

The Museum of Modern Art

11 West 53 Street, New York, N.Y. 10019 Tel. 956-6100 Cable: Modernart

The Evolution of Housing Concepts: 1870-1970

Kenneth Frampton, final draft, excerpt from the forthcoming catalog
Another Chance for Housing: Low-Rise Alternatives

The Museum of Modern Art June 12 - August 19, 1973

Many of the received models of modern architecture and planning owe their ultimate origin to the building code and public health reform movements of the second half of the 19th century. As such they emerged as attempts first to accommodate and then to control the escalation in urban population that had risen to crisis proportions by the middle of the century. The first reaction to this spontaneous urbanization was to house the migrating rural labor in constricted tenements or back to back row houses, involving the wholesale superimposition of sub-human living conditions. The second reaction was to legislate against the more brutal aspects of this instant housing and to postulate alternative models for the accommodation of the urban populace; models which would provide higher standards of space, access, light, ventilation, heat and sanitation. The third and final reaction, from the point of view of basic model making, was to propose the gradual disurbanization of rich and poor alike; to advocate the planned dispersal of their urban congestion, at locations and densities which were clearly intended to be rural. Where the first reaction engendered the promiscuities of the 19th century industrial slum, the second eventually brought forth the Bye-Law street in England and the Old and New Law tenements in the United States. Finally, in the last decade of the century, the third reaction, as formulated by Ebenezer Howard, in his book, Tomorrow, A Peaceful Path to Real Reform, pointed clearly to the garden city as a panacea for all our social and economic ills.

(over)

In each instance the proposed models of built form were not neutral in respect to either the physical differentiation of public space or the physical pattern that would necessarily result from their wholesale repetition. In either case, particularly after the turn of the century, the full urban consequences of adopting 'open city' or garden city models, be they urban or suburban, were not foreseen. It was naively assumed at different levels of sophistication from Raymond Unwin's Nothing Gained by Overcrowding of 1918 to Le Corbusier's La Ville Radieuse of 1930, that a land settlement pattern could never be prejudiced by a surfeit of the so-called essential joys, namely sun, light, air and green space. In short, with some exceptions, the potential disadvantages of rendering every building as freestanding as possible were largely ignored. Aside from the protestations of Camillo Sitte in his famous City Planning According to Artistic Principles of 1898, few designers and theorists seem to have been aware of the incapacity of such 'open city' models to differentiate space adequately. A rambling green carpet set at grade, flowing out between isolated buildings was thought to make amends for any loss of enclosure and in the case of high rise structures to more than compensate for an inherently unsatisfactory relation to the ground. In a similar way few could foresee least of all, perhaps, garden city proselytizers such as Unwin, the unmitigated waste that would necessarily result from the wholesale proliferation of a corrupted garden city model. Such men displayed little awareness for the potential of this model to degenerate into the ribbon and track house development of the 20th century.

(more)

Tenement Development and the Anti-Street Models of the 19th Century City: 1879-1938

Prior to 1918, in rapidly expanding urban centers such as New York, Paris and London, theoretical notions about city block planning underwent certain transformations. In New York persistent attempts were made to achieve an improved standard for low-income housing after the model tenement designed by George Pose and George Dresser in 1879, while in Paris Eugene Henard attempted a reworking of the standard Haussmann boulevard in his set back street model of 1903, which he called a boulevard a redans. Meanwhile in London Unwin and Parker employed a comparable set back terrace for picturesque effect in their Hampstead Garden Suburb of 1906. This same tradition was to be continued by Le Corbusier who, a decade later, projected after Unwin, a system of set back blocks to be compiled out of a free assembly of standard concrete units; his famous Maison Domino of 1915. All these set back solutions were endemically anti-street in as much as they constituted a conscious disruption to the enclosing continuity of the traditional street.

In New York a number of architects were to develop the Post and Dresser model tenement further, particularly Ernest Flagg whose Improved Housing Council tenements of 1896 demonstrated the potential of an internal set back profile to provide adequate light and air to every room in the tenement. Flagg's model of 1896 was destined to dominate New York tenement development for the next forty years, culminating in the Paul Lawrence Dunbar Apartments of 1926 and ultimately in the Harlem River Homes of 1938. Both of these schemes pushed the space-making potential of the internal set back block to its natural limit. By this date, however, one may detect an incipient tendency away from maintaining

(over)

the continuity of the street, particularly in the prototypical schemes submitted to the New York Housing Authority in 1934. It would seem that the implicit internationalism of the New Deal had begun to turn the attention of American architects away from the street, towards the set back block and the row house models of European Rationalism - models which envisioned the total transformation of the city into a continuous park.

The Evolution of the Perimeter Block Model 1895-1923

In middle Europe, model tenement development took a totally different course; one which above all else was intent on maintaining the street. From the Berlin tenement reform law of 1897 to H. P. Berlage's plan for Amsterdam South of 1917, designers and theorists in Germany and Holland moved toward the development of a perimeter residential block that would preserve the plastic continuity of the street while opening up the resultant courtyard for use as an enclosed semi-public space. Such a multiple-dwelling model had already been demonstrated on a small scale by Frank Lloyd Wright in his Francisco Terrace apartments built in Chicago in 1895. It was to be realized on a much larger scale in the building out of Berlage's Amsterdam South and in J. J. P. Oud's Tusschendyken housing built in Rotterdam after 1918.

By the mid 20's Berlage's perimeter model was to enjoy a brief period of universal acceptance as the standard European building block for low cost urban housing. As such it made its presence felt on the outskirts of cities as far removed from each other as Berlin, Vienna and Helsinki. Such widespread adoption seems to have come at a time when the model itself had already been significantly modified, most

particularly in Michiel Brinkman's Spangen housing built in Rotterdam in 1921. The importance of this still relatively unknown work lies in the fact that it enriched the inner space of a typical Berlagian courtyard block through the provision of an elevated deck, giving continuous access at a third floor level to a periphery of duplex units. The width of this open deck was hypothetically such that it could serve as a surrogate street affording adequate space not only for access and service but also for children's play and doorstep conversation. Brinkman (like the Smithsons after him in the 50's) conveniently overlooked the fact that such a street is inevitably one sided and only partially enclosed and that in any event its width is hardly likely to be adequate for all the uses to which it is theoretically dedicated. Nevertheless the importance of Spangen lay in the fact that it introduced a totally new device for providing access to mass housing, namely the deck; its recent seminal influence extends from Alison and Peter Smithson's Golden Lane Housing projected in 1952 to Davis Brodie's Riverbend Housing Harlem, designed in 1964. Its latent specific impact, however, lay and indeed still lies, in its capacity to suggest a more differentiated and dense scale for low rise housing which, while preserving the continuity of the street, is capable of individuating the separate units and of permitting their more immediate connection to the ground.

The Influence of Le Corbusier: 1922-1956

Both Henard's set back block and Berlage's peripheral courtyard model were to find their brilliant if relatively unrealizable synthesis in Le Corbusier's hypothetical city for 3 million inhabitants of 1922. In Le Corbusier's Ville Contemporaine each courtyard block enclosed a large communal green space, while his set back structures advanced and

(over)

receded amid a continuous parkscape. In both instances the residential units comprised two story L-shaped duplex units each enclosing its own garden terrace. These were fed by wide access decks elevated some five to eleven floors above grade. In many respects this city, projected at a regional scale, constituted a threshold in the development of these European housing models. From now on the general tendency was towards the ultra-rationalist line of the Modern Movement, a line which was to extend from the Krupp housing built in Essen in the 1870's to the medium rise open row house model of the Weimar Republic. Despite the fact that Le Corbusier was always to remain somewhat outside this particular progression, he nonetheless brought the residential unit to its logical formulation as a freestanding, self-contained, self-sufficient slab (the neighborhood unit as megastructure). Le Corbusier was quite as ambivalent to the tradition of the enclosed street as any garden city planner. After Henard and Unwin he could only accept the continuous facade if its length were broken with set backs. Not least among his grander aims seems to have been the "rustification" of Haussmann's Paris through the introduction of new prototypes operating at a vastly increased scale. Of these Radiant City prototypes, it was the high rise residential tower rather than the freestanding slab that was to exert the greatest impact on the spatial pattern of New York. Developed in the late 30's as a density booster for low income housing in Sweden and Holland, the tower became the received norm of the New York City Housing Authority from 1934 until the early 60's. In the interim both the slab and the tower were to play mutually disjunctive roles in the vogue of so called mixed development, i.e., high and low rise mix that dominated English planning in the immediate post war years.

The Evolution of the Open Row Model 1923-1933

The radical change in German residential block planning in the middle twenties is best exemplified in the work of Otto Haesler. Between his Siedlung Italienischer Garten of 1923 and his Siedlung Georggarten of 1924, the overall model becomes totally transformed from a block arrangement facing directly onto the street, to that which was already the Zeilenbau approach, namely, open rows of identical length, set endward to the street, and arranged a standard distance apart. Nothing now remained but to increase the height of the typical Haesler three story walk-up block through the judicious use of elevators. This much Gropius was to make clear in his essay for the CIAM publication, Rationelle Bebauungsweisen published in 1930, wherein he wrote: "In a ten or twelve story high rise apartment even the ground floor occupant can see the sky. Instead of lawn strips only 20 meters wide, the windows face landscaped areas with trees which are 100 meters wide and help to purify the air as well as providing playgrounds for children." This rationalist slab, justified largely on the basis of the space liberating potential of American technique (Gropius illustrates his text with the Sunlight Towers proposed by Kocher and Ziegler) was destined with the residential tower to become the prime high density housing model of the post 1945 era. Until then, at least in Europe, the three to four story walk-up row house continued to predominate as the received type and was to serve as such in the exemplary CIAM Neubühl Garden City realized outside Zurich in 1932. Once again the triumph of one model, namely parallel rows of freestanding blocks or slabs, seems to have led almost at once to its counter thesis, that is to the projection of carpet-court-yard housing as an overall solution to the problem of housing at relatively high density. First Adolf Loos in his

(over)

Heuberg houses of 1923 and then, in the late twenties, Hugo Haring, Ludwig Hilberseimer and finally Mies van der Rohe projected various versions of the courtyard house as a new unit of land settlement, while in 1933 the Dutch architect Leppla designed a two story low rise house that was capable of yielding the remarkable density of 350 persons per acre. Although hardly a courtyard house, it is of interest that a few years later Frank Lloyd Wright was to propose his Suntop Home built at Ardmore, Pennsylvania, as a new unit for dense suburban settlement in the States.

The Evolution of Low Rise Housing: 1948-1966

The first stirrings in this direction were to come immediately after the war, just at that moment when the isolated tower or slab and the open row house had become universally accepted as standard components for the planning of residential areas. Paradoxically enough Le Corbusier was to make some of the running in this return to a low rise paradigm, although he was never to build housing in this particular form. His first essay in carpet housing (save for his university quarter of 1923) was made in 1948 with his project for La Saint Baume. This project, whose urban and spatial structure derived directly from Le Corbusier's revival of the barrel-vaulted megaron of the Mediterranean, patently served as an essential point of departure for the most seminal low rise scheme to be built after the Second World War, namely, Siedlung Halen completed outside Berne in the early 60's.

The decade leading up to Halen was to witness the growth of the so called Brutalist sensibility, which was to reject outright not only the fragmented latter day Garden City approach of the first English New Towns, but also the equally sterile Zeilenbau model as interpreted in the

(more)

159

first English high density schemes of consequence to be built after the war. This new sensibility stimulated by vernacular sociology and by a polemical reevaluation of the virtues of the enclosed Bye-Law street of the 19th century, sought, in the words of Peter and Alison Smithson, to establish patterns of association and identity which would lead "to the development of systems of linked building complexes which would correspond more closely to the network of social relationships, as they now exist." * To this end their Golden Lane housing, modeled partly after Le Corbusier's pre-war redent planning and partly after Brinkman's Spangen, postulated an elevated deck as a surrogate for the Bye-Law street; a concept that conveniently ignored the essential phenomenological character of a double sided traditional street. Nevertheless this sensibility asserted its relevance in an era of mixed development, with its easy acceptance of discontinuous and ill-differentiated open space and with the inequality of amenity that it afforded to blocks of markedly different height. As one observer put it: "If the tenement forced integration, mixed development forced segregation."

If they fell short of their goal of designing for social relationships as they actually existed, there is no doubt but that the Smithsons' 'close' and 'fold' house proposals, together with James Stirling's village infill project of the mid 50's did in fact constitute a totally new strategy for housing. By the late 50's, the English, under the influence of Le Corbusier, were already oriented towards the adoption of low rise housing as a general policy. It took some time, however, for this model to become widely accepted. The idea encountered nothing but resistance from British public authorities throughout the next decade, first in London where the Martin/Hodgkinson four storey walk-up proposal was rejected outright on

(over)

the grounds that it was too 'advanced' for the average tenant and later in the highly influential Portsdown Housing Competition of 1966, where the assessors characteristically disapproved of what they termed 'carpet treatment' in the housing. By then, however, resistance was faltering since the inherent livability of the idea had already been adequately demonstrated, first in Michael Neylan's layout for courtyard housing at Bishopscote, Harlow, designed in 1960 and then with Siedlung Halen realised outside Bern to the designs of Atelier 5 in 1962. Since then low rise high density development has dominated British housing policy with on the whole felicitous results, while in Switzerland so called 'carpet housing' has become the standard technique for building on steep slopes which hitherto were regarded as undevelopable.

It would be too much to claim that low rise high density has begun to resolve the antagonistic split that opened up in the last quarter of the 19th century between town and country, but at least one may finally acknowledge its pertinence as a mediator in an era when the time honoured distinctions between urban and rural are rapidly disappearing.