emergency mode, much of the program became remedial. Still, between 1928 and 1930, construction proceeded with Práunheim III and on the settlement of Westhausen. In the industrial southwest, there were two new working-class settlements, Stam’s influential Hellerhof and Schwagenscheidt’s stark Tornow-Gelände. Giving new attention to white-collar workers, the Hochbauamt also sponsored an infill of small settlements near the new IG Farben headquarters north of the city center. Yet these efforts, however important in themselves, however suggestive for further design initiatives, proved politically and practically inadequate to meet the impending crises.

A month prior to the debate of 1927 cited in the foregoing epigraph, the Communists demanded that the Hochbauamt complete 10,000 units of housing within the year. In the previous fifteen months, it had built only 2,000. The gulf between the housing shortage and the Hochbauamt’s achievements, and politicians’ claims to be the legitimate voice of the under-housed engendered a drama enacted in the city council many times. To the outside and professional worlds, 2,000 units a year constituted a major accomplishment, and indeed Frankfurt’s record outpaced that of most other German cities. That the number of units was woefully inadequate given the even more remarkable number of the needy was also true. In 1927, the nation’s homeless numbered 791,000, its unemployed, two and half million. In 1929, the Federal Labor Ministry estimated that over the next ten years no less than 2.8 million units would be required to solve the nation’s housing problem, an average of 280,000 units per year. By 1931, the unemployed numbered some five million and the number of homeless had grown accordingly. Yet by then, with economic crisis and political turmoil moving apace, new construction had virtually ceased.
In 1927, 22,000 Frankfurt families registered for city-sponsored housing; in 1928, 27,000 registered. May’s annual production not only fell short of these spectacular numbers, but of his own, more modest, goals. In 1926, the Hochbauenamt built 2,200 units, in 1927, the number climbed to 2,865, and, in 1928, to 3,259. But year-to-year funding had made it impossible to buy land or contract labor in a predictable manner, and projects were frequently stalled. “[M]achines stand idle while we negotiate.” In a report to the city council in February 1928, May enumerated the problems: Frankfurt’s population was growing faster than expected, the quantity of housing produced was woefully inadequate, and the number of families whose need for housing was classified as critical stood at 13,733. There was also a persistent, even widening, disparity between rents in the new housing and the average wage. By 1930, the rent for a three to four room house in Römerstadt ranged between 90 and 125 marks; its residents were highly-paid skilled laborers, small white-collar workers, and minor city officials. Even so, many were beginning to fall behind in their rent and utilities payments.

The construction of the Frankfurt settlements had been preceded with a survey of the kind and amount of existing housing available. One source of data was the registry of those requesting housing. The applications recorded family composition, financial status, and current housing. The vast majority were young couples with small families. This was also the group that the state and the Hochbauenamt recognized as the most receptive to change. Ultimately, half of the units in the program were tailored for them: two-bedroom, minimal family units. This was well below the survey’s 72 percent predicted need, but higher than the number of registrants in this category. Small families, used to crowded conditions, were reluctant to apply for larger quarters, anticipating they could not afford the rent.

The Hochbauenamt’s revised ten-year plan of 1928 called for a four-year budget that would allow for systematic planning. May proposed to increase the number of units built per year to 4,000 by building only minimal dwellings—averaging 38 square meters—by housing only nuclear families, and by radically simplifying settlement site plans. It was an emergency housing scheme using new tools, consisting in the simple, repeated house or block row (Zeilenbau), the minimal dwelling, and a dramatically reduced number of streets. The Unwinian site planning gave way to the rationalized taxonomy of the cell, the block, and the row.
Blue-Collar Workers and Zeilenbau Compromises

At the CIAM conference in Frankfurt . . . there was exciting evidence of fresh social and technical thinking all in a rich array of honestly experimental building. Just at that time, however, Ernst May and his fellow architects decided they had achieved the perfect site-plan, the ultimate universal solution. It was a rigidly geometrical Zeilenbau scheme, solely geared to a narrow system of standardized solar orientation. With this dogmatic approach, the Ernst May team soon set off for Russia, where it doubtless contributed, along with their inability to cope with a backward building industry, to their failure and perhaps to the whole Russian reaction against modern architecture in favor of Rome and Napoleon.10

—Catherine Bauer, 1964

. . . the daily routine can be briefly delineated: he [the typical tenant] must, at least according to the all-important architect, go to bed facing the east, eat and answer mother’s letter facing the west, indeed, the house will be so organized that he is unable to do it any other way.11

—Adolf Behne, 1930

The inability of modern housing advocates to recognize the limitations of rationalization is largely responsible for the historical debacle of the Zeilenbau, a calamity perpetuated around the world. No other proposition of modern architecture would incur as much hostility, and do as much damage to the cause of modern housing as this, rationalization’s ultimate product. Although introduced as an emergency measure, many became enamored of its sublime and hermetic qualities, and vested utopian cities with its vacant landscapes. Zeilenbau site plans were cheap to build, and, in a strict sense, were more democratic than variegated ones. In their extreme redundancy, provided the formal rigor requisite to utopia. Figure 7.01) The surreal dream of extended vistas populated with ranks of identical slabs warranted Kracauer’s characterization of Neue Sachlichkeit as vapid at its best, but, more commonly, oppressive and alienating. Zeilenbau planning failed not only its practical mission, but it undermined the legacy of the New Frankfurt and programs like it, far into the post-war decades.

Zeilenbau planning had roots in nineteenth-century epidemiological studies. By exposing unhealthy residential districts to sunlight and air, reformers hoped to quell outbreaks of disease. This “opening of the block interior” (die Freimachung des Blockinnern) forwarded by public health officials soon came into currency among an emerging group of German city planners like Rudolf Eberstadt and Bruno Möhring. The medical experts and a nascent planning profession launched a joint campaign. At the International Tuberculosis Congress in 1908, Doctor Augustin Rey declared that sun orientation should be required in all housing. Medical professionals argued the necessity of the “reformed block” for sunlight,
air, and hygiene. Designers sought maximum hygienic benefit in the relationship between the block size, building configurations, and open space. Heinrich de Fries, in *Wohnstädte der Zukunft* (1919) designed an apartment block of fewer stories on the north and south, allowing light and air to stream into the block interior, having thus also reduced the number of units facing less favorable lighting conditions. In the same year, Theodor Fischer began work on the large settlement of Alte Haide, outside Munich, with a straight-row plan of parallel blocks, no block-end buildings, and floor-through, apartments. This emerging *Zeilenbau* model offered a simple formula for economic democracy, with the “commodities” of light, air, and space equally apportioned. What it lacked in cultural and spatial richness, variety, and social space, it could perhaps make up with egalitarian intentions and an abundance of units. Indeed, the *Zeilenbau* approach was the closest approximation of the Fordist model yet achieved in housing.

The partner to the *Zeilenbau* was the minimal dwelling. Ideally, it contained a kitchen niche, a shower or bath, built-in storage areas. There might be fold-down beds, or a bed niche in the living area, with separate bedrooms for the rest; a balcony, broad windows, and access to an outdoor space were requisite. (Figure 7.31) As an ideal, the minimal dwelling was a ready-made entity, a commodity. Giedion called it “a new form of dwelling,” a “*Gebrauchswerk,*** maximizing means and minimizing space. To achieve this goal, the minimal dwelling had to be better organized, and its size based on a scientifically-determined “existence minimum.”

In the late nineteenth century, social scientists conceived of the existence minimum as the minimum requirements to support human life. They defined quantitative standards for food, shelter, clothing, medical emergencies, even burial. A dictionary of labor affairs defined the science thus:
The lowest amount of income upon which a "standard" family (five persons) may sustain the vital physical functions. Unlike the minimum comfort level, it includes no allowance for those small advantages or comforts, which are essential to any decent standard of living. Sometimes called the “existence minimum”—or, in the ironic phrase of trade unionists the “fodder basis.”

In the 1920s, architects transformed the equation of the existence minimum into a Fordist one, applying it to a broad segment of the working population with an emphasis—not present in its original formulation—on an egalitarian distribution of resources. The fundamental concept remained: to determine the absolute, measure of subsistence—the line below which a human being could not reasonably be expected to go without it incurring serious social and hygienic consequences. The nineteenth century belief that poverty was the consequence of personal failings or misfortune, redressed through private acts of charity as deserved, was purged. Poverty was now adjudged a result of societal malfunction, rectified through social engineering and a welfare system. Social scientists began to talk about the “housing ration.”

This was the core of the marriage between the minimal dwelling and the Zeilenbau: every dwelling would possess the maximized conditions in relation to air, light, space, and the optimum arrangement to accommodate domestic life. It was a solution, Schuster argued, that was egalitarian, hygienic, and “the most economical and socially-sensitive solution to site planning for inexpensive housing.”

The “Zeilen Siedlung” was the “city of hygiene at a lower price.” Hilberseimer...
conceived it as the cell from which a new “Genossenschaftstadt” (“cooperative city”) would arise. In a speech at the opening of Dammerstock, Gropius introduced another term, “Gebrauchswohnungen” (useable housing) positioning the minimal dwelling as a commodity. The mayor of Karlsruhe concurred, “[Dammerstock] is not an experimental settlement, but a “Gebrauchssiedlung” (useable settlement).”

Amidst a crumbling economy, the Zeilenbau strategy was irresistible; Ernst May’s Hochbauamt built little else between 1929 and 1931. In 1929, the same year as the RfG’s Spandau-Haselhorst competition, the opening of Dammerstock, and the CIAM Congress, the Hochbauamt built four Zeilenbau settlements: Westhausen, Praunheim III, Hellerhof, and Miquelstrasse. The next year, Walter Schwagenscheidt contributed his austere plans for Goldstein and Tornow-Gelände. At the same time the Hochbauamt curtailed its research agenda, declaring that it was time to end experimentation, and settle down to building proven solutions. This was always the intended conclusion to rationalization, but the announcement seems to have been timed more with regards to budgets and the housing crisis, than the perfection of types. The next year, the federal government amended the housing code to require that housing built with Rent Tax funds be minimal dwellings of 2 to 2.5 rooms. The Hochbauamt foresaw residential Frankfurt evolving entirely in Zeilenbau. Expansion plans for the districts around Adickesallee, Miquelstrasse, Ginnheim, Goldstein, and the industrial west show extended residential areas populated with nothing but parallel rows of housing and green bands. (Figure 7.02)

Apartment living: Westhausen and Praunheim III

The point is to build the cheapest possible three-room units with rents affordable to the masses. . . . Westhausen—it sounds a little remote, perhaps some far corner of India or Asia, and where is it really? Out of this world.  
—Newspaper clipping, 1930

Our general impression is that domestic life for the settlers of Westhausen is a complete improvement on their prior life. Over and again, one hears how very bad their old dwellings were; here they view their housing as homes.  
—Frankfurter Zeitung, 1930

The climactic episode in the chain of Nidda Valley settlements was the construction of Westhausen and Praunheim III, settlements providing housing for the lower echelon of the working class, a group that had been priced out at Römerstadt, Praunheim I and II. (Figures 1.19, 7.11) Westhausen, its site plan an
unrelieved grid on a flat site, was a diagrammatic essay on the rationalization of garden city planning. From the air, rows of identical blocks assumed the sublimity of a utopian scheme, belying the activist neighborhood it became. Praunheim III, meanwhile, comprised extended and reoriented rows of the small houses of Praunheim II. The design of urban pictures (Stadtbilder), a practice traceable from Sitte to Unwin and followed faithfully by May through many projects, was over. Cited achievements at Westhausen were neither schools, community buildings, nor churches, but the central heating plant and the electric laundry, housed in the same block. Frankfurt Zeilenbau assumed two forms: a row house version, and the apartment slab, the latter never breaching four stories. May and Boehm laid out the plans for Praunheim III with apartment blocks along Hindenburgallee, the settlement’s main street, and Zeilenbau houses behind. Initial plans to complete Praunheim in 1928 foundered with rising land prices and reduced revenues. The Zeilenbau scheme would accrue enough savings so construction could continue. May and Boehm halved the number of streets, and eliminated stepped blocks and cul-de-sacs. Presenting the plan to the magistrate, May spoke about a “heightened concern for the penetration of sunlight,” and called attention to the reduced landscaping, smaller lots, fewer number of building types, and simplified servicing. The row house plans remained largely the same, still averaging around 80 square meters. They were still to be sold as homesteads. A remaining subsidy from the RfG allowed for more than half of the 358 to be built of concrete panels.

New, long blocks of apartments stretched impressive if unremitting facades along Hindenburgallee, the main arterial. (Figure 7.03) They housed shops on the ground floor, long galleries above overlooking the tramline. Four, square portals allowed for cross streets, and provided glimpses of the row houses and greenery within. The 235 apartments averaged a mere 41 square meters. A typical living area fitted a dining table and a daybed; a full-wall cabinet stored two Frankfurt Beds. (Figures 7.04-05) There was another in a small bedroom; there were also a Frankfurt Kitchen and a small bathroom with a shower. The apartments’ small size
and modest amenities lowered the rents to accommodate moderate-income workers: laborers, technicians, bank tellers, teachers, shop employees, city and federal office workers were housed in approximately equal numbers.30

An unusual block lay on the southeastern corner of Hindenburgallee; it was dubbed the “Brenner block.” (Figure 7.06) Anton Brenner had already produced buildings of typological interest, and demonstrated a talent for designing built-in furniture for minimal dwellings.31 Along with Schuster, he was published in Hilberseimer’s Große Stadt Architektur (1927); two years later, his Brenner Block appeared in Giedion’s Befreites Wohnen.32 Under temporary contract, he worked in Frankfurt for two years. His contributions to Mammolshainerstrasse, the Praunheim Einliegerwohnungen and the Brenner Block were of a piece, concerning housing of the smallest sort, of a transitional type, for the poorer members of society.
The Brenner block contained thirty-six apartments in four stories. Its purpose was to provide temporary housing for homeless families who were awaiting completion of their units in Praunheim. Little is said about it in the literature, either details of its use or whether it was successful. Apparently, Brenner himself lived there for a time, and invited Giedion to visit during the CIAM Congress. The building was one of a number of Frankfurt projects inspired by Dutch examples, where cost-saving open galleries replaced public corridors. The gallery also answered hygiene concerns, ridding the block of the fetid corridor air. (Figure 7.07) At the back, the Brenner block opened up: the upstairs apartments into sun porches, the ground floor units into kitchen gardens.

This was a rare instance of the use of the reinforced concrete skeleton in Frankfurt housing, a structure providing a benefit here in reducing the wall mass, and thus increasing the interior volume. Each unit had two rooms, and measured 51 square meters. A clever sectional arrangement, reminiscent of Corbusier’s “immeubles villas,” staggered apartment plans between floors, with the high volume of the living area nested within the lower, secondary spaces of the flats above and below. The living room volume was a cube occupying 26 square meters and had two flanking niches, a sleeping niche with two beds, and a dining alcove. (Figure 7.08) A very narrow children’s bedroom had one, long storage wall, and two, lateral fold-down Frankfurt Beds. (Figure 7.09) There was a small, square kitchen, and a toilet and sink just inside the entry door. There was no shower or bath.

At nearby Westhausen, Kramer, Blanck, and Schwagenscheidt produced their own version of the gallery block. Ten, four-story blocks marched along Hindenburgallee, on the route the Hochbauamt dubbed a “gateway to the Taunus Mountains,” destination of the “weekend.” (Figure 7.01) Schwagenscheidt meticulously calculated the orientation, dimensions, and block spacing (because of this, they did not meet crossing streets in a consistent fashion) to maximize the penetration of sunlight between them. His chart, pinpointing the position of the sun in a prototypical built volume throughout the year, was published in a small pamphlet inserted into the pages of DNF. Meanwhile, blocks were built, with brick exterior walls combined with Holzmann-manufactured, concrete panels, the latter probably limited to the balconies and floors. The whole enterprise—from the compact bathrooms, to the heating plant, and the gallery apartments—showed Stam’s influence, and, a new kind of modernism that was taken up by a number among the Oktobergruppe around this time, one more functionalist, and employing obvious factory-made elements. Kramer, in particular, took great pride in these buildings, and the associated heating plant with its laundry facility.
Figure 7.06 The Brenner block, Praunheim II. Anton Brenner, 1929.

Figure 7.07 The Brenner block, partial plan.

Figure 7.08 The Brenner block, apartment living area and bed niche.

Figure 7.09 The Brenner block, children’s bedroom, with fold-up beds, right, and built-ins, left.
The typical unit, at two and a half rooms, ranged from 45 to 47 square meters and rented for between 59 and 75 marks per month—considerably more than for a flat in one of the nearby row houses. (Figure 7.10) The higher rent resulted from the provision of electric amenities, including built-in kitchens with hot running water, central heating, and small, modern bathrooms with the space-saving Sitzbad. (Figure 2.04) There were garbage chutes in the stair halls, and there was no charge—beyond a fee in the rent—for use of the electric laundry. The city believed that the rents would be offset by savings on fuel accrued by the settlement heating plant.

Schuster designed a second apartment block type that was intended for the southern flank of the settlement, L-shaped gallery blocks containing units of 41 square meters. (Figure 7.11) Sliding walls, a Schuster kitchen niche, a bath with a shower, and central heating were some of the amenities. A small projecting wing at each major street crossing, housed a shop.41 Five blocks were planned, their long walls providing visual closure to the greens. A modified version of the blocks were built in 1931.

In contrast to the sophistication of the apartment blocks, the row houses in Westhausen retreated into relative primitivism.42 Revised as the result of the housing crisis, each house was subdivided to make a duplex, while retaining the appearance of a row house. It was intended that each duplex be consolidated in the future to make one, single-family house. The flats were based on Lihotzky’s stacked flats proposal, Zwofa (double family house) 2.39, a two-room unit of 39 square meters, that through a clever use of built-in furniture made the small dimensions workable. (Figure 7.12) In Lihotzky’s Zwofa, a built-in wall cupboard occupied one whole wall, with storage for two roll-away beds below. (Figure 7.13) A folding wall could separate this square living area from a small bedroom. There was a Frankfurt Kitchen and a bathroom with a bathtub. Zwofa 2.39 was exhibited at the Die neue Wohnung und ihre Innenausbau, and published in May’s article “Warum bauen wir Kleinstwohnungen?” (“Why Do We Build Minimal Dwellings?”).43

The versions of Zwofa built at Westhausen, numbers 3.40 and 3.42, were three-room units housing a family of four. They were heated by coal stoves, had washtubs in the cellars, and the bed made its reappearance in the living room.44 In place of the electric Frankfurt Kitchen, a gas stove served for both cooking and heating.45 With approximately square plans—measuring 7.50 x 7 meters—they were broad and shallow, allowing the sun and air to run through. Three hundred and seventy-eight of the 864 duplexes were built using the concrete panel system. As was true elsewhere, tenants paid a higher rent for a concrete house, around 60 marks per month, as opposed to 50 for one made of brick.46
Figure 7.10 Westhausen, apartment block, typical floor plan, 1928.

Figure 7.11 Westhausen, axonometric view, 1928.

Figure 7.12 Zwofa typical floor plan.
Figure 7.13 Zwofa model apartment on exhibit at *Die neue Wohnung und ihre Innenausbau*.
The rows of duplexes were bordered, front and back, by long greens. With no cross streets—Boehm estimated that the savings in streets was a 35 percent savings on the cost of the whole project—this segment of Westhausen had a back-to-the-land quality. “Nature” in Westhausen had a different character than in its sister settlements. The green bands had wash lines and sandboxes on one side, and allotments on the other. (Figure 7.14) Perpendicular swaths of green, planted with trees, and marked by playgrounds and walks, ran with the east-west streets. Bereft of funding for the intricacies of planting, the greens were work-a-day, lacking the poetic imagery of the Stadt im Grün. Still, May touted the wide perspective residents had from the door of each unit, and promised that the savings in street construction would be devoted to parks. Certainly, the sense of green, in contradistinction to the famous aerial photograph, was pervasive, and gave the impression of openness and lush, if banal, verdure.

_Siedlung Hellerhof_

Frankfurt’s more urbane Zeilenbau projects reflect the influence of the young, impassioned rationalists, Schuster, Schwagenscheidt, and Kramer. Above all, they reflected the presence and influence of Stam. His Siedlung Hellerhof was celebrated—as the other Zeilenbau projects in Frankfurt were not—as an articulate vision of the modern settlement. Completed in several phases from 1930 to 1932, it was the last great enterprise of the New Frankfurt program.

The settlement, housing workers from nearby Philipp Holzmann & Cie GmbH, had been long in the planning; a 1922 site plan shows the blocks occupied by perimeter block housing. The neighborhood, close to the West Harbor and...
Griesheim, and just north of Mainzer Landstrasse, was home to rail and industrial workers. The small Holzmannsiedlung was built there in 1902. In 1929, the Hellerhof Garden City Association built the first one hundred units of a new settlement; that same year, the Hellerhof Aktienbaugesellschaft invited Mart Stam, with May’s urging, to design a much larger settlement, comprising 1,700 units. The master plan encompassed a large tract of land, laid out with more than twenty Zeilenbau blocks, with construction phased over ten years. They ran perpendicular to the major thoroughfare Frankenallee, and Idsteinerstrasse beyond. (Figure 7.15) Two-story blocks along the streets allowed light and air into the secluded interior of the blocks.52

Like the Altersheim, the typical block began with a system of cross-axial walls defining the units and columnar bays. (Figure 7.16) Here, however Stam was able to use reinforced concrete panels, developed in concert with Holzmann, rather than brick. There were five different block types in the settlement, and in all of them load-bearing cross-walls created the fundamental divisions in plan. Other partitions were slender, some even curved, and each unit had one entire window wall, a luxury absent from housing in the other great settlements. Balconies sat within the blocks, drawing light further into the apartments.53 (Figure 7.17) Settlement housing had generally assumed a bulky form, with small windows and cubic proportions. Evolved from the vernacular stucco house, they were stolid and impenetrable. In the open schools, at the Reform and Praunheim schools, whole window walls were opening up to gardens, but the strategy did not emerge in housing. Stam’s Altersheim introduced a new vocabulary to the New Frankfurt dialogue. At Hellerhof, slight frames and columnar structure created more transparency, lightness, and more diminutive proportions to the buildings. It breathed new life into the landscape of the New Frankfurt settlement.

Stam also employed prosaic, mass-produced materials, often for novel purposes. He used plywood for many of the curved surfaces, including counters and display cases in the shops. For many of the balconies he specified railings made of welded gas pipes attached to the walls with the iron straps used in plumbing. The frame was covered with diagonal wire mesh. Also applied in interior public stairs, the protective mesh rose to full height creating a kind of vertical cage.54 In the apartments, the floors were generally linoleum, in the kitchen and bath they were terrazzo; but he specified asphalt floors in the bathrooms for Type D. The kitchens were very like the Frankfurt Kitchen in arrangement, and included the same metal sinks, the Haarer bins, built-in cupboards, tiled backsplashes, plate holders, and oil-painted walls. There was considerable built-in furnishing: closets, coat hooks, the children’s room in block B had a small table that folded out beneath the window, and Type
D had pocket and folding walls. (Figure 7.17) Cellars had laundry rooms and drying spaces, most blocks had storage rooms, and some offered bicycle storage.

At the street level, rhythmic and spatial intricacies would play throughout the settlement. Along Frankenallee, the diminutive blocks had large, carved-out balconies on the second floor creating novel solid/void forms with a one-to-one tempo, while the ground floor receded in a long band. (Figure 7.18) Striped awnings, combined with the syncopation of small clerestory windows and
balcony railings, enhanced the bustle of the street in a novel and festive way. (Figure 7.19) Presenting a remarkable contrast, the Konsumverein (cooperative store) faced the street with a full frame- and glass-infill wall. (Figure 7.20) Across the street, the opposite corner was intended for the Volkshaus West, the community building, designed by Cetto. Also raised on columns, the building would have reached toward the Konsumverein, the two forming a gateway and answering the great brick pylon of the Friedenskirche down the street.\(^56\) (Figure 7.19, 4.08) Shops on Idsteinerstrasse were in low wings that enclosed the courtyards. The columned ends of the adjacent Zeilenbau blocks stepped over them, making a shelter adjacent to the shop windows. (Figure 7.21) For some years, Stam had worked towards an architecture of “pure function.” His starting point was the reinforced concrete frame, which provided the organizational armature for spatial flexibility. A series of projects—with overlapping blocks, columns stepping one over the next, facades that moved forward and back—all contributed to the configuration and intricacy of Hellerhof.\(^57\) They also betrayed deep formal concerns. While Stam foreswore stylistic considerations, his facades displayed a complex pattern of window types—staccato attic bands, square panes, and broad windows—as well as sunken loggias paired with projecting balconies. Hellerhof contained some forty-four different window types and combinations, and five connecting pieces.\(^58\) Sharing some dimensions, others differing in slim margin, produced slightly asymmetric bays with window patterns of intricate variation. (Figure 7.22)

The color plan for Hellerhof is not known, but photographs and drawings indicate a simplified palette. The walls of the blocks appear to have been a light color, white, perhaps, but Stam’s drawings indicate they may have been a pale yellow or cream. Rounded columns for the shops on Idsteinerstrasse were dark in color and the walls were clad in Holzmann’s dark glazed tiles, together making the ground floor appear to recede beneath the buildings at the corners.\(^59\) (Figure 7.23)

As with other late projects, the fiscal constraints were considerable. Pressed to economize, Stam reduced the gallery blocks’ standard two-room, family-of-four unit of 1929 to a mere 36 square meters in 1930. The interior blocks had larger units, a three-room apartment measured 48 square meters and accommodated up to six, although, such tight quarters required convertible beds in the living room. Rents started at 36 marks per month for a two-room unit, lower than Westhausen, and the communal amenities were arguably better as was the location, which eliminated commuting for most residents.\(^60\)

Hellerhof’s array of shops enhanced its village-like quality. The small shops at the corners of Idsteinerstrasse and Frankenallee included a confectioner, the
Figure 7.18 Hellerhof, aerial view, 1929.

Figure 7.19 Hellerhof. View down Frankenallee towards the Konsumverein and Friedenskirche.

Figure 7.20 Hellerhof, the Konsumverein, 1929.
Figure 7.21 Hellerhof, shop corner on Idsteinerstrasse. Ilse Bing photograph, 1929.

Figure 7.22 Hellerhof, view between Zeilenbau blocks. Ilse Bing photograph, 1929.

Figure 7.23 Hellerhof, shop corner on Idsteinerstrasse. Ilse Bing photograph, 1929.
“Café Hellerhof,” a tobacconist, a hairdresser’s, a shoe store, and a pharmacy. For these, Stam used structural columns instead of load-bearing walls to open up the space, from the shop windows to its interior. Electric signage, extensive glazing, linoleum floors, lacquered counters, and seamless built-in shelving and cases distinguished them from the old-fashioned array of wooden shelving, hutches, and tables, much in the way that the Frankfurt Kitchen differed from the country kitchen. In the imposing Konsumverein, shelving and display cases arrayed specialty items, including wine and liquor, coffee and tea. Stam specified Zeiss Ikon and PH-Leuchten fixtures for both public and shop lighting. Both companies had models in the Frankfurt Register.

Hellerhof received public and professional approbation for its architectural distinction and charm. Although the units were small, the urbanity of the settlement seemed to please its tenants, as did the clever and bright interiors of the flats. Construction continued on the project through 1932, when Stam departed for the Soviet Union.  

Siedlung Tornow-Gelände

_The houses are technically pristine, correct, and, happily, as functional as if they came off a conveyor belt or were shot from a cannon, set in lush, natural surroundings._
—Walter Schwagenscheidt, ca. 1930

Siedlung Tornow-Gelände was the final installment in the settlements of the industrial west. The sponsor was a housing society for city clerical workers and pensioners, the Tornow’sche Terrain-Aktiengesellschaft, founded in 1925; in 1929, the organization merged with the Gartenstadt AG. In 1930, the society acquired land on Mainzer Landstrasse, southwest of Hellerhof. The original plan had been to build housing for white-collar retirees from Phillip Holzmann AG, but with the collapse of the economy, the settlement would be for the poorest among the working population. Directors from Holzmann were prominent on the board, and organizational meetings were convened at the company headquarters on the Taunusanlage. The city was a 50 percent partner on the project, and the board included May, Bruno Asch, and city council members from the right, Rudolf Lion (DVP) and Jakob Sprenger (NSDAP).

The board determined that the settlement would be built in Zeilenbau, and provide minimal dwellings. Walter Schwagenscheidt organized its 560 units in four-story apartment blocks arrayed around U-shaped, south-facing courtyards, spaced according to his calculations. The orientation, a north-south angle of 45
degrees, maximized daylight in the units, the flow of the breeze between blocks, and minimized street noise.65 (Figure 7.24) The construction system employed concrete panels like those Holzmann provided for Hellerhof. There initial plan for forty, two-story row houses along Mainze Landstrasse, which would provide shops and other amenities, had to be eliminated.66 Residents would shop and do laundry in Griesheim, and garden on plots in a colony to the south. In place of allotments, the eastern flank of the settlement had covered walkways that defined courtyards. Beckstein distinguished them in the variety of plantings—one became the “rose avenue,” another the “trellis gallery,” and so on.67

Schuster took charge of the unit designs.68 With budget cuts, the apartment blocks were shorn of proposed balconies; the units were 37 to 43 square meters in area, but they did not benefit from the built-in cabinetry of units at Hellerhof, Westhausen or Praunheim. In a typical unit, beds occupied two small bedrooms, and the living room held not much more than a dining table. The built-in kitchen, about half the size of the standard Frankfurt Kitchen, was separated from the living area by a curtain. The bathroom included a bathtub, a coal-fueled water heater, and a toilet, but no sink. Coal stoves replaced central heating—resulting in the unusual sight of Zeilenbau populated with a plethora of rooftop chimneys. With the project’s completion in 1932, Schuster installed a showroom in one of the units, displaying his Aufbau furniture models with information for their purchase.69 (Figures 3.30, 3.31)

Schwagenscheidt viewed the reductive Tornow-Gelände as “a delight and a joy to inhabit,” a project only achieved through his force of will and clear thinking. He recounted that he had gone to battle with the entire planning committee—including May—over the site plan.70 He disputed colleagues’ proposals, marshalling figures that challenged the efficacy of the proposed rents relative to the cost effective-
ness of the construction system and the site plan. Alienating the project engineers in turn, he advanced an alternative layout for service conduits that offered significant savings. Claiming victory in the end, Schwagenscheidt smugly observed . . . I always answered their legitimate questions, finally nothing more could be said.\textsuperscript{71}

White-Collar Workers and a New Planning Strategy

The mass of salaried employees differs from the worker proletariat in that they are spiritually homeless. . . they cannot find their way to their comrades, and the house of bourgeois ideas and feelings in which they used to live has collapsed, its foundations eroded by economic development. They are living at present without a doctrine to look up to or a goal they might ascertain.

—Sigfried Kracauer, 1929\textsuperscript{72}

More than any other social class, white-collar workers stood on the brink of modernity. It was the bureaucrats, the clerical, and service workers who suffered the bewilderments and anonymity, the modish compulsions of the new age, who lived the regimen of office work and the chagrin of wage labor absent the consolations of blue-collar society. The novelties of mass culture offered only a brief escape from long intervals of malaise. At the heart of this sea change, the psyche of the white-collar worker became the subject of fictional as well as social investigation. The civic values of this white-collar hero were vested in the language of a non-partisan and classless world: in “patriotism,” “the common good,” “public service,” “justice,” and “fairness.”\textsuperscript{73} His loyalty was to the rationalized workplace where he surrendered his personal initiative to the performance of duties fixed by bureaucratic order and the time clock. At his least meritorious, he embodied a new detachment, a cold impersonality. At his best, he was a principled egalitarian. It was for this New Man and his peers that the New Frankfurt initiated a drive for housing in north central Frankfurt.

In 1930, over one-third of Frankfurt’s workers were commuters, an unusually large proportion and largely a product of the satellite settlements. While the city extended streetcar lines, workers complained that the fare was burdensome.\textsuperscript{74} In response, the Hochbauamt created something of an alternative landscape, an enclave for white-collar workers closer in to the city. Surveys revealed that white-collar workers tended to have smaller and later families, paid higher rents, lived in smaller quarters, and spent proportionally more money on life in the public sphere than their blue-collar counterparts.\textsuperscript{75} These were the new city dwellers. For a large central north district, branching along the arterials and streetcar lines linking the Nidda settlements to the center, May and Boehm planned ranks of
north-south running Zeilenbau, primarily made up of row houses bounded by apartment blocks, interwoven with east-west bands of park. As built, the district comprised a string of small settlements with a variety of sponsors, clustered east and west of Eschersheimer Landstrasse. This landscape was less pastoral and cooperative, and more anonymous than the settlements. Its terrain was still relatively vacant, so that its new fabric could include housing for newly-segregated groups like single women and the elderly, and a major youth center. Here, such projects would not have to fend off objections by angry residents as they did in established neighborhoods. This was to be a terrain oriented towards an emerging consumer world, less towards the family; bereft of the allotment, centered on the sports field and the “weekend.”

The fame of the satellites has overshadowed this initiative; the onset of the depression curtailed its implementation. Its loss to historical memory has created a misimpression of the New Frankfurt initiative, left a hole in the fabric that May and his colleagues envisioned would give the city, not only ample housing, but a consistent urbanity and a new kind of cultural homogeneity. As Boehm recalled, “on September 30, 1930, we put the new building ordinance and the associated zoning plan before the city council. The plan sparked an unexpectedly lively public debate, one more concerned with the how than the what. What we wanted them to see was simply that the new plan aimed to create a beautiful city; we wanted a city that was not chaotic, but like Nancy or Potsdam, consistent.”

Boehm, in particular, was occupied with the creation of new districts, drawing extensive plans to fill in gaps (Baulücke) in the urban fabric, for Seckbach, Ginnheim, and the north central district. These plans, infrequently published, were largely implemented in the post-war period.

The north central area under consideration was bordered to the east by Eckenerheimer Landstrasse and its three streetcar lines, and consisted of long, parallel blocks of row houses, stretching from Grüneburg Park to beyond Hansaallee, interspersed with pedestrian ways, new parks, schools, and social institutions. Plain, transverse bands of park alternating with house rows. (Figures 7.02, 7.25) In the master plan, seventeen north-south running blocks of housing ended on their northern flank by an east-west, linear park, and south by Miquelstrasse (Miquelallee). Within this fabric were four of the most innovative buildings of the New Frankfurt program. On the corner of the park and Eschersheimer Landstrasse was a site intended for the proposed Vocational and Home Economics School in Women’s Professions. Just across the park, still on the corner of Hansaallee, the city built Stam’s Altersheim. Together, the school and the Altersheim would
have created a gate to the park promenade coming from Eschersheimer Landstrasse. North of the Altersheim, as Hansaallee began its turn to the west to be renamed Platenstrasse, was the new youth center, the Haus der Jugend. Diagonally across the street was the housing for single women. To the north was the first (ultimately, the only) installation of Roeckle’s “Mavest” block in the partly-developed Siedlung Raimundstrasse. Like the villas in Höhenblick, Mavest drew professionals into the ambit of the New Frankfurt. (Figure 7.26)

East of Eschersheimer Landstrasse, in the vacant territory north of Adickes Allee, May and Boehm envisioned nineteen more parallel blocks of row houses, extending all the way to Eckenheimer Landstrasse and the Municipal Cemetery. The northern boundary was the long, narrow park and field, Bertramswiese. Just there, the new Teaching Academy (Pädagogische Akademie), built by the Prussian state authorities in 1930, adjoined Cetto’s changing pavilion near the field. The linear park led on to the site of the proposed Vocational and Home Economics School. To the south, more sports fields linked with a new grammar school on the other side, on Adickesallee. The Adickesallee housing for professional women, was across the street, completing the loose chain of institutions—mostly for women—that wound through the district.

Only fragments of this grand plan were executed. The Altersheim, the Haus der Jugend, and the two installations of housing for single women were all built. Segments of the park scheme were put in place: Betramswiese was expanded, and the length of promenade leading to it and the allée of trees along Miquelstrasse were installed. Yet, since the Hochbauamt only accomplished isolated segments of housing such the separate elements were adrift, their significance in a larger urban project barely legible.

Built in 1930, the magnet for all this activity around Eschersheimer Landstrasse was the new IG Farben headquarters. Ludwig Landmann’s electoral victory six years earlier was due in large part to his promise to make Frankfurt a Großstadt, a metropolitan city, by incorporating the industrial suburbs that were home to the chemical industries of IG Farben and its workers. With incorporation in 1928, Frankfurt added 76,000 workers, including 22,000 white-collar employees, to its population. Drawing IG Farben into the city’s economic and political mainstream, Landmann had embraced what would become a powerful oppositional force, a power from the right that would stamp its impression on city politics, as it did architecturally, with a heavy hand. The Grossmarkthalle symbolized the inauguration of Landmann’s New Era in 1927; the construction of the IG Farben headquarters in 1930 would, ironically, signal its end.
Set in pockets around the city, the new white-collar projects were islands of calm, order, and modernity built on municipal property adrift in tracts of developing land. In 1926, Roeckle produced the first of a series of sleek housing projects distinguished by his sophisticated style. On an open site north of the city, he designed a four-story building, its sun-facing side furnished with a sweeping glass wall across its middle, echoed a story above by a sharp projecting eave. (Figure 7.26) The upscale apartment block, Mavest, on Raimundstrasse was the first of an intended fourteen courtyard housing blocks, positioned between Raimundstrasse and Platenstrasse. Offering luxury apartments, the prime amenities were openness and light, and the status accorded for some in the assumption of a modern life style. There were more than the usual amenities, including hobby and playrooms in the basement—so children wouldn’t disturb their parents on rainy days—an electric laundry, and private car garages. The thirty-four flats ranged from two to four rooms, each had either a terrace or a glazed sunroom, and a Frankfurt Kitchen. Unlike the suave exterior, the unit plans seemed perfunctory, rooms labeled on the published plans simply as “Zimmer” (room), returning to a bourgeois luxury of spatial laxity. The rents were high: a four-room apartment with veranda was
slightly more than for the largest four-room house at Römerstadt. Throughout his Frankfurt career, Roeckle had a niche designing projects for the well-to-do and the intelligentsia. The Mavest apartment’s professional tenants included several with the title of doctor and professor; Werner Nosbisch, Hochbauamt administrator, was an early resident.\(^{85}\)

How Mavest came to be planned for this location remains a question. The origins of the project seem to predate May’s hiring, and may have involved the federal or Prussian authorities as the sponsor. In 1926, the IG Farben building was not yet planned, and the land was perhaps more affordable than in 1929, when May and Boehm began their comprehensive development of the area. In 1925, the Foundation for the Revitalization of Frankfurt’s Skilled Labor (Stiftung zum Wiederaufbau des Frankfurter Handwerks) created a construction entity called Mavest (Materialien-Auftragsvermittlungsstelle). The parent organization helped veterans reopen their family businesses and shops, and lobbied for city jobs for independent skilled laborers. Mavest’s goal was to contract government-sponsored building projects for its members. This, and a number of houses in Ginnheim appear to have been its only housing projects in the 1920s.\(^ {86} \)

The Mavest block was the first installment in the white-collar district. With land prices rising, and municipal resources dwindling, some further projects provided with housing for upper-level managers and administrators. Built just north of the IG Farben headquarters, the larger settlement of Miquelstrasse occupied the most valuable land of any New Frankfurt project.\(^ {87} \) A third of the units were for middle-class families—administrators at IG Farben; they offered the luxury of garages for lease, from which May hoped to garner extra revenue. Sponsored by the ABG, Miquelstrasse was to house some 1,000 families in row
houses flanking eight parallel courtyards and oriented north-south. On the south, Miquelstrasse was lavished with a new allée of trees, creating a boulevard to connect the settlement with future housing enclaves to the east and west. On the north, small apartment blocks flanked the proposed linear parkway leading that led from here to the Altersheim in one direction, and the women’s vocational school in the other. (Figure 7.27)

By 1930, only an eastern segment of Miquelstrasse was completed, 197 units, including 43 large houses, and 153 apartments, 140 of them also large, three to four bedroom units. Subsequent installments, built after May and his team were gone, substituted apartment blocks in place of the row houses. (Figure 7.28)

The mix of housing for low-level white-collar workers and upper-level administrators characterized subsequent development in the area. The next housing enclave in the chain was further to the north, three tram stops along Eschersheimer Landstrasse. At the intersection with Hugelstrasse, a square of several blocks comprised a settlement of discrete, union-funded projects designed by various local architects. As laid out by the Hochbauamt, there were three hundred units, perimeter apartment blocks screening row houses on the interior. (Figure 7.29) Internal pedestrian paths and small streets created links among the blocks and led to a recreation field to the south. Sixty-five units, mostly row houses with attached gardens and roof terraces, were built by KOMBA (Bau- und Siedlungsgenossenschaft der Kommunale Beamten und Angestellten Pr.e.V) a building society for city managers and clerical workers. Next, GAGFAH (Gemeinnützige Aktiengesellschaft für Angestellte-Heimstätten/Association for Homesteads for White-Collar Workers), associated with an arch conservative union, the Deutsch-
National Handlungsgehilf Verein (German-National Aid in Action Society), built houses designed by Ludwig Bernoulli for its white-collar members. SÜWAG (Südwestdeutsche Aktiengesellschaft für Kleinwohnungsbauten/Southwest Association for Small Dwellings) contributed a further seventy-three units, designed by Gustav Schaupp. There was also a corner block for bank employees. Hugelstrasse housing had high rents, with a three-room apartment costing more than double one at Westhausen.

One tram stop to the north on Eschersheimer Landstrasse, the Ludwig Richter Schule was flanked by the small settlement of “am Lindenbaum” designed by Walter Gropius. Apartments here were somewhat more affordable at about 77 marks for a three-room unit. By 1930, Gropius had designed two large Zeilenbau projects, Dammerstock and Spandau-Haselhorst. Lindenbaum reprised his Siemensstadt blocks: U-shaped, each with a south-facing courtyard, the sun determining their intervals. Sheltered in the center of each one, a grove of Linden trees created “an oasis in the middle of the city” as Gropius’s biographer was moved to describe it. Inside, the apartments were minimal dwellings.

Am Lindenbaum again raises the debate over the minimal dwelling. Gropius was a staunch advocate. He maintained that the smaller household not be viewed as a decay of the homely model, but as a stage on the path to an individuated society. This path required more and smaller housing units, for demographic, but also social reasons. “The modern urban industrial population comes from a rural society. They retain their primitive habits, that, though in a reduced form, they incorporate into their new way of life.” The Garden City Movement’s campaign
to return to the old ways was “irreconcilable with the totality of a New Life.” On the other hand, the minimal dwelling embodied the freedoms conferred by wages, mobility, and independence. The household bound one home to old-fashioned values, whereas the new public sphere offered opportunities for an enriched and free life. The worker had more freedom with a plain green lawn outside an apartment window than an allotment beyond the back door. The New Life was also nomadic. In the modern context, both families and individuals loosened the bonds of social hierarchies, were no longer dependent on local authorities for work or tenancies, and were free to move about, and discover new cities and new jobs. The small, universal apartment reflected this mobility, a disencumbrance from furnishings and home cares.

But the minimal dwelling, in which morality and hygiene were once again strained, had worrisome consequences for many professionals; and had vociferous opponents among the press and the public. Few viewed it as more than an
economic necessity, and certainly not as the sign of cultural progress Gropius proposed. May remained a staunch advocate of the single-family house, and argued that only half the minimal dwellings needed to remain so, the rest would be better converted over time to larger units. The family remained in the foreground of May’s descriptions of how the convertible rooms of the minimal dwelling could be used when a parent was sick, or how they could be converted from night to day, for children’s play or family gatherings. (Figure 7.31) He did not propose it was most contemporary way to live; it was simply the best solution to the housing emergency.

Faced with the question of whether to leave hundreds of thousands of people for years to come in their misery or whether, as soon as possible, even a small flat should be made available to them, the political realist will decide in favor of the second solution, if he is able simultaneously to take the necessary organizational measures to combine pairs of these flats into normal-sized flats upon the return of economically better times.94

Public Dialogues and the CIAM Congress

The Frankfurt architecture course for professionals

Professionals and the general public alike flocked to see it. In 1928, three staff architects were kept busy accommodating the requests for tours. Unofficial visitors, professionals in particular, were indeed proving something of a nuisance to settlement residents, who complained to the city.95

—Der Baumeister, 1929

Meanwhile, adherents to the garden city remained staunch, and Frankfurt’s achievements in this kind of New Life design continued to gain notoriety. In 1929, the Gartenstadt AG, led by Hans Kampffmeyer, co-sponsored a course
for professionals with the Hochbauamt. From September 2nd to the 6th, 1929, participants would be tutored in the economic, organizational, and financial infrastructure of the New Frankfurt program, visiting buildings during the day; dining with a featured speaker after an evening lecture. Each would pay a program fee of twenty marks; special rates were offered for those with their own car and to students. Applications and questions were fielded by the editors of *DNF*. It is likely that the course was originally intended to coincide with the CIAM congress, originally planned for the same month. Complications postponed the congress until October, when indeed an abbreviated version of the course was offered to non-delegate attendees. Happening close in time, the two events nevertheless presented aspects of the New Frankfurt at variance with each other. Under Gartenstadt AG auspices, the course presented Frankfurt through the lens of a garden city philosophy: the early work in satellite settlement building, school design, and landscape. CIAM, meanwhile, was engrossed by the minimal dwelling and Zeilenbau.

The response to the course offering was so great that not everyone could be accommodated. The final roster included seventy architects, thirty-two government ministers and professionals, twenty-seven students, twelve “private” (among them, seven women), and seven journalists; the breakdown by nationality was ninety-one Germans, thirty-nine Swiss, eight Dutch, six Czechs, two English, and two Danes. Among the one hundred-fifty attendees, Catherine Bauer was the only American. She later reminisced about the international fellowship created by the conference, and noted that some of the enthusiasm was knowing that May was departing at any moment for Leningrad on a lecture tour, which would effectively end his work in Frankfurt. Two years later, in *Modern Housing* (1934), she provided a perspective on European housing and the social idealism that underpinned the movement. On Frankfurt she opined, “occasionally one sees some industrial object where intelligent economy actually seems to have produced art. Such a significant sight is the recent experiment in large-scale housing development at Frankfurt on the Main in Germany.”

The four-day seminar had mornings devoted to site visits, afternoons to lectures on architecture, finance, and land policy. The program encompassed the gamut of New Life projects. Bauer wryly observed that study began with a model cemetery and ended with a modern mental hospital. Each of the three days had a theme, dictating an itinerary for the morning tour and afternoon lectures. On the first day, the theme was parks and green spaces. Bromme led the tour of the new sections of the Municipal Cemetery, of garden colonies and parks; he discussed the planting and the grave markers, and the politics of directing the garden
colonies with a “strong hand.” The group then moved on to visit Bornheimer Hang and the IG Farben building then under construction, then the Palmengarten. Kampffmeyer lectured on the goals of his organization, the International Association for Housing), and how it fit together with the work in Frankfurt. He declared Frankfurt to be the only place since the Gothenburg Exposition of 1923 where the housing problem has come to the fore “in its true light.” After lunch at the Palmengarten, Wichert lectured on modern gravestone and memorial design; followed by May discussing the modern cemetery.

The second day turned the focus on the settlements. The major early settlements were all on the itinerary as were the new schools, and there was a visit to Mammolshainerstrasse, presumably to discuss concrete construction. In the afternoon, Boehm explained the Frankfurt city plan, May spoke about housing design and production, and Kaufmann explained the concept of the minimal dwelling. Schuster followed up with a lecture on modern furniture.

The last day was reserved for a tour of new monumental buildings: the Grossmarkthalle, the new hospitals, and utility complexes, Fechenheim Pool, and the Forest Stadium. The lecture series ended that afternoon with Asch discussing financing, and Nosbisch explaining settlement management, the operation of the public laundries and the maintenance of settlement grounds.101 The course was judged a great success, and plans were made to run it again the following year.102 It was only a month later, that the city hosted the CIAM Congress, renowned in the annals of modern architecture. This event heralded the ascendancy of the Zeilenbau, and of the kind of white-collar philosophy of life espoused by Gropius.

The CIAM Congress of 1929

_The International Congress on Modern Architecture_ [Internationale Kongress für Neues Bauen] _has among its members the most important architects of Europe and the Americas. In spite of numerous applications from other countries . . . and, in recognition of the work of the City of Frankfurt in the area of housing, the organization determined to hold its second congress, from October 24th to the 27th of this year, in Frankfurt. There will be over two hundred in attendance. Eighteen European states will participate and provide material for the exhibition . . ._ 103

—Ernst May, 1929

_Building affordable housing for the poor is a foremost concern among civilized countries. It is for this reason that the International Congress of Modern Architecture has named this vital topic as the theme of this year’s conference. . . . We recognize your great interest in the housing problem. Allow us to invite you to this event on the 26th of this month; we would be pleased to greet you as an honored guest._
On behalf of the City of Frankfurt, we are sending you an invitation to a dinner for guests and congress participants to be held at the Palmengarten. . . . To give our guests the opportunity to see the city’s new housing, lectures and tours will be presented . . . on the 24th and 25th. These are further described in the accompanying program. Please reply to the Congress Office on Neue Mainzerstrasse 37, Frankfurt.\(^{104}\)

—Invitation to the CIAM Congress of 1929

[The Congress includes] only the advocates of the new tendency—the most extreme and their “right-thinking” hangers-on. What we think of as the “Neue Bauen” is not one thing, but comes in a variety of shades. All the new tendencies present will have their say, although behind closed doors.\(^{105}\)

—Frankfurter Nachrichten, 1929

In June 1928, a group of some twenty-eight architects met at Hélène de Mandroté’s chateau in La Sarraz, Switzerland. The purpose was to create an association representing the developing modern movement in architecture. This organizing committee (dubbing itself, Comité international pour la résolution des problèmes de l’architecture contemporaine, CIRPAC) composed a declaration of principles, and founded the Congrès International d’Architecture Moderne (CIAM).\(^{106}\) The organization was modeled on the League of Nations, with participating countries represented by selected delegations. Contemporary professional organizations, like the International Federation for Town Planning and Housing, and the BDA, gave modern architecture an equivocal reception at best. Through CIAM, these “outsiders” hoped to achieve an uncompromising and consistent voice. Planning its first official congress for February 1929, CIRPAC chose the city of Frankfurt, with its much-admired housing initiative, as the venue, and Die Wohnung für das Existenzminum (Housing and the Minimal Dwelling) as the theme.\(^{107}\) Yet, it remains a question whether the CIAM congress was the culmination of May’s work, or a signpost on the road to his program’s demise.\(^{108}\) It was certainly a fraught undertaking.

Over the next year, there was much planning to be done. The work was divided between the Hochbauamt and CIAM’s Zurich headquarters, where Karl Moser was acting president and Sigfried Giedion, secretary. The Hochbauamt’s tasks included organizing the exhibition, and arranging meals, hotels and entertainment, although the latter was ultimately decided in Zurich.\(^{109}\) May was assembling a working committee when he remarked sadly, “Adolf Meyer, my most valuable colleague and the best architect that Frankfurt had, drowned on the 24th.”\(^{110}\) The eventual committee comprised some of the most outspoken and progressive members of the Frankfurt cohort: Gantner, Kramer, Stam, and Leistikow.\(^{111}\)
Among its many self-appointed tasks, the congress had an outreach function, efforts to court industry and labor, which both offices undertook. The Zurich office invited the aluminum industry to help find metal alternatives to iron, for example.\textsuperscript{112} Other guests, like Phillip Holzmann and Martin Keller & Cie helped fund the congress.\textsuperscript{113} One mammoth task assumed by Zurich was the composition, administering, and tabulation of an exhaustive questionnaire that was to be completed by each delegation. This ambitious undertaking was to assist CIAM policy-making by supplying quantifiable data. It would not only further the project of housing rationalization, but would make CIAM’s work incontestable in the outside world.\textsuperscript{114} Written by Hans Schmidt and Victor Bourgeois with input from board members, the questionnaire, some thirty-one pages long, exemplified the kind of dogged fact-gathering that rationalization encouraged among design professionals. The second day of the congress would be largely devoted to a summation of the findings, and discussion of a potential universal building code.\textsuperscript{115} Part One of the questionnaire, “The Hygienic and Economic Rationale for the Minimal Dwelling,” asked after the kinds of housing being studied or built, income eligibility for minimal dwellings, what housing that income could buy, the average familial income and expenditures (for clothing, food, rent, etc.), whether housing subsidies or other supplemental funding were applied, and the hourly wage of construction workers. The complexities of financing were the topic of the next section, followed by questions concerning ventilation—minimal room volumes and cross-ventilation in vernacular buildings, legal standards, and what the respondents thought appropriate. Respondents were asked to diagram the sun’s path for their region, and record its average intensity, and what their building codes allowed as minimum sun exposure in ground-floor rooms. There were questions about heating, including the minimum room temperatures, the cost of fuel, the types of insulation used and their effectiveness. Another section asked for soundproofing quotients of wall types. On the kitchen: how many meals were cooked at home; did husbands come home for lunch? What was the percentage of working mothers, and were the architects interested in designing collective kitchens? There were questions about bathing facilities and laundries, and whether collective solutions were desirable.\textsuperscript{116} This ended Part One. Part Two, titled “Building Regulations for Various Countries and Regions,” concerned zoning and building codes for different housing types, for example, the minimum dimensions for circulation, i.e., corridors, galleries, and stairs; the minimum interior heights and volume dimensions for categories of rooms. Finally, the questionnaire asked respondents to provide their criticisms and counterproposals to the regulations in their countries.
When it came to organizing the congress itself, the Frankfurt and Zurich offices found themselves in fundamental disagreement. CIRPAC’s goal was to create a base of support within the profession, without the complicating scrutiny of the press or the public. Closed meetings and social events would be vital. Giedion and his cohort—Moser, Artaria, and Schmidt—wanted to create a “functioning machine,” and assess the players, “[w]e must know the voices and the people, before we sit down to the table.” Such a closed congress would contribute little to May’s need to put the New Frankfurt center stage within the context of an international professional gathering. “To Gropius’s proposal, that the congress not be public, I can clarify that I also support, at least for the primary meetings, closed sessions, but I would suggest that the last day be open. On this day, the most important resolutions of the congress can be conveyed to the public by an eminent speaker, who can lay out the goals of the congress in clear and forthright language, and, above all, differentiate congress goals from the many parallel organizations.” It was May who would eventually give this speech.

The final resolution was three days of closed meetings, followed by a public event, when the exhibit would have its official opening. Another compromise was admitting special guests—potential friends and interested parties—many of them technical people, to the closed sessions. The program would comprise lectures by prominent CIRPAC members, followed by discussions, the goal of which was to formulate an official CIAM position on that issue. This proposition was complicated by Zurich’s desire for discussions to proceed without controversy: the founding CIRPAC group should be neither discredited nor embarrassed. This was one reason that Giedion barred May from inviting the press to the sessions.

The topic of day for the first closed meeting was the minimal dwelling, followed by building regulations on day two. Day three was to be devoted to issues of land development and urban design. For this, Giedion asked of the German delegation, “give us a personality . . . one who will present the matter from our point of view and with complete clarity.” Martin Wagner emerged as the obvious choice, but Giedion found himself embarrassed in conversation with a more-than-reluctant Wagner, and charged that Ring members had “sabotaged” his emissary. Wagner opined that CIRPAC was comprised of dilettantes concerned with “ephemeral phenomena.” Back in Basel, Giedion complained that this was the third time that “personalities” had hindered congress work, wasting time, money, and energy. “We confront the grotesque fact, that the congress will host its first public event in Germany, yet Germany itself it sabotaging it . . .” He insisted that May write an official letter guaranteeing that the German
delegation, essentially the senior members of the Ring, and their “hangers-on” could be counted on to cause no further controversy.\textsuperscript{121} Giedion cancelled the third-day, land-reform session.

The episode hinged on Hugo Häring’s fractious relationship with members of CIRPAC. His outspoken, unwelcome, and abrasive comments had nearly derailed La Sarraz, and resulted in a demand for his ouster.\textsuperscript{122} Corbusier announced that he would not sit at the same table with him. He also reported that while he was in Berlin, there had been a meeting of some key Ring members in Berlin. Zurich now accused the Ring of creating a cabal within CIRPAC, and renewed the charge upon learning that the Ring was coming to Frankfurt a day early to hold its own meeting. Giedion then called for the congress to be postponed—planning was behind and Corbusier would be abroad in September, and the congress could not do without him. Meanwhile, he proposed that the German delegation be reconfigured into something not so much the Ring. His suggested “\textit{nicht arrivierten}” (“un-arrived”) youngsters like the brothers Heinz and Bodo Rasch or Franz Krause (1897–1979) replace some of the other delegates.\textsuperscript{123} May and Gropius countered that such an action would discredit their delegation. Ring members had senior stature and were original CIRPAC members.\textsuperscript{124} Gropius’s suggestion that the meeting be moved from September to October was accepted by all.\textsuperscript{125} But the atmosphere of distrust remained. Indeed, it was just the start of the internal struggles over the control of the congress and its meaning.

In April, Gantner proposed to devote an issue of \textit{DNF} to the congress. As editor of the journal, he would select some of the more interesting work for publication—he mentioned Chareau and Häring.\textsuperscript{126} On the Hochbauamt’s suggestion, Zurich had already hired Englert & Schlosser to publish a small book on the exhibition. But Gantner envisioned \textit{DNF} publishing the official report on the congress. Zurich responded that this was an incursion on CIAM prerogative. Practical matters provoked further tension. The questionnaire was still incomplete in May; even if the Zurich office finished it overnight, there would be little time for delegates to research and reply to its many questions.\textsuperscript{127} With his usual brashness, Stam wrote Giedion that he was astounded at the shoddy organization and lack of progress on the questionnaire. He opined that this was clearly the fault of the secretary (Giedion), and that under the circumstances he was not prepared to collect member fees towards the congress.\textsuperscript{128} Relations between Frankfurt and Zurich became increasingly testy. Gantner thought Giedion was not doing his part, and was too late arriving in Frankfurt to be of help there. To Giedion’s belated suggestion that participants should pay 15 marks for their tickets to the congress, Gantner, “astound-
ed,” replied that Frankfurt wanted “nothing to do with it.” Gropius stood aloof.129

Two years earlier there would have been no question of May securing municipal funding for the exhibition and events of the CIAM Congress. But by 1929, such funds were hard to come by, even for a prestigious event such as this, and for a relatively small amount of money. In August, he and Nosbisch requested 15,000 marks for the congress and the exhibition. They explained that the congress would bring an international array of modern architects and planners to Frankfurt, as well as a coterie of important guests—specialists in city planning, medical doctors, sociologists, and public health experts. Asch’s budget office replied that, while it “had no objections” to the conference, it also had no money.130 Six days later, May re-argued his case: The exhibition had several components. The format for the CIAM work was a display of unit plans, that “would let [us] illustrate a cross section of minimal dwellings for relatively little money;” it would “not only interest the profession, both in Germany and abroad, but the working people of Frankfurt . . . and focus on one of the most important problems of the day.” The congress would, parenthetically, make the case for the policies of May’s office, policies that were under increasing attack. In the fairgrounds, May would display models of Frankfurt settlements, of Praunheim, Römerstadt, and Goldstein. There would also be an Adolf Meyer retrospective, and a Kathe Kollwitz exhibition mounted by the Municipal Office of Science, Art, and Public Education (Stadtishers Amt für Wissenschaft, Kunst und Volksbildung). Kollwitz’s work documenting the plight of the poor would underscore the urgency of the minimal dwelling.131 Asch proffered 4,000 marks. May spent August rounding up other contributions, small amounts of money, from his Hochbauamt budget, 6,000 marks, from the Magistrate’s fund, 2,000 marks, and the plan went forward.132

On October 23, the congress got underway with an evening reception for the conferees, guests, and wives in the Palmengarten’s Wedding Hall. The next morning, the CIAM Congress convened, again at the Palmengarten. In attendance were some one hundred-thirty delegates representing fourteen countries and an array of technical, economic, and social advisors. Giedion opened the proceedings with an overview of the proposed organization and its purpose. The lectures that followed drew from questionnaire topics. Gropius began with “The Sociological Foundations of the Minimum Dwelling,” discussing the changing nature of the typical household, explaining why the minimal dwelling was its appropriate form, and the high-rise was its apt vessel. Next Victor Bourgeois in “The Program of the Minimum Habitation,” focused on the separation of residential functions, the role of new materials, the avoidance of “aesthetic regimentation,” and other
particulars plumbed by the questionnaire. The discussions that day fell flat. There were too many in attendance, and too many who were simply observers. Giedion was adamant that the next meeting would forego both the expense and the pitfalls of hosting guests who were merely “interested parties.”

After lunch, the conferees toured the exhibition. The invitations had touted the fact that the exhibition did not include photographs, as was usual in such displays, but consisted entirely of plans of minimal dwellings. This would allow rational assessment and comparison. In all, there were some two hundred and six plans, drawn at the same scale, furniture blocked in, and small building sections and site plans at the bottom of the drawings. They were posted on large placards set in the galleries of the Haus Werkbund at the fairgrounds. It must, even to informed viewers, have been a rather tedious showing. (Figure 7.32)

May, meanwhile, had also put Frankfurt on view, with a small exhibition in neighboring rooms. “Since, even for the professional, the drawing of such minimal dwellings can only give an incomplete idea of their usefulness, . . . four completely-furnished minimal dwellings have been built . . . ” They included a typical Hindenburgallee gallery flat, and variants of Lihotzky’s Zwofa units that were amended and used in the duplexes at Westhausen. Each one was finished with requisite linoleum floor coverings, Frankfurt Beds, a small Frankfurt Kitchen, built-in shelving, and fixtures and fittings made in Frankfurt. (Figures 7.08, 7.13)

That evening the guests attended a formal dinner accompanied by a program of avant-garde performance art. A reporter from the Frankfurter Nachrichten recounted the evening’s entertainment with bemusement: “The stage was draped in black, before it stood a grand piano and two instruments, the names of which fail us, one was connected to electrical circuits. The music, the Ballet Mécanique by
George Antheil, “involved banging on a powerful machine of some sort to render something only loosely akin to what one might understand as music.” To Kurt Schwitters’s recitation from Der Sturm and Lautsonate, the reporter confessed he was astounded at Schwitter’s audacity,” expecting “the intellectual leaders of eighteen countries” to listen to such nonsense. Indeed, the audience responded at moments with laughter. “As the evening came to an end, these painful events were happily and delightfully compensated for by the dance of Palucca, a child of Berlin, who received the appropriate applause for really great art.”

It surely would have been even more obscure to the reporter if the roster had also included, as Giedion had hoped, Hans Arp reciting his poetry, Robert Desnos reading his manifesto, Jorg Mäger with a musical interlude, and a showing of Buñuel and Dali’s Un chein andalou. Giedion wanted to shape an event of a “certain level” that would enhance the reputation of CIAM; maybe even Frankfurt, he mused. That night, while the esteemed performers regaled their audience, anti-flat-roof demonstrators picketed outside the building. At about the same hour, a group of New York bankers were in emergency meeting over the panic that had erupted on the Stock Exchange floor. It was “Black Thursday,” the day of the Great Crash.

The next day talks turned to part two of the questionnaire concerning building regulations. Corbusier was indeed in South America, so it was Pierre Jeanneret who read, “Critique and Modification of the Existing Regulations.” Schmidt, reportedly in a lively presentation, cautioned conferees against the rigidity implicit in rationalization. After lunch, May escorted the conferees to a private opening of Die Wohnung für das Existenzminimum.

The evening’s gala was again held at the Palmengarten restaurant. May spoke, delivering a version of the paper he then published in DNF. This was his chance to present the work of the city of Frankfurt, and its position on the minimal dwelling within the context of the congress, and to the entire audience of the congress, not only those admitted to the closed sessions. Hosted by the city, this was a conservative event. About two hundred-sixty people dined on Windsor soup, fish and game, salade le Trianon, and pineapple semi-freddo, and danced to an orchestra.
The following morning, the city council welcomed the congress with a breakfast in the medieval Römer. Members then convened at the Saxophone Hall at the fairgrounds. CIAM president Moser, concluded the closed segment of the congress by explaining the goals of CIAM, and reporting on the ongoing work of its members. At 11:30, the exhibit opened to the public in the Haus Werkbund; in the afternoon, congress participants toured the Frankfurt settlements. Conference wives, meanwhile, had been taking tours of Frankfurt’s cultural sights—the Kunstschule, the Goethe Haus, the Opera, and the Stadt Theater—with excursions to Wiesbaden, the Taunus, and the Rhine. For other guests not admitted to the sessions, there was also a version of the Architecture Course for Professionals, hosted by members of the Hochbauamt not involved in the congress.144

A month after the Congress, Frankfurt was at work on the exhibit book, *Die Wohnung für das Existenzminimum*, and Gantner finalized an agreement with Englert & Schlosser. There ensued more debate, provoking a revealing exchange between Gropius and Giedion. Having apparently seen an editing of his lecture, which Gantner and May proposed cutting up and inserting into three different parts of the document, Gropius objected that Frankfurt was shaping the material to forward its preference for the low-rise minimal dwelling.

> I find the handling of the publication wholly unacceptable, and I must adamantly protest against it. It is unacceptable, that the congress’s decision has been cast aside for no other reason than because, in this case, the content of my paper does not coincide with the building policies of Stadtrat May of Frankfurt. I must demand that either my article is adopted as it stands, or the congress withdraws from the publication. No other way is feasible.146

Giedion agreed that the Frankfurt office “had taken too much in hand.” He had already reminded Gantner that everyone had an interest in the publication of the exhibition, but to little avail.147 Gropius encouraged him,

> I am convinced, that the congress will back you up, if you move to oppose Frankfurt. If Frankfurt should insist ..., then the congress must forbid Frankfurt being even mentioned in the publication, since it is not for Frankfurt to turn the propagandistic value of the congress to its own purposes, just because it was in the fortunate position, and had the wherewithal to do something for the congress. I urge you to take great care and tread decisively.148

Giedion responded,

> I think you know that I am not one for a tactical approach or peace at any price. But it seemed vital to the organization not to lose May’s cooperation. Outside of you and May, we have expe-
rienced only disappointments in Germany, and it appears to me no accident, that Germany is the only country whose promised membership dues remain unpaid.\textsuperscript{149}

Giedion felt that CIAM was beholden to Frankfurt, and yet, he charged, Frankfurt was negligent in its day-to-day handling of the publication, and he wanted punitive measures added to the CIAM statutes for such negligence. He also opined that the format of speakers and discussion hadn’t come together, and that the audience left with diffused and scattered impressions rather than with deliberative agendas.

And so I have written openly to Frankfurt that the next congress will be an exclusively working congress, and that the whole ballast of hundreds of honored guests, evening entertainment, and meals will be eliminated. All the arrangements were unnecessarily expensive, and the reason we were there was cast into the background. Next time, we will allow nothing that isn’t specifically to do with the congress.

Telling for the future complexion of CIAM, he continued.

More important than the published critiques of the congress seems to me to be the emergence of personalities. As I told you in Frankfurt . . . [at the next CIAM congress] a cycle of four to five lectures will be delivered by you, Corbusier, Schmidt, and Ginsburg.\textsuperscript{150}

In its final form, the modest booklet, with a Leistikow cover, had introductions by May and Giedion on the work of the congress, followed by one-hundred-five schemes from fifteen countries chosen from among all the contributions. (Figure 7.34) Guides to the exhibition of the same title had different essays. For example, the guide used in Basel and Zurich had an introduction by Kaufmann and included Schmidt’s lecture, “Grundrisse für billige Wohnungen” (“Floor Plans for Low-Cost Dwellings”).\textsuperscript{151}

Issue number 11 of \textit{DNF} offered another version of the material, under the subtitle \textit{Billige Wohnungen (Low-Cost Housing)}. (Plate 4g) Plans from the exhibition appeared throughout the issue. The essays began with May’s “Die Wohnung für das Existenzminimum” (“The Existence Minimum Dwelling”), followed by Kaufmann’s overview of the exhibition. Frankfurt hygiene experts who attended the congress contributed articles: Neisser on hygiene in the modern dwelling, and Wilhelm Hagen on the “Biological and Social Prerequisites of the Minimal Dwelling.”\textsuperscript{152} Gantner ended with an enthusiastic and breathtakingly diplomatic recounting of the congress: it was “amazingly good,” “almost all the members of the ‘Ring’ were in attendance,” “among the best-known leaders, only Le Corbusier,
Oud, and Lissitzky were missing,” and there were “extraordinarily lively discussions.”153 There were summaries of three congress lectures—presumably vetted by their authors—by Gropius, Schmidt, and Bourgeois. The last two were only a paragraph in length; Gropius fared rather better, gleaning one and a half pages, although his recommendation for high-rise housing was reduced to one line at the end of his conclusions.154

Perhaps the debacle of the minimal dwelling in the post-war years could have been avoided if voices like those of Wagner and Teige had been heeded, or if CIAM had evolved into a less dogmatic organization. But then, the critics even within modernist circles did not treat CIRPAC gently, but rather, as Wagner here:

Where does the demand for the minimal dwelling come from? Stadtbaurat Ernst May, Frankfurt a. M., says “from the renters themselves, who can’t afford the new housing being built.” He puts a fundamental wish in the mouths of the renters: “give us housing that, if small, is also healthy and habitable, and above all has affordable rents.” No housing politician will deny that this wish, in its most elementary form, is true for the majority of renters. One can only regret that such gifted people, like Gropius and his international friends, distract the discussion of a solution of the housing question from the central issue. The solution is not “enlarge the windows and spare the living space,” but “enlarge the buying power of the family by raising wages and lowering the price of housing” . . . the housing problem can’t be solved only through the housing problem. . . . In its next congress, CIAM should address—rather more earnestly than Herr Corbusier has done—the question of rationalization of making buildings, and the question of the lowering of building costs through industrial construction. . . . One cannot expect lowered construction costs from philosophers and artists. Here, the engineers and organizers working in collaboration with the capital have the answer.155

But the proliferation of the Zeilenbau awaited the post-war decades. In the meantime, the housing initiative would continue to decay even beyond this possibility. In 1929, the Hochbauamt built 3,650 new units; 3,200 in 1930.156 May and his team had achieved some 14,000 units over five years, an extraordinary effort, but woefully insufficient to the emerging crisis.157 All the careful planning, all the facilities and funds at May’s disposal had proved insufficient in the face of a rising population, and a worsening economy. At the time of his resignation in 1930, he faced another round of funding cuts, and continued rising costs. With the Rent Tax due to end in March 1931, the controversy over its distribution re-
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ignited. Middle-class homeowners and private capital called for the law’s repeal, while housing advocates pleaded its necessity. In 1929, a coalition effected a compromise that reapportioned the funds between cities and provinces, so that more monies flowed to the conservative hinterlands, and, crucially, permitted the fund’s use for non-housing purposes. In 1930, fully half of the 800 million Rent Tax marks were allocated to purposes other than housing; the following year a third of the remaining 400 million were given to the rural provinces as non-specific revenue. In December 1931, the revised tax law stipulated that only one-fifth of the revenues would be used for housing.

Meanwhile, rents were on the rise: the Federal Labor Ministry concluded that without public subsidies, rents in new housing would be three times the pre-war rates. Workers in new housing already paid one-third of their income for rent, compared to one-sixth for those, generally wealthier tenants in older housing; even if the government could build more units, without aid, working-class tenants could not afford them.

As the program shrank, and public funds dwindled, the Hochbauamt had shifted back to workplace-specific housing enclaves where funding could be procured from private housing organizations: set in the city, rather than on the periphery, small settlements of a few hundred units often had local sponsors. At the same time, the Hochbauamt envisioned expanding the districts around Ginnheim, Griesheim, and Eschersheimer Landstrasse, not as identifiable settlements but as a continuous fabric of Zeilenbau. These plans accepted the row house and allotment as a thing of the past. They were supplanted by apartment houses, and a network of city parks, and parkways. Social amenities, like schools and social centers, sustained a neighborhood infrastructure.

Social groups on the margins—single women, the elderly, and the poor—were increasing in number, but were neglected but for the few experimental initiatives that struggled into fruition. The thousands of single women were still largely “under-housed,” the class of the poor was expanding, and the elderly suffered in silence. As part of this equation, the number of homeless was rapidly increasing. In anticipation of the restoration of the old town, tenants in the cheap medieval quarters were suffering eviction, just as the economy once again slid into decline. There was virtually no program to re-house these poor, and now homeless, people; even the cheapest rents in the new housing were beyond them. May’s housing initiative seemingly turned a blind eye to the issue.

To the east of the city, the largest industrial employers in the locomotive and industrial works had failed to provide housing for their workers, some of the most
poorly paid in the city. This problem might have been solved by “Garden City Goldstein”—its Schwagenscheidt version comprising two to four story Zeilenbau, where May planned to house as many as 35,000 people, comprising something of a garden city unto itself. Overtaken by the collapsing economy it was transformed into a settlement for 1,000 families living on subsistence farming plots.

**Notes**

1 Minutes (6 December 1927), StVAA 1078.
3 EM, “Der Palmengarten in Frankfurth,” DNE; no. 10 (1929): 185.
4 Minutes (15 November 1927), StVVA, 1076.
5 Preller, Sozialpolitik, 483–88.
6 Of all the European countries, Germany felt the impact of the American depression most immediately, with aid for reconstruction coming to an abrupt halt; another blow was the US's refusal to accept goods as reparation payments. Pelz-Dreckmann, Siedlungsbau, 79.
8 Schürmeyer, “Siedlungspolitik.” 15 (see chap. 1, n. 6). This was done, in part, at the behest of the Federation of German Municipal Statisticians who, in 1925, urged all cities to gather such data. Unwin also argued that each project needed to begin with a survey. Unwin, Town Planning, 141–53.
9 Minutes (28 August 1928), StVVA, 1033.
10 Bauer Wurster, “Social Front.”
13 Giedion, Befreites, 13.
14 Hong, Welfare, 21–22.
19 Sonderheft, Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen, no. 3 (February 1929): 20.
23 Gerhard Fehl “Vom Berliner Baublock zur Frankfurter Reihe und zurück: ein um 50 Jahre verspäteter Versuch, Ernst Mays städtebaulicher Geschichtsschreibung auf die Spuren zu kommen,” *Um Bau*, no. 5 (December 1981), also published as “From the Berlin building-block to the Frankfurt terrace and back: a belated effort to trace Ernst May’s urban design historiography,” *Planning Perspectives* 2, no. 2 (May 1987): 199.
24 “Westhausen—der neue Trabant,” clipping (3 March 1930), SO, S3 E 4542, StHM.
25 “Wie fühlen sich die Siedler in Westhausen?” *FZ* (9 September 1930).
26 Like other Nidda settlements, extensive canal work, costing 640,000 marks, was needed to secure the site from flooding. Water lines accounted for another 192,000 marks; street construction 571,800. Still these cost considerably less than comparable work in Praunheim and Römerstadt. Report (25 March 1929), Protokoll Auszug 3370, MA, Westhausen; Siedlungs Amt (1 April 1930), Tagebuch #1 1587, MA, Westhausen.
27 May resisted building taller blocks of flats, as called for by Gropius and others. Walter Gropius, “Flach, Mittel oder Hochbau” *DNF*, no. 2/3 (1930): 22ff.
28 He was not able to keep to this schedule; construction went on well into 1930. Protokoll Anzug (5 March 1928), MA PHRW #2653; letter (1 March 1928), MA, PHRW.
29 Hochbauamt report (14 September 1928), StVVA.
33 Brenner to Giedion (22 August 1929), CMETH.
35 Table III, Praunheim III (21 August 1929) MA Praunheim/Westhausen.
36 Newspaper clipping (24 May 1930), SO, S3 E 4542, StHM.
38 Photograph of the construction site, 105, S1/177, EBN.
39 On the Oktobergruppe, see chapter 8.
41 The axonometric plan printed in DNF, no. 2/3 (1930), 56, also shows two other, smaller block types on the north and south flanks of the settlement, one L-shaped, the other a small bar. For a rendering and unit plan of the Schuster block, see Franz Schuster, 47.

42 The construction of row houses in Zeilenbau form was already fading. Boehm characterized the opponents of low-rise Zeilenbau housing—principally Rading, Le Corbusier, Gropius and Hilberseimer—as persuaded by “style rather than science.” Stigmatizing the row house as un-modern, he said, reflected a trivial desire for grandiosity. Boehm and Kaufmann co-authored an extensive research paper comparing costs of minimal dwellings from two to thirteen stories, and found the costs to be virtually the same, with the greater land costs for lower densities being offset by lower construction costs. They hoped to influence the conclusions of the Brussels CIAM Congress of 1930, focusing on the theme of “rational site development,” but had negligible impact amid the growing approbation for the high-rise solution. Herbert Boehm, Eugen Kaufmann, “Untersuchung der Gesamtbaukosten zwei- bis zwölfgeschossiger Bauweisen,” typescript, #2-4–11D, CMETH.


45 Residents moving into the last section, about 260 families asked if the electric kitchen could be reinstated. Hochbauamt report (14 September 1928), StVVA.

46 Report (26 June 1929,) Tagebuch #I 385, MA Westhausen.

47 Lecture for the 1930 CIAM Congress, ms., HBN.

48 Ibid.

49 “Westhausen—der neue Trabant.” Another article reported that while the workers like the housing, there were problems with the gardens. They were not laid out yet, so no one knew the boundaries of their plots, and children were using the land for bike riding, tumbling and the rest. “Wie fühlen sich die Siedler in Westhausen?” FZ (9 September 1930).

50 In Berlin, the great settlements of Siemensstadt and Weisse Stadt (White City) also exemplified the new approach. The roster of architects, including Gropius, Scharoun and Bartning, displayed a wide variety of approaches, but the palette was white, with color reserved for small, mostly linear elements—railings, window frames, and doorways.

51 Mart Stam, Hellerhof, drawing, DR1984, #1123, CCA.


54 Mart Stam, Hellerhof, drawing, 10 October 1929, DR 1984, #1142, CCA.

55 Mart Stam, Hellerhof, drawing, 21 July 1929, DR1984, #1063, and DR1984, #1300, CCA.

56 One block inward was a small factory, the electro-technical firm Fabrik Max Braun, founded in 1921, later to become the famous maker of radios, clocks and small appliances.

57 Among these are his two “extendable house” projects (1923/4), the Thun School (1925), and his 1928 exposition house at settlement “Baba” in Prague.

58 Mart Stam, Hellerhof drawing, DR1984: 1149, CCA.
61 Blattner, whose fortunes rose with the accession of the fascists, designed the additional Zeilenbau that were under construction until 1938. Much of Stam’s work was destroyed by Allied bombing during the war. Only one segment was reconstructed in its original form.
63 Reports, 1925–1930, Tornow-Gelände, Stadtwerke, 430, StHM.
64 The Holzmann brothers were also on the Praunheim board and active in its construction.
65 Preusler observed that Schwagenscheidt was so distanced from the ordinary people that he was blind to the rigidity and deadening monotony in his work. Preusler, Schwagenscheidt, 86.
66 Report, MA T2073, Vol. II.
67 Hans Beckstein, “Gärtnerische Gestaltung Neuer Wohnviertel,” GK (1933): 17–18. The playground was demolished when the settlement was extended to the south.
68 Franz Schuster, 48.
69 Risse, Moderne, 292.
70 Allied bombs leveled the settlement in 1944. The rebuilt settlement is named the Friedrich Ebert Siedlung.
71 Preusler, Schwagenscheidt, 88–89. The identity of the engineers is not known; others fleetingly mentioned among the larger cast of designers working with Schwagenscheidt at the Gartenstadt Gesellschaft AG were architects named Kratz, Winter and Hess, transfers from the ABG. Minutes (5 February 1930); (21 February 1930), GG.
72 Kracauer, Salaried, 88.
74 In 1927, approximately 33,000 Frankfurters, about 21 percent, used public transport to commute to work. The streetcar fare consumed about 1.5% of a worker’s salary. Pàkh, Arbeiterbewegung II, 1118.
75 Fromm, Working Class.
76 Statistics indicate that among white-collar workers, the interest in consumables and entertainment paralleled a decline in traditional family life. The family remained the center of daily life for blue-collar workers. Coyner, “Class Patterns.”
77 Boehm, “Über Sinn und Wirkung.”
79 Risse, Moderne, 55; Martin Elsaesser, 191–95.
80 The promenade is today a lane called “am Grünhof.”
81 Following extensive renovations in 1949, the building was occupied by the Hessian Radio.
82 Prior to incorporation, city wage laborers numbered 160,000. Pàkh, Arbeiterbewegung II, 1115.
83 “Die Siedlungen,” DNF: no. 4/5 (1930), 93–94. The chain of parks would likely have turned north into Bertramswiese, then on to the cemetery, at is opposite end, running into what is now Miquelsanlage, then moving south, across Miquelallee into Grüneburg Park.
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85 “Materialien und Auftragsvermittlungsstelle, Mavest,” file no. 8066, WA.
86 Jaeggi, Meyer, 366; Risse, Moderne, 298.
87 May, Boehm and Bangert designed the site plan, and May and Rudloff were the architects.
88 Further additions to the area were made through 1940 by a variety of housing unions. The site plan for subsequent construction largely followed the May/Boehm blueprint. The architect for much of this work was Karl Ollson, who also designed the Wohnhausgruppe am Marbachweg (1930) for the Rhein-Mainische AG.
89 This small project was his only contribution to the New Frankfurt initiative. After returning to Frankfurt after WWII, Herbert Boehm lived here, at 15 Jakob-Schiff Strasse. Bernoull’s practice spanned from 1899 to his premature death in 1928. He collaborated with A. Assmann and J.H. Epstein on some projects, including the offices of the Hamburg-America Line (HAPAG) and the General Anzeiger.
92 Huse, Siedlungen, 164.
93 Gropius, “Die soziologischen Grundlagen.”
95 Frankfurter Kurse”, 153–54 (see chap. 1, note 100); slightly different figures are given in the notice in DNF, no. 9 (1929), 183.
96 Kampffmeyer was also then the General Secretary of the IFHP, an organization founded by Ebenezer Howard in 1913. Its original name was Garden Cities and Town Planning Association; its purpose was to “promote the concept of housing and planning” and improve the professional standard.
97 Frankfurter Kurse.”
98 Note regarding Boehm’s lecture, HBN, StAF.
99 Catharine Bauer, “Economics into Art,” (1930), typescript, carton 1, CBWA, 3.
100 Bauer reports taking many rolls of film of the Nidda Valley. Only a few snapshots remain in the archive. Confusing him, she commented that Richard Neutra was a very boring lecturer. Although not at the event, Neutra was a friend of the New Frankfurt, and the American correspondent for DNF since 1928. See the note in DNF, no. 4 (1928), 57. Bauer, “Economics,” 1.
101 E. Kaufmann, “Architektur Kurse in Frankfurt am Main,” DS (September 1929), 8–10; Architecture Course Program, HBN.
103 Memorandum (26 August 1929), StVVA.
104 CIAM flyer (2 October 1929), MA S2634.
105 FN (23 October 1929).
106 Over time, CIRPAC evolved into an elected executive committee.
107 The International Federation for Town Planning and Housing addressed the subject of the minimal dwelling in its 1928 and 1929 meetings in Paris and Rome.
108 Eric Mumford, CIAM (Cambridge: MIT Press, 2002); Auke van der Wood, CIAM. Housing,

109 General Secretary to Carl Ruppert (27 July 1929), SGP.
110 May to Giedion (26 July 1929), CMETH.
111 EM to Kramer (7 July 1929), FKN.
112 Nosbisch to Giedion (15 October 1929); Giedion to Aluminum-Industrie Aktiengesellschaft (6 May 1929), CMETH.
113 The performers’ honoraria came partly from the Holzmann funds, though “it wasn’t nearly enough.” Letters (15 October 1929); (16 October 1929); Keller to Moser (2 October 1929), CMETH.
114 Gropius to Schmidt (13 June, 1929), CMETH.
115 Giedion to Gropius (5 May 1929), CMETH.
116 Questionnaire, parts I and II, CMETH.
117 The delegates and guests-only policy produced some odd results. Giedion called attention to the fact that Frankfurt’s city architect, Martin Elsaesser, who had not been asked to complete the questionnaire, nor was he a member, could not attend the congress. Giedion to Gropius (14 October 1929); Gantner to Giedion (15 October 1929), CMETH.
118 Giedion to Gropius (22 June 1929), CMETH.
119 EM to Giedion (27 July 1929), CMETH.
120 See his appraisal of CIAM in Martin Wagner, “Minimalwohnungen,” Wohnungswirtschaft, no. 7 (July 1930), 247–50.
121 Giedion to EM, 30 April 1929; Giedion to EM (16 May 1929), CMETH.
122 EM to Giedion (7 June 1929), CMETH.
123 Ibid. The Rasch brothers were members of rnw and authors of Der Stuhl (1928); Krause worked as an interior designer, and a painter. He was a friend of Willi Baumeister’s.
124 EM to Giedion (11 July 1929); CMETH.
125 Gropius to Giedion (2 July 1929); (7 July, 1929), CMETH.
126 Gantner to Giedion (26 April 1929), CMETH.
127 Giedion to Stam (14 February 1929), CMETH.
128 Stam to Giedion (25 May 1929), CMETH.
129 Gropius to Schmidt (13 June 1929), CMETH.
130 The cost of the exhibition was 10,000; the breakfast was about 2,000; unanticipated costs and insurance, another 3,000. City council to EM and Nosbisch (15 August 1929), S2634, MA.
131 The Kollwitz exhibit was of an initial proposal to show Heinrich Zille’s drawings documenting the plight of the poor. Zille had died that year.
132 Letter (21 August 1929), S2634, MA.
133 Giedion to Gropius (5 May 1929), CMETH; Giedion to Gropius (29 November 1929), CMETH.
134 Invitation (2 October 1929), S2634, MA.
136 The plans for Lihotzky’s variations see, Noever. Schütte-Lihotzky, 109; Minoli, Dalla cucina, 180.
137 “Geschosswohnungen sind billiger,” FN (26 October 1929).
138 Giedion to EM (8 October 1929), CMETH; Gantner to Giedion (14 October 1929), SGP; program. S2634, MA.
139 Bergmann-Michel, “20er Jahren.”
140 On this decision, see the letter from Giedion to Gantner (16 May 1929), CMETH.
141 “Geschosswohnungen sind billiger,” FN (26 October 1929).
143 Participants paid a ten-mark registration fee and six marks for the Palmengarten dinner. The fee for dinner was a supplement, without which costs would limit the menu “to only the simplest things.” Guests paid for their own drinks. Registration form, Geschäftsstelle für städtische Einladungen und Empfänge (17 October 1929), S2634, MA.
144 Memorandum (22 October 1929), S2634, MA.
145 Gantner, “Bericht.”
146 Gropius to Giedion (27 November 1929), CMETH.
147 Giedion to Gantner (12 November 1929), CMETH.
148 Gropius to Giedion (27 November 1929), CMETH.
149 Giedion to Gropius (29 November 1929), CMETH.
150 Ibid.
151 Programs (1930), CMETH.
157 Pàkh, Arbeiterbewegung II, 1129.