

The Frankfurt Experiment

Architecture between 1925 and 1931

In the history of architecture, as you well know, there exists the curious phenomenon of buildings which may obtain world-wide significance without ever being actually constructed. To name examples: the projects of a Gottfried Semper and Tony Garnier have been extremely fructifying for decades following, without ever reaching the post-design stage. In our own days, Mies van der Rohe gave a most splendid and successful architectural performance with merely the model of an office-building in 1921. What was of primary importance in these instances, was the idea alone, its originality and exemplification; in brief: the creative intention. Yet doubtlessly, architecture finds its fulfillment in actual realization. The exemplification of the realized can be historically of the same significance as the instance of originality and singularity, if joined with superior formal quality. Such works to receive a prominent place in the history of architectural development—without intending a claim of priority—are the Frankfurt dwelling houses of the Ernst May era, largely because of the exemplary manner the synthesis is here fulfilled. It is not overstated that the idea of modern housing-estate-architecture, especially that of dwellings for the lower income level of population, has spread from Frankfurt throughout the world. Scarcely one of the principles of city-planning and aesthetics practiced here between 1925 and 1931 originated in this area or locality. Frankfurt architects have found stimulations in Rotterdam, in the "Bauhaus", and in simply every place wherever anything new was being created. But such ideas, hardly completed elsewhere, were understood to be carried to outstanding technical completion by Ernst May and his staff, which included such talents as Ferdinand Kramer and the Dutchman Mart Stam, and so done on the largest construction site available to vanguarding European architects at the time.

It stands to reason that such major experiment in architecture was not undertaken without special reason at random. It had its origin in cogent practical necessity. Due to the inflation in 1923 Frankfurt-am-Main, city of banking-houses and wealth, had become impoverished and all primary sources of income were sealed for some time. Mayor Ludwig Landmann, one of the leading municipal politicians in Germany at the time, in clear recognition of the situation attempted to turn the wheel and to settle within the city limits such industries as had been given little consideration in the previous decades of general prosperity. A generous policy of communalization created the prerequisites for expansion, which had become the vital question after industrialization. Consequently, while incisive changes in the social structure ensued, fashionable apartments were being vacated in ever increasing number and the demand for small apartments could hardly be answered, a stream of workers and their families flowed into the city in search for housing. Social problems rose in leaps, at first in reverse relation to tax-assessment. Within shortest time housing had to be found for some 50 000 persons of the lower income level—approximately one tenth of the entire population—and to be found in such a way that these buildings would also be justified later.(1) The Index of construction costs had almost doubled since 1914, and rents had multiplied almost four times. It was literally impossible to solve the housing shortage with the traditional methods of construction. At precisely this moment cultural vanguardism, which had entered the city's administration with Ludwig Landmann, proved itself and stood the test. Already in 1923 the Academy of Arts had been reorganized after principles practiced at the "Bauhaus" in Weimar, and in following years such ranking artists as Max Beckmann were given teaching assignments, the theatres courageously pioneered for the expressionistic dramatists and the municipal opera, where Paul Hindemith held an appointment as concert-master, became a leading centre of contemporary music. In such intellectual climate and under such generally psychic conditions the decision matured in 1925 to appoint as Head of the municipal Board of Works an architect, who was considered an exponent of the most modern and most radical movements in architecture: Ernst May. He was born in 1886 in Frankfurt, had previously worked in Breslau and was known there as an outstanding organizer.(2) His concepts of city-planning were largely based upon the ideas developed in Great Britain at the turn of the century by Unwin and others, to enlarge cities strangled gradually in their concentric growth with so-called branch-cities for some 3000 to 5000 residents each, erected in a given distance from the city-centre and divided from one another by cultivated areas.(3) May

understood and interpreted this system of satellite-cities similar to the principle of plant growth and propagation by layers and transferred it into the field of city-planning. It represented a decisive step in the direction of organic architecture we envision to day. As is illustrated in the 1928 survey, the branch-cities are generally situated to the North, West, South-West, South and North-East of the city. The most important housing estate project with more than 4000 units is to the North, much favoured because of the scenic valley of the Nidda, a minor tributary of the Main River.(4) In line, side by side on the Northern banks of the little river, with the Taunus mountains as a backdrop, are the famous "Römerstadt" and the projects Praunheim and Westhausen, confronted by the "Höhenblick"-project on the Southern banks, which was erected as one of the first in 1926.

Actually, Ernst May was not artistically creative. His primary qualities were his organizational skill and the ability to recognize and engage talents. If ever he did build himself, he fearlessly used principles of design developed by superior artists in earlier years, designed by architects of the "de Stijl"-group in the Netherlands, by Walter Gropius and his collaborators at the "Bauhaus" and by Bruno Taut of Magdeburg. Ending about 1928, the first phase of Frankfurt's housing estate architecture is chiefly characterized by the Dutch influence.(5) The austere cubes of the "Bruchfeldstrasse" project designed by May, displaced in zig-zag against one another, reminds of certain projects by Rietveld and Duiker, and the idea to group buildings around a large centre court is definitely inspired by Oud. But the Dessau-Törten housing estate project of the same period by Walter Gropius shows related concepts. Here the influence of the "Stijl" and the "Bauhaus" blend and their spheres of influence traverse to such extent, that the origin of structural elements cannot be readily established. Of aesthetic interest in the "Bruchfeldstrasse"-project is the broken vanishing line and the manner in which the buildings are drawn towards the large community centre opposite the main entrance, dominating the court from the frontage. Maximum use of sunlight and to avoid monotony are the practical reasons for this loose arrangement.(6) Similarly, May worked with strong accents on the expanded housing estate development "Bornheimer Hang", also begun in 1926 to the North-East of the city. It was his practice to reserve the most prominent locations for public buildings, especially schools. Besides May—at the time developing the pavilion-system which became popular later in the English speaking world—it was Martin Elsässer from Stuttgart and Franz Schuster from Vienna who excelled in noteworthy pioneering in school architecture. (7) The "Stijl"-influenced movement finally climaxed in 1929 in a project for workers, called "Hellerhof", designed by Mart Stam, a Dutchman and one of May's independent collaborators. The picturesque architecture of its inserted, alternately closed and open cubes could well stand somewhere in Rotterdam or Utrecht; it is Dutch par excellence, not in the least misplaced in Frankfurt and representing a legitimate though extreme means of housing estate architecture in this city. (8) Towering above the number of minor objects in this category and artistically the most significant achievement is the "Budge"-Foundation's home for the aged, designed in 1928 jointly by Mart Stam, Werner Moser and Ferdinand Kramer, which may well be termed an architectural acme of that period. One building connected two longer tracts, parallel to one another; they contained one hundred small apartments for single old people and for installations necessary for their care. (9) The assembly halls, primarily designed by Ferdinand Kramer, excelled in clearness of disposition and dimensional balance that could well compare with the architectural scope of the day.

Under the given economic situation the Frankfurt experiment created serious and complicated financial problems, which were solved only by the co-operative efforts of all. The city could and would not dispense with private initiative, although the magistrate acted as the supervising authority and the local Board of Works was the central planning agent for all housing estate developments. In consequence, the city included various building societies and syndicates—some founded with public partnership—as well as private enterprises as builders, assisting them with generous loans and mortgages to gain necessary financial stability. Questions of coordination were solved by masterful directing on the part of the Lord-Mayor, the Chamberlain and Ernst May. (10) Especially the managing assignments of the local Board of Works included thousands of technical problems

which were partially completely new. To insure speedy and low-cost construction without a loss in quality, Ernst May rationalized construction methods to a degree which surpassed all analogous experiments, for instance by Gropius in Dessau-Törten and Mies van der Rohe with the Stuttgart "Weissenhof"-project. May improvised a factory for the production of concrete slabs in an exhibition hall of the Frankfurt Fair Grounds. Entire walls were thus prefabricated and raised at the construction site in the dry-mounting process, and he was the first to realize on large scale and with technical perfection the requests of Gropius and American engineers in 1910 to industrialize construction work. (11) Parts and floor plans of houses were standardized. According to the different needs, May designed approximately twenty house-types for one or more families. As May himself stated in an outline essay, the various rooms were basically arranged in such manner that "the domestic operations could be executed with minimum effort" and the layout justified sanitary and psychologic requirements. The living-room was characterized by location and dimensions as the room for main occupation. (12) The relatively small kitchen—it became known at the time well beyond Germany as the "Frankfurt Kitchen"—was most rationally utilized after practical experiences gained in extensive tests by a lady-sociologist. Wherever possible, all domestic installations were built into the walls. The comfort of these housing estate projects of the second half of the twenties included of course fully automatic laundries, a central heating system and in some even a central heating plant. Conforming to the ideas of the "Bauhaus", May's conception included every architectural detail, even door-latches. To propagate the new style of living, he installed two complete model apartments in every housing estate development. They were completely furnished with combination-type furniture designed by Ferdinand Kramer and Franz Schuster that could be ordered separately and was manufactured in a plant, which was founded solely for this reason and gave employment to jobless of all professional fields. (13) In approximately twenty editions appearing until 1930, an independent jury published in the loose-leaf "Frankfurter Register" exemplary products of private industries, including kitchen utensils and household accessories which could be a model even to present day standards; also the first modern table lamps by Christian Dell and unsurpassed wall-papers of "Bauhaus" design. "Bauhaus" tendencies were generally prevailing and the "Frankfurter Register" convincingly illustrates how deep and direct its influence was upon formal development of the industrial mass product.

However, May not only envisioned housing estate architecture to perfection; the new movement in architecture was to take hold throughout the entire city. He saw to it that modern architects were given assignments of projects for the administration, cultural institutions, social agencies and public utilities. Numerous remarkable and monumental buildings grew. A gigantic covered merchandise market, for example, was constructed from plans by Martin Elsaesser. Adolf Meyer, a long-time associate of Walter Gropius, created one of the most interesting technical buildings: the Frankfurt power plant. May instituted free counselling service for private builders under Adolf Meyer's direction. (14) The installation of luminous advertisements became subject to license to combat any disfiguration of the city at night. The authorities, however, were not merely satisfied to exercise control and to reject inadequate plans, but participated effectively by counselling businessmen and commercial artists, and furnishing them outstanding designs from such artists as Walter Dexel and Hans Leistikow who also designed administrative publications of the city. (15) All these efforts, problems and achievements of the era May were preserved in a publication appearing between 1926 and 1932 under the title "Das neue Frankfurt" ('The New Frankfurt') and continued until the summer of 1933 under the changed title "Die Neue Stadt" ('The New City'). It became the prototype of numerous similar magazines throughout the world, including the one entitled "Bauhaus". A monthly with universal aspects for questions in city planning—so also read its under-title—it illustrated the growth of a new style of living in connection with the development of modern architecture. Almost the entire élite of international architects, from Gropius to Le Corbusier and Frank Lloyd Wright, was represented with original contributions. During the first years the typographic layout was done by Leistikow, later by Willi Baumeister. In its entirety, however, it was May's own work. Due to its world-wide circulation

—150 subscribers were supplied even in distant Japan—the magazine represented an instrument of propaganda of inestimable value for him and his Frankfurt experiment. The "Second International Congress for Modern Building" 1929 in Frankfurt gave 120 leading architects from 18 countries opportunity to discuss the experiment here and first-hand. At the same time, because of the Congress an international itinerant exhibition demonstrated in several European cities the term "Housing for the Minimum Subsistence Level" as, last not least, interpreted by the Frankfurt example.

(16) At this time, architectural history of the era May had already entered its second—and final—phase of development. As a whole, the architecture of this period is predominantly rational. Picturesque Dutch cubism was emphatically rejected as empty formalism and pseudo-romantic trifle. Instead, the postulates of the "Bauhaus" were preferred and, in so doing, the aesthetic characteristics of "Bauhaus"-architecture was frequently intentionally ignored. Formal approaches seldom appear any more in this late phase of the era May, as for instance manifested in the "Heimat-Siedlung" of 1927, with its windows of the main façade joined into a frieze-like ring in Gropius fashion. (17) The main efforts rather justify "Bauhaus" objectives from within, from the conceptual. A dependent relation no longer exists in such instances; it is quite clear that an identity of goals from like starting points will produce similar results. The housing estate development "Westhausen"—built in 1929 besides May especially by Boehm, Bangert and Kramer—created a new model in analogy to the housing estate projects of the "Bauhaus" designed by Hannes Meyer at exactly the same time. On each floor-level on one side of the block of flats are open, balcony-like walkways reached from stair cases open on both sides. Residents are given the impression of entering their apartment directly from the outside, from the street, and unwanted human contact, hardly to be avoided in the closed traffic of such crowded quarters, is reduced to a minimum. (18) Of considerable appeal in city planning even today is the novel disposition and ground plan. The buildings are positioned at an angle of ninety degrees off the main thoroughfares in such manner that only the narrow sides border on the street and are immediately subjected to the noise of traffic. Consequently, lawn space is gained between the rows of houses and in front of the windows. (19) Chronologically, the last housing estate development of high artistic value was erected in the Frankfurt suburb Eschersheim from designs by Walter Gropius, then independently working in Berlin. Here, in abundant interrelation of space and plasticity, Gropius created an architectural style, which united the structural with aesthetic principles to perfection. Despite all rationality, it still reflects something of a musical nature that was generally not characteristic of buildings in the waning May era. (20) At the time May's own creative efforts were confined by unfavourable external conditions. Between 1927 and 1928 it had already culminated while planning the much admired "Römerstadt", which enabled him to add the sum of his insights into the means and possibilities of city planning. Most of his close associates, as well as several leading private architects assisted him in architecturally shaping the "Römerstadt". From the standpoint of city planning, it is the most differentiated and, as a whole, the most significant of the Frankfurt housing estate developments. It shows idyllic streets, framed by front yards, with rows of one-family houses alternating with rows of four-storey apartment buildings, and skilfully fitted into this arrangement are community buildings and a store, which supplies residents the daily necessities. (21) Main attraction, however, is the successful use of undulating ground above the banks of the "Nidda", in front of the panorama of the Taunus mountains, to which the architecture was subordinated and corresponded, but at the same time was aesthetically enriched beyond the ordinary.

Could May have realized his intentions, the "Römerstadt" would have been probably surpassed by yet another housing project, which, embedded between extensive woods and the banks of the Main River, was to have nearly 9000 comfortable apartments. The execution of this grand project had to be delayed again and again because of the economic crisis; what finally was put up in 1932 was a mere provisional colony for the homeless and unemployed, and had little more in common with the original conception than its general layout. Previously—in the Autumn of 1930—May had already resigned from his post. Since general difficulties and opposition were rapidly growing and made all hope for further constructive work in Frankfurt illusory, he accepted an invitation to

Moscow, where he was offered the chief supervising position for Soviet city planning. (—) Many of his most able and enterprising helpers accompanied him into the Soviet Union. After promising beginnings, the Russian venture soon ended in failure. May's dream to build an entire new city from nothing was later realized in East Africa. After his departure it was at first attempted to continue work in Frankfurt, following his ideas. However, the force of initiative was paralysed and construction work became painfully dragging. 1933 brought the era May to a close after having already ceased to exist in reality some time before. The buildings of the era May were intentionally neglected by the so-called "Third Reich", and during the war some bombs were deposited on the flat roofs—fortunately most of small calibre. Technically of superior construction, they generally bore the strain well. Newly painted and repaired, they now stand as fresh as on their first day.

Hans Maria Wingler

L'expérience de Francfort

Dans cet article fort bien documenté, H. M. Wingler fait le point sur les fameuses expériences d'architecture et d'urbanisme qui furent tentées de 1925 à 1931 à Francfort a/ Main par l'architecte Ernst May et ses nombreux collaborateurs. Cette remarquable expérience a abouti à l'établissement d'une ceinture de quartiers satellites autour de l'ancien noyau de la cité natale de Goethe.