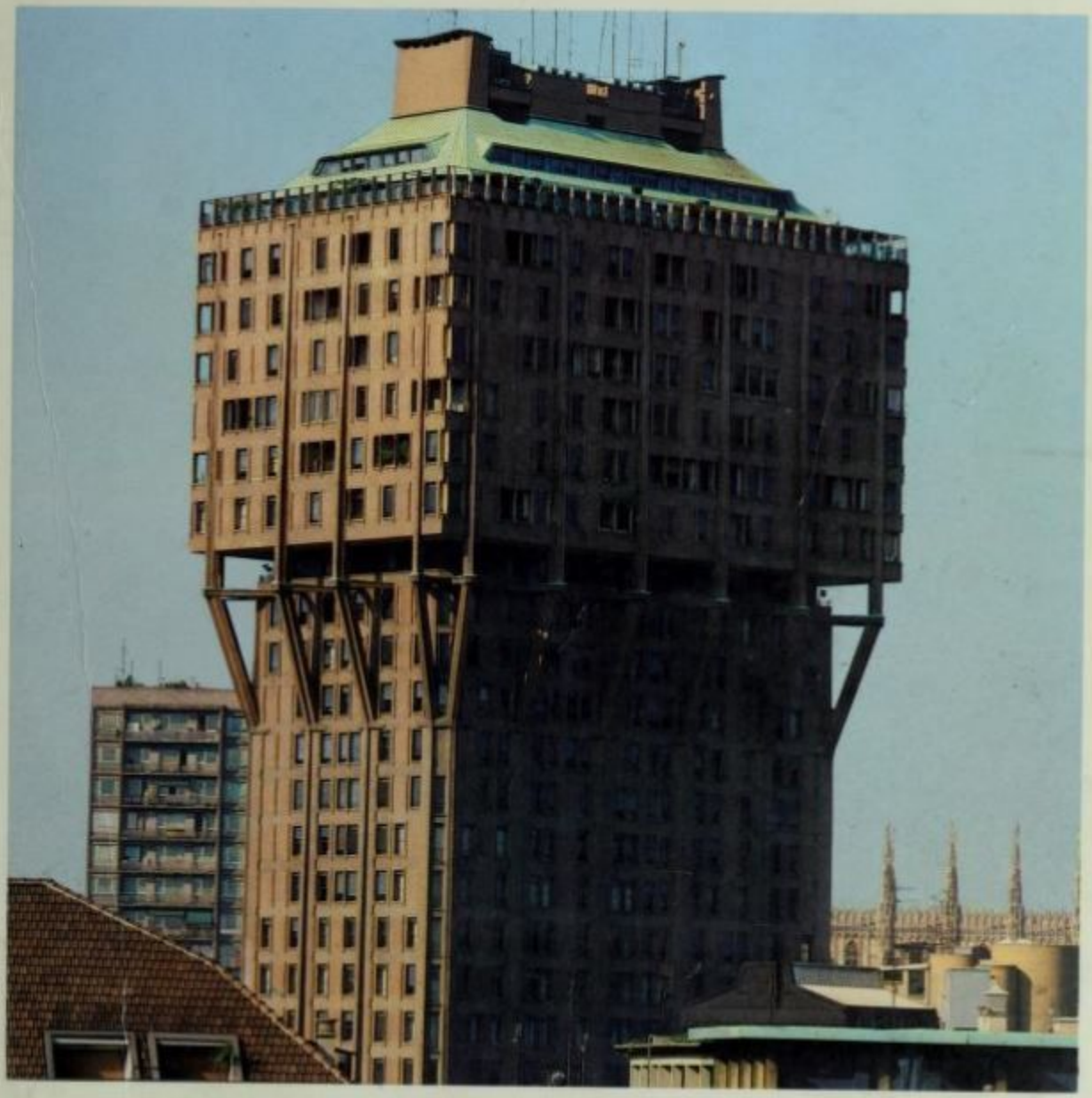
History
of World Architecture

Manfredo Tafuri / Francesco Dal Co

Modern Architecture/2



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All the chapters were conceived, written, and reviewed in common agreement, though Manfredo Tafuri was specifically responsible for the initial writing of chapters 2, 5, 6, 8, 10, 11, 12, 17, 18, 19 and 20; Francesco Dal Co for that of chapters 1, 3, 4, 7, 9, 13, 14, 15 and 16. The introduction and last chapter were literally a duet.

Our investigations were helped greatly by the assistance and advice of certain friends, and we can only thank them collectively here. Our task would have been very much more difficult had we not been able to make use of the research materials collected in recent years by the Institute of History of Architecture of the University Institute of Architecture of Venice. Very special thanks go to the entire staff of the Institute for their efficacious and always friendly collaboration.

M.T. and F.D.C.

The International Congresses of Modern Architecture

In the later 1920s European radical architecture had its own cultural apparatus, not in a formal organization but rather in a very free and broad exchange of ideas and results. Specialized publications and journals were in large measure dominated by the modernists, and thanks to the newspapers and other media the new architecture was brought to the attention of an ever more vast public. After 1925 the problem of organizing all these many ferments took on a certain urgency. With a permanent organization around which to rally, the radical architects could act as a unified pressure group with the aim of doing something more substantial toward a comprehensive urbanistic and building policy and program by defining common principles of action. In 1928, at the suggestion of F. T. Gubler, the secretary of the Swiss section of the Werkbund, Hélène de Mandrot made contact with Le Corbusier, Pierre Chareau, and Gabriel Guevrekian to arrange a meeting between the major European architects in her family castle at La Sarraz, Switzerland. The time was right for the foundation of such an organization as the Congrès Internationaux d'Architecture Moderne (CIAM), which resulted from that first symposium.[1]

The first meeting at La Sarraz involved merely an exchange of opinions and was largely dominated by the ideas of Le Corbusier. At the Congress at Frankfurt in 1929, the discussion became more concrete and revolved chiefly around the notion of the *Existenzminimum* introduced by the critic Sigfried Giedion as keystone in a new way of posing the problems of architectural planning and designing in terms of industrial production. In coming to grips with the question of housing types, the CIAM was venturing on a terrain fraught with political implications. In a sense, the roots of the debate were still in the questions the Werkbund was to answer, but now the points of reference had changed: the problem of industrialization was directly connected with the policies of urban control and the proposals for public intervention being experimented with in Germany and Holland. Only in appearance did the debate have to do with differences in methodology. As was made clear at the Brussels Congress in the following year, called under the presidency of Cor van Eesteren to consider the subject of "The Functional City," the common effort must be to produce a model of urbanistic control and administration even more than specific typological and formal ideas. At that Congress Le Corbusier presented the plans of his *Ville Radieuse* in which the themes debated were all brought together in a single project, but it was Giedion who gave the real measure of the common aim: "Just as the individual cell of habitation leads to the organization of the methods of construction, so too the methods of construction lead to the organization of the entire city."

The approach of the CIAM reflects all the limits of radical architectural thought: the absolute continuity postulated between production in series and construction of the city expressed a utopian conviction. In flatly mechanistic fashion it applied to the entire urban scale the system of design and production applicable to the small scale of the private dwelling. The policy proposed by the CIAM transformed the role of the architect into that of organizer of a cycle of production, presupposing that the new models envisaged would be per se guarantee of an absolute control over all the functions that set the course of urban development. The CIAM discussions made it seem almost as if the nature of the city was thought to be identical with that of the architecture it contained, so that once control over the modes of formation and production of the buildings that made up the city was assured, one would also have the key to planning its entire development. The incongruity of that conception is revealed in the parameters relative to the definition of the residential typology: the urbanistic principle of the CIAM was based on the *Existenzminimum*, the low-cost residential unit, but not as product of a complex interaction of social relationships and economic factors—that is, as a value determined on the basis of the overall functions and mechanisms organizing the city—but rather as pure industrial rationalization. This model, according to the ideas presented in Brussels, did not go beyond the limits of the experiments already carried through by the German administrators during the 1920s.

In 1930 a subgroup was formed within the CIAM, the CIRPAC (Comité International pour la Résolution des Problèmes de l'Architecture Contemporaine), an operative body set up to work on the problem of urban analysis. When the attempt to organize the third congress in Moscow fell through, in 1933 the participants met aboard the yacht *Patris II* for a long working cruise between Marseilles and Athens. The major moments of the cruise, during which the architects had ample opportunity to compare their theories in the course of analyzing thirty-three cities, were filmed by Moholy-Nagy. Although the debate lost something of the concreteness of the first two congresses, it did face up to the overall problem of urban restructuring in new terms and resulted in the publication, in 1943, of the *Athens Charter*, a volume dealing in separate sections with the themes discussed in the previous encounters and posing such new problems as regional-scale planning and the relationship between new and preexisting constructions.[2] The Charter, however, represented a simplification and a compromise in that it fixed a minimum common methodological denominator on the basis of very different experiences; set up in advance analytic instruments and parameters of intervention that were only apparently objective; affirmed once again a generic faith in the regenerative role of modern technology; and put on record all the contradictions deriving from the capitalist system of land ownership and control without pointing to any solutions. Lacking were the tension and drive of the first congresses whose aim had been to work out not some sort of handbook of town planning but, instead, me-

thodological approaches, and along with this to find the way to make the architect the prime figure in urban control even if it were on the basis of a political position deliberately left imprecise.

The *Athens Charter* was brought out only after the principal experiments in urbanism had been completed. The ideas it formulated did find a reflection in the plan Le Corbusier proposed for Antwerp in 1933, which was an all too obvious regression from the synthesis attempted in his Obus Plan for Algiers. But by then the experiments of the radical German architects had been liquidated. Of that great adventure, which for all its weaknesses and contradictions had nonetheless represented the apex of radical architecture, the *Athens Charter* was the "negative" component. To it probably belongs the credit for having founded a large measure of the predominant ideology of modern architecture, endowing architects with a model of action as flexible as it was already out of date. Viewed another way, it was also the most extreme demonstration of the radical diversities and the profound fragmentation of experiences that marked those early heroic years of contemporary architecture. Attempting to synthesize experiences in large measure mutually contradictory, the Charter flattened out their originality, ignored their defeats, befuddled their tracks.

To follow the complexity of what was going on in Europe at the time the CIAM was founded and consolidated is an extremely difficult task, given the different turns taken in various countries and the diversity of the experiences. Yet one needs to document the moments when modern European architecture matured or turned inward on itself, the more so since our aim must be to confront those experiences with the main lines traced so far. This is why our attention in the pages to follow must be on how the most typical situations differed from each other rather than on the richness of each of them. One fact at least can serve as guiding thread in a story that must seem all too episodic when not forced into generalities leveling out the significant differences: it was precisely in the 1930s that profound splits appeared between the ideas of the "masters," the proposals for institutional reforms, and the processes of autonomous investigation of form. The clash of the ideas of the avant-garde with the policies of the authoritarian regimes was only one more sign of that gap which, in fact, was destined to become deeper after World War II.

The Case of Holland

In the 1920s, Dutch urban policy underwent significant modifications. As we have seen, the law blocking rent increases in low-rental housing was passed in 1917. A year later the *Woningnood* Law was introduced, a law concerned with housing needs that resulted in much increased public intervention in housing matters. Its effects were hampered by the crisis at the start of the 1920s. New measures became necessary: the housing law was modified in 1921 to oblige each commune to provide itself with an institute for low-cost housing; in 1927 the rent block was abrogated. Thenceforth also the Dutch building activity had to put up with broad cyclical fluctuations, though the anomalous urbanistic control applied in Amsterdam escaped these in part so that even in the 1920s the municipal administration kept up a highly active building program and there was a notable increase in cooperative ventures. We have seen that the fulcrum of the urbanistic policy of Amsterdam was its expansion into the southern zone as planned by Berlage. From 1916 to 1930 the outstanding exponents of the Amsterdam School—J. M. van der Mey, Michael de Klerk, P. L. Kramer—cooperated in that undertaking, flanked by a considerable crew whose contribution to the development of Dutch architecture deserves at least some mention: men such as J. Boterenbrood (1886-1932; architect of the Pension Lydia of 1925-27 in Amsterdam), A. Eibink (1893-1975), and A. Snellebrand (1891-1963) went back to Expressionistic organic or zoomorphic effects; J. Gratama (1877-1947), after having realized the Transvaal Quarter in Amsterdam in 1919 with Berlage and G. Versteeg, kept rigidly to the line laid down by the old master; J. Crouwel (1885-1962) turned to the example of Wright for the high school built in Harlingen in 1926; while the most original work came from J. F. Staal (1879-1940) who used solutions in the manner of Kramer and de Klerk for the Ons Huis residential complex built in Amsterdam in 1918-20. In the flower market of 1927-28 in Aalsmeer, and especially in the tall edifice of 1929-31 laid out by Berlage on the Victorieplein in Amsterdam, Staal arrived at organisms that ably express their specific urban function.

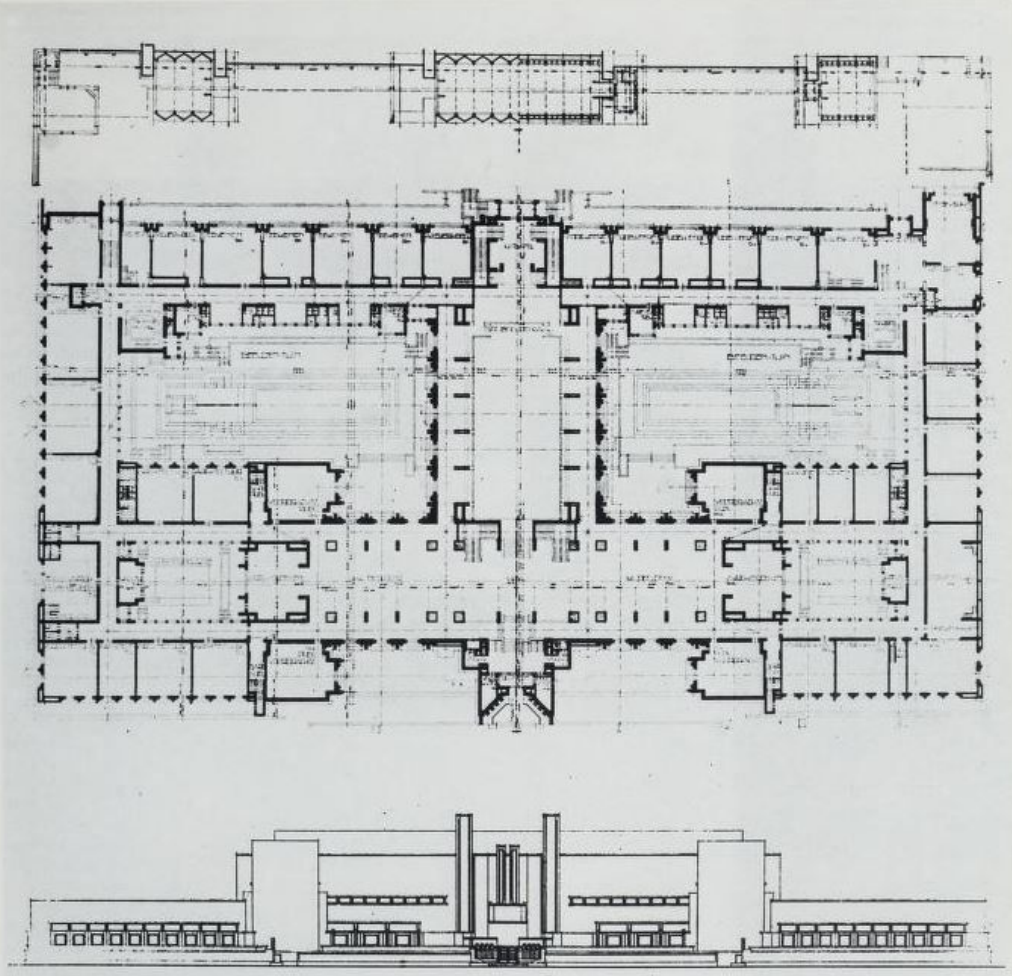
No less significant was the career of H. T. Wijdeveld (b. 1885). Editor of *Wendingen*, central figure in Dutch culture of the 1920s, and alert to everything new appearing in Europe, he was fascinated by the Futurists but was chiefly influenced by Wright and Mendelsohn. His substantial contribution is found in the original projects for South Amsterdam, done in the early 1920s, and in the important undertaking of 1925-26 in Amsterdam on the Hoofdweg, whose tortuous, curving front structures make a somewhat disturbing contrast to the rhythms and geometrical shapes of the buildings raised by Berlage between 1925 and 1927 on the adjacent Mercatorplein.

That latter project is characteristic of the late works of Berlage. Its bold urban layout, based on the differentiation of the streets running under the buildings and entering the plaza, has its counterpoint in the buildings themselves with their deliberate harshnesses, subtle linguistic reminiscences, and elegantly treated details. These traits are also found in the Nederlanden van 1845 Company Building in The Hague that he designed in 1921-22 and built in 1924-27. There the rigid disposition of the symmetrical wings, hinged on a central block with three semihexagonal towers, is made even more explicit by the simplification of the bare reinforced concrete structure.

393. Aerial view of South Amsterdam

396. H. T. Wijdeveld, project for the Town Hall, Bloemendaal, 1920-21 (from Nieuwe Nederlandsche Bouwkunst, 1924)

397. Bernard Bijvoet and Johannes Duiker, plan and elevation, competition project for the Rijksakademie van Beeldende Kunsten, Amsterdam, 1917 (from Perspecta, nos. 13-14, 1971)



The decisive work of the last phase of Berlage's activity, the complex of the Gemeentemuseum in The Hague, built between 1919 and 1935, takes its character from the alternation of skylighted pavilions and cubic blocks in a fluid continuity of constructions, interlockings, and spatial successions, an approach that is given its fullest expression in his Christian Science Church (1925-26) in the same city; in this work the importance of the lesson of Wright for the master of the Amsterdam Stock Exchange is made very clear.

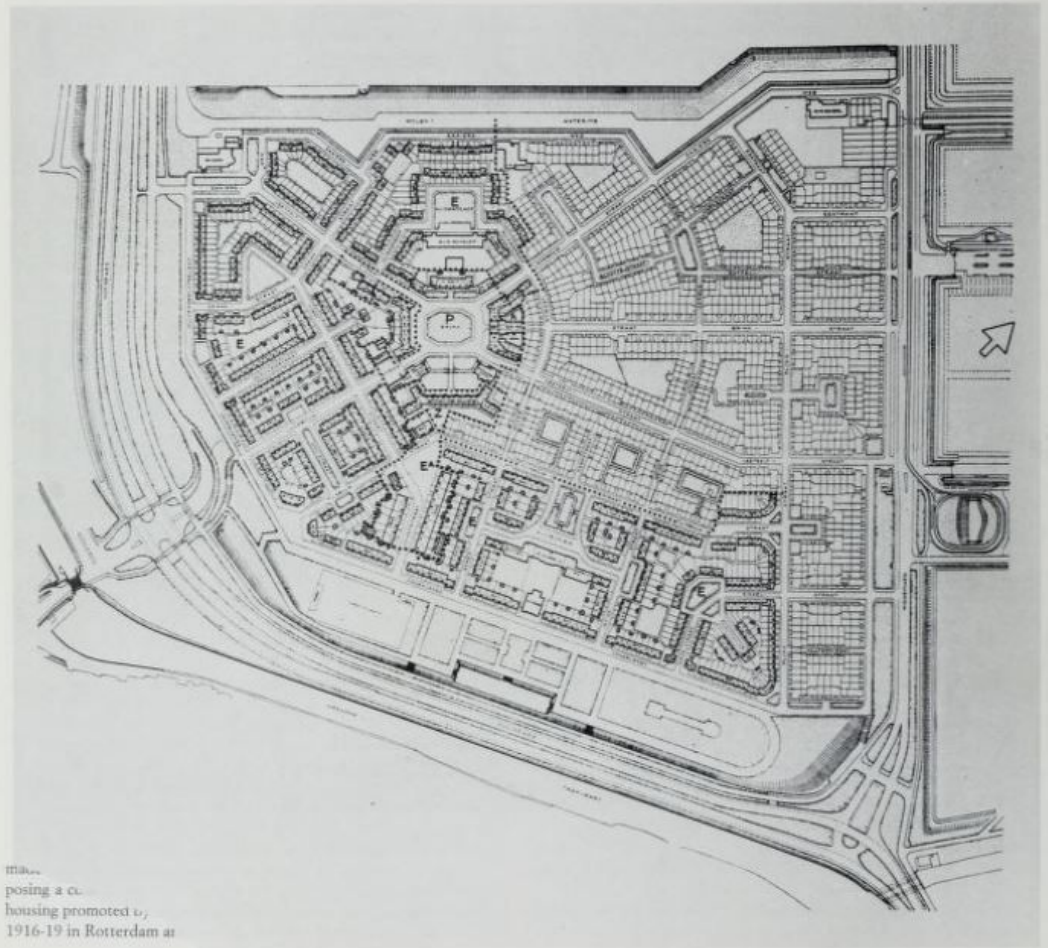
Likewise of strict Wrightian observance are the first works of Jan Wils (1891-1972). While his projects of the late 1910s have much in common with those of Robert van't Hoff; there is more originality in his Papaverhof residential complex of 1920 in The Hague. In the later works, from the photographic laboratory in The Hague to the Olympic Stadium of 1924 in Amsterdam and the Olveh Building of 1930 in The Hague, the latter one of his most significant realizations, Wils steered a middle course between Wright and Neo-Plasticism. More original is the contribution of Johannes Bernardus van Loghem (1881-1940), who was responsible for a number of housing developments in Haarlem, such as the Huis ter Cleeff complex of 1917. His Rosenhage development in the same city carried further his attempt to define urban organisms that could exist as self-sufficient communities. In the composite housing project of 1920-22 on the Spaarnelaan in Haarlem, the large arches breaking up the continuous rows of buildings and separating the exterior system of streets from that inside the project accentuate the separation between the community environment and everything outside it. With van Loghem also, the treatment of details reveals how much he profited from the lesson of Wright, but all traces of formalism were left behind in the simplified prefabricated blocks of his Betondorp complex of 1922-23 in Amsterdam.[1] After two spells of work in the Soviet Union in 1926 and 1927, van Loghem settled down to the simplified functionalism seen in his residences on the Lentinkweg in Lonneker (1933) and on the van Soutelandelaan in The Hague (1937), or in his projects of 1932 for a residential complex in Rotterdam and his designs of 1934 for a group of tall buildings in Amsterdam.

In 1931, both *Wendingen* and *De Stijl* ceased publication. Focal points of all the experiments of the 1920s, the two journals for some time had been showing symptoms of dissension within the ranks. From 1925 on, numerous architects, among them certain exponents of the Amsterdam School, had been rallying around M. J. Granpré Molière, a professor at the Technische Hoogeschool in Delft. Linked to the currents of German right-wing catholic culture active also in the Werkbund, Granpré Molière made himself the spokesman of a reactionary return to tradition, counterposing a concern with craftsmanship to the experimentation in low-cost housing promoted by the avant-garde architects. His Vreewijk quarter of 1916-19 in Rotterdam and the church of the Groot Seminarie of 1939 in Haaren are examples of this involution that played its part in exacerbating divisions already present in the ranks of the Dutch architects.

The later efforts of Gerrit Rietveld had not lived up to the promise of his Schröder house, and it was now Cor van Eesteren who was making the more significant choices. We have already noted the importance of his work in Amsterdam, but now we must stress the change of direction those choices represented with respect to his initial avant-garde position. This is evident in the function assumed by a new journal, *I 10*, which was launched in 1927 under the direction of Arthur Müller Lehning; with the support of the most advanced Dutch architects such as van Eesteren, Mart Stamp, J.J.P Oud, J.A. Brinkman, and van der Vlugt, it became the new rallying point for the most important intellectual and artistic currents in Europe, numbering among its collaborators names such as Walter Benjamin, László Moholy-Nagy, Kurt Schwitters, Ernst Kállai, Adolf Behne, Ilya Ehrenburg, and Wassily Kandinsky. By then the avant-garde could be thought of as a single unified phenomenon within a general intellectual movement, a global expression of artistic activity rather than an inexhaustible dialectic of poetics. Certainly the Opbouw Group organized in Rotterdam in 1920 and the De 8 Group in Amsterdam were moving in that direction, as can be seen in the pages of *De 8 en Opbouw*, their journal edited by Ben Merkelbach, and on which van Loghem, Stam and even van Eesteren collaborated.[2] Merkelbach favored an approach emphasizing the actual work and production of the architect along with a rigidly functionalist view opposed to all aestheticizing compromises; the work of the Merkelbach and Karsten studio, joined after 1935 by the widow of Duiker, adhered to that programmatic line.

Similar but not entirely identical to the position of the group around *De 8 en Opbouw* was the attitude of Mart Stam (b. 1899), certainly one of the most singular figures in Dutch culture. After having worked with van der Mey and Granpré Molière, in 1922 he moved to Berlin, then the magnetic pole of the entire intellectual avant-garde and the center for exchanges with the rising prorevolutionary Soviet culture, where he became acquainted with Max Taut and El Lisstzky. He made a notable contribution to the consolidation of the elementarist aproach in his Am Knie Building (1922) in Königsberg with its solutions of Futurist stamp, in his structuralist reworking (1924) of the skyscrapers envisaged for Moscow by Lissitzky, the simplified solution for the Rotterdam bus station (1926), and the Hellerhof development in Frankfurt. Restless and troubled, but gifted with a rare coherency, Stam became aware of the lacerating contradictions that Dutch architecture and the European avant-garde in general were experiencing in the late 1920s. Associate member of the Soviet ASNOVA, collaborator on the reviews *ABC* and *I 10*, active promoter of the CIAM, he had worked in contact with the progressive architects of the Czechoslovak Republic before moving to the Soviet Union. Exponent of the most radical core of the avant-garde, he

398. Plan of the Betondorp district, Amsterdam, 1922 (from Forum, 1966)



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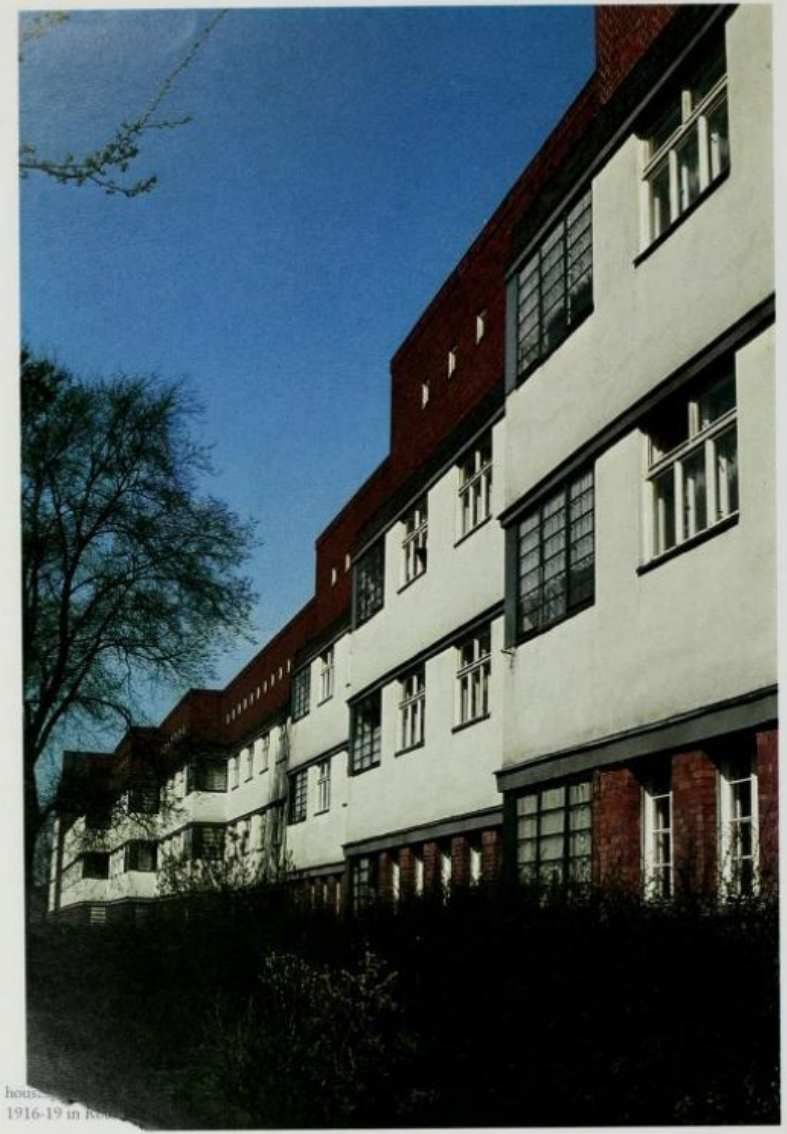
XXV. Johannes A. Brinkman and Leendert C. van der Vlugt, Van Nelle Factory, Rotterdam, 1926-30



XXVI. Erwin Gutkind, residential complex, Reinickendorf, 1928-29

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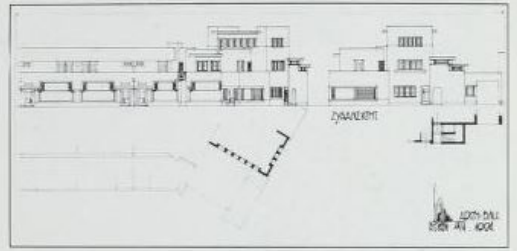
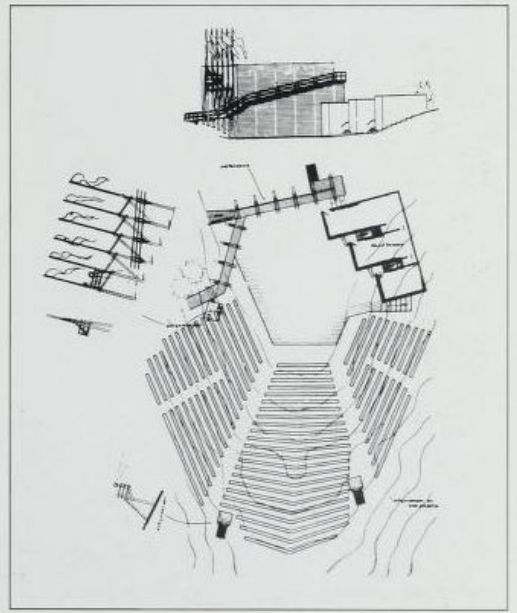
399. Hendrik Petrus Berlage, drawing showing the remodeling of the Mercatorplein, Amsterdam, 1925

400. Dick Greiner, elevation and plan of buildings for the central square of the Betondorp district, Amsterdam, 1924 (from Forum, 1966)

401. Mart Stam, design for an open-air theater in the Urals, 1931



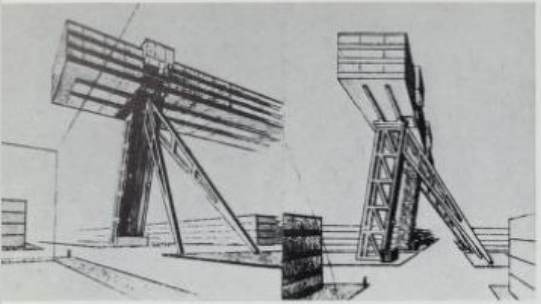


lived in this new world in an intense and traumatizing fashion of which there is evidence in numerous urbanistic plans such as that for the city of Makeyevka.

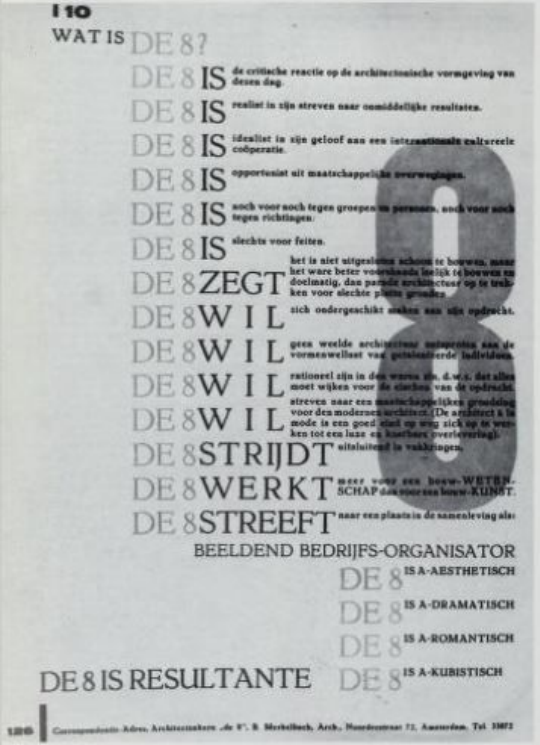
In 1926 Stam joined forces with J.A. Brinkman (1902-1949) and L.C. van der Vlugt (1849-1936), whose association had begun the year before. Van der Vlugt had already come up with notable works in the highly simplified technical school in Groningen, designed in 1922 together with J.G. Wiebenga, and in the Vink house in Zuiderhorn, done with Brinkman in 1924-25. Between 1926 and 1930, Brinkman and van der Vlugt realized their most prestigious work, the van Nelle factory in Rotterdam, which has aroused much enthusiasm and certainly has its place among the architectural achievements of our century. The long parallelepiped with alternate courses of cement and glass, interrupted in modular manner by tense vertical blocks counterposed dialectically by the curving office block, is a tribute to the potentialities of modern labor. Its architecture is the product of a clearly thought-out program linking construction to the needs of production: inside, the rooms, with elegant mushroom pillars seen through the windows, were laid out strictly on the basis of the organization of the work. It was adaptable to eventual extensions, in every sense an open structure, and its quality stems from the process of functional simplification; the rational organization of the work done in it is further emphasized by the excellent natural lighting in an interior for the best possible working conditions. This realistic approach to production is based on an enlightened relationship between man and machine.

Linguistic disassembly and functional simplification became regular traits of the work of Brinkman and van der Vlugt, as can be seen in the van Nelle factory branch in Leiden (1925-27), the van der Leeuw villa (1928-29), the Boevé house (1932-34), and the Diakonessen Huis (1934-38), the latter three in Rotterdam. In the tall Bergpolder housing block in Rotterdam, done in 1933-34 in collaboration with van Tijen, they transferred the methodology worked out in the van Nelle factory to an urban apartment building, the two dissimilar forms used for the ends of the block suggesting the possibility of further extension to make a large residential complex. The Bergpolder Block was thus very much in line with the kind of thinking going on in those years in the CIAM and it became a much imitated typological model: to cite one instance among many, it was reworked in the residential building on the Plaslaan in Rotterdam, designed by van Tijen and Maaskant in 1938 and already mentioned in Chapter II.

Only with difficulty do the works done between 1917 and 1935 by Johannes Duiker (1890-1935), often together with B. Bijvoet, fit into the Dutch scene as we have analyzed it so far. Their competition project of 1917-19 for the Amsterdam Rijksakademie van Beeldende Kunsten was obviously still indebted to Berlage, whereas the dwellings built in 1920 in



402. Mart Stam, variations on ideas for Moscow skyscrapers proposed by El Lissitzky, 1924



403. Manifesto of the De 8 group in the journal I 10, Amsterdam, 1927

The Hague were marked by a troublesome contamination with motifs from Wright and De Stijl. More coherent and simplified was the project for the Chicago Tribune Tower competition of 1922 which inaugurated the most original phase of Duiker's activity. The building he and Bijvoet designed in 1924-25 for the Koperen-Stelenfonds Company at Diemerbrug anticipated their Zonnestraal Sanatorium of 1926-28 in Hilversum. Immersed in nature, the sanatorium is made up of separate pavilions disposed on a rigidly symmetrical plan. The individual buildings, connected by a well-delineated system of passageways, are composed of a montage of elements on regular structural frameworks which ensure a perfect continuity between the interior and exterior, while the central building is characterized by a rich superposition of elements on an irregular system of linear slabs. The broad windows help enrich the plastic values by giving added prominence to the homogeneous structural fabric, functional elements, and technological apparatuses, and the ground plan permits more units around the central building. The consistency of Duiker's approach is confirmed by the Nirvana Flats, built in 1927-30 in the Hague, and by his project for the League of Nations competition of 1927 that is based on a central block with setbacks; his open-air school on Cliostraat in Amsterdam (1929-30) proposed a typology he had already worked out in the design for the Zonnestraal open-air school (1928) in Hilversum. However, the tensions arising from the fragmentation, bold montages, and decompositions of his first efforts disappeared in the design of 1934-36 for the Grand Hotel Gooiland in Hilversum, in the Cineac Cinema (1934) in Amsterdam, and in his project for a multipurpose building in Amsterdam. In the mid-1930s, the lesson of the avant-garde became more and more watered down: in his last works Duiker strove to find an alternative that all the Dutch architects, in their separate ways, were seeking as the means to open up new approaches and shake off a prestigious past they had outgrown.

Development and Regression in German and Austrian Architecture

The urbanistic policy and social measures promoted by the Weimar Republic created highly favorable condition for the spread of advanced ideas. Nonetheless, radical architecture, although it enjoyed a certain cultural hegemony and had control of such major bodies as the Reichsforschungsgesellschaft, by the mid-1920s was meeting increasing resistance from cultural trends which, associated with the nationalistic thirst for revenge and as the consequences of the Treaty of Versailles imposed by the victorious powers, were showing themselves to be ever more disastrous and invading German political life.

In the field of building policy in particular, there were all sorts of uncoordinated efforts. Along with the achievements we have seen there were proposals and realizations seeking a middle ground between the most advanced ideas and the notions of a return to the past fostered by

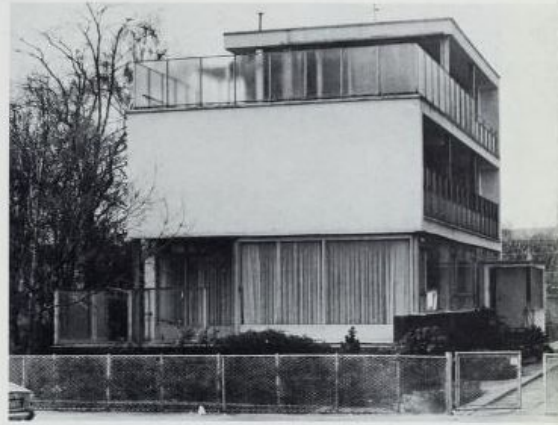
404. Johannes A. Brinkman and Leendert C. van der Vlugt, Boevé house, Rotterdam, 1932-34

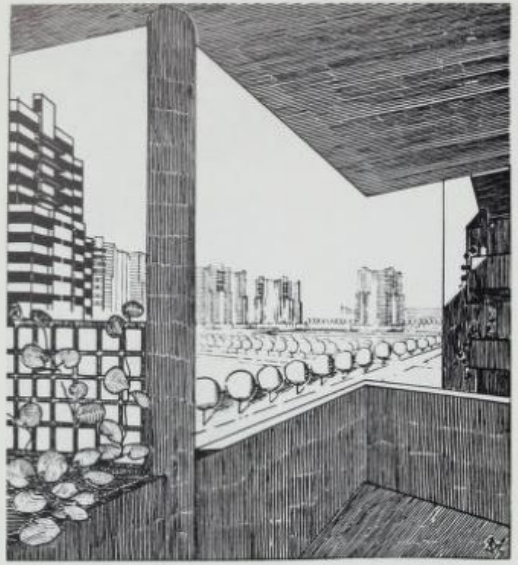
405. Johannes A. Brinkman and Leendert C. van der Vlugt, Van Nelle Factory, Rotterdam, 1926-30

the champions of nationalism. The works of Paul Wolf in Hamburg and the Swiss Otto Salvisberg (1882-1940) combined urban models of English derivation with building types indebted to local and national traditions, and they are good examples of how, around 1925, the choices tended to become interchangeable: quite without friction or break one could move from projects in the manner of Tessenow or Josef Rings to the neo-academic schemes of Wolf, while Mebes and Emmerich had no compunction about shifting back and forth between solutions of Nordic inspiration and a strictly functionalist language. Nor did the more committed architects show much more consistency and fidelity to a specific line, except for certain heterodox *Siedlungen* by Erwin Gutkind in Berlin or the Hamburg districts designed by Karl Schneider.

From the schematic Haus des Allgemeinen Deutschen Gewerkschaftsbundes (the German Trade Union Association) of 1922-23 in Berlin with its late Expressionistic interiors, Max Taut went on to the exercise in the machinist idiom of his headquarters for the Verband der Deutschen Buchdrucker (the printers' union) of 1924-25 in the same city, an approach he repeated in the ADGB pavilion at the Gesolei Exhibition of 1926 in Düsseldorf, but he also applied tried-and-true typological schemes in the residences built in Berlin-Reinickendorf. During those same years Hans and Wassily Luckhardt were toning down the rigorous technique of interlocking volumes they had experimented with in their housing blocks of 1925 and 1928 in Berlin-Dahlem and in the typological aggregations of habitations with steel framework built in Berlin in 1927.

Max Taut and the Luckhardt brothers contributed to the codification of a number of elegantly simplified formulas, for use in residential architecture, which enjoyed considerable success; their contribution to projects on the urban scale was more original. In the villas built in 1928 in Berlin am Rupenhorn, the Luckhardts considerably enriched that body of stylistic formulas; their effort to achieve continuity in the urban organisms, already present in the 1924 designs for a garage in Berlin-Charlottenburg and then in the Mendelsohnian Telschow Haus of 1929 on the Potsdamer Platz in Berlin, was made explicit in the winding surfaces of their project for the reconstruction of the Alexanderplatz. Yet the tensions of the Luckhardts and the steadily increasing eduleoration of Taut's montages were both part of a more general tendency which was to affect adversely the programmatic rigorism of the Neue Sachlichkeit approach. The buildings designed by Emil Fahrenkamp (1885-1966) between 1925 and 1932 (when he realized the Shell Haus in Berlin)—the Evangelical Church in Essen, the Sonne Siedlung in Duisburg, the Tablettenfabrik in Leverkusen, a hotel in Bochum, all from 1927—as well as those by Taut, Adolf Rading, Karl Schneider, or the more rigorous efforts by Martin Elsaesser, May's collaborator in Frankfurt, all made Functionalism into poetics. The stripping down of





406. *Johannes Duiker, study for a high-rise complex, 1927-29*
407. *Johannes Duiker, Cinema Cineac, Amsterdam, 1934*

the language and the polemical identification of form with pure function ended up in a *language as style*.

In Vienna too, in the 1920s, the prewar adventurousness had lost its explosive charge, even if Ernst Plischke and Oskar Strnad still showed an undeniable originality and if Loos was doing his best to update an anti-Viennese polemic that was no longer a burning issue. It was in 1932 that the crisis became fully explicit, when the Austrian Werkbund promoted the construction on the outskirts of the city of a model housing development in many respects overtly opposed to the *Höfe* favored by the Viennese municipality. A great variety of tendencies was represented in this Werkbundsiedlung: not only Loos but also Clemens Holzmeister, Frank, Häring, Neutra, Rietveld, and Strnad participated, and along with them certain eclectics who lost no time in falling into step with the radical changes that occurred in the cultural field with the advent of Nazism. Among so many works in different manners, one stands out for its unique coherence and originality—the housing block constructed by Lurcat.[1] Poignant product of a crisis that was soon to break over the organization of architectural activity as well, the Werkbundsiedlung was the final episode in a tradition that thereafter would simply take over ideas ripened at the cost of much effort and reduce them to the banality of stylistic repertory.

The widespread popularization of certain forms and types, but also the elegance of the refined volumes, the curved and unitary forms favored by architects with modern training offered at best a feeble way out from the dilemma taking dramatic shape at the close of the 1920s: on the one hand, the prospect of a regression to tradition, to self-serving exaltation of nationalistic values animating the *völkisch* culture; on the other, an ever more accentuated eclectic—if not downright academic—involution. The "romantic" inflections of the St. Adalbert Church in Berlin, built in 1932-33 by Clemens Holzmeister, or the "Nordic" tang of the St. Engelbert Church of 1930 in Cologne, designed by Dominikus Böhm, are part of a reactionary tendency we have already noted. The Neo-Expressionist contortions of the Paulus brothers likewise ended up in a return to traditionalist models. That attitude—as also the symbolic exacerbations of Bernhard Hoetger in his Neo-Medievalist memorial of 1923-31 to Paula Modersohn-Becker in Bremen—was directly bound up with the kind of thinking to which Fritz Lang gave expression in his *Metropolis* film of 1926, with scenery by O. Hunte, E. Kettelhut, and K. Vollbrecht.

The language that grew out of the Neue Sachlichkeit approach ended up as a "functionalist style," while the Neo-Expressionist attitudes had too many points of contact with the traditionalism that was being exploited by the nationalist spokesmen for their own ends. But both trends marked a clear break with the ideals of the avant-garde and helped to undermine even further whatever capacity architectural thought still retained to resist the approaching political storms. The "style" of

408. *Hans and Wassily Luckhardt, residential complex, Berlin, 1925-27*

409. *Max Taut, Verband der Deutschen Buchdrucker Headquarters, Berlin, 1924-25*

Gropius, the inebriating continuities of Mendelsohn, the utopianism of Taut constituted the points of reference for the different efforts of the late 1920s, when appeasing the esoteric or mystical impulses reflected a political situation which, after 1924, inexorably sapped the bases of the Weimar Republic. The devouring Moloch of *Metropolis* was no longer terrifying. The handclasp between the exploiting boss and the rebellious worker in the final sequence served up an improbable happy ending for the Lang film: united, they would dominate the absurd machine, while the two cities that confront each other in the film—the futuristic, luxurious city of capital and the labyrinthine slum to which the worker returns after serving the machine—make peace in a sinister pact between incurable contradictions, the very ones that Nazism was about to resolve in its own way.

The 1920s and 1930s in England and the Role of the Refugee Architects

A nonmarginal role in the diffusion of the modern architectural language was played by the architects who, after the advent of Nazism, left Germany to settle in England or the United States. This diaspora, along with the hagiographic interpretation of the great days of the CIAM, has encouraged the myth of the "progressive" vocation of the modern movement. This historiographic formula has been taken up wholeheartedly in England, thanks to the transplanted German historian Nikolaus Pevsner. By preparing the terrain for a general acceptance of modern architects in Great Britain, his *Pioneers of Modern Architecture*, published in 1936, lent credence to the notion of a reassuring historical continuity which, launched with the Arts and Crafts Movement of William Morris, was claimed to characterize the development of all modern architecture. What Pevsner wrote took on immense importance: it not only fixed an interpretation that exalted the role of a few prestigious leaders within a logical and progressive *movement*, but did so in a literary manner that inevitably ironed out the complexity of phenomena which, in reality, interacted both dialectically and contradictorily.

In 1933 Mendelsohn emigrated to England and set up a partnership with Serge Chermayeff (b. 1900). The works they produced—the De La Warr Pavilion at Bexhill-on-Sea in 1934-35, on which the third collaborator was Felix Samuely (1902-1959; an Austrian emigré who had worked in the Soviet Union), the Nimmo house of 1934 in Chalfont St. Giles, the remarkable proposal for the White City quarter of London—added luster to the name and influence of Mendelsohn among the younger British architects. In 1935-36 he built the simplified Cohen house on Church Street in London. In the same year Gropius, together with Edwin Maxwell Fry (b. 1899), built on the adjoining lot a villa that marked his debut on English soil after leaving Germany.[2]

Despite such contributions, the role of the avant-garde architects remained marginal.[3] Innovations were largely confined to sporadic

410. Erwin Gutkind, residential complex, Reinickendorf, Berlin, 1928-29

411. Emil Fahrenkamp, Shell Haus, Berlin, 1932

housing ventures, a sector unfortunately badly hit by the economic crisis that began at the start of the 1930s, while faceless public or private designer groups went their own way toward renewal in industrial buildings or public services, such as stations for the London underground or school buildings. Moreover, the examples followed were extremely diversified. The great hall of the Royal Horticultural Society Exhibition (1928), by the firm of Easton & Robertson, revealed an interest in the French structuralist approach; whereas in the High-and-Over house at Amersham and the broken-up masses of the New Farm at Haslemere (1932) the New Zealander Amyas Connell (b. 1901) seems to have drawn ideas from De Stijl. In that context belong also works such as the Royal Corinthian Yacht Club (1931) at Burnham-on-Crouch, the more compact Empire Hall (1930) in London by Joseph Emberton (1890-1956), and the aggressive Boots Factory (1931) in Beeston near Nottingham by Sir Owen Williams (1890-1969), who also built the Empire Pool in Wembley, London (1934), and the Peckham Health Center, London (1935). In the 1930s adherence to the canons of the International Style spread. Connell, in association with Basil R. Ward (b. 1902) and Colin A. Lucas (b. 1906), followed that way in Kent House in London (1935) and in the dwellings on Park Avenue, Hillingdon, in the following year. Wells Coates (1895-1958) in his Lawn Road Flats (1934) in London came up with a compact typological solution in which his use of exposed materials was very unlike the elegant and mannered approach of Frederick Gibberd (b. 1908) in Pullman Court in London in the next year, or of Denys Lasdun (b. 1914) in his Newton Road Building (1938), also in London.

Between the protobrutalism of Coates and the formalism of the architects of the younger generation there were architects who reworked the avant-garde repertory with refined eclecticism. For the Ibex House Flat Building (1937) in London, the Fuller, Hall and Foulsham studio produced a compact mass with curved portions, whose continuous glassed bands were clearly inspired by Mendelsohn's Cohen-Epstein Department Store in Duisburg. This was in every sense a "manner" and was adopted also by architects such as Higgins and Thomerson or by Ellis, Clark & Atkinson whose telescopic, curved Daily Express Building (1932) in Fleet Street, London, is equally successful as newspaper headquarters and as publicity vehicle. On the other hand, there was no lack of attempts at renewing and simplifying public buildings with a new monumentalism, as in the Royal Institute of British Architects Building (1934) by Grey Wornum, the works of D. F. Martin-Smith of the Adams, Holden & Pearson studio, such as the Senate Hall (1933), and of Sir Edwin Lutyens.

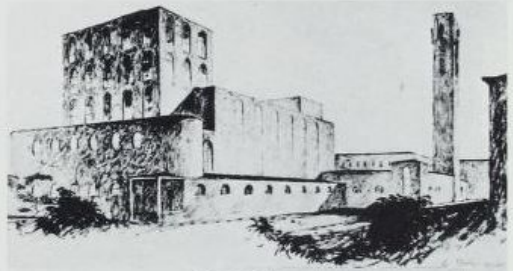
In that context, Berthold Lubetkin (b. 1901) played a very special role. Having left the Soviet Union in 1922, he worked first in Paris with Jean Ginsberg, with whom in 1932 he designed the apartment building at 25 rue de Versailles, then in London, where together with Lindsey Drake,

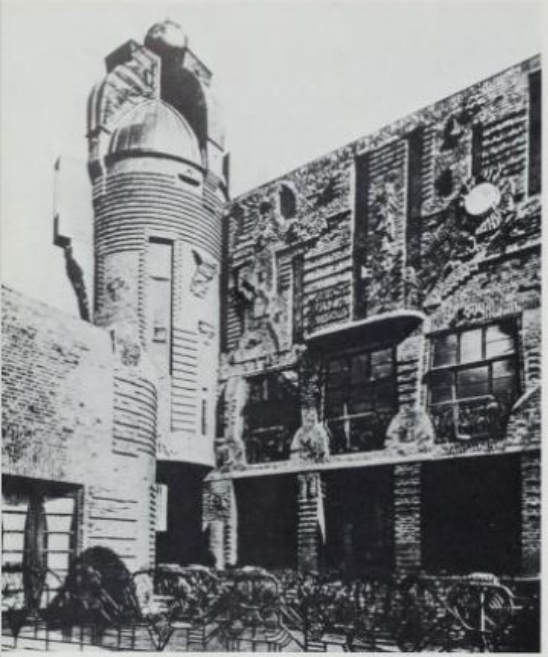
412. Clemens Holzmeister, proposal for the Ministry of War, Ankara, 1926 (from Moderne Bauformen, 1929)

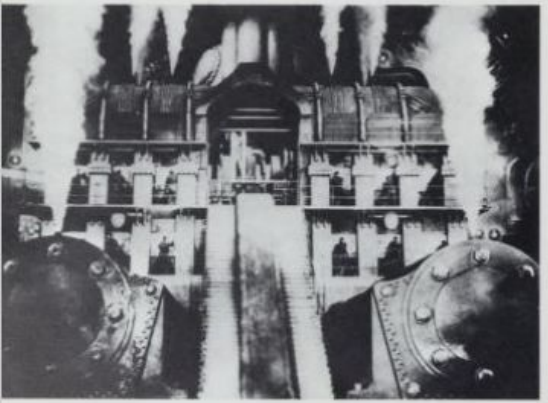
413. Clemens Holzmeister, proposal for the Martinskirche, Nuremberg, 1928 (from Moderne Bauformen, 1929)

R. T. F. Skinner, Anthony Chitty, Michael Dugdale, Godfrey Samuel, and Valentine Harding he formed the Tecton Group in 1933. The group worked closely with Ove Arup (b. 1895), whose collaborator J. L. Kier was responsible for a large part of their actual construction. In 1935 the Tecton Group completed Highpoint One in Highgate, London, the most significant housing development in English modern architecture of the 1930s. Although certain of its linguistic solutions had been anticipated in the houses built by Lubetkin and Pilichowski on Genesta Road, London (1934), Highpoint One is an entirely original organism heeding the lesson of Le Corbusier, as was also the Finsbury Health Center (1938) in London, and, even more, the Six Pillars House (1935) likewise in London. Highpoint Two, the second block in Highgate, dates from 1938; but there was less tension than in its adjoining predecessor, made all too evident in the ironic and melancholy substitution of the pillars by two false caryatids in the marqueed entrance. Highpoint Two plainly revealed the imminent disaggregation of the repertory that the International Style had striven to codify: the flight from "style" ended in odd notes with more than a touch of kitsch. Not that this was by any means unexpected from Lubetkin. In 1933 the Tecton Group had designed the new Penguin Pool in the London Zoo, concentrating a notable linguistic effort on a marginal and anomalous species of architecture. The pool is a veritable dictionary of the motifs that had become the stock-in-trade of radical architecture: pillars, subtle projections, continuous apertures follow one another in the barrier between the public and the penguins at play on sloping, staggered ramps rising from the pool in a helix recalling the scenery by El Lissitsky for the Meyerhold Theater. Signs and symbols of the language fused in the crucible of the avant-garde were reproposed here with a didactic clarity, but in a deliberately paradoxical context. A deconsecrating meditation on the disposability of the language, the Penguin Pool definitively canceled out the aura and expectations on which radical architecture had nourished itself. Carried to its maximum purity, architecture becomes mere spectacle. Like nature, it is no more than an object of contemplation beyond reach; only irony infringes on its silence.

The impact of the innovators further stimulated the debate over architecture that arose in the mid-1930s because of the new and pressing demands of the public powers intent on a general reorganization of the territory and its structures. Various parliamentary reports, beginning in 1934, prepared the way for the urbanistic measures finally launched at the end of the decade.[8] In all this activity a significant role was played by the Modern Architectural Research Group (MARS), initiated in 1933, which brought together numerous progressive English architects. The group became known for its battles in favor of cultural renewal as well as its social commitment, and it took part in all the most important architectural exhibitions from 1934 on. Particularly noteworthy was the plan it







414. Bernhard Hoetger, the Paula Modersohn-Becker Memorial, Bremen, 1926-27

415. Fritz Lang, still from the film "Metropolis," 1926

presented in 1942 for the urban restructuring of London in which, to the proposals of the special committee of the Royal Institute of British Architects, it replied with an original adaptation of the model of the linear city, though the war put an end to such projects for the time being.[9]

Though English architectural thinking in the 1930s was anything but homogeneous and could boast of only isolated successes, some of the most significant achievements in all of Europe in the postwar years in city planning and architecture were sparked by it.

French Architecture Between the Academy and Renewal

Exceptional figures such as Garnier, Perret, Le Corbusier, and Lurçat remained by and large isolated in France where architects such as Sauvage, Roux-Spitz, Mallet-Stevens, and Patout were pursuing a middle ground incapable of implanting any sort of stable tradition.

After a brilliant beginning in the Art Nouveau idiom under the patronage of Frantz Jourdain, especially in the Villa Majorelle (1898-1900) in Nancy and the Théatre Loïe Fuller (1900) in Paris, Henri Sauvage (1873-1932) drew attention, beginning in 1903, with his designs for workers' housing. In 1922 he began one of his most significant works, a block of flats with swimming pool on the Rue des Amiraux in Paris; here he reworked a model he had experimented with ten years before in a stepped-back building on Rue Vavin that he had designed with Charles Sarazin.[10] The idea of such setbacks, however, had nothing Futuristic about it for Sauvage. While he did attempt to apply the type to the urban ensemble, all he was really proposing was a realistic fusion of constructed space and total environment in which he hoped to soothe his social conscience by designing mass housing of high quality.

That ambition, however, was not fulfilled by his experiments but by the Exposition Internationale des Arts Décoratifs et Industriels Modernes, held in Paris in 1925. As a result of polemics going back to 1906-7, in 1922 it was decided to organize a major exhibition showing the current state of the applied arts throughout Europe, obviously under the direct inspiration of the Werkbund shows. The participation of the various European countries was far from consistent with the aims of the organizers, not all of them sending work of their serious innovators. The French, though, did themselves proud: the entrepreneurs Gabriel Voisin and Henri Frugès financed the building of the Pavillon de l'Esprit Nouveau, designed by Le Corbusier; Robert Mallet-Stevens (1886-1945) realized the tourism pavilion and the so-called "French embassy" in collaboration with Pierre Chareau; Auguste Perret designed the exhibition theater, Tony Garnier the pavilion of the city of Lyons, and Sauvage, together with Wybo, that of the Atelier d'Art "Primavera" for the Au Printemps department stores. However, the Exposition had at best a marginal significance for architecture. It was made all too clear in *Le style moderne: contribution de la France*, a publication with preface by

416. Ernst A. Plischke, Labor Office, Vienna, 1930-31

Henri van der Velde which appeared on the occasion, that architecture was placed on the same level as the *haute couture* of Jean Patou, the new hairdos for women, and the furniture designs of Pierre Chareau (1883-1950). All in all, the operation amounted to little more than the launching of a new fashion and a new mass taste that could satisfy a desire for a more modern ambiance, typically bourgeois but not provincial, and one that offered no threat since it was moderate and easy to live with. This taste, as we have seen, came to influence a broad sector of American architecture and in France was taken up as a compromise between tradition and the avant-garde.

The elegant and refined works of Mallet-Stevens, beginning with the De Noailles villa of 1923 in Hyères, were yet another product of an intimate converse with the Cubist vanguard that nonetheless kept its eye on the latest modes and fashions, as in the house on Rue Balzac in Ville d'Avray (1926) or the apartment block of the next year on the street in Paris named for the architect himself. In the sophisticated world of the avant-garde, Mallet-Stevens moved at his eclectic ease: his villa for the Vicomte de Noailles was used as the setting for Man Ray's film *Les Mystères du Chateau du Dé*. Already in 1923-24 Mallet-Stevens had collaborated with Léger, Chareau, and Alberto Cavalcanti on a film by Marcel L'Herbier, *L'Inhumaine*, in which the house of the leading character is one of the finest examples of that scenographic and eclectic synthesis of Cubist, Neo-Plasticist, and Art Deco details of which Mallet-Stevens' architecture is compounded.

But the new fashion helped to soften up the doggedly academic architects, as is obvious in the numerous multistory apartment buildings designed on a canonical model by Michel Roux-Spitz (1888-1957), such as the one on Rue Guynemer in Paris (1925). Schematically elegant, like the building from 1929-31 on Boulevard d'Inkermann in Neuilly, the works of Roux-Spitz retain a middle-bourgeois quality entirely alien to the refined elegance aimed at by Mallet-Stevens, and they played their part in smoothing the way for the decline of the 1930s, when French architecture once again became ingrown and self-satisfied.[11] Pierre Patout (1879-1965) was rather more original, and especially in his apartment building (1929-34) on Boulevard Victor in Paris he arrived at his own fusion of Art Deco formulas with volumes having a vaguely nautical tang. For more rigor one can look to Georges-Henri Pingusson (b. 1897), who, before collaborating with Mallet-Stevens on the projects for the Musée d'Art Moderne in Paris and the airport at Le Bourget, had built in 1932 the Hôtel Latitude in Saint-Tropez, whose enveloping volumes bear the signs of a tense, formal Constructivism. While architects such as Jean Ginsberg (b. 1905) or Gabriel Guevrekian strove to follow the example of Le Corbusier or Lurçat, it was Pierre Chareau who, after having realized the clubhouse at Beauvallon, came up with the most original version of the 1925 style. The glass house he built in Paris (1928-31) in

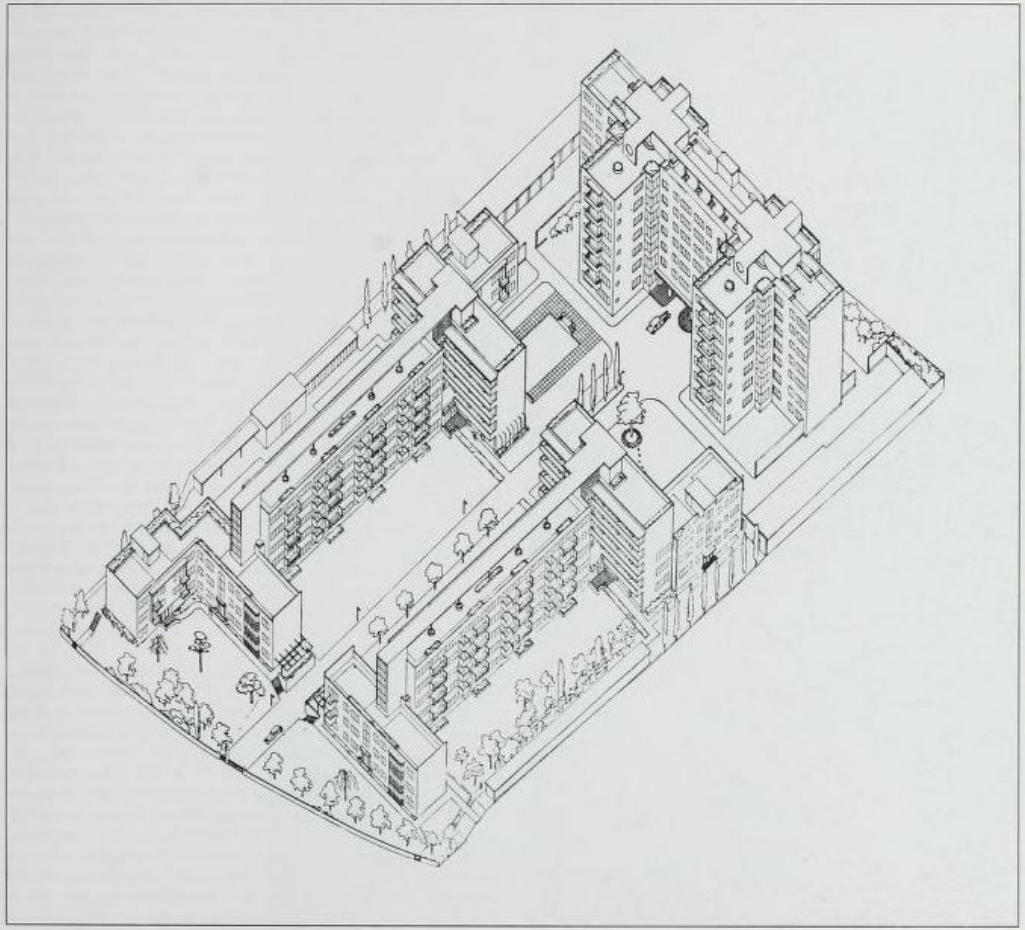
417. Sir Owen Williams, Empire Pool, Wembley, London, 1934
418. Sir Owen Williams, Boots Factory, Beeston, near Nottingham, 1931-32
419. Fuller, Hall and Foulsham, Ibex House, London, 1937

collaboration with the Dutchman Bernard Bijvoet looks like an experimental montage of standard ready-made materials. Two completely glassed-in façades cover the three floors whose open interiors are punctuated by simplified furnishings and slender, riveted steel uprights. The use of boldly modern materials was given added value by underlining every detail of the construction. Art Deco was preparing to bow out before a contorted allegory of sublimated technological motifs.[17]

But as the 30s moved on, there was no letup in the stagnation of the building trades, and the general economic crisis settled in. The situation was far from propitious for the architectural innovators who depended chiefly on housing developments realized with no overall plan on the outskirts of Paris, or on the sporadic initiatives of the progressive or left-wing administrations. The measures that followed the Siegfried Law of 1894, promoting the construction of low-rental *habitations à bon marché* (HBM), were complemented by the Loucheur Law of 1928, which laid down new bases for low-cost housing, but the efficacy of that law waned around 1933 when the crisis reached the building trades as well. Particularly interesting in that connection are the plans for the Paris region, worked out between 1924 and 1930, as well as the construction of numerous garden cities around the capital. Beginning with the complexes at Châtenay-Malabry, initiated in 1918, and at Drancy, completed in 1922, in which Bassompierre and De Rutté followed the models of Unwin and the approach propagated in France by Georges Benoit-Lévy, there was a gradual transformation in urbanistic conceptions and building types. Significant episodes in that evolution were the garden city in Stains near Paris, created between 1921 and 1933 by M. Gonnot and Albenque, the one at Plessis-Robinson, initiated in 1924 by M. Payret-Dortail; and the last of the series, the Cité de la Muette at Drancy, begun in 1933 by Eugène Beaudouin (b. 1898) and Marcel Lods (b. 1891).[18]

At Drancy, Beaudouin and Lods carried further the experiment of the Cité du Champs des Oiseaux (1931-32) in the Paris suburb of Bagneux; in collaboration with Eugène Freyssinet (1879-1962), they tried out advanced techniques of prefabrication.[19] The need to keep to a precise and modest budget and the desire to provide a model in line with reformist thinking about workers' housing had much to do with the exceptional character of the Drancy project and the use of the latest techniques. Everything associated with the garden city tradition was avoided: long parallel buildings were counterposed to five apartment towers, whose design went back to an idea already tried at Châtenay-Malabry, but with less show and emphasis. By concentrating the occupants in the towers, free space was gained for collective use, and the entire complex suggested a highly organized and community-centered way of life which did not fail to arouse the apprehension of the authorities administering the project. The concept was suggestive of the tensions racking France on the eve of the Popular Front, and it was in

420. Frederick Gibberd, Pullman Court residential complex, London, 1935



421. *Berthold Lubetkin and Tecton Group, Highpoint Two Flats, Highgate, London, 1938*

422. *Berthold Lubetkin and Tecton Group, Penguin Pool, Regent's Park Zoo, London, 1933*

that political climate that the subsequent works of Beaudouin and Lods were conceived: the open-air school built in Suresnes in 1935, and, even more, the fine multi-purpose edifice in Clichy (1939), built together with Vladimir Bodiansky (1894-1966) and Jean Prouvé (b. 1901). By means of an ingenious mechanism that building can be transformed into either an indoor market or a *maison du peuple*, a center for political and cultural activities. As model of an organic communitarian concept and of a social attitude making much out of popular participation, the building is an exceptional product of the municipal ideology that has so deeply marked the history of French socialism and did so much to foster the Popular Front. But the new perspectives that the progressivist administrations opened to the innovative architects were given concrete realization only in isolated examples, and only marginally did these go against the dominant tendencies. Indeed, it was just one year after the Popular Front was imposed that the International Exhibition of 1937 was inaugurated in Paris and proved a victory for the academic architects. The design for the Palais de Chaillot, entrusted in 1933 to Perret, was executed by an official committee composed of J. Carlu, L. A. Boileau, L. Azéma, A. Aubert, J.-C. Dondel, M. Dastugue, and P. Viard, and they took over also the construction of the Museé d'Art Moderne. Perret was left with nothing but the building for the Mobilier National, an ambiguous episode in a complex irreparably compromised by the massive interventions of the academics. The participation of the innovators was much cut down: Le Corbusier had only the temporary Pavilion of the New Times, Mallet-Stevens and Pingusson the Pavilion of Light, and Pingusson the Pavilion of the Union of Modern Artists. Even the foreign participation had its contradictions: along with buildings by Alvar Aalto, Junzo Sakakura, and Jaromír Krejcar, and the Spanish pavilion designed by Luis Lacas and José Luis Sert to house the *Guernica* of Picasso, there were the sinister eagles and swastikas of the pavilion designed by Albert Speer.

The New Belgian Architecture

In Belgium, Antoine Pompe (b. 1873) played a special role. He began as a designer of refined objects that were still within the ambit of Art Nouveau and rich in esoteric suggestions derived ftom the Dutch environment. Very soon, however, after the original design for the institute of Dr. Van Neck in Brussels (1910), Pompe was won over to the garden city idea, especially when, after World War I, the authorities found themselves faced with serious housing problems made more acute by the return to the factories. Pompe and Fernand Bodson (1877-1966) first experimented with new systems of prefabrication in the garden city of Hautrage-Nord in 1921, and in the Kapelleveld residential complex of 1922-26 in the Woluwé St. Lambert district of Brussels, where populist accents were combined with an original typological conception. But in Belgium the real leap forward in quality came with the work of Victor

XXVII. Emil Fahrenkamp, Shell Haus, Berlin 1932

XXVIII. Martin Elsaesser, Markethalle, Stuttgart

423. Henri Sauvage and Charles Sarazin, terraced apartment building, Rue Vavin, Paris, 1912

424. Henri Sauvage, terraced apartment building, Rue des Amiraux, Paris, begun 1922 (from L'Architecture vivante, 1923)

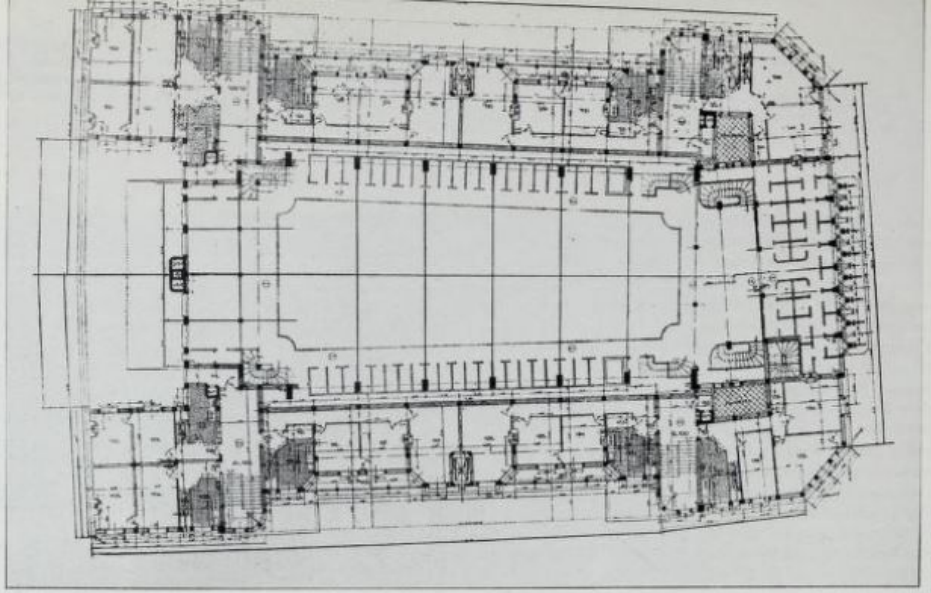
Bourgeois (1897-1962). Committed to progressivist positions and sympathetic to the experiments of the radical architects, Bourgeois in his Cité Moderne (1922-25) for Brussels seemed to be looking to Tony Garnier, an impression confirmed by his project of 1929 for improving the zone around the central station in Brussels. At the same time, Bourgeois was reaching out for something else, as was shown in his stand for the review *7 Arts-L'Équerre* of 1923 and in his hall in the exhibition of abstract art at Monza, Italy, in 1925.[17] After 1925 his architecture became much indebted to Le Corbusier, as in the houses he built for himself in Brussels in 1925 and 1934, and particularly in the studio designed there in 1928 for the sculptor O. Jespers.

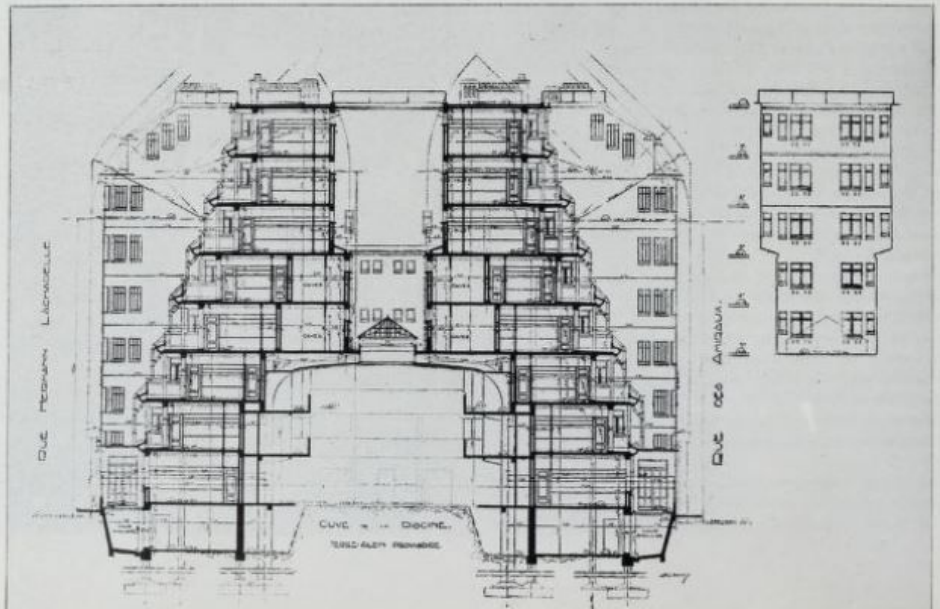
Similarly Louis Herman De Koninck (b. 1896) eagerly welcomed the most advanced positions in international architecture though his work shows a decline in ideological tension like that of Bourgeois. An elegant and eclectic manipulator, De Koninck was less consistent than Huib Hoste (1881-1957), who was close to the Dutch innovators (notably in the store built in Wervik in 1920 and the housing block of 1922 in Zonnebeke). In his project for Zelzate (1921-23) and for the Kapelleveld development in Brussels (1923-26), he shared the approach of Bourgeois, though he was more open to the new ideas from abroad. Although his first works were still in the Arts and Crafts tradition (the commemorative edifice in the garden city at Dour, the Konings villa of 1922 in the Brussels district of Rhode-St.-Genèse), he adopted the formulas of modern architecture in the house he built for himself and the still rather tentative design for an apartment building he did with Lucien François (b. 1894), both of these in 1924, as well as in the house for the painter Lenglet in 1926 and the Alban Building of 1929, all in Brussels. His projects for the Celotex Company, on the other hand, incline toward late Futurist or even outright Constructivist reminiscences and put much stress on the publicity aspect. The Ley house (1934) has touches of Le Corbusier and the Berteaux house (1938) a decided elegance of manner (all of these in Brussels).

But Belgian architecture went beyond such work in the experiments of Gaston Brunfaut (b. 1894), the Constructivism of Gaston Eysselinck (1907-1953) and Marcel Leborgne (b. 1898), and the visionary Expressionism of Renaat Braem. Belgian thinking proved to have links with the last survivors of the Soviet avant-garde in the ubanistic utopianism of Julien Schillemans (1906-1943); his project of 1930-35 was for a world complex—cities of 35,000,000 inhabitants based on collective residences 23 kilometers (14 1/4 miles) long, disposed radially around circular nuclei and connected with multipurpose social centers.

Swiss Architecture Between the World Wars

Organized in a rigid professional system of corporative type and tied to a tradition whose most original aspects concern technological and struc-





425, 426. Henri Sauvage, plan of first floor and transverse section, terraced apartment building, Rue des Amiraux, Paris, begun 1922 (from L'Architecture vivante, 1923)

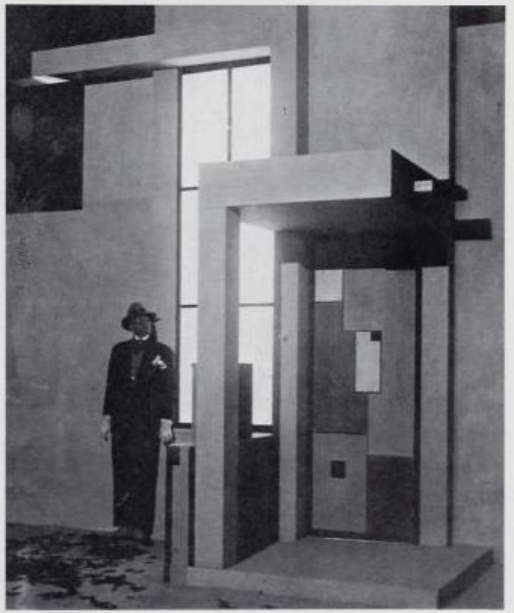
427. Pierre Chareau and Bernard Bijvoet, Maison de Verre, Paris, 1928-31

428. Marcel L'Herbier, still from the film "L'Inhumaine," with scenery by Robert Mallet-Stevens, 1923-24

tural matters, Swiss architecture in this century developed in the Federal Polytechnic School in Zurich, with markedly cosmopolitan traits. The work of Robert Maillart (1872-1940), from the first bridge with box girders near Zuoz in 1901 to his most prestigious realizations of the 1920s and 1930s, brought the Swiss structuralist tradition to a very high level. A creative, experimental approach to construction, variety in technical means, and great skill in modeling reinforced concrete characterize the viaducts built by Maillart, whose daring structures fit into the landscape with the greatest elegance although without any attempt at camouflage or imitation of nature. This is true also of the constructions of Alexandre Sarasin (b. 1895), who was equally daring in sounding the potentialities of construction techniques and equally consistent in pursuing the objective propounded by Maillart of liberating engineering "from the traditional forms to achieve in full freedom, without ever losing sight of the totality of the problem, the most advantageous and perfect utilization of the materials."

No less significant than the renewal fostered by Maillart was that initiated just before World War I by architects such as Alphonse Laverrière (1872-1954), Maurice Braillard (1879-1965), and Camille Martin (1877-1928, who was responsible for the first translation of the writings of Camillo Sitte), and which reached its fullest development after 1918. Leading figures in that development were Hans Bernoulli (1876-1959) and Karl Moser (1860-1936), both teachers in the Zurich Polytechnic, where the most significant architects active in the postwar years were trained. It was they who bridged the gap between the cautious prewar efforts and the most innovative experimentation that followed. From 1913 on, Bernoulli taught town planning in Zurich, and among his pupils, or at least closely linked to him, were Camille Martin, Arnold Hoechel (1889-1974), Hannes Meyer, and Hans Schmidt (1893-1972). Between 1915 and 1928 Moser gathered around himself the best of the young talents and did much to rejuvenate Swiss thinking, especially by fostering intense connections with Holland; this contribution was acknowledged when the architects at the first meeting of the CIAM in La Sarraz offered him the honorary presidency of the new association.

The housing crisis that affected Switzerland at the end of the war created conditions that favored the new ideas in architecture. Nor was the country without its social tensions: witness the growth of the cooperative movement and the question of low-cost housing, first faced up too seriously by the architects after the Swiss Werkbund exhibition of 1918. In that climate the approach promoted by Hermann Muthesius in the German-speaking countries gained favor: the one-family cottage and the garden city were much to the liking of the cooperative movement, and solid ideological affinities, if not common historical origins, helped to link the cooperative conceptions with urbanistic models that had their roots in neoclassic nostalgia. That consonance emerged with particular



429. *Robert Mallet-Stevens, block of apartments, Rue Mallet-Stevens, Paris, 1927*

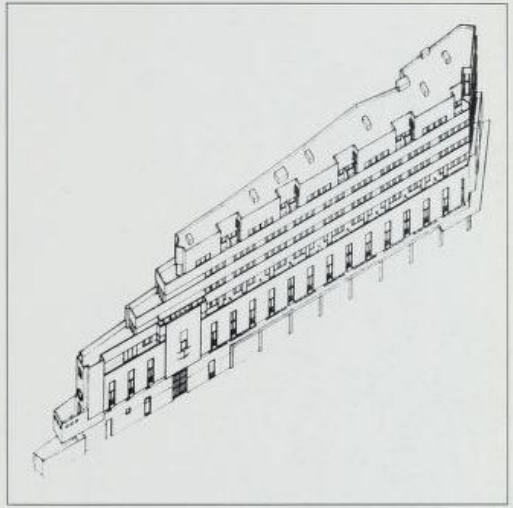
430. *Robert Mallet-Stevens, fire station, Paris, 1935-36*

vigor in Switzerland. There the reformist proposals were not blocked by the sort of social and economic impediments other European countries had to cope with, nor did the workers' movement wield as much power.

The competition in 1918-19 for the construction of a workers' community in connection with the industrial firm of Piccard, Pictet & Cie. of Geneva marked the breakthrough of those conceptions. Although the first prize went to Robert Rittmeyer and Walter Furrer, the most interesting project was that of the second-prize winner Hans Schmidt. The boom in housing developments promoted by the cooperative societies was to the advantage of innovative architects and garden city advocates alike. As we have seen, the Freidorf Siedlung in Basel by Hannes Meyer belongs to this period. Other significant contributions were made by Frédéric Gilliard and Frédéric Godet in their housing development in the Prelaz district of Lausanne (1921) and, even more, by Camille Martin and Arnold Hoechel in the garden city raised in 1920-23 on the Avenue d'Aire in Geneva. Equally interesting are the realizations of Hans Bernoulli, notably the *Wohnkolonie* of 1924 on the Hardturmstrasse in Zurich and the project of 1924-30 in the Hirzbrunnen district of Basel. From those experiences Bernouilli drew the basic ideas for his proposal, of classical reformist stamp, for remedying the grave difficulties such undertakings encounter in a laissez-faire land market. His concept of *Kommunalisierung*, amply treated in his book *Die Stadt und ihr Boden* (1946), called for a planned and agreed-upon limitation on the private use of land.

Given such premises, it is not surprising that the proposals of the radical avant-garde were welcomed in Switzerland. Since almost all the architects of the new generation spent many years of their early careers away from Switzerland, there was no dearth of international contacts, and the ABC group and its journal were the logical consequence. The antiacademic position and technical and functional rigorism championed in the pages of *ABC* helped to implant a new attitude, and it is understandable that the extensive participation of Swiss architects in the foundation of the CIAM was due to more than a matter of geographical convenience. The works of Max Ernst Haefeli (b. 1901), Rudolf Steiger (b. 1900), Emil Roth (b. 1893), and Hans Schmidt; the Schaeffer and Colnaghi houses in Riehen on the outskirts of Basel, designed by Paul Artaria (1892-1959) and Schmidt; the Lecorbusierism of Hoechel; the refined residential typologies of Henri-Robert von der Mühll (b. 1898) and his projects for the Steinmann villa (1926) and for a girls' boarding school in Lausanne (1928); and the abstract geometrical designs by Alberto Sartoris (b. 1901) for a group of workers' apartments in Geneva (1929) and his theoretical project (1931) of the Cathedral of Notre-Dame du Phare to be built in steel, reinforced concrete, marble, and glass—all these fit in perfectly with the most advanced currents on the international scene.

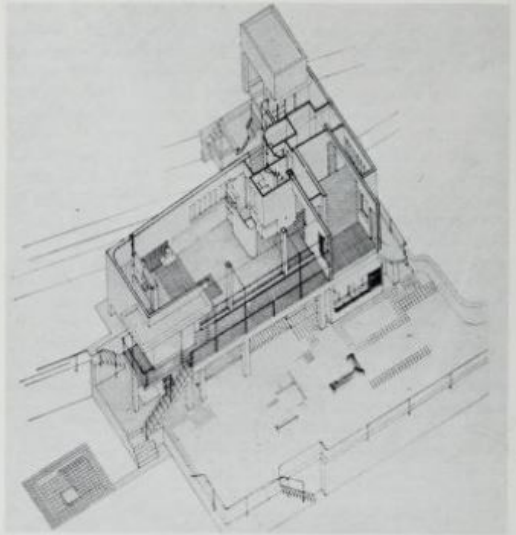
431. *Pierre Patout, block of apartments, 3 Boulevard Victor, Paris, 1929-34*



432. *Pierre Patout, house, Avenue Jean-Baptiste Clément, Boulogne-sur-Seine, 1929*

433. Bassompierre, De Rutté, Arfvidson, and Sirvin, plan of the garden city at Châtenay-Malabry, begun 1918

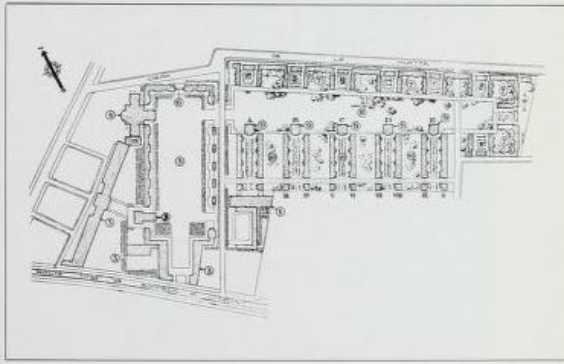
434. Eileen Gray, seaside villa, 1926-29 (from Architecture mouvement continuité, no. 37, 1976)



435. Eugène Beaudouin, Marcel Lods, Vladimir Bodiansky, and Jean Prouvé, Maison du Peuple, Clichy, 1937-39

436. Eugène Beaudouin and Marcel Lods, Cité de la Muette housing development, Drancy, begun 1933 (destroyed 1976)

437. Eugène Beaudouin and Marcel Lods, plan, Cité de la Muette housing development, Drancy

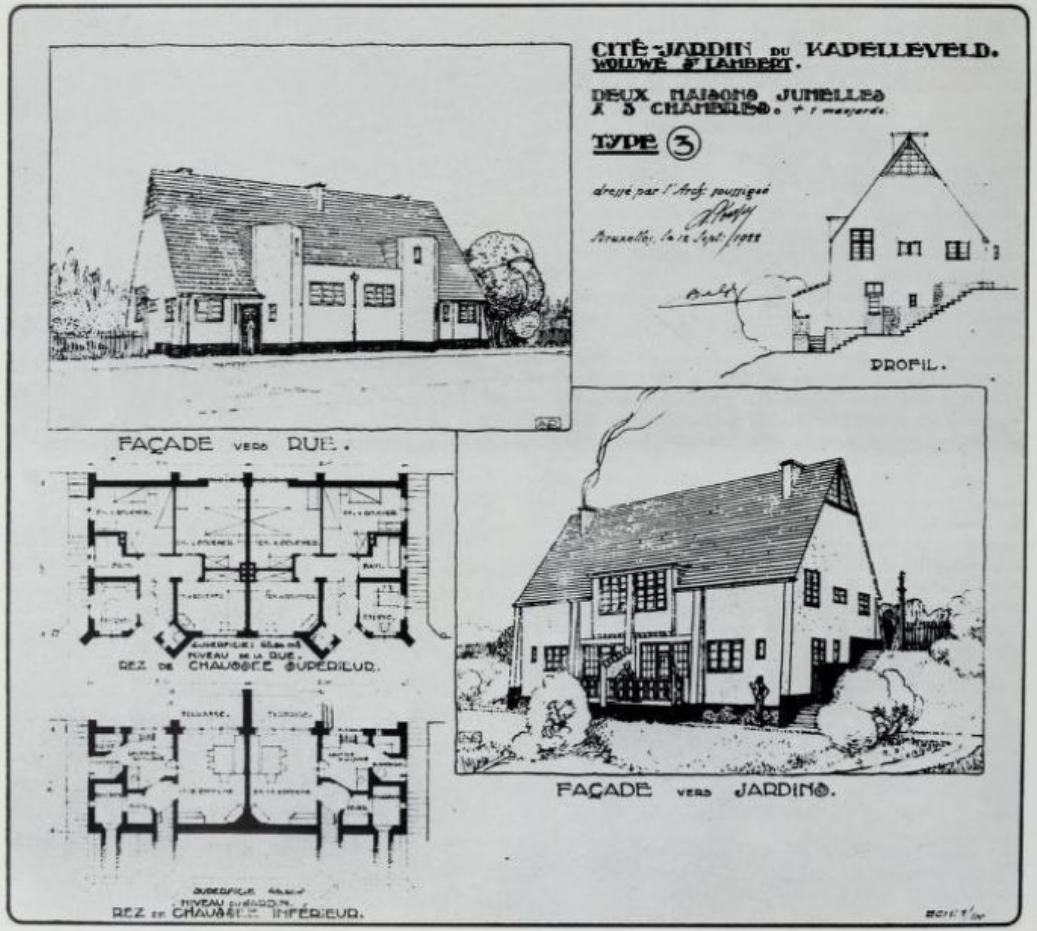


In that context two episodes are particularly indicative. In 1931-32, Adolphe Guyonnet (1877-1955) constructed the Disarmament Building for the League of Nations in Geneva in a mere eight months. With an extremely simplified layout and using advanced techniques worked out in order to reduce the building time drastically, Guyonnet achieved solutions of a rigorous formalism in this structure designed for international conferences. This is significant because he was in fact an academic architect converted to the modern language for the occasion only. The important point, however, is that this shows how the high technological level reached by the building industry stimulated the development of new architectural conceptions. There is further proof in the special role of the Swiss Werkbund during the late 1920s and the 1930s in acting as connecting link between architectural experimentation and production. The architectonic approach of the Swiss seems to explain the emphasis on production, so conspicuous in the pages of *ABC*; but there seems to have been no conflict between that attitude and the experimental realizations promoted by the Swiss Werkbund, such as the model houses on the Wasserwerkstrasse in Zurich, built by Haefeli (1927-28) and particularly the Werkbundsiedlung Neubühl of 1929-32 in the same city, a joint effort by Artaria, Haefeli, C. Hubacher, W. M. Moser, E. Roth, R. Steiger, and Hans Schmidt, which made it clear that the model housing ideas arrived at by European architects in the 1920s had been fully assimilated by the Swiss. Three streets divide four rows of houses laid out on two slopes of a low hill. If the layout is substantially traditional, the housing types are more refined and admirably high standards in construction are worked out experimentally with an eye to their subsequent utilization in large-scale industrial production. That kind of close collaboration between architectural research and rationalized production proved its value concretely in the mid-1930s when, in consequence of the economic crisis and after the devaluation of the franc in 1936, the building sector set about reorganizing itself and made increasingly profitable use of the results of the experimental approaches initiated in the 1920s.

Architecture in the Czechoslovak Republic

In Czechoslovakia, architecture was brought up to date in much the same way as in the other more advanced European countries, although beginning with the immediate postwar years it took a decidedly original path of its own.[34] It was around 1920 that the precocious and cosmopolitan premises laid down by the Czech avant-garde movements reached full maturity in the architectural field in a highly effervescent climate and in the presence of social and political tensions that profoundly influenced the progressivist attitude in architectural thought. Organized in 1920, the Devětsil group was the focus for the most significant exponents of the avant-garde, from Karel Teige (1900-1951) to Jaromír Krejcar (1895-

438. Antoine Pompe, plans for twin houses for the Kapelleveld garden city, Woluwe St. Lambert district, Brussels, 1922-26 (from A. Pompe exhibition, Brussels, 1969)



439. L. H. De Koninck, project for the Celotex Pavilion, International Exposition, Brussels, 1929 (from De Koninck exhibition, 1973)

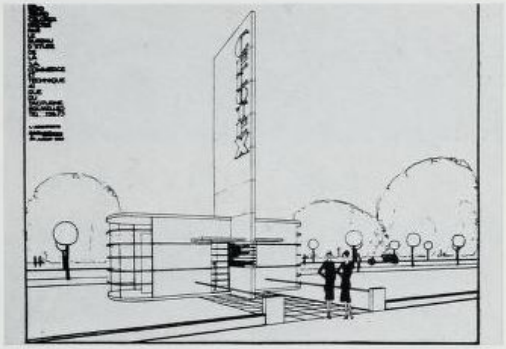
440. L. H. De Koninck, first project for the Dotremont house, Brussels, 1931-32 (from De Koninck exhibition, 1973)

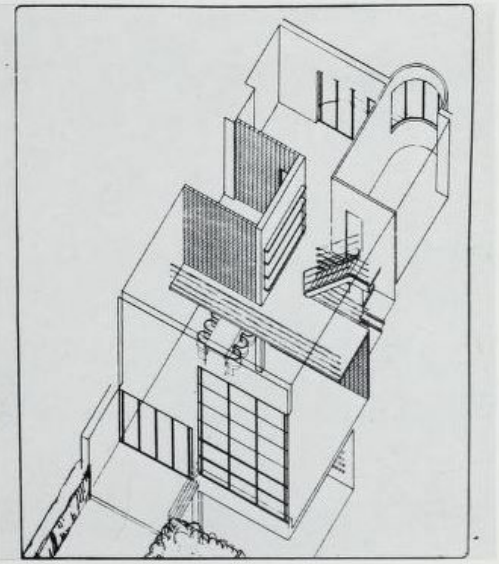
1950) and Josef Chochol. The work of the first two was decisive: Teige not only made known the achievements of the Czech experimenters, but he established close contacts with the most advanced artists and groups throughout Europe; Krejcar tirelessly promoted all sorts of projects and became the rallying point for the Prague avant-garde (he was, incidentally, the husband of Milena Jesenská, Kafka's correspondent). Gathered around such personalities were a number of architects who, as vehicles for their lively and original theoretical discussions, produced publications such as the reviews *Stavba*, *Stavitel*, and, later, *MSA*; they maintained very close relations not only with Vienna but also with Germany. After 1927 the review *Devětsil Red* furnished invaluable information about new developments in Soviet architecture and did its part in encouraging the Czechs to a new political commitment that resulted, in 1933, in the formation of the Union of Socialist Architects. A number of Czechs participated directly in the initiatives of Soviet architecture and between 1925 and 1936 contributed steadily and at the most diverse levels to its development.[17]

Works such as the crematorium at Nymburk (1921) by Bedric Feuerstein (1892-1936) and Bohumil Šláma (b. 1887), the industrial school (1923-25) at Mladá Boleslav by J. Kroha (b. 1893), and the design by Krejcar for a one-family house at Zbraslav in 1923, all testify to the fact that the Czechs were in step with the most advanced research in Europe, however different their specific approaches might be. In 1928 the Exhibition of Contemporary Culture at Brno elicited a massive participation of radical architects. Under the direction of E. Kralik, the exhibition was the occasion for a confrontation between all the most advanced tendencies: K. Jalous and J. Valenta worked with Krejcar in designing the large glassed-in central hangar, B. Fuchs (b. 1895) realized the pavilion for the city of Brno, P. Janák and O. Starý produced two residential prototypes, and in the School of Fine Arts pavilion J. Kroha exemplified the Czech interest in Constructivism. Alongside the exhibition buildings there was a small model housing project, Nový Dům (New House), in which the progressive architects realized a number of experimental housing types.[18]

Toward the close of the 1920s the influence of the kind of problems being debated in the Soviet Union became more conspicuous here. The entrance to the Soviet pavilion at the Prague Fair of 1928, the project of 1928-29 for the Letná quarter in Prague, and especially the convalescent home at Trenčianské Teplice, realized by Krejcar in 1929-32, were marked by an approach very like that of the Soviet architects grouped around Ginzburg and the review *SA*.

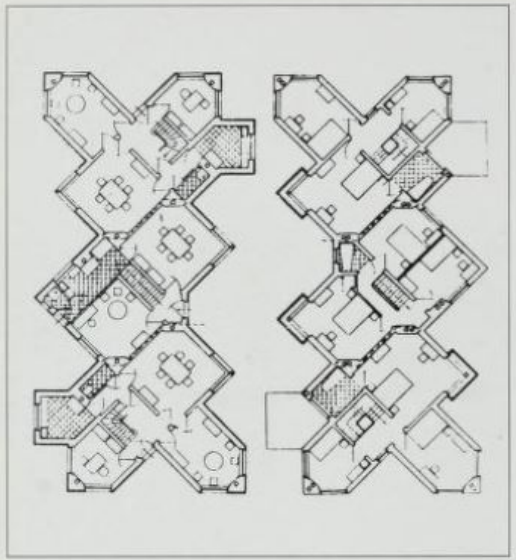
In the early 1930s diversified ideological and cultural tendencies and influences confronted each other. While the project of 1930-32 for the Baba district in Prague derived from British sources, Jan Gillar (b. 1904) and Josef Špalek studied the problem of housing in common and applied





441. *Victor Bourgeois, housing types for the Cité Moderne, Brussels, 1922-23*

442. *Victor Bourgeois, group of houses, Cité Moderne, Brussels, 1922-25*



the results in the project for a district with 5,000 inhabitants, worked out in 1930 by the Left Front group affiliated with the CIAM and consisting of P. Bücking, J. Gillar, A. Müllerová, and J. Špalek. Toward the end of that decade, however, the political developments left no hope for the Czechoslovak progressive architects known since the end of the war for their radical positions in politics as well. If it is any consolation, once the ordeal of Nazism was over E. Linhart and V. Hilský went to work for a new power and in 1946 built for the Stalin Industrial Complex at Horní Litvínov a large collective housing unit which had as direct precedent the experimental ideas of the Left Front architects of the late 1920s.

Spanish Architecture Before the Franco Dictatorship

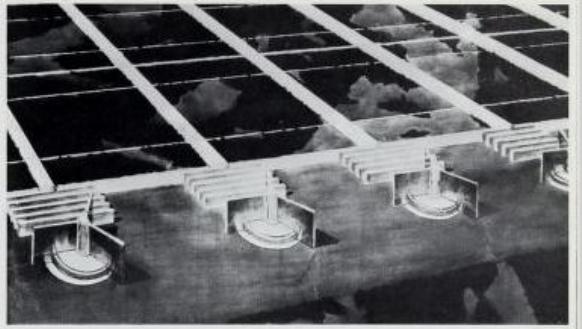
About 1925 Spanish architecture fell into step with the most advanced positions on the international scene and underwent a brief, but intense, process of renewal, which was conditioned by the political situation of the country, the persistence of regional differences, the ambiguous stance of a few significant figures, and a still unresolved relationship with the academic tradition.

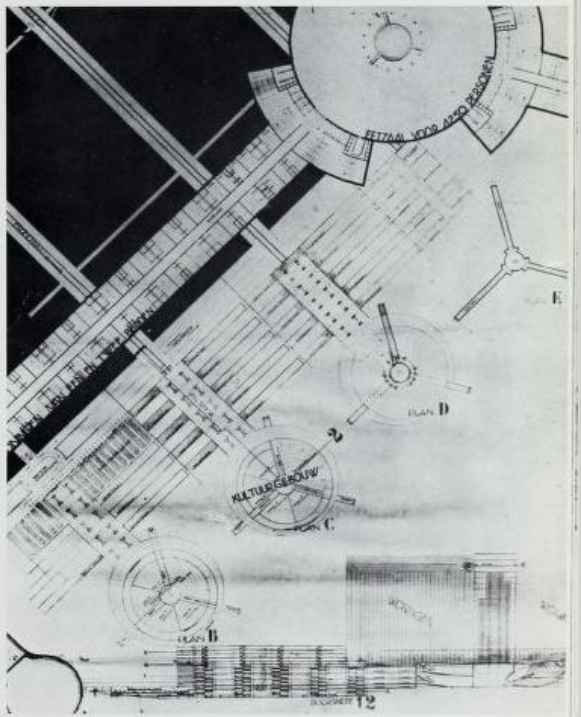
The dissolution of the monarchy and dictatorship, then a republic tense with compromises and grave contradictions but rich in promise, finally the birth of the Popular Front and the ensuing civil war—these were the stages in a process that rapidly consummated its own dramatic destiny but within which architecture had its own best season. It is not easy to give up one's hagiographic conception of that period. The experience of the Popular Front and the heroic resistance of the Spanish people to fascism are an integral part of our history: the war in Spain contributed to the rise of myths and ideologies on which the conscience of the European intelligentsia still feeds today and which have had a confusing effect on all attempts to ascertain what really happened.

One of the most significant results of the new cultural climate that began in the mid-1920s was the Ciudad Universitaria, created in Madrid between 1927 and 1936. The political transformism of the monarchy had its reasons for bringing into being that large complex of university buildings. Although the project was entrusted to a group led by the eclectic Modesto Lopez Otero, the architects of the younger generation had the upper hand in the operation. The passionate polemics that ensued culminated in official recognition for the progressive Madrid architects. The building for the Fundación del Amo (1928-30) by Rafael Bergamín (b. 1891) and Luis Blanco Soler (b. 1894), the Faculty of Letters Building by Agustín Aguirre, and the student dormitory (1935-36) by Luis Lacasa (1899-1966) were the major components of the complex that also included buildings by Sánchez Arcas, Miguel de Los Santos, and Pascual Bravo.

This was by no means an isolated achievement. In the 1920s many forward-looking Madrid architects were grouped around the review

443, 444. *Julien Schillemans, project for a complex in a world city of 35,000,000 inhabitants, 1930-35 (from A. Pompe exhibition, Brussels, 1969)*



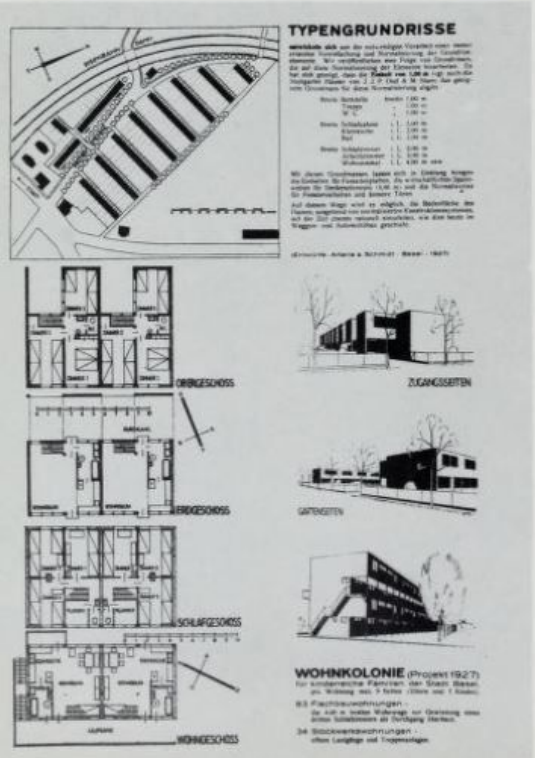


Arquitectura, to which many of the leading European figures contributed, especially after 1927. Their prime objective was to break with the provincialism of the eclectic tradition. The Viennese approach to workers' housing was taken over by Secundino Zuazo (b. 1887), notably in his Casa de las Flores (1930-31) in Madrid, while Bergamín kept to a punctilious formalism.[11] In the Rincón de Goya bull ring, built in 1927-28 in Saragossa by Fernando García Mercadal (b. 1896), the international lesson was adapted to the Mediterranean tradition in an attempt to root the new approach to architecture in the native and popular culture. The restrained functionalism of Bergamín, which was not without its debt to Loos, was countered by the eclecticism of Fernandez Shaw, who tended to rework the lesson of Mendelsohn; certain works by Luis Martínez Feduchi tended to be ambiguous. But by then the radical architects were well able to carry through a successful compromise, notably in the contribution by Zuazo to the urbanistic policy of Madrid. The plan he and the German architect Hermann Jansen worked out in 1929 for a linear extension of the major artery, the Paseo de la Castellana, in the direction of Fuencarral won the 1930 competition for a plan for the expansion of Madrid. With the advent of the Republic, the role of Zuazo, who had been the leading planner in Madrid since the dictatorship, became even more significant. Working closely with the socialist exponents in the government, he designed the new stretch of the Castellana (opened in 1933) on which the government ministry buildings were to be relocated. The project, however, was not carried through as planned: the architects of the new ministries paid no heed to the ideas of Zuazo, who envisaged the new government center as "a hymn to the soberness and nobility of our architecture in stone" and as the first step in a more general urbanistic and administrative restructuring summed up in the Plan Comarcal of 1933 for Madrid.

Among other Madrid architects of note was Eduardo Torroja (1899-1961), who collaborated with Carlos Arniches and Martín Domínguez in works such as the roofed grandstand at the Zarzuela racetrack (1936) in Madrid, with Sánchez Arcas on the market in Algeciras (1933-35), with Zuazo on the Frontón Recoletos (1935) in the capital, and also with Lacasa. Others were less clear-cut in their support of the process of renewal: something of the moderate *Novecentista* approach lingered on in the works of Victor Eusa (b. 1894); Ramón Puig Gairalt (1886-1937), in his Gratacels de l'Hospitalet of 1931-33 in Madrid, attempted to blend rigorist tendencies with Art Deco motifs. Active in the Canary Islands were Miguel Martín Fernández de la Torre and the German Richard E. Oppel.

The Catalans aside, the most significant figure in Spain was the Basque J. Manuel Aizpurúa (1904-1936). His design for a restaurant on Monte Ulía just outside San Sebastián, the remodeling of the Yacare Bar Club and Sacha Tearoom in San Sebastián in 1928, and his designs for schools such as those for an elementary school (1930) in Ibarra or for a secondary

445. M. E. Haefeli, C. Hubacher, R. Steiger, P. Artaria, W. M. Moser, E. Roth, and H. Schmidt, aerial view, Neubühl Werkbundsiedlung, Zurich, 1929-32



446. Page from the journal ABC, 1927-28, with residential typologies by P. Artaria and H. Schmidt

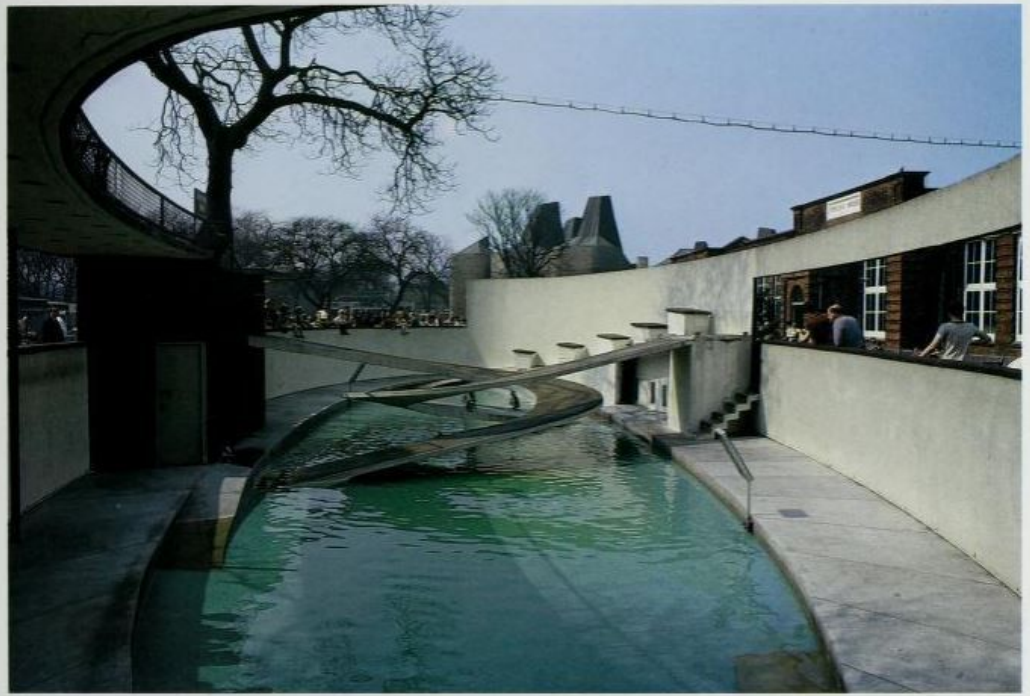
school (1932) in Cartagena (the latter in collaboration with Eugenio Aguinaga) are evidence of an extremely original approach that climaxed in the Club Naútico of 1930 in San Sebastián.

The influence of Le Corbusier was decisive for Aizpurúa and the Catalans. Then, as earlier, the cosmopolitan cultural world of Barcelona was open to all sorts of new ventures, such as the journal *La Ciutat i la Casa*, published there in the 1920s. Its architecture was of thoroughly professional caliber, whether in the elegant adaptation of Perret made by Antoni Puig Gairalt or in the moderate modernism of Ramon Raventó and Francesc Folguera.

The architectural exhibition that opened in April, 1929, at the Galeria Dalmau in Barcelona, provided the occasion for evaluating the situation and for a confrontation between established architects such as Puig Gairalt and Rubió i Tudurí and the young men captained by José Luis Sert.[28] In that same year Sert, Sixt Yllescas, Germá Rodríguez Arias, and Francesc Fabregas organized the Grup d'Artistes i Técnics Catalans per al Progrés de l'Arquitectura Contemporánia (GATCPAC). In September, 1930, a major exhibition of architecture and painting in San Sebastián brought together all the leading figures of the avant-garde. A month later, promoted by Sert and Mercadal, a meeting at Saragossa resulted in the organization of the GATEPAC, the Spanish equivalent of the original Catalan group, also functioning as the Spanish section of the CIRPAC; this met in Barcelona in 1931 to prepare the session of the CIAM that it was hoped, in vain, was to be held in Moscow.[29] The headquarters of the GATEPAC on the Paseo de Gracia in Barcelona, dating from 1931, became a center of great importance and sponsored a great variety of cultural activities including lectures by leading European architects.

In 1931 the GATEPAC launched a review, *A. C. Documentos de Actividad Contemporánea*, whose avowed model was Ernst May's review, *Das neue Frankfurt*, and which became a fundamental instrument of propaganda for the Spanish and international innovators. However, significant in the activity of the Barcelona group was its close relationship with the Generalitat, the Catalan governing body. After 1932, in a period of grave crisis in the building trades, the Generalitat gave out commissions to avant-garde architects. In 1933 the definitive version of the plan for a Ciudad de Reposo was presented, this being a new housing development to be located beyond the industrial zone of Barcelona and for which the first sketches and diagrams had been exhibited as far back as 1929 at the Galeria Dalmau. That plan represented only one aspect of the large-scale planning the GATEPAC had under consideration for Barcelona. Their goal was a new type of urban control related to the central political concerns of the time and involving a radical reform of property ownership and administration in the urban areas. One result of this was the Casa Bloc, a housing complex for lower-income groups on the

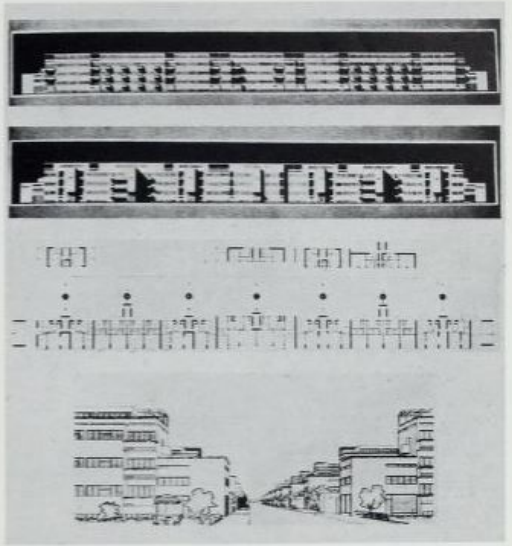
XXIX. Berthold Lubetkin and Tecton Group, Penguin Pool, Regent's Park Zoo, London, 1933



XXX. Sigurd Frosterus, Stockmann Department Store, Helsinki

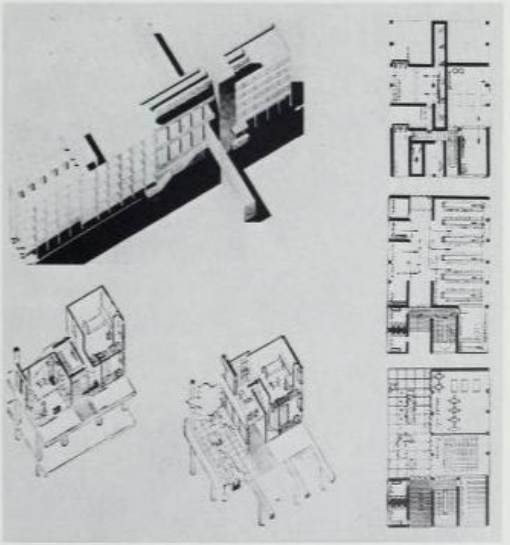
447. Josef Havlíček, residential types, c. 1927 (from Stavitel, IX, 1928)

448. Jan Gillar and Josef Špalek, competition project for residential types for Prague, c. 1930 (from Stavitel, XI, 1930)



Avenida Torres y Bages de Sant Andreu in Barcelona, built between 1932 and 1936 by a public body, the Patronat de l'Habitació de Barcelona that had been set up by the Generalitat. The ground plan has traits borrowed from Le Corbusier, and the building as a whole radicalized the ideas promoted by the CIAM, placing marked emphasis on the collective organization of services. The ideological accent of the project was obvious and aroused considerable debate among the political forces. In 1932 the GATEPAC went beyond the schematic indications of the project of 1930-31 for urbanizing the Diagonal of Barcelona and, in collaboration with Le Corbusier himself, began to conceive the Pla Maciá, named for Francesc Maciá, president of the Generalitat. That plan, based on lots of 400 by 400 meters, offered a radical alternative to the Cerdá plan, introducing a new functional zoning scheme and a thoroughgoing restructuring of the traffic systems. The lots were to be occupied by a continuous system of buildings, whose open structure would be unlike the closed blocks characteristic of nineteenth-century urban plans.

As concerns architectural language, without losing sight of the most advanced proposals from abroad the GATEPAC members aimed to root their own solutions in the native tradition, and certain issues of *A.C.* were devoted to investigations of the traits of Mediterranean architecture. This is reflected in the composite urban building types designed by Sert and Yllescas, Germá Rodrígues Arias, Ramon Duran Reynals, and Ricard de Churruca, as well as in the Central Anti-Tuberculosis Dispensaries built in Barcelona in 1934-36 on designs by Josep Torres Clavé, Sert, and Joan B. Subirana, also in a few buildings by Sert strictly derived from Le Corbusier, such as the Galobart house (1932) in Barcelona. In addition, the GATEPAC made a notable contribution to the study of new residential types for the lower-income population and to the programs for new schools; Sert's design of 1933 for the complex on the Avenida de Bogatell in Barcelona is one of the best examples of the new approach to school buildings. The close connection of the GATEPAC with the policy of the Generalitat was the most interesting element in the Barcelona situation. This had an immediate repercussion on the position of the group to whose development Torres Clavé contributed greatly. Clavé was among the promoters of the trade union organized in 1936 by the Catalan architects, which, together with the various workers' organizations, played a leading role in the battle for a new organization of the building industry and for control of the land; the aim was complete municipalization of building terrain and the creation of a new system of control in the building industry. The onrush of political events helped cancel out whatever utopian traits such thinking had: collectivization and workers' control over commerce and industry, the formation of a centralized apparatus for administration and control of the economy (the Consell d'Economia de Catalunya), and finally the



449. *J. Manuel Aizpurúa and Joaquín Labayen, Club Náutico, San Sebastián, 1930*

450. *José Luis Sert and J. Torres Clavé, Hôtel Casino and Club Marítimo, Pueblo de Veraneo*

adoption of the Decreto de Municipalización on June 11, 1937, were the stages in this revolutionary process in Catalonia. This process inevitably reduced the space within which the architectural vanguard was able to maneuver on its own terms independently of the political powers. As the revolutionary political program became increasingly radical, there was less and less possibility for any activity not central to the cause. The civil war imposed radical personal choices. Not all of the Spanish architects chose to side with the Republic. Torres Clavé died fighting against the forces of Franco, but J. Manuel Aizpurúa, perhaps the most original Spanish avant-garde architect outside Barcelona, was gunned to death by the Republican troops as a member of the Falange. It is by no means gratuitous to link the death of those two leading innovators with the decline, after the fascist victory, of the ferments of the 1920s and 1930s. The first years of the new regime brought a return to academicism, although this was soon left behind when the architects once again, with some uncertainty at first, rejoined the mainstream of international thinking.

Scandinavian Architecture

In the Scandinavian countries the romantic ferments we have already noted were accompanied by approaches oscillating between Art Nouveau and Expressionism on the one hand—the Grundtvig Church in Copenhagen by P. V. Jensen Klint (1853-1930), the Stockmann Department Store in Helsinki by Sigurd Frosterus, the refined design work by Kaare Klint—and a rarefied Neo-Classicism that was singularly lacking in academic connotations at least among Swedish architects such as Tengbom and Asplund or in the Danish group centered around *Arkitekten*, a review directed from 1918 to 1920 by Kay Fisker. A nostalgic lyricism characterized an architectural idiom composed of restrained abstractions, which to some extent was linked with the reduction to essentials called for by Tessenow. In the terse volumes of Ivar Tengbom and the Swedish Neo-Classicists, Edoardo Persico in 1935 discerned "the constant aspiration of an entire people to ideal beauty, almost to intellectual beauty." That was the climate in which the first works of Erik Gunnar Asplund (1885-1940) appeared, from the Scandia Cinema of 1922-23 to the Stockholm Public Library of 1920-28, in which a bare cylindrical volume is set into a prism with something of the stability of an ancient Egyptian temple, the whole expressive of an enlightened metaphysical and atemporal geometrism. During those same years there were works inspired by a rigorous functionalism, such as the power stations built in 1925-28 at Hammarforsen and in 1926-29 at Krangforsen by Osvald Almqvist (1884-1950), or the Ford factory of 1929 by Uno Åhrén (b. 1897). The polemics aroused by these new tendencies, represented in Denmark by Kay Fisker (1893-1965) and in Finland by Erkki Juhani Huttunen (1901-1956, author of the Sokos Store in Helsinki), and by Yrjo Lindegren (the Olympic Stadium in Helsinki), were not ideological in character, as in Germany or France: the new Scandinavian architecture was as alien to avant-gardism as was that of Tengbom, and did not set out to reform the world politically.

Except for Finland, the Scandinavian countries adopted social democratic regimes between 1929 and 1933, some with more unease than others, with immediate consequences for urbanism and housing. In any case, as far back as 1904 the city of Stockholm had begun acquiring

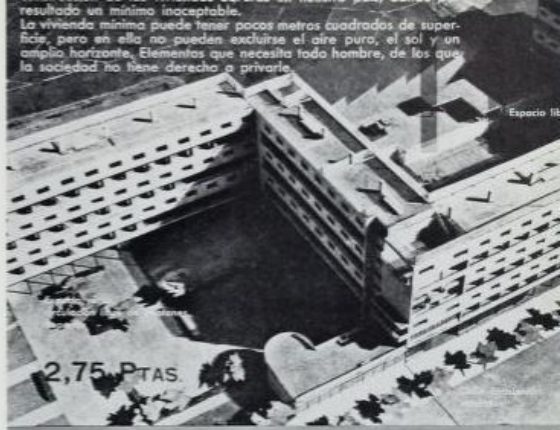
451. *Cover of the journal A.C., 1934, no. 11, showing the Casa Bloc in Barcelona designed by José Luis Sert in 1932 and built in 1932-36*

452. *Cover of the journal A.C., 1934, no. 13, with aerial view of the GATEPAC project for the Ciudad de Reposo near Barcelona*

extraurban property at farmland prices and granting credit facilities to encourage the building of single-family houses and satellite nuclei in the form of garden cities that were linked to the tertiary center, as at Enskede and Bromma. But it was only in 1933, after the agrarian parties had come to an agreement with the social democratic majority, that state intervention in building projects followed a concrete planned policy. The Royal Commission for Housing and Urbanism and the State Office for Housing Loans not only incremented the flow of credit but gave incentives to cooperative building and to rationalizing construction itself by putting controls on the cost of materials. In Denmark, on the other hand, the town planning laws of 1925 and the founding of the Dansk Byplan-laboratorium (the Danish Center for Urbanistic Studies) created the premises that finally, in 1951-54, led to the adoption of the so-called Five-Finger Plan for Copenhagen, which envisaged a compact and articulated city rather than one spreading out from a nucleus. Thus in Denmark, the polemics conducted in the late 1920s by the review *Kritisk Revy*, but also the first rationalized works, went along with reforms already under way. So the changeover to such purist architectural languages as that of Fisker (or in Sweden, where the same held true, of Asplund) came about painlessly, almost as if the modern vocabulary were no more than some sort of natural updating of the Neo-Classicism prevalent before then.

Such detachment from the polemical climate surrounding architecture in Central Europe led to a sort of analytical critical approach to the language itself. In 1930, just when the economic crisis was hitting Sweden with full force, a large exhibition coordinated by Asplund was inaugurated in Stockholm. The steel pillars and beams, the blinds, and glass walls were treated with great elegance and revealed an ironical vein along with a consistent communicative effort; the dematerialized forms of the exhibition buildings were conceived as a way of drawing the public discreetly into an architectural festival not without its didactic implications. With such an approach Asplund could even venture to experiment with metaphysical dialogues between existing historical environments and modern architecture. In the limpid volumes of the Bredenberg Store of 1933-35 in Stockholm and, even more, in the addition to the Göteborg City Hall (whose competition was held in 1913 and whose realization dates from 1934-37), the new insertions proved to be felicitous translations of Neo-Classical geometry into an airy play of scansions that embraced free and articulated interior spaces. It was not by chance that the example of Göteborg was hailed as an emblem of community autonomy in a democratic society that knew how to treasure its own past; it was also much imitated throughout Europe.

The lyricism of Asplund followed no codified methodology but rather an experimentalism well rooted in the classical tradition. In his crematorium (1935-40) at Enskede near Stockholm, on a grassy slope accented



453. P. V. Jensen Klint, Grundtvig Church, Copenhagen, 1913-26
454. Erik Gunnar Asplund, Public Library, Stockholm, 1920-28

by clumps of trees, he sited an atrium open to the outdoors and dominated by a solemn cadence of pillars supporting an impluvium roof. Pevsner, with his usual acuity, has pointed out an affinity between this Swedish crematorium and certain Italian experiments: its conjugation of classicity and purism arrives at the same abstraction as the project for the Danteum or the first design for the Palazzo del Littorio by Terragni.

Although his career began in contact with Asplund, Sven Markelius (1889-1972) chose a different path, one which led to a rigorous play of volumes in the Students' Club in Stockholm (built with U. Åhrén in 1920 and amplified thirty-two years later by Markelius with B. Lindroos) and which subsequently, in his Stockholm apartment house of 1935 and the Swedish pavilion at the 1939 New York World's Fair, initiated an experimental approach that would become one of the bases of the so-called Scandinavian Neo-Empiricism.

Outstanding in Denmark was Arne Jacobsen (1902-1971), a pupil of Fisker. In 1929 he built, with F. Lassen, a polemical "house of the future" on a spiral schema with its roof laid out for helicopter landings and with many mechanical features including a motorboat basin with all the quality of a Surrealist *objet trouvé*. From this he went on to more strictly rationalist works such as the Rothenborg house of 1931 in Ordrup Krat. The masterpiece of his early career was the Bellevue complex (1934) in a bathing resort north of Copenhagen. The ground plan with saw-tooth setbacks, refined treatment of the corners, and the play of projecting balconies give proof of a notable capacity to manipulate a syntax accepted as a simple working hypothesis: the language is made a flexible instrument poised between rigorism and unexpected inventions. With such a language Jacobsen could indulge in experiments clearly influenced by the work of Asplund in Göteborg, as for instance in the Aarhus Town Hall (1937-39) with E. Møller, and the one in Søllerød (1942) with Lassen.

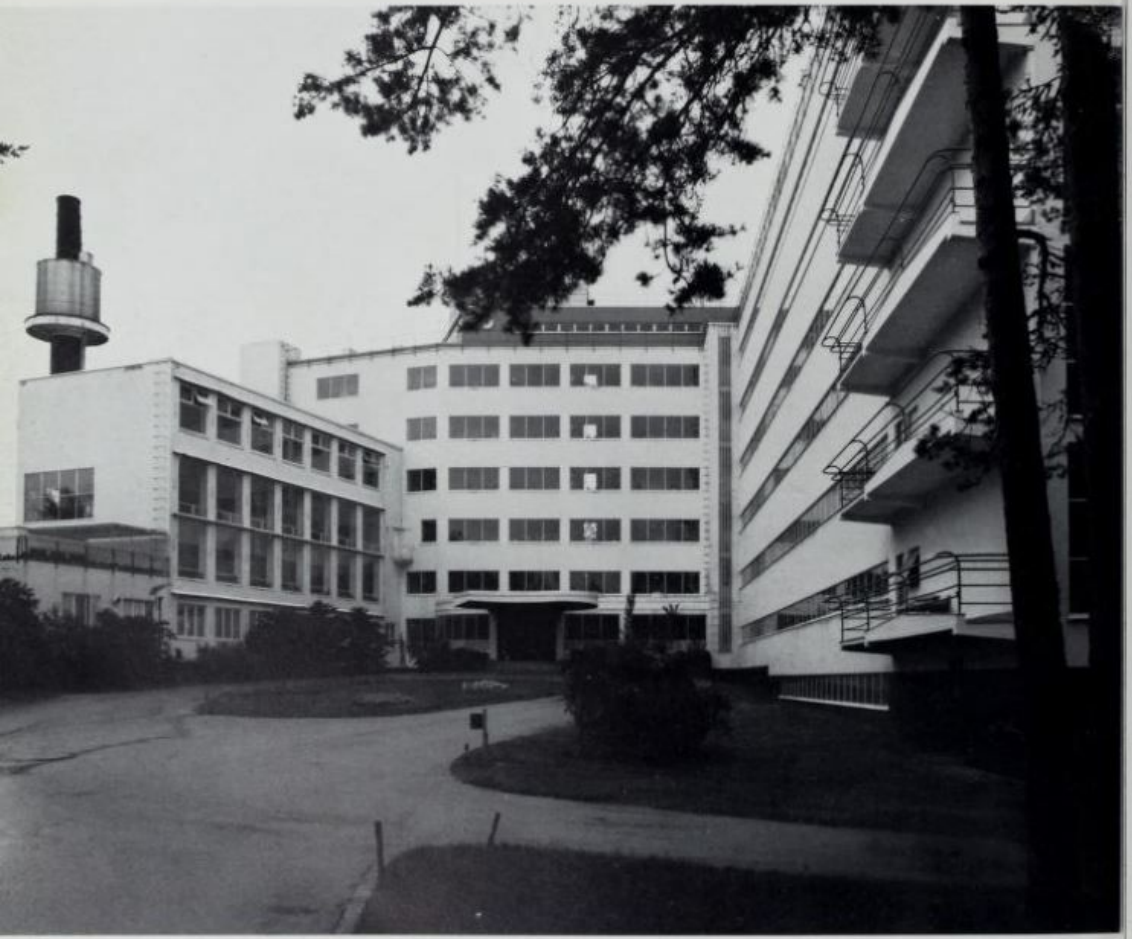
Thus Swedish and Danish experiments enriched the international language with unique new ideas entirely alien to the emphasis on form of the Central European avant-garde, but they also revealed all the risks inherent in this pragmatic approach: the two paths taken in Scandinavia after the war—what can be called Populist Neo-Empiricism and the more canonical International Style—offered complementary answers to the problems opened by the approaches we have examined so far.

In Finland, reacting with nationalistic fervor to the omnipresent threat and in consequence governed by the right beginning around 1930 and subsequently racked by ruthless anticommunist and antifascist struggles, Alvar Aalto (1898-1976) played a very special role. He deliberately took a position opposed to the romanticism of Eliel Saarinen, the monumentalism of Heikki Sirén (author of the Helsinki Parliament Building in 1931), and the approaches of Erkki Huttunen and Erik Bryggman. However, he collaborated with the latter on the pavilions of

455. Sigurd Frosterus, Stockmann Department Store, Helsinki
456. Erik Gunnar Asplund, crematorium in the cemetery of the Enskede suburb of Stockholm, 1935-40

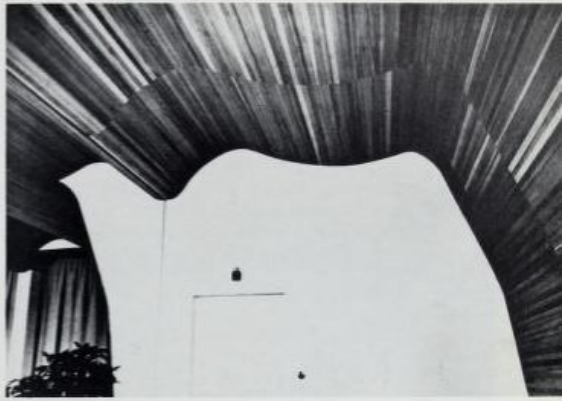
457. Arne Jacobsen, restaurant and theater, Bellevue beach resort near Copenhagen, 1930-35
458. Arne Jacobsen, aerial view, Bellevue beach resort near Copenhagen, 1930-35

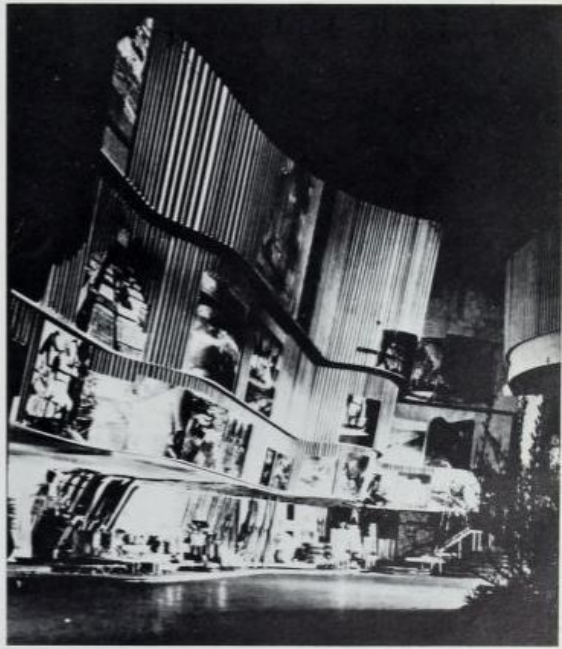
459. *Alvar Aalto, Tuberculosis Sanatorium, Paimio, 1929-33*



460. *Alvar Aalto, ceiling of the lecture hall, Public Library, Viipuri, 1927-35*

461. *Alvar Aalto, Finnish Pavilion, New York World's Fair, 1939*





the Jubilee Exhibition at Turku in 1929, after having produced only a few tentative works although already designing on his own the headquarters for the newspaper *Turun Sanomat* in the same city (1929-30).

It was in the Tuberculosis Sanatorium at Paimio (1929-33) and the Library at Viipuri (1927-35) that Aalto defined the basic elements of an approach to which he would remain faithful for the rest of his life. The linguistic ingredients in the Sanatorium are those of European rigorism, but the rotation of the blocks, their oblique connections, and the eloquence of their entrances set up a surreal relationship between the abstract forms and nature. In the Library, conversely, Aalto staked all on a complex layout and an elaborate system of interlocking spaces. Unique is the lecture hall in which the wooden ceiling was made to undulate for acoustic reasons. It has much in common with his furniture in shaped plywood of 1929-30, as well as with the compositional experiments of the abstract wooden panels exhibited in London in 1933, which the critic of the *Times* defined as "nonobjective art." Thus the naturalism of Aalto took the path of an abstract organicism. Metaphor and allusion were taken up again as factors in the problem of architectural language. A new feeling for public image, an oscillation between a quest for atemporal significances and subtle psychological and sensorial suggestions—these became the central aspects of Aalto's work.

Concessions to intimist poetry, promptly corrected by severe geometrical control, were symptomatic in such works of his as the Villa Mairea, built in 1938-39 for the industrialist H. Gullichsen at Noormarku, and the housing development connected with the Sunila Cellulose Factory near Kotka, partly built in 1935-39, the rest in 1951-54. In the plan for Sunila and in his "experimental city" of 1941, Aalto attempted to give an urbanistic amplitude to his syntax in a manner indirectly inherited from the organic approach of Hugo Häring. His most significant work in the prewar years was the Finnish pavilion at the New York World's Fair of 1939. There he broke up, compressed, amplified the impersonal space he had to deal with by means of a grandiose wooden wall that not only curved but leaned forward, thereby giving rise to numerous dynamic vectors and to varied itineraries for the visitor on four different levels, so that the whole achieved an unsurpassed synthesis of hallucinatory multiplication of visual angles together with startling three-dimensional forms. A "narration" in the literal sense of the word was offered to the spectators, catching them up in an irresistible and uninhibiting play of forms very different from the propagandistic effects of the Futurama of Norman Bel Geddes and from the Constructivists' mechanical theaters.

Thus, for the "cruelty" of the avant-garde Aalto substituted a "cordiality" which was not without its own hermetic accents. It was only after World War II that the potentialities implicit in his return to the semantic dimension could measure themselves against the urban reality and so reveal their historical limits.

The Dream of the Phoenix: Italian Architecture and Fascism

"The Risorgimento," wrote Palmiro Togliatti in 1931, "was the advent of a bourgeois class that was economically weak, not homogeneous, disorganized internally... For that reason the Risorgimento had a stunted character, a reactionary stamp, was entirely lacking in the élan of other bourgeois revolutions... Therefore the tradition of the Risorgimento lives on in fascism and has been developed by it to the extreme. Mazzini, if he were alive now, would applaud the corporative doctrines and not repudiate the discourses of Mussolini about the function of Italy in the world. The antifascist revolution cannot be but a revolution against the Risorgimento, against its ideology, against its politics, against the solution it gave to the problem of the unity of the state and to all the problems of national life."

The radical judgment of Togliatti leaves no doubt as to the nature of the complex relationship established after World War I between bourgeois culture and the expectations that led to the fascist regime. The *Manifesto of the Futurist Party*, published by F. T. Marinetti in 1918, gives the measure of how much the ideologies of the Italian avant-garde culture entered into dialectic with the ferments that culminated in the fascist movement: far too often the cultural autonomy that intellectuals claimed as their right ended up by coinciding with a flanking support for the policy of Mussolini. The Irredentist appeals of the journal *Roma futurista*, the antiworker sublimation of a "fighting people," the preaching of the "national virtues" of the petty bourgeois masses — these were counterparts of the "call to order" and of the bewilderment in the face of the disaggregation of prewar society that the moderate groups, centered around reviews such as *La Ronda* or *Valori Plastici*, experienced. In the first years of the fascist regime, the Futurist appeals remained the expression of an urban culture alongside the extremist exaltation of the peasant in publications such as *Il Selvataggio*, which found a function all its own in extolling the provinces; this fascism felt obliged to do after the murder of the socialist deputy Giacomo Matteotti in 1924.

In that context, the figure of Benedetto Croce and his ambiguous antifascism tolerated by the authorities rounds out these summary traits of the culture of the 1920s. Croce was the rallying point for a considerable number of the non-Marxist opposition, and his work had an important influence on architectural thinking as well.

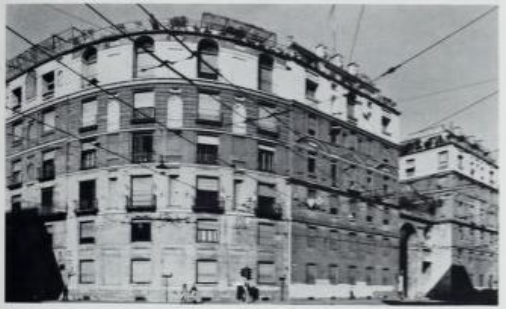
However, the efforts of Italian architects were very contradictory during the more than two decades of fascism. Because of this, it is as difficult to go beyond individual approaches and isolate the main lines as it is to pin down the complex and subtle link that existed between the diversity of formal approaches and the official cultural policy. While fascism, by means of a much reinforced state apparatus, took control of the social and economic transformations resulting from the industrial development and postwar reconversion, the concern of the intellectuals with urban matters never passed beyond the Pillars of Hercules of purely formal adherence or refusal of those processes. A typical product of the *separateness* of the self-styled cultured class, the architectural debate went on within its own autonomous domain.

Even the younger generation, the architects active after the mid-1920s, kept within those limits. These included the first graduates of the schools of architecture, which were created through a typical cultural compromise: the need to establish a new professional identity for the architect ended up in a banal shotgun wedding between fine arts schools and engineering faculties. Nonetheless, since the complex cultural policy of the regime was intended to safeguard its own character as "popular" and as the product of a mass movement by assuming a specifically *national* guise, a by no means marginal role was left for the younger architects—from Libera to Terragni, Figini, and Pollini—who were looking anxiously at what was being done by the masters of international rationalism. Culture, as a unified incarnation of that ideology, became the instrument which assigned precise roles to the different approaches: each "style" had its exact social referent, each way of working its own public and patronage. The regime, as State and Nation, was the exclusive agent in administering their synthesis.

By the mid-1920s a clientele had already taken shape that reflected the rigid social stratification of the country and conformed to what the fascist administrators expected of it. In the Milanese environment, the architecture of Gigiotti Zanini (1893-1962), Giovanni Muzio (b. 1893), or Giuseppe de Finetti expressed a moderate twentieth-century poetic akin to that of Massimo Bontempelli: abstract neoclassical dreams and memories with a metaphysical flavor were the signs of an unquiet bourgeoisie in search of a new quality within its own tradition.[1] But such high-bourgeois aspirations became superfluous when it came to purely functional tasks. In 1926-28 the engineer Matté-Trucco (1869-1934) built the Lingotto plant for FIAT in Turin. The track for testing automobiles on its roof and the uninhibited bareness of the structure won international attention and approval, and the work of Matté-Trucco was taken as the first sign of the industrial New Order being created by fascism.

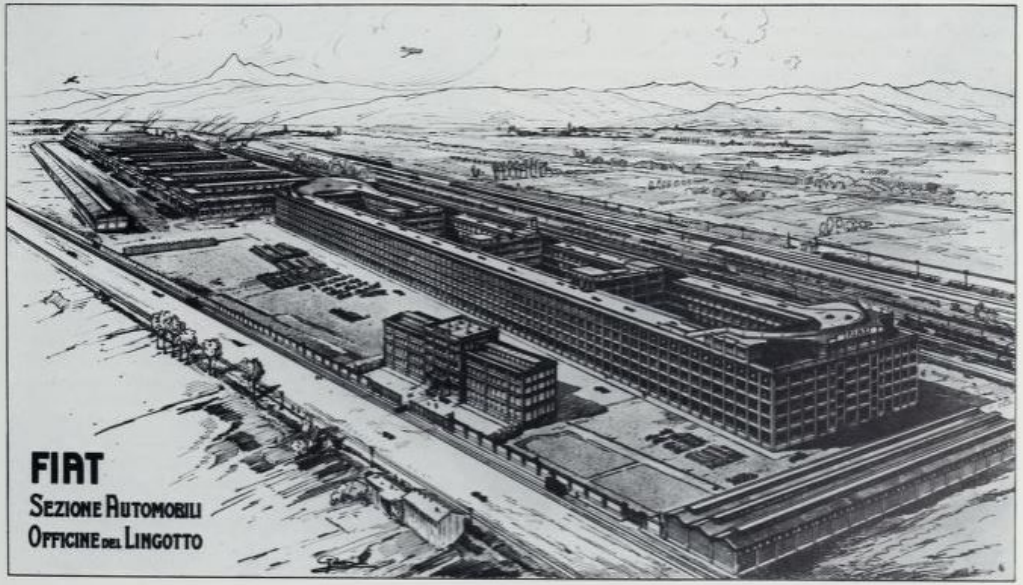
By 1925 the cardinal principles of Mussolini's policy were settled. Once fascism had solved its conflict with industrial capitalism, it strove more and more to identify itself with the state as such, rather than with its own political party. At the same time as the monopolistic tendencies of the capitalist development were becoming clearer, the criteria for a new organization of the national territory were also taking shape, thus laying the basis for what was claimed to be a logical completion of the Risorgimento. An even more unbalanced concentration of the population in cities, an even deeper gap between north and south, and the growth of abnormal tertiary centers such as Rome—these were the consequences

462. G. Muzio, P. Barelli, and V. Colonnese, Ca' Brutta, apartment house, Milan, 1919-23



463. Giacomo Matté-Trucco, Lingotto Automobile Factory, FIAT Works, Turin, 1926-28

464. Giacomo Matté-Trucco, rooftop testing track, Lingotto Automobile Factory, FIAT Works, Turin, 1926-28



465. Gino Levi Montalcini and Giuseppe Pagano, Festival and Fashion Pavilion, Turin Exposition, 1928

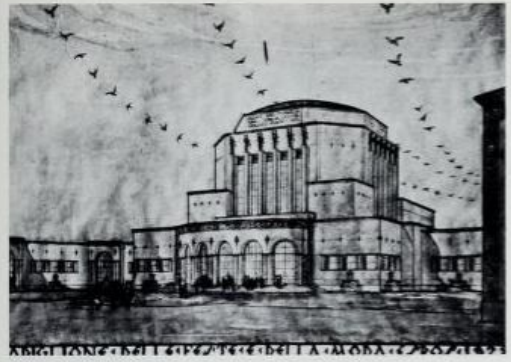
466. Brescia, historical center after remodeling by Marcello Piacentini, 1927-32

of unequivocal choices. For the time being, opportunities for architects were almost exclusively reserved for traditionalist professionals fully aligned with the state apparatus. The fascist authorities deployed skillfully between polemics and debates, giving priority to projects that would exalt the national destiny of their party and acting pragmatically in setting up a division of tasks among those that could be entrusted to the more modern architects and others to power structures run by academic or at least middle-ground architects. While the philosopher Giovanni Gentile was guiding the work of such a major undertaking as the *Enciclopedia Italiana* and, as part of his policy, opening its pages to all who wished to contribute to a "national work," in the architectural field Marcello Piacentini (1881-1960)—an architect who in the second decade of the century had made valid contributions within the idiom of the Viennese Secession and had had his part in progressive urbanistic projects (the plan for a crown of parks around Rome) — was preparing to do much the same, proposing himself as official mediator between the various architectural tendencies. His policy had notable success. It exploited a backward and fragmented professional structure for which the only sure points were the loopholes left by the most advanced representatives of fascism who, in order to avoid explosive dissensions, focused everything on the problem of an "art of the regime." It was a personage such as Julius Evola (b. 1898) who raised that problem with particular insistence in response to radically regressive demands.

The political turn after 1925 nevertheless brought with it an urbanistic policy designed to encourage the role of the building industry in countering cyclical oscillations in the economy, and this laid the basis for subsequent major transformations of the urban centers and for a vast commitment of the state to public works. The ends were dual: restructuring the historical centers by improving their functional aspects for speculative purposes, and developing suburban and rural residential settlements. In that context the public works programs responded to precise economic needs as well as fulfilling a demagogic propagandistic purpose. The policy was carried through by means of public competitions, and the results of certain of them were typical examples of a careful dosage, notably the one in 1933 for the Florence railroad station which went to the "rationalist" project submitted by a group headed by Giovanni Michelucci (b. 1891).[2] In that situation the advocates of a new architecture promoted a debate that remained well within the limits of discussion as to specific approaches and ways of working. In 1926 some of the best exponents of the renovative tendencies formed the Gruppo 7; two years later the Movimento Italiano per l'Architettura Razionale (MIAR) organized in Rome the first Italian exhibition of rational architecture;[3] in 1931, at their second Roman exhibition, the presentation of a huge photomontage, the *Panel of Horrors*, ridiculing old-fashioned architecture, along with the presence of Mussolini, encouraged its author, Pietro Maria Bardi (b. 1900), as well as Giuseppe Pagano (1896-1945), to hope for a definitive recognition of their own work as architectural expression of the fascist spirit. The journals directed by Raffaello Giolli, *Casabella* edited by Pagano and Edoardo Persico (1900-1936), and *Quadrante* edited by Bardi and Bontempelli supported modern art and architecture with thoroughgoing and wholehearted polemics against antiquated academic monumentalism. The results of such polemics were obvious. Beginning with the Milan Triennial of 1936, the architectural exhibitions were dominated by the younger architects. On the occasions when the regime wished to show itself modern and efficient, it gave particular consideration to the rationalist architects, putting them to work designing exposition pavilions, publicity stands, and art work for industries. Yet the Icarus Hall in the Aeronautical Exposition of 1934 in Milan showed the Italian avant-garde to be not too alien to an ideal of "new classicism," while in their Salon of Honor for the sixth Triennial in 1936, Persico, Nizzoli, and Palanti ended up with a metahistorical abstraction; their architecture tended to shut itself off in the incommunicable narration of its own aura. Despite debates within the ranks, the modern architects with the experimental works realized for the Triennial exhibitions and with the Florence railroad station, proved that they had assimilated the international language. But outside such exceptional occasions the results were much more ambiguous, and, in contact with more complex operations, the knotty problems of the attempts at compromise became painfully obvious.

In the competition of 1931 for the widening of Via Roma in Turin, Pagano, U. Cuzzi, Gino Levi Montalcini (b. 1902), Ottorino Aloisio (b. 1902), and Ettore Sottsass (b. 1907) relied on a tried-and-true Mendelsohnian approach to resolve an ambiguous urban problem, whereas in those for various post offices in Rome, where the winners included Mario Ridolfi (b. 1904), Adalberto Libera (1903-1963), and Giuseppe Samonà (b. 1898), there was less of the uniformity and single-mindedness that the proregime declarations would lead one to expect. Individuals began to rethink their approaches, and the construction of the University City in Rome in 1934 was a sign of things to come. A typical political operation, it was administered by Piacentini who invited exponents of the modern trends to collaborate. Located in a blocked-off urban complex whose disastrous effects for the entire urban zone are obvious and operative still today, a degree of unity was achieved thanks only to an efficient technical office. Pagano, aware of his own role in all this, nevertheless did not hesitate to declare that "this experiment, in my opinion, is worth a hundred polemics."[4] But it was rare that the more prestigious efforts got out of the hands of the bureaucratic party-line architects.

The competition in 1934 for the Palazzo del Littorio, on the Via dell'Impero in Rome, was the occasion for a determined confrontation between the various tendencies. Because reaction never lets the best

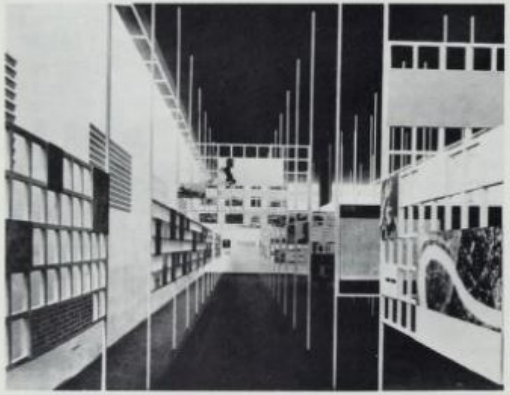


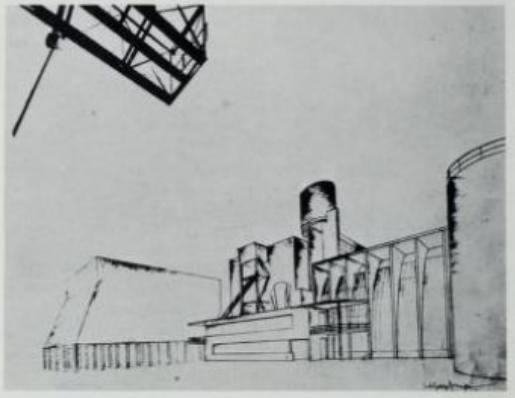
467. Giuseppe Pagano, Gino Levi Montalcini, and collaborators, competition project for the remodeling of Via Roma, Turin, 1931

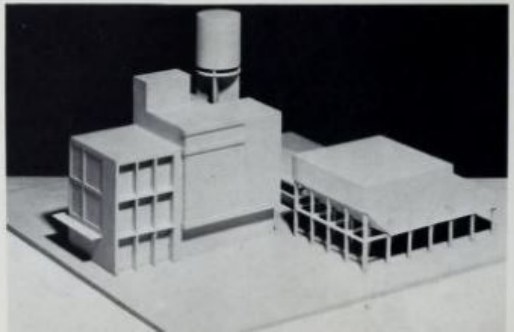
occasions get by, the winning project was that of E. Del Debbio, A. Foschini, and V. B. Morpurgo. Competing with it were projects of a diffuse modern professionalism, among them a well-controlled design by M. Ridolfi and the precious purism of a project by L. Figini, G. Pollini, and the BBPR Studio (G. L. Banfi, L. Belgioioso, E. Peressutti, E. N. Rogers). The most significant proposal came from G. Terragni, A. Carminati, P. Lingeri, L. Saliva, L. Vietti, M. Nizzoli, and M. Sironi. Here Giuseppe Terragni (1904-1943), the most masterly interpreter of Italian rationalism, found himself side by side with the painter Mario Sironi in working out three different solutions, the first two in 1934, the third in 1937. That third lacked the explosive force of the first two, but in the second the blocks were articulated on the basis of a slab and, organized geometrically, suggest a diverse kind of order expressed symbolically in the glass house. Here, in essence, we have a *new city* which, in its rationality and rejection of everything superfluous, reveals the conceptual value of a mystic essentiality composed of unreal atmospheres.

For Terragni, this was a step in an organic and original exploration. In his Casa del Fascio (party headquarters) of 1932-36 in Como, he manipulated the rationalist language in such a way as to reinterpret the typical form of the palace and make it the heart of a new type of urban structure. But the magical unrealism of the edifice also speaks of the underlying objective of its author, the aspiration to a "suspended tonality," to architecture as "dream of the reason." He had already experimented with such forms veined with ambiguous allusions in the Novocomum, an apartment building in Como (1927-28), and would again exploit their special character as images outside of and beyond time in the project of 1938 for the Danteum in Rome and for the Congress Building of 1938-39 at the E42 Exposition (now the EUR quarter in Rome). In these, architecture becomes pure abstraction; the evanescence of the volumes assumes the guise of a surreal play of transparencies. While Terragni, in the Sant'Elia Nursery School and the Giuliani Frigerio house in Como, was carrying to its highest level a creative effort akin to that of the abstract painting then current in the same city, a Structuralist School was making a place for itself which had in Pier Luigi Nervi (1891-1978) an exceptional master, as can be seen in the Communal Stadium of 1930-32 in Florence, in his designs of 1935, and there after in his airplane hangars for the Italian Air Force.

This diversified panorama was matched by the debates and publications fostered by the defenders of modern architecture. The single factor linking the varied points of view was the definition of a "national art." This constituted a common ground where proposals for renewal and reactionary tendencies could meet. In the rationalist position, the concern with preserving a bond with tradition while still achieving a renewal of forms became the occasion for reproposing Mediterranean







468. *Giovanni Michelucci and collaborators, Santa Maria Novella Railway Station, Florence, 1936*

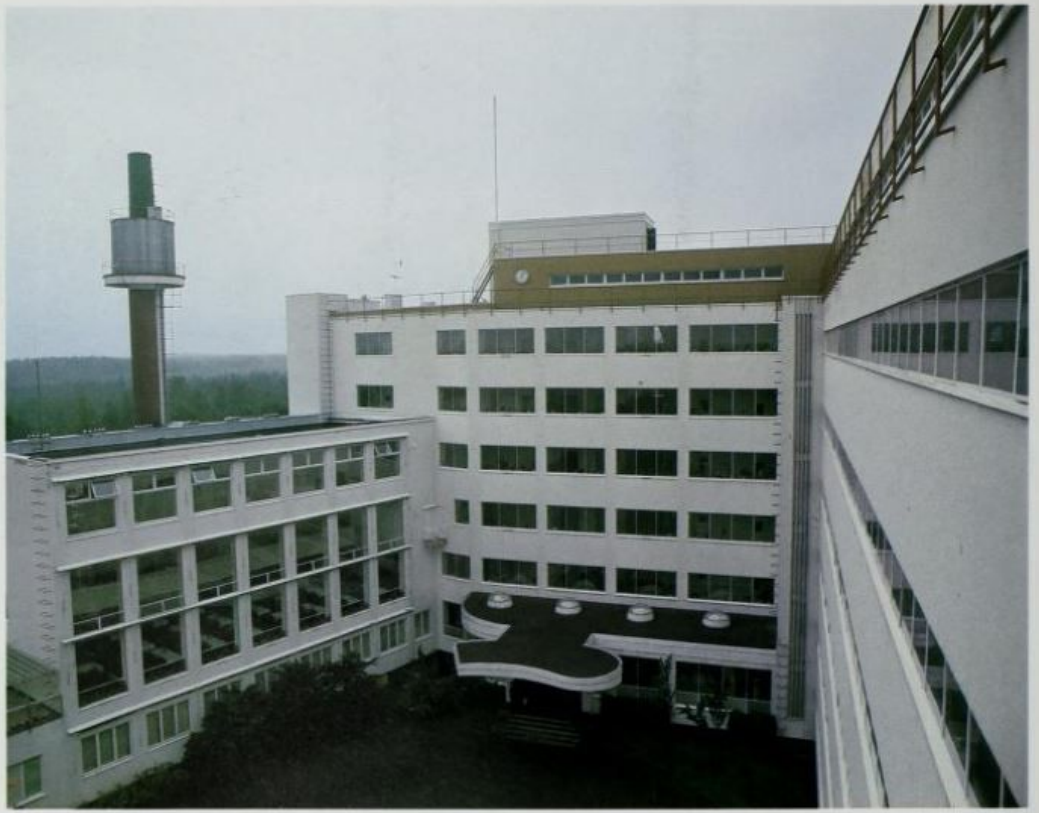
469. *Marcello Nizzoli and Edoardo Persico, Hall of the Gold Medals, nautical exhibition, Milan, 1934*

XXXI. *E. G. Asplund, Woodland Cemetery, crematorium, Stockholm, 1915*

470. *Giuseppe Terragni, "How the Blazing Words of Mussolini Appeal to the Italian People with the Force of Turbines and Convert Them to Fascism," photomontage mural, Exposition of the Fascist Revolution, Rome, 1932*

471, 472. *Giuseppe Terragni, drawing and model, project for a gas works, 1927*

XXXII. Alvar Aalto, Tuberculosis Sanatorium at Paimio, 1929-33



myths or the antirhetoric of purportedly spontaneous or peasant-style architecture. While Persico defended the internationalism of the new architecture, the writer Ugo Ojetti supported the extremism of the academic monumentalism, in polemic with the more clever and cautious Piacentini.

The most original positions were those of the group centered in the journal *Casabella*. Pagano, linked to the less reactionary components of the regime, interpreted the polemics in favor of modern architecture as a reaffirmation of the ideals that gave rise to the fascist movement, but the more significant arguments were those broached by Persico, who came from a very different cultural background. Collaborating with such journals as *Il Baretti* and *Rivoluzione Liberale*, Persico maintained a firm moral opposition to the cultural aspects of fascism and made use of the debate over architecture as an opportunity for criticism charged with political accents. In that respect, he was the spokesman for ideals going back to the cultural tradition of the Risorgimento, and his interest in what was going on abroad in architecture was the Product of his aspiration toward a moral and civil renewal for which there was no room in Italy. Interpreter of the Catholic and integralist core of the culture of the 1920s and 30s, he opposed fascism and envisaged its obsolescence in an ethical and technocratic future.

In that sense Persico can be compared with Adriano Olivetti, the most advanced exponent of the opposition promoted by certain capitalist fringes against the regime. Around his factories in Ivrea, Olivetti created a privileged island of culture. For Ivrea, Figini and Pollini built a neat and orderly residential quarter and the IVECO factory, beginning in 1934. Olivetti launched a veritable philosophy of the market image of his own products with the aim of conquering new commercial outlets. Good industrial design was made part of company policy and was given its first substantial letters of patent from the cultural world in 1935, when production began on the typewriter baptized,"Studio 42," designed by Figini, Pollini, and Xanti Schawinsky. In Olivetti's ideology, architecture and urban planning were understood as basic elements in a single project of rationalization that extended from the isolated object to the plan for an entire territory. Significant of the cultural level achieved is the fact that Nizzoli became a permanent collaborator of the Olivetti industries; first Renato Zveteremich and then the poet L. Sinisgalli directed the publicity sector, the latter producing for Olivetti in 1938 a book on the history of writing; and Elio Vittorini wrote the preface to another book Olivetti brought out in 1939, *Una campagna publicitaria*.

Influenced by American sociology, and associated with the literary circles that were then happily discovering American culture, Olivetti united religious motivations with a superficial humanitarian socialism in an ideology based on global planning that was not without its corporate implications. In 1936-37 he coordinated the work of the BBPR Studio, of

473. Giuseppe Terragni, Casa del Fascio, Como, 1932-36

Figini and Pollini, and of Piero Bottoni in a territorial plan for the Valle d'Aosta region; this fundamental experiment was not immune to the ideology of the corporative city which the BBPR Studio, together with Alati, Ciocca, and Mazzocchi, had already taken for its plan for the city of Pavia.

As in the case of Persico, the activities of Olivetti helped to weld the positions of antifascism to those of the postwar culture outside the intermediary of official Policy. His utopias, paternalism, and patriarchal socialism exerted a fascination over Italian postwar culture, which looked to "the island of Ivrea" as myth and goal. On the model of that "republic of letters and social peace" would be shaped one component of architectural thinking ready to lay down its arms before any power disposed to flatter it. If Persico is the symbol of the obstinate faith of the Catholic culture that, in the technocratic apparatus of fascism, was preparing its own return to the fore, Olivetti deserves credit for having launched an organic project for a "corporate state of culture," matrix of the third force of the architectural and town-planning intelligentsia after 1945.

Yet such experiences remained marginal to the fascist policy in urban

planning, and the very fact that they were imprinted with an organic corporative conception relegated them to the margins of official decisions.

Stabilization of the currency value, initiation of an autarchic policy, and creation of an entrepreneurial apparatus on the part of the state were the means that definitively equipped fascist policy to meet the demands of high finance capital. And they were directly reflected in the field of urban and land planning. At the close of the 1920s, the construction of new towns on reclaimed land in the Pontine marshes was an integral part of a project for major improvement of agricultural production to support the development of the backward mechanical and chemical sectors of the economy. The operation was entirely financed and administered by the Opera Nazionale Combattenti, the war veterans' association, which, for the planning of new settlements intended to accommodate from five to twelve thousand inhabitants, made use of its operative structures as well as of the system of competitions in which many of the architects of the youngest generation participated.[3] However, there was no lack of criticism of the administration of the entire operation, which soon showed itself incapable of a real battle against the great landowners. It was Piacentini himself who denounced the limitations in the structure of the program as a whole, demonstrating how it was not equipped to promote an integrated plan on the territorial level, but only to prop up terrain here and there with disconnected independent interventions.

What was done in the cities was the direct complement of that policy. The demolitions and modernizations of the historical centers were conceived to improve their functions and restore existing monuments; the advantages went to the reinforced financial sources supporting these outlying centers which were in a position to profit financially. The expulsion of large numbers of inhabitants from the improved centers was rationalized, so to speak, by a housing policy that created in the outlying districts a squalid panorama of impersonal, subproletarian suburbs and disorganized housing developments for workers. Those activities were carried through directly by the architects aligned with the official apparatus. Piacentini was responsible for the most disastrous modernizations of historical centers: Brescia was manhandled in 1928-32, Turin in 1938, Genoa in 1941-42, and all still bear the scars of his irresponsible surgery. Meanwhile, the more basic lacks were becoming dramatic: in 1931 there was a housing shortage of eleven million rooms. A spur to subsidized building was urgently needed. Alberto Calza Bini, at the head of the Istituti Autonomi per le Case Popolari (IACP), controlled a sector of operations that could mobilize considerable resources from private capital. In 1929 a model quarter called La Garbatella was created in Rome, in which Pietro Aschieri and Mario De Renzi carried over a populist tradition into new housing types and I. Sabbatini created interesting experimental hotel-type lodgings. All this was in line with the general directives that not long afterward were codified in a series of urban operations for the development of the "Capital of the Empire."

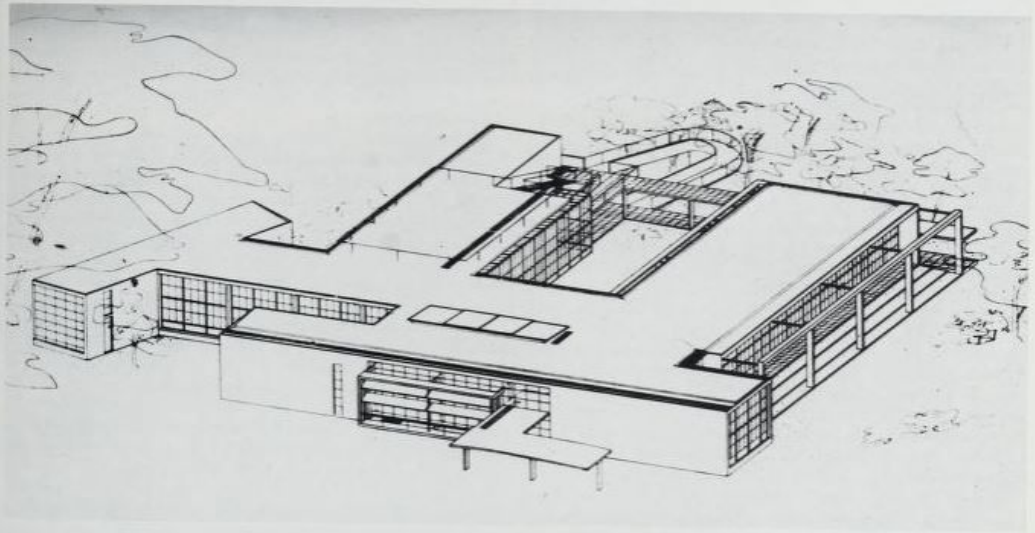
The new general plan for Rome was approved in 1931. Its approach—again due to Piacentini—faithfully reflected the lines of the urban policy of the regime: "monumental requalification of the center" meant opening huge gaps in the urban fabric to create heroically impressive perspectives, and this meant moving the poorer population to the city outskirts; Calza Bini put it succinctly when he announced that "we must seek to move to the periphery, and even beyond, all those who have no need to remain in the city." The capital was given back its vocation as conglomeration of imposing monuments despite objections on historical grounds by the prominent architect Gustavo Giovannoni. But what really mattered was that new possibilities for real estate speculation were opened up by means of the administrative mechanisms provided for in the overall city plan, specifically in its detailed subplans and the permissible variants. Aspiring to expand toward the hills and the sea, the New Rome was to crown the "Mediterranean Dream." The Garbatella quarter had been the first step in that direction; while proceeding sector by sector, behind it all was a unified plan.

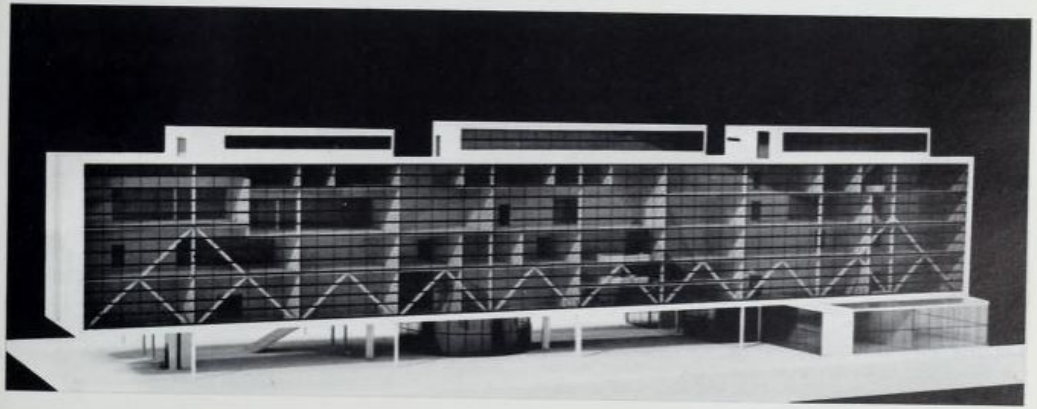
In 1928 Virgilio Testa proposed that a linear city be built between Rome and Ostia. Seven years later he headed the public corporate body charged with the construction of a world's fair, the E42, to celebrate the twentieth year of the fascist regime. From the outset, in 1935, when Giuseppe Bottai defined the characteristics of the exposition, it was thought of as a fundamental contribution to the expansion of the capital toward the sea. A commission including among others Pagano, L. Piccinato, L. Vietti, E. Rossi, and Piacentini was set up to lay out the plan, but their first proposal, in 1937, was judged inadequate, the commission was stripped of its authority, and the task fell to Piacentini himself. Once the phase of compromises was over, Piacentini could repeat an operation he had carried through successfully on other occasions. The important thing was to hold global control over the venture; details such as the designing of the various edifices could be taken care of by competitions. But the times had changed. Almost all the projects presented by the "modern" architects knuckled under to the fascist mania for the monumental.

The rarefied Neo-Classicism of the project by Fariello, Muratori, and Quaroni for the Congress Building, the noble but schematic play of volumes in the project for the Palace of Italian Civilization by Albini, Gardella, Palanti, and Romano, the hushed interior of that building designed by the BBPR Studio, the fixity and exaltation of the void in the Palace of Communications by De Renzi, Figini, and Pollini—remote as all these were from academic exercises, they can nonetheless be read only as signs of a defeat and declaration of impotence in the face of a task

474. Giuseppe Terragni, Sant'Elia Nursery School, Como, 1936-37

475. Giuseppe Terragni, Luigi Figini, Gino Pollini, and Pietro Lingeri, model, new seat of the Academy of the Brera, Milan, 1935-36





476. BBPR (Gian Luigi Banfi, Lodovico Barbiano di Belgioioso, Enrico Peressutti, Ernesto Rogers), Luigi Figini, and Gino Pollini, competition project for the Palazzo del Littorio, Rome, 1934

477. Gian Luigi Banfi, Enrico Peressutti, and Ernesto Rogers, plan for Aosta, 1936

478. Pier Luigi Nervi, airplane hangar, Orbetello, 1940

entirely devoid of any serious overall significance. After having praised Piacentini for the plan of 1937, Pagano was to blame him for that defeat, speaking of "exaltation of the lie out of love for tradition and appearances." In reality, the modern architects found themselves at a loss precisely because of the character of the initiative itself, the first real attempt to codify a comprehensive fascist undertaking. Their projects seem to have renounced all criticism in the face of the rigidity and precision of the program. Further polemic was useless, could at best be only the occasion to assert one's moral probity.

It was under this sign, too, that the last battles of the rationalist architects were waged. Pagano and *Casabella* proposed themes of populist character, while it is only as "testimony" that one can regard the rigorous rationalism of the project of 1938 for a "Green Milan" by Albini, Gardella, Minoletti, Pagano, Palanti, Predaval, and Romano; the Viale Argonne quarter in Milan, projected in 1936 by Albini, Camus, and Palanti; or the masterwork of Ignazio Gardella, his Anti-Tuberculosis Dispensary of 1936-38 in Alessandria. Yet the last acts of the fascist policy were not without originality. Already at the first Congress of City Planning, held in Rome in 1937, the discussion went well beyond mere questions of superstructures. At the close of the 1930s Piacentini launched a last attack on the radicalism of the "new architecture." He did not contest the formal divisions nor even the media as he had attempted to do in a small volume titled *Architettura d'oggi*, published in 1930; he simply took them for granted, maintaining the necessity of allotting specific tasks to the various tendencies in a varied program of building control. To the academics he reserved the architecture of official propaganda, but advised leaving leeway for populist tendencies in subsidized housing projects, recognizing at the same time the legitimacy of the functionalist approach. The arguments of the avant-garde architects were stripped of their last weapon: fascist architecture, he proclaimed, could not be the prerogative of any "tendency."

In that process it is not difficult to detect an echo of the theses maintained by the review *Primato*, put out by Bottai. It is no coincidence, therefore, that it was precisely within the groups revolving around Bottai that the debate over the new urbanistic law arose. The law had had its first difficult beginnings in the City Planning Congress of 1937 and was not passed until 1942. In 1941 Bottai, who had been thinking about such a law since 1933, had insisted that "the problem of architecture goes beyond a polemic over form, however reasonable that might be: it leads directly to that moral and mental conviction of architecture which is city planning." Introduced by the minister Gorla with the words, "it cannot frighten honest men but only those who, through the right to property, wish to defend speculation," the law laid down innovative norms for planning, and fixed the means of carrying out territorial, intercommunity, and city plans along with building programs. Obliging the cities to draw up a general regulative plan, the law recognized the value of decentralizing policy decisions and, in Article 18 concerning expropriation, assigned to the municipalities effective powers for controlling the land market—though unfortunately the law was expressing no more than an ideal tendency: between 1942 and 1973 Article 18 was applied in a total of two cases.

Implicit in the law was the idea that urban planning should be in the hands of specialists, this being in line with the whole notion of architectural production as advocated by Piacentini. Not turning a deaf ear to the cultural and moral tension inspiring Pagano, the journal *Primato* brought its ethic down to a political level; only later would architects, too, discover the need to transform their personal moral opposition into direct political action.

Thus Italian vanguard architecture concluded its course in an atmosphere of palingenetic renewal. The fascist Pagano, gone over to the ranks of the resisters after having endured the persecution of the torturers of the Italian republic proclaimed in September 1943, died along with Banfi in Mauthausen: Italian architecture was paying off its debts if not to history, at least to morality. Not that this meant closing its accounts with the myths and ideologies fostered in the ambiguous breathing space the regime conceded to culture between ineffective malcontent and the suspension of reason. Forms that have been only partially changed for new ones have continued to be part of Italian history even among those who came to maturity after 1945. But during the war, fortunately, it was another culture that fought for the liberation, a culture that in exile and prison had no doubts about the nature of fascism, that had programmatically refused all compromise, and that had treasured the words of Togliatti which opened this chapter.

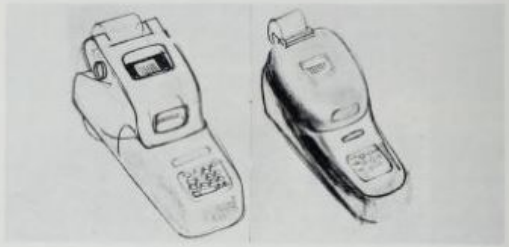
Architecture and Land Policy in Nazi Germany

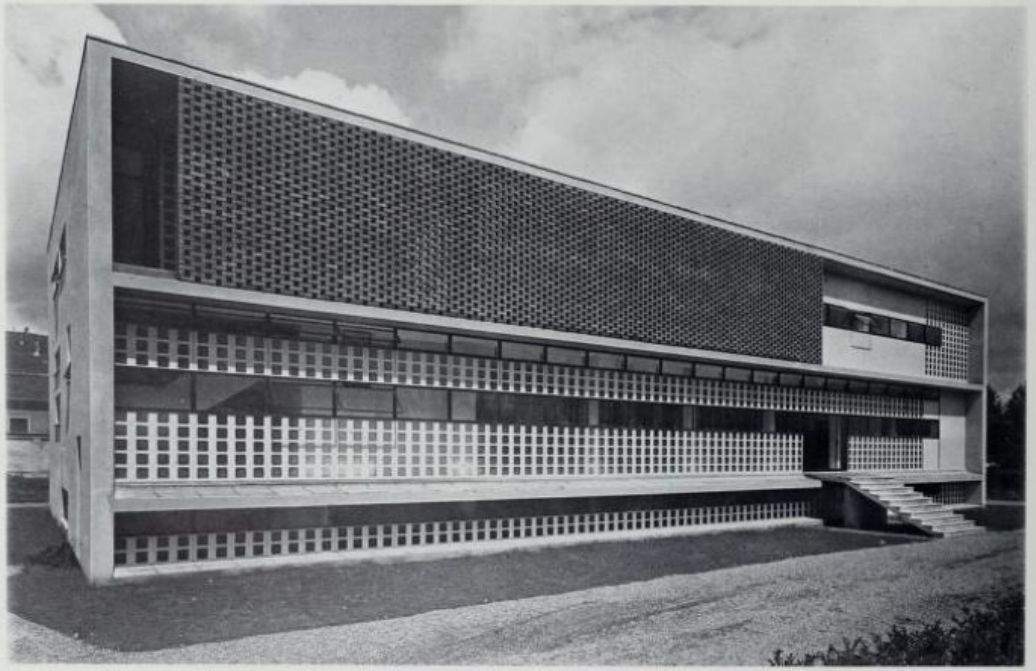
The Nazi policy of *Gleichschaltung* (coordination) as applied to architecture rounded out a process already clear in the mid-1920s: the Hitler regime was simply carrying through the dissolution of the intellectual world and the institutions begun in the fragile Weimar Republic. We have seen that the exponents of the Werkbund and the leaders of the avant-garde movements played a determinant role in the major urbanistic ventures of the 1920s, and after 1925 expressions such as *Zweckmässigkeit* and *Neue Sachlichkeit* (Functionalism and New Objectivity) were constants in a very energetic cultural debate. In the late twenties the innovative architects had means of pressure and their own organization. From 1925 on, *Die Form* propagandized their efforts; in 1926 Gropius became president of the Bund Deutscher Architekten. But when modern architecture reached the peak of its own parabola, it came up against the harshest resistance yet. Paul Schultze-Naumburg, together with Paul Schmitthenner and German Bestelmeyer, founded an association called

479. *Luciano Baldessari, Italcima Industrial Complex, Milan, 1933-36*

480. *Marcello Nizzoli, designs for the Summa 40 adding machine, 1940*

481. *Ignazio Gardella, Antituberculosis Dispensary, Alessandria, 1936-38*





482. *Adalberto Libera, competition project for an urbanistic plan for the new town of Aprilia, 1936*

Der Block and made themselves spokesmen for the most typical traits of the *völkisch* ideology, an ambiguous brew of populism and nationalism. In 1928, in his *Krisis der Architektur*, the Swiss architect Alexander von Senger (1880-1968) fixed the terms of the nationalist attack on *Kulturbolschewismus*. Taking as his base an analysis of the work of Le Corbusier, and with a paroxysmal attack on modern art in the name of a Christianizing humanism, he embraced a confused racial ideology interwoven with a reactionary anticapitalism. The exponents of nationalistic reaction agreed with him. Konrad Nonn, Emil Högg, and Bettina Feistel-Rohmeder dutifully mouthed the not very original formulas taken over from Von Senger: modern architecture is an attack on the unity of the German nation in that it counterposes orientalizing elements to the ancient Nordic character—an argument exploited by Schultze-Naumburg against the adoption of the flat roof. Moreover, the technological emphasis of contemporary art was viewed as negating the indigenous qualities of "folk work." Industrialization in the building sector was accused of being responsible for not only unemployment, but also the extinction of qualified forms of artisan labor. Thus racialism and anticapitalism were made bedfellows and prepared the way for a confused, vague, pseudoromantic, antiurban ideology.

That squalid panorama turned up again unchanged in the Nazi writings. As late as 1938 Werner Rittich could still begin his *Architektur und Bauplastik der Gegenwart* with an invective against "Cubist architecture" as vehicle of the "degenerations of profit" opposed to the "spirit of the People." The formal models from which that sort of thinking took its inspiration could not be more obvious: the monument by W. and K. Krüger commemorating the Battle of Tannenberg—the site of the state funeral in 1934 where both Hindenburg and the Republic were buried—became the prototype of the vast open spaces favored by the Nazis for their mass manifestations.[5]

The sources of the *völkisch* ideas are tangled and difficult to separate. In general, the most violent attacks on radical architecture before 1933 came from circles still caught up in the thought of Spengler, the anti-Semitism of Adolf Bartels, and the conceptions of C. Schmitt (the future theorist of national socialist law) all of whom exalted the historical mission of Germany, in accord with the vision of Arthur Möller van den Bruck, as the ultimate bastion of Western civilization. At the congress of the Deutschnationale Volkspartei, in 1928, there was extremely harsh criticism of radical architecture and the social democratic administration of town planning. By then the Bauhaus had become the symbol of *Kulturbolschewismus*. Compared with such positions, the Nationalsozialistische Deutsche Arbeiterpartei (Nazi) and the cultural organizations associated with it took a more subdued attitude. In 1928 Alfred Rosenberg, editor of the *Völkischer Beobachter*, founded the Kampfbund für Deutsche Kunst (the Militant League for German Art) with the aim of unifying all the local right-wing associations in an organization controlled by the party. While the organ of the Kampfbund, the *Deutsche Kultur-Wacht*, was conducting an all-out battle against modern art, the *Völkischer Beobachter* as late as 1929 was still aligned with positions open to radical architecture.

The subsequent change in attitude was a consequence of the new political position of the NSDAP, but nonetheless did not go uncontested within the Nazi ranks. On the eve of their conquest of power it became clear, as regards their ideology and program, just how much weight the theories of Walther Darré and Gottfried Feder carried; the latter was the only writer whose influence Hitler acknowledged in *Mein Kampf*. In the racist formula of *Blut und Boden (Blood and Soil)*, Feder's corporative

483. *Aerial view of the new town of Sabaudia*

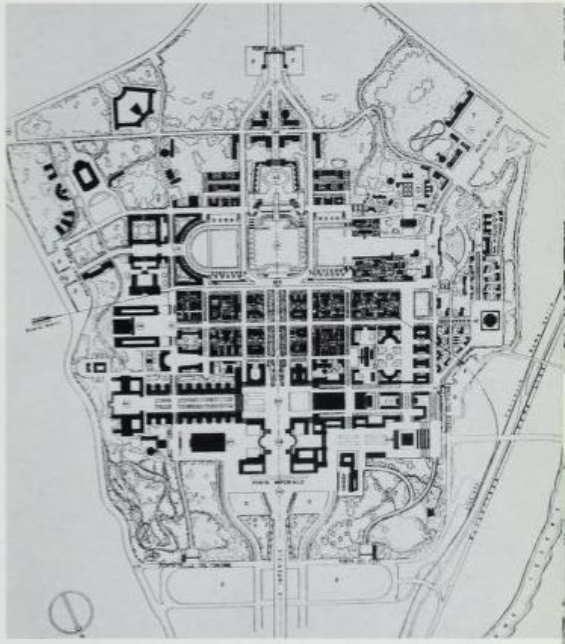
484. *Marcello Piacentini and collaborators, general plan of the E42 Exposition, Rome, 1937-42 (from Architettura, 1938)*

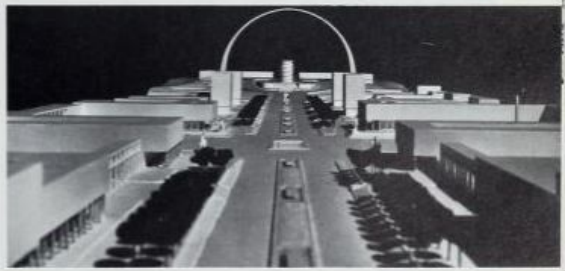
485. *Model of the E42 Exposition, Rome, with monumental arch by Adalberto Libera, 1937-42*

conceptions became reconciled with Darré's medievalizing exaltation of the peasantry's superiority. A raving antiurbanism now was flanked by no less delirious economic and social programs: the basis for the Nazi attacks on contemporary art and architecture was now perfectly clear.

Ever since 1928 the *Völkischer Beobachter* had been publishing a column whose title was an obvious homage to the nationalist divagations: "News from the Asphalt Deserts." In the anathema hurled at the *Grossstadt*, described in racist terms as a "machine for sterility," nationalist anticapitalism went hand in glove with national socialist revanche. That attitude was not substantially contradicted in the debate within the NSDAP at the start of the 1930s concerning the cultural policies to be pursued. These policies were promptly put into effect when Wilhelm Frick became Minister of the Interior and of Education in the government of Thuringia in 1930. For the first time, through Frick, the ideas of Rosenberg were translated into the political plane. The Ordinance against Negro Culture was promulgated; the "racially inferior" works of artists such as Wassily Kandinsky, Paul Klee, Oskar Schlemmer, and Ernst Barlach were removed from the Weimar gallery; Otto Bartning was replaced as head of the Staatlichen Bauhochschule (the architectural institute) by Schultze-Naumburg, who had become a follower of Darré. The theses of Darré had a crashing success: together with Frick and Rosenberg he dominated the Kampfbund Congress of 1930 that sanctioned the birth of the Kampfbund Deutscher Architekten und Ingenieure (KDAI) to which the exponents of the *völkisch* approach gave their adherence and in which men like Fritz Höger, Fritz Schumacher, and Theodor Fischer collaborated. It was quite without trauma that certain masters of late romantic and Expressionist architecture passed into the ranks of the new regime. The ambiguity of certain basic theses in the debate over the modern movement became dramatically obvious.

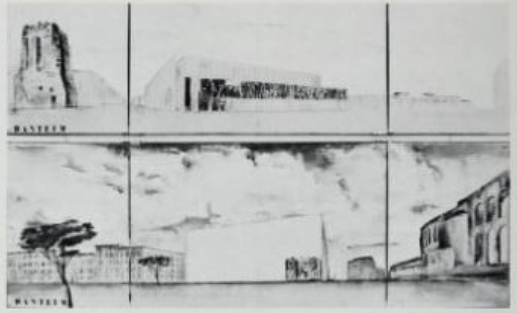
With the programmatic declarations of the KDAI faithfully translating the positions of Darré into architectural terms, the NSDAP proceeded to attack radical architecture: the Bauhaus, *Der Ring*, and the Reichsforschungsgesellschaft were repeatedly denigrated in the party press, although not without some nuances depending on the particular publication. The theses of Rosenberg, who aimed to make the Kampfbund the means of controlling all artistic and cultural expression, were opposed by Paul Joseph Goebbels, whose more open attitude toward contemporary art was consistent with his corporative views and his political formation in the national socialist left wing in contact with Gregor Strasser. Thus the cultural aspirations of the party, but also the hopes of the last exponents of the vanguard, centered on Goebbels. When O. A. Schreiber of the League of National Socialist Students, in open polemic with Rosenberg, organized an exhibition of "degenerate artists" at the Möller Gallery in Berlin, in 1933, there came to be less and less possibility for debate within the party. No sooner Hitler took power in



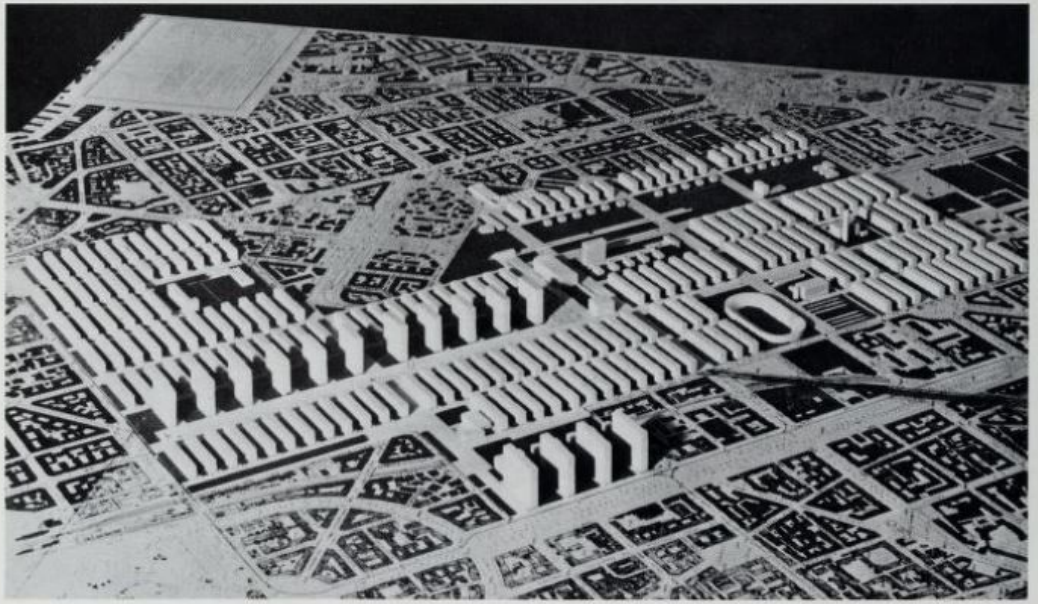


486. *Adalberto Libera, proposal for the central plaza, competition project for Aprilia, 1936*

487. *Giuseppe Terragni and Pietro Lingeri, project for the Danteum in Rome, 1938*



488. *Franco Albini, Ignazio Gardella, Giulio Minoletti, Giuseppe Palanti, Gianjacomo Predaval, and Giovanni Romano, model, "Green Milan" plan for the Sempione zone, Milan, 1938*

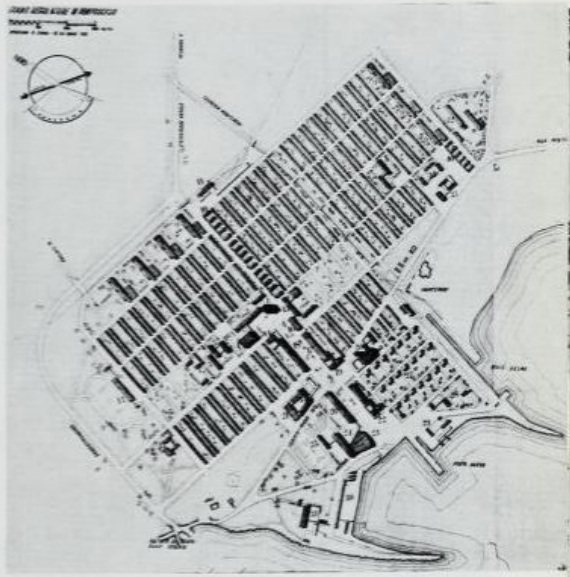


July, 1933, than he put an end to the expectations of the "revolutionary" wing of the NSDAP by proclaiming the end of the national socialist revolution and by preparing a complex series of "adjustments" to be made within the military and economic establishments. In the cultural field this meant the start of a process of "normalization." In 1932 the call to close down the Dessau Bauhaus had been one of the planks of the NSDAP and DNVP in the elections in Anhalt. After discharging Kandinsky and Hilberseimer, the school, headed at the time by Mies van der Rohe, closed its doors in Berlin on August 10, 1933. Before the end of the year the aggression went all the way: Martin Wagner was expelled from the board of directors of the Werkbund, and Gropius, Hilberseimer, and Poelzig were replaced by Karl Lörcher, Winfried Wendland, and Paul Schmitthenner.

In the course of a few months the Bund Deutscher Architekten and the Werkbund were absorbed into the Kampfbund. The *Gleichschaltung* was a death blow to radical architecture, wiping out the economic structures and institutional apparatus that had favored its growth. The Prussian Academy of Arts was dissolved; Heinrich and Thomas Mann, Käthe Kollwitz, Alfred Döblin, and countless others were barred from public activity; Schmitthenner took the place of Poelzig as director of the State Schools for Architecture, Painting, and Applied Arts in Berlin; Scharoun, Rading, and Schlemmer were forced out of the Breslau Kunstakademie. The men responsible for the urbanistic policy of the 1920s were removed: Martin Elsaesser, who had been assistant to May, was dismissed by the municipality of Frankfurt, and W. C. Behrendt was dealt with in the same way by the Prussian administration. Meanwhile, the GEHAG had been incorporated into the Arbeitsfront. In a situation in which the rectors and professors of the universities were inciting the students to burn all banned books, the ambiguous position of Goebbels kept a shred of hope alive in some quarters. *Die neue Stadt* appealed directly to him, while Luckhardt, Gropius, and Wagner attempted to win support from certain exponents of the Kampfbund. Those appeals were the last acts in a far from glorious surrender: confronted with Nazi barbarism, radical culture wrote its own tragic page.

The role that Goebbels assumed had precise political motivations. His disagreement with Rosenberg and the Kampfbund was in the name of a positive cultural organization as against mere regression to a *völkisch* art. In November 1933, as Minister of Propaganda, he created the Reichskulturkammer. Backed formally by a board whose members included, among others, the conductor Wilhelm Furtwängler, the Reichskulturkammer was the apex of a corporative hierarchy taking in every branch of intellectual activity. It worked in direct contact with such an action-oriented body as the Arbeitsfront, which soon absorbed the Kampfbund, and the awarding of state commissions was regulated and organized through the interlocking action of those two bodies. The activation of such an

489. *Giuseppe Pagano, plan for Portoscuso, 1940*



apparatus necessarily implied a reduction in the influence and importance of the nationalistic cultural organizations, and, in fact, after 1934 the fortunes of individuals such as Schultze-Naumburg declined decisively. Thus no particular fanfares greeted Schmitthenner's and Bonatz's ambitious project of building a new model housing unit that would be in tune with the political climate.

Quite aside from the nonsense about exalting the work of the craftsmen and the people, the building industry reflected the general orientation of the national socialist economic policy which was designed to satisfy the exigencies of the large concerns and finance capitalists who had favored the rise of Hitler. Control of commissions —in 1936 the public bodies promoted 67.5 percent of all construction, in 1938 80 percent—was the chief means of an economic program that aimed to stabilize the labor market by expanding employment in the building field and utilizing public funds to sustain the demand. Typical of that policy

490. *Paul Schmitthenner, houses in the Kochenhof Siedlung, Stuttgart, 1933*

491. *The German highway network in 1936*

were the superhighways and housing developments. As early as 1933 the Reichsautobahnen authority was set up to coordinate the building of superhighways on a national scale. Three years later Fritz Todt, regional head of the KDAI, became its director and achieved notable results both quantitatively and qualitatively. By the start of the war the Autobahn network comprised some 4,000 kilometers (2,485 miles) of roadway and represented one of the pivotal instruments of territorial planning in the Reich. It became the symbol of national unification, preluded the launching of mass automobile ownership, and in certain respects even implemented the ideology of the "return to the soil." The highways were conceived with a genuine concern for the landscape, and although architects such as Bonatz designed the main engineering structures, the roads were planned, in accord with the *völkisch* notions, as a link between technology and nature.

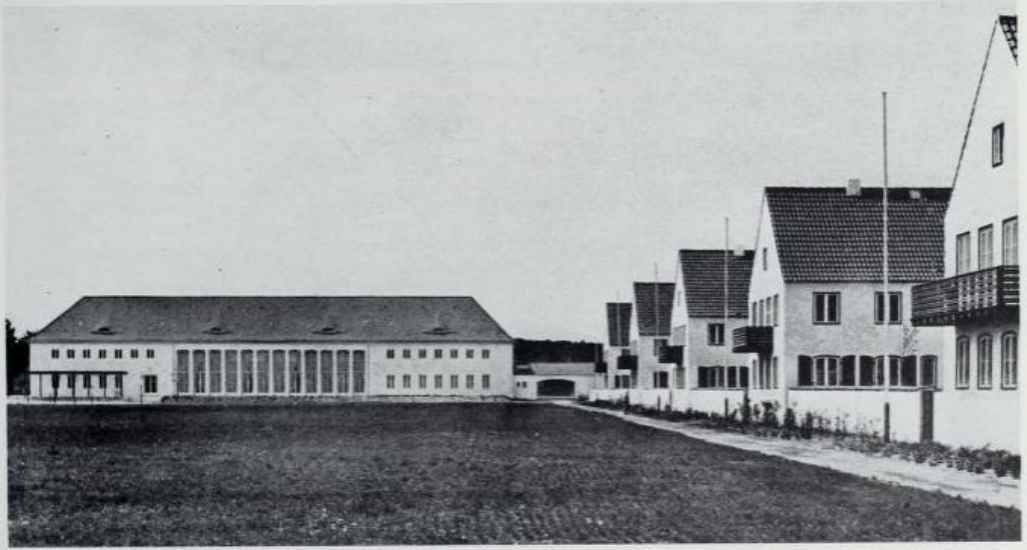
With housing, however, the Nazi policy was contradictory. As the authority of Strasser and Feder declined and Hjalmar Schacht came to swing increasing weight, the housing policy was substantially altered. The system of public subsidies was abolished and private enterprise largely took over, encouraged by the reduction of interest rates and a system of guarantees by the Reich itself, so that by 1937 public financing of housing had dropped to around 10 percent of the total production. In that same year, however, there was an estimated shortage of something like two million homes. Nevertheless, there was a steady increase in new housing until the country went over to a war economy. All this was part of a policy that aimed to make its major programs part of an incentive to relieve overcrowding in the cities by encouraging a return to the land. If the urban projects made use of models worked out before 1933 with only minor changes in form, more significant were the *Kleinsiedlungen* and the workers' colonies of the Arbeitsfront; these were characterized by an antiurban conception whose political aspect was clearly stated by J. W. Ludovici, Hitler's collaborator on housing problems: "We must smooth the way for the return to the German soil not only of the farmer, but also of the worker." The *Kleinsiedlungen* aimed to reduce unemployment and to bring about a land redistribution of the labor force as part of a policy that, in preparing the economic bases for war, had welded together autarchic organization and racial ideology as motives for an imperialist expansion.

The ideas of Darré served as basis for an urbanistic policy whose fulcrum was the restructuring of the "asphalt infernos." However, this did not prevent the Arbeitsfront from re-examining, after 1938, the most advanced experiments in radical architecture of the 1920s as models for the building sector. There is nothing surprising in this. Even for official projects after 1933, designs were chosen that ranged from mediocre populism to a fully functionalist idiom. The workers' settlements might have to conform in style to the dictates of antiurban propaganda, but industrial buildings, or those for the Luftwaffe, were constructed

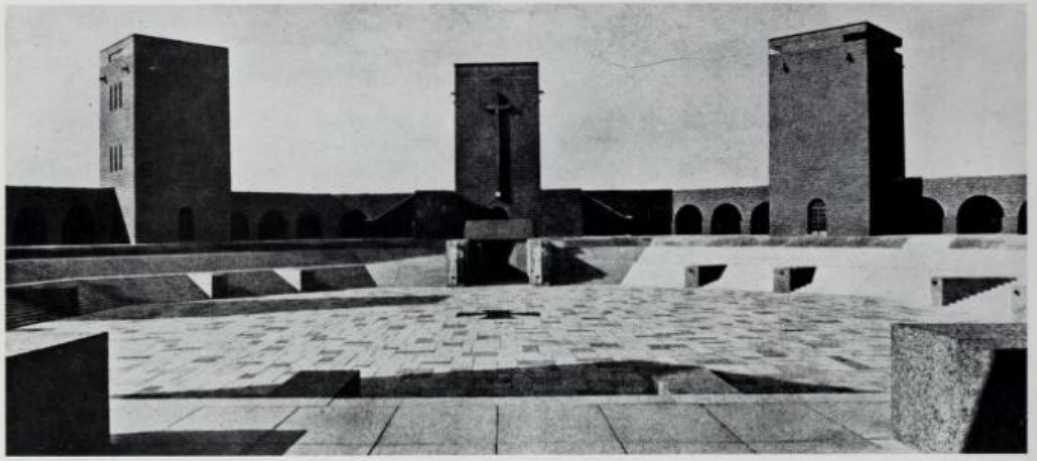
492. *Peter Koller, Volkswagen Factory, in Westphalia, begun 1938*

493. *Fritz Schupp and Martin Kremmer, Kohlenbergwerk, Essen-Katernberg, 1928-32*

494. *Herbert Rimpl, workers' housing project for the Heinkel-Werke, Oranienburg, 1936-38*



495. *W. and K. Krüger, Reichsehrenmal, Tannenberg, 1927*



496. *Wilhelm Kreis, Adolf Hitler-Platz, Dresden 1942*

according to functional and thoroughly modern methods.' This was typical even of architecture directly influenced by party directives. The schools of the movement, such as the Adolf-Hitler Schule in Hessenberg by Julius Schulte-Frohlinde, were conceived as symbols of the New Order. The Ordensburgen Vogelsang schools by C. Klotz in the Eifel and at Crössinsee, and the one in Sonthofen im Allgau by H. Giesler (designer also of the NSDAP Hohe Schule), became models for buildings housing the communitarian institutions of the Reich: the problem was to pin down a " spiritual attitude" even before a "style."

Environmental and scenic requisites, typological solutions, and formal expedients drawn from local traditions echoed values and ideals that, it was thought, certain codified models could be trusted to convey. The hostels of the Hitler Youth Movement and the Ordensburgen (training schools for political leaders) were intended to represent the social essence of the regime and were therefore the buildings most influenced by the *völkisch* tradition that national socialist architecture aspired to mold in a kind of pure synthesis. Proposing itself as expression of ideal purity, transcending itself as a historically determined product in the synthetic *representation* without the mediation of pure values, architecture rose to the high status of *art of the regime*.

In 1941 Wilhelm Kreis was entrusted with constructing all the war cemeteries. He devised a type of *Ehrenmal* (memorial) that beyond and outside of time sublimated the value of the race and the perennial necessity of war, carrying to its extreme consequences the symbolic petrification of ideals as aimed at in the overwhelming scenographic atmosphere of the Ordensburgen and the huge open-air theaters for mass demonstrations. The monuments, like the *Kleinsiedlungen*, were intended as concrete alternatives to the "machine for sterility."

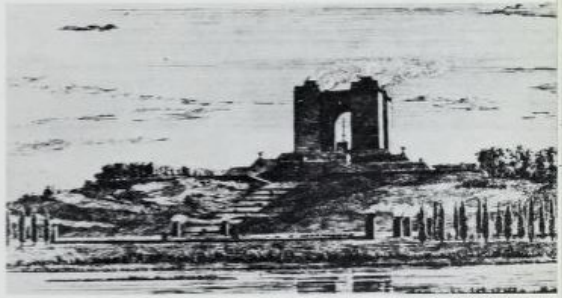
But in the great urban centers, likewise, there were urbanistic interventions that aimed to cancel out their native character. While the first Exposition of German Architecture in 1938 could still be a forum for debates over "style," the *Gleichschaltung* had already laid the basis for an urbanistic policy that assaulted the cities and took the definitive step toward reducing architecture to pure expression of the regime.

The redesigning of the Königsplatz in Munich was carried out by Paul Ludwig Troost (1878-1934) and completed by Gerdi Troost and Leonard Gaal in 1937. It anticipated the characteristics of national socialist monumental city planning. The square was reduced to a geometrical relationship between "scenery wings" and "spaces." To the urban space as "void" was counterposed the monument as compact mass, thereby prefiguring the ideal structure of the Nazi city. With the Zeppelinfeld des Reichsparteitagsgeländes in Nuremberg, that program became explicit: the sole purpose of its structures was the representation of the power and life of the party as *absolute synthesis*.

In taking on the task of communicating that representation in visual

497. *Wilhelm Kreis, proposal for a Monument to the Fallen in Russia, c. 1943*

498. *Wilhelm Kreis, proposal for a Monument to the Fallen of the Armored Divisions in Africa, c. 1943*



form, architecture was set above history, existing in the timelessness of the power making use of it. The designer of the Zeppelinfeld was the man in charge of the Schönheit der Arbeit (Beauty of Work) section of the Arbeitsfront, Albert Speer (b. 1905), a mediocre assistant of Tessenow who, by designing the scenography of the mass demonstrations of the Parteitag and the Erntedankfest, had won the attention that finally carried him to the highest posts of Nazi power. From 1935 on, Speer was in full charge of the construction of the immense ensemble for mass

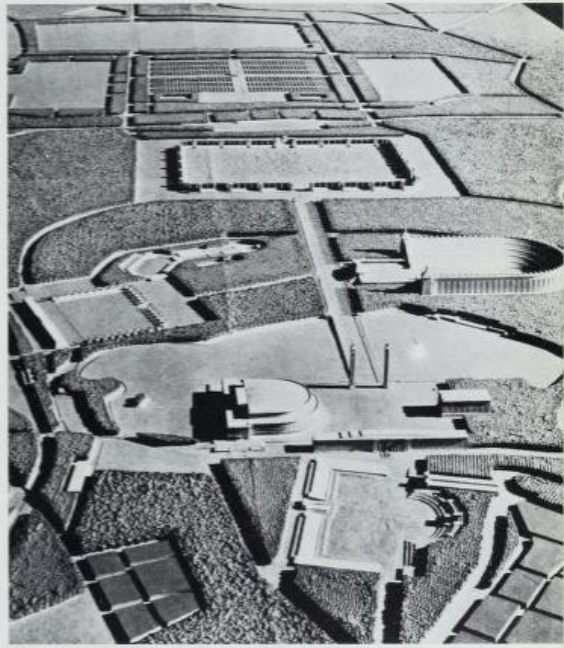
499. Ernst Sagebiel, Tempelhof Airport, Berlin, c. 1936
500. Albert Speer, plan for the restructuring of Berlin, begun 1937 (from Architettura, 1939)

501. Albert Speer, Reichsparteitagsgelände, Nuremberg, begun 1934

manifestations in Nuremberg. Before going on to organize the work of the concentration camp prisoners in the war industries, he was the official architect of the regime. The Zeppelinfeld was laid out as a succession of sites made to accommodate specific moments of a ritual, with an architecture that lived only in relation to the life the party would instill in it. In the stadium, the drill ground, the avenue for the parades, and the Congress Building by L. and F. Ruff, architecture lost its reality to become something on a par with the spectacular lighting effects dreamed up by Speer for the Parteitag—no more than an instrument of propaganda and mass suggestion. To an extent this is the same spirit found in the Sports Center, built in Berlin between 1930 and 1936 by Werner March, in which the Olympic Games celebrated the racial millenarianism of the New Order.

In the later 1930s it was even proposed that the major cities be transformed on the basis of such models. Giesler in Hamburg, Roderich Fick in Linz, and Speer in Berlin were responsible for creating the new face of the Nazi city. In 1936 Speer began work on his plan for Berlin in direct contact with Hitler. The schema adopted was articulated on two major axes, north-south and east-west, and the monumental center was to be drastically thinned out and all signs of the past replaced with new ones. Hitler was fascinated by vast empty spaces, and what concerned him most was the definition of the great avenue, the north-south axis. As conceived by Speer, the vast void made it possible to grasp simultaneously all the monumental landmarks. The immense dome of the auditorium for mass meetings was to constitute the culmination of a prospect stretching out from the new railroad station at the south and punctuated by a colossal triumphal arch and by the official buildings lining it on either side like stage flats.[6] The monuments, perceived as a unified whole, were to have the function of cancelling out the separateness; as in the Königsplatz of Troost in Munich, there would be no dialectic between void and monument. Time itself was excluded from such perfect completeness. The Nazi antimetropolis was to transcend history, annul history and all dialectic. The city as historical organism was to be negated: architecture would create events entirely without any distinction of their own into which only an abstract and superior idea of Order would infuse value. Much more than the suburban *Siedlungen* of the Arbeitsfront, the plan of Speer expressed the antiurbanism of the *völkisch* ideology and of Darré, conceiving the city as a single and total ahistorical monument: the emptying-out of the metropolises corresponded to the creation of a mute universe where the symbols of power would be the only accents. The ritual envisaged for the Zeppelinfeld was to take the place of the normal flow of life in the great avenue leading to it.

The Nazi anticity was conceived to make the people conscious of their specific mission as instrument of a higher will. As Hitler explained



to the workers engaged on the huge Nuremberg project: "Why always the greatest? Because I wish to restore to every German the awareness of self."

All Nazi architecture was dominated by the concept of transcendence. Every construction had to surpass other constructions built by other peoples and in other epochs. For Hitler, grandeur was outside of history. Berlin was to be the absolute in grandeur, the eternal. The attempt to give the world a center again, to return to the Great Synthesis, to bring to life a universe without contradictions translated into concrete form the Nazi crime: every temptation to return to dreams of syntheses between populism and mechanization now had a model.

The indeterminacy and fluidity that characterized the relationships between intellectuals and institutions after the profound socio-economic changes of the 1930s became radically modified after World War II. The processes set in motion after 1945, the special climate of the Cold War, the profound modifications in the capitalist order, and the consolidation of power in the socialist countries — all these brought about institutional restructuring and reinforcement. It no longer was possible to confuse the roles of "knowledge" and "power"; the rise of new and dynamic mass movements challenged the pretense that intellectual labor held a special position and a high measure of autonomy; its functions and organization more and more had come to reflect the social division of labor.

This meant that the domain ascribed to ideology, to thought in general, contracted more and more as capitalist development and the restructuring of socialist economic policy increasingly permeated and became part of every aspect of the political and social fabric. Architecture was left with no choice but to accept new parameters of confrontation, drastically curtailing the traditions of its rebellious years in a political activism of its profession — in new and extremely dynamic forms of division of labor — or else retreating into self-contemplation in the gilded cage of a language that could produce only reflections of itself. But to arrive at that awareness it was first necessary to burn away the residues of the great illusions and equivocations that before the war had been responsible for the ambiguous relationship between the avant-garde and the approach to urban planning. The purported crisis of international architecture — the excuse for much weeping and wailing on the part of the vestals of the so-called modern movement — was actually a positive redimensioning of the roles. To grasp this requires a binocular vision of history: seeing the great change in the approach to planning and also the response of architecture as such. Particular attention must be devoted to where those separate spheres have interlocked (if they have) and where they have gone their separate ways. The material for this chapter was selected to provide a framework for that sort of analysis, and the choice of examples depended entirely on their pertinence to this thesis. There is no pretense of completeness; moreover, we are fully aware of having simplified events that were, or are, in dynamic trasformation and on which any judgment can be at best provisional.

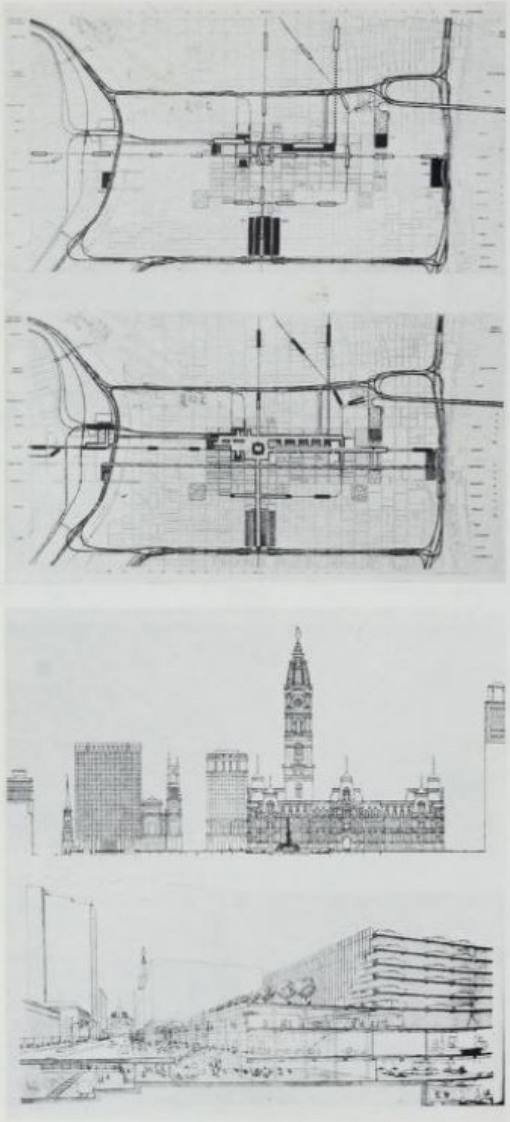
The United States: Urban Renewal and the Crisis in the Policies of Public Intervention

It is a paradox of some import that the most decisive measure taken by the New Deal was World War II. With that colossal "public works project" the processes initiated in the 1930s were brought to a head and at the same time plunged into crisis. Capitalist readjustment and government intervention in the economic cycles were now taken for granted. There was no longer need for an aggressive public works policy but only for incentives to the oligopolistic market. This was reflected in the urbanistic policies carried out during the presidencies of Harry S. Truman and Dwight D. Eisenhower. In 1949 a new housing act promoted programs of subsidized building and appropriated a billion dollars to be distributed in the form of federal loans for slum clearance projects, with the cleared land made available for selling or renting to private citizens. Like many programs of public intervention, this one too was rendered inoperative during the period when Senator Joseph McCarthy was running rampant. However, in 1954 the idea of renewal was again at the core of a housing act, which made funds for urban improvement available to local authorities on the basis of projects approved by the Housing and Home Finance Agency, the body created in 1947 by combining all the federal agencies operating in this sector. But the overcomplexity of the procedures set up was such that those measures had little effect. The knotty problems inherent in the new laissez-faire policy came to a head during the presidency of John F. Kennedy. The climate then was marked by economic prosperity that masked the increasing sharpness of appalling internal inequalities, growing unemployment, and ever more marked instability of the unskilled labor force—phenomena entailing enormous social costs and an ever-faster deterioration of housing in the heavily congested cities. In grappling with the underdeveloped areas the New Frontier aimed at socializing the new problems. At the same time instruments of public intervention were created in specific sectors: the Area Redevelopment Act of 1961, which was to attack the sore spot of underdevelopment; the Housing Act of the same year, which improved the mechanisms of urban renewal; and the Urban Mass Transportation Act of 1964, which affected the infrastructures on a territorial level. As part of its revision of standards and financing, the Housing Act of 1961 set the annual objective of public intervention at the modest goal of 100,000 residential units, created a fund to be used for private credit, and gave incentives to programs for urban renewal by encouraging the formation of communities with integrated social structures.

Urban renewal, at the local level as well, was hailed as the very embodiment of the War Against Poverty and was intended to be a demonstration of good government. An increase in fiscal revenue from the restructured areas was projected on the basis of their anticipated rise in value. But it was the problem of tax revenues that revealed the contradictory nature of the entire operation. The increase in revenue could not be counted on precisely because of the ever more extensive recourse to tax exemption as an incentive to private enterprise. The most immediate effect of the efforts at renewal was a dizzying rise of property values in the urban areas adjoining those earmarked for improvement, where speculators could do as they wished, subject to no controls. The poorer neighborhoods were simply displaced and replaced by housing developments constructed with high standards and priced according to

502. View of the Golden Triangle, Pittsburgh, including the urban renewal improvements

503. Plan of the Golden Triangle project, Pittsburgh



504. City Planning Commission, plan for the center of Philadelphia, 1960: above, diagram of the public and private transportation networks, connections with parking facilities and the network of secondary streets and terminals; below, diagram of pedestrian streets (from Casabella, no. 260, 1962)

505. City Planning Commission, plan for the center of Philadelphia, 1960: new municipal office building and proposed improvements for Market Street East (from Casabella, no. 260, 1962)

the market. As a result more people pulled up their roots, and this set off spiralling social costs whose first consequence was an unhealthy boom in real estate values and prices. The violent reaction and widespread opposition to that policy led to a change in the federal method of intervention. The Model Cities Program of 1966 was proposed as a thoroughgoing solution to urban deterioration that aimed to involve community organizations in the process of planning, thereby hopefully lessening contradictions that had become untenable.[1] However, at the beginning of 1969, when tensions were catalyzing around far broader and more painful problems, the Nixon administration unleashed a killing attack on that policy, ordering a 40 percent cut in the budget for the Model Cities.

When that program failed, the traditional lines of urban development in America were reinforced. In 1954,75 percent of the population was living in suburbs which had nothing in common with the idyllic communities envisioned by the progressive planners. In the excessive and shapeless stretch of houses in Levittown, New York, brutal speculation had destroyed all relationship with nature, replacing urban anonymity with the squalor of consumer conformism. Levittown is the true model ghetto of the middle class, and its expansion coincided with that of the automobile market. The commuter is the consumer of the sprawling suburb and the real inhabitant of the enormous highway network that each day nourishes the metropolis like an arterial system. The territorial plans studied or initiated in the 1960s attempted to do something about that situation. But the problems connected with the renewal of the existing urban structures were absorbing all the attention of the entrepreneurs.

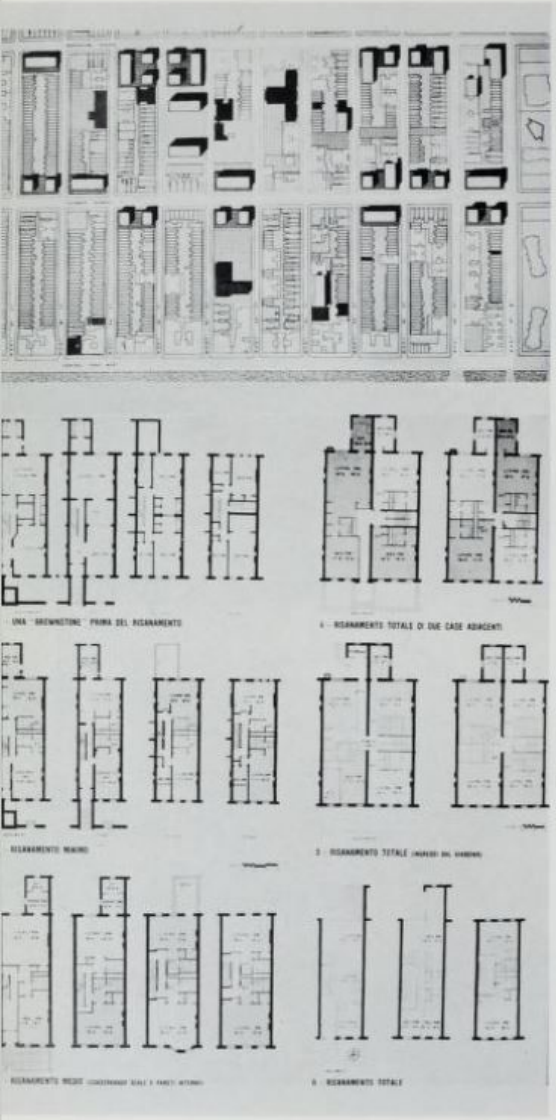
What happened in Pittsburgh and in Philadelphia was typical. Each functions as a hub for the commercial activity of the surrounding region, and in both the indiscriminate development of the 1920s had brought about serious urban deterioration. In 1939 the Pittsburgh Chamber of Commerce, under the urging of R. K. Mellon, leader of finance capital in the city, promoted the formation of the Golden Triangle Division. But it was only in 1946, after the area which was to become the Golden Triangle had been devastated by fire and a planned intervention could no longer be postponed, that the proposals already worked out were finally taken under consideration. New legislation made possible the creation of the Urban Redevelopment Authority, financed by the Equitable Life Insurance Company. In 1950 the Golden Triangle Plan was established, along with a highway construction program following the lines of a proposal made by Robert Moses in 1939. The Golden Triangle became the site of an ensemble of skyscrapers served by a highway network connecting the downtown area with the peripheral area of the region. But that did nothing whatsoever to solve the problems connected with housing. The poor and marginal social classes were pushed out of the city center, while the proliferation of commercial skyscrapers visibly testified that the objectives of finance capital had been attained.

506. Model, urban renewal project for the center of Boston, begun 1958

507. Gerhard M. Kallmann, Noel M. McKinnel, and Edward F. Knowles, City Hall, Boston, begun 1963

The case of Philadelphia is analogous, although the operation was carried out differently. As early as the late 1930s democratic minded intellectual and political circles were calling for urban renewal and administrative reform. Their first victory came in 1942 when the City Planning Commission was formed to prepare annual plans for action; three years later a first proposal for widespread renewal was issued. Its objective was to halt the increasing deterioration of the tertiary structures and to improve the core of the city as a commercial center, thereby also undercutting the tendency for large supermarkets and shopping centers to be built outside the city and even beyond its suburbs. In 1947 the proposals were presented in an exhibition, For a Better Philadelphia, and were received with great enthusiasm. In 1953 finance capital assumed responsibility for the basic nucleus of the operation; the Pennsylvania Railroad Company committed itself to building Penn Center. Linked with a plan for improving the east end of Market Street for commercial purposes, it relegated to a marginal role the efforts of the Philadelphia Redevelopment Authority to promote action in the field of housing. Thus, despite the high quality of the Society Hill Towers built by Ieoh Ming Pei (b. 1917), the end result of the Authority's work, like all other interventions administered by the "federal bulldozer," was a change in the social structure of the downtown area.

From the architectural standpoint the case of Boston is the most sensational and contradictory. In 1958 the Boston City Planning Board requested Adams, Howard & Greeley to draw up a plan, which in 1962 was somewhat revised by Ieoh Ming Pei. The objectives could not have been clearer: demolition of 85 percent of the existing edifices, preservation of a few historical buildings, a regulated increase in the tax values of the area, and elimination of its residential functions. The Design Advisory Committee, which included H. Stubbins, P. Belluschi, L. Anderson, N. Aldrich, and José Luis Sert (who had emigrated to the United States), controlled the implementation of the plan, which subdivided the area to be renewed into fifteen independent sections. Among the new public buildings two were of genuinely high quality: the Boston Government Services Center by Paul Rudolph (b. 1918) and the complex of municipal buildings by Kallmann, McKinnell & Knowles. The fragmentary character of their architectural language sublimated the piecemeal approach of the entire operation. However, like the new highways innervating the city and metropolitan region, the Boston undertaking also made the transformation of a deteriorated zone into a profitable business deal, and this had certain important consequences. At the opposite pole to the Government Center, the Prudential Building complex that was built in the heart of a peripheral traffic nexus acted as counterweight to the operation of renewal, giving rise to a new zone of skyscrapers whose spectacular architecture camouflaged the true purpose of this real estate operation.



508. Urban improvement area. West Side, New York: current state and various proposals for restoration and sanitary improvement of brownstones and old law tenement houses, 1964 (from Casabella, no. 294, 1964)
1. A brownstone before improvement
2. Minimum improvement
3. Moderate improvement (preserving stairways and inner walls)
4. Total improvement of two adjacent houses.
5. Total improvement (entrances from the garden)
6. Total improvement

The renewal program in New York City was rather more diversified. In 1956 the renovation of the West Side was launched. It was an operation without serious motivation carried out for prestige and publicity reasons, using high-value land. Among the results was Lincoln Center, an academic and cultural complex designed by Philip Johnson, Wallace Harrison, and Max Abramovitz, which took its place in a zone of new public buildings. Nothing efficacious, however, was done in the field of housing where the situation was critical. In 1960, 430,000 New York habitations were found to be substandard. Although New York City received no less than 15 percent of all federal funds and 80 percent of state funds for urban renewal, in the preceding 25 years no more than 110,000 low-cost dwelling units had been built. In 1964 the City Planning Commission defined seven areas to be improved and recommended that moderate-priced housing also should be built. The plan was stillborn. Two years later the Commission prepared a plan for the tip of Manhattan which called for the construction of six housing developments to accommodate between 10,000 and 15,000 inhabitants along the west waterfront. These were to be based on high-quality models and linked with the rapid transit system serving the metropolitan area. The construction of the World Trade Center and the initiative of Battery Park City put a stop to that project. In 1960 the Rockefeller enterprises built on the tip of the island the Chase Manhattan Bank skyscraper designed by Skidmore, Owings & Merrill. Beginning in 1970 the two 110-story skyscrapers of the World Trade Center, designed by Minoru Yamasaki (b. 1912), did their part in modifying—traumatically—all possibilities for further development and progressive functional utilization of that area. The immediate consequence of those undertakings was a sharp rise in the number of commuters. In 1966 Governor Nelson Rockefeller urged the creation of a new city within the city on the waterfront: Battery Park City was to be located near the World Trade Center, thereby posing an attractive living alternative for commuters as well as helping make better use of the site.

Although the Model Cities program in the northern part of Manhattan failed, "New Town" on Roosevelt Island, projected in 1969 by P. Johnson and J. Burgee for 400,000 inhabitants, was partially realized by J. L. Sert. Battery Park City, Roosevelt Island, and the World Trade Center, if taken as an ensemble, constitute a somewhat revised realization of the idea expressed by Hood in his "Manhattan 1950" project. Hood envisioned self-sufficient commercial areas to be concentrated in the existing city and linked to residential structures built over the river. The processes of financial coordination required to realize urban restructuring on such a scale would necessitate an overall political control over the apparatus of urban administration; otherwise, it would be inadmissible to introduce a new typology such as that of the supersky-scrapers for tertiary centers. The World Trade Center in New York, the John Hancock Center and the Sears Towers in Chicago, the new John Hancock Building in Boston by I. M. Pei & Partners (Henry N. Cobb designer) are completely autonomous and self-sufficient gigantic islands. Products of perfectly integrated political and entrepreneurial intentions, they radically transformed the use and functions of the urban fabric. Nevertheless, such projects are incapable of alleviating in any effective manner the tragic crisis that so direly weighs down such an economically primary center as New York.

509. Minoru Yamasaki and collaborators, World Trade Center, New York, completed 1973

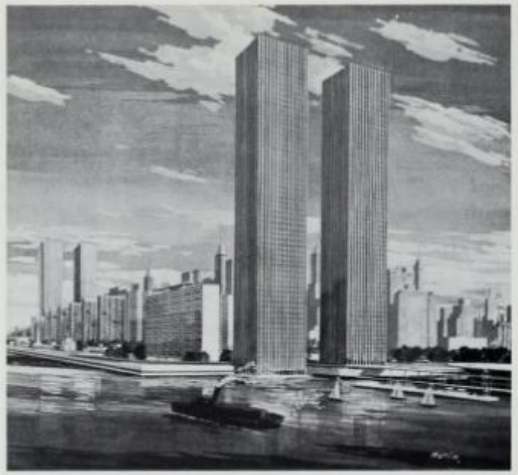
In the face of such processes the housing developments for middle- and lower-income strata, built with state financing in Manhattan and the Bronx, have had only a marginal role. The Urban Development Corporation, which operated in that field under the aegis of Mayor John F. Lindsay, succeeded in raising the quality of residential building in the high-rise apartments designed by Davis & Brody, as well as in the Twin Parks complex in the Bronx by Richard Meier and Giovanni Pasanella. But such developments remain isolated episodes in an ever more contradictory system.[2] In that system, as the history of urban renewal shows, government intervention into the public domain has never become an established and significant social policy. On the contrary, in America such intervention more and more proves to be ultimately subordinate to the interests of capitalist oligopoly.

Urban and Regional Policy in England

Between the two world wars Great Britain likewise found itself faced with problems deriving from the unbalanced economic development. These problems were further aggravated by a housing and general economic crisis in depressed regions such as Wales, Scotland, and the Northeast.

The supporters of the garden city solution, notably C. B. Purdom and F. G. Osborn, carried on the ideas of Howard after his death and offered a global alternative seemingly capable of overcoming the crisis. Conservative prime minister Neville Chamberlain was sympathetic to the arguments of the Town and Country Planning Association and in 1937 instituted a commission presided over by Sir Montague Barlow to study the distribution of productive activities nationally. In 1940 the Barlow Commission published its report, which counseled a policy of decentralization along with the institution of a central authority to encourage the restructuring of congested areas by such means as garden cities, satellite towns, and improvements in existing centers. These proposals were confirmed by the Scott and Uthwatt committees, which likewise favored a decentralization policy based on garden cities; moreover, they called for a drastic limitation on the industrial expansion of London.

In 1938 Parliament had enacted the Green Belt Act, which blocked the expansion of London and prescribed the creation of a belt of agricultural land and parks at least five miles wide around the capital; this was yet another victory of the followers of Howard. Those initiatives had their



510. Wallace Harrison and collaborators, first project for Battery Park City, New York, 1966

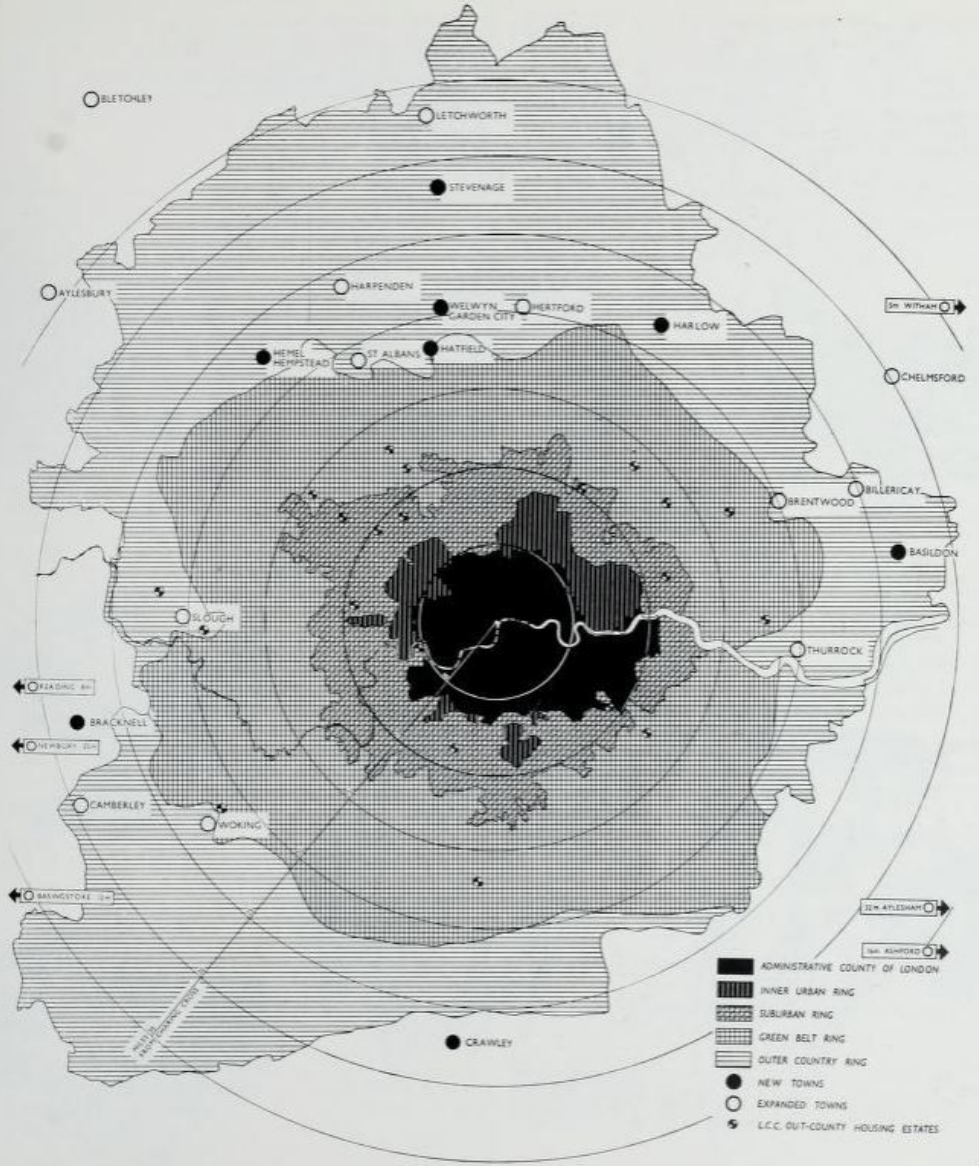
511. Ieoh Ming Pei and Partners (Henry Cobb designer), John Hancock Building, 1976, Boston

512. Sir Patrick Abercrombie and John Henry Forshaw, final version of the Greater London Plan, 1945

first result in the Greater London Plan presented in 1944. Begun in 1942 under the direction of Sir Patrick Abercrombie (1879-1957) and John Henry Forshaw (b. 1895), this plan was emphatically counterposed to the linear model proposed by the Modern Architectural Research Group (MARS). The area considered covered about 2,587 square miles and involved 134 local authorities. This was no longer a matter of the urban area of London but of its conurbation. The regionalist ideas of Geddes were at last being translated into active instruments of planning under five specific headings: a restriction on industrial expansion, decentralization of residential and industrial zones, a halt to further immigration into the territory along with a decrease in population density throughout the region, a primary function to be allotted to the Port of London, and new powers of planning based on control of land values. Physically the plan called for forming four rings: an Inner Urban Ring, where the population density was to be reduced by more than 400,000 inhabitants; a Suburban Ring, where development would be prohibited unless the communities were improved and regrouped; the Green Belt Ring, already envisaged in the 1938 law, which was to be equipped for leisure-time activities for the entire region; and the Outer County Ring, which was to contain newly created satellite towns and into which existing communities could expand. Thus the plan went back to the models set by the British urbanists but applied them to a territorial configuration centered in one of the largest metropolitan zones in the world. Ideas that had arisen out of opposition to the metropolis here proved their usefulness as instruments for altering the metropolis itself.

The plan, however, was inspired by an essentially static regional view. The proposed demographic decongestion, the proliferation of satellite towns throughout the country, the block on industrial expansion were all intended to bring about an improbable re-equilibrium—a change that took into account neither the tertiary functions of London itself nor the real complexity of the factors involved. Although the final point in the 1945 plan—the creation of satellite towns—was carried through, it did not have the intended effect; the present uncontrolled proliferation of tertiary activities and new office buildings in the City show how impotent all the projects and programs turned out to be.

When the Labour Party came to power and proceeded to nationalize the Bank of England, the coal and gas industries, electrical energy, airlines and railroads, and medical care, it also initiated measures for broadening state powers over industrial siting and land control. The Town and Country Planning Act passed in 1947 stipulated that all new industrial buildings covering more than 538 square yards would have to obtain certification from the Board of Trade that they were in accord with the programs of industrial localization. A year earlier the New Towns Act had established the legislative basis for realizing on a national scale the plans for decentralization envisaged in the prewar reports. That



513. *New Towns in the United Kingdom:*

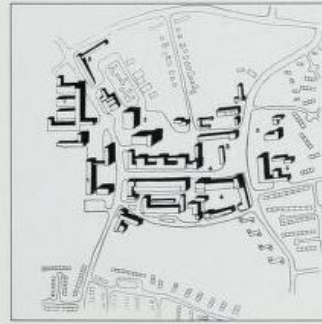
A) Crawley New Town, 1952
B) Cwmbran, 1951
C) Corby, 1952
D) Stevenage, 1954
E) Westgreen, Northgate, and Three Bridges residential developments at Crawley, 1951
F) Harlow New Town, 1952
G) Frederick Gibberd, Mark Hall and Nettswell residential developments at Harlow, 1952
H) Basildon, 1951
I) Glenrothes, 1954
J) East Kilbride, 1949

514. *Center of Crawley, 1952*
515. *Center of Harlow, 1952*
516. *Center of Hemel Hempstead, 1952*
517. *Center of Corby, 1952*

1. *Civic center*
2. *Shops*
3. *Office buildings*
4. *Public buildings*
5. *Police and fire stations*
6. *College*
7. *Church*
8. *Bus station*
9. *Railway station*
10. *Service industry*

1. *Civic center*
2. *Office buildings*
3. *Shops*
4. *Recreation area*
5. *Church*
6. *Fire station*
7. *Residential area*

1. *Civic center*
2. *Police station*
3. *Shopping area*
4. *Bus station*
5. *Cinema*



1. *Civic center*
2. *Cinema*
3. *Bus station*
4. *Shopping area*
5. *Church*
6. *Police and fire station*
7. *Technical institute with college*
8. *Service area*

518. Aerial View, Harlow New Town

519. Hampshire County Council, plan for Hook New Town, 1960

law called for the creation of special bodies—the Corporations—to plan, construct, and administer New Towns which were to have populations of between 20,000 and 60,000 and which were to be integrated in the territory as residential and industrial areas.

The themes favored in regionalist thinking would seem to be brought together in the policy of the New Towns: decentralization as the territorial answer to urban congestion, a solution which the New Towns Act apparently drew not only from the Barlow Report but also from a tradition extending from Owen to Howard and Geddes; organization of communities having fixed dimensions and ample services; public ownership of the land combined with government intervention, since the Corporations, financed exclusively by the state, administer the New Towns for ten to fifteen years (after which control is taken over by the local authorities) and lease out land for ninety-nine years to companies wishing to localize their industries and also to directly rent out the houses built there; and extension of the program of decentralization nationally.

Thus the plan for Greater London was no longer a municipal but a national matter. After April 1946, eight New Towns were sited around London—Stevenage, Harlow, Hatfield, Hemel Hempstead, Bracknell, Crawley, Basildon, and Welwyn Garden City—while in the north Corby was created to take care of developing steelworks. Cwmbran in southern Wales was designed as focus for industrial development in the zone; Peterlee in Durham County brought together a number of scattered miners' villages into a single urban community. In Scotland East Kilbride and New Cumbernauld were conceived to thin out the serious overcrowding in Glasgow, and Glenrothes in Fifeshire had the same function as Peterlee.

The New Towns were projected by the finest British planners and architects, among them men like Frederick Gibberd and Berthold Lubetkin, and incorporated many ideas particular to the garden city, from the neighborhood unit to nuclei dimensioned in accord with their primary services, and so on. Nevertheless, having grown into large and fully equipped suburbs, they have been criticized as "subutopias" on the basis of their low-density ghetto character, accentuated by the extreme paucity of distinctive urban elements. To remedy such shortcomings the attempt has been made to promote the development of extensive commercial centers and, as in the case of New Cumbernauld, to resort to innovative architectural structures.

Such solutions, however, are at best chancy. On the other hand, very different parameters are needed to evaluate the British experience. In the first place there was a crucial failure to integrate the programs for creating New Towns with the more general objectives of overall planning. The pre-eminence accorded to the idea of urban equilibrium has turned out to be contradictory to decisions taken on the economic plane, a fact which has had grave repercussions on the integration of the new

520. Plan of the New Town of Milton Keynes (from Parametro, 1975)

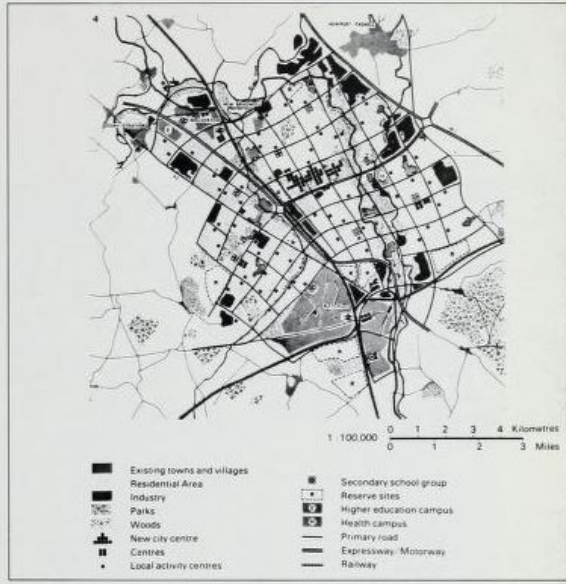
521. Housing types in the central residential sector and plan of housing around the collective services, Milton Keynes (from Parametro, 1975)

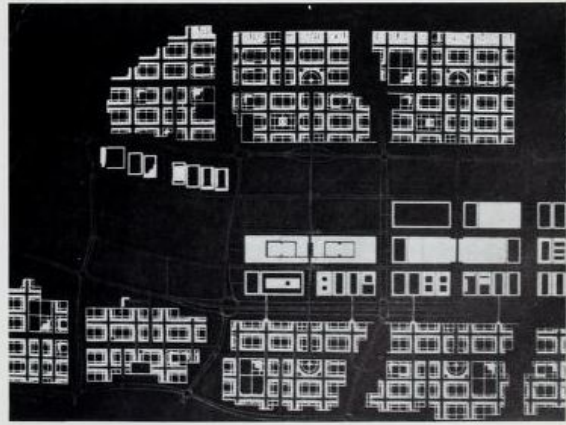
communities into the national picture as a whole. Nor has the policy of the New Towns resulted in the hoped for re-equilibrium, not only because the individual towns were not conceived and sited according to consistent standards, but also because the phenomenon of substitution of functions engendered by the programs proved difficult to control. The case of London is typical. In the areas under its jurisdiction the London County Council has pursued a programming policy which is in conflict with that of decentralization pursued by the New Towns, and this has resulted in an incessant turnover in activities and population which leaves the urban picture unchanged. Finally, in the face of a very great housing shortage nationally, the scale and number of the New Towns actually realized seem inadequate to satisfy a satisfactory quota of the requests and to have any lasting effect on the course of the market. Moreover, the costs—linked necessarily to fluctuations in the prices of building materials—can only be met by high rents, and this has limited the impact of the entire program on the housing market.

Put to the test, the policy of re-equilibrium has proved to be utopian. As early as the 1950s it became apparent that new means were needed. The Town Development Act of 1952, formulated as an alternative to the New Towns policy, calls for the development of already existing minor centers, entrusting this to the initiatives of the local authorities. Its central concern nonetheless is still re-equilibrium and decongestion. Therefore, an attentive observer like Lloyd Rodwin could rightly conclude in 1965 that precisely in England, the advanced capitalist country which more than any other has concentrated its forces on programming public undertakings, general urbanistic planning continues to be an ideal yet to be realized.

In the 1960s new programs were drawn up, this time for New Cities to go along with the New Towns. The New City of Milton Keynes, currently under construction, was conceived for a population of 250,000 and incorporated into the program for developing the southeastern regions, where the enlargement of the metropolitan effect is anticipated through the realization of three integrating poles: Milton Keynes, Northampton, and Peterborough. Here the dimension of the undertaking is new, both quantitatively and qualitatively.

At present there are thirty-four New Cities in Britain with a total population of one and one-half million, an urban capacity meeting roughly half the need already existing in the 1950s. The drain on the public coffers moreover has had a depressing effect on the national economy, and the efficacy of the program has been limited by the failure to adopt a policy capable of reducing the costs of production and of restructuring the building industry and increasing its productivity. In 1969 the costs of residential construction increased 7 percent. Along with this went a contraction in production for the middle-and lower-income groups, a rise in the percentage of land costs with respect to total cost, and a new





aggressive approach on the part of private enterprise which has managed to corner as much as 50 percent of the housing construction market.

The English experience, as we see, offers innumerable lessons for the analysis of the complex phenomena interacting within a planning policy. The responses of the 1950s and 1960s seem to be inadequate to control that complexity. They are perhaps the most advanced product that can be expected from the urbanistic ideas and means devised by one of the most original cultural traditions of our century. Yet, rather than a further development of that tradition, they represent, it would seem, its contradictory conclusion.

Building Activities and Metropolitan Systems in Postwar France

The fifty-year-old tradition of government intervention in the field of low-cost housing took a notable spurt in France during the 1920s and 1930s. The Loucheur Law of 1928 established three categories of public-subsidized housing: "buildings with moderate rentals" (ILM), "low-cost improved habitations" (HBM), and "habitations with moderate rentals" (HLM). The ensuing projects involved some of the best French architects of the 1930s. After World War II this policy was modified. In 1945 the Ministry for Reconstruction and Urbanism was instituted, followed a year later by the Commissariat Général au Plan de Modernisation et d'Equipement, whose task was to define the institutional framework within which the urbanistic program could be organized.

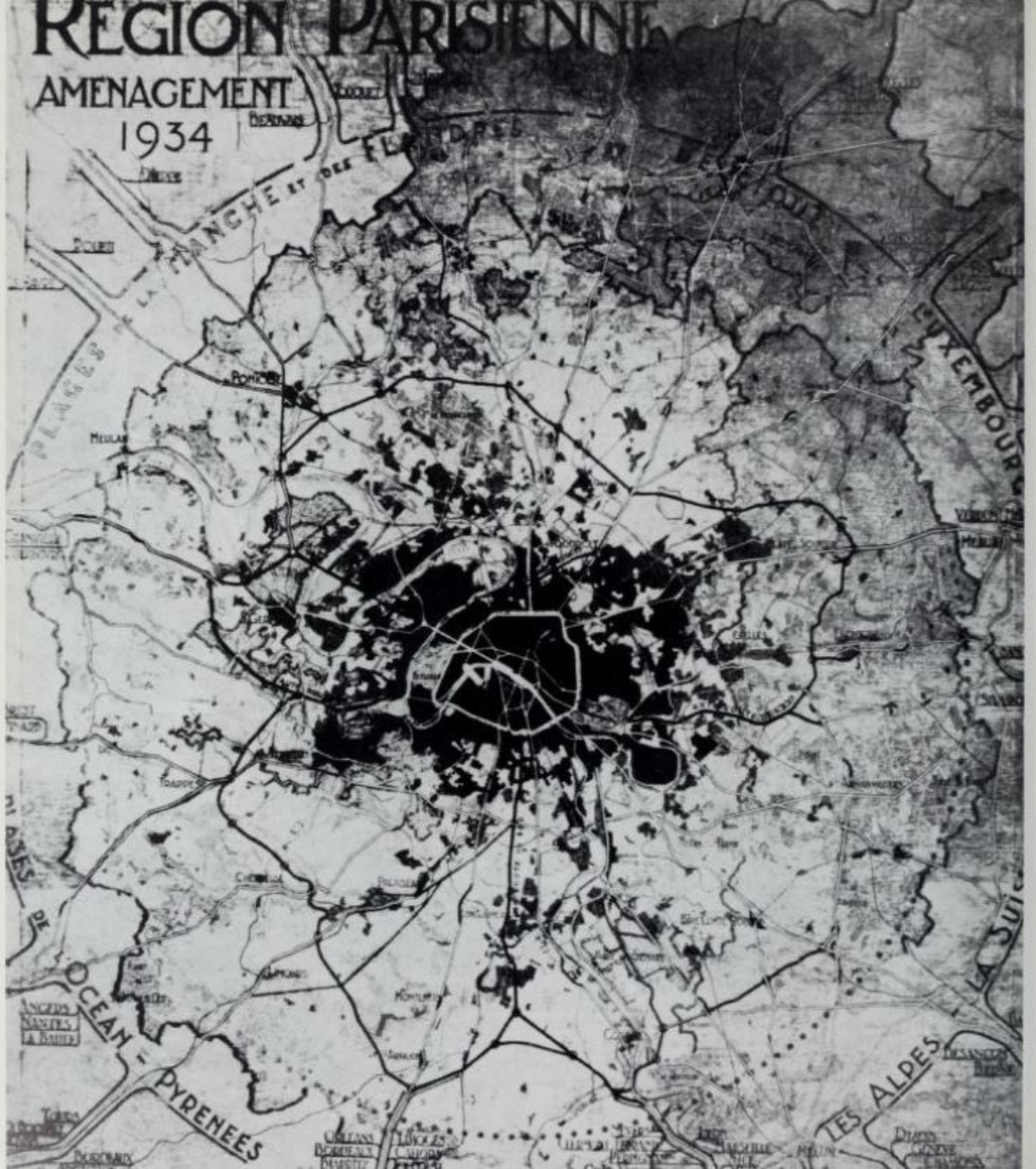
In 1950 the Minister for Reconstruction and Urbanism, E. Claudius-Petit, issued a statement *Pour un Plan d'aménagement du territoire* that laid down the theoretical bases for French territorial policy. At that time France was faced not only with grave problems of postwar reconversion and reconstruction, but also with a significant population shift into the cities. The pressure of a swelling population was particularly felt in the Paris region, whose borders, settled in 1932, already had to be extended in 1941. For that region a plan worked out by H. Prost between 1928 and 1939 was adopted, and it remained the point of reference for a good part of the postwar programs.

The immediate postwar housing crisis was caused by the continuation of rent blocks, stagnation in building activity, and the massive influx into the cities. As a countermeasure the government in 1948 launched a policy of building large residential complexes, the *Grands ensembles*.[6] By 1963 some two hundred of these had been erected, each providing over a thousand apartments, of which about 95 percent were rented. The characteristics of these projects are significant: they housed a predominantly young and particularly active population with incomes above the national average, and the quality of the housing was quite high with respect to the rents. Numerous inquiries into the living conditions of their inhabitants, however, pointed to grave deficiencies from the social standpoint.[7] The most obvious negative aspects were only in part corrected in subsequent projects; the quality of the services offered was improved in an attempt to create urban environments each having a character of its own. Further, at the start of the 1960s it became clear that the new complexes would have to be endowed with features attracting not only residents but also industries that could guarantee an adequate number of jobs. Out of this came a new approach to the problems of territorial planning and a reform in the means of urbanistic control, notably in 1963 with the National Commission for the Organization of the Territory (CNAT) within the General Commission for the Planning of Economic Development.

The fourth National Plan set up an articulated policy designed to thin out the saturated metropolitan areas through coordinated residential and industrial development. After analyzing the entire national territory in terms of the functions best suited to each region, the next step was to define regional structures and local levels of planning in order to give form to true and proper regional metropolises. Within that context the *Schéma Directeur de la Région Parisienne*, presented in 1965 by P. Delouvrier, took on particular importance both for the future perspectives it outlined and for the measures proposed. It advocated breaking with the idea of a single huge center for an entire region, proposing instead specific areas into which to channel new developments. This fitted well with the national plan, which called for the creation of New Cities—Villes Nouvelles—as elements of urban and regional re-equilibrium and as sites for a new functional unification of housing and work possibilities. In the Paris region such *Villes Nouvelles* were to be the means of meeting the annual demand for new habitations as well as incentives for decentralization of production and commerce. Thus, they presupposed a considerable expansion of the perimeter of urbanization along with structures capable of serving as infrastructural axes of regional influence.[8]

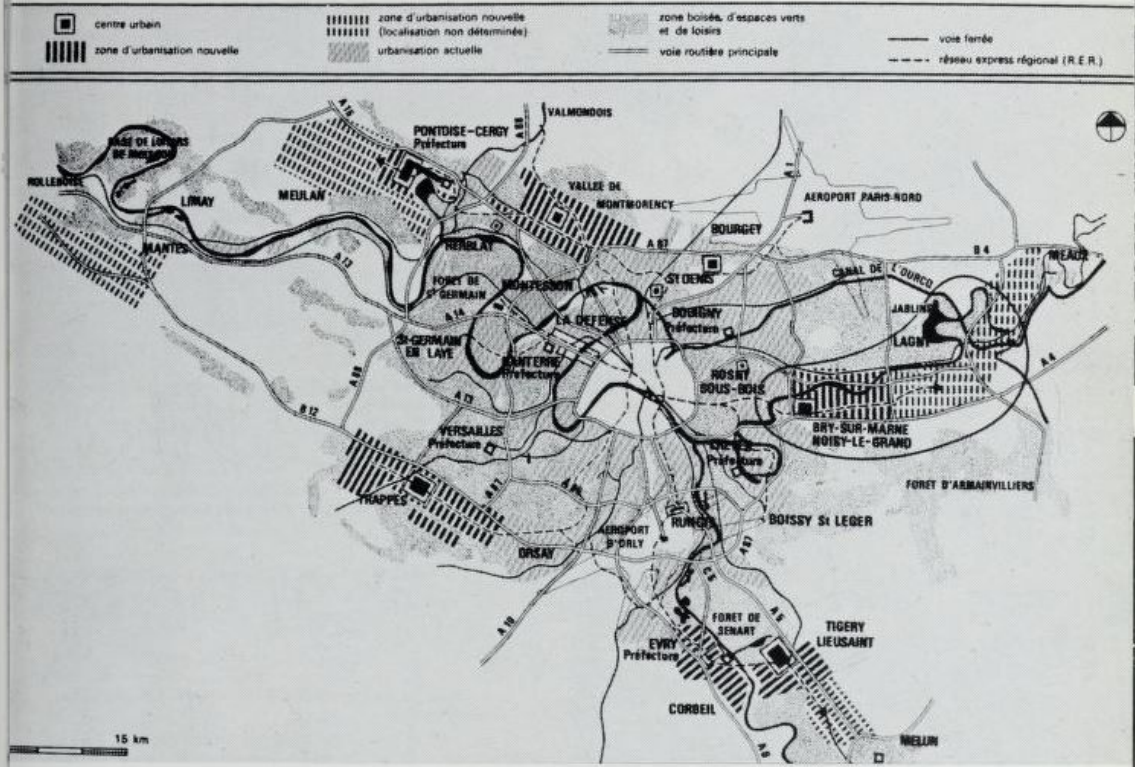
Obviously such a policy could only be implemented as part of a general program renewing the structures of planning and control. In that regard notable steps have been taken, even if the processes of rationalization and concentration have met with resistance from the municipalities and have been hampered by the inadequacy of the administrative apparatus. Moreover, the entire policy of territorial reorganization, despite the norms for expropriation established by law in 1967, has been very adversely affected by the limitations and fluctuations of credit. Although the law recognizes credit financing as the fulcrum for a broad policy of public entrepreneurship, the sluggishness of a system accustomed to utilizing public financing as mere incentive has not yet been overcome. The French refusal to learn from the Development Corporations of the British New Towns has led their effort into an impasse: When and if the dreams of Gaullist *grandeur* are truly dissipated, that limitation can be overcome only through stimulating the usual forms of speculative financial intervention. The traditional urbanistic approach allowing for

522. *Aerial view, Milton Keynes*

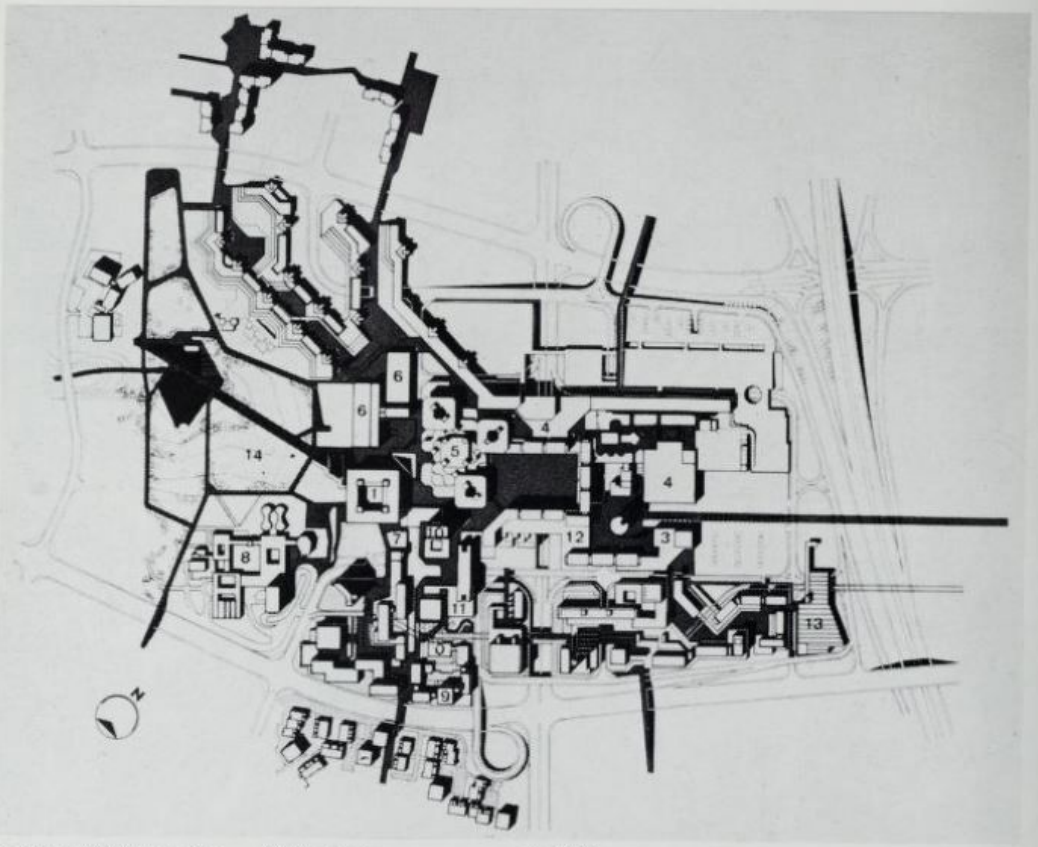


523. Henri Prost, plan for the Paris region, 1934

524. Diagram of the location of the Villes Nouvelles around Paris, 1965



525. *Urban center, Ville Nouvelle of Cergy-Pontoise (Val d'Oise)*



0) *Territorial development offices*
1) *Prefecture*
2) *Administrative buildings*
3) *Town hall*
4) *Commercial center*
5) *Cultural center*
6) *Swimming pool and skating rink*
7) *Cinema and drugstore*
8) *E.S.S.E.C.*
9) *Social Security offices*
10) *E.D.F.*
11) *Public assistance offices*
12) *Post office*
13) *Exhibition hall*
14) *Public park*

526. *Giovanni Astengo, Sandro Molli Boffa, Nello Renacco, and Aldo Rizzotti, community center, new Falchera housing development, Turin, 1950-51*

527. *Giovanni Astengo, Sandro Molli Boffa, Nello Renacco, and Aldo Rizzotti, aerial view, new Falchera housing development, Turin, 1950-51*

all sorts of derogations and postponements still has the upper hand, utilizing in accord with old and well-oiled mechanisms the propagandistic projects of the Fifth Republic and the technocratic dreams of the *équipes* charged with designing the New Cities. As *Le Nouvel Observateur* put it: "Urbanizing does not mean spending money but, rather, making money. Today the city is the privileged field of action for the speculative activities of the banking concentrations. It is around these, for these, and in these that the highest levels of profit can be—and will be—realized. The objectives of the patrons are certainly not to make us understand architecture but to make money for themselves; and the patrons are the Paribas, Union Bancaire, Crédit Lyonnais, Groupe Weil, etc." Although finance capital has been expanding its own interventions to the regional level, it has not lost its interest in restructuring the traditional tertiary centers. The recent urban transformations of Paris, which run counter to all principles of decentralization, make all too clear the new vast scale on which French economic power is shaping its further intentions.

Housing Policy and Urbanistic Administration in Italy

The favorable conditions created by fascism for private initiative in the building field did not change substantially after 1945. According to B. Secchi, "the building and landed property sector has comported itself in these postwar years like a pump that draws from the spring mainly composed of the salaries paid to the urban workers and that drains into the well constituted by the middle classes and the holders of capital (both real estate and productive) belonging to the building and land sector (that is, to the construction bloc)." The measures taken during the period of reconstruction assured the functioning of that mechanism. In the elections of April 18, 1948, the Christian Democratic Party, after having conducted a virulent campaign against the Communists, won the absolute majority in Parliament and gained a power that was to go unchallenged for almost twenty years but would prove quite incapable of resolving the structural weaknesses inherent in Italian society. Regarding the building sector, the policy of the new government became clearer in 1949 with the launching of the Fanfani Plan "for increasing worker employment." It envisaged financing low-cost housing through direct use of part of the revenues from dependent labor and industrial profits. The plan, which also aimed at revitalizing the building market, was intended to establish in advance, through construction of new workers' districts sited like hinges between city and countryside, structures that would have a dual function: to filter the processes of population shift into the cities and to act as lifebelts for the city centers, which were to be the domain of the speculative maneuvers of the highest levels of the real estate bloc.' In this situation Italian architects showed themselves incapable of proposing serious alternatives: in the 1950s the "ideology of the district" catalyzed the attention of the city planners. The construction of the INA-Casa

districts offered precarious occasions for experimentation; in fact, they brought into being a structure mediating between city and working class, whose role is to maintain the equilibriums of the labor market and to reinforce the social blocs on which political power is founded.[7]

The fragility of this situation was demonstrated in the failure of the Vanoni scheme of 1955, which has remained the most advanced attempt made by the Catholic political world to orient Italian economic development in a purposely reformist direction.[8] In any event, the reformist polemic of the most advanced architectural thinkers has run along the political lines indicated by the Vanoni scheme. With the foundation of the review *Metron* and the Associazione per l'Architettura Organica (APAO), Bruno Zevi (b. 1918) became one of the principal protagonists of a cultural battle whose political aspects were imbued with the notion of a "third force" common in most Italian progressive circles. Beginning in 1950 Adriano Olivetti presided over the Istituto Nazionale di Urbanistica (INU), whose positions profoundly influenced the thinking of the Comunità movement. Under the impact of American sociology, that of Mumford in particular—the first number of *Metron* published his introduction to Howard's *Garden City*, and the Comunità press brought out his principal works in translation—a cultural attitude took shape whose political line brought together the thinking of Olivetti and his group and the technocratic radicalism of the progressivist circles. In the civic battles conducted by the architectural profession against the injudicious administration of power, moralistic accents were not lacking. But those battles did their bit to undermine the solidity of the social bloc on which the powers-that-be based their consensus.[9] The proposals for civic planning made by the government were countered by a Code of Urbanism put forward by the INU in 1960 that marked the start of an ambiguous political project aiming to transform the formulas on which governmental alliances up to then had been based. The battle for a different control of urbanism was translated into a battle for a different way of governing the country and controlling its growth: rather than looking to the construction of an alternative social bloc, radical thought placed its own technocratic hopes on the myth of programming.

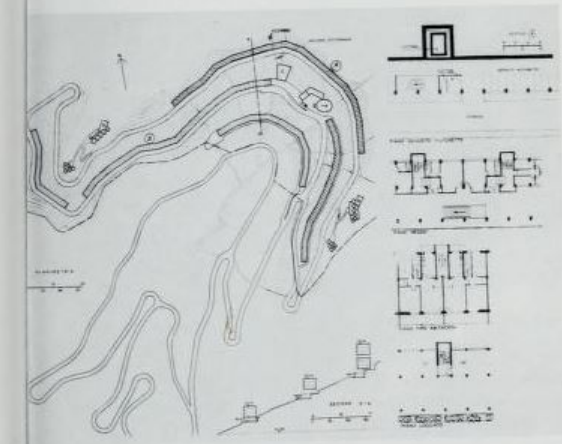
But the new role assigned to the city planners was purely superficial. At the start of the 1960s the unrealistic notion of a separate "cultured class" cropped up again in the ranks of Italian intellectuals, though certainly in more subtle forms than in its earlier appearances. Architects and planners demanded that the political powers delegate their authority to them and then, after having envisaged what new steps should be taken, stepped aside once again and scurried to seek refuge in theories about their own autonomy. The schools of architecture became an ideal haven for the most advanced exponents and tendencies of architectural thought.[10]

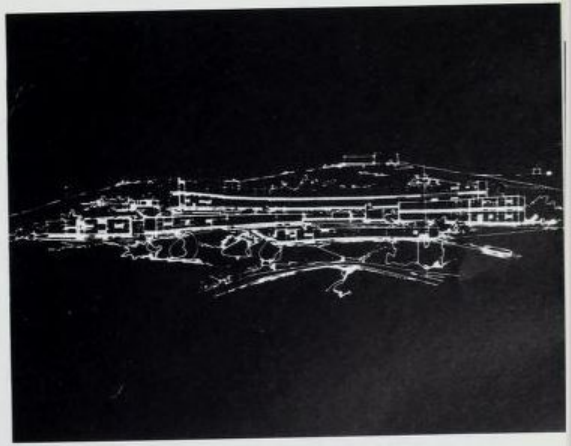
Nevertheless, once the Code of Urbanism was presented, the problem of urbanistic reform became central in the political sphere as well. Beginning in 1961 there was a succession of proposals for legislative reform that culminated in a law proposed by Minister Sullo in 1962. However, it proved too advanced for the then-prevailing political equilibrium and was disowned by the power bloc governing the country. Despite a few other measures put into effect sector by sector, there followed a period in which the aberrant mechanisms that had traditionally characterized the Italian situation were reinforced.[11]

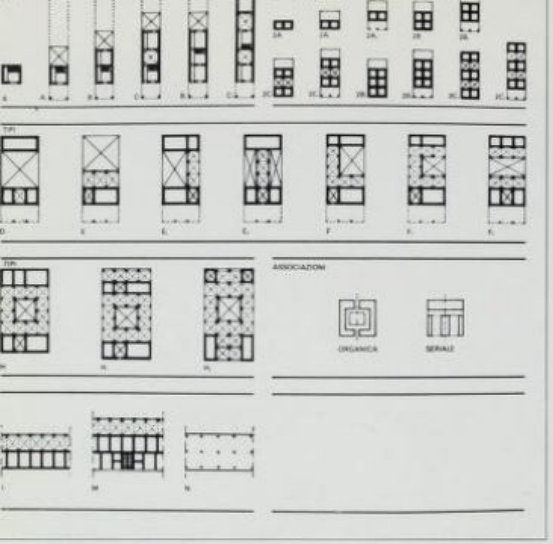
Land was left in the hands of speculators, while low-rent housing ventures dropped to a ridiculous percentage of the whole. Corruption ran rampant in the municipal administrations; the great real estate concentrations together with widespread petty speculation permanently defaced the cities: and the deterioration in hydrogeological resources became no less grave than the deterioration of the cities themselves. All this was made even more dramatic by a series of appalling natural disasters. On July 19, 1966, an entire portion of the city of Agrigento collapsed under the weight of thousands of rooms built without proper authorizations and controls. On November 4 of the same year the waters of the Arno River poured over Florence, and the old bastions of the Serenissima proved insufficient to protect Venice from a flood of fearful dimensions. The most admired cities of Italy paid a very heavy toll for an injudicious policy and an unbearable situation of deterioration. The reply of the government, at that time a stable coalition of the Christian Democratic and Socialist parties, was the adoption of a new planning and housing law in 1967. It required the communes at long last to equip themselves with regulative plans and prescribed urbanistic standards, thus offering a remedy, however weak, for one of the fundamental deficiencies in Italian legislation.[12]

The impact of those measures, however, has proved to be marginal with respect to the ever greater changes in the national political picture. During the 1960s the workers's struggles became more intense. Between 1968 and 1970 a new social bloc was formed around the working class. From clashes for better wages it was led on to all-out battles for reforms, and the struggle for housing was used to justify mass mobilizations. Under such formidable pressures the principal parties and the INU prepared projects for reform. The core of the law proposed by the Communist Pary was the reaffirmation of the principle of generalized expropriation. In September, 1969, the trade unions presented the government with a platform of demands concerning the housing problem. This was a decisive turning point. On July 7, 1970, and April 7, 1971, the workers were called out on general strike. A first effect of that pressure was the adotpion of Law 865, which again affirms the role of public spending in the field of building and gives to local administration the power to acquire and expropriate land. While the difficulties standing in the way of putting that law into effect may be enormous, and the law

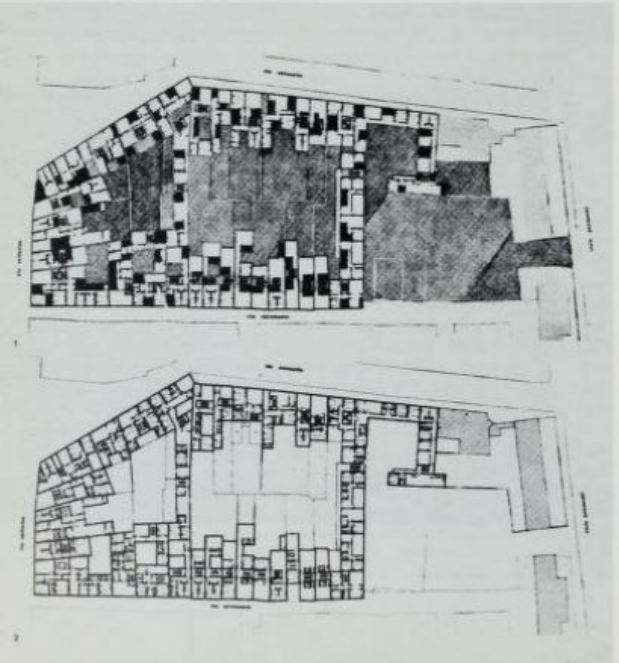
528-530. Luigi Carlo Daneri, view, plan, and drawing, Forte di Quezzi residential quarter, Genoa, 1960

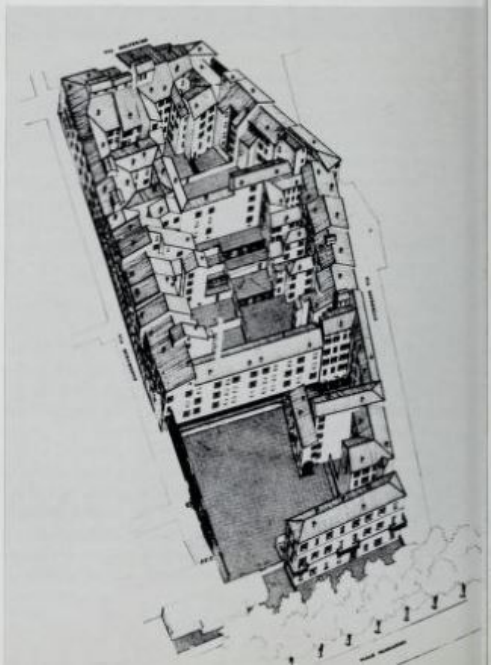






531. Comune of Bologna Technical Office, schemas of classification of building typologies, plan for the conservation of the city center, 1969





532, 533. Comune of Bologna Tecnical Office, plan for the conservation of the historical center, 1972

itself is by no means without its contradictions, it does represent a substantial step forward on the theoretical and normative plane. But whatever efficacy it can have depends exclusively on the political will of the local administrators who may wish to make use of it and, above all, on a radical change in the national political picture.

The development of the theoretical debate and the struggle with the problem of urbanistic reform took place shortly before the results of a considerable number of investigations into the problem of the historical centers were disclosed. These brought to the fore, against the traditional theses of abstract conservationist inspiration, the fundamental political problem of the reutilization of the existing architectural patrimony in a situation where there is an unrelenting demand for more housing. In that context the experience of the city of Bologna, run by socialist or Communist administrations ever since the Liberation, has served as model for many other local administrations. Starting in 1964 the Bologna authorities settled on a complex body of means whereby the historical center could be safeguarded from the usual processes of change in functions and social character. That policy reached its peak in 1972, when certain built-up areas within the historical center were incorporated into a general plan for economical and low-cost housing.[11]

The debate over the historical centers and the experience of Bologna have shown that architectural and urbanistic proposals cannot be put to the test outside definite political situations, and then only within improved public structures for control. This has effected a substantial modification in the role of the architectural profession, even further redimensioned and characterized by an increasing change in the traditional forms of patronage and commissioning. Moreover, since the mid-1960s a few large capitalist concentrations have shown a new interest in the building sector as part of their attempt to branch out from their usual types of productive activity and to assure themselves large slices of the constantly increasing public appropriations for that purpose. This has brought about an industrial structure which has proven to be particularly competitive on the international market but has not yet realized all of its potentialities in building as such, limiting itself to promoting initiatives of a propagandistic character. So far these have had no real impact but have breathed new life into old technocratic utopias.

After the elections of June 15, 1975, and June 20, 1976, the political panorama has changed even more. The administrations of some of the major cities and most important regions are in the hands of the left-wing parties, and many of the leaders in the cultural debates of the 1950s and 1960s now hold responsible positions in local administrations. Although what they have inherited is in a desperate state and the financial difficulties are staggering, one can hope that from this new situation may come the realization of the reforms sought for decades. It is on this terrain that the Italian workers' movements are summoned to a historical test whose repercussions may prove to be enormous, even outside Italy.

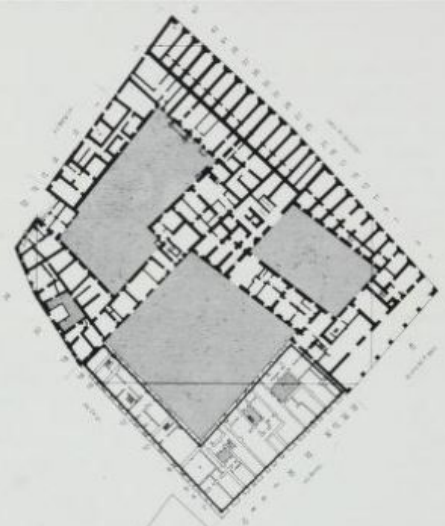
Urbanistic Administration in East Germany

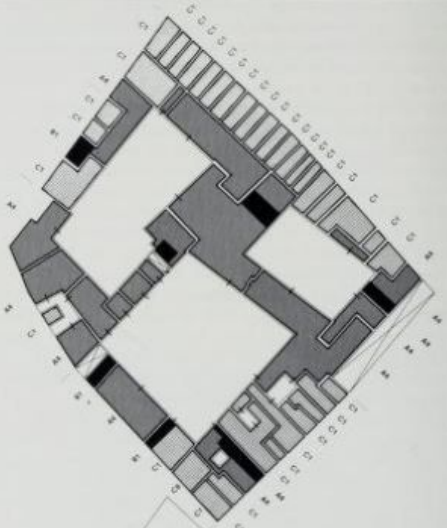
The urbanistic policy in East Germany was given organic development with the imposition of the First Five-Year-Plan (1951-55) and the adoption of the Bill Concerning City Construction (Gesetzüber Aufbau der Städte) in 1950. In 1952 the Deutsche Bauakademie was created and since then, working integrally in the planning process, has formulated analyses and urbanistic and architectural models.

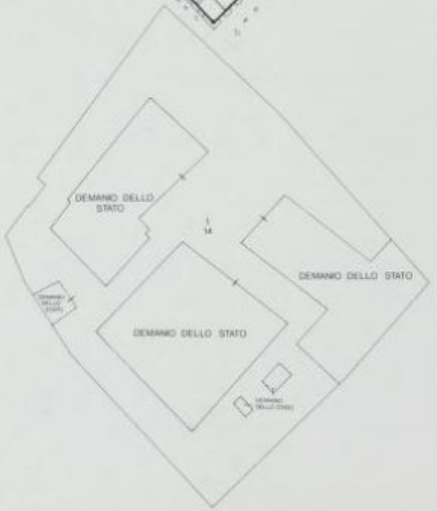
During the 1950s urbanistic theory was subservient to Soviet models and therefore diametrically opposed to what was going on in the West in those years as well as to everything achieved in Germany in the 1920s. Such residential projects as Dresden-Südstadt show all too painfully the influence of a cultural climate made subordinate to directives laid down by Soviet Deputy Premier Andrei Zhdanov, as do the formal solutions adopted in the reconstruction of the most important urban centers such as the Lange Strasse in Rostock and especially the Stalinallee in East Berlin. However, in the latter case it would be wrong to regard what resulted as purely ideological or propagandistic; in reality, the Stalinallee is the fulcrum of a project of urban reorganization affecting an entire district, establishing an axis of development toward the Tiergarten different from that developed historically. In addition, this plan inverts the logical manner in which a bourgeois city expands by introducing into the heart of the metropolis the residence as a decisive factor. The monumental bombast of the Stalinallee—now renamed Karl Marx-Allee—was conceived to put into a heroic light an urbanistic project that set out to be different. In fact, it succeeds perfectly in expressing the presuppositions for the construction of the new socialist city, which rejects divisions between architecture and urbanism and aspires to impose itself as a unitary structure.

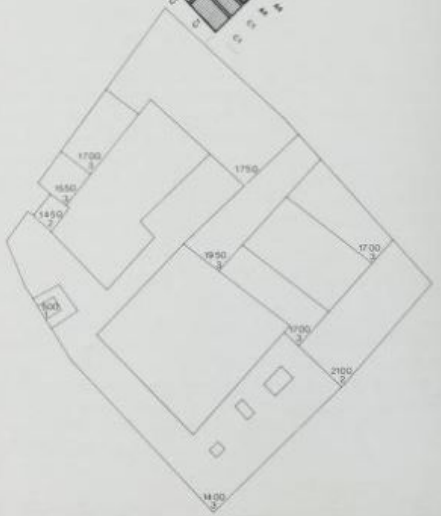
That approach is further confirmed by the attention devoted during the 1950s to realizing large unified undertakings whose monumental characteristics should be read as function of the *cohesive* significance that the interventions themselves were designed to assume with respect to the overall structure of the city. Typical of this is the great new main street in Dresden along which are aligned the principal urban functions, as in other East German cities. This is also obvious in the plan for Stalinstadt, rebaptized Eisenhüttenstadt; the city is laid out on two axes at right angles to each other with the public edifices located at their intersection, thus establishing a system of rapid connections between the urban functions and the industrial activities surrounding the center. Such interventions stress even more how the First Five-Year-Plan recognized with unusual lucidity the value of the city as the nucleus for a new socio-economic organization and codified the themes on which the planners were to concentrate during the Second Five-Year-Plan.

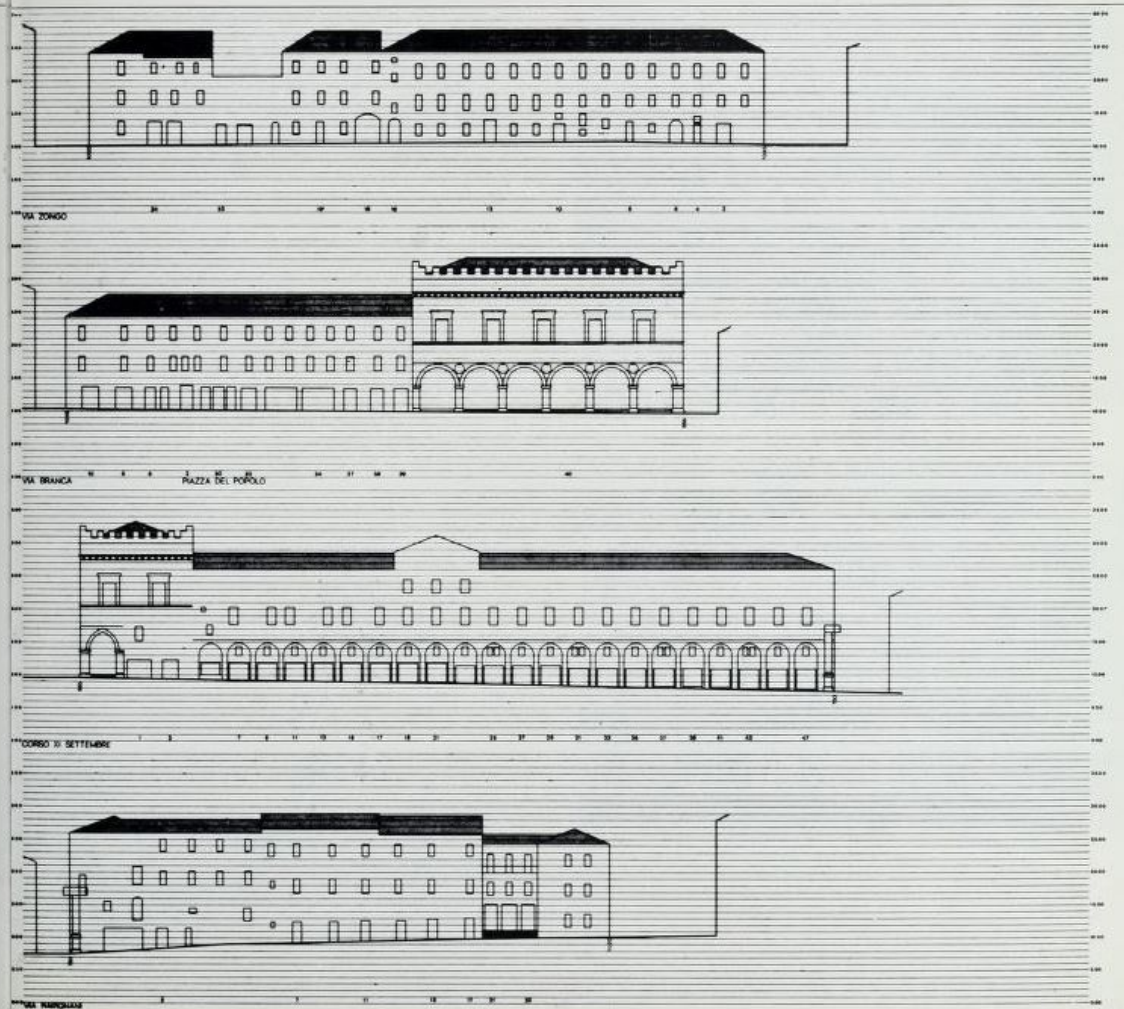
534. Carlo Aymonino, Costantino Dardi, Gianni Fabbri, Raffaele Panella, Gianugo Polesello, Luciano Semerani, and Mauro Lena, examples of conservational restoration and of restructuring, plan for the historical center of Pesaro











535, 536. *Views of Karl-Marx-Allee, East Berlin*

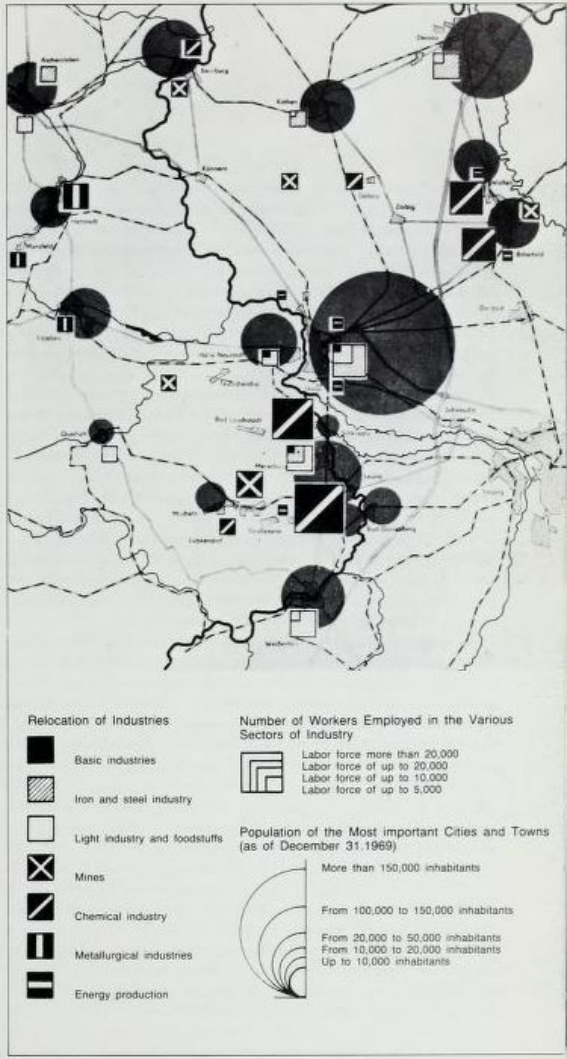
In the mid-1950s discussions and studies dealt with problems of industrializing building activity. These were given a first broad application in the construction of the town of Hoyerswerda (1956) and after 1958 became a dominant concern. It was precisely in analyzing the plan of Hoyerswerda, as contrasted with the plan of Harlow New Town in England, that E. Collein came to criticize the idea of isolating the city center and to pose the problem of the compact city: in Hoyerswerda, he says, "where the central zone is surrounded by streets with traffic, the attempt was made in a number of ways to put the center into relation with the adjoining neighborhoods and above all to prevent the fragmentation of the city into its constituent parts."

In the outlying settlements the improved techniques of prefabrication led to an increasingly detailed definition of the relationship between building types and their aggregations into urban complexes—*Wohnkomplexe*—whose dimensions were fixed on the basis of their typologies and distribution of services. This resulted in tightly controlled projects such as that of Lütten Klein in Rostock, where the four *Wohnkomplexe* are symmetrically disposed around a cross-shaped center. That model was given definitive application in Halle-Neustadt, which was begun in the mid-1960s as residential center in a region undergoing considerable industrial development. The dimensions of that undertaking, designed for 70,000 inhabitants, imposed radical choices: the sixteen-storied residential buildings are laid out comb-fashion and contain services in their ground floors which are linked by a system of pedestrian passageways.

With the mid-1960s, when economic and social advances were such that the population could be officially assured of the victory of socialism, another measure for revising the means and methods of planning could be introduced.[11] While the bases were being laid for a more organic control over planning on the territorial level and a start was being made toward permitting decisions to be made locally rather than by the central authorities, it was found that there are in fact criticisms of the models imposed and of the use being made of industrial methods.

In 1964 the deadly monotony of the long rows of apartment buildings was characterized as an "infantile malady of architectural industrialization." Meanwhile, the centers of the principal cities were being entirely redesigned, and a new phase of city planning was being formulated in theory and was launched with the slogan, "the Compact City." In 1968 G. Krenz wrote, "we must strive for the realization of the compact city... in which, once the factors that might disturb the life of the city are isolated, we must bring about a broad integration of the urban functions. The transformation of the processes of production that has come about as a result of the technical revolution permits in many cases a mixture of residential and working places. This simplifies the traffic problem and favors a more economic utilization of the circulatory infrastructures and

537. *Area of gravitation of Halle and Halle-Neustadt, 1969*



the means of transport. This accords with the laws of urban economy and the exigencies of the inhabitants."

In the 1970s, when the planners shifted their attention to reorganizing minor centers for economic reasons resulting from decentralization of production and a decline in agricultural employment, the perspectives were altered once again. The high population concentration in the *Wohnkomplexe* was criticized, as was the pretentiousness of the treatment of the city centers (*Stadtzentren*) which had taken so much attention and resources away from other urban sectors. For all the positive value of such self-criticism, the fact remains that in East Germany urbanistic practice and policy have been developed with excessively schematic and rigid logicality. The new ideas tried out from time to time have been the fruit of a strategy that does not seem to have had flashes of individual inspiration, but has proceeded in strictest subordination to the general planning directives.

What has been achieved presents characteristics and qualities not in use elsewhere. Especially in the field of housing, the work of the planning and designing bodies has reached notable standards and a high level of efficiency despite the rigidity of the models followed. This, however, is the product of a political and economic structure so unique as to be strictly not for export.

Housing and Planning Problems in the Soviet Union

The Twentieth Congress of the Communist Party of the Soviet Union (held in 1956) radically transformed the characteristics of Soviet policy and, along with them, the basic mechanisms of the system of planning. A profound revision of the lines established in the Five-Year-Plan for 1956-60 was instituted in 1957; one result was that more resources were channeled into the agricultural and housing sectors, both of which suffered much through the superindustrialization policy of the early 1930s and the war economy. Among the innovations was a policy of political and administrative decentralization coupled with the allotment of greater responsibility to the administrative apparatus in the productive sectors.

Those changes, and some accompanying change in the political climate, favored the resumption of discussions in the field of architecture. At the same time, the new objectives that the plan set for the building sector stimulated rethinking; the question of industrializing construction activities became central. Given such a grievous situation in housing and public services, the only solution seemed to be a transformation in construction techniques in accord with the need to increase both overall production and specific productivity in that field. In light of the turn taken in the later 1950s, the subjects that had been the object of debate in the 1930s and 1940s—subjects bound up with such formulas as "our relationship to tradition" and "the need to go back to regional styles"—

538. Diagram of the new general plan for Moscow, 1971
539. The Kutuzovsky Prospekt with the Ukraina Hotel, Moscow

showed themselves to be consequences of the appalling overall backwardness of the building sector: the much favored monumentalism itself is sufficient evidence. The need to reconcile new modes of industrialized production with residential settlements conditioned by the growing costs of urbanization called for a substantial revision of both the urbanistic models and the formal canons adopted for the new districts.

The census of 1959 showed just how grave the housing situation had become as a result of the mass population influx into the cities. Three complementary means were devised to deal with the problems. First, more funds from the national revenues would be allotted to agricultural development in order to discourage the labor force from leaving the land. This was to be achieved by increasing the overall production in that sector; at the same time large *kolkhozes* (collective farms) of more urban character would be created. Second, urbanistic undertakings were worked out for centers, predisposing a brake on demographic growth, depriving of incentives those economic factors that attract workers to move into the principal urbanized zones. Finally, the urbanistic function of the large-scale quarter or district was given a theoretical basis: the new *rayony* were conceived to accommodate up to 50,000 inhabitants. By adopting industrialized systems, the increase in square meters to be built permitted substantial economies in scale; assembly-line logic was applied to entire districts.[1]

The data on the demographic growth of Moscow up to 1959 made it clear that the proposals for containing population growth formulated in the 1935 plan had in no way been realized. Consequently, in 1960 the extension of the administrative boundaries was doubled, and a year later the plan for a Greater Moscow was made public. The plan envisaged a quite rigid limitation on the development of the areas within the first circle of roadways and the creation of a system of "sputnik-cities" — satellite towns —localized within a radius of thirty to thirty-five kilometers (roughly nineteen to twenty-two miles) from the center, beyond a green area equipped for leisure-time activities. The projections of the Twenty-Second Congress of the Communist Party of the Soviet Union, held in 1961, were confirmed and further refined in the general plan of 1971 for the development of Moscow. Pivotal to that proposal was the integration of housing and productive activities by rationalizing their siting and by using the city center chiefly for public purposes. The plan explicitly called for an expansion of the tertiary and service activities of the new center of the capital. New localizations and transport systems should be such that, in the words of Posokhin, "every Muscovite need not spend more than thirty to thirty-five minutes traveling between his home and his place of work." This meant limiting commuter movement into Moscow and giving incentives to the creation of new working possibilities in the regional area where, according to the plan, there was to be a conurbation of sixty-nine cities and seventy-five villages. Within this were to be created poles of attraction around eleven cities and the two urban systems of Noginsk-Elektrostal and Kazhira-Stupino-Ozherelye, with a population varying between 20,000 and 100,000 inhabitants.

Control of urban growth involves a rigid conformity to the overall directives in economic policy: a controlled development aiming to respect the physical limits of the existing city must hinge on the possibility of completely predetermining the demand for the labor force and the localization of the productive installations. Consequently, a process of concentration and productive rationalization was envisaged for the factories, while at the same time regional industrial development was mapped out. However, the plan did not aim to contain metropolitan growth. Nor did it pursue a schematic perspective of distribution: a single approach determined both the decisions affecting the urbanistic character of the center and the policy to be followed on the regional level. That integration constitutes the major originality of the 1971 plan. Once again, all factors affecting the functionality of the system are taken as basis for planning; even the tertiary specialization of Moscow's center functionally relates to the localization of the productive activities and to the new infrastructural system which superimposes on two pairs of orthogonal axes a grid of arteries permitting rapid movement.

From what has actually been carried through, it is clear that the new Moscow was designed as model for other Soviet cities. The restructuring of Kalinin Prospekt according to the design of a group of architects headed by M. Posokhin affects one of the principal lines of development west of the Kremlin. The old housing has been replaced by two kinds of edifices, towered ones for residences, V-shaped ones for office buildings. The edifices are laid out on a continuous base served by broad pedestrian passageways and by service facilities and commercial outlets. In addition, the Novokirovsky Prospekt parallel to the Ulitsa Kirova (Kirov Street) is planned to be restructured according to a design by a group headed by P. Steller. In this case, too, the monumental dimensions of the urbanistic interventions are linked with the integration of tertiary acitivities (in buildings covering a total fo 250,000 square meters, that is, something like 199,000 square yards) and residential facilities.

Massive undertakings have been programmed for the outskirts as well. For the *rayon* of North Chertanovo, intended for a population of 20,000, the planners have experimented with particularly high standards—the habitable surface to be increased to thirteen square meters (fifteen-and-a-half square yards) per person—and the building types are to be varied and grouped around an ample service area. More traditional in character, and certainly less satisfactory from the architectural viewpoint, is the project for the new *rayon* of Orekhovo-Borisovo designed for 400,000 inhabitants, although it deserves mention at least for the huge scale proposed.

The examples cited can give only a partial idea of the scope of the undertakings projected. What is significant is the absolutely unified character of the programmatic lines inspiring such diverse projects. The "communist city" is envisioned as embodying the means of superseding the multiplicity and diversity of the capitalist city: as a unitary structure it will be a monument to the integration of the socialist society, to the interpenetration of functions, to the cohesion of productive activities. Skyscrapers—which in the urban fabric of the capitalist metropolis are evidence of the separateness of the urban functions, living images of the leading role played by real estate as source of wealth—here become symbols of an organic program, images of a rational and planned growth. They do not have to communicate any value; they conduct no dialogue of their own with the city: their sole quality resides in their iteration. But beyond such formal considerations there remains the problematic lesson to be drawn from the Soviet experience. One cannot look with Western eyes at the Soviet themes of regional re-equilibrium, of the relationship between public commissioning and integrated organisms of design, execution, and administration, and of the connection between decisions on the national level and decentralization. In the Soviet Union, the integration of the components of the plan is still very bound up with the way Engels conceived socialism, that is, with a form of global programming in which the variable of social capital is determined a priori in a previsional structure still rigidly tied to an economic policy of teleological type. The principal theoretical effort of 1960s Marxism was to keep its distance from that teleology. Given the richness of perspectives of that critical effort, which is in continual evolution, the results and contradictions of the Soviet model are valid only as point of reference for anyone who wishes and knows how to elaborate a political strategy that, from the errors and conditioning of the past, may draw ideas for surpassing them.

Within the complex developments we have been describing, the work of the early protagonists of the modern movement appears ambiguous. By and large they neither promoted nor controlled what took place, and what they had to say about the experiments and experiences carried through in their time has more to do with autobiography than analysis. The break of the younger generations with the traditions of the CIAM was more or less sensational. But the lessons to be drawn from the late activity of Le Corbusier or Mies van der Rohe are not to be understood in the specific formulations they developed but rather within the more general process of rethinking that has marked the 1960s and 1970s.

Thus we have no choice but to survey separately what the traditional "masters" of the modern movement did after the war if we wish to evaluate the historical contribution of what no longer appears as a common language *(koine)* but as a many-faceted debate which has now arrived at a final accounting.

Perret, Gropius, and Mendelsohn

The work of Auguste Perret in the last ten years of his life (he died in 1954) evolved in a manner entirely consistent with its own premises: the equilibrium between technological academicism and formal academicism that he achieved in the 1930s shielded his Neo-Cartesian method from any subjective twist or turn. It was precisely that certainty, based as it was on an Olympian detachment outside of time, on an *esprit de géométrie* that pretended—and it was only a pretense—to be rooted in technological reasoning, which made it possible for him to employ his language in coping with the reconstruction of Le Havre, whose center in many areas had been razed to the ground in the war. At the head of a very large and perfectly organized team, Perret was able to extend to the urban dimension his private language of words beyond and impervious to time. The plan, whose realization began in 1947, was in line with the policy of the Minister for Reconstruction and Urbanism, Claudius Petit, who held office from 1948 to 1953. Petit was intent on promoting projects of large scope and a high technical and qualitative level as steps in breaking with the old traditions and as demonstration of the need for public participation on a much vaster scale than ever before. The heart of the new Le Havre, centered on Avenue Foch, is a synthesis of the ideas of Choisy and Hénard. A single module of 6.21 meters (20 feet 4 ½ inches) determined the norms and dimensions of not only the prefabricated elements of structures and details but also—which matters more—the entire urban configuration. What was built was an entire portion of the city in which low apartment blocks alternate with tall blocks in an attempt to demonstrate total continuity between architecture and urbanism. The reconstructed Le Havre of Perret is thus constituted like a fixed modular unit which, however, can be repeated to infinity. If in some respects it anticipated certain large-scale layouts in cities under communist regimes, it is exactly contrary to the whole notion of laying down once and forever an urbanistic structure indifferent to changes of time and history such as was to be propounded by the new protagonists of the international debate. In any case, none of this prevented Perret from introducing exceptions into his unified "monument to the norm," notably in the Hôtel de Ville but even more so in the Church of St. Joseph, where he strove for a Gothicizing reunification of the miracle of light and the miracles of modern technology.

He attempted something similar in laying out the plaza at the railroad station in Amiens, which was begun in 1954. There the plaza is inserted into the circle of boulevards with uniform porticoed blocks. Again, the exception was used to confirm the rule: a tower over 328 feet high was raised as a counterpart to the Gothic cathedral, and its vertical composition is based on the principle of independent and superimposed solids much favored by the German Expressionists.

Perret seems to have been aware of defending an anachronistic tradition. Yet in the laboratories for the National Commission for Atomic Energy at Saclay, built between 1948 and 1953, and in the airplane hangar at Marignane airport at Marseilles, he insisted on demonstrating the validity of a method that could satisfy the most complex programs without ever deviating from a quest for minimum common denominators capable of welding the continuity of the Beaux-Arts tradition to a language that can come to terms with the evolving urban morphology.

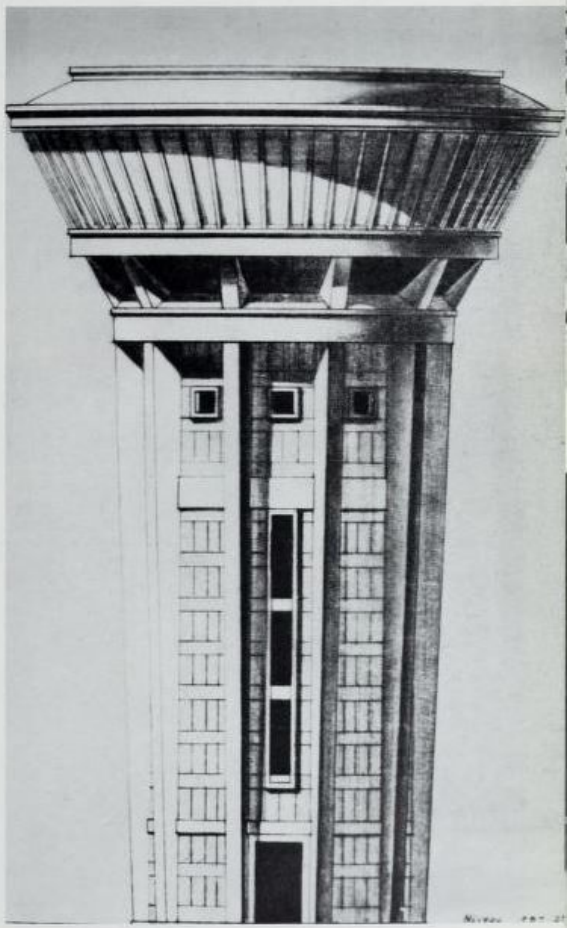
A very different type of consistency was pursued by two of the principal architects to take refuge in the United States, although their personal premises and results were very different. For both Walter Gropius and Erich Mendelsohn the break with the climate of the Weimar Republic proved fatal. In a few works carried out with Marcel Breuer—the Gropius house in Lincoln, Massachusetts; Black Mountain College near Asheville, North Carolina, in 1939; the Chamberlain house in Sudbury, Massachusetts; a group of workers' houses in New Kensington near Pittsburgh in 1941—Gropius remained faithful to rationalistic formulas, though uncertain in language. He then joined with Konrad Wachsmann (b. 1901); together they worked within the general effort to rationalize production stimulated by the wartime situation, perfecting systems of prefabrication that culminated in their "packaged-house system" devised between 1942 and 1945 for the General Panel Corporation. For Gropius, this was a pursuit entirely consistent with the proposals he made to Walther Rathenau in 1910 and the studies he launched in Germany in 1931, while for Wachsmann the goal was to reduce design to a pure system of relations between the elements. Wachsmann was principally concerned with the study of the joint or coupling itself: the "zero point" in a total environment, something that attains its highest validity confined within the limits of a highly conceptualized laboratory experiment. But such intellectualistic utopianism was not congenial with the mentality of Gropius, who chose instead to realize in America his constant ideal of teamwork designing as evidence of the continuity between the specialist group and society as a whole. In 1946 he created The Architects Collaborative (TAC), gathering around himself some of his former students and, as was his wont, reserving to himself the role of methodologist within the group. In certain of their first works, notably the Graduate Center for Harvard University in 1949-50 and the offices of McCormick and Company in Chicago in 1953, TAC continued to work along the lines of an abstract continuity with prewar European Purism. But by its nature, and subject as it was to the laws of the American market, TAC very soon became a many-branched, impersonal concern equipped to deal with major professional ventures and open to any sort of request from public or private clients. The United States Embassy built by TAC in 1956 in Athens, and the new university in Baghdad designed in 1960, are typical American export products with their puerile environmental touches, which in reality are strictly from Disney. Gropius proved willing to legitimize with his signature ostentatious urbanistic paradoxes like the Pan American Building of 1958 in New York, which shuts off the vista of Park Avenue with an inappropriate commercial skyscraper. More and more the approach of TAC tended toward a formalism whose low point as regards quality was reached in the John F. Kennedy Federal Building of 1961-66 in Boston. But TAC also had moments of more serious commitment; for example, the Thomas Glass Factory of 1967 in Amberg, Germany, and the Britz-Buckow-Rudow development of 1964-68 in West Berlin. But the refusal of Gropius to remain a "master" and his disappearance into the reality of American professional life were paid for with a harsh price that necessarily affects any discussion of his career.

To remain a master was, conversely, the great goal of Erich Mendelsohn, even if his aims differed from those he had pursued in Weimar Germany. "I am building the country and reconstructing myself," he had written in 1935 during his stay in what was to become Israel, and "here I am farmer and artist." The dionysiac face of the Grossstadt, celebrated by Mendelsohn in his WOGA complex and commercial stores, had proved to be a generator of monsters. In Palestine and then in the United States, where he moved in 1941, nothing remained for him but to put his personal lay mysticism at the service of his religious community. During the war he had gone back to drawing imaginary projects on an urban scale (such as the Golden Triangle in Pittsburgh). After the war he turned out weary variations on the vocabulary he had built up during the 1920s and 1930s; for example, the Maimonides Hospital of 1946-50 in San Francisco with its continuous verandas with small semicircular balconies closed off by a cylindrical column in the corner, or the Russell house of 1950-51 in Pacific Heights,

540, 541. Auguste Perret, buildings in reconstructed Le Havre, 1945-54

542. *Auguste Perret, bell tower seen from below, Church of St. Joseph, Le Havre, 1949-56*

543. *Auguste Perret, project for the laboratories of the National Commissariat for Atomic Energy, Saclay, 1948-53*



California. His choice of California as his residence beginning in 1945 was not without cause. The "farmer and artist" had not yet completed the quest for a new life initiated in the Palestinian years. New York was exciting, but it contained in embryo the same perils as Berlin in the thirties—"the monster is not altogether dead." Whereas California promised the organic fusion of territory and urbanization—what Mendelsohn seems to have been dreaming then. Moreover, the encounter with Frank Lloyd Wright was traumatic for the author of the Columbus Haus. From 1946 on, Mendelsohn became the official architect for the American Jewish community. He designed community centers and temples—in Saint Louis in 1946-50, in Cleveland in 1946-52, in Grand Rapids in 1948-52, in Saint Paul in 1950-54, in Dallas in 1951—in which he strove to return to the organic approach of his prewar years. But the embracing spaces of Neo-Expressionist modeling of buildings straining for a suprahistorical dialogue with nature now seemed out of their element: the architecture of his American synagogues, unlike the Einstein Tower, no longer proclaims "the law has been lost," but rather speaks only of an architect taking sanctuary in the Law of Judaism. This was a return that took place entirely on the professional level: the design for a monument to the six million Jews exterminated by the Nazis, which was to be erected in New York, rounded out the contradictory quest of the German master with an explicit and rhetorical presentation of the Tables of the Law.

Mies van der Rohe

The career of Mies van der Rohe was of a different historical importance from those of Perret, Gropius, and Mendelsohn. The very fact that he did not flee Nazi Germany until 1937 gives cause for reflection. Nor is it irrelevant that Philip Johnson, his future collaborator, was at the time supporting a pro-Nazi political line and in an article published in 1933 pointed to Mies as a potential leading figure in the architecture of the Third Reich. Let there be no uncertainty: the personal ideology of Mies was not connected with any political ideology. For Mies the world is what it is; it is not given to us to change it in its structures. The *Zeitgeist* is a categorical imperative, and each and every particular manifestation of it is, in the long run, equivalent to every other. "The exigency of our time of realism and functionalism must be satisfied," he had written in 1924, affirming however the "grandeur" of the imperative that leads to anonymity. Exactly that anomalous collocation within modern architecture made it possible for Mies to realize himself in the United States with the same supreme indifference that had guided his attitude before then.

Yet in his celebrated first speech at the Illinois Institute of Technology in 1938, he declared in reply to the laconic introduction made by Wright: "Thus true education is concerned not only with practical goals but also

544. *Walter Gropius and TAC, science and engineering library, University of Baghdad, 1960*

545. *Walter Gropius and TAC, model for Britz-Bucknow-Rudow district, Berlin, 1964*

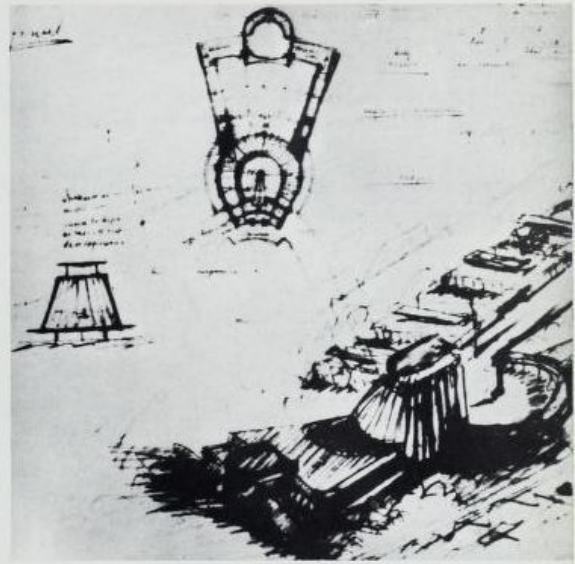
with values. By our practical aims we are bound to the specific structure of our epoch. Our values, on the other hand, are rooted in the spiritual nature of men. Our practical aims measure only our material progress. The values we profess reveal the level of our culture. Different as practical aims and values are, they are nevertheless closely connected. For to what else should they be related if not to our aims in life?" Those apparently conventional words seem to contradict his own famous distinction between the "what" and the "why." Their hidden side, like that of the entire personality of Mies, can only be comprehended by linking the results of his European efforts with the works he created in his new home.

Immediately after having assumed the direction of the architectural section of the Illinois Institute of Technology (then the Armour Institute) Mies was asked to design the new campus of the university. His first ideas date from 1939, and work was begun in 1942. The campus is situated in a chaotic slum area close to the center of Chicago. Mies immediately posed the problem of how to accentuate even more the isolation of the vast rectangle of the campus, while maintaining an axis of symmetry for the buildings that would define the central open area but at the same time progressively liberate those toward the periphery from the geometrical imperative thus created. This basic idea was maintained in successive plans, although Mies had to give up his goal of a campus entirely without streets. As the unit of control he established a single module of 24 by 24 feet with a height of 12 feet. This is clearly seen in the brickwork of certain walls and in the glass panels framed by the exposed steel structure and is implicit in the planimetrical principle governing the entire complex. Only in the library and the administration building was the module expanded to measure 64 by 64 by 30 feet. In this way he ensured that this purely ideal unit would be applied in all subsequent buildings, whether realized by Holabird & Root, by Skidmore, Owings & Merrill, or by himself in collaboration with other firms. With that established, all his attention could be concentrated on the details of the blocks he himself was to realize, keeping as a fixed principle the identification of the total form of the buildings with the naked geometrical schema. With reference to the laboratory for mineralogical and metallurgical research and to the Alumni Memorial, Johnson could speak of a philosophy of the *beinahe nichts*, the "almost nothing," which brings to mind such hermetic aphorisms of Mies as "less is more" and "the Good Lord is in the details." It would be misleading to interpret this as concentration on the purity of the technological factor or, even worse, to speak in generalized terms of a "new classicism."

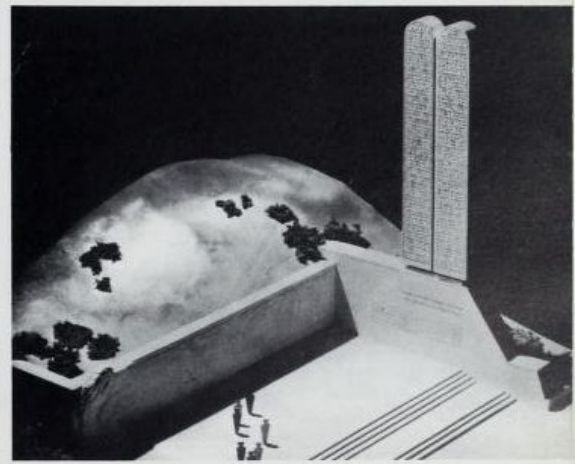
For the Institute complex Mies created one set of his masterpieces in 1952-56, Crown Hall, the architecture school. It is a pure prism set on a rectangular ground plan with its roof and attic suspended from four parallel steel frames so as to obtain a totally unencumbered interior space.

546. *Erich Mendelsohn, sketches for the Emanu-el Temple Community Center, Dallas, 1951*

547. *Erich Mendelsohn, model for a monument to the 6,000,000 Jews exterminated by the Nazis, 1951-52*



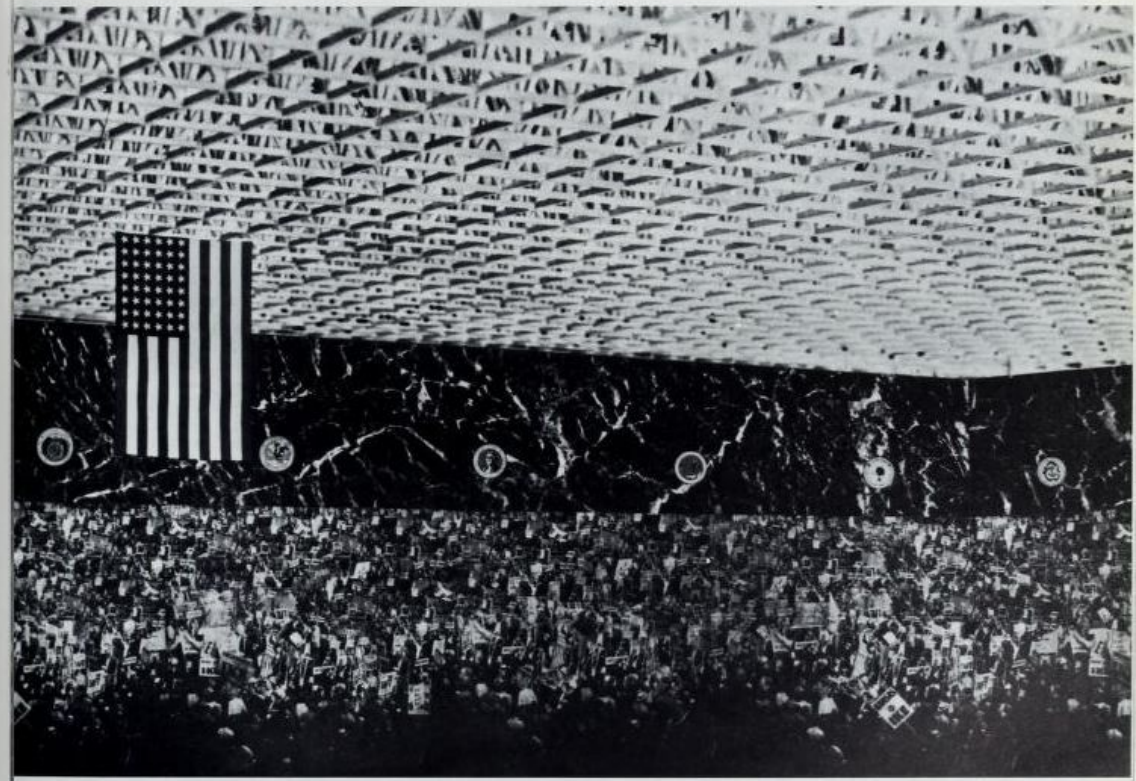
Here were combined two themes, both tried first in works very different from this and from each other: the house for Dr. Edith Farnsworth in Plano, Illinois, built in 1950, and the projects for the so-called Fifty-Fifty House of 1951 and for the National Theater in Mannheim, Germany, in 1953. Those three designs, like Crown Hall, end up as mere geometrical objects lifted off the ground and enclosing absolutely free interior spaces. For all three the principle of suspended roofs and attics is linked to structural inventions. The glass of the walls of the Farnsworth house is interrupted only by eight painted-white steel piers that raise its volume above the ground and render metaphysical its contact with the rich natural wooded site. But the perfectly square Fifty-Fifty House is suspended by four supports that have been placed in the middle of the sides in such a way as to seemingly eliminate any materiality from its mass. The design Mies proposed for the Mannheim theater, like Crown Hall or the more complex project of 1954 for a convention hall in Chicago, featured a single vast space in which the various internal functions would not detract from the absoluteness of the enclosing volume. Much has been written that seeks to decipher the significance of such implacable purism, taking sides for or against the flexibility or—depending on the critic—the constriction of the "free" spaces designed by Mies. Perhaps we can trace its origins. "Less is more": behind the reduction to minimalist signs is the quest for value. God is resuscitated from the Nietzschean ashes, even if hidden in the minimum element, the detail. The reduction to the sign is, in any event, faithful to the doctrine of the elementarist avant-garde. In all of the buildings by Mies we have mentioned so far these "signs" are obvious: for example, the suspension of the attic above the ground and the clear distinction between structures and volumes. In these respects Mies was still within the trend expressed by the review *G*, the abstract films of Hans Richter, and his own Barcelona Pavilion. But the values—the *what*—are not to be confused with the facts, the *how*. In this Mies remained perfectly faithful to the Wittgenstein of the *Tractatus Logico-philosophicus* even if, like Wittgenstein himself, he found himself constrained, in order to justify the autonomous universe of the laws of logic, to admit a mystical presupposition that is connected with those laws in problematical manner. The "facts" possess the language of existence. The language of the signs must not be confused with them lest it betrays both the "facts" and the "values." To quote Karl Kraus: "Since the facts have the floor, let anyone who has anything to say come forward and keep his mouth shut." Silence is, therefore, a "symbolic form" in a sense all its own, and because of this the link of Mies with De Stijl is no more than apparent. Moreover, his American works go beyond the simple stripping bare of the void, as in the signs that defined the Barcelona Pavilion. Even if only "exposed," the signs take on body again, but they no longer articulate themselves. In this, Mies was the most remorseless critic of Moholy-Nagy and Lissitzky. If all the incorporated value is in the



548. *Ludwig Mies van der Rohe, proposal for the Resor house, Jackson Hole, 1938*

549. *Ludwig Mies van der Rohe, initial sketch for the Illinois Institute of Technology campus, Chicago, 1940*

550. *Ludwig Mies van der Rohe, proposal for Convention Hall, Chicago, 1953-54*



"will" to make the sign remain sign, to speak only of the *renunciation* that makes it possible to dominate the destiny imposed by the *Zeitgeist* by interjecting it as "duty," then articulating the signs—attempting to make them "speak"—can only lead to betraying the value, reducing the language of signs to instrument of publicity. This is what Moholy-Nagy and Lissitzky were forced to do, not having wished—by force of their own programmatic intent—to go all the way in accepting the separation between the language of forms and the language of existence. Mies, however, did go the full way in that distinction. His spaces, in that sense, are not "accessible," do not speak of the "freedom" that they seemingly promise. On the contrary, Crown Hall and the Fifty-Fifty House assume in themselves the ineluctability of *absence* that the contemporary world imposes on the language of form. But this does not signify "renunciation of form." Mies declared that the task of art is to impose order on the existing chaos. His IIT campus is an oasis of order unreproducible within the metropolitan chaos. The inflexibility of its geometrical laws demonstrates that if "order is chaos," then form introduces itself into it as a mute and unassailable mirror of that chaos. With this one can also explain the so-called classicism of Mies, his "return to Schinkel." The essence of the classical, Olympian peace, is not totality achieved; quite the opposite, it is precisely conscious renunciation of the vital flux of change—of the Eros—in order to dominate it intellectually. Behind the exposed concrete web of the Promontory Apartments of 1949 in Chicago or the steel skeletons forming the framework for the uniform glassed walls of the two Chicago residential skyscrapers—the Lake Shore Drive Apartments of 1951 and the Commonwealth Promenade Apartments of two years later—lives just such a return to the spirit of Goethe's Weimar. No longer is there a plurality of signs but the entire edifice appears as neutral sign. The will to dominate chaos is entirely contained in the intellectual act that takes its distance from the real so as to affirm its own presence.

In the interior of chaos the perfect silence is disquieting. It introduces ruptures that are polemical to the extent that the distance which the building as architecture interposes between itself and its context is hermetical. In the Seagram Building of 1954-58, an office skyscraper on Park Avenue in the heart of mid-Manhattan, Mies repeated on another scale the operation he had carried through in Chicago with the IIT campus. Here again he adopted the curtain wall and the continuous glass face. But the exposed metal parts are in bronze, the paneling in polished marble, and the heat-proof glass is brown. All this accentuates the volumetric unity of the principal prism connected with two lower parallelepipeds to its rear.

Here the absoluteness of the object is total. The maximum of formal structurality is matched by the maximum absence of images. That *language of absence* is projected on an ulterior "void" that mirrors the first void and causes it to resonate: the small plaza paved in travertine that separates the skyscraper from Park Avenue contains two symmetrical fountains. This is no place for repose or contemplation: Mies said that the two basins should be filled right up to their brims to prevent the public from sitting on their edges. The plaza is intended to be the planimetric inversion of the significance of the skyscraper: two voids answering each other and speaking the language of the nil, of the silence which—by a paradox worthy of Kafka—assaults the noise of the metropolis. That double "absent structure" stands aloof from the city in the very act of exposing itself to it. Renunciation—the classical *Entsagung*—is definitive here. To articulate this renunciation Mies takes a step backward and remains silent. The void as symbolic form—ultimate act of the European myth of Reason—has been reduced to a phantom of itself. Victory over anguish no longer has at its disposal the "language of the soul," as in the Kandinsky of the first abstract watercolors. Nor is the homogeneous bronze and brown-glass mass of the Seagram Building in any way akin to the white-on-white square of Kasimir Malevich. Despite everything, the Miesian absence is contradiction interjected. The American architects grasped this very well when they adopted the urban model of the Seagram Building—a prismatic skyscraper with forecourt—and repeated it in the Chase Manhattan Bank Building and the Union Carbide Building, but even more when they made use of it to get the old zoning law reformed. In 1961 a new zoning code for New York City sanctioned extra height for skyscrapers set back from the street in such a way as to provide open public plazas on their lots. The result was a rapid change in the panorama of Lower Manhattan and a good stretch of Sixth Avenue, especially in front of Rockefeller Center. At the feet of the lucid glass prisms of the Exxon Building, the new McGraw-Hill Building, the Celanese Building, little plazas (piazzettas) huddle all in a line. They are adorned with sculpture and fountains that are quite without any real function, sitting there in the most absolute disorder like so many useless outdoor waiting rooms. What is tragic in the Seagram Building is repeated as a norm in these in the form of farce. The compact curtain wall devised by Mies likewise proved an easy formula for wholesale reproduction. It would be wrong to consider this to be contrary to the intentions of Mies. But it would also be wrong to reduce his intentions to just that.

The supreme indifference of the transplanted German master made him an easy prey for speculative operations passing themselves off as cultural, as in the Lafayette Park quarter of Detroit. There Mies collaborated with Ludwig Hilberseimer to cancel a plan for slum clearance which called for a low-cost housing development. That worthy project was replaced with a tidy alternation of tall slabs and low blocks providing residential accommodations in a landscaped setting for members of the middle- and upper-income brackets. But beyond all that, once the "language of silence" had been achieved, nothing remained but

551. *Ludwig Mies van der Rohe, Lake Shore Drive Apartments, Chicago, 1950-51*

to repeat it always and anew. In the Neue Nationalgalerie built between 1962 and 1968 in West Berlin, the museum itself is underground. As in the Barcelona Pavilion, the real architectural focus is the empty space. In other works—an extraordinary project of 1957-58 for restructuring the tip of Manhattan with three residential skyscrapers isolated from the disorderly dregs of the housing behind them, the Charles Center of 1964 in Baltimore, and the Federal Court Building in the Federal Center in Chicago—Mies calibrated to the point of paradox infinitesimal variations inside his decorticated volumes which, not only metaphorically, constrain chaos to reflect itself in them. The unified surfaces of the exterior of the Federal Court Building uniformly conceal a greatly variegated interior where the double-height walls of the courtrooms are disposed between two ribbons of offices. But the perfectly homogeneous, broad glassed expanse is also a mirror in the literal sense: the "almost nothing" has become a "big glass," although imprinted not with the hermetic surrealist ploys of Duchamp, but reflecting images of the urban chaos that surrounds the timeless Miesian purity. Once again a return to origins. Kurt Schwitters, the great friend of Mies in his Berlin years, threw into his "Merz" pictures all sorts of scraps and the most unlikely objects, transforming his collages into "universes of affection." While the art of Rauschenberg and the new American Dada in the fifties and sixties warmed over the themes of the negativist avant-garde, Mies was siting his *Merzbau* plumb in the center of the metropolis, a construction that has no need to dirty itself with the shift and flux of phenomena. It accepts them, absorbs them, restores them to themselves in a perverse multi-duplication, like a Pop Art sculpture that obliges the American metropolis to look at itself reflected—and Mies was not one to accentuate the horror of the image thus produced—in the neutral mirror that breaks the city web. In this, architecture arrives at the ultimate limits of its own possibilities. Like the last notes sounded by the Doctor Faustus of Thomas Mann, alienation, having become absolute, testifies uniquely to its own presence, separating itself from the world to declare the world's incurable malady.

Le Corbusier

After his ambiguous and contradictory contacts first with the Popular Front and then with the Vichy government, Le Corbusier threw himself unstintingly into the work of rebuilding France after the war. Those experiences, once left behind, inevitably led him to rethink his personal positions to the core: Marshal Pétain was not the Sun King for whom he could have been a Colbert, despite the illusions that had initially led the architect to see in his government the realization of the ideas propagated by the journals *Plans* and *Prélude*. After liberation, Raoul Dautry, Minister for Reconstruction in the provisional government, entrusted Le Corbusier with planning the rebuilding of La RochellePallice and with projecting the *Unité d'habitation* for Marseilles. In the same year he was asked to design a new city center for Saint-Dié, which had been razed in the war. This project remained on the drawing board but contained the essential nucleus of what Le Corbusier aimed at subsequently. It had nothing of the organic complexity of the Obus Plan for Algiers. Instead, on the sides of a plaza containing the buildings of the civic center there would have been large residential blocks, somewhat prefiguring the *Unité* in Marseilles.

The Marseilles project, built between 1947 and 1952, gave rise to heated controversy. In the immense block built in raw concrete, the two favorite models of Le Corbusier, the monastery and the transatlantic liner, were brought into a synthesis that has been described as a veritable Fourierist phalanstery. Accommodating 1,600 inhabitants in 337 apartments laid out according to twenty-three variant types ranging from the simple hotel room to the apartment for a family with eight children, the *Unité* is as self-sufficient as an ocean liner. A virtual *rue commerçante* runs along it at a height of eighty-two feet and is marked on the exterior by a denser rhythm of concrete slabs. The building also contains a hotel, restaurant, meeting hall, and on the roof an intermediate school, nursery, open-air theater, gymnasium, and pool. Thus, the apartment block is quite autonomous, akin to the "commune-houses" experimented with in Russia in the 1920s and early 1930s. Moreover, with its duplex apartments fitting into each other around *rues intérieures*, the *Unité* was conceived as an element open to repetition, as a return to the initial studies for the *immeubles-villas*, and as a slice of the serpentine block of the Obus Plan. It perpetuates the principle of the double structure: one fixed and on a large scale, the other theoretically mobile and consisting of cells that fit into the large structure like drawers in a chest, although here that mobility is in fact merely theoretical.

In Marseilles, Le Corbusier functioned within the same policy that brought into being the Le Havre of Perret. Minister Claudius Petit defended the conception of the *Unité* with all the authority of his office. But the *Unité* is certainly not to be evaluated in terms of the sociological hypothesis it incorporates. Instead, it takes on all the dignity of a monument in the strict sense of that word in order to warn us that behind its own reality—brutally imposed with undue emphasis on its dimensions and the material facts of its structure—are concealed ulterior and highly disturbing messages. Let us try rereading it with its metaphorical valences in mind. In the first place, its elevation above the ground by means of gigantic *pilotis* and its blind west end confirm that the edifice is a complete and closed entity only because practical considerations have obliged it to be such. It thus speaks of the objective it cannot attain: to dilate itself (like the totalizing organism of the Obus Plan) so as to give shape to the entire landscape, both urban and natural. For their part, the *rues intérieures*, like the *rue commerçante*, speak just as clearly about the

552. Ludwig Mies van der Rohe, Seagram Building, New York, 1954-58

553. Ludwig Mies van der Rohe, Seagram Building seen from the court of Lever House, New York, 1954-58

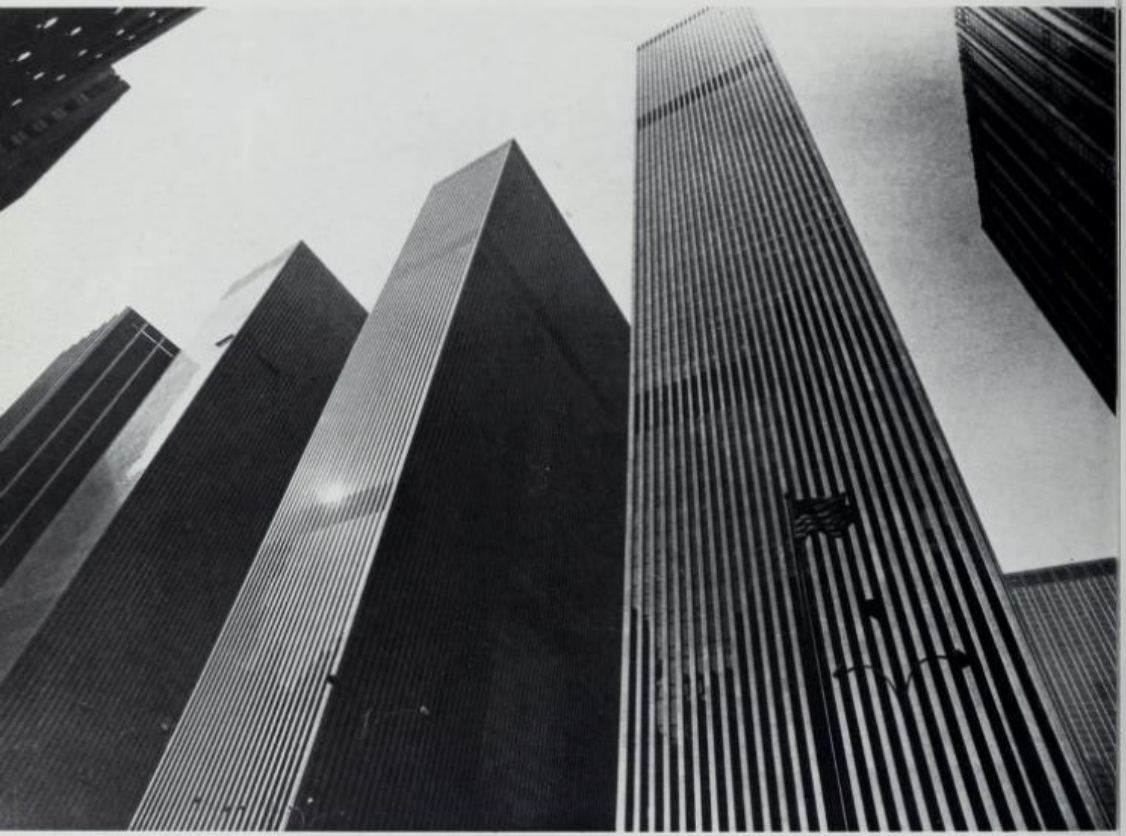
circumstances that constrain them to remain no more than broader corridors. Their unfulfilled dream was to transform themselves into real streets down which real mechanical vehicles would run, taking their passengers not to fixed cells but to "mobile-homes" that would be changeable according to the consumer-inhabitant's will and needs. Finally, the surrealistically isolated forms on the roof make explosively clear the contradiction inherent in the *Unité*: they no longer comment on the homogeneity of the space, like those on the solarium of the Villa Savoye, but give expression to its discontinuity, uncertainty, indomitability. In this way the *Unité* communicates the irrationality of a hypothesis not brought to conclusion, a gigantic fragment of a global conception of the city destined to remain pure ideology.

Moreover, in Marseilles Le Corbusier was no longer working for private clients but for the state and within the framework of a collective effort intended to make the public agent the key factor in a revival of building activity. The shadow of Colbert was coming to look ever more anachronistic, even if the master of La Chaux-de-Fonds was not disposed to abandon his own ideal of an intellectual labor capable of influencing the structures while at the same time remaining free. Thus, paradoxically, the Marseilles *Unité d'habitation* became a *type*, repeated with variants and deformations in Nantes-Rezé in 1953-55, in Berlin in 1956-58, at Briey-en-Forêt in 1957, at Firminy in 1967.

In the meantime, Le Corbusier had seen his project for the United Nations Building in New York rejected in favor of that of Wallace K. Harrison. After having first argued for a world capital in virgin territory and then been forced to accept the site in New York City on the East River between Forty-Second and Forty-Eighth Streets, he could only resign himself to the fact that New York was not open to transformation into a *ville radieuse* centered on the United Nations headquarters.

The paintings and sculptures Le Corbusier produced during those years can be taken to reflect his thought. In 1949 he painted his *Alma Rio '36* in which the transparencies and the linkage of the forms evoke the "magical" encounter of the artificial and the organic. But his Eros, discovered only in the 1930s when portraying young Algerian girls, burst forth in the polychrome sculptures he realized with the help of the cabinetmaker Joseph Savina. On the subject of his *Ozon* of 1946, in which the greatly enlarged symbol of the human ear is assailed by oneiric evocations, Le Corbusier wrote: "This kind of sculpture belongs to what I call acoustical sculpture, that is, forms that send out sound and that listen." That this is meant as a true and proper irruption of the uncontrollable surreal into the universe of certainties was evident already in 1943, in the large canvas titled *Je rêvais (I Was Dreaming)*, in which some sort of tangled mass of anthropomorphic metaphysical character emerges from an abruptly opened door. The Eros is rupture of the subjective individuality, tension upward, and lives only inasmuch as it is tension:

554. *New skyscrapers on Avenue of the Americas opposite Rockefeller Center, New York*



555, 556. *Ludwig Mies van der Rohe, Neue Nationalgalerie, Berlin 1962-68*

one can plunge into it only to wipe oneself out. If Mies renounced it in homage to a Kantian imperative, Le Corbusier welcomed it in homage to an effort to transcend the finiteness of the subjective individuality. Where contradictions were absorbed in the works of the 1930s, in those done after 1945 they were openly exhibited. Two diverse crises racked the later years of Le Corbusier. One derived from his discovery of the obsolescence of his cultural policy which called for "all power to the intellect"; the other resulted from his own intellectual adventures. The equilibrium between his ideas of radical modification of the urban and territorial organization and the autonomous charge of knowledge attributed to the working out of forms was thus broken. Thenceforth Le Corbusier would make that cleavage dramatically clear, concentrating instead on listening to the resonances arising from the fortuitous encounter of the imaginary with the real. In 1948 he designed an underground church for the grotto at Sainte-Baume between Marseilles and Toulon, with a pilgrimage hospice going down to the sea, and in 1949 the Roq et Rob complex at Cap Martin.

In 1950 he began designing the church of Notre-Dame-du-Haut at Ronchamp. Confronted with that church the critics have spoken of a return to irrationality and a betrayal of the Purist poetic or, conversely, a new "language of the soul" having universal value. The architect himself, writing about it, speaks of *acoustique paysagiste* (whose neologism could perhaps be paraphrased as "landscapal acoustic") and *espaces indicibles* (inexpressible or indescribable spaces). The *espace indicible* is what can be shown only, communicating values but not giving out information. A concrete vault in shell form stands out from a metaphysical formal dialectic. Archaic dolmens, Algerian villages, and organic cavities are evoked in curving, swathing spaces. Precisely where one expects some linking element Le Corbusier inserts an interruption. Even the sloping floor contributes to rendering absolute the programmatic loss of center, while the variations in thickness of the surrounding walls—made with salvaged materials and concrete frames—are brought out by the deep luminous windows that break up the walls. In that magical box Le Corbusier inscribed a summary of his own attempts to stand up to the various poetics of the avant-garde. The hermetic, archaeological flavor of the Ronchamp church has its own deep reason: its signs retrace the course of contemporary art in quest of their own origins. The openings laid out in a manner that smacks of De Stijl are countered by the poetic of the collage in the interior of the chapel, while the anthropomorphic periscopes of the three roundish towers and the upward slope of the roof introduce a suspended tonality generated out of the difficult encounter between Purism and Surrealism. In that exploration of their own history, the signs of the avant-garde aspire to a synthesis. What results is a dialectical labyrinth. The intellectual effort required to recompose that labyrinth into a unity is presented as work in the true sense: it alone is

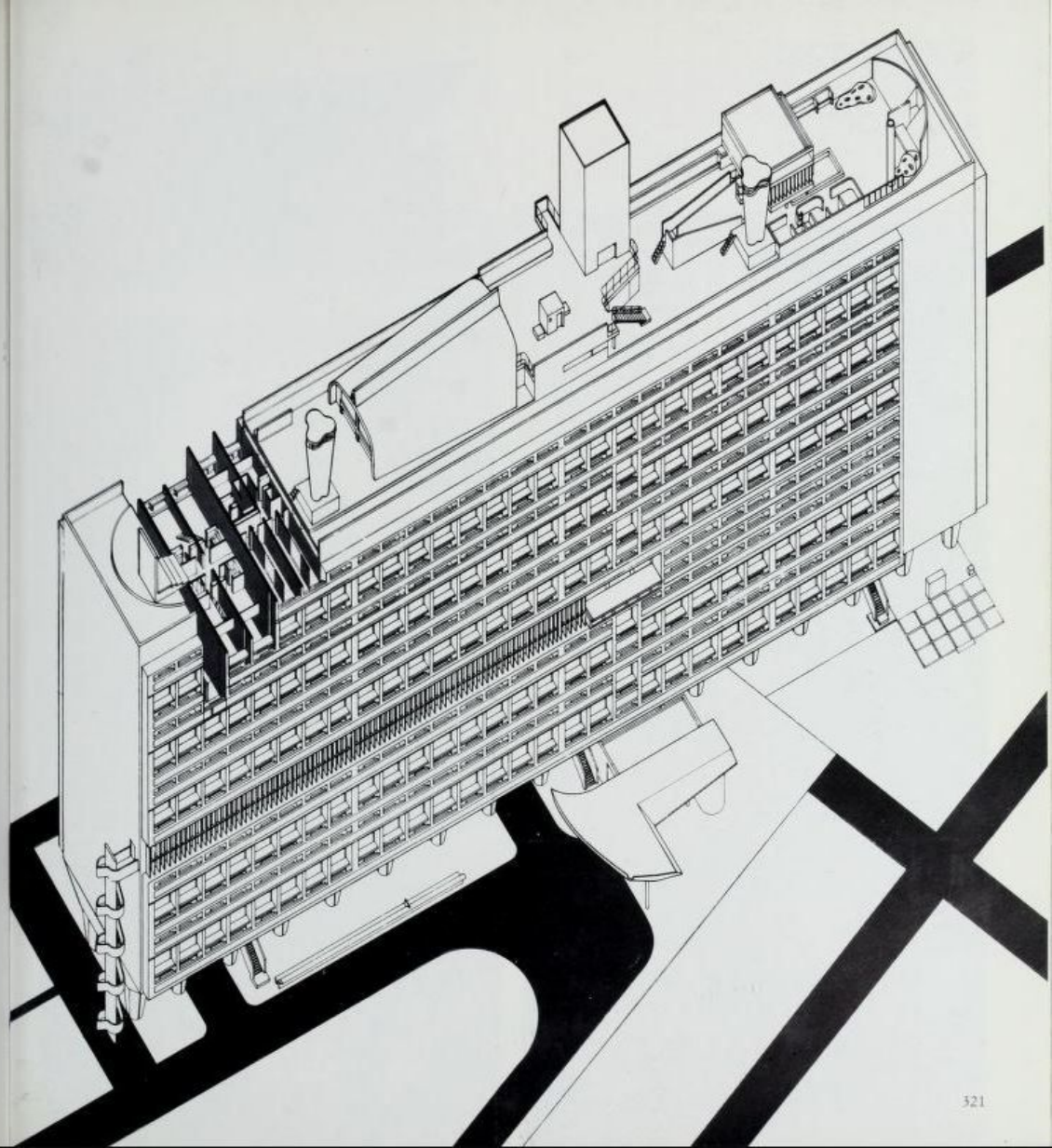
557. Le Corbusier, Sculpture No. 24, Ozon II, 1953
558. Le Corbusier, Unité d'habitation, Marseilles, 1946-52
559. Le Corbusier, Unité d'habitation, Marseilles, 1946-52, axonometric drawing

capable of breaking through the barrier set up between the space of illusion and the space of reality. The assertion assumes the connotations of a knowledge dominated by "a human too human."

The Modulor devised by Le Corbusier, a unit of proportion based on the Golden Section and put into use between 1942 and 1954 for standardizing production, brings down to finite form that "inexpressible" Neo-Humanism whose full expression is in the capital at Chandigarh, India. For this new capital of the state of Punjab, which occupied the architect from 1951 until his death fourteen years later, a plan had already been drawn up by the American Albert Mayer. It was based on the rigid division of the terrain by a sinuous network of diversified streets and sectors defined by community services. The commercial center is located at the intersection of the four main axes, and two green spines traverse the entire town longitudinally. After the death in 1950 of the Polish-American architect Matthew Nowicki who had initiated more detailed studies, Le Corbusier was brought in. He limited himself to regularizing the network devised by Mayer, to defining the sectors on a module measuring 1,200 by 800 meters (1,312 3/8 by 874 7/8 yards) that he had already used in 1950 in the plan for Bogotá, to establishing a more rigid hierarchy for the streets, and to defining the character of the individual sectors to be traversed by winding commercial streets and joined at right angles to green areas containing schools and health services.

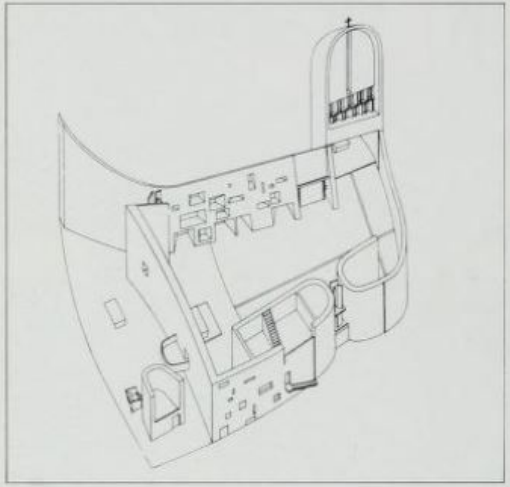
There has been much criticism of the rigorous application of the Charter of Athens to the overall plan of Chandigarh, whose sectors, moreover, were rigidly divided according to caste and social class. Le Corbusier was no longer proposing global models. After confining himself to corrections in the existing plan, he left the entire realization of the new city to Jane Drew, E. Maxwell Fry, and Pierre Jeanneret. India was not the place to realize the city-machine that would be capable of embodying the great values of a self-aware bourgeoisie. In Chandigarh, he could only continue the autobiographical discourse begun in Marseilles and Ronchamp, immersing it in the enormous space of the government sector isolated from the city and in intimate contact with primordial nature. There the dissemination of the forms, already announced on the roof of the Marseilles *Unité*, in his wooden sculptures, and at Ronchamp, is projected into three large-scale buildings that face each other but remain alien and isolated. The Secretariat, 277 3/4 yards long, is separated from the Palace of Justice by a distance of 503 1/8 yards that is occupied by pools and by the Trench of Consideration, while the low mass of the Assembly Building, dominated by the tetrahedron of the Lower Chamber and the curved parabolic cylinder of the Upper Chamber, faces the High Court.

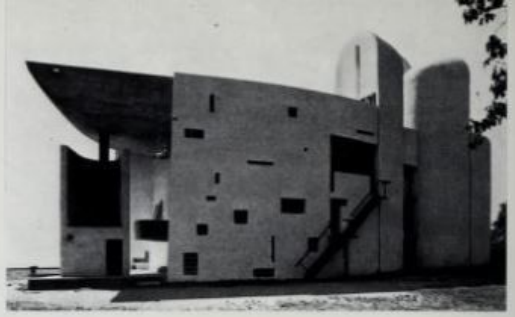
The overt contradiction affects the individual organism as well. The *brises-soleil*—the grille of sunbreakers that makes up the wall—of the



560. *Le Corbusier, axonometric projection, Notre-Dame-du-Haut, Ronchamp, 1950-55*

561, 562. *Le Corbusier, exterior views, Notre-Dame-du-Haut, Ronchamp, 1950-55*





563. *Le Corbusier, interior of a tower seen from below, Notre-Dame-du-Haut, Ronchamp, 1950-55*

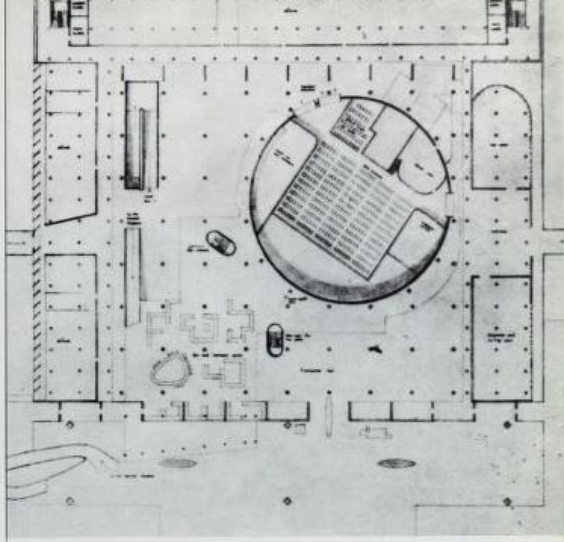
564. *Le Corbusier, interior, Notre-Dame-du-Haut, Ronchamp, 1950-55*

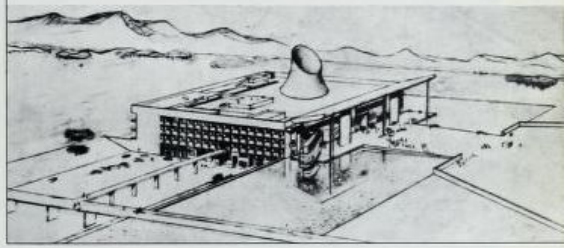
XXXIII. *Giovanni Michelucci and collaborators, Santa Maria Novella railway station, Florence, 1936*

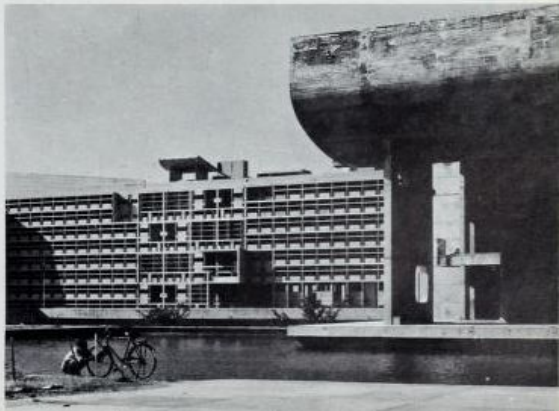
XXXIV. L. Ruff, Zeppelinfeld, Nuremberg, early 1930s

565. Le Corbusier, plan and drawing, Parliament Building, Chandigarh, 1951-65

566. Le Corbusier, Secretariat with corner of Parliament Building in foreground, Chandigarh, 1951-65





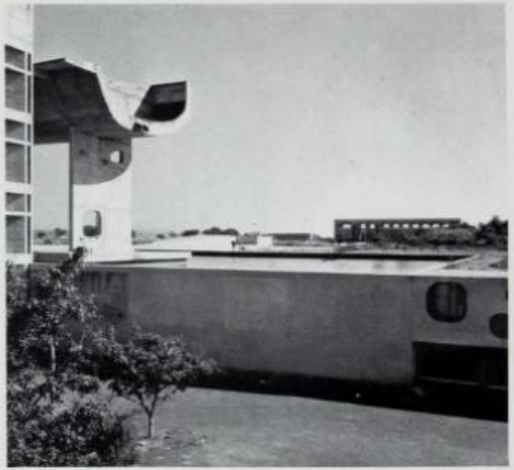


Palace of Justice bends forward as if to force itself to enter into relation with the other edifices. A succession of nonsupporting vaults separate the roof from the *brises-soleil* and the very broad open interruption in the façade. In the Assembly Building, the forest of slender pillars that make a labyrinth out of the great hall—in semi-darkness and with its ceiling painted black—is broken by the swirling and embracing spaces of the two Chambers. The homogeneity of the façade of the Secretariat is violated by a ramp extending outward and by the different pattern of the portion containing the two-story-high offices. Here one recognizes that the three buildings call to each other across the distances. The tension that wells up from their unattainable colloquy tells us that the place to seek the key of their language must be in the intervening space, which in fact contains the Trench of Consideration dominated by the Monument of the Open Hand. Once one descends into the trench the three buildings disappear from view: the impossible colloquy between the great values gives way to silence, to an invitation to reflect on them.

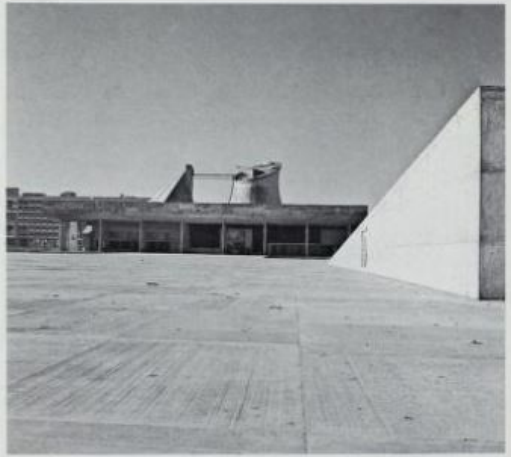
With Chandigarh, as with Ronchamp, the Millowners' Building in Ahmedabab designed in1951 and built in 1956-57, the monastery of La Tourette in Eveux built between 1952 and 1959 where the Dominican monastery organized around a court pullulating with interrupted passages and hermetic symbols becomes the ultimate residential model, Le Corbusier decisively isolated the problem of architectural language. The forms that absorb the space with their materiality—as in the Jaoul house of 1953-54 in Paris or the Carpenter Arts Center (1961-64) at Harvard University—withdraw from productive reality. The project for a church in Firminy, which Le Corbusier formulated in 1962, would take up again the theme of the truncated cone employed in the Chandigarh Assembly. Likewise, in the Philips Pavilion at the Brussels Exposition of 1958 the synthesis of the arts alluded to an improbable scenario of the future. In contrast, the present becomes manifest as space that ruptures all relations between processes of economic valorization and autonomy of the word. "Speaking" is possible only by taking onto oneself the burden of such trauma. But communication will border on reflection concerning its proper role within the never-contested *civilisation machiniste*.

Not to be submerged by the wave of the monetary flow that shapes the metropolis was the goal of Le Corbusier in attempting to dominate that flux intellectually. In the end, however, the intellect found itself reduced to impotence. But from that checkmate it learned that it could speak. Its battle languages still had something to communicate, but only by taking refuge in mystic spaces, monasteries, the foothills of the Himalayas—withdrawing from the metropolitan reality that it had mistakenly believed could be reconciled with itself. The cultural courses of Picasso and Le Corbusier ran parallel. Extended to its limits, language—which has placed its own mortgage on the real—incessantly fractures its own unity, refusing to make peace with what has obliged it to accept exile.

567. *Le Corbusier, detail of Parliament Building with the Palace of Justice in the background, Chandigarh, 1951-65*



568. *Le Corbusier, Parliament Building, Chandigarh, 1951-65*



The architectural *parole* thus returns to its origins: in the act of self-reflection, it floats on the wave of the real, leaving there the sign of the sick conscience of a high-bourgeois universe which asks itself the reasons for its having come to grief, knowing that it cannot give the answer.

Frank Lloyd Wright

Alien to the lacerating revisions Le Corbusier went through, Wright after the war continued to send forth from his refuge in the Arizona desert messages to his imaginary Usonia that went unheard. Now identifying himself completely with his own myth, the aged master was still convinced that incessant self-renewal contains in itself a symbolic nucleus. If the "always and anew" of Mies immobilizes the Mittel-Europa illuministic mythology, the never-ceasing linguistic metamorphosis of Wright incarnates the mythology of the American pioneer now determined to win his own "interior territory." The community cannot realize itself until each individual will have recovered his own integrality, until each is liberated from the alienating constrictions of the "mobocracy."

Not involved in the architectural and urbanistic problems of the Roosevelt era, Wright continued to work and rework his Broadacre project, publishing a final version of it in the 1958 edition of *The Living City*. The place of the "great Peace" coincides with that of maximum mobility. At the core remains a social utopia rooted in eighteenth-century anarchism with all its inherent nostalgia for the great universal harmony of the separate elements implicit in the monadology of Leibniz. Wright's project for the Mile-High Illinois skyscraper in 1956 by no means contradicted the utopia of Broadacre: both deny the reality of the existing city, both intone a Puritan hymn to the purifying faculties of the absolute individual.

But after the war and the experiences of the 1940s utopia could no longer claim to be an immediate value. To the recourse to memory—already initiated in the works of the 1920s and 1930s—there was now a yearning toward the future, tinged nonetheless with lucid valences. The play element, the private activity that united work and pleasure which had been the point of departure for the young Wright, became more marked and broader in his works of the 1950s.

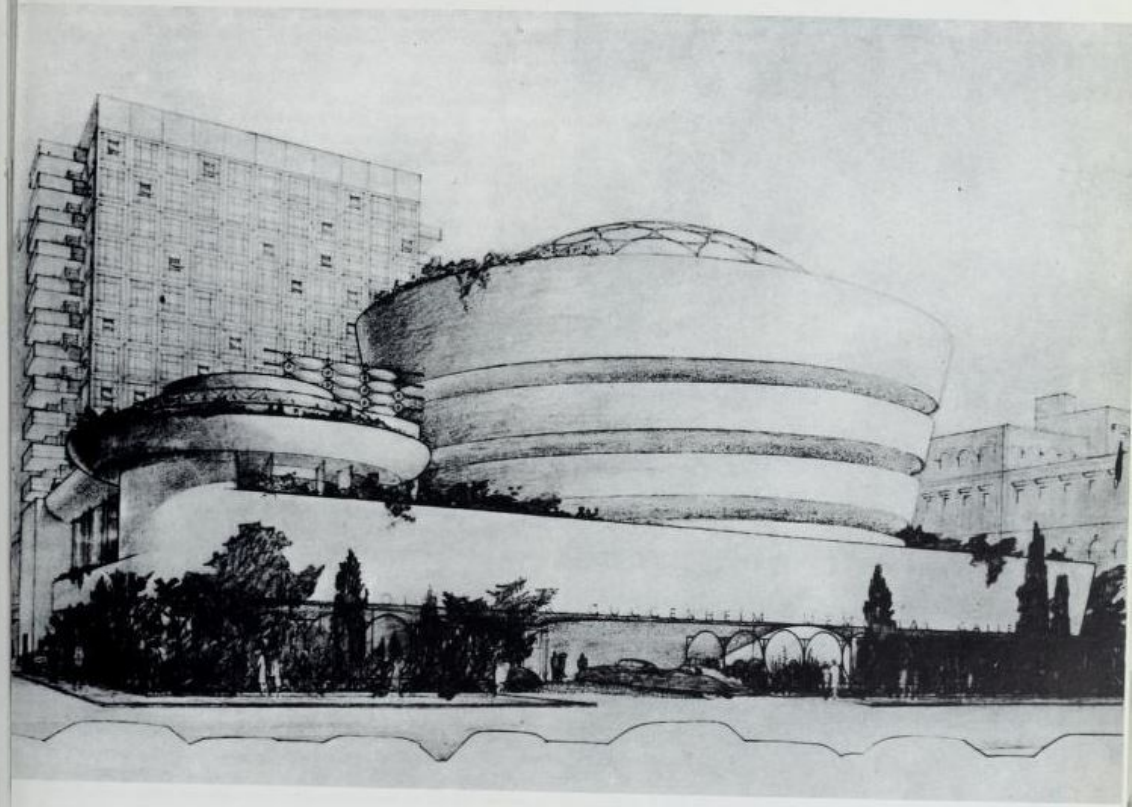
For Wright, form entirely caught up in the process of becoming—mobile, yearning to emerge from itself to join the unfettered flow of the forces that govern the cosmos—cannot recognize its own checkmate. The pause marked by the Usonian houses was followed by a truly excessive complication of geometrical forms that connect, interpenetrate, fragment each other in turn, and, as already manifest in certain previous efforts, follow curvilinear flows. In the second Herbert Jacobs house in Middleton, Wisconsin, built in 1948, the David Wright house of 1952 in Phoenix, Arizona, but most of all in the project of 1947 for the Huntington Hartford Country Club in Hollywood Hills and the project

569. *Le Corbusier, exterior, Monastery of Notre-Dame de la Tourette, Eveux near Lyons, 1952-60*

570. *Le Corbusier, court, Monastery of Notre-Dame de la Tourette, Eveux near Lyons, 1952-60*

571. *Frank Lloyd Wright, proposal for the Huntington Hartford Country Club, Hollywood Hills, 1947*

572. *Frank Lloyd Wright, project for the Solomon R. Guggenheim Museum, New York, 1949*



573, 574. Frank Lloyd Wright, Solomon R. Guggenheim Museum, New York, 1956-59

of 1951 for the Boulder House of Liliane and Edgar J. Kaufmann in Palm Springs, that poetic of the open form became complicated by linguistic and structural exasperations that accentuate the allusiveness of the signs and spaces. The spiral, symbol of the eternal return and of the link between the contingent and the infinite, appears as the underlying structure. The objects of circular shape that are suspended at different heights on the trapezoidal crutch supporting the paradoxical interpenetration of artificial forms and natural elements in the Country Club design wind upward according to a spiral principle. In fact, they derive from something Wright first attempted in his projects for the Gordon Strong Planetarium at Sugar Loaf Mountain, Maryland. The spiral is also symbol of an inclusive, but not conclusive, synthesis in evolution. It reappears as a helical ramp in the V.C. Morris gift shop in San Francisco, done in 1948-49, which is lighted from a concave ceiling, and also in the city-scale plan for Point Park in Pittsburgh in 1947. For the entrance of the Morris shop with its repeated arches, Wright again had recourse to the poetic of memory. In one way it recalls the entrances of certain of the Prairie houses; in another it alludes to the prime source of his organicity: the Neo-Romanesque of Richardson and the Golden Door of Sullivan.

For Wright, geometry was never a given or ultimate element of a linguistic asceticism as in European Purism. He dealt with it in the same way he dealt with technology, considering both as obstacles to be overcome, challenges to the imaginary made by the crystallization of the forms. Geometry and technology had to be sublimated in supreme testimonies to the victory of the act that manipulates them, "liberating them and liberating oneself." To play with geometry and techniques means indicating the possibility of transcending the civilization of labor: this presents itself as prophecy of a post-technological civilization. The romantic anticapitalism of Wright has its roots in the myths of the founding fathers, alluding to the necessity of a long voyage through inner time. To traverse it, however, one must—like Melville's Billy Budd—become naive again, not to meet a mortal destiny but rather to present that new ingenuity as supreme artfulness.

The flying saucers in the drawings in *The Living City* are not mere graphic jokes. Their form reappears in many of the last projects of Wright, from the Huntington Hartford Country Club to the Monona Terrace in Madison, Wisconsin, and it was in that same spirit that he conceived the civic auditorium and opera house for Baghdad in 1957—a phantasmagoria of mountains, watercourses, and exotic objects culminating in a scintillating spire. The aggregation of the forms no longer shows the slightest necessity. The experience of the gratuitous aims to liberate the forms, at the ultimate to make them levitate, transforming them into nothing more nor less than improbable future-fiction flying objects. Among the European avant-garde ideas of "flying architecture" had likewise had some fortune; for example, in the "flying houses" of Krutikov, the *Letatlin*, and also in the *Planits* of Kasimir Malevich. But unlike those examples, for Wright it was not a matter of melancholy farewells to the world. The master of Taliesin looked at reality in evolution with the eyes of one of Mark Twain's innocents but was firmly resolved to make his metaphors of an electronic future soar above earth. Not that there was any populist organicity à la Hugo Häring in this. Nature is now cosmic law as Wright demonstrated in his Beth Sholom Synagogue of 1959 in Elkins Park, Pennsylvania: a mountain of light that incorporates the forms of the Tahoe and Nakoma tepees he had first experimented with in the early 1920s.

But in one building his flying saucers do truly soar in the city, even though anchored on the ground for a temporary landing. The most significant realization of his last period, the Solomon R. Guggenheim Museum in New York, was projected from 1943 to 1945, modified a number of times, and finally erected between 1956 and 1959. The museum consists simply of a helical ramp along whose walls the works of art are displayed. The public, whisked to the top in elevators, is invited to follow the winding course downward. This was Wright's last and ultimate polemical challenge to the avant-garde art the museum was founded to present. According to the aged master, the pictures ought to have been hung on the sloping outer walls of the ramp and illuminated from gaps between the successive levels—so that the combination of raked light and a slope such as to encourage visitors to end up running would nicely do the job of distracting all their attention from the works they had foolishly come to see. Not irrelevantly, Arthur Drexler defined the Guggenheim Museum as "a Gordon Strong Planetarium turned upside down." In effect, its architecture, totally alien to its Fifth Avenue context, is an embracing and enclosing totality: the helical cylinder with cone expanding upward is supported by nothing more than twelve slabs at 30 degree intervals. Here the dialectic of the forms is transcended, just as in the Price Tower of 1953-56 in Bartlesville, Oklahoma, where Wright went back to a project of 1929 for a vestry tower for St. Mark's-in-the-Bouwerie in New York, or to his Unitarian Church of 1951 in Madison, Wisconsin.

But the Guggenheim Museum also displays certain affinities with the administration building of S. C. Johnson & Son in Racine, Wisconsin, built during 1936-39. In that building a series of superimposed platforms shows through the prism with rounded corners that encases the internal treelike structure. Understandably, after visiting Rome in 1956 Wright referred to his Guggenheim Museum, on which construction had only just begun, as his "Pantheon," while in 1952 he had summed up its characteristics as: "... a greater repose, the atmosphere of the quiet unbroken wave: no meeting of the eye with abrupt changes of form." It should be noted that such absolute continuity was in fact achieved by means of elaborate technological artifices. In the second project, that of 1954, the

575, 576. Frank Lloyd Wright, Marin County Civic Center, San Rafael, California, begun 1959

577. Frank Lloyd Wright, proposal for cultural center, Baghdad, 1957

ramp was to be self-supporting, while in the minor cylinder containing the offices the supporting structures were to be the spine of the elevators. These were to be wedged into the compact volume along with columns that would rest on consoles suspended over the floor of the first story which, in their turn, were to be poised on a continuous cement wall. Taken all together, this plan seemed to demonstrate that technology was being used as an unreproducible virtuosity, as an instrument of a global experience involving both the space of existence and that of memory. Vincent Scully rightly observed that the ramp in the museum recalls that of a building not of the avant-garde—the Vatican Museum's designed by Giuseppe Momo in 1929. As in his California villas of the 1920s with their wealth of Mayan or Aztec memories, here Wright used the citation as assonance filtered through his personal experience. Indeed, the glass dome of the Guggenheim Museum with its compressed beams is yet another echo of his Roman stay. Memory, when deprived of history, can occasion fortuitous encounters. The pressing need of Wright to establish roots, if only to get around them promptly, became balanced in his late works by an ever more hermetical architectural handwriting. This was the result of his return to the city after the interlude in the wilderness. The attempt to realize the city of broad spaces coincided with the sublimation of the immense American suburb. The place where the frontier ideology was to achieve communion with the post-technological future was destined to be—as has been perceptively observed—Disneyland, the city where the playfulness is king of the revels, a realm of the aspiration to childhood typical of the American public.

Conversely, Wright's attitude toward nature likewise changed in his last works. In them the natural site was taken as an alternative to paradoxical structures. In the Key Project for Ellis Island cylindrical towers are supported by gigantic piers braced by steel cables fixed into the ground, while the terrain itself is broken up into circular depressions and hemispherical bubbles. The voluntary exile of Wright no longer had to do with the metropolis alone; not even the desert could contain the pantheistic message of the old master. The Marin County Civic Center in San Rafael, California, of 1959-62 is a gigantic fragment of a planetary city resting on a markedly uneven landscape, a landscape that in an atmosphere of suspension clashes with the complex organism that rises out of it. The resulting effect of alienation is among the highest achieved by Wright in his later years. The edifice converges toward an organism with flattened dome that is counterpointed by a minaretlike, segmented three-sided spire soaring skyward. The long glassed galleries around walls of full height, the incorporeity of the structure, and the succession of broad arches that surmount the rolling terrain or, on the upper levels, sew together the organism with an obsessive reiteration—all these take in the entire gamut of the linguistic ingredients that Wright experimented with in the course of his long career.

The Big Child no longer had fixed points of reference with either history or nature. His realm was the flux of existing, and his prophecy was that of "lightness" reachable with the serenity of one who had gone beyond the anguish of the present with a long march toward higher stages of lighthearted alienation.

Autobiographies, returns to origins, ruthless and perverse subjective testimonies—these are the last messages of the masters of the modern movement. Or they are, as in the case of Gropius, the passive assumption of a professional reality judged, as far as its facts go, not modifiable. For the young who wished to infuse into the architectural discipline a commitment aiming at modifications of its institutional structures, such messages could only appear hermetic, if not simply useless. To make them otherwise would require picking and choosing and deforming what was taken, as in the use Le Corbusier made of the New Brutalist approach. But the final outcome of the utopia—no matter whether it be progressive or regressive—was such as to provoke a split between, on the one hand an architecture that, amid whatever it took over from Mies and Le Corbusier and Wright, was returning to being itself and itself alone, language and communication, and, on the other hand, the initial objectives of the ideology of the avant-garde. In short, an architecture that functioned as point of departure for an overall control of the urban reality. The distance between the recovery of the autonomy of the language and the heredity of May, Martin Wagner, or Cor van Eesteren has become extreme. At the same time the problem posed by the capitalist reorganization of the system of production has introduced new themes and veritable revolutions into the structure of intellectual labor. Such, then, is the dramatic dichotomy facing the generations that have taken up the difficult heredity of the "tradition of the new" between 1950 and today.

XXXV. Le Corbusier, Parliament Buildings, Chandigarh, 1951-65

XXXVI. Le Corbusier, Parliament Buildings, Chandigarh, 1951-65

Chapter XVIII

BETWEEN NATIONALISM AND POPULISM: THE BAY REGION STYLE, SCANDINAVIAN NEO-EMPIRICISM, ITALIAN NEO-REALISM, THE WORK OF ALVAR AALTO

Beginning at the end of World War II the experimentation of the masters we have been examining was matched by a general indictment of the intellectual premises of the established modern movement, especially on the part of the younger generations. Avant-garde architecture now seemed to be all but bankrupt, especially regarding its claims to playing a guiding role in the processes of planning and social progress. Very much as after World War I, the technologically minded avant-garde who had launched modern architecture was put on trial by a generation who identified the horrors of the world conflict with the myth of technical development. Moreover, lacking a rigorous historical understanding of the recent past, this younger generation tended to regard the modernist movement as a linear process that could be traced to the schematisms of the International Style. It seemed possible to counter these schematisms by a sharp change in route or, at any rate, a return to romantic approaches that rejected "rationalism," the so-called organic method whose premises could be found in the work of Frank Lloyd Wright or Alvar Aalto.

The new cry was for humanization, for attention to psychological factors, for expressive use of materials, integration into the environment, concern for local traditions. Everything the prewar avant-garde seemed to have ignored was brought forward now, along with yet another myth: adherence to the site as the new naturalism. The origin of that artificial rediscovery of nature is not difficult to recognize. It was an appeal to a reassuring ritual, rich in consolatory qualities, that was not compromised by association with the thinking of the modernist avant-garde. Above all, it was an anti-technological and neo-humanistic myth disdaining rhetoric and therefore aspiring to a positive relationship with the public on the basis of empirical languages in which they could have confidence. Even if the forms used were those of the minor and popular traditions, the analogy between such movements and what was upheld as Socialist Realism appears obvious today. Between 1945 and the mid-1950s that attitude spread phenomenally, affecting the American west coast in what became known as the Bay Region Style, the England of the New Towns, the Neo-Empirical movement in Scandinavia, and the Organic movement in Italy.

The most notable representatives of the Bay Region Style are William Wilson Wurster (b. 1895), Harwell Hamilton Harris (b. 1903), and in one aspect of his activity at least, Pietro Belluschi (b. 1899). Not without a touch of paradox Vincent Scully has spoken of an affinity with the American New Bauhaus in his book *American Architecture and Urbanism*: "... the two schools cannot be regarded as classic and romantic, or mechanical and natural polarities, as some critics attempted to do at the time. They were both simply small-scale architecture, prevented by depression and war from the chance to tackle large social programs and monumental buildings, and perhaps already deprived by their own hermeticism from the capacity to do so." If that is true of such descendants of the Shingle Style as the Johnson house of 1949 by Harwell Hamilton Harris in Los Angeles, or the numerous houses by William Wilson Wurster in California, it is very much less so of the architecture of the first British New Towns or the low-rent housing blocks in Scandinavia or Italy. In the latter the recourse to a language of camouflage rich in inflections from the local dialects again drew upon a tradition that originated in the attempts by Raymond Unwin or W. R. Lethaby to give the leading role, in the best examples, to an urban landscape of a marked domestic tint. The residential architecture of the New Cities near London is the prime example of that sort of antiformalism with its roots in the picturesque. In substance aiming to create more human ambiances to counter metropolitan alienation, the New Towns ended by bringing back onto the scene an antiurban attitude.

This is equally true of the various currents of Scandinavian Neo-Empiricism. All the motifs of the mystical approach to nature and of pseudo-psychologism found a fertile terrain in the particular conditions of Swedish and Finnish society as well as in the Scandinavian architectural language of the 1930s. The electrical powerhouses designed in the 1930s by Osvald Almqvist, the Swedish Pavilion by Sven Markelius at the New York World's Fair of 1939, the house Gunnar Asplund built for himself in 1937 were echoed in the 1940s and 1950s with the return to traditional and popular motifs that characterized the architecture of Sven Lind, Sven Backström (b. 1903), and Leif Reinius (b. 1907). In realizing the New City Plan of 1952 for Stockholm, laid out under the direction of Markelius on the basis of semiautonomous nuclei, Backström and Reinius were able to carry out on a much larger scale the typological ideas they had experimented with in various districts of Stockholm—the tall apartment houses of 1945-48 in Danviksklippan, the star-shaped houses of 1946 in Gröndal, the Rostamradet district—and in the serpentine house in Drottningholm. The entire inventive effort of these architects consists essentially in devising flexible urban modules whose geometrical character permits articulations that fit well into the natural site, leaving the color, simplicity, and traditionalism of the details to provide the more immediate attractions. Moreover, the plan for Stockholm, based on a directional center in the heart of the city—five slablike skyscrapers enhanced by broad pedestrian areas—and decentralized satellite towns, suggests urban dimensions at least analogous to those of the British New Towns. It was in the shopping centers of the satellite towns of Vällingby and Farsta that Scandinavian Neo-Empiricism reached its high point: the urban space mimes itself and becomes a sort of permanent theater, open to all sorts of pleasant formal distractions.[1]

Yet it was not accidental that the Scandinavian example had considerable influence in Italy during the postwar years of reconstruction. What was being done in social-democratic Sweden had a particular attraction for Italian architects in search of inspiration

578. *Diagram of the ensemble of the satellite towns of Blackeberg, Grimsta, Hässelby Gard, Hässelby Strand, Racksta, and Vällingby around Stockholm, begun 1952 (from Urbanistica, 1965)*

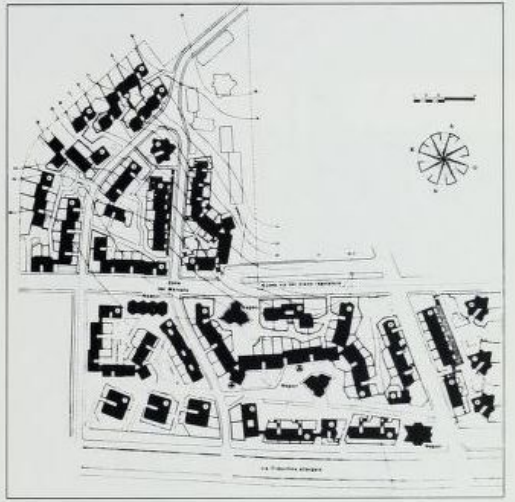
579. *Stockholm City Planning Office, project for the satellite town of Farsta, 1948 (from Urbanistica, 1950)*

580. *Sven Backström and Leif Reinius, plan for the satellite town of Rostamradet, Stockholm, 1948 (from Urbanistica, 1950)*

XXXVII. *Frank Lloyd Wright, Solomon R. Guggenheim Museum, interior, New York, 1956-59*

XXXVIII. Alvar Aalto, Polytechnic Building, Otaniemi, Helsinki, 1955-64

581. Ludovico Quaroni, Mario Ridolfi, and collaborators, definitive plan, Tiburtino district, Rome, 1950

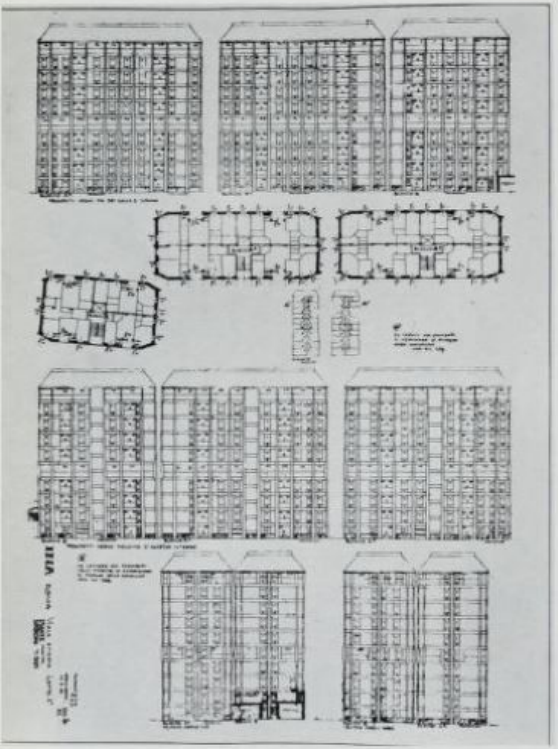


582. Ludovico Quaroni, Mario Ridolfi, and collaborators, apartment houses, Tiburtino district, Rome, 1950

independent of the cultural ambiguities of the preceding period in their own country. But what has been called Italian architectural Neo-Realism, by analogy with the postwar films of Rossellini and Visconti, had much more complex motivations. The central concern—particularly for architects of the Roman school, Mario Ridolfi (b. 1904), Ludovico Quaroni (b.1911) or Mario Fiorentino (b. 1918)—was an insistence on defining a language that would be directly communicative for the poorer classes who were viewed as the protagonists of the postwar reconstruction. In the INA-Casa blocks of the Tiburtino district in Rome—a veritable manifesto of architectural Neo-Realism—Ridolfi, Quaroni and various younger collaborators laid out an informal ground plan (in homage to the myth of "spontaneous" forms) and used such artisanal building materials and techniques as wrought iron and Roman-style brick vaults and details in the local dialect. This ensemble constituted explicit references to the peasant world extolled for its uncontaminated naturalism. Certainly that rediscovery of rural purity was simply one aspect of the cultural populism that was so in vogue in postwar Italian culture. It was a regressive utopia with nostalgic accents. But, as far as architecture was concerned, it created a true and proper ideology that was adequate to the particular role that the building industry was called on to fulfill in the period of reconstruction. The *Manuale dell'architetto* of 1946, prepared by Ridolfi and G. Calcaprina for the National Research Council, was symptomatic of this. Exaltation of traditional craftsmanship and an architecture conceived as product of an intellectual artisanry—these were just the thing for the building trades, an economic sector that was utilized as a reservoir to absorb the vast unskilled general labor force moving into the cities from the underdeveloped south and the country areas, but which could function only as tools of real estate speculation and therefore had to make do without technological improvements and rationalized production methods. This explains the interest of Neo-Realist populism for the depressed areas of southern Italy. There the meridional ideology of liberal figures such as Carlo Dorso and Gaetano Salvemini was taken up in ambiguous poetics.

After the experience of the Tiburtino quarter, while Ridolfi was refining his language with its rich Expressionist inflections in the Cerignola quarter and the towers on Viale Etiopia in Rome, Quaroni went to work for the commission studying what to do about the Sassi di Matera—the cave-dwelling area described by Carlo Levi in *Christ Stopped at Eboli* and denounced as "the shame of Italy." Quaroni realized for the United Nations Relief and Rehabilitation Administration an entirely new village, La Martella, where the inhabitants of the caves could be relocated. The peasant epic expressed by La Martella was fully representative of the state of mind of Italian intellectuals in the 1950s. "To weld together the cultivated tradition and the popular tradition," was how Ernesto N. Rogers described the task and aims of a vast number

583. *Ludovico Quaroni, Mario Ridolfi, Mario Fiorentino, and collaborators, perspective view from the plaza, competition project for the Stazione Termini, Rome, 1947*



584. *Mario Ridolfi, elevations and plan of the first three blocks, INA apartments, Viale Etiopia, Rome, 1951-54 (from Controspazio, 1974)*

of architects at the time. In their design for the new Rome railway station, Quaroni, Ridolfi, Fiorentino, and their collaborators aimed to give monumental form to the populist approach by means of a structural expressionism intended to establish a direct emotive contact with the public. The popular-national language called for by the early theorist of Italian communism, Antonio Gramsci, was reworked, drawing from the new climate that emerged during the Resistance no more than an abstract nostalgia and superficially thought-out ideas. It was on that sort of thinking that Michelucci, after the ambiguous explorations that followed his experience with the Florence railroad station, formulated a theory of the city as the product of its own users.

The old roots of Tuscan anarchism put out fresh shoots. The ideal of Michelucci about architecture as the "natural absolute," the product of popular spontaneity, revived the sort of utopias fancied by Bruno Taut. Nevertheless, in the Commodity Market Building (Borsa Merci) of 1949-50 in Pistoia, the churches at Collina and Larderello, and the restaurant known as the Osteria del Gambero Rosso of 1961-63 in Collodi, Michelucci limited himself to a discreet integration of architecture into the environment, to a deliberately anti-intellectual approach. The final outcome of that fusion of modern tradition and the vernacular came in 1964 with the Chiesa dell'Autostrada, a church intended for motorists on the superhighway just outside Florence. In that structure populism ended up in a sort of informal architecture giving rise to unresolved ambiguities.[2] Likewise, among Milan architects, in a much less populist-minded environment than Rome, the housing developments in the suburb of Cesate (designed by the BPR Studio, Albini, Gardella, and others), certain works by Gardella elsewhere, and such buildings by Albini as the hotel in the mountain resort of Breuil (Cervinia) designed specifically for children in 1949-50, tend to absorb popular stylistic formulas into empirical syntaxes.

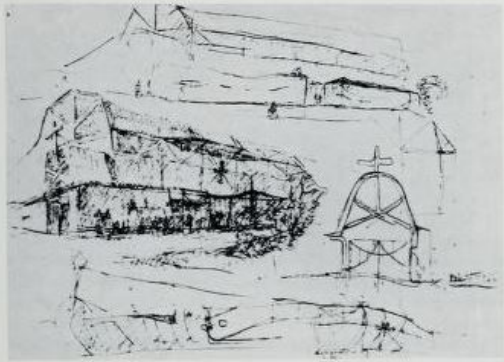
But the Italian architectural experience of this period must be viewed also against the background of the polemics for and against Organic Architecture. In 1945 Bruno Zevi founded in Rome the Associazione per l'Architettura Organica (APAO). It was a rather combative group to which the most vital and youthful forces in Italian architecture adhered on the basis of a program that remained generic when it came to specific objectives—the models of Wright and Aalto propagandized by Zevi had very little influence. But APAO was more precise politically; it was inspired by the notion of a "third force." As so often is the case, despite its initial manifesto demanding structural reforms in the right to own land and in the urbanistic discipline itself, the APAO soon fell into line, because its premises were all too fragile to begin with. Among the few serious Italian attempts to approach anew the language of Wright are certain projects by Giuseppe Samonà such as the Traumatology Hospital in Rome and a villa in Mondello, the masterful interpretations by Car-

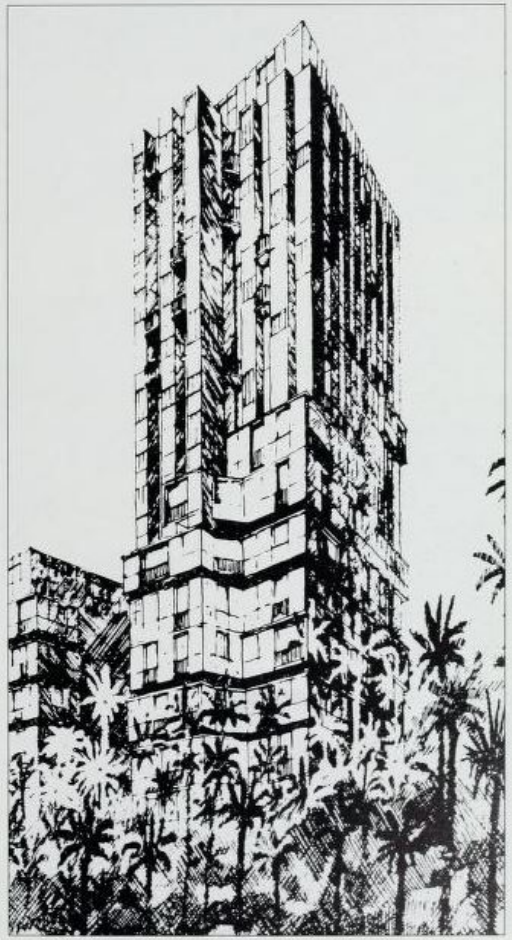
585. *Ludovico Quaroni and collaborators, project for the church in the new village of La Martella (Matera), 1951*

586. *Ludovico Quaroni and collaborators, aerial view, new village of La Martella (Matera), begun 1951*

587. *Giovanni Michelucci, sketch for the church in the new Villaggio di Belvedere district, Pistoia, 1959*

588. *Giovanni Michelucci, Roma Building, Livorno, 1961-66*





589. *Alvar Aalto, dormitories, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1947-48*

590. *Alvar Aalto, auditorium, Polytechnic University, Otaniemi, 1955-64*

591. *Alvar Aalto, perspective drawing and plan, project for congress building and concert hall, Helsinki, 1962 (built 1967-71)*

592, 593. *Alvar Aalto, section and exterior, congress building and concert hall, Helsinki, 1967-71*

lo Scarpa (1906-78), and occasional efforts by Luigi Pellegrin (b. 1925).

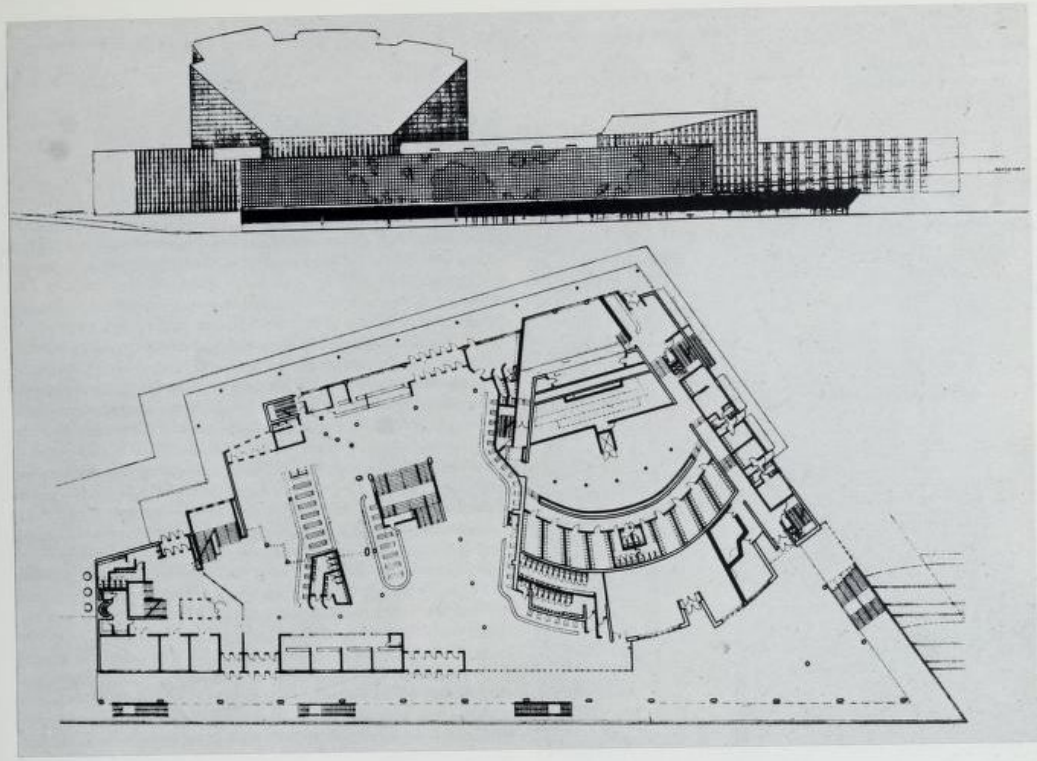
Toward the mid-1950s, therefore, Italian architects found themselves faced with the need for thoroughgoing rethinking of their approaches. Moreover, this was at a point when the myths and hopes fostered by the ferments of the previous decade were more and more revealed to be ineffectual.

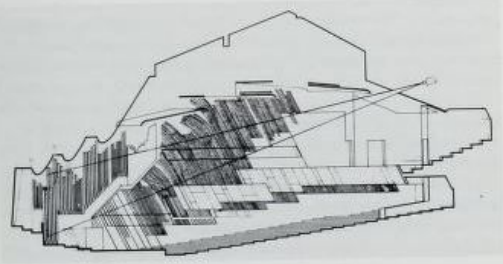
With respect to what we have seen so far in this chapter, the work of Alvar Aalto from 1945 on constituted both a continuity and an alternative. What it had in common with those contemporary developments was a generic naturalism and an avowed fidelity to what has been called psychological functionalism. On the other hand, Aalto was quite certainly alien to all programmatic appeals and intent only on carrying further the lines of a language he had already clearly formulated in the late 1930s. Resolutely indifferent to both Swedish naturalism and Italian populism, he continued to pursue a syntax at whose base was a highly charged relationship between organic forms and geometrical articulations. In the best of his works his architecture proved to be readable in several keys; in these structures the naturalistic pole loses much of its pull and resolves itself into a succession of deliberately ambiguous, polyvalent, allusive forms. His language could touch high peaks, as in the Säynätsalo Town Hall of 1950-52, the Rautatalo of 1952-54 in Helsinki, and such major works as the National Pensions Institute of 1952-56 and the Cultural Center of 1955-58, both in Helsinki, and the church of 1956-58 in Vuoksenniska near Imatra.

But Aalto could lapse into facile mannerist self-imitation in less controlled works—indoor stadium at Otaniemi of 1949-54, the Teachers' Training College of 1952-57 in Jyväskylä, or the Cultural Center in Wolfsburg, Germany, designed in 1958.

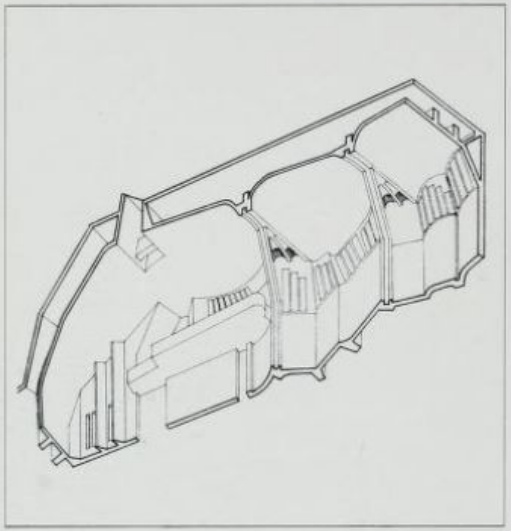
We know how Aalto justified his choice of forms. Acoustical reasons along with maximum self-sufficiency of the interior spaces were adduced in support of the tripartite division in the church at Vuoksenniska, just as the molded forms of many of the furnishings he designed for the Artek firm he founded with his wife Aino were explained in terms of the various ways furniture can conform to the human body. But especially in the 1950s his language showed that such reasons were being adduced to justify an increasingly abstract approach.

In the Helsinki Cultural Center the curves of the compact volume of the large hall and the rarefied geometry of the office block are welded together by a projecting roof that accentuates the fragmentary character of the ensemble. Such deliberate dissonances reappear in even more emphatic form in the church in Vuoksenniska with its numerous informal valences (note the treatment of the openings on the exterior) in a play of actions and reactions of the various forms among themselves. Between the structure of the organism and its articulations there arises a conflict of

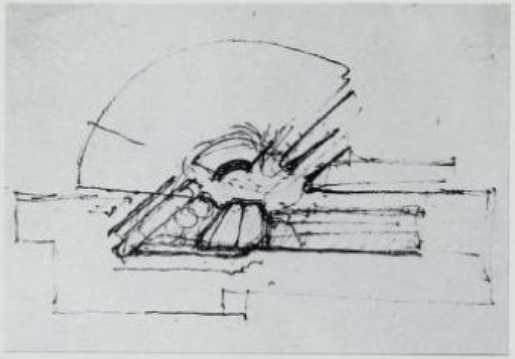




594. *Alvar Aalto, axonometric projection, church, Vuoksenniska (near Imatra), 1956-58 (from Dizionario Enciclopedico di Architettura e Urbanistica, 1968-69)*



595. *Alvar Aalto, first project for the Public Library, Rovaniemi, 1965-68*



quite Expressionist tinge. It is evident in the interior in the points of juncture between the differentiated spaces, where the flexed ribbing, the curves of the roof, and the ventilation ducts all converge. The whole is rendered fluid by a lighting system that makes all the forms immaterial and restrains their conflicts.

In a sense, for Aalto the relationship between architecture and nature is necessary more to confirm the autonomy of the language chosen in advance than to express a real complementarity between the two. Essentially his architecture is not appropriate to urban typologies. Indeed, with the exception of the Rautatalo, it often appears decidedly out of place in a metropolitan environment. Despite the subtle treatment of many details, the fan-shaped tower house built in Bremen between 1958 and 1962, the Enso-Gutzeit office block of 1959-62 in Helsinki, and even the housing block of 1955-57 in the Berlin Interbau district reveal a drop in potential only in part justifiable by the rather weak methodology behind his stylistic approach. It was precisely style that Aalto was pursuing. In that sense, he grafted an entirely traditional method of architectural designing onto a vocabulary whose point of departure was a rethinking of the contributions of the avant-garde. At the core of his style was a not very well concealed taste for hermeticism, for a sort of metaphysical freezing of forms that were originally dynamic and organic. This methodology makes a strange contrast with the cordiality, the openhandedness, of his approach to object design, although not with the overemphasis of many of his objects and furnishings, as is particularly evident in the interior of the National Pensions Institute Building. On that standard, his masterworks are perhaps the church in Vuoksenniska, in which he contrived to express his surreal abstractionism with utmost purity, and the seniors' dormitory built in 1947-48 for the Massachusetts Institute of Technology. The latter was a work based on the interaction of the high undulating block of the dormitories, dominated in the rear by the marked emphases of the stairways, and the low structure housing the dining hall and other services. But the dialectic between abstraction and organicism which we have recognized to be the matrix of his syntax becomes in large part the matrix of deliberately discontinuous forms which he attempted to insert into the urban reality, for example, in the project for the new directional center of Helsinki initiated in 1959.

Here again the confrontation with the city exposes the intrinsic limits of Aalto's poetic. His historical significance has perhaps been rather exaggerated; with Aalto we are outside of the great themes that have made the course of contemporary architecture so dramatic. The qualities of his works have a meaning only as masterful distractions, not subject to reproduction outside the remote reality in which they have their roots.

While such Neo-Romantic ferments as those examined in the last chapter increased and became multifaceted with a diversity of fragmentary results, the 1950s were also marked by a broad international tendency toward simplification of the formulas of the International Style. A true and proper "architecture of bureaucracy" settled in everywhere, in Europe and America as well as in Asia. But this was no deliberate emphasis on elementals attended by a tragic self-awareness as in the case of Mies. Rather, it was a matter of facilitating architectural designing for a vastly greater demand. This meant that the profession as a whole and its ways of working had to be reorganized and had to agree to not only a drastic reduction in the time of planning and building but also to the typological standardization called for in an industrialized building industry. The field came to be dominated not by individual architects intent on communicating their opinions of the world but by large studios in which the tasks were parceled out with virtual assembly-line standards. Firms like Skidmore, Owings & Merrill or Harrison & Abramovitz in the United States are equipped to work at an intense speed of production and to fulfill demands for high technological levels in buildings as anonymous as the architectural concerns that build them. Even more than the United Nations Building, it is Lever House on Park Avenue in New York, a work by Gordon Bunshaft (b. 1909) of the SOM Studio (Skidmore, Owings & Merrill), that is the virtual manifesto of that impersonal and illusionless purism which makes the curtain wall the sole and silent element of the language. Only in appearance have the lessons of Mies been put to use in the all-glass slabs of the skyscrapers that have invaded the American cities, or in derived works such as the Phoenix-Rheinhor Building by Helmut Hentrich and Herbert Petschnigg in Düsseldorf, or the office buildings in London by Edward Douglas Lyons, Lawrence Israel, and Thomas Bickerstaff Harper Ellis. The bare parallelepipeds in the Pittsburgh Golden Triangle or the more recent ones in Houston exemplify the "city without qualities" that Ludwig Hilberseimer had envisaged in the prewar years. Their versions of architectural Esperanto remain untouched by time or place: glass phantasms populating the urban panorama from Boston to Tokyo and Johannesburg, from Montreal to Berlin and Stockholm.

Behind that formal void is only the need for minimum certainties that raise no bothersome questions. Symbols of efficiency and a willingness to bow to the imperative of organization, the steel and glass skyscrapers speak of an inescapable collective destiny, whether they be the parallel slabs of the directional center of Stockholm coordinated by Markelius or the rarefied curtain walls of so many West German skyscrapers, the John Hancock Building in Boston or the Real Madrid Building in Madrid, the I. M. Pei studio in the United States or the more elaborate Milanese productions by Melchiorre Bega, Gio Ponti, and Caccia Dominioni.

Nothing could be more mistaken than to call this type of architecture

596. *Gordon Bunshaft (for the SOM studio), Lever House, Park Avenue, New York, 1950-52*

597. C.F. Murphy Associates (supervising architect); Skidmore, Owings & Merrill; Loebl, Schlossman, and Bennet; Chicago Civic Center, Chicago, 1963-65

598. Skyscrapers in the new directional center, Stockholm

Neo-Rationalist. It has not the slightest trace of the utopian affflatus of what was thought or done in the great years of experiment. Moreover, rather than proposing a rationalization of the urban structures, it accentuates their randomness and lack of overall purpose. Even the twin skyscrapers of the World Trade Center in New York, promoted by Governor Rockefeller for the tip of Manhattan and built between 1968 and 1973, were projected by Minoru Yamasaki as skeletal phantasms, theoretically transitory "happenings," superblocks unsure of what function they were meant to play. In this sense their excessive scale encourages that ambiguity which is accentuated even more by their seamless façades. Yet the immediate exploitability of such edifices, called on as they are to change the entire appearance of the urban centers, realizes the dream of an architecture that uses a common and easily assimilable language and that is intimately connected with forms adaptable to commercial exploitation and with the laws of the real estate market. But it also means that when architectural firms are faced with themes intended to bring new dignity to public places—Lincoln Center in New York, the American universities and museums—they can only resort to eclectic pastiches or to the language of pretentious display pieces. It suffices to recall the unevenness of the productions of Harrison & Abramovitz or Pei.

Nonetheless, the need for easy and sure success in the limited field of the isolated edifice was such as to dominate a notable part of the international architectural panorama throughout the 1950s and 1960s. Even architects such as Arne Jacobsen in Denmark or Werner Moser (1896-1970) in Switzerland, after personal revaluations of the Neo-Empirical or Wrightian languages, finally came around to the trend of technological neutrality. Jacobsen, the designer of the elegant row houses in Klampenborg and the school in Gentofte, ended up with the gelid glass prisms of the Rødovre town hall in 1955 and the SAS Building of 1960 in Copenhagen. However, his formal rarefaction—unlike that of the firms of Egon Eiermann and P. Schneider-Esleben dominating the production of commercial buildings in West Germany—still allows for sophisticated materials, colors, and details which, as in some of the last works by Markelius, are used to accentuate and comment on the "artificial absolute" of the new metropolis or the newly urbanized territory. The same stubborn need for security characterizes the more or less severe structuralism of Pier Luigi Nervi or Riccardo Morandi (b. 1902).

The Palazzo and Palazzetto dello Sport and the Flaminio Stadium in Rome by Nervi, and his Exhibition Building of 1960 in Turin, combine brilliant technological inventions with neomonumental organisms. The experiments in precompressed concrete by Morandi—the Fiumicino Air Terminal, bridges on the Autostrada del Sole, the viaduct over the Polcevera in Genoa, the bridge over the Columbia River in Canada—favor a controlled formal risk in unrepeatable solutions.[1]

599. *Arne Jacobsen, SAS Building, Copenhagen, 1957-62*

600. *Riccardo Morandi, viaduct over the Torrente Polcevera, Genoa, 1967*

The new international climate nevertheless was given expression in two exceptional developments: in the Interbau 1957 quarter in West Berlin and in the Hochschule für Gestaltung (College of Design) in Ulm, founded in 1951 by the Swiss architect, painter, and sculptor Max Bill (b. 1908) in an attempt to link up again with what had been essayed in the Dessau Bauhaus. In the Interbau quarter, Aalto, Gropius and TAC, Niemeyer, Baldessari, Fisker, Bakema, and Van den Broek (the latter two, however, being among the few to attempt anything in the way of typological experiment), each made contributions in his own manner. Thus, what was intended to be a triumphant affirmation of continuity with the great tradition of the modern movement turned out to show that a crisis had indeed set in. For its part the Ulm school, after Bill resigned in 1956, was taken over by the Argentinian Tomàs Maldonado (b. 1922). He set out to found an "environmental science" capable of again taking up, and bringing up to date, the teaching of ideas formulated decades earlier by Hannes Meyer. From 1956 to 1967 Ulm was the meeting ground for theorists, architects, designers, and experts in communications theory such as Gui Bonsiepe, Claude Schnaidt, and A. Moles. While Maldonado tied the school production to large firms such as Braun, he nevertheless came closer to the aesthetic thought of Max Bense, to formal logic, and to the sociological criticism of the Frankfurt School. But the tension between, on the one hand, a clientele of once-again-thriving German capitalists not interested in subjecting themselves to critical inquests and, on the other hand, a still ambiguous awareness of the social potentialities unutilized by an economic development that subjects to its laws even the organization of the processes of designing for industrial production, eventually broke out into a crisis within the school. At the very moment it was about to be transformed from a productive Hochschule into a methodological laboratory it was inevitable, given the German context, that it should have to close down. The drama of 1933 was repeated: instead of Goebbels, this time there was an equally inflexible economic system. Nevertheless, in a number of its aspects the tendency expressed by the school had been prophetic of many directions that were taken by methodological research in the seventies, especially its contradictory connotation poised between technocracy and criticism.

By the end of the 1950s a number of tendencies opposed to the architecture of bureaucracy were taking shape. Mario Pani in Mexico and Carlos Raúl Villanueva in Venezuela were championing a revival of the International Style. In France, the architecture of the *grands ensembles* was translating the functionalist formulary into spectral *machines à aliéner*; the only exceptions were a few and even then questionable examples by Emile Aillaud or the studio of Georges Candilis, Alexis Josic, and Shadrach Woods. In Holland and England there was rather more fruitful rethinking along the canonical line of the modern movement. However, this was not like the dutifully correct mannerism of

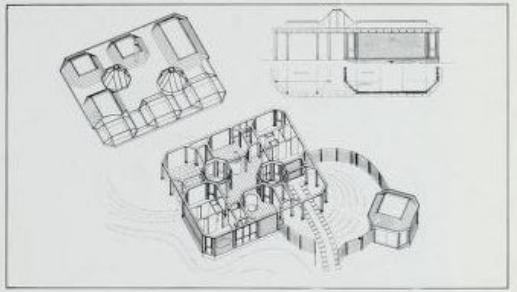
601. *Jacob B. Bakema and Johannes H. van den Broek, shops in the Lijnbaan pedestrian zone, Rotterdam, 1952-54*

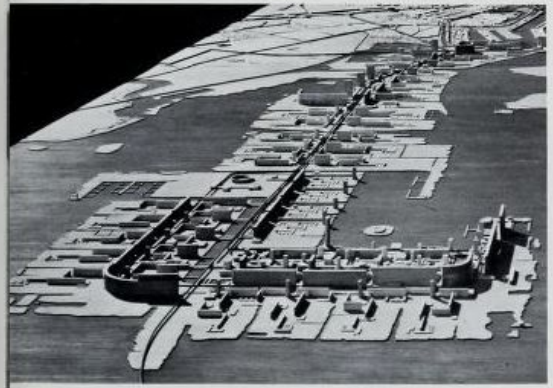
602. *Jacob B. Bakema and Johannes H. van den Broek, Pamptus plan for the expansion of Amsterdam, 1964-65*

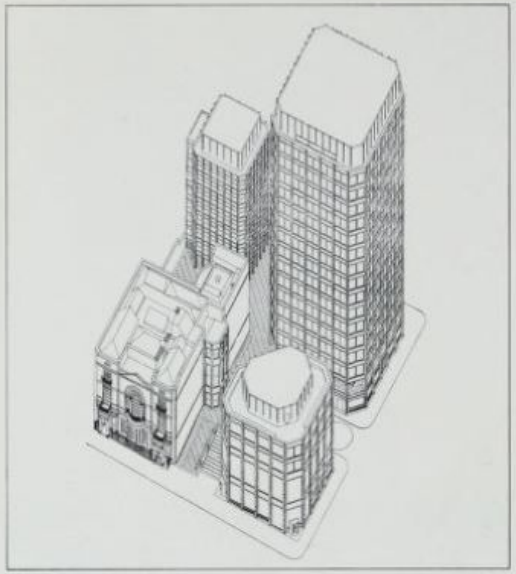
603. *Aldo van Eyck, partial elevation, projection, and plan of roof, Visser house, Retie (Belgium), 1975 (from Lotus, no. 11, 1976)*

604. *Model of the Bijlmermeer district, Amsterdam, begun 1966*

605. *Alison and Peter Smithson with Peter Sigmond, plan for Berlin Hauptstadt, 1957-58*







606. *Alison and Peter Smithson, the Economist Building, London, 1960-64*

607. *Alison and Peter Smithson, Robin Hood Gardens complex, London, 1966-72*

José Luis Sert or the Atelier 5, who were responsible for the housing development in Halen near Bern (one of the most interesting postwar residential experiments), but rather a movement that attempted to reestablish the theoretical lines of the CIAM interrupted before the war.

The reconstruction of the center of Rotterdam, razed on June 14, 1940, was already exemplary. In that same month the city administration expropriated the land and buildings in the destroyed area, promising indemnities with interest of 4 percent (with the understanding that only after the war ended would the proprietors receive new building lots in exchange for the old and, after having spent an equivalent sum for new buildings, be given their indemnity). The entire reconstruction was guided by the plan worked out in 1946 by C. van Traa. It envisaged an expansion of the city beyond the Maas River to make a district with its own cultural and recreational center dominated by a tall building by Van Tijen and Maaskant. The directional center for the city itself was allotted to the northern sector. There between 1949 and 1954 Johannes H. van den Broek (b. 1898) and Jacob B. Bakema (b. 1914) realized one of their most significant works, the Lijnbaan, an integrated complex of shops along two intersecting pedestrian thoroughfares and adjoined by ten-story slablike apartment houses facing compact green areas. A number of commercial buildings around the complex link it with the surrounding urban area. Among them are two department stores, the Ter Meulen built in 1951 by Van den Broek and Bakema on the Oude Binnenweg, and the new De Bijenkorf of 1957 by Marcel Breuer and A. Elzas on the Coolsingel. Attention to detail and to urban equipment make the Lijnbaan a true heart of the metropolis. A simplified language and the use of repeated modules combine with carefully conceived superstructures, demonstrating just how anachronistic are the populist preoccupations of Italian Neo-Realism and the smug evasions of Scandinavian Neo-Empiricism. Van den Broek, a former associate of L.C. van der Vlugt and Johannes Andreas Brinkman, and the somewhat younger Bakema deliberately aimed at carrying forward the experiments of the Dutch *Neue Sachlichkeit* adherents of the 1930s. From 1948 to the present their studio has been working on a carefully tested organization of the urban quarter: the area is broken up into blocks of different heights and types around "visual groups" and social services that tie the residential complexes into unities. Here the structure of the *Siedlungen* of Weimar Germany is vastly improved and made part of a theoretical continuum. From the small Klein Driene quarter in Hengelo (1955-68) to the projects for the Alexanderpolder (1953-56), for the expansion of Leeuwarden (1956-65), for the new city of Wulfen in Germany (1961), for the Pampus Plan of 1964-65 for expanding Amsterdam across the Polder, right up to more recent undertakings such as the Terneuzen city hall, the AMRO (Amsterdam-Rotterdam Bank) headquarters in the Amsterdam outskirts, and the Hernesser Instituut of 1966-74 in Middelharnis, the well-varied

XXXIX. *Hans Scharoun, Philharmonie, Berlin, 1960-63*

XL. *Oscar Niemeyer, Palacio do Plan Alto, Brazil, 1959*

XLI. *BPR (L. Belgiotoso, E. Perussutti, E. Rogers), Torre Velasca, Milan, 1956-58*

XLII. Pier Luigi Nervi, Palazzetto dello Sport, Rome, 1957

608. London County Council, aerial view, Roehampton district, London, 1952-59

609. J. Lewis Womersley and collaborators, Park Hill-Hyde Park residential complex, Sheffield, 1957-65

610. Denis Lasdun, University of East Anglia, Norwich, 1962-68

language of Bakema and van den Broek has become ever richer and more consistent. It atones for its own elegance with a problem-free rationalism content to abide by its own achievements. Within the general Dutch architectural approach Aldo van Eyck (b. 1918) has sought to go beyond that. He has created assemblages of geometrical forms that are composite in character and rich in suggestion, notably in the school for orphans in Amsterdam, the Protestant church of 1965 in Driebergen, the Schmela Galerie of 1969 in Düsseldorf, the Catholic Pastoor van Ars Church of 1968-70 in The Hague, and the recent project for residences for unmarried mothers in Amsterdam.

But the efforts of Bakema and van Eyck must be seen within the international climate that came about with the crisis of the CIAM and the formation of the Team 10 group as well as in relation to a series of experiments in England. In the early 1950s architectural thinking in London was dominated by an intense Expressionism as in the dynamic succession of volumes and exterior spaces of the Festival Hall built in 1951 on the South Bank and especially in the vital creativity of the circles around the architects Alison (b. 1928) and Peter (b. 1923) Smithson, the photographer Nigel Henderson, the sculptor Eduardo Paolozzi, and the critic Reyner Banham. In any event, this Expressionism was widespread in postwar England, having to its credit the unrest of the so-called Generation of Angry Young Men, of which the plays of John Osborne and the films of Richard Lester were only the most conspicuous manifestations. The photographs of Nigel Henderson recorded with heartfelt sympathy the Bye-Law lodgings of the London working class, while the pre-Pop experiments of Paolozzi strove for the same sort of return to a vital feeling for form. Thus, the old theme of the historical avant-garde—the relation between the space of existence and the pregnancy of the experienced—was taken up again by a culture such as that of the English which, on the whole, had previously shown a notable lack of interest in it.

The new problem, however, was how to mold an environment capable of suggesting and stimulating a social use of that postulated symbiosis between forms and existential vitalism without ignoring the richness inherent in the new technologies and in the new repertory of images created by the variability, perpetual change, and accidentality of the great city. Given such bases, it was inevitable that there should be trenchant and deep-probing criticism of such developments as the correct but amorphous architecutre of Frederick Gibberd; the partiality of the New Towns with regard to the tradition of Howard; the analytic and additive method of the prewar urbanistic tradition; the newer London districts like Pimlico; and the bureaucratic structures that were laying down what purported to be exemplary programs for building hospitals, universities, schools, and the like.

The project the Smithsons submitted to the Golden Lane Housing competition in1952 was promptly welcomed as a model by other archi-

611. *Hugh Wilson (chief architect-planner, 1956-62), Dudley Leaker (after 1962), and Geoffrey Copcutt and collaborators, civic center, Cumbernauld New Town*

612. *Kunio Mayekawa, Metropolitan Festival Hall, Tokyo, 1958-61*

613. *Giancarlo De Carlo, student dormitories, Urbino, 1962*

614. *Kenzo Tange, gymnasium of the Kagawa Prefecture, Takamatsu, 1964*

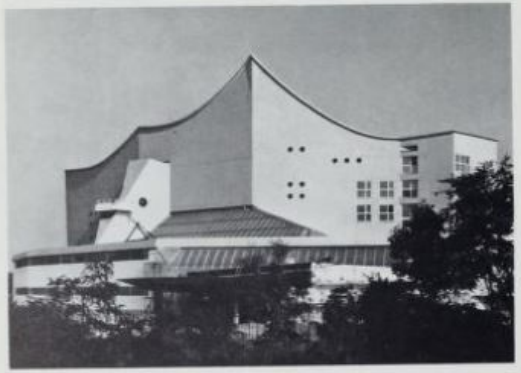
615. *Kenzo Tange, administration building, Shizouka Press, Tokyo, 1965-70*

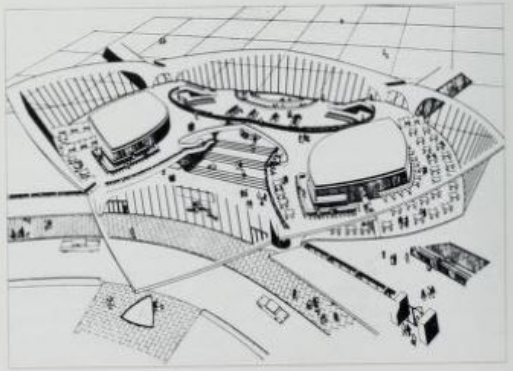
tects. Conceived as a criticism of zoning by sectors that had been proposed for the *Ville Radieuse* and championed by the Athens Charter, their project put considerable emphasis on relational spaces such as streets within residential blocks, contact between dwelling and street, population density, and multipurpose buildings. The intensity of the slums revealed by Henderson's photographs was captured and sublimated by the Smithsons in typological proposals of urban scale. This was achieved by an overt return to the themes Le Corbusier had grappled with in the Obus Plan for Algiers. Suspended streets, continuity of the network, density of services, and a direct give-and-take between residences and services were taken as basic factors in architectural forms designed to allow maximum room for chance and the unexpected. But these were theses, not results. The school at Hunstanton (Norfolk), established by the Smithsons in 1954 on Miesian canons, was more a polemical gesture against current architectural empiricism than an edifice consistent with their theoretical premises. The discourse opened up by their Golden Lane project was carried further in their competition project of 1957-58 for Berlin Haupstadt done with Peter Sigmond. Their new urban fabric was to be suspended above the old one, connected to the ground with relational spaces and towers freely disposed within the elastic superstructure.

The Smithsons were not given the opportunity to realize these models. What they have actually produced has not gone beyond the correctness of the Economist Building of 1960-64 in London. It is only in their Robin Hood Gardens complex of 1966-72 that the premises laid down in the Golden Lane and Berlin projects have been at least partially carried out. However, in the vast Park Hill-Hyde Park residential complex built between 1957 and 1965 in Sheffield by J. Lewis Womersley, the symbiosis of suspended thoroughfares and residences unifies the tall residential blocks in a continuous and open urban structure exemplifying the vitalistic approach of the London vanguard. Meanwhile, in the Roehampton quarter of London, as a polemical reply to the New Towns program (blocked in any event by the Conservatives), Leslie Martin, Hubert Bennet, and a large team of architects of the London County Council integrated a language overtly indebted to Le Corbusier with a landscape carefully balanced between urban effect and the picturesque.

Such new innovations were catalyzed on the international scene with the increasing importance of the Team 10 group, which was formed in 1956 on the occasion of the CIAM meeting in Dubrovnik and which was strong enough to challenge the CIAM old guard at the Otterlo congress three years later. In attacking alienating functionalism and calling for a new humanism capable of distilling out of the technological universe all its vital potentialities, the Smithsons joined ranks with Aldo van Eyck, Bakema, De Carlo, Candilis, Josic, and Woods.

Banham gave the name New Brutalism to the totality of the ex-





616, 617. Hans Scharoun, Berlin Philharmonic Hall, Berlin, 1956-63

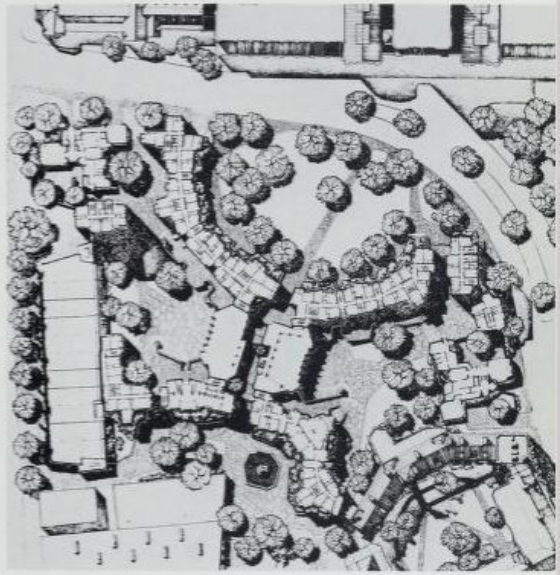
618. Eero Saarinen, TWA Terminal, New York, 1958-62

619. Eero Saarinen, dormitories, Yale University, New Haven, 1960-63

periences born out of that climate. It was an approach considerably more uncertain about the linguistic means to be employed than about the theoretical premises of its adepts. Although the urban models elaborated by the French group of Candilis, Josic, and Woods have much in common with the continuous structures of the Smithsons, with the theory of "labyrinthine clarity" propounded by Van Eyck, and with the fascination with mobility as promise of freedom typical of Bakema as well as the English, their language has very litte in common with the emphasis on materials that was characteristic of Le Corbusier and that seemingly characterized the Brutalist current. Indeed, in the Le Mirail development begun in Toulouse in 1961, which owes much to the Golden Lane project, in the plans for Caen and Aulnay based on the so-called cluster principle, in the 1962 project for the Ruhr-Universität in Bochum, and in the Freie Universität in Berlin-Dahlem, whose structural consultant was Jean Prouvé,[2] form and organizational model — what has been defined as "the wedding between a Kasbah and a Meccano"—tend to coincide closely. What was lost on the linguistic plane by Candilis, Josic, and Woods (whose association broke up in 1970) was recovered by Giancarlo De Carlo (b. 1919) in the student dormitories built in 1962 in Urbino and the new teachers' college of 1969 in the same town—both of appreciable importance also in the context of his intelligent contribution to the city plan. Other similar contributions were made by certain architects catalogued with the New Brutalists because of their more or less cultivated Le Corbusierian approach: Vittoriano Viganò in the Istituto Marchiondi in the Baggio suburb of Milan; James Stirling and James Gowan in their first works such as the housing projects of 1955-58 in Ham Common, Richmond, and the rehousing scheme in Preston (Lancastershire); and Japanese-influenced members of the Michelucci school in Florence such as Leonardo Ricci in his buildings in the Sorgane district and Leonardo Savioli in his apartment blocks on the Via Piagentina, as well as Luigi Figini and Gino Pollini in their Chiesa dei Poveri (Church of the Poor) in Milan.

The vitalism of the London Independent Group gave rise to two currents that only occasionally intersected. One was an "academy of the utopian" which, as we shall see in the next chapter, would attempt to carry to the furthest consequences the technological aesthetic that was developed by the Smithsons, Paolozzi, and Banham. The other, a Brutalist Academy, took as its point of departure an affirmation by the Smithsons that the aim of Brutalism is to confront a society of mass production, evoking a sort of crude poetry from the powerful and confused forces involved.

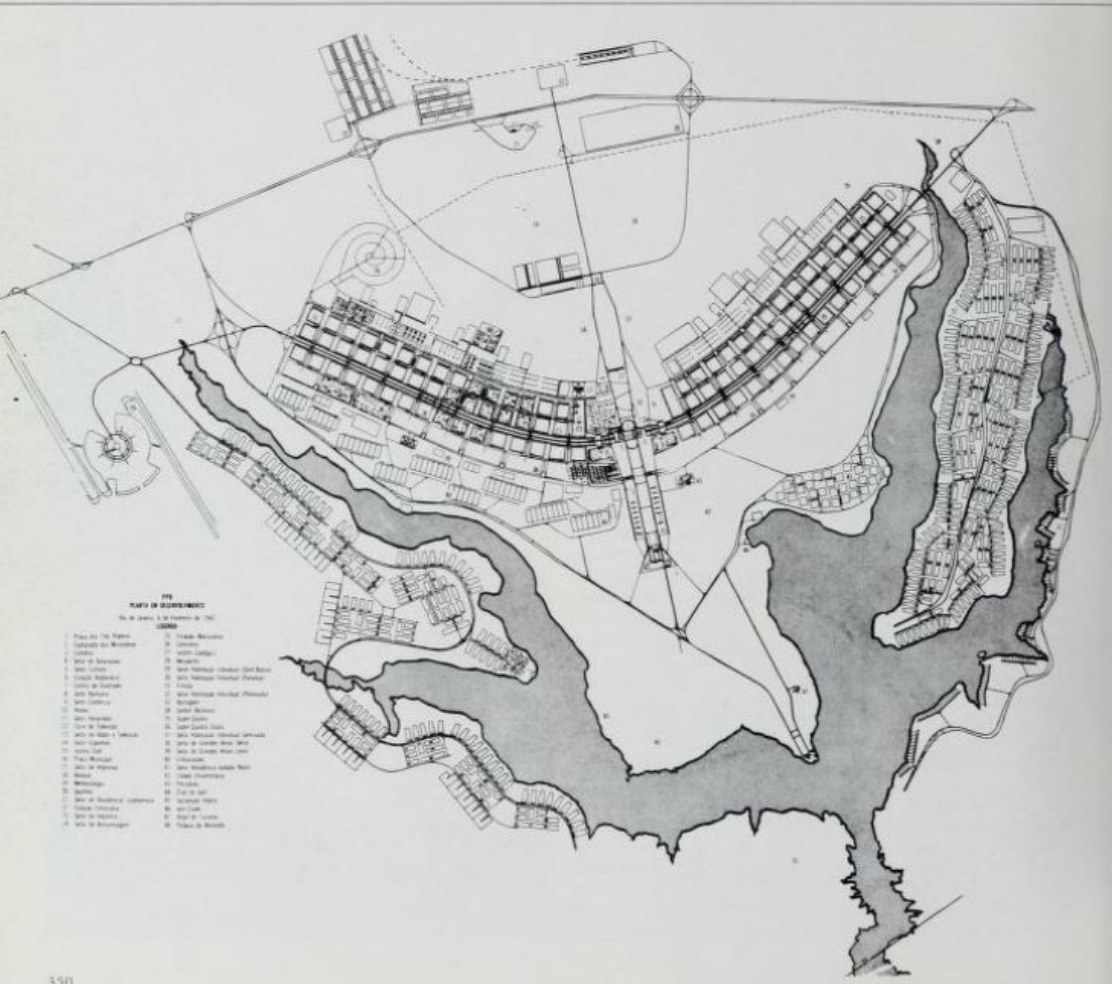
But with the best exponents of Brutalism—the Japanese Kunio Mayekawa (b. 1905) and Kenzo Tange (b. 1913)—the crude poetry takes the guise of a congealment of the vocabulary that Le Corbusier developed between the *Unité d'habitation* and the monastery at La Tourette (though



not that of Ronchamp). And if works by Tange such as the Kurashiki city hall, the Yamanashi Broadcasting Building of 1966, and the offices of the Shizuoka Press in Tokyo, or works by Mayekawa such as the Metropolitan Festival Hall and the Gakushuin University in Tokyo take on an epical tone, it is no less true that the increasingly widespread Japanese mannerism exploited linguistic exaggeration as a means of publicity.

The neo-avant-garde comes close to the ridiculous when it tries to exploit the subtlest aspects of Le Corbusier as a common language. The New Brutalism became somewhat toned down in the works of Paul Rudolph (b. 1918), notably in the Architecture School at Yale University and the Government Services Center in Boston, and of Gerhard Kallmann. Together with McKinnell and Knowles, Kallmann borrowed from La Tourette for the organizational principle of the new Boston municipal center. The civic center of Cumbernauld New Town in Scotland was designed by Hugh Wilson, Dudley Leaker, and Geoffrey

620. *Lucio Costa, regulatory Plan for Brasilia, 1960 version*



621. *Aerial view, Super Quadras residential complexes, Brasilia, 1958-60*

622. BPR (L. Belgioioso, E. Peressutti, E. Rogers), Torre Velasca seen from the Duomo, Milan, 1956-58

Copcutt as a compact multifunctional megastructure, an aggressive territorial scenography, superimposed on an idyllic New Town not far from Glasgow.

In some way the polemics against the International Style did prove of value. Harrison & Abramovitz may have set the tone for mid-Manhattan with their ascetic glass prisms. But the campus of Yale University became a veritable museum of forthright avant-gardism with buildings by Paul Rudolph, Louis Kahn, and Eero Saarinen. Yet the opposition to the International Style took on a more coolly detached guise in the elegant irony of Denys Lasdun (the ambiguous Royal College of Physicians overlooking Regent's Park in London and the ingenious complex of the University of East Anglia in Norwich with its terraces running down to the landscape). It could also be neurotic, however, as in the Neo-Expressionist tendencies vented by Hans Scharoun in his so-called Romeo and Juliet blocks in Stuttgart, the Geschwister Scholl High School in Lünen, and the Berlin Philharmonic Concert Hall. In the latter he once again aimed at the informal, in continuity (theoretical, at least) with his projects of the 1930s; his broken-up ground plans and asyntactic spaces are intended to make this antilanguage a permanent heresy. The result is a theater of trauma, but quite lacking in any real capacity to shock. In any event, while the new informal avant-garde and then Pop Art reenacted, but on a much larger scale, the tragedy that reduced Hugo Ball to silence, the Neo-Expressionist efforts of Scharoun and, even more, of Eero Saarinen (1910-1961) and John Johansen (b. 1916)[1] strike one as masks of inquietude more than embodiments of a real unease. For Saarinen, onetime collaborator of his father Eliel, after the rarefied purism of his General Motors Technical Center of 1951-57 in Detroit and the highly worked-out organisms of the Kresge Auditorium and chapel of 1955 on the M.I.T. campus, the neurosis of forms was filtered through a solid professionalism and a bold structuralism utilized as an advertising technique. More than in the Ingalls Hockey Rink at Yale University, this can be seen in the Columbia Broadcasting System Building in New York, in the Jefferson Memorial arch spanning more than 630 feet over the Mississippi at Saint Louis, the Dulles Airport of 1961-62 in Chantilly, Virginia, near Washington D.C., and especially in the TWA Terminal at Kennedy International Airport, New York.

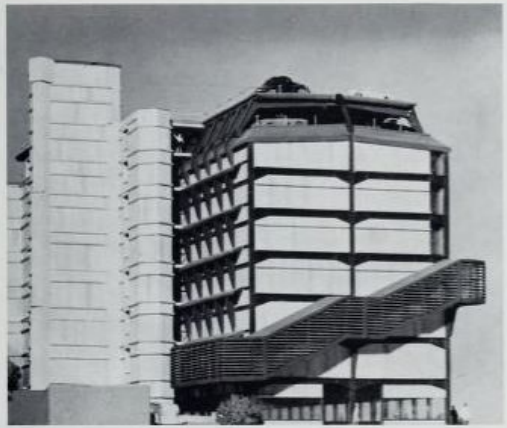
For Saarinen as for Jørn Utzon (b. 1918), the Danish architect of the Sydney Opera House, or for Reima Pietilä (b. 1923), the neurosis is generated by the obsessive preoccupation with restoring meaningful depth to a repertory of inherited forms that are devoid of meaning in themselves. One step more and we have the pathetic attempts to create an Action Architecture with informal constructions made of jumbles of objects or hollowed-out caves that make a show of a mystic regression to the primitive. This is the way taken by Bruce Goff (b. 1904), who deforms elements of the Wrightian grammar *ad absurdum*, by André Bloc (1896-1966), whose Habitacles of 1962 in Meudon are metaphysical caverns, by Claude Parent (b. 1923), and by Frederick Kiesler (1892-1965) who, after a collaboration with Adolf Loos and interesting efforts along Neo-Plastic lines, ended up in 1959-65 in the gestural brutalism of the Shrine of the Book, the sanctuary of the Dead Sea Scrolls, at the Israel National Museum of Art and Archaeology in Jerusalem.

Without emerging from its basic ambiguity Neo-Expressionism has been able to moderate itself through alliance with surrealist suggestions, as in certain recent Spanish experiments such as the Torres Blancas in Madrid by Francisco Javier Saenz de Oíza, Juan Daniel Fullaondo, and Rafael Moneo, or in works by Riccardo Bofill. This has been the case principally in Brazil. Oscar Niemeyer (b. 1907), after an apprenticeship

623. Franco Albini and Franca Helg, model of the first project for the Rinascente Department Store, Rome, 1957

624. Giuseppe Samonà, competition project for the new Parliament office building, Rome, 1967

625. Roberto Gabetti and Aimaro Oreglia d'Isola, Bottega d'Erasmo building, Turin, 1953-56



with Le Corbusier working on the Ministry of Education and Public Health in Rio de Janeiro in 1936, and on the Brazilian pavilion for the New York World's Fair of 1939 designed with Lúcio Costa (b. 1902), attempted to mold his architectural objects as sequences of unexpected events, spectacles of the absurd, euphoric fragments of nature crystallized. This is most evident in the Yacht Club and Chapel of São Francisco in Pampulha, Brazil, and in more recent works: the French Communist Party headquarters in Paris, the new Mondadori Building in Segrate near Milan, or the University of Constantine, Algeria. In these the scenography is an end in itself. In any case, Niemeyer had already shown the limits of his approach in the new capital of Brazil. This approach was used in Brazil *ad nauseam*, despite such an exceptional interpreter as Alfonso Eduardo Reidy (1909-1964), who proved himself in the Pedregulho quarter in Rio de Janeiro begun in 1947. Brasilia, the new capital begun in 1957 on a plan by Lúcio Costa, was sited in the interior of the country, beyond the jungle. Born out of demagogic intentions, as symbol of pioneer vitality dressed in bureaucratic garb, it was laid out by Costa on a puerile allegorical ground plan—that of an airplane—and filled with a system of residential superblocks perhaps intended to reinterpret the urbanistic model tried out in the Soviet Union beginning in the 1930s. Niemeyer produced the Plaza of the Three Powers—a pair of skyscrapers flanked by a spherical vault and by the slice of inverted cupola of the Senate and Chamber of Deputies—along with the cathedral, presidential palace, and other public buildings. In these the gratuitous is tinged with sophistication. Although they make a fine show, it is one of superfluous velleities.[1]

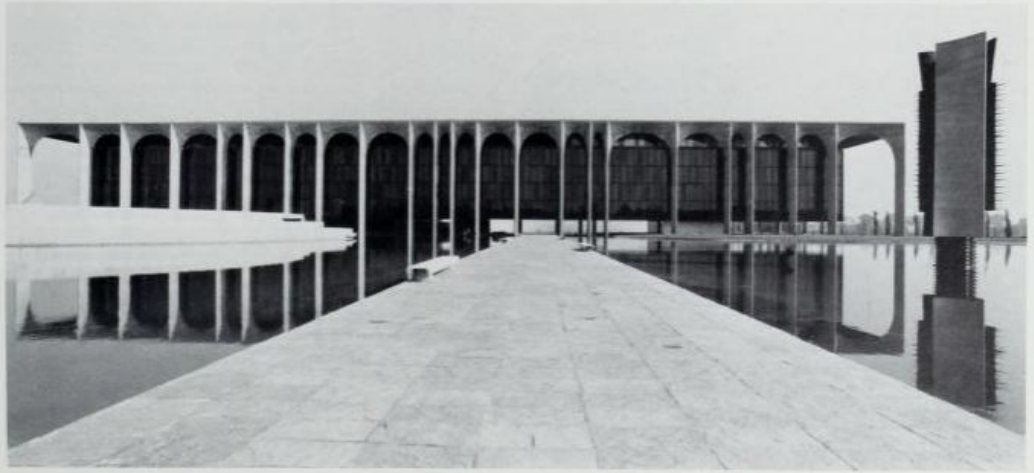
The idea of going beyond rationalism has found a propitious terrain in Italy. There a diversity of approaches has resulted from the chaotic urbanistic situation and the plethora of disputes and polemics. Once the populist and organic mythologies had collapsed, the leaders in Italian architecture—the BPR studio, Albini, Gardella, Samonà, Quaroni, Astengo, Piccinato, and others—oscillated between, on the one hand, a commitment to renewal of the institutional setup so as to permit total programming and, on the other hand, an isolated and highly personal experimentation often dense with reminiscences from their own experience and from a cultivated cultural tradition. Thus in the center of Milan the BPR studio built the Torre Velasca in 1956-58, homage to a historical center virtually destroyed by real estate speculators. The BPR also did the somewhat baroque redesign of the interior and display techniques for the Castello Sforzesco Museum in Milan. Albini has concentrated on a technological correctness satisfied to bask in its own elegance—the INA Building in Parma, the Rinascente department store of 1957-62 in Rome, the spa at Salsomaggiore, the SNAM offices of 1971 in San Donato Milanese—or else on the metaphysical spaces of his museographical installations such as the treasury of the cathedral of San Lorenzo in Genoa of 1956. Gardella has experimented eclectically with a mild revisionism that led him from the ambiguous house of 1957 on the Zattere in Venice through the more rigorous refectory at the Olivetti plant in Ivrea to the notable 1969 project for the theater in Vicenza and the 1973 technical offices of the Alfa-Romeo Company in Milan. Luigi Moretti (1907-1974) locked himself into a formalism that was an end in itself in the so-called Sunflower house of 1950 in Rome, in the Olympic Village realized there with A. Libera,[1] and in the Watergate complex in Washington done in 1959-61. Quaroni, Astengo, Piccinato, and Samonà have thrown themselves into the battles waged by the National Institute of Urbanism (INU) for the reform of urbanistic laws and for new forms of public intervention in the sector of subsidized building.

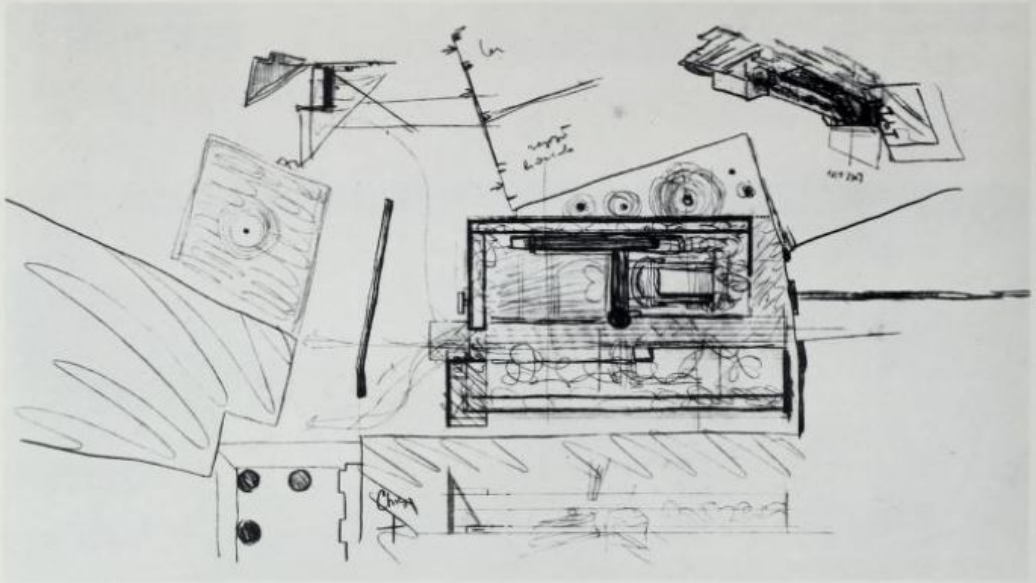
By and large the Italian "masters" have comported themselves like acrobats, balancing in fear and trembling on a thread strung over two abysses. One is the practice of architecture as a codified discipline in which there is nothing to do, or to hope for, other than to repeat its fixed formulas. The other is the need to throw open to question the fundamental basis of the discipline, its essence, its resistance to change, its social status, its tradition. Their ambiguity was entirely a result of their stubborn insistence on balancing on that weak thread. Once they stepped down, the fragility and uncertainty of their political commitment stood bare for all to see, even if in compensation they have come up with certain projects rich, too rich, in thematic proposals that had been left in the limbo of good intentions. Once in a long while they do come up with masterful ideas. One example is the design by Quaroni and Samonà for the Parliament office building in Rome in 1967. A poetic recapitulation of the labyrinthine course of modern architecture can be found in the new Banca d'Italia of 1968-74 in Padua and the Teatro Popolare of 1975-77 in Sciacca by Samonà. A high formal mastery characterizes all the architecture and interior decoration of Carlo Scarpa, in particular his Olivetti shop and restoration of the Querini-Stampalia Museum in Venice, his restorations of the Palazzo Abbatelli in Palermo and the Castelvecchio Museum in Verona, and the cemetery laid out in 1970 in San Vito di Altivole.

But the teaching offered in Italy to the more recent generations became concretized in a true and proper poetic of ambiguity which, in the second half of the 1950s, ended up in a neo-liberty. In reality, though, it is not historicism that pervades such refined architectural creations as the Bottega d'Erasmo of 1953-56 in Turin by Gabetti and Isola, or the objects designed by Guido Canella, Gae Aulenti, or Vittorio Gregotti. They represent merely a flirtation with the Golden Age of the European bourgeoisie—and rightly so, given their premises. If the problem is to repudiate the alienated signs of the traditional modern movement, nothing remains but to return to the mythical time when architecture fulfilled consolatory functions. However, the little Prousts of Italy soon

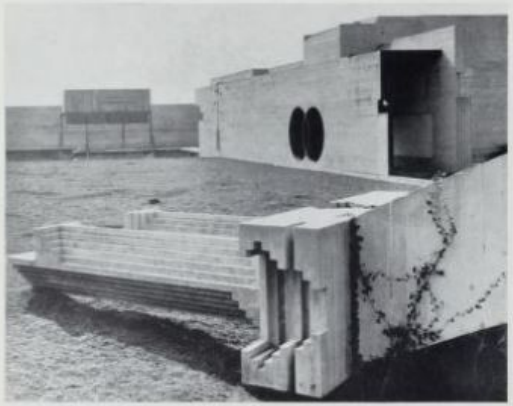
626. *Ignazio Gardella, refectory, Olivetti plant, Ivrea, 1955*

627. *Oscar Niemeyer, Mondadori Office Building, Segrate, near Milan, 1975*





628. *Carlo Scarpa, drawing for the new entrance of the University Institute of Architecture, Venice, 1966*



629. *Carlo Scarpa, detail of Brion Tomb, Cemetery of San Vito di Altivole (Asolo), begun 1970*

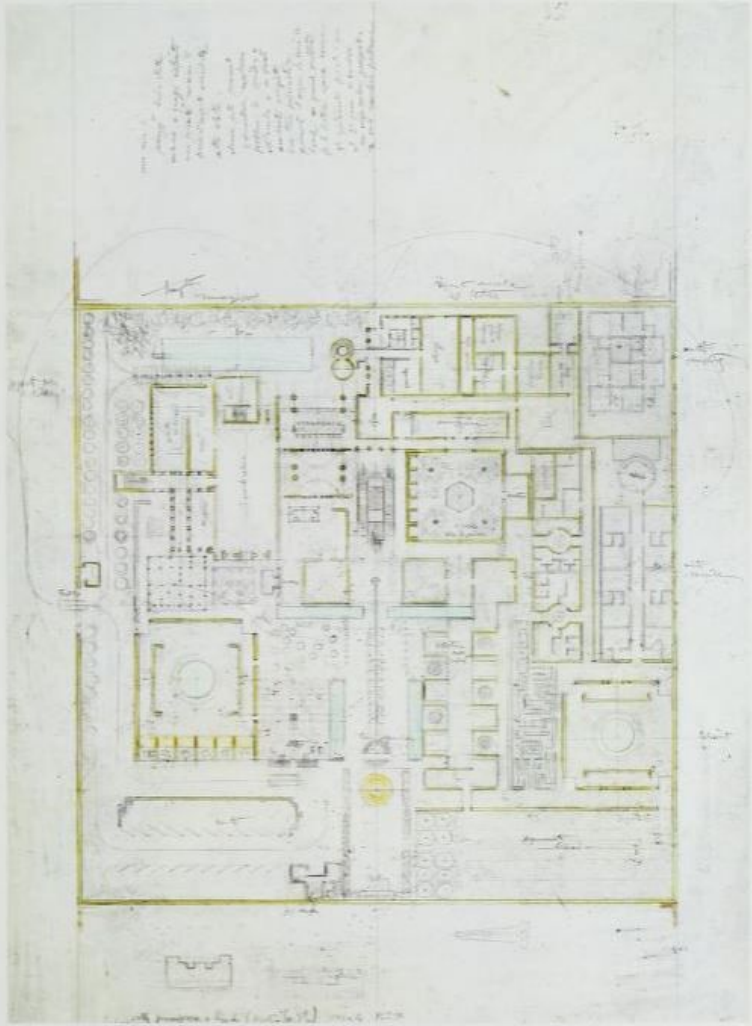
got over that phase, even if in the more recent works of Canella, Aymonino, and Rossi reminiscences of the past would have, as we shall see, a determinant weight.

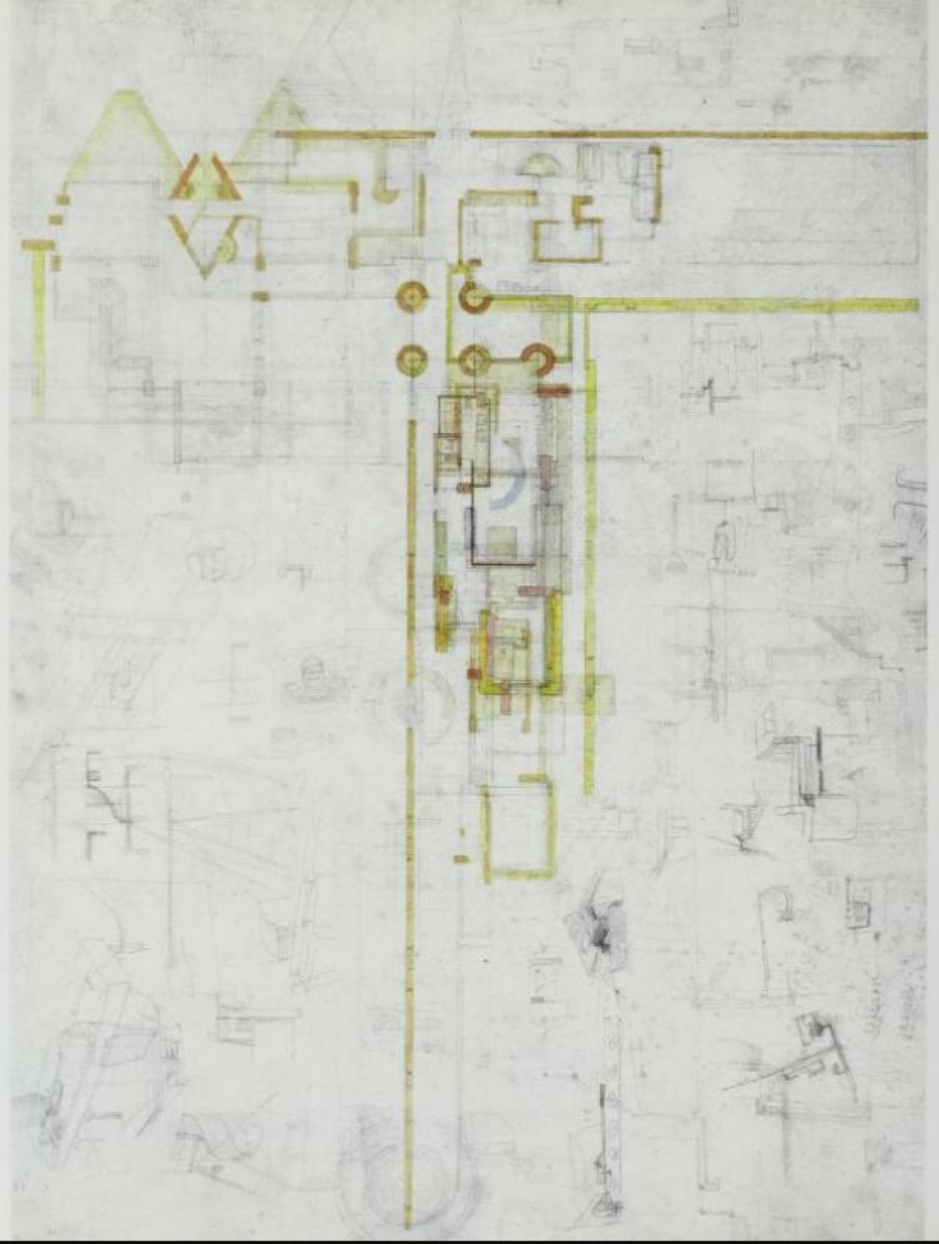
But at the close of the 1950s the optimism of Team 10 began to be countered by a vague but widespread sense of crisis. In 1959 Philip Johnson announced the death of modern architecture and began to design forms inspired by a historicism that was both illusionless and ambiguous.

A fundamental fact emerges out of this complex international panorama. What the masters of the twenties and thirties had expressed so clearly was grasped and put to use in distorted manner by both the middle and the younger generations of architects. An unmistakable crisis set in with the 1950s and 1960s, and ambiguous attempts were made to resolve it without at all understanding its causes. But those attempts were forerunners of transformations in a profession that was still not able to settle its accounts with its own tradition. In those years it could only launch anxious feelers toward an uncertain future. And, in fact, from that climate came only impotent utopias or attempts to once again create gilded cages around what remained of the humanistic conception of architecture. On one side, the great illusion of town design and an architecture on a grand urban scale; on the other, the architectural language as such. Both of these were products of the crisis of the fifties and sixties.

XLIV. Carlo Scarpa, plan of Villa Zoppas, 1953 ▷

XLIII. Carlo Scarpa, plan of a villa in Riyadh, 1978

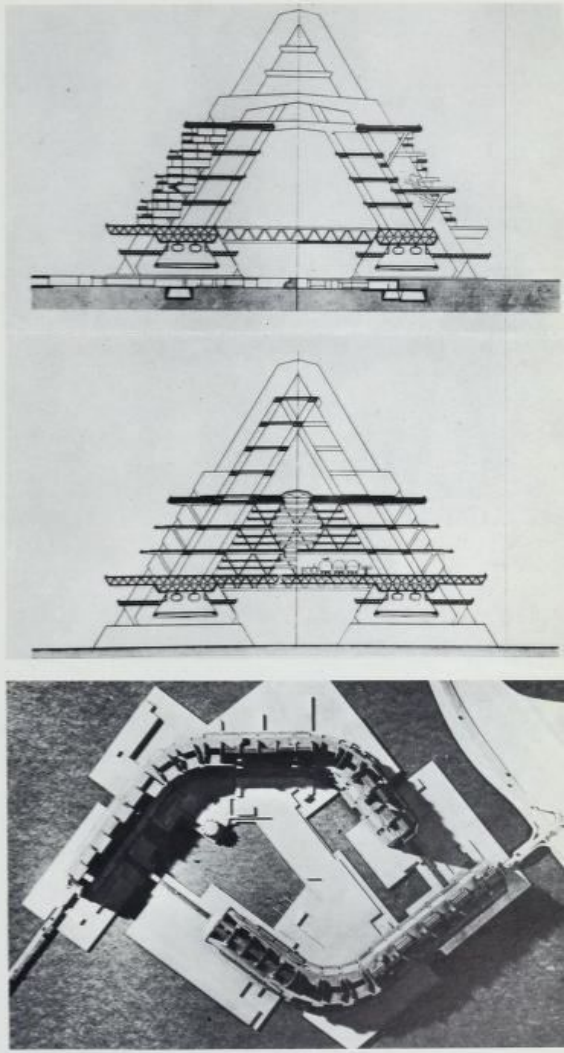




After the end of World War II England set up public bodies to build New Towns and implement programs for new school and university buildings. Japan began its explosive economic development, while the United States endured the frustrations that came with reforms disappointing in their scope. Out of this, at the close of the 1950s and the start of the 1960s, came a widespread dissatisfaction with the traditional instruments for the control and formal shaping of the environment. For their part, architects reacted against the new limits imposed by the administrative bodies in charge of the various sectorial plans. Their return to the traditional means and attitudes of the avant-garde echoed a widespread opposition to bureaucracy in general. To broaden the scope and capacity of architecture so as to deal with the problem of the total environment seemed now to call for going well beyond the principles inherited from the CIAM. The results of the Otterlo meeting seemed to prove this conclusion. While English and American Pop Art was reacting with affectionate irony to the unchecked mushrooming of the mass media that more and more shaped the flow of communication affecting metropolitan structures, an accusing finger was pointed at the rural idylls of such New Towns as Harlow and Vällingby.

Among the consequences of the polemics of the Independent Group in London was the activity of the Archigram team composed of Peter Cook, Warren Chalk, Ron Herron, Dennis Crompton, David Greene, and Michael Webb. They translated a revived worship of the machine into architectural "happenings" and made no secret of their enthusiasm for the potential implicit in electronic calculators, guided missiles, and the throwaway containers appropriate to an electro-atomic age. Flash Gordon and Superman were the new idols of a generation that was angry but disposed to dissipate its furors within the exciting hypertechnological chaos in a psychedelic orgy of the ephemeral. In their journal, the Archigram published architectural "monsters," emblems of a new Moloch to which one could sacrifice oneself. The Plug-in City of 1964—mobile, consumable in periods ranging from three years for the minimum elements to forty years for the entire urban structure—was surpassed by the Walking City dreamed up by Herron, a zoomorphic macrostructure that could move about on telescopic legs or slide from place to place on air cushions. In his Living Pod Greene proposed a communion between the neo-technological aesthetic and primitive nomadism.

Unlikely as it may seem, this paroxysmal futurism of the Archigram team is closely related to the emphasis on picturesqueness in the New Towns. In both cases we have a heavy reliance on given facts that are taken to be absolutes, or ideal models. The tradition deriving from Unwin, in which towns like Stevenage and Harlow are rooted makes the natural landscape a model above and beyond history. The automotive city-machines of the Archigram hark back to the Futurist idolatry of an industrial dynamism of biomorphic and mystical countenance. But the



630,631. Kenzo Tange and students of Massachusetts Institute of Technology, sections and model, project for a residential unit for 25,000 inhabitants, 1959

632. Kenzo Tange, model, plan for the expansion of Tokyo over its harbor, 1960
633. Kenzo Tange, general plan, plan for the rebuilding of Skopje, 1965

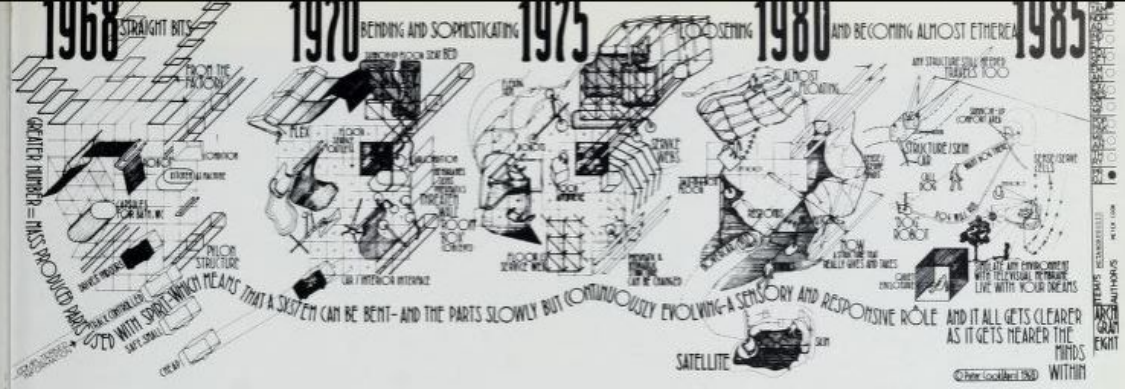
634. Archigram Group, demonstration montages, 1968
635. Noriaki Kurokawa and Metabolism Group, proposals for utopian cities, 1966

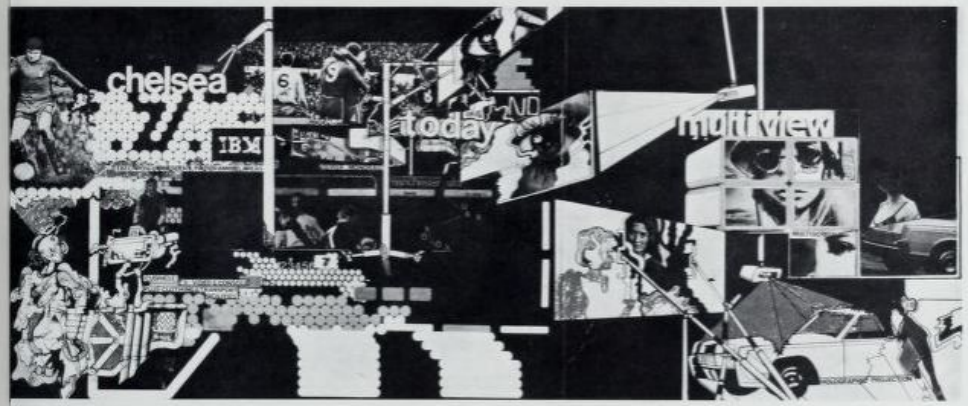
real laws of that mechanical universe remain unknown precisely because it is read mystically. Thrust back into the hinterland of the subjective consciousness, it can only serve up graphic *divertissements*. In any case, coming to grips with only the superficial appearances of the technological universe and attempting to dominate it with what can be called an ironic nostalgia for the future is really very much simpler than buckling down to a scientific study of its laws. Thus, throughout the international scene, one finds what can be called an "academy of the utopian." The hanging cities of Paul Maymont (b. 1926), the reticula of connected dwelling capsules of Yona Friedman (b. 1923), the surreal assemblages of Kiyonori Kiku-take (b. 1928) and the Japanese Metabolism Group significantly have had considerable appeal in the architecture schools. Technology, regarded as occasion for play and spectacle, sets off dreams of global restructuring of cities and territories, revives the determination to effect the Futurist reconstruction of the universe called for by Marinetti almost half a century earlier. With an obstinacy worthy of a better cause the unknowable is once again raised to a myth; the will to force the present is an index of impotence.

Such liberation through irony goes over the same ground covered by the utopias of the avant-garde of earlier years. The projects for deserts occupied by metaphysical super-objects—as in the self-propagandizing exercises of the Italian Archizoom or Superstudio groups—feast *ad nauseam* on the Late Romantic yearnings of Taut's *Auflösung der Städte*. Very much a part of all this is also Buckminster Fuller (b. 1895) with his ten-story self-transportable edifice, his hemispherical dome conceived to cover and climate-control all Manhattan, and his geodesic domes equally handy for exhibition pavilions (the Montreal Expo 1967) and for the hippy communities that are heir to the anarchist utopias.

Certainly within this orgy of superstructures and graphic fantasies that scarcely conceal a cynical dismay there are very diverse and even conflicting ferments. The project for restructuring the center of Philadelphia proposed by Louis Kahn in 1956-57, which has been the source of a good number of large-scale inventions, has nothing to do with the Archigram's need to destroy the finiteness of the architectural object. With its enormous garages in the form of great truncated cones situated on the periphery of the project zone, the Philadelphia plan expresses, in inversion, the same terror of urban mobility. Only the formula of the exorcism has changed; the obsessed, invaded by the demon, is still the anguishing metropolitan dynamism.

Kenzo Tange has dealt with that dynamism in two projects that have had an incontrovertible international influence: one in Boston, developed in 1959 with the collaboration of Massachusetts Institute of Technology students, the other done the following year for the expansion of Tokyo Bay. The first is based on two enormous triangular supports. Its various levels have spaces available for dwelling units constructed with either

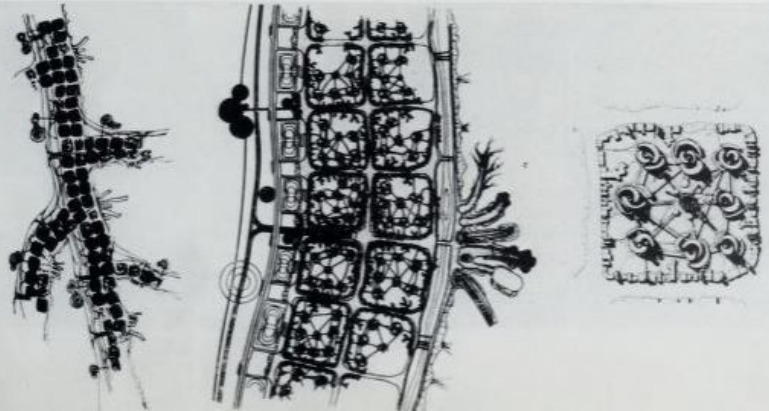




"INFORMAISON"

MULTI CHANNEL-AUDIO/VISUAL-ENVIRONMENTAL-OUTPUT SYSTEM.

JOHN BOLLSTEAD / ROGER JEFFS PROGRAM PARTNERSHIP



636. Ludovico Quaroni and collaborators, plan and general view pf the satellite city of San Giuliano at Mestre (Venice), 1959

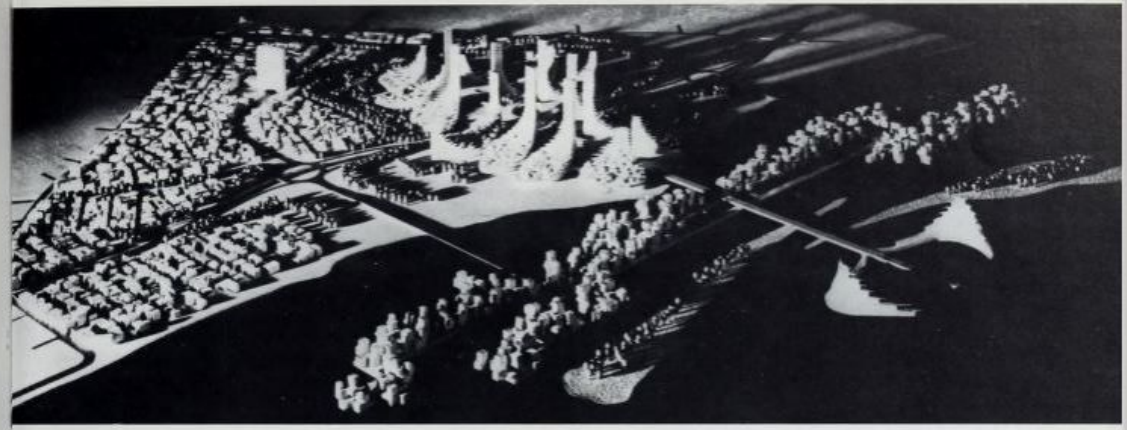
637. Jan Lubicz-Nycz and Donald P. Reay, model, competition project for the organization of the area between Tel Aviv and Jaffa, 1963

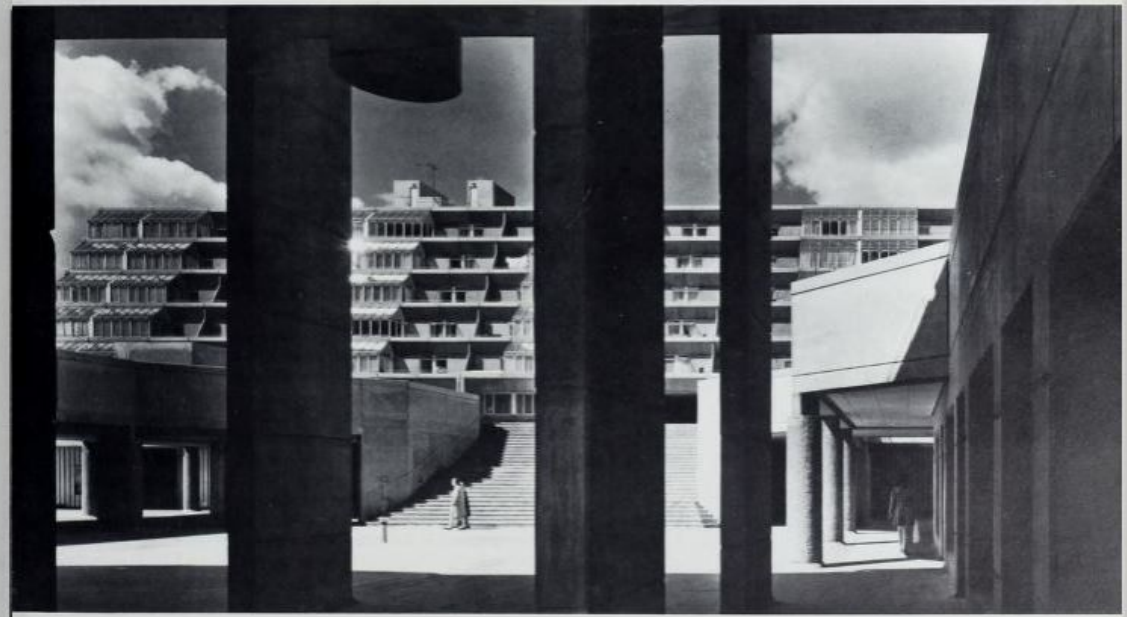
638. Patrick Hodgkinson (Leslie Martin, consultant), Brunswick Centre, Bloomsbury, London, 1968-72

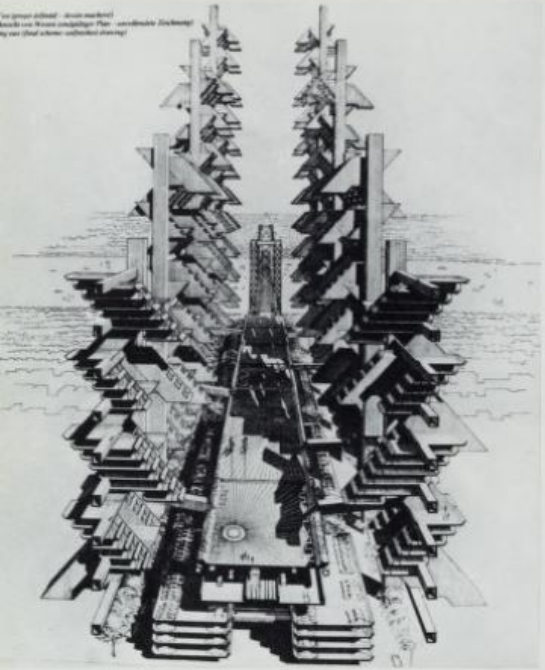
prefabricated or cheap materials as well as for services, traffic networks, and green areas staggered at various heights. Once again one recognizes a project originating in the Obus Plan for Algiers by Le Corbusier and in a Gropius proposal of 1928.[1] In his Tokyo plan Tange proposed invading the bay with a complex tertiary structure set into rings of superhighways to which would be aggregated, at the sides, residential systems based on the same principles as the Boston project. Tange presented this project as a polemical counterthrust to the official plan of 1956 for the Tokyo region, which was plainly inspired by the Greater London plan of Abercrombie and Forshaw. For Tange it was also a polemic against the two-dimensional tradition of planning, with its theories of territorial equilibrium based on decentralization by means of satellite towns. With Tange the exaltation of the tertiary city and the mobility of the urban structure are explicit. His megastructure summons up an entirely uncommon scale of design. The "new dimension," to which the means of planning should be attuned, became a recurrent slogan in the great debate of the 1960s. No middle ground, however, was envisaged between that utopian effort to control the dynamic phenomena of urbanization and the concrete administrative measures and means. Neither Tange, or Friedman, or Maymont was disposed to accept the risks that political administration of urban transformations imposes. Quite the contrary, their entire polemic was directed against the experiences—deformed and flattened by their superficial interpretation—of the radical urbanism of the 1920s and 1930s whose political aspect they ignored and whose typological scheme they contested purely in terms of form. With that same attitude Christopher Alexander could blithely liquidate a tradition he simplistically defined as "functionalist" with the neat formula: "A town is not a tree."

The return to a concern with the complexity of the urban dynamic is not in itself negative. What is negative, however, is the split that, in the terms in which it is viewed, such a return provokes between reality and utopia, between a lucid reading of structural components—as laid down by the science of planning now channeled into independent paths and subjected to ever-more-complex mathematical verifications—and evasions into uncontrolled images. That discontinuity is explicitly evident in the studies on urban form carried out by Kevin Lynch at M.I.T. Integrating distressingly elementary studies in urban sociology with the tradition of Gestalt psychology, Lynch proposed a structural reorganization that aspired to introduce total form into the city, to make it a place where the individual or group can become refamiliarized with a metropolis dense with significant places designed and used with social purposes in mind. It is the same old utopia, except in this case the specter of anonymity is no longer dispelled with nostalgic recourses to the "community," as propounded by Tönnies, but with equally nostalgic appeals to images deriving from the common denominator of an improbable "collective will" for form. Here are the ideas of Camillo Sitte resuscitated on a much larger scale.

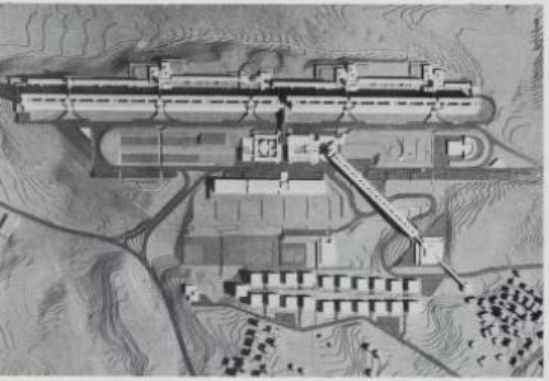
The Italian contribution to the debate over the "new dimension" has been notable and among the least evasive. The results of the 1959 competition for the urbanization of the Barene di San Giuliano at Mestre in an area of reclaimed shoals facing Venice, the congress organized in 1962 at Stresa by the Istituto Lombardo di Scienze Economiche e Sociali (ILSES) on the theme of "City and Region," the studies for the Milan plan to which Giancarlo De Carlo made a notable contribution, and finally the discussions concerning directional centers for Rome, Turin, and Bologna all dealt with the new themes that had appeared on the international scene. For San Giuliano at Mestre the team headed by Quaroni offered a thoroughly worked-out methodological proposal in which the entire idea of the quarter or neighborhood imposed in the 1950s by the activities of the INA-Casa was once and for all left behind. Instead, a number of tall semicylindrical buildings were sited in such a way as to shape a polyvalent space facing the lagoon. They thus created an alter-







639. Paul Rudolph, unfinished drawing, proposal for restructuring the main traffic route of Lower Manhattan, New York, 1967-72



640. Mario Fiorentino and collaborators, model, Corviale residential complex, Rome, begun 1973

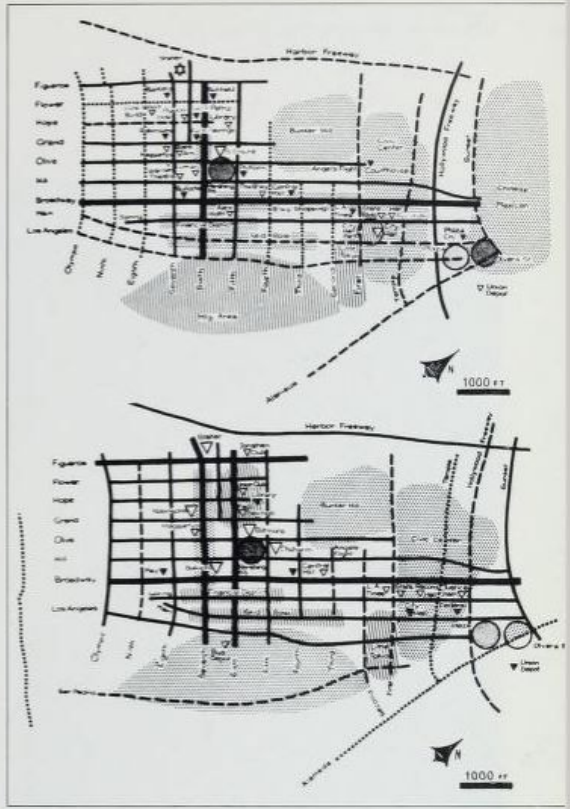
native urban core to that of Venice itself. And on this core converges radially an elaborate system of residential structures which rules out fixed relationships between morphology of the settlement and typological research. The structure thereby dispenses with canonical standards, and the overall control no longer depends on zoning or on fixed types. As in the plans of Tange but with a much more realistic approach, Quaroni assigns to an intermediate scale of projection—town design—the task of defining flexible structures open to a vital eclecticism when it comes to their actual realization.

More than in the uncertain or downright vague results of the 1962 competition for the directional center of Turin, or in those of the 1969 competition for the proposed "metropolis of the Straits of Messina," the basic notions of a new scale of architectural design were brought out in the proposal for a city plan for Rome, approved (with no end of compromises) in 1962, although the essential ideas had been defined as far back as 1957. In that plan, in which the decisive contribution came from Quaroni and Luigi Piccinato, a multifunctional axis girdling the east zone of the city connects up with the national superhighway system. At the same time, this axis serves as the base for three tertiary concentrations projected toward the areas of expansion and intended to deploy some of the functions of the congested city center. In short, what would be created is a system that could give rise to a chain reaction of urban restructuring. The Rome plan has remained on paper, in part because of administrative deficiencies, but also because of certain shortcomings on the professional architectural level. To some extent it is counterposed by the intercommunal plan for Milan.

This plan proposes to link up the metropolis with the surrounding region by means of multifunctional bridge-heads with an almost spiral territorial design. It is a model recalling the plan for Greater Hamburg worked out under the leadership of Werner Hebebrand and discussed at the meeting in Stresa, Italy, in 1962.

During that same period the project presented by the Polish émigré Jan Lubicz-Nycz in collaboration with D. P. Reay to the 1963 competition for the organization of the area between Tel Aviv and Jaffa was attracting international attention. Enormous spoon-shaped containers would fulfill commercial, public, and residential functions, as in a model that the same architect had proposed for San Francisco and would propose again—in the form of notched horns pointing upward (in homage to the Iberian *toro*)—for the competition for the Kursaal in San Sebastian. These macrostructural podlike containers of humanity are among the most daring attempts at an integral and integrated formalization of the environment. His formal acrobatics are of the same order as those of Paolo Soleri (b. 1919), an Italian resident in the United States since 1947. In addition to resuscitating mystic visions of the pioneer lifestyle with his community of Arcosanti in the Arizona desert, Soleri dreams of macroen-

641. Kevin Lynch, diagrams of the center of Los Angeles based on sociological investigations



vironments such as his "Babelnoah" of 1971, in which six million inhabitants are to be concentrated into a single gigantic polyfunctional skyscraper.

All this thinking was destined to remain on paper. This is not to say that it does not foster its own underground circuits of exploitation. Reviews like *Architectural Design* and *Casabella* promptly solidarized with the neo-avant-garde and its formulas (in their typographical presentation as well), falling into line with the climate of technological vitalism in which the proponents of such visionary architecture move. Their ideas often prove useful as outright propaganda. At the time work was beginning on the realization of his highly diversified urban model for the reconstruction of Skopje, Kenzo Tange produced a project for the directional center of Bologna. Like the projects of Paul Rudolph for the Graphic Arts Center and the Evolving City in New York, Tange's work was useful only as abstract experimentation. Still, megastructures and the poetic of the "new dimension" do find a place in expositions and the like. In Disneyland the science-fiction approach was made reality, while for the Montreal World's Fair the Israeli Moshe Safdie (b. 1938) constructed his Habitat'67. It was an informal aggregation of prefabricated residential cells fitted into each other like grape clusters. This idea was proposed again in projects for residential nuclei for New York and Puerto Rico in 1968 and 1968-71 respectively. In these projects the regression to the utopian was not casual.

The neo-avant-garde experiment with the center of Cumbernauld New Town, the attempts to integrate mass media, play-utopias, and cybernetics—indeed, all the vital Neo-Romanticism—have in the long run produced nothing more than ideas. These were the years around 1968. The directional systems and new proposals, even in their most thoughtful variants such as the projects of Bakema for Tel Aviv-Jaffa and for the over-water expansion of Amsterdam, remain on paper. There is a reason for this bankruptcy. Throughout the world the concentration is on inventing instruments which, in the attempt to exploit fully the possibilities implicit in an integrated and planned use of the new technologies, might get beyond canonical urbanism, two-dimensional planning, and undertakings restricted to isolated sectors and distinct functions. But this is a professional matter regarding only the architects themselves. It fails to take into account the necessity for a direct linkage between hypotheses of new modes of production and institutional reforms. In other words, despite themselves the utopian-futuristic architects of the last decade have simply gone along with a more-than-traditional division of labor; their vaunted individuality is a last ditch where they dig in their heels to safeguard an autonomy that is, at best, unproductive.

Because of this, the results of so much navigation in utopian waters—in a situation where the capitalist system is foundering in search of new strategies—remain limited to mere fragments which only marginally affect the global setup.

Works such as the Yamanashi Broadcasting Building by Tange, the Corviale complex in Rome by Fiorentino and collaborators, or the Brunswick Center in the Bloomsbury quarter of London built in 1968-72 by P. Hodgkinson, with Leslie Martin as consultant—a multipurpose structure for 1,644 inhabitants with 80 shops, a cinema, garage, services, differentiated thoroughfares, and with its volumes sloping down to the central spine of a court-*cum*-boulevard—simply insert the themes we have been analyzing into individual architectural undertakings or sectorial plans on an experimental scale. Once again the total image is reduced to a mere decorative enhancement of the metropolitan chaos it once aspired to dominate.

642. *Kevin Roche and John Dinkeloo, United Nations Development Corporation, begun in 1969, New York*

"Kein Ding wo das Wort gebricht" (Let nothing be where the word is lacking): a line from Stefan George to be kept in mind in undertaking a final discussion of contemporary architecture. What remains to be done is clear. The separate histories we have traced have only occasionally, and then accidentally, proved to be not only contemporaneous but also similar. Profound differences separate the utopias of the avant-garde from the reformism of radical architecture or the technocratic demands of planning today. There is a metaphor of Martin Heidegger that fits the situation perfectly: "The parallels intersect in infinity in an intersection that they themselves do not produce. It is thanks to that intersection that the contour takes shape that marks the essential affinity." The vicissitudes of modern architecture are much like this: in the very moment in which we isolate out its themes or analyze their historical interrelationships, they confront us with all their diversity, reveal their pluralism. One must call a halt when this point is reached.

It is also important to refuse the "rapid voyages to where we have not yet arrived" (Heidegger). Usually the histories of modern architecture have done just the opposite, marrying irreconcilable extremes and brashly pushing on to nameless unidentifiable goals. Architecture has been led into losing its fundamental relationship with things as such. If, as Heidegger wrote, "the intimacy of world and thing is in the separation of what lies between them, is in the difference," then what we have been trying to look into has been precisely the "difference" that makes architectural expression something original with respect to the universe into which it is introduced, but which also irremediably sets it apart from that universe. The principle of "estrangement" (reading the word in its etymological sense) or, better, of "distancing" governs contemporary architecture. It imposes itself with ever greater vigor and to such a point as to appear in recent years as a new line of conduct. Certainly the conditions under which architecture is produced are not a matter of indifference. But it would be too simplistic merely to run through the entire spectrum of our parallels, examining each time what architecture reveals of the world in which it has its part. Often, in fact, architecture speaks very much more fluently precisely of that in which it has no part. The production of the 1960s and 1970s is much more a demonstration by negatives than by positives. Changed as the cultural context was, an oft-told story was repeated with new characters.

Very rarely, in fact, has contemporary architecture succeeded in giving a central place within its own poetic to the principles that turn the efforts of the great linguistic experimenters into a tragedy: *difference* and *renunciation*. At the very time when attention is directed to the future, dependence on tradition becomes all the more binding.

Architecture, like Oedipus, is condemned to suffer its own myth of a single and unitary origin along with all the simultaneous but different demands made on it.

643. *Kevin Roche and John Dinkeloo, Veterans Memorial Coliseum and Knights of Columbus Tower, New Haven, 1962-72*

644. *Kevin Roche and John Dinkeloo, College Life Insurance Company headquarters, Indianapolis, begun 1967*

645. *Philip Johnson and Richard Foster, Kline Tower for Biological Research, Yale University, New Haven, 1966*

646. *Henry Cobb, designer (Ieoh Ming Pei and Partners), John Hancock Building, Boston, 1976*

This is how it is today with many architects who are striving to update and champion anew the lesson of the modern movement. Intrinsic to such a definition is, as we have seen, a significance that can only be called moral: those who have theorized about the traits of the movement in order to write its history have, necessarily, exalted its prophetic role, ideological charge, and utopian quality.

But in the return to such a conception are laid down the premises for what is nothing less than an *evasion*, a flight from present fact. Morality is not the sole condition for overcoming the present; it is also the correlative of its ignorance. It follows the approach to the intellectual's work that deliberately chooses to function outside the reality of the given relationships of production—even though that is against what it considers to be its own convictions.

It is not possible to deduce operative hypotheses from such an approach, unless it is by shutting oneself off in a feeling of offended morality. But in that case as well, the central theme is that of detachment: what architecture reveals is not the nature of its own relationship with the world but the difference between reality and the way forms are reproduced.

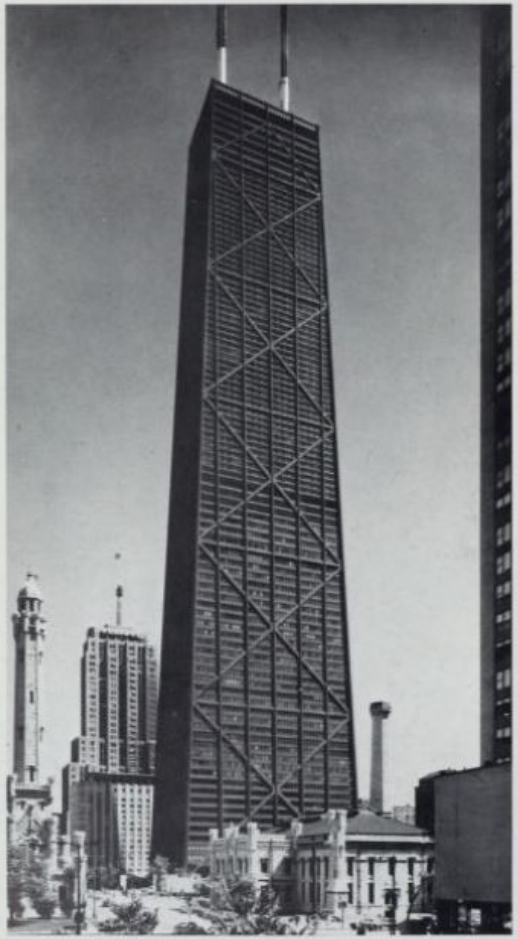
We have seen that the technological utopia came tumbling down in the 1960s. The outcome was already explicit in the writings of the avant-garde. Technology erodes the celebrative side of modern architecture without producing a renewal but instead by decreeing its ultimate spoliation. After Mies' reduction to minimums, that is the result arrived at by the epigones intent on giving form to redundant images by means of a simplified language.

The technological overemphasis of certain younger architects such as Ludwig Leo or Piano & Rogers translates into superfluous metaphors what are now the standard approved images of the new natural environment. By a tortuous path the exaltation of the machine, even in its most significant productions, ends up by retying its threads to its own original matrices, reworking with utmost care the synthesis of a new naturalism. If the naive exaltation of not too mysterious technological universes is the sign of a withdrawal from pressing responsibilities, so too is the attempt to return to basing a new feeling for form on unknown and primordial universes. A superficial falling into line with certain cultural notions that are in vogue has sent the neo-avant-garde scurrying to fancies about the *tristes tropiques* and the rediscovery of the myth of the noble savage. It has made them feel that they simply cannot get along without purifying baths in a world of unalienated forms where a fraternal rapport with nature reigns. Aldo van Eyck, for one, turned to that sort of ideology in the works of the early 1960s already mentioned; their frankness and genuineness have become more and more muddled in his more recent "pretty" proposals.

Certainly less ingenuous is the path taken by Giancarlo De Carlo, who

647. *Ieoh Ming Pei and Partners, National Gallery, East Building, 1978, Washington*

648. Skidmore, Owings & Merrill and Bruce Graham, John Hancock Center with Neo-Gothic nineteenth-century pumping station in foreground, Chicago, completed 1970



649. Skidmore, Owings & Merrill and Bruce Graham, Sears Tower, Chicago, 1974

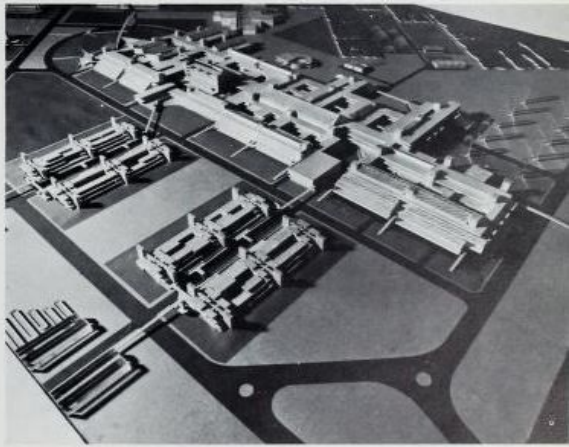
shared with Van Eyck the experience of the Team 10 group. As the last works of the members of that group show all too well, the time was past for common paths. What do architects like the Smithsons and De Carlo, Van Eyck and Bakema still have in common? While the latter remains prisoner of passé canons that flirt with an ambiguous formalism, De Carlo keeps to a well-tried approach and looks to a more up-to-date version of the ideology of social commitment: his Villaggio Matteotti, a housing project realized in Terni between 1970 and 1975, is a positive manifestation of such an approach, finding a fertile terrain in the politicized situation of Italy today. If De Carlo scours the path of a necessarily problematical relation with social reality, Vittorio Gregotti (b. 1927) goes a very different way, aiming to change not the world but the architectural profession, to steer it toward something more managerial in character and connected with institutions that can offer broader opportunities for an architecture of high quality. A personality typical of present-day Italian architectural thinking, Gregotti has attempted to move on to large-scale activities in which he can control and administer broad and complex cultural and designing initiatives. His more recent works such as the projects for the new University of Calabria at Cosenza or for the Zen district in Palermo show him aiming at a high degree of efficiency along with an attempt at quality in large-scale projects. A similar approach is also expressed in recent works of certain Spaniards or by the German Oswald Mathias Ungers (b. 1926).

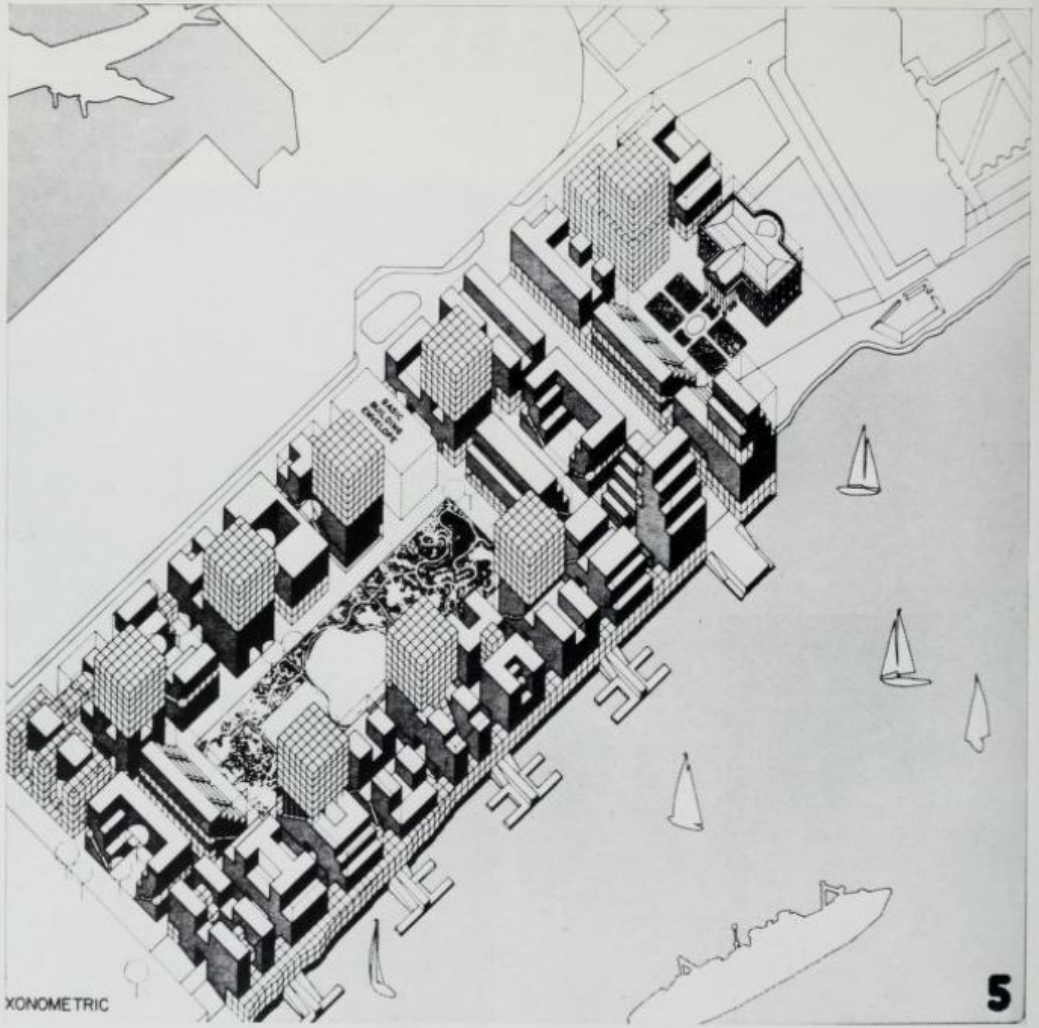
Quite unlike these is Carlo Aymonino (b. 1926). His most important work, the housing project in the Gallaratese quarter of Milan done between 1967 and 1973, is not without a certain Expressionist vein. The architecture is dominated by an anxious concern with form which expresses itself in a feverish striving for correlations and an attempt to absorb all valences into a programmed chaos. Where the architectural language shows itself lacerated, Aymonino ties together the underlying web; where the norm clashes with the exception he tries to cancel out their conflict. With him architecture becomes an intense desire for continuity even if, to express itself, it has to resort openly to new artful dodges. It was not without reason that Aymonino inserted into the Gallaratese project an ascetic building by Aldo Rossi, almost as if to declare an impelling necessity to include something utterly opposed to his own approach.

Aymonino does not hesitate to reach out to the most remote suggestions or indulge in the most obvious quotations. In this respect his architecture can be thought of as autobiographical. Its ideological significance is explainable by the cultural origin of the neo-realist approach—very much a part of Aymonino in the 1950s—which was the Italian cultural experience that put most stress on the role of autobiography, in particular as transposed to the social plane. In that sense the Gallaratese buildings have a significance that goes well beyond their formal

650. Giancarlo De Carlo, Matteotti Village for the employees of the Terni Company, Terni, 1970-75

651. Giancarlo De Carlo, model, project for the University of Pavia, begun 1972

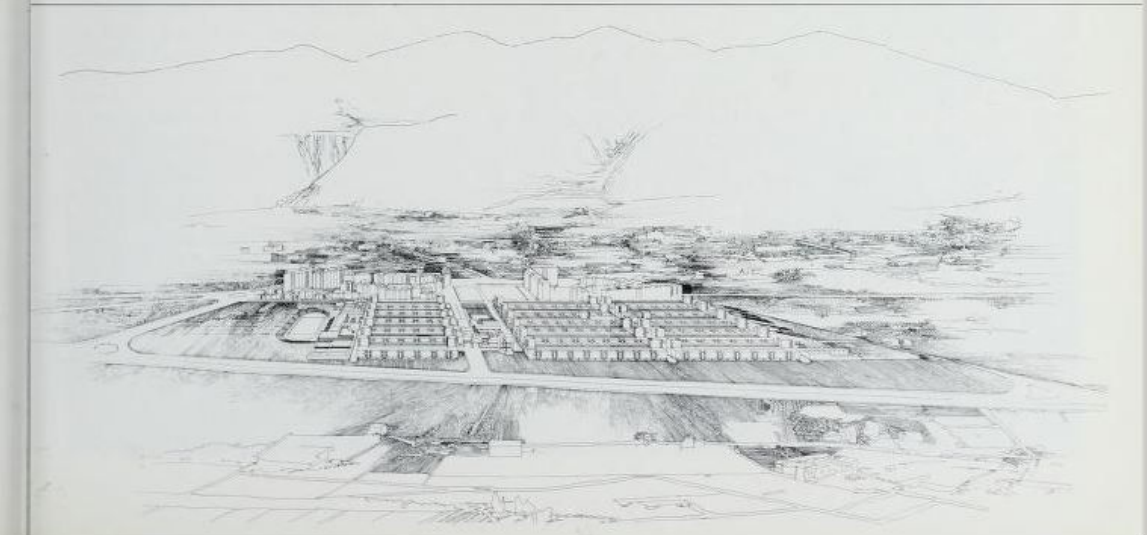




652. *Oswald Mathias Ungers, competition project for Roosevelt Island housing, New York*

653. *Emilio Battisti, Pierluigi Cerri, Vittorio Gregotti, Hiromichi Matsui, Pierluigi Nicolin, Bruno Viganò and Franco Purini, Carlo Rusconi Clerici, proposal for the University of Calabria, 1973*

654. *Franco Amoroso, Salvatore Bisogni, Vittorio Gregotti, Hiromichi Matsui, and Franco Purini, proposal for the Zen quarter, Palermo, 1969*



655. *Carlo Aymonino, projection drawing, residential complex, Gallaratese quarter, Milan, 1967-73*

coherence. Just as the film *8 1/2* by Federico Fellini exhausted an entire cycle of cinematographic thinking by carrying the oneiric components to their extreme, so too the work of Aymonino brings to conclusion a phase of Italian architecture. It was the phase whose hopes and motivations originated in the populism of the Tiburtino project in Rome, in the pluralistic daydreams of the politically committed, and in self-narration elevated to a genre per se. But this is still a matter of distancing, whether in its positive or its negative aspects. It is quite certainly also an attempt to cancel out contradictions in a linguistic construction that, despite everything, is dialectical. Moreover, the work of Aymonino is symptomatic of a kind of exploration that, in Europe especially, takes refuge in the interstices of a system that has not yet arrived at a real compactness. In that system chance still has its part in the mechanisms of patronage and commissions, and the most advanced experiments still find only a limited market.

If in Italy an architect such as Gino Valle (b. 1923) can put quality foremost, moving with originality among a very diversified clientele, with work ranging from additions to existing buildings in historical centers to industrial constructions, in the United States the process of specialization has affected architectural thinking in a much more concrete manner during the past decade, reserving circumscribed and clearly defined fields to its most advanced representatives. It is not by chance that the majority of truly significant buildings of the 1960s were done for university campuses: architects have otherwise been allowed access to the large cities only when it was a matter of some large-scale undertaking more pretentious than useful, or to cover up some of the more heavy-handed aggressions on the part of real estate speculators. It is significant that the plan of 1968 for Battery Park City in New York was signed with the prestigious names of Harrison & Abramovitz, Johnson-Burgee, Conklin & Rossant. One cannot overlook the captivating mélange of science-fiction images and idyllic pedestrian areas—much like those promised thirty years earlier for the hanging gardens of Rockefeller Center—that characterizes the project. It was obviously intended to aid in promoting it, in winning a consensus, however fictive it might be, of a kind not necessary for other projects with equally crass motivations.

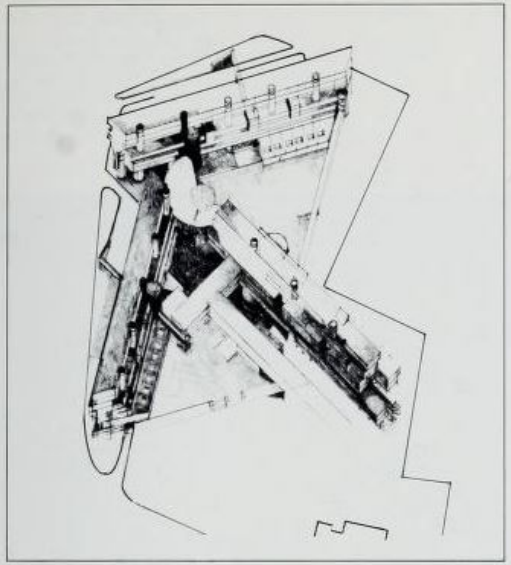
Evidence that the fascination with the exceptional that dazzled the magnates of Chicago in the 1890s has not disappeared, super-skyscrapers are still shooting up in New York, Chicago, Boston, and San Francisco. Isolated monsters expressing only their own power, these superbuildings still speak the language of the pioneers, however camouflaged it might be under a technological mask. Their own inflexible organization acts as surrogate for the order lacking in the city itself, and the expansionist motivations that the American people have carved into their own history is sublimated.

While the ambitious large-scale real estate operations proposed for Manhattan have been marking time during the crisis of these last years, skyscrapers in the heart of the city raise their heads high in a struggle to preserve their own special aura. Kevin Roche (b. 1922) and John Dinkeloo (b. 1918) have proved to be the most eclectic interpreters of the new American clientage.

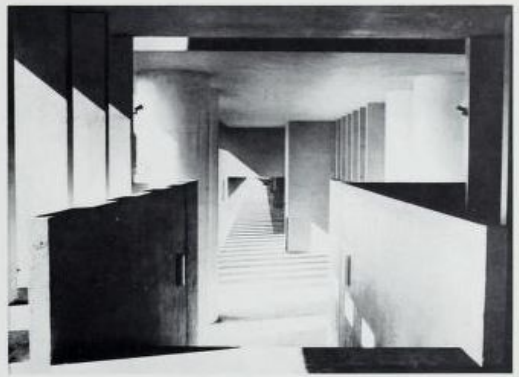
For the Ford Foundation headquarters in New York they came up in 1967 with a solution aiming at brilliant effect: the edifice is wrapped around a cavernous and transparent interior space treated like a gigantic hothouse. But the artificial "nature" inserted into the heart of Manhattan is no less false than the pretenses to community welfare that the architects resort to as justification. Architecture continues to exalt the exceptional, as in the case of the design by this same pair for the Federal Reserve Bank in New York begun in 1969. Hovering above the city, this skyscraper rests on enormous naked stilts that emphasize even more its estrangement from its surroundings. By such means architecture is made to lend itself to new forms of publicity. Beginning in 1967 Roche and Dinkeloo built three pyramidal masses for the College Life Insurance Company headquarters in Indianapolis. Some portions are solid blank walls, while others have reflecting glass surfaces. The result is that concrete and glass carry out the complementary functions of repulsion and reflection. Here architecture becomes a screen on which the images of surrounding life are projected, but without the "renunciation" of Mies. Such a phenomenon is also to be seen in the fully glassed surfaces by Roche and Dinkeloo—the 1970 designs for the Worcester County National Bank in Worcester, Massachusetts, for instance, or the 1972 complex in Fort Wayne, Indiana—as well as in the efforts by other American architects such as John Portman or Cesar Pelli. Like immense screens for a nonstop film, such works seem to make much ado about their own anomaly. But between the exception they represent and the banality of the functions they fulfill lies the entire story of the loss of the aura, even the very destiny of urban America.

Nor have attempts to solve the problem of the isolation of the skyscraper had any better outcome, as is obvious in the proposals by Philip Johnson and John Burgee for Penzoil Place in Houston in 1973 and for the IDS Center in Minneapolis. Try as Johnson may, his ambiguous eclecticism ends up as mere jugglery.

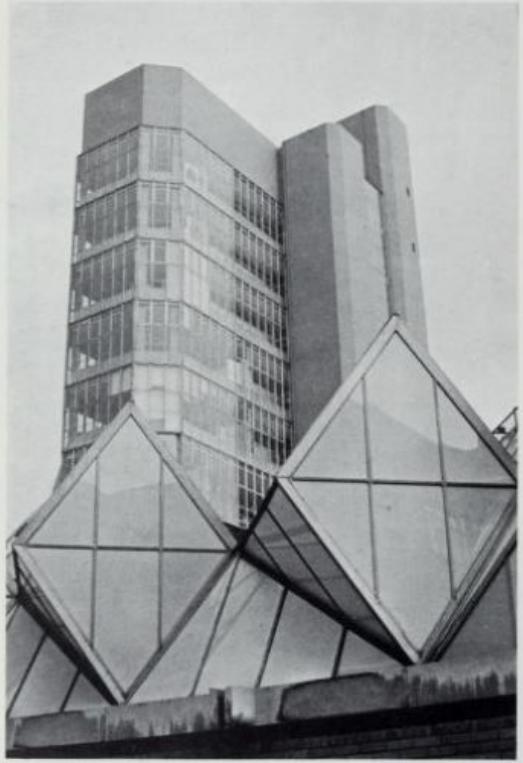
It is not without significance that Philip Johnson and Kevin Roche—the former with the Kline Tower of 1966 for Yale University, the latter with the New Haven Veterans Memorial Coliseum—are responsible for two of the major celebrative efforts of America in the 1960s. These works exemplify a sophisticated artifice quite unlike that used for their big-city buildings. There is no longer the exaltation of the system of the big corporations in up-to-date forms, but rather the need to regain a different quality, something erudite though not without imperial pomp. What is not granted to the city can find a welcome where culture reigns. The

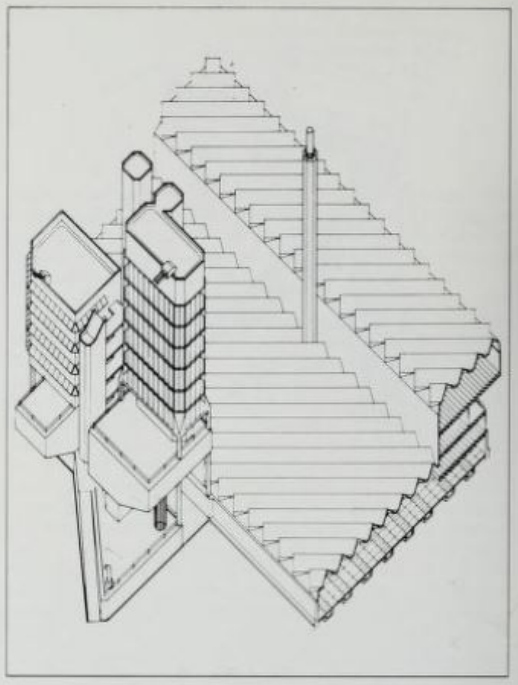


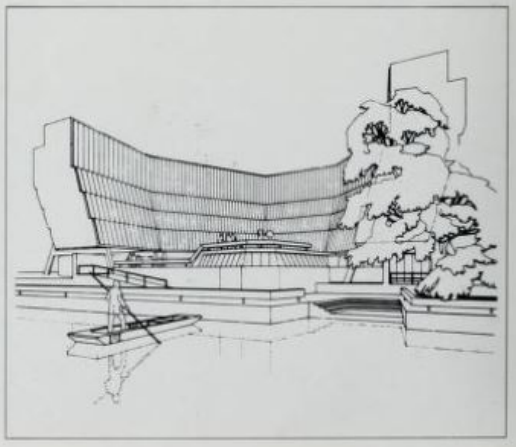
656. *Aldo Rossi, portico in residential complex, Gallaratese quarter, Milan, 1967-73*
657. *Carlo Aymonino, exterior, residential complex, Gallaratese quarter, Milan, 1967-73*



638. *James Stirling and James Gowan, Engineering School, University of Leicester, 1959-63*



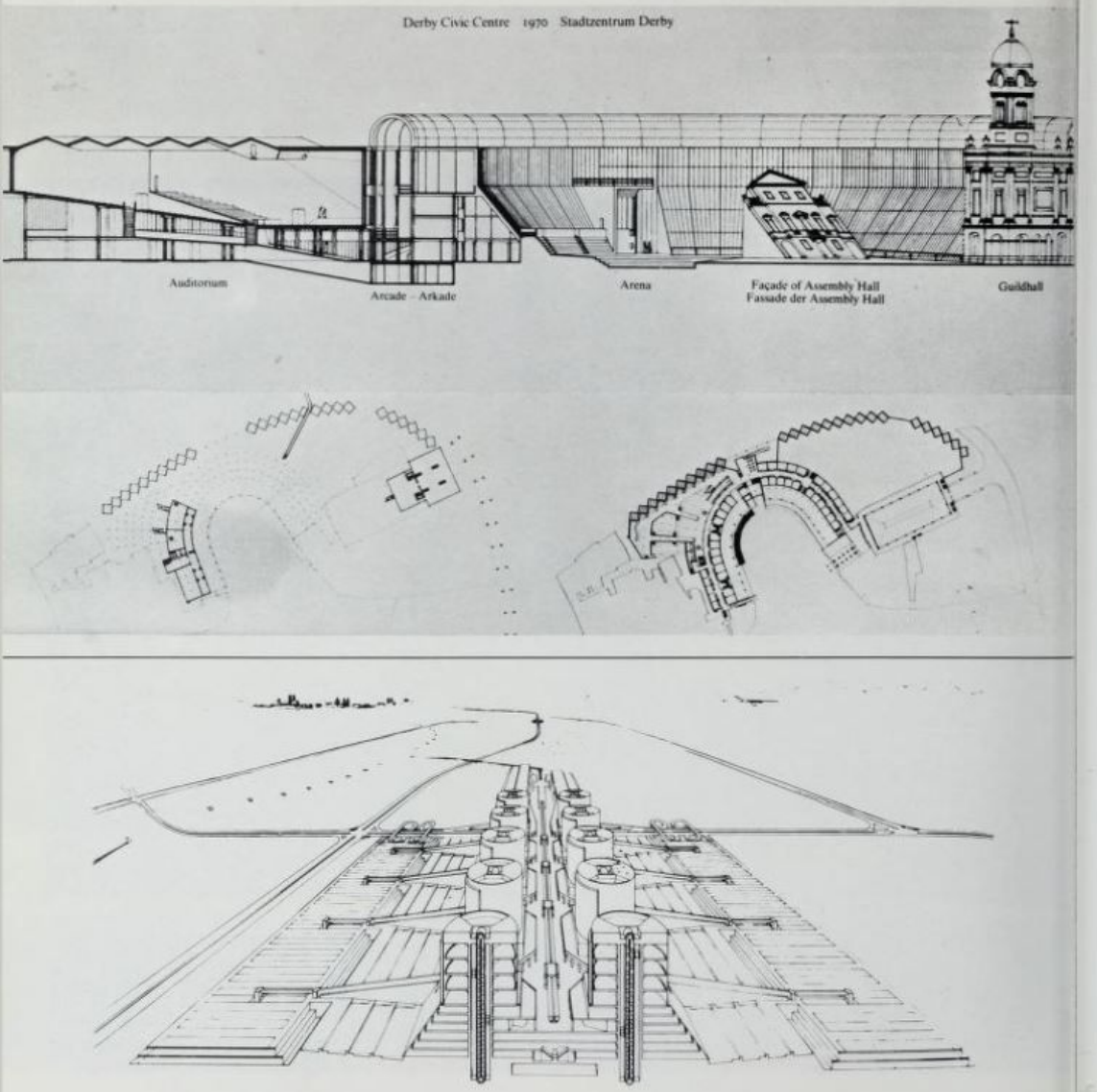




659. *James Stirling and James Gowan, axonometric projection, Engineering School, University of Leicester, 1959-63*

660. *James Stirling, project for the Florey Building, Queen's College, Oxford, 1966-71*

661. *James Stirling, Library of the History Faculty, Cambridge University, 1964-67*



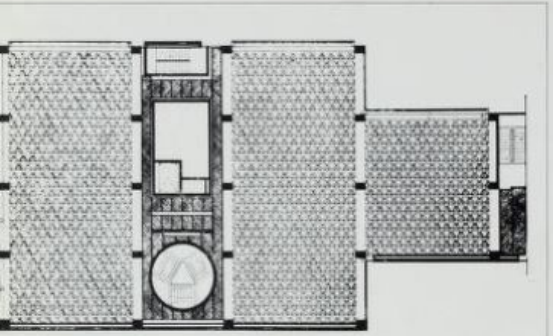
662. *James Stirling, project for the Civic Centre, Derby, 1970*
663. *James Stirling, project for the Siemens AG headquarters near Munich, 1969*

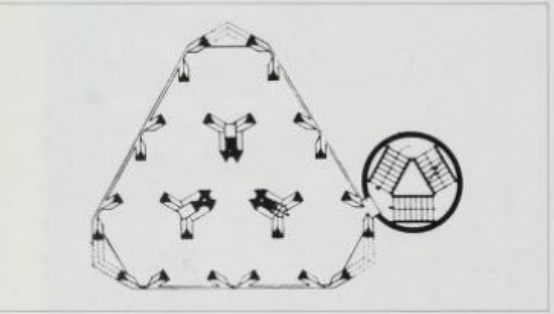
664. *James Stirling and Michael Wilford, residential complex, Runcorn New Town, begun 1967*

665. *Louis Kahn, ground plan, Art Gallery, Yale University, New Haven, 1951-53 (from Architecture d'aujourd'hui, 1969)*

666. *Louis Kahn, project for the City Hall of Tomorrow, 1957 (from Architecture d'aujourd'hui, 1969)*

667. *Louis Kahn, competition project for the Library, Washington University, Saint Louis, Missouri, 1956*





division of roles is rigorous: the masks of the forms are perfectly adapted to them.

But from all this emerges no guide for new efforts. Observing American architecture today, it seems as if history has come to a stop and what has been done is fated to be done again and again by architects who simply do not know how to react critically to the substantial change in what is wanted from them. The task they are handed is to celebrate "continuity" and "progress." Should they wish to express some sort of contact with tradition, it is better that it should not show too clearly, else the novelty of the architectural monotony to which they are condemned might be called into question. Not even the mannerism of Philip Johnson can fulfill a critical function: his academicism derives from the voracity of the collector, not from the cool detachment of the browser.

But is it still possible to imagine such a detachment for contemporary architects? Is it possible for them still to succeed in traversing the space of detachment? Can they still turn to the language of architecture not to seek reassurance but to inquire into their own condition, into what their vocabulary of form seeks to achieve?

There would be no doubt about the reply to such questions if the 1960s and 1970s did not confirm the results that distress us here. Yet those results represent only a single aspect of the work of two decades. They round off only one of our histories (or, if you wish, some of our histories), but by no means represent all the parallel tracks on which these histories move.

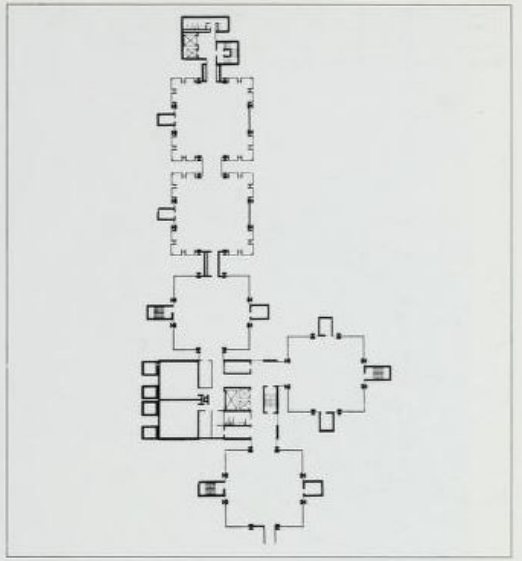
Beginning with the late 1950s two architects did much to take up approaches and ideas one would have thought were exhausted. Their efforts have run on their own tracks, parallel to those we have been examining. The work of Louis Kahn (1901-74) and the British architect James Stirling (b. 1926) represent two opposite attempts to breathe life into a seemingly moribund art. The architecture of Stirling has its origins in analysis of the language of the modern tradition. This involves an initial reductive act—meaning disassembly. "Quotations" are a feature of Stirling's work and at first sight they take on an ironic aspect without, however, revealing the solution to their enigma. In intention they are probably neither ironic nor enigmatic but the result of reading the modern tradition as "languages." In works such as the engineering school of the University of Leicester of 1959-63, the library of the history faculty of Cambridge University built in 1964-67 and the residence halls for the University of St. Andrews of 1964-68, Stirling hovers between Constructivist and Futurist approaches, between an insatiable sensibility for technology and Victorian nostalgia.

But those echoes clearly demonstrate the impossibility of existing within the tradition from which they originate. They are evocative, but only to make clear how far this architecture has come from the past. Tradition is language; but what comes out of tradition is only words

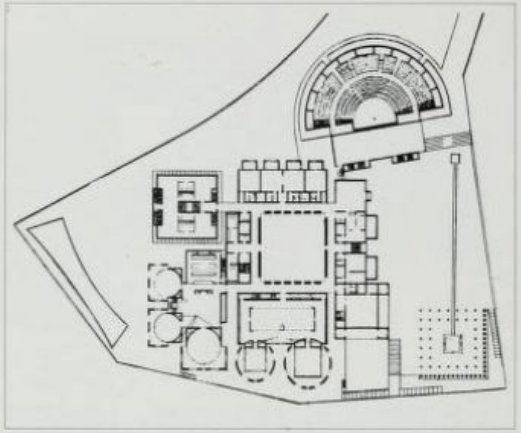
668. *Louis Kahn, ground plan, laboratories of the Richards Institute for Medical Research, University of Pennsylvania, Philadelphia, 1957-61*

669. *Louis Kahn, exterior, laboratories of the Richards Institute for Medical Research, University of Pennsylvania, Philadelphia, 1957-61*

whose relationship with things is rewritten in a new text. In that way tradition becomes an arcanum forever beyond reach. As Stirling's reinterpretation of Le Corbusier tells us, we are separated from what we love by a distance measurable only by analyzing just how much earth has sedimented over the archaeological artifacts that tradition has deposited. From the terrain of excavation no meanings emerge, only sounds. The sounds are completely open to manipulation; they are not bound to any content—they "speak" only in the measure in which they are composed according to new rules. As in the case of his 1970 project for the new Civic Center in Derby—where the old Assembly Hall façade, tilted to a forty-five-degree angle, is used as entrance for the Paxtonian gallery behind it—the echoes of memory are utilized as ready-made objects. Between the word and the object no given significance or preexistent relationship intervenes. In this way Stirling makes feasible a heresy. The grammar and syntax that coordinate the architectural signs prove to be renewable to infinity. Not by chance do his works reveal compositional procedures comparable to formalist techniques: a continuous play of distortions and rotations, technological outrages, and an uninhibited montage of diverse materials culminate in complex forms that inquire only into their own internal composition. From such creations emanates no utopian nostalgia, no striving for something other than what is. For Stirling utopia is worthwhile only as a pretext, only as an occasion. From the Cambridge library to the project of 1969 for the headquarters of the Siemens AG near Munich, Stirling radicalized that principle. It is not by chance that in the Munich project and the housing development for Runcorn New Town begun in 1967 he adapted the system of repetition to forms that mimic the formal autonomy of machines. An obvious demonstration of this is the use he made in 1969 of the glass-encased gallery connecting an old Edwardian house to the converging wings of the Olivetti Training School in Haslemere. It is a veritable locus of ambiguity, appearing to be at one and the same time both caesura and seam between preexistences and the simplified volumes of the classrooms. This solution led critics to comment on Stirling's fascination with naval architecture. In the Siemens project, where cylinders leave space for a central service strip, there is no attempt to set a language that the public might share. If anything, the opposite is true: the works of Stirling demonstrate that architecture can expose its own form as machine but without impairing the autonomy of its own language. The architect approaches the public with an ambiguous attitude suspended between an ostentatious indifference to form and what looks like an overinsistence on functionalism. In so doing, he violates the rules of meaning laid down in the modern architectural tradition. The distortions he adopts are indifferent to the spectator and contrary to what modern tradition had wanted to teach. Faced with Stirling's forms, the spectator is expected to become aware of his own condition as an estranged individual. Architecture



670. *Louis Kahn, plan, Jonas Salk Institute for Biological Studies, La Jolla, California, 1959-65 (from Architecture d'aujourd'hui, 1969)*



671. *Louis Kahn, Eleanor Donnely Erdman Hall, near Philadelphia, 1960-65*

thereby becomes the field in which is expressed a masochistic relationship between the architect and his own language.

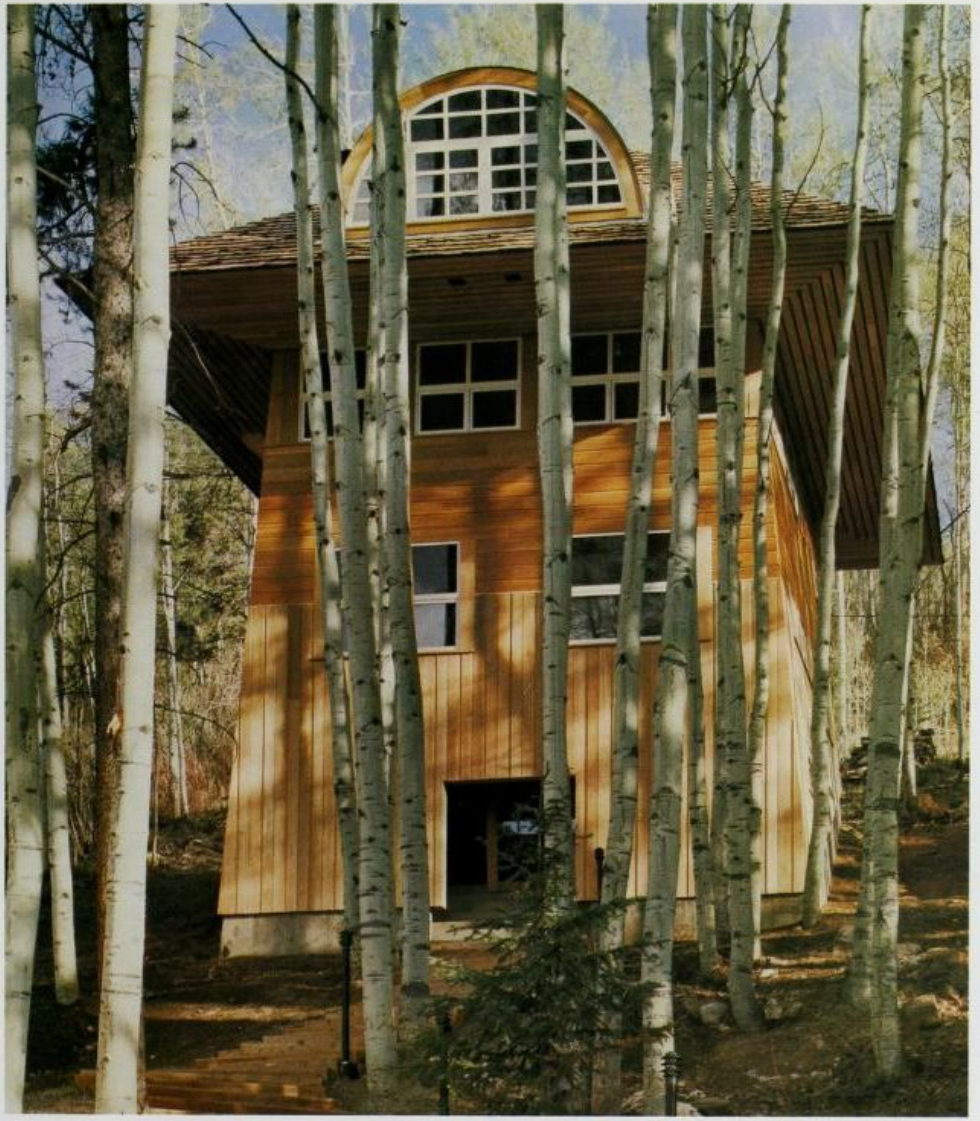
Withdrawn from the public, the forms return to the same archaeological universe from which they were excavated. But it is precisely in this that resides the perverse result Stirling has arrived at: his architecture neither opens new paths, nor indicates goals to be striven for, nor entrusts its destiny to others. Stirling liberates the architectural language from the duty of alluding, speaking, expressing; he condemns it to meditating and to being—by the very act of its appearing—artifact, evidence, exhibit.

Equally lethal for palingenetic expectations is the work of Louis Kahn. It allows no room for the mythology of the eternal return of the purportedly sacred principles of the tradition of the new. It opens the ineffable space of the narration of a nostalgia—nostalgia for a sign that retraces its own vicissitude in search of the time in which it has lost sight of its own referent in the labyrinth of history; nostalgia for universes of discourse that architecture can no longer visit without renouncing its own presence in the world; nostalgia for a reassuring relationship between norm and transgression capable of causing to gush forth, from the alembic in which are distilled ruptures and lacerations, a "circularity" or fullness of the word, a globality deriving from the awareness of its own limits. It is precisely nostalgia that differentiates Kahn's discourse on institutions from the celebrative acts effected by his contemporaries.

There can be no doubt about the historical role that Kahn filled. He was the architect of great occasions—institutions, churches, synagogues, museums. His architecture gives form to what in the contemporary world tends to disappear or not to possess form: the places of worship, taste, culture. But Kahn also created architecture for institutions that are faceless, that the world submerges and annihilates. His architectural works are intent on bringing back a collective memory. In this Kahn revealed himself to be profoundly American, expressing the never-satisfied need to equip himself with secure historical points of reference. It is the old traditional need of Americans to recognize themselves as a people in symbols that resist the wear and change of history. But the process can only be tautological: the new bases for architecture set up by Kahn are every bit as artificial as the myths and institutions in which he put his trust. Obviously this area forms an antipode to that in which Stirling works. It is nostalgia that determines Kahn's language. That determinism breaks with the modern tradition no less violently than does every attempt to confine it in the display cases of a museum. Kahn's work inveighs against the reduction of architecture to a negligible object.

But this signifies protecting the values from the process of history by transfiguring them into symbols, by attempting to recover their arcane properties. This explains the biblical sentiment that pervades the Mikveh Israel Synagogue built by Kahn in Philadelphia between 1961 and 1970

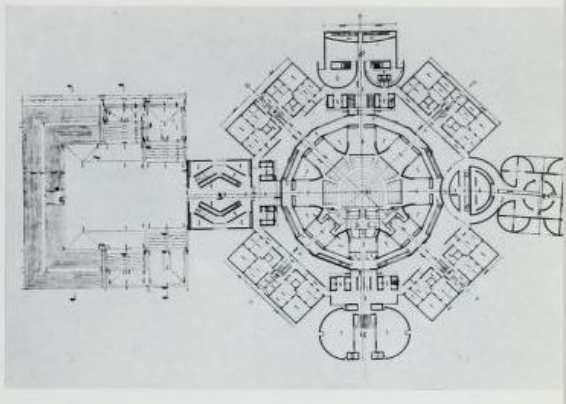
XLV. Robert Venturi, House in Vail, Colorado, 1970s

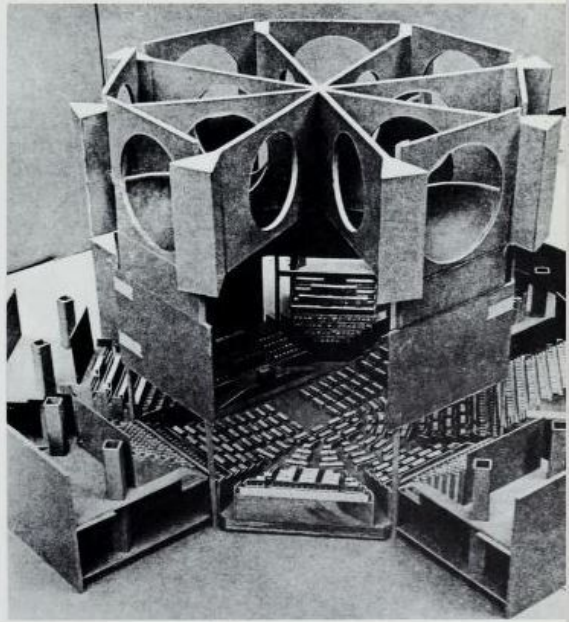


XLVI. Carlo Aymonino, Gallaratese quarter, Milan, 1967-73

672. Louis Kahn, ground plan, National Assembly Building, Dacca, begun 1962 (from Architecture d'aujourd'hui, 1969)

673. Louis Kahn, model, National Assembly Building, Dacca, begun 1962 (from Architecture d'aujourd'hui, 1969)

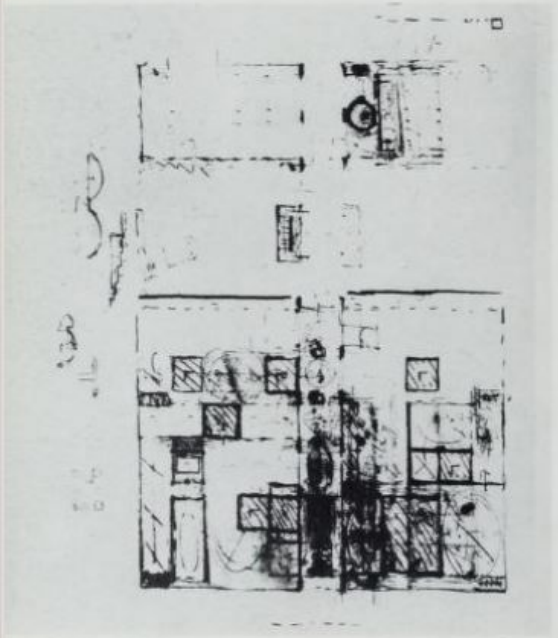




or the meaning that the Romanesque rose windows and pinnacles were meant to suggest in his first sketches for the Dominican monastery at Media, Pennsylvania, done in 1965-68. But these were results that Kahn achieved in his maturity. His works of the 1950s and 1960s mark the completion of a laborious course in which he strove to establish new bases for his designs, almost as if to begin from the beginning again. In those of 1952-56 such as the Yale University Art Gallery, the synagogue in Elkins Park, Pennsylvania, the Medical Service Plan Building in Philadelphia, Kahn strove for perfect dominion over all the components of his design and project. As Vincent Scully wrote, he refused "to give meaning and form to elements whose order and reason for existence he could not entirely rationalize in intrinsic terms."

Once that operation was carried through, however, his vocation could be given explicit expression with utter clarity. Control over the individual element became the premise for his typological inventions. Every edifice expresses not only a specific problem of a functional character but also a symbol. Each thus becomes a type whose order is entrusted to a series of geometrical relationships rich in allusions. The plans of Piranesi and the architecture of Hadrian's Villa were constantly on his work table and in his thoughts. Much has been made of the importance of the Beaux Arts tradition for understanding Kahn's architecture. Certainly it played a preeminent role. But it would be wrong to try to equate that tendency with the deep feeling the man had for Latin classicism, for a geometrical order that goes back to the Golden Age, for the spirit with which that order was analyzed by the architects of the eighteenth-century Age of Reason. In all his work Kahn aimed at a new monumentalism inspired less by the Beaux Arts than by the world of Imperial Rome and Late Antiquity. Rather than alluding to the Greek logos therefore, his works celebrate the worldly and earthly aspect of faith that has become institution and power. His incessant concern with the urbanistic situation of Philadelphia produced an ingenuous graphic representation of the urban problem and a formidable formal intuition. The enormous silos he proposed for regulating the access of traffic to the heart of the city would in effect have blocked entrance to it, englobed and preserved it. After that all his architecture can be read as an attempt to separate a place having some sort of distinction from everything around it. In the Jonas B. Salk Center for Biological Research in La Jolla, California, built in 1962-66, what dominates is a dialectical play between the projecting portions and the principal volume. Impenetrable, the outer envelopes of his buildings conceal the extraordinary typological richness of their interiors. As with the monuments of the ancient Roman world, the interior space is a secret to be discovered only by using it. The classical suggestions drawn from a mythical Middle Ages—one simply cannot fail to think of the skyline of San Gimignano when confronted with the taut and sharply delineated verticalism of the Richards Medical

674. Louis Kahn, ground floor, National Assembly Building, Dacca, begun 1962



675. Louis Kahn, project for the Kimbell Art Museum, Fort Worth, Texas, 1972 (from Architecture d'aujourd'hui, 1969)

Research Building of 1957-61 at the University of Pennsylvania in Philadelphia—become dazzlingly clear in the edifices designed for various economically underdeveloped countries. In the Indian Institute of Management in Ahmedabad begun in 1964, but even more in the picturesque complex of the government center in Dacca, Bangladesh, the outer shell indubitably takes on a symbolic dignity. In his struggle against the "loss of the center," Kahn gave Dacca an extraordinary closed organism, its volumes articulated around an ideal circular ground plan. The forms suggest a process of initiation completed only in contact with the rationality presiding over institutional order and along with this a spatial richness with accents much indebted to Piranesi. Kahn's celebration of institutions culminated in the project of 1965 for Islamabad. It was an operation strangely similar to that carried through by Le Corbusier for Chandigarh, not least in that Kahn was likewise given the task of designing a monumental center for a new capital. Kahn, as he himself insisted, was very much indebted to the work of Le Corbusier. The comparison was thus immediate and inevitable, although the outcome very different. Where Le Corbusier created a complex ensemble indecipherable at first sight, Kahn achieved effects of deliberate clarity.

Kahn's architecture proved highly exportable. Pushed aside in the United States, he found that his celebrative approach was highly pertinent to the developing countries. Like another great interpreter of American institutions, Daniel Hudson Burnham, Kahn likewise was to see his own mythic imperial symbols realized outside the United States, as consolation prizes magnanimously handed out by American civilization to countries over which it has designs for expansion. Such coincidences inevitably give us grounds for reflection.

While the monuments to culture in the universities were being put to the torch in the years of student revolt and the war in Viet Nam, architecture went its own way. After having dismantled the fundaments of a tradition, the mythic castle of Kahn was predicated on a lesson without future. As with the great fathers of American culture, behind the appearance of an unwonted sureness of form stands a message open to anyone who wishes to use it. His values and forms are at the mercy of any and every possible exploitation. Precisely that which Kahn had striven to exorcise in his quest for a "new center" outside the consecrated history of the modern movement appears today to be the objective of the voracious followers of his proud aristocratic solitude. Once again a new "master" has been accorded sainthood. His disquieting search for the "center" has thus become the pretext for untimely resurrections. It appears to contain a promise of renewal without which the paths taken by American architects today would defy explanation.

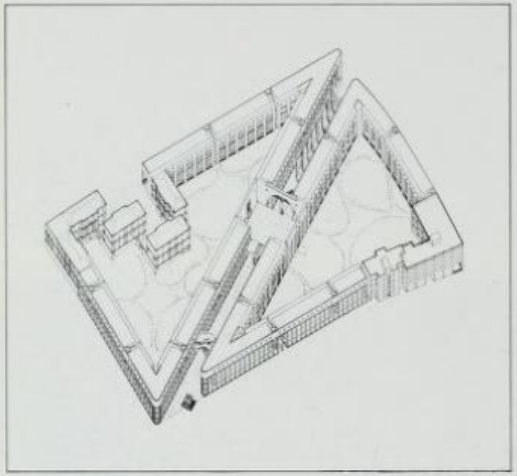
Related by affinity to Kahn's work is that of Romaldo Giurgola and, by contrast, the ambiguous approach of Robert Venturi, John Rauch, and Denise Scott Brown. Venturi strikes out against the myth promoted by

676. Robert Venturi and John Rauch, California City, Merbisc Mart Shopping Center, 1970 (from Architecture d'aujourd'hui, 1972)

677. Robert Venturi and John Rauch, Wislocki and Trubeck houses, Nantucket Island, Massachusetts, 1970

678. *Leon Krier, project for Royal Mint Square Housing London, 1974 (from Lotus, no. 11, 1976)*

679. *Hans Hollein, Schullin jewelry store, 1972-74, Vienna*

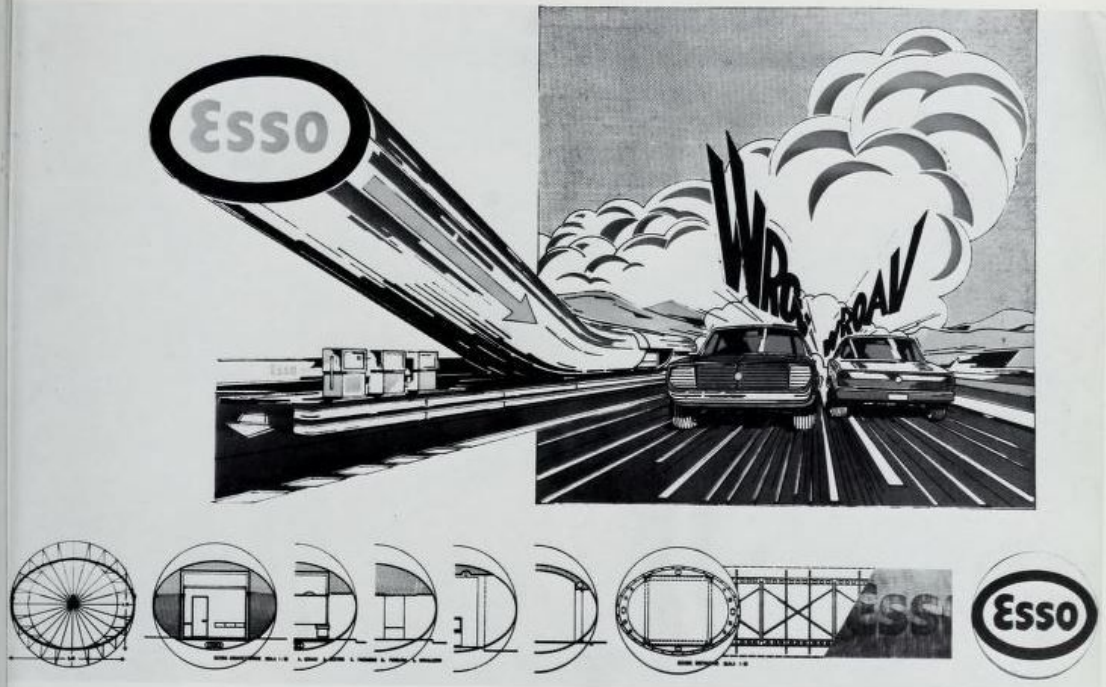


Kahn with the assertion that only reality matters and that only the real speaks. Where Kahn envisioned terrestrial palingenesis, Venturi proposes cautious abandon. The new Architectural Realism for which he is a leading advocate presupposes a close alliance with the lesson of Pop Art, a surrender to the suggestions of America-just-like-it-is, of objects-just-like-they-talk, of goods-just-like-they-run-everything. In appearance, this is the exact inverse of Kahn's rigorism. But in reality both are part of one and the same ideology of self-reflection. If Kahn could have produced a school of mystics without religions to defend, Venturi has in fact created a school of disabused and disillusioned individuals without values to denigrate or violate. Both Kahn and Venturi turn architecture upside down; and in that operation it matters little if the material of their new repertory of images is made up of dreams of nonexistent institutions or of nightmares in which the ephemeral icons of cosmic merchandizing throng together and rule the roost.

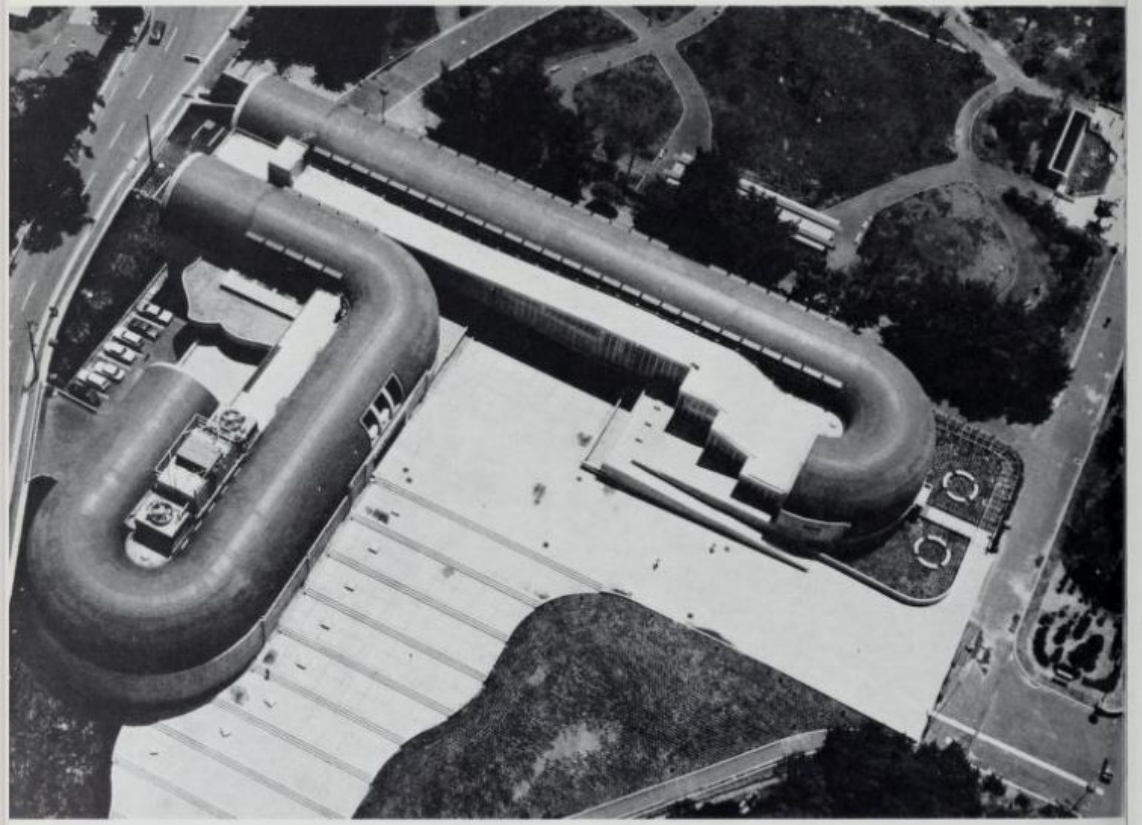
Nor is it important how two such champions of Americanism live and feel their relationship with tradition. Venturi relishes a subtle irony that enables him to remain on the surface of the collage material that he draws from forms of other men and ages, from popular advertising and the like, and that enslaves him nonetheless. In the Guild House of 1960-63 in Philadelphia, as in his shrewdly subtle cottages on Nantucket Island, he stakes all on banality, on usual and obvious forms, where form is reduced to a caustic comment on that banality. His antimonuments—the project of 1960 for a Franklin Delano Roosevelt Memorial in Washington, the fountain proposed for Philadelphia in 1964, the monument of 1966 for the Princeton Memorial Park in Hightstown, New Jersey—seem to make fun of the favorite myths and tastes of American kitsch. It comes as no surprise, then, that Las Vegas is one of the sources of his inspiration. Conversely, the snob attitude of Venturi and Scott Brown helps to spruce up a number of American myths. Their proposal for decorating Philadelphia for the Bicentennial made use of the most worn-out emblems of mass society in a deliberately infantile phantasmagoria of lights. Nevertheless, theirs is really an affectionate irony which shows that once you start sanctifying the banal, the world is wide open, without limit, for anyone looking for new ideas. What Venturi takes from the world he tells us about is never more than its superficial mask: like the kitsch and Pop Nashville of the film by Robert Altman, Venturi's Las Vegas makes it seem as if all the contradictions of contemporary America are just a matter of good or bad taste.

The archaeologizing of Stirling, the nostalgia of Kahn, the irony of Venturi have much to do with the approaches being tried now by the most promising among the architects too young to have been involved in what is still called the modern movement. Without Stirling the refined designs of the brothers Leon and Robert Krier would be inexplicable. Like Sir Arthur John Evans, the English archaeologist who recreated the

680. *Vittorio De Feo, Fabrizio Aggarbati, Carla Saggioro, Andrea Vigni, competition project for a new service station, 1971*

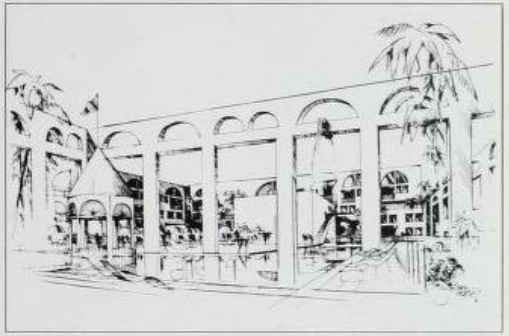


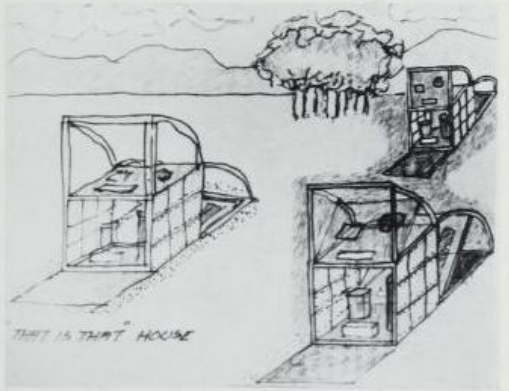
681. *Arata Isozaki, Kitakyushu Central Library, 1973-74*



682. *Charles Moore, study for the Condominium Hotel, St. Simon's Island, Georgia, 1972-73 (from Controspazio, 1975)*

683. *John Hejduk, sketches for the "Primary House," 1976*



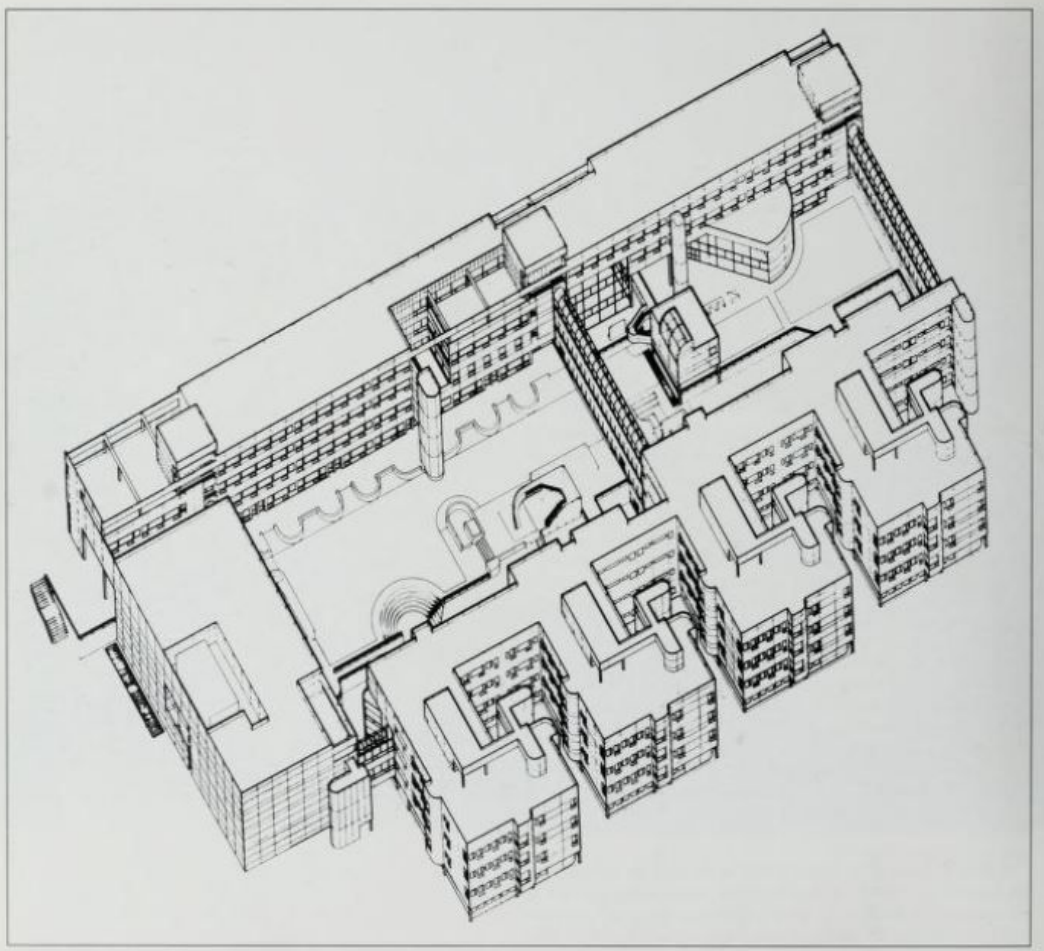


lost world of ancient Crete in his own manner, the Kriers make pleasant play with the bits of the past dug up by Stirling. But, as was also the case in the reconstructed Crete, in their architectural jigsaw puzzles the really original pieces are rare. Likewise, without Venturi one could not make sense of the multiple formal games that so-called radical American groups, spoiled by the very generous "social salary" that the American system grants to the potentially unemployed, propose for the enjoyment of a restricted public of adepts. Nor could one explain that "International of Irony" which, after the frustrations of 1968, expressed in smiles of relief their own disabused lack of commitment. It is surely the Pop realism of Venturi that is behind the I'll-knock-your-halo-off attitude (à la Roy Lichtenstein) of the Viennese Hans Hollein behind which always lurks Freud's couch. It is not that his skepticism disdains commissions for opulent celebrations; he did, after all, design the Städtisches Museum in 1972 for Mönchengladbach, West Germany. Finally, without the lesson of Kahn and the much-read manifesto by Venturi, *Complexity and Contradiction in Architecture*, it would be difficult to grasp the meaning of the refined play with contradiction attempted by Vittorio De Feo in Italy or even the neo-environmental and neo-populist solutions of Charles Moore.

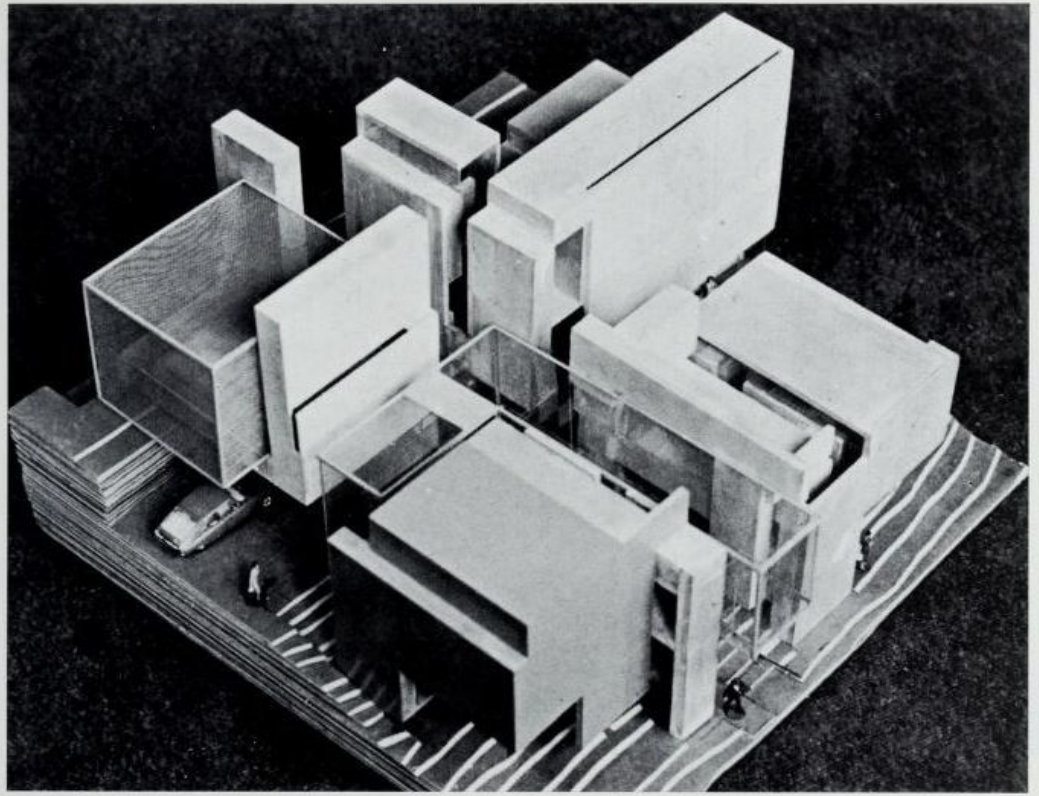
The game nevertheless has its risks: look at the naive paintings and intellectual projects in which John Hejduk attempts a reinterpretation of the contribution of the avant-garde. Look too at the ascetic abstractionism of Peter Eisenman (b. 1932); his exasperated formalism seeks to pin down the perennial logic of the architectural signs and ends up by discovering that all that can be done in such an operation is to train a spotlight on the alienated state of those signs. In the projects and realizations of Eisenman, which are almost always houses designed for a single family, the spectator, if he is to understand why the space seems sadistic, is obliged to recognize that he is out of his element. Only by ruling out all reasons and demands having nothing directly to do with architecture can Eisenman keep his architectural language intact. His return to the avant-garde finds in this an insurmountable obstacle. But the limit is that beyond which, historically, the procedures of the avant-garde tend to become *other*, to cry for an escape hatch. It is only about that limit that Eisenman manages to say something. And it is the same limit that fences in the logic of pure form. Beyond it begins the infinite adventures of the language. If form can be rescued from language, then there is some promise of freedom. Stopping at the threshold of architectural language, Eisenman achieves the dimension of magic that shapes the form of every sign in his elegant purism.

Only in the work of the Italian Aldo Rossi (b. 1931) do we encounter the programmatic search for the place where form can regain the use of the architect's language. Rossi has one thing in common with Kahn: the insistence on giving concrete shape to nostalgia. His architecture certifies

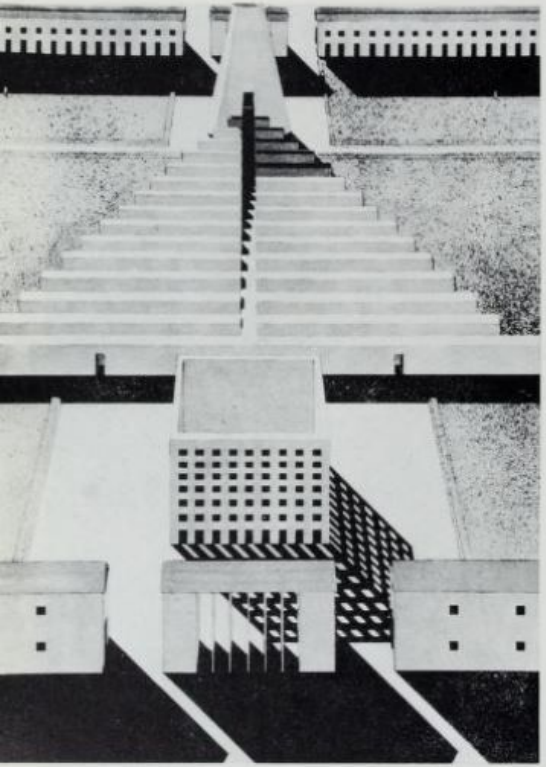
684. *Richard Meier, Bronx Development Center, 1973-74, New York*



685. *Peter Eisenman, project model for House 10, 1976*



686. *Aldo Rossi and Gianni Braghieri, prize-winning competition project for the new cemetery, Modena, 1971*

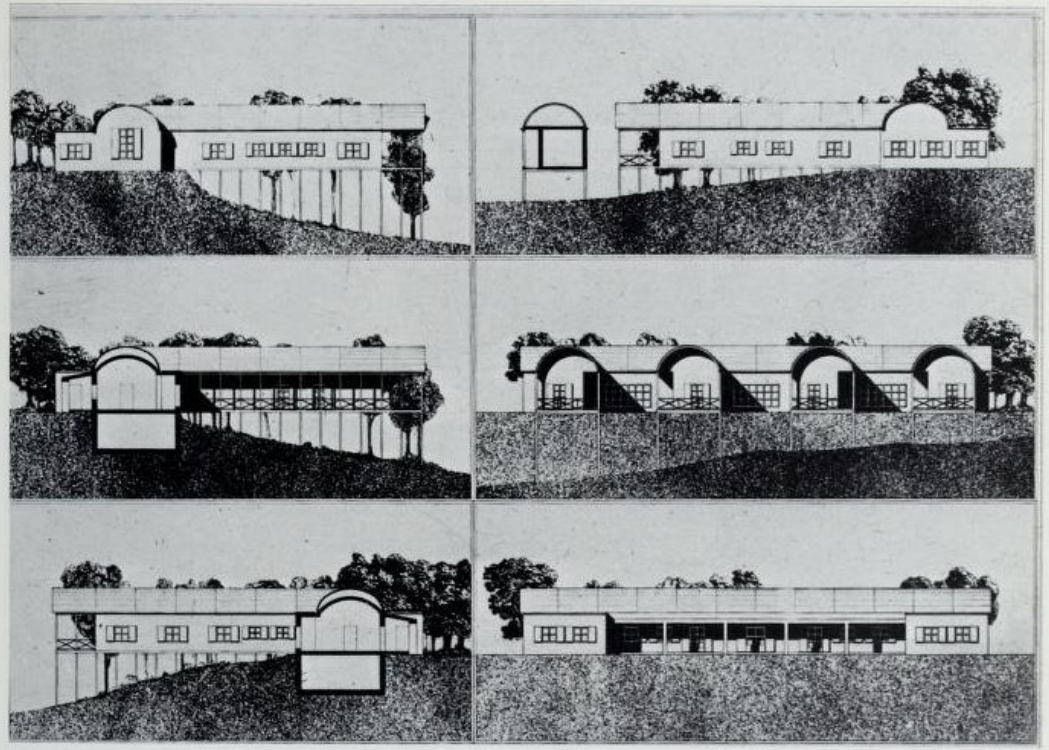


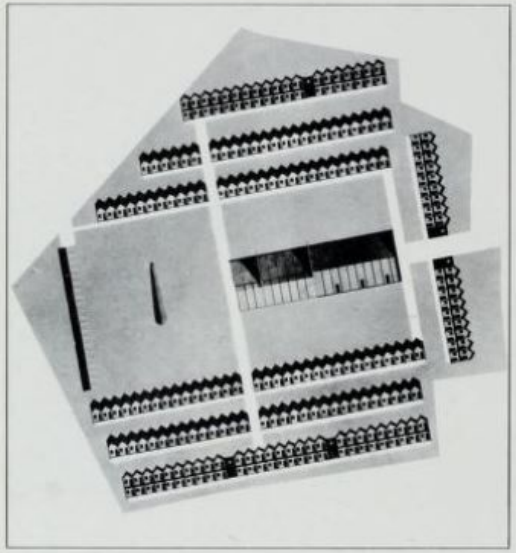
the decease of all logical order in the architectural discourse and the affirmation of the bourgeois universe. Yet what he expresses is not regret for the absence of a happier world before that changeover but, rather, a nostalgia for a language from an even earlier world. Like Kahn, Rossi struggles to conjure away the loss of the center, but he places no hope in any help from outside. For him, logic can affirm itself only to the extent that the language is born out of a continually varied aggregation of a few words restored to their original semantic value. In his projects for the Muggiò town hall of 1972 and for the cemetery in Modena in 1971, Rossi aimed to order pure signs—cone, cube, parallelepiped—within a naive ("primitive") alphabet, and this has been misinterpreted as an attempt at neo-monumentalism. Going on to make a language out of the signs, Rossi discovered how arbitrary the forms are; he therefore subjected himself to an ulterior reduction and denied the very exceptionality of the signs, as in the projects drawn up in 1973 for one-family row houses in Broni and for a villa in Borgo Ticino. Rossi dismisses the importance of form in favor of a decorous reserve, almost as if to signify that only thus can communication be reestablished between the "little world" where architecture rises and the "big world" where it is obliged to reside. This seems to be the principal motive behind the project of 1973 for a student center in Trieste. For its part the stripped-bare housing block Rossi realized for the Gallaratese development holds itself aloof from the agitated narration in which Aymonino would have liked it to participate.

Such a quest for a way of communicating that would not lose the patrimony of personal and collective memories makes the apparent simplicity of Rossi decidedly complex. In his project of 1976 for student housing in Chieti, he played on the paradoxical contrast between typological clearness and deliberate indifference to layout (with perspectives and sections very much better defined than ground plans). Rossi thereby threw into question the very core of his paradigmatic unities. As with Heinrich Tessenow, the houses go back to infantile forms. But precisely in this kind of definitive return he demonstrates that subjective nostalgia can be shared only by obliging itself to communicate a hermetic silence. The most recent works of Rossi show how irrelevant and out-of-date, for our contemporary sorcerer's apprentices, is Hugo Ball's definition of "Dada Man" as a *kindlicher donquischottischer Mensch*. Don Quixote will never again be a child; but the child can no longer become Don Quixote.

What remains of the events of the 1960s and 1970s synthesizes the contradictions of the architectural profession. It at all costs seeks to preserve its own aura and autonomy—to brook no discussions as to its nature, historical status, and social position. Architecture seeks to recast in contemporary phrases the meanings destroyed by the fury of the Angelus Novus, as reinterpreted by Walter Benjamin. The gap dividing such attempts from the reality of the relations of production appears

687. *Aldo Rossi, project for the Baj house, Borgo Ticino (Novara), 1973*





688.. *Aldo Rossi, competition project for student housing in Chieti, 1976*

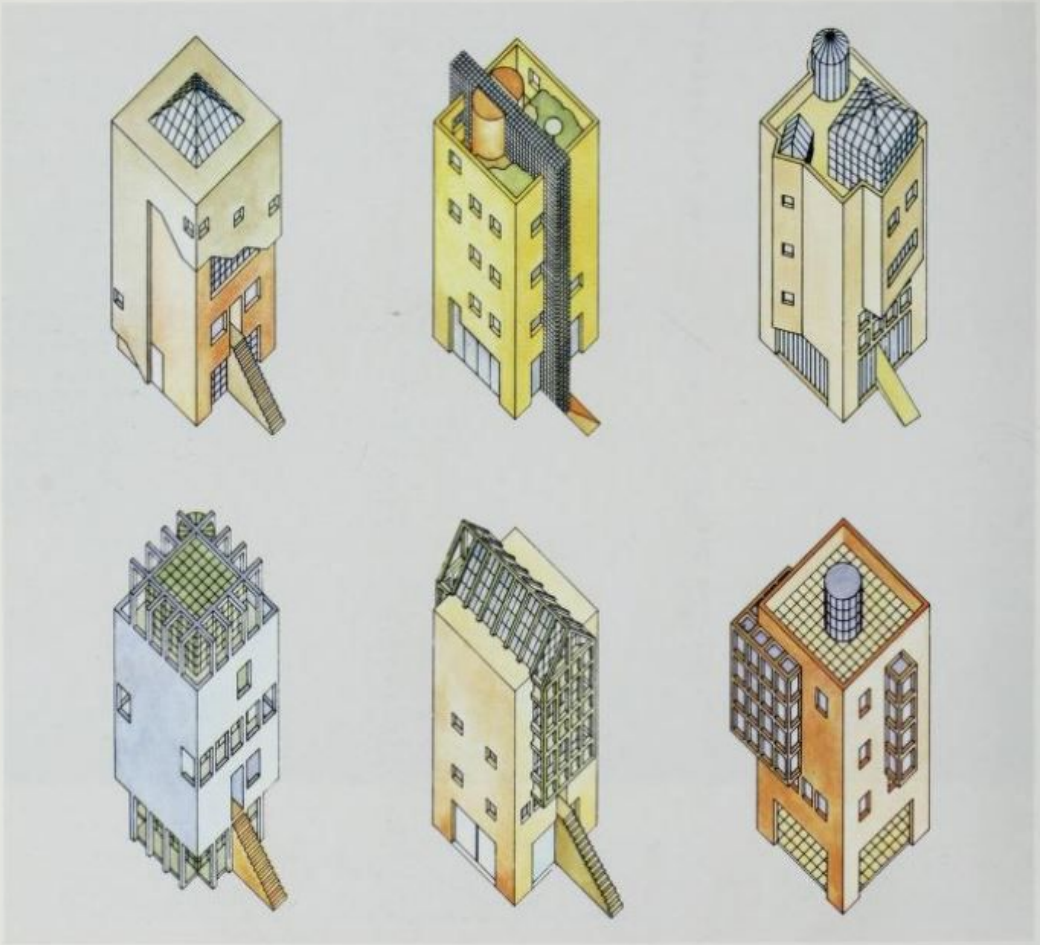
unbridgeable. The return to poetry inexorably cuts the umbilical cord that tied the avant-garde to the real. This is no position for anyone wishing to take action in the practical world that would get beyond the reformism whose results we saw in the earlier pages of this book. Nor will it do for anyone determined to abandon trite mythologies once and for all. Yet in the works and personalities analyzed in this last chapter, one can make out, behind the immediate facts, a condition of intellectual labor that suggests certain final reflections.

"Death is beyond every dying," wrote Heidegger. Fortunately, contemporary architecture has given up exorcising its own guilt complexes. For some time now the history of the avant-garde has taught us that "death is beyond every dying." And we are certainly not the ones to believe that the physical disappearance of a few great masters, or the contradictions and renunciations that stir and stimulate the course of modern architecture, are likely to be the prelude to an end—principally because an end is not always synonymous with change. If our book aims to demonstrate anything, it is precisely the impossibility of writing the word *finis* at any particular point in history. In concluding this work we feel truly ill at ease. But we felt just as uneasy when we had to decide just where to begin. Thus, its last page must contain a question directed to ourselves: what sense is there today in writing yet another history of modern architecture and what arbitrary judgments are involved? The reply is not easy. Many of the chapters in this book can be read as condemnations of the entire venture. An explanation, therefore, is called for. When we undertook what has proved to be no small task, it was with the awareness that is not possible to write a single history but only many and diverse histories. We have followed certain tracks; others remain to be explored.

Our hope is that those we did trace will now be somewhat clearer. What we wished to show was not the history of one approach but of many approaches, and how they were born out of the work of certain architects—out of the interaction of the real and the utopian. Our concern was not with the outward forms that those approaches produced, but rather with the thought behind them.

XLVII. Aldo Rossi, Cemetery of San Cataldo, Modena, ossuary, 1971 onward

XLVIII. Oswald Mathias Ungers, project for a group of houses in Marburg, 1976



NOTES

CHAPTER II

[1]The suburb of Bedford Park (1875-81) at Chiswick rose as a middle-class residential district directly connected with London and was promoted by Jonathan T. Carr and John Lindley, Curator of the Royal Horticultural Society. Its plan, with streets radiating from a center, is conventional, but its special character came from the fact that its rows of cottages and houses were set into a rich green area. Mostly in Queen Anne style, they were by E.W. Godwin, Norman Shaw, and C.F.A. Voysey. Noteworthy also is the fact that the architects, Carr and Lindley, and many of the residents were sympathetic to William Morris, and Bedford Park can be regarded as a translation of his ideas into urbanistic terms.

[2]Along with C.R. Ashbee and W.R. Lethaby, the latter being the founder of the Central School of Arts and Crafts, C.F.A. Voysey is considered one of the most gifted among those continuing the work of William Morris. Opposed to what he called foolish eccentricity in Art Nouveau, he championed a simplified version of the English cottage tradition and defended a purist line and scrupulously correct use of materials, rejecting everything associated with a "machinist culture." He designed villas of exceptional formal clarity, notably the Sturgis house near Guilford (1896), the Briggs house near Lake Windemere (1898), the Voysey house known as The Orchard in Hertfordshire (1899), and the Turner house at Frinton-on-Sea (1905-6). His drawing and his exquisite wallpapers were influenced by Mackmurdo. Voysey was sternly opposed to town planning which he denounced as an expression of intolerable collectivism, and his personal attitude was perfectly expressed in his small volume of 1915, *Individuality*, in which he professed himself to be a follower of Ruskin. Nonetheless, at least twice he did go beyond the limits of his modest approach to form: the town houses for Archibald Grove in Kensington, London, with their severely articulated treatment of the walls (1891-92), and the Sanderson and Sons factory in Chiswick (1902), an elegant interpretation of a functionalist building type.

CHAPTER IV

[1]Richard Morris Hunt is a complex figure. Not hesitating to conform to the taste of new magnates like the Vanderbilts for whom he built a villa inspired by the French castles on the Loire, he was also perfectly capable of creating a prophetic commercial typology in two buildings in the Cast Iron District of New York City, especially the Roosevelt Building of 1874 at 478 Broadway. And, as we shall see, he was among the first to design skyscrapers, notably the Tribune Building in New York City.

[2]Likewise, the work of Charles Follen McKim, William R. Mead, and Stanford White was highly composite. McKim, who had studied at Harvard and the Ecole des Beaux-Arts in Paris, was assistant to Henry Hobson Richardson before launching a very successful partnership with Mead and White. Their McCormick house (1881-82) in Richfield Spring, New York, is rich in spatial articulations, while the Isaac Bell house (1882-83) in Newport, Rhode Island, and the Low house (1887) are considered masterpieces of the so-called Shingle Style. On the other hand, in the Villard houses (1882-86) on Madison Avenue, New York, they adopted a severe Neo-Renaissance style to express the strivings for dignity of the New York upper classes, but also in reaction to the Neo-Romanesque style of Richardson. In the Boston Public Library (1887-95) the use of reiterated arches was inspired by the Bibliothèque Sainte-Geneviève of Labrouste in Paris. Among their last works were the Municipal Building skyscraper, Madison Square Garden (1890), the Pennsylvania Railroad Station (1906-10) all in New York, and the American Academy in Rome.

[3]The works of Griffin in Australia arrived at frustrated forms of a markedly Expressionist character. In his Newman College at the University of Melbourne (1916) these appear in paradoxical structures such as the vault of interwoven arches in the refectory, while in the Capitol Theater in the same city (1924) the spatial flows and the decorative superstructures he achieved are virtually Surreal. His final projects in India, the University Library and the George V Memorial in Lucknow (1936), mark the ultimate stages of his retreat into a solipsistic hermeticism.

[4]Willis Polk, designer in the studio of Daniel Hudson Burnham from 1902 to 1904, became associated with Bernard Ralph Maybeck's studio in 1910 and collaborated actively on the plan for San Francisco. In the eight years following the San Francisco fire of 1906 his studio designed approximately 106 buildings. From Burnham, Polk seems to have acquired his organizational capability and his good sense for business. Polk accommodated the tastes of the Californian upper classes with a scrupulously classicistic language, as in the Regents' Building for the University of California at Berkeley (1910), or the Water Temple of the same year, a Corinthian rotunda that Polk considered to be his finest work. Yet Polk in 1917-18 also realized the Hallidie Building in San Francisco which featured a fully glazed façade and setback concrete pillars. It was an exceptional work, even if the motivation of the client was the desire for a building that would be all business and no show and could get along without stylistic adornment. Thus, there was no audacity involved in his pioneering use of *pan de verre*. Nor should precedents be sought in the Studebaker Building by Beman in Chicago (1895), the May Company Building by John H. Eliot (1899), or the Boley Building by Louis Curtiss in Kansas City (1908-9), the latter among the most interesting works of the early twentieth century in the United States.

CHAPTER VI

[1]The reference is to works like the house in Prague Vyšehrad by Josef Chochol (1912-13), the apartment house in Prague by Otakar Novotný (1917), or the many projects by Josef Gočár and Jiři Kroha. In reality such efforts were little more than scenografic volumetric decompositions. After 1920 a few Czechoslovak avant-garde architects moved toward languages of a more relationist stamp.

In the Expressionist current, which in any case was highly diversified, one finds figures like the theosophist Rudolf Steiner, author of the first and second Goetheanum at Dornach, Switzerland. These were works of idealistic mysticism, syntheses of esoteric geometries and cosmogonic aspirations. But there was also Fritz Kaldenbach; a few of his designs were published in 1920 by A. Behne in his small volume, *Ruf zum Bauen*. Claiming a special place in the work of Wilhelm Kreis (1873-1955) who designed the Museum für Vorgeschichte in Teutonic style in Halle (1913-14) and then revisited the Neo-Gothic in his Wilhelm-Marx-Haus of 1921-24 in Düsseldorf. But such representatives of German architecture belong to a tradition that was to link up with National Socialist culture through the thought of A. Möller van den Bruck. Note that a similar course would be taken by Riemerschmid, Höger and Bonatz.

CHAPTER VII

[1]Among the percursors of modern urbanism should be mentioned Eugène Hénard (1849-1923), who only recently has been accorded proper attention by historians. He was the principal collaborator of Charles Louis Ferdinand Dutert in constructing the Gallery of Machines at the International Exposition of 1889. Hénard proposed to include an electric train that would convey the visitors around the grounds. His chief work, however, was the publication of his *Études sur les transformations de Paris* between 1903 and 1909 in which he proposed a series of urbanistic undertakings comprising numerous innovations. In 1921 he collaborated with Alfred Agache and Henri Prost in drawing up a plan for Paris which incorporated many of his earlier projections. Of notable interest are his analyses of circulation problems and the organization for urban traffic whose differentiation he had investigated systematically as early as 1905. Furthermore, his typological studies anticipated solutions that would be taken up again by Le Corbusier and become accepted as virtually the rule.

[2]At the time Garnier was at the Villa Medici also present were Eugène Bigot (from 1900), Henri Prost (from 1902), and Léon Jaussely (from 1903). The competition project of 1900 by Jaussely for "a plaza for the capital of a great democratic state" is indicative of the new climate at the École. But Prost is the most interesting among those *pensionnaires*. After having won the competition for a plan for Antwerp in 1910, he worked for many years in Morocco. Called there by Marshal Lyautey, governor-general of the colony, the two worked in the closest collaboration. Interpreting the political vision of Lyautey, who wished to preserve the character of the Muslim cities by barring emigrant Europeans from settling there, Prost first intervened in Casablanca and then laid out a number of general plans, including those for

Kenitra (1913) and the new cities at Fez (1916) and Rabat (1920). He remained in Morocco until 1922 when he was commissioned to explore what could be done along the coastline of the département of the Var in France. In 1928 Poincaré commissioned him to prepare a plan for the Paris region; despite the innumerable difficulties Prost encountered, his plan will long remain an irreplaceable point of reference. Later, he worked in Tunis and Lyons; for Algiers he prepared a plan which, in its ingenious use of the hilly terrain, anticipated in some ways the intuitions of Le Corbusier.

CHAPTER IX

[1]The attacks on the Bauhaus by the Thuringian nationalist circles anticipated the accusation of *Kulturbolschewismus* launched against it by the Nazis in the early 1930s. Such opponents of the Bauhaus typically argued that it represented an offensive against the genuine and popular character of German artisanry, although they were hostile to it on purely political grounds as well. Konrad Nonn, a future exponent of the Kampfbund, maintained in 1924 that the Bauhaus "was only apparently conceived on an artistic basic but in reality, and from the outset, was founded on the principle of a political orientation, proclaiming itself the rallying point of the Socialists who, with enthusiastic faith in the future, aim to construct the cathedral of Socialism. "In the face of such attacks, it was decided to move to school, although only after a number of possibilities were explored. While Klee was still in contact with F. Wickert, director of the Fine Arts Institute of Frankfurt, Kandinsky and Georg Muche negotiated the transfer to Dessau with its mayor, F. Hesse. After 1925 the older teachers such as Gropius, Kandinsky, Klee, Moholy-Nagy, Muche, and Schlemmer were joined by formed students of the school such as Albers, Bayer, Scheper, Schmidt, and Sharon-Stölzl.

CHAPTER X

[1]In a less exasperated line one finds Max Berg (1870-1947), who designed the enormous cement Centenary Hall in Breslau (1910-13). As official architect of that city, in the postwar years he was able to propose a building policy based on concentrations of tertiary activities in tall buildings at the periphery of the historical center so as to relieve the center itself from the pressures of real estate speculators. His proposals—similar to those of Möhring for Berlin in those same years—came to naught because of financial difficulties. But in the 1960s these ideas were to become a premise of the policy followed by many communes in East Germany. Alongside the romanticism of the Hamburg School, echoed in certain works by Hans Hertlein in Berlin such as the Siemens factory, the elementarist language developed by Tessenow in the 1910s persisted. It produced a timeless, poetic essentiality in the virtually unreal school of 1925-26 in Klotzsche. At the same time the work of Emil Fahrenkamp, which was highly successful on the professional level, moved toward a purified classicism: for example, the Stadthalle in Mühlheim (1924-25) and the Braidenbacher Hotel in Düsseldorf (1927). His approach was open to ideas taken from Erich Mendelsohn (the Michel Store in Elberfeld, 1929) or from the Rationalists (the Rechen house, Bochum, 1929).

CHAPTER XI

[1]The publishing activities of the German avant-garde flourished particularly in the 1920s. *Das neue Frankfurt* represented, among other things, a link between experiences in different fields of work. For architecture, the most important reviews were *Wasmuths Monatshefte*, the *Sozialistische Monatshefte*, *Wohnungswirtschaft*, *Die Form* and *Das neue Berlin*.

[2]Despite its superficial urban layout, the Weissenhof represents a historical event in modern architecture for the intrinsic quality of many of its architectural solutions as well as for the way diverse approaches are unified. In that sense can be considered to be an inductive manifesto of already mature approaches, anticipating the somewhat contrived unification of the modern movement attempted in the following year (1928) with the organization of the CIAM.

CHAPTER XIII

[1]In the 1930s, particularly after the advent of Nazism, many German avant-garde artists and architects emigrated to the United States. Their subsequent careers in the United States will be discussed later. Here, however, we can note the attempt by Laszlo Moholy-Nagy to reconstitute in his new homeland a school of applied art and architecture modeled on the Bauhaus after it closed down in 1933 in Berlin. The New Bauhaus was inaugurated in Chicago in 1937; it was under his direction, with Gropius acting as consultant and with the Association of Arts and Industries providing support. Among it first teachers were Alexander Archipenko, Heinrich Bredendieck, George Fred Keck, and Gyorgy Kepes. After various ups and downs, Moholy-Nagy in 1939 founded the School of Design where more emphasis could be placed on its special character as an experimental laboratory of applied art. When Moholy-Nagy died in 1946, Serge Chermayeff assumed the direction of the school, which by then had lost its initial character. Three years later it was incorporated into the Illinois Institute of Technology. Promoted to university level as the Department of Building Research, it was directed by Konrad Wachsmann, a onetime associate of Gropius.

[2]Among the many theoretical proposals formulated for housing during the Depression, worthy of particular attention is that of Oscar Stonorov. As early as 1932 Stonorov proposed to involve the powerful American trade unions in plans to revive building activity in the housing sector. Stonorov attempted to demonstrate the practicality of his idea in the Carl Mackley houses in Philadelphia realized with Alfred Kastner. He went on to work with the unions in various urbanistic plans and residential projects. He was still actively promoting such ideas in the 1940s when he was also collaborating with George Howe and Louis Kahn.

CHAPTER XIV

[1]Present at the meeting in La Sarraz were Paul Artaria (Basel), Hendrik Petrus Berlage (The Hague), Victor Bourgeois (Brussels), Pierre Chareau (Paris), Josef Frank (Vienna), Gabriel Guevrekian (Paris), Max Ernst Haefeli (Zurich), Hugo Häring (Berlin), Arnold Oechel (Geneva), Huib Hoste (Bruges), Le Corbusier (Paris), Pierre Jeanneret (Paris), André Lurçat (Paris), Gino Maggioni (Varedo), Ernst May (Frankfurt), Fernando Garcia Mercadal (Madrid), Hannes Meyer (Dessau), Werner Moser (Zurich), Gerrit T. Rietveld (Utrecht), Alberto Sartoris (Turin), Hans Schmidt (Basel), Mart Stam (Rotterdam) Rudolf Steiger (Zurich), Henri Robert von der Mühl (Lausanne), and Juan de Zavala (Madrid). The encounter was sponsored by a diversified group of industrialists, cultural leader, and political figures, among them Henry Frugès, Jean Michelin, Gabriel Voisin, and the art critic Élie Faure.

[2]The *Athens Charter* was published anonymously, with an introduction by Jean Giraudoux, in 1943. The conclusions of the fourth CIAM had already been released a year earlier, in another form, by José Luis Sert in his book *Can Our Cities Survive?* The Charter was republished, this time signed by Le Corbusier, in 1957. After the session aboard the *Patris II*, in the fifth CIAM was held in Paris in 1937 and dealt with the theme of *Logis et loisirs*, housing and leisure. During the war Giedion, Gropius, Sert, and Stamo Papadaki kept the organization alive in the United States under the name of Ciam, Chapter for Relief and Post-War Planning, with Neutra as president. After the war the English group MARS organized the sixth CIAM at Bridgwater in 1947, and subsequent meetings were in Bergamo in 1949, and Hoddesdon two years later. Summer courses of the CIAM were held in Venice from 1951 to 1953. The Ascoral organized the ninth congress in Aix-en-Provence in 1953. The association was finally dissolved at the Dubrovnik meeting in 1956, and certain of the architects, who since 1954 had been organizing that congress, continued to work together as Team-X.

[3]The Betondorp development in Amsterdam, begun in 1923, is of considerable interest. Along with the simplified constructions by van Loghem on the Schovenstraat there are varied typological and constructional solutions that accentuate its programmatic experimental character. Especially noteworthy is the center of the estate, which was designed by Dick Greiner using motifs borrowed from Wright. Other architects taking part in the project were W. Greve and J. Gratama.

[4]The manifesto of the De 8 Group appeared in *I 10* in 1927. The original nucleus of the group consisted of J. van den Bosch. H.J. Groeneweguen, C.J.F. Karsten, B. Merkelbach, van de Pauwert, and P.J. Verschuyl; they were joined in 1928 by M.P. Boeken, J. Duiker, and J.G. Wiebenga. In 1927 the Rotterdam group Opbouw, then in existence for seven years, published in *I 10* their "Vijf punten over Stedebouw" (Five Points Concerning Urbanism). The review *De 8 en Opbouw* was launched in 1932, and it was edited by Johannes Duiker until his death three years later.

[5]The Vienna Werkbundsiedlung was conceived in 1929. Its plan, by Josef Frank, was reworked twice before taking its definitive form with seventy lots disposed around four nuclei divided by a winding service thoroughfare. Most of the architects were Austrian, but there were also some of considerable international prestige such as Anton Brenner, Guevrekian, Häring, Hoffmann, Loos, Lurçat, Neutra, and Rietveld.

[6]Gropius emigrated to England in 1934, at which date the Royal Institute of British Architects presented an exhibition of his work. The following year he became design supervisor for the Isokon Furniture Company of Jack Pritchard for which Breuer also worked. The collaboration with E.M. Fry resulted in other works of minor importance, most notably the Impington Village College, completed in 1939. Before becoming associated with Gropius, Fry had collaborated with Adams and Thompson, and the works of their firm done between 1927 and 1935 were of typically eclectic character, as shown in the project for the Birmingham Civic Center (1927) and the Ridge End house Wentworth (1930). A decisive turn was taken in the Sassoon House Flats of 1934 in London, a work that aroused quite a controversy in the substantially conservative culture then dominant in England. Works like the Sun house (London, 1936), the Kensal house (London 1936-38), done in collaboration with R. Atkinson and G. Grey Wornum, and a house of 1937 in Kingston, show the influence of Gropius. Among the works of the later 1930s, the apartment building on Ladbroke Grove in London (1938) remains the most interesting.

[7]Numerous public buildings intended to celebrate the declining imperial ideals were conceived in overtly Neo-Classical terms: the South Africa House on Trafalgar Square by Herbert Baker, the headquarters of the National Westminster Bank by Sir Edwin Cooper (1930-32), and the works by Mewès & Davis. Interesting too is the production of a firm such as Burnet, Tait & Partners, which used a typically pompous style for Unilever house (London 1930-31) and the headquarters of Lloyd's Bank (London 1928-30), but switched to a functionalist language for the Burlington School for Girls (London 1936). In buildings calling for spectacular or self-advertising emphasis one finds an ample use of decoration, as in the New Victoria Cinema (London 1928-29) by E. Wamsley-Lewis, or the eclecticism of George Coles who, in the Odeon Woolwich (London 1937), produced a building of notable coherency. In that same eclectic current one must count Lutyens, as is demonstrated by works as diverse as the composite construction at 67-68 Pall Mall (London 1930) and the interesting residential blocks realized between 1928 and 1930 on Page Street, London.

[8]In the first chapter of Part II of this book we shall consider such themes in more detail. Here it suffices to make brief reference to the parliamentary reports that opened the way to new models of urbanistic control. The Marley Report of 1934 centered on the proposal to create new satellite cities as the first step in a global plan of territorial re-equilibrium. In the following year the commission for special areas again stressed the necessity for measures that would stabilize the labor force in the depressed zones, while the Stewart Report of 1936 stressed the need to de-emphasize the power of attraction of London, especially as regarded industrial plants. Finally, in 1937-38, the Royal Commission on the Distribution of Industrial Population, better known as the Barlow Commission, laid down the more immediate bases for postwar legislative measures.

[9]The Planning Committee of the MARS group, which worked out the London plan, was headed, significantly, by Arthur Korn who had left Germany for England in 1937. The technical consultant for the committee was Felix Samuely, another émigré. The original nucleus of the group in 1933 was made up of Wells Coates, Maxwell Fry (vice-president), F.R.S. Yorke, Pleydell-Bouverie, Amyas Connell, Basil Ward, Colin Lucas, Godfrey Samuel, R.T.F. Skinner, the poet John Betjeman, P.M. Shand, and H. Hastings: these were joined later by B. Lubetkin and C. Sweet.

[10]As early as 1903 Sauvage was designing residential buildings for the poorer classes for the Société Anonyme des Logements Hygiéniques à Bon Marché. His progressivist convictions led him to join the Société Internationale de l'Art Populaire to which Victor Horta also belonged. In 1903 he designed a low-rental building (Habitation à Bon Marché) at 7, Rue Trétaigne, Paris, which is remarkable for the extent of the social and collective services it provided. Between 1904 and 1906, in collaboration with Charles Sarazin, he designed other H.B.M. buildings in Paris, among them those on Rue F. Flocon and Rue Sévero. The stepped-back building on Rue Vavin is from 1912 and remains one of his most significant works, the direct source of his postwar constructions of which the most notable, other than the building on the Rue des Amiraux, is the Decré store in Nantes with its steel structure and the broad glass panels made possible by highly skilled technology.

[11]The interiors of the homes designed by Roux-Spitz are significant: rich materials and refined furnishings complement the dry exterior volumes and create ambiances whose principal aim seemed to illustrate the dignity and decorum of bourgeois prosperity. In his works of the 1930s all attempts at volumetric articulation disappear increasingly, and some of them, like the Centrale des Chèques-Postaux in Paris (1932-35), or the new branch of the Bibliothèque Nationale in Versailles (1932-33), draw their solutions from Perret, though nothing of that influence can be detected in the pretentious and disappointing main post office in Lyons (1935-38).

[12]In a position that can be defined schematically as intermediate between those of Pingusson and Roux-Spitz can be placed certain excellent productions of other French architects: the geometrical edifice of 1932 on Rue Feydeau, Paris, by F. Colin; certain buildings by J. Debat-Ponsan; or the Poste Parisienne Building of 1929 on the Champs-Élysées in which Jean Desbouis attempted a montage of considerable efficacy as publicity. Vaguely reminiscent of Mendelsohn is the Entrepôt Hachette (Paris, 1931) by Jean Demaret and certain works by L. Faure-Dujaric; François Lecour, after his interesting works of the 1910s, arrived at a rigid and impersonal functionalism. There is more breadth in the work of personalities such as Guevrekian and Jean Ginsberg, though the latter in 1934, together with François Heep, produced an apartment building on the Avenue de Versailles, Paris, which is disappointing compared with what he had done earlier in collaboration with the Anglo-Russian Berthold Lubetkin.

[13]The construction of the garden cities around Paris was the outcome of a long process of institutional reorganization of the relationships between the various municipalities in the region. There were two important steps in that process: first, the creation in 1915 of the Office Public d'Habitations for the Département of the Seine, then the formation, at the behest of Poincaré, of the Comité Supérieur de l'Aménagement et de l'Organisation de la Région Parisienne in which Prost, in collaboration with Raoul Dautry, laid down the fundamentals for the regional plan. Among the various realizations of the OPHBM-Seine we have mentioned, especially noteworthy is the garden city of Chatenay-Malabry, projected from 1918 on by Bassompierre, De Rutté, Arfidson, and Sirvin. Typical demonstration of the cultural tradition of which such projects are the product, the plan of the garden city was initially a synthesis of academic models with solutions learned from the British experience. It was revised several times and realized one section after another, the last being completed as recently as the 1970s. Of particular architectural interest are the buildings done after World War I, between 1925 and 1938, these as a whole representing some of the most significant episodes in modern French architecture.

[14]Eugène Freyssinet (1879-1962), a pupil of C. Rabut, was one of the major exponents of the French Structuralist School. From 1913 to 1928 he headed the Entreprises Limousin and, in 1916, began the construction of two hangars for dirigibles at Orly, which were among his most substantial works and earned him the admiration of the leading architects of the 1920s and 1930s. His experimentation with prestressed concrete was his chief contribution.

[15]The group of l'Équerre was formed in 1928 with a nucleus including Victor Rogister, Jean Moutschen, Émile Parent, Egard Klutz, Albert Tibaux, and Yvon Falise. It made an important contribution to the diffusion of the most advanced efforts of international architecture as represented by figures such as Huib Hoste, Lucien François, Gaston Eysselinck, and Éduard van Steenbergen.

[16]The publication *Moderní Revue*, in the early 1890s, was the rallying point of the first Czech avant-garde, one which looked chiefly to the Symbolist poets and the experiments of the Secession, although that sort of experience was quickly left behind. In the very first years of the new century Jan Kotěra, a former pupil of Otto Wagner, developed an approach whose criticism of the formalism of the Secession adherents had theoretical implications of enormous significance well ahead of its time. His writings and works contain explicit indications of a

functionalist approach, as in the house built for the publisher J. Laichter in 1908-9 in Prague. This was tied to the whole notion of social commitment, and his garden city of 1909-13 at Louny marked a new attitude toward the problem of housing for the poorer classes. Within that same ambit were other Czech architects whose work, for all its Viennese roots, had much in common with that of Kotěra, among them E. Králík and J. Rozsipal. It was in that context that around 1910 architects such as J. Gočár, V. Hofman, P. Janák, L. Machoň, O. Novotný (a pupil of Kotěra), R. Stockar, J. Chochol, J. Kroha, and others initiated a new approach aiming to apply Cubist decomposition directly to architecture. Their works, the drawings of Hofman in particular, the house on the Celetna Ulice in Prague and the spa at Bodhanec (1912) by Gočár, the house by Chochol at the foot of the Vyšehrad Hill in Prague already mentioned, and the room realized by Novotný for the Werkbund Exhibition in Cologne, together with the great influence that Loos continued to exert in Czechoslovakia, opened the way to the definitive renewal of architectural thinking that manifested itself fully at the start of the 1920s.

[17]Among the architects who went to the Soviet Union with Hannes Meyer were the Czechs J. Hausenblas and Antonín Urban, the latter a former Bauhaus student. After 1925 there were numerous study trips to the USSR organized by the Prague associations. Tiege and Kroha were particularly active in establishing relations with their Soviet colleagues and in the 1930s they published a number of interesting studies on Soviet architecture. Krejcar and J. Špalek worked with the Vesnin brothers in 1933; after 1936 Špalek, who had become a Soviet citizen, collaborated with M. Ginzburg; F. Sammer, after having worked with Le Corbusier, moved in 1933 to Moscow where, with N.J. Kolli, he supervised the construction of the Centrosojuz and later collaborated with Ginzburg. The close relations between Soviet and Czechoslovak architects were directly reflected in the specialized publications in Prague and the problems discussed in them.

[18]Involved in the construction of the experimental quarter of Brno were H. Fołtýn, B. Fuchs, J. Grunt, M. Putna, J. Štěpánek, J. Sytiště, J. Víšek, and A. Weisner. Nový dům preceded by only four years the completion of a similar but much more extensive undertaking, the Baba Garden City in Prague (1930-32), whose architects included J. Gočár, A. Heythum, P. Janák, F. Kavalír, F. and V. Krehart, J.E. Koula, H. Kučerová-Záveská, E. Linhart, L. Machoň, Mart Stam, O. Starý, F. Zelenka, and L. Zák.

[19]The work of Bergamín calls for special mention. Characteristic of his conceptions were the project for the Madrid airport, worked out with Luis Blanco Soler in 1930, and that for Gaylord's Hotel in Madrid of the next year. Among his other more significant works were two housing complexes in Madrid: the Parque Residencia (1931-33), done in collaboration with Blanco Soler, and the El Viso (1933-36). The first of these was realized by a cooperative society and comprised seventy-four dwellings, all designed by Bergamín and Soler except for four turned over to F.G. Mercadal and one to Fernandez del Castillo. The El Viso colony was much more extensive, with 240 apartments. Both complexes became the favorite dwelling for many Madrid intellectuals, from Ortega y Gasset to Eduardo Torroja.

[20]Sert was profoundly influenced by Le Corbusier ever since his years at the Escuela Superior de Arquitectura in Barcelona (1921-29). His first trip to Paris was in 1926. In 1929-30, his studies completed, he promptly went to work in the studio of Le Corbusier and was there, in the Rue de Sèvres, precisely during the time the master was busy with the second project for the League of Nations Palace. In 1929 Sert returned to Barcelona and joined the group that organized the GATEPAC.

[21]It is interesting to note the character of the participation of the architects and exponents of the avant-garde in the attempts that led up to the formation of the GATEPAC. The exhibition at the Galeria Dalmau in April, 1929, showed works by Rubió i Tudurí, Antoni Puig Gairalt Sert, J. Torres Clavé, S. Yllescas, Alzamora, F. Fabregas, R. de Churruca, G. Rodriguez Arias, Perales, and Pere Armengou. In September of the next year the participation of architects in the exhibition of modern painting and architecture in San Sebastián was organized by Aizpurúa and Joaquín Labayen, who enrolled the principal Spanish architects to show alongside painters such as Bores, Cabanas, Cossío, Juan Gris, Mallo, Salas, Villa, Miró, Olasagasti, Olivares, Ortiz, and Picasso.

CHAPTER XV

[1]Beginning with works such as the so-called Ca'Brutta (Ugly House) of 1923 in Milan, or the house on Via Giuriati, Milan, of ten years later, Muzio strenuously defended his own moderate modernism and arrived at the start of the 1930s at two notable results: the pool of the Tennis Club in Milan and, even more, a garage in Lodi. Other works of note in Milan are by G. Greppi, Enrico Griffini, Gio Ponti, and in particular Giuseppe De Finetti, whose house on Via Calimero (1930) carried further the approach initiated in his "meridian house" of 1925, which involved a stylistic discretion based on the teachings of Loos. Notable too, within the special climate of Milan, is the Expressionistic eclecticism of Aldo Andreani and Piero Portaluppi.

[2]The victory of G. Michelucci in the competition for the Florence railroad station design was warmly hailed by the defenders of modern architecture. In the competition for the Palazzata in Messina and that for the bridge to the Accademia in Venice, non-modern projects were selected. When it came to post offices, however, rationalist architecture again seems to have been favored: the winning solution by G. Samonà for the one in the Appio quarter of Rome (1936) was intermediate between his German models (as in his design of 1935 for the Auditorium in Rome) and his interest in Le Corbusier (as in his project of 1937 for the Casa Littoria in Rome); M. Ridolfi presented a proposal imprinted with a modernism rich in hermetic values. A. Libera was responsible for one of the most notable realizations of the 1930s—the post office built in 1933 in the Aventine quarter of Rome, in which the Futurist example was reworked in metaphysical terms.

[3]The Gruppo 7 was formed at the Milan Politecnico during the academic year of 1925-26 at the initiative of G. Terragni, L. Figini, and G. Pollini and was joined by G. Frette, S. Larco, C.E. Rava, and U. Castagnoli, the latter replaced after a few months by A. Libera. All the exponents of the "new architecture" were brought together in the Prima Esposizione Italiana di Architettura Razionale, held in Rome in March and April, 1928. Its catalogue was introduced by Libera and Gaetano Minnucci, and the work of forty-two architects was shown. Among the notable exhibits were the project by Luciano Baldessari for the installations of the National Silk Exposition of 1927 in Como; studies by Piero Bottoni of the use of color in architecture; a tobacco factory with geometrizing volumes by Giuseppe Capponi; a refined project by G. Chessa for the Pavilion of the Community of Photographers for Turin; urban furnishings of Neo-Futurist inspiration by U. Cuzzi and G. Gyra; the "metaphysical" arrangement for the entrance to the Plaja in Catania by A. Fallica; Neo-Expressionist equipment by Eugenio Fahidi for the Rome airport; a quite tentative design by Figini and Pollini for a workers' recreation center; two proposals by G. Frette for habitations in series; a Mediterranean-style project for a hotel and an Expressionistic perspective of an office building by S. Larco and C.E. Rava; a proposal by A. Libera for a low-cost dwelling, along with designs for exhibition pavilions; a disarticulated tower of restaurants and the complex interlocked volumes of a project for the umpires on a tennis field by M. Ridolfi; a theater by R. Rustichelli much indebted to Mendelsohn; an interesting type of hostel for evicted families at the Garbatella development in Rome by I. Sabbatini; projects by A. Sartoris, which adopted the most advanced modules of the international rationalist language; the decomposed volumes of a project by G. Terragni for a gas production plant; and the impressive perspective drawings by G. Mattè-Trucco for the automobile testing track on the roof of the Fiat plant.

[4]In the construction of the Città Universitaria in Rome, Piacentini reserved for himself the most conspicuous elements such as the entrance structures and the rectorate. The Physics Institute by Pagano, the Chemistry Institute by Aschieri, and the Botany Institute by G. Capponi flank the avenue leading from the entrance to the rectorate.
Among nonofficial undertakings can be mentioned the work of L. Baldassari who, in buildings realized for industrial clients (the De Angeli Frua complex of 1931-32, the Italcima plant of 1934-36, both in Milan), demonstrated the potentialities of the rationalist approach when freed of ideological conditioning. While the Neo-Futurists, with the provocative proposals of D. Diulgheroff, E. Prampolini, Fillia (pseudonym of Luigi Colombo), and F. Depero, looked to occasions of propagandistic character to affirm their adherence to the original ideals of the "national reawakening," in the Antituberculosis Dispensary of 1936-38 in Alessandria I. Gardella freed himself of the modernist influences present in his first works to arrive at a reworking of the complex vocabulary of modern architecture, as did Franco Albini in certain virtually surreal furnishings.

[5]The city of Littoria was realized in 1932 by Oriolo Frezzotti; for Sabaudia, the model for subsequent projects, there was a competition in 1933, and the plan was carried through by Piccinato, Cancellotti, Montuori, and Scalpelli. The scheme was not unmindful of the usual emphasis on monumentality, but with solutions going back to the garden city tradition and also the German urbanistic models with which Piccinato was very familiar. In the competition for a plan for Aprilia (1936-37), whose realization was entrusted to G. Petrucci, the competitors included some of the younger rationalists, with Piccinato and Montuori proposing a solution derived from German typologies, and Fariello, Muratori, Quaroni, and Tedeschi offering the most interesting solution, which involved diagrammatic slabform residences disposed on a cross-shaped plan. The project for Pontinia (1935) was turned over directly to the technical offices of the Opera Nazionale Combattenti, the sponsoring organization, but there was a competition for Pomezia in 1938, which was won by Petrucci. Such undertakings were not restricted to the Pontine marshes. Once they had proved their viability, they were launched also in the zone of Volturno and in Sardinia.

[6]The national monuments fulfilled a fundamental function in the *völkisch* culture throughout the second half of the nineteenth century. The Hermannsdenkmal (1841-75) by E. von Bandel, the Niderwalddenkmal (1874-85) by J. Schilling, the Völkerschlachtdenkmal (1894-1913) by B. Schmitz, the Bismarck Towers projected by W. Kreis, and the "sacred placed" of T. Fischer were all exemplary celebrations of the nationalist mystique.

[7]For the *Siedlungen*, the 150 habitations of the Ramersdorf housing development of 1934 in Munich offered a typological model often adopted elsewhere. Unlike the impersonal urban *Wohnsiedlungen*, such as those of E. and A. Hebert, J. Höhne, or H. Atzenbeck in Munich, in the *Werksiedlungen* and the *Kleinsiedlungen* the task of emphasizing the counterposition between the values of simplicity and harmony typical of the return-to-the land attitude and the chaotic modes of life in the city was entrusted to residential typologies that were based on traditional urbanistic layouts. The workers' *Siedlungen*, realized by H. Rimpl for the Heinkel factory in Oranienburg or by O. Rauter at Malchow (Berlin, 1940), strove to demonstrate how a harmonious rapport between society and work can be attained through an equally harmonious rapport between nature and dwelling. Rimpl himself, whose studio included architects trained by the masters of radical architecture, adopted overtly modern solutions for the hangars of the Heinkel factory (1936-38), while P. Koller in his Volkswagen factory (begun in 1938), H. Brenner and W. Deutschmann in the Deutsche Versuchsanstalt für Luftfahrt, E.R. Mewes in the Bochumer Verein für Gussstahlproduktion plant, and E. Fahrenkamp in the chimneyless power station remained within the limits of a functionalism made somewhat less severe by Expressionist reminiscences. Other architects such as F. Schupp, M. Kremmer, P. Renner, and H. Bärsch simply adopted the *Neue Sachlichkeit* language for their industrial buildings.

[8]Work on the Great Avenue began in 1939 but was never completed. The date of 1950 was set for the completion of the Kuppelberg, the edifice for rallies intended to accommodate 180,000 persons, and of the 394-foot-high triumphal arch, which was to have inscribed on it the names of all who fell in World War I. The constructions actually finished are much more modest and give only a pallid impression of what the New Berlin was to have been. On the east-west axis, a few large buildings were actually raised: the I.G. Farben Company headquarters by Mebes and Emmerich; the Haus des Deutschen Gemeindetag by Elkart and Schlempp on the reorganized Runden Platz; the Haus des Deutschen Fremdenverkehrs by H. Röttcher and T. Dierksmeier; the imposing seat of the Supreme Command by Kreis; the Reichsluftfahrtministerium and the grandiose Tempelhof airport by Sagebiel; and the A.E.G. administration buildings by Behrens.

CHAPTER XVI

[1]During the 1960s in the United States various housing programs were launched that aimed to counteract the problems arising from suburban growth and to experiment with ideas other than the usual proposal for urban improvement. A number of private undertakings resulted in new towns with integrated and self-sufficient structure; among them were Reston, Virginia, which was planned for 75,000 inhabitants, and Redwood Shore, Columbia, and Valencia. Although ambitious, such projects really had little effect on either the overall organization of the construction industry or the general policies taken by federal intervention.

[2]The UDC has promoted the construction of several notable residential complexes in the New York area such as the apartments designed by Davis, Brody & Associates—2440 Boston Road, the Waterside, and the River Park Tower—or the Twin Parks housing development by Richard Meier & Associates. In implementing a number of these projects special attention was given to the problem of rehousing the inhabitants of the areas being razed and rebuilt; for example, prefabricated mobile homes were used as temporary quarters pending the completion of the new buildings. It is clear that such a measure was exclusively political in nature. To maintain the inhabitants in restructured areas involves a substantial increase in the costs of renewal and also to some extent keeps the projects from coming under the forces at play in the real estate market. Such considerations, which are alien to the politics of urban renewal, cannot have immediate economic justifications in terms of the market. It therefore contradicts the traditional high-efficiency approach codified by progressive thinking at the end of the nineteenth century.

[3]Normally the appellation *grand ensemble* is applied on a quantitative basis, being reserved for unified projects involving the construction of more than 500 dwelling units. The sponsorship of such building programs is either public or a joint public and private undertaking.
As early as 1958 in the Paris region, commissions were established to study the norms to be applied in such projects. In the same year new legislative directives specified that they should be localized in areas defined on the basis of precise urbanistic standards and geographically delimited by ministerial decrees, which were known as ZUP, *Zones d'Urbanisation Prioritaire*. A system of subsidies and loans permits the interested parties—whose place can be taken directly by the state itself—to administer and control the entire financial program with considerable autonomy.

[4]Certain developments nonetheless are significant. At Marly-les-Grandes-Terres, the designers Lods, Honneger, and Benfé worked out an urbanistic plan that guarantees not only and adequate structure of services but also an organic division of the traffic systems. At Les Courtillières-Pantin, E. Aillaud dealt with an area of 17 hectares (42 acres) for around 1,650 lodgings; Aillaud experimented with a variety of building types dominated by an edifice more than a kilometer long which encloses a park of 5 hectares (more than 12 acres) within its winding perimeter. Here clearly was an attempt to use urbanistic invention and artifice to counteract the monotonous and repetitive character usually found in such housing developments, a defect further exacerbated by the extensive use of prefabricated structures. The plan for the development at Bagnols-sur-Cèze near Avignon (by Candilis, Josic, Woods, Dony, and Plots) is one of the best examples of a neat and clear treatment of the architectural problems and urbanistic solutions. But these are exceptional cases. The rigid emphasis on the rectangle to be found, for example, in the Sarcelles project designed by Boileau and Labourdette is more typical; however much they promote and accelerate the growth of the building industry and systems of prefabrication, these housing developments too often lapse into a banal urbanistic schematism.

[5]It is on the basis of such factors that the specific sites for *villes nouvelles* in the Paris region have been chosen. The *ville nouvelle* of the Vallée de la Marne was conceived to act as an urban magnet to alter the population distribution of the region, where there were 400,000 persons already settled and an additional 100,000 expected in growth by the year 2000. Since the distance from the outer boulevards of Paris to the site is only about 6 1/4 miles, the dual function of this new settlement is obvious: it offers an alternative pole of attraction for an existing population but also aims to constitute a metropolitan structure of regional scale. Significantly, the plan foresees the creation of 35,000 jobs by 1985, 75 percent of them to be filled from the local labor force. Similar programs have been formulated for the other *villes nouvelles* planned for the region. Cergy-Pontoise on he northern axis 15 1/2 miles from Paris is to house 350,000 inhabitants by the year 2000. Evry, linked to Paris by the existing highway system, is expected to accommodate 450,000 inhabitants by the end of the century; it already is a significant pole of attraction even though some 80 percent of its residents must put up with the inconveniences of commuting to work.

[6]The Fanfani Plan preceded the Labor Plan formulated by the left-wing trade union, the Confederazione Generale Italiana del Lavoro (CGIL). Guided by the anti-monopolistic ideology of the CGIL, the Labor Plan tackled the thorny and complex problem of the Italian South as a central aspect of its alternative program for balanced development. The Fanfani

Plan was launched in the same year as the Tupini Law; that law, which made use of provisos already present in legislation passed under Mussolini, was intended to bring about certain changes in the role of public financing in the building sector by making the state the guarantor of modest fractions of the loans contracted by the institutes for low-cost housing.

[7]Although their actual implementation often came at the expense of profund changes in the initial ideas—the plans for the most part remained on paper—the INA-Casa housing developments made use of the finest Italian architects. The Falchera project in Turin by Astengo, Renacco, and others and the San Giuliano at Mestre project by Samonà and Piccinato are typical. In Genoa the Bernabò Brea and Forte di Quezzi developments by Luigi Carlo Daneri are truly exceptional and rank among the finest architectural and urbanistic achievements of postwar Italy.

[8]In 1955 Ezio Vanoni presented a ten-year plan for the growth of employment and income. Its goals were the following: to counteract the very grave problems of unemployment, to give a new impetus to the key sectors of industry, to bring the balance of payments back into equilibrium, to systematize the intervention in the Mezzogiorno (the South), and to prevent territorial disequilibrium from getting out of hand. In that program, public building was to function as a stabilizing factor in the cyclical course of production and as an equilibrating mechanism between demographic and urban development. However, in actuality that objective was never achieved. The rate of real investment in building almost doubled what was projected in the plan. The Vanoni Plan was the response of the most advanced wing of Catholic Italy to a phase of notable economic expansion. Between 1948 and 1951 the income from labor in Italy increased almost 50 percent, while the Marshall Plan and the credit and monetary policy of President Luigi Einaudi created the conditions for a massive process of industrial concentration.

[9]The approaches of the architects and urbanists were entirely attuned to the climate of the early 1950s. On the basis of the neo-realist and populist experiences, the progressive elements turned their interest to specific tasks: the South with its painful reality of poverty became the ideal terrain for trying out new cultural approaches. While the American experts were attempting to apply the lessons of the TVA to the south of Italy through the financial and planning body known as the Cassa del Mezzogiorno, the architects were transferring to a peasant world ideas that had been borrowed from the British tradition, although clumsily filtered through American sociology and the ideology of the Olivetti circle. But the results remained sporadic and without much real impact on social reality. Moreover, in the building sector public intervention had always been the exception, not the rule, and in overt contradiction with every serious programming proposal. In addition, the government policy objectively protected the real estate interests. Between 1953 and 1963 the price of new constructions tripled, while the market value of building terrains increased tenfold. In the draft bill for the Togni Act of 1957, private control of the construction sector seemed to have reached its peak; this law called for the liquidation of the real estate holdings of the public institutes for low-cost housing. In addition, a law enacted under delegated power in 1958 once more promoted the policy of private home ownership, demanding from the government the formulation of norms for the "cession in property in favor of the assignee of lodgings of popular and low-cost type."

[10]The late 1950s and the early 1960s were rich in theoretical ferments and new utopian visions. Architects were moving beyond the limits of experimentation on the neighborhood or district scale with more and more global projects that were self-defeating and overambitious. Astengo essayed what was perhaps the most fruitful approach for changing the attitude of those active in the urbanistic field, stressing the scientific character of the methods of analysis and procedure and challenging the traditional models of planning and design. At the same time, the confrontation in the architecture faculties between the old academic generation and the new one was becoming sharper. In particular, G. Samonà succeded in making the Istituto Universitario di Architettura in Venice a point of concentration for the most advanced experimentation, bringing in as teachers men of the caliber of Zevi, Gardella, Albini, Scarpa, Astengo, Belgioioso, and De Carlo.

[11]After the Code of Urbanism was formulated, the INU was represented by Astengo, Piccinato, and Samonà in the government commission set up to study urbanistic reform. The proposal, submitted in 1961, was based on principles already affirmed in the 1942 law and introduced improvements of a technical and procedural character. When that proposal was rejected, in 1962, Minister Sullo presented his own draft for a law to contain quite advanced provisions; it elaborated the premises for a radical modification of the system of real estate ownership, providing for vastly more land to be incorporated into the public domain. The conservatives reacted sharply to that proposal, and the Christian Democrats repudiated their own minister. In the same year, however, as tribute payment by the majority Christian Democrats for the support given them by the Socialist Party, approval was given to Law 167, which favored the acquisition of land for low-cost housing.

[12]While enacting the provisional law, the government at the same time rendered it ineffective by delaying its implementation for one year "so as not to put a brake on building activity." In that year of moratorium building, licenses were issued for the construction of 8,500,000 rooms.

[13]The Bologna municipality first applied Law 167 to the areas of its historical center. In 1966 the concession of licenses for building in that area was limited. In 1968 the first pedestrian zones were established. And in 1969 a general variant for the historical center within the overall regulative plan was adopted. Thus, thirteen urbanistic divisions were defined to be protected and reclaimed—nine for public intervention, four for private initiative—in an operation affecting more than 20,000 of the 80,000 inhabitants of the center. A new phase was initiated in 1972 with the adoption of the means authorized in Law 167 and 865. Five urbanistic divisions became part of a plan for low-cost popular housing. "Active restoration"—realized by expropriation and formation of undivided properties—was instituted as a way of keeping the poorer classes within the historical center once it was restructured with that in mind. That strategy, however, ran into serious resistance, and the methods settled on in 1972 had to be more and more restricted in scope. After 1972 there was a certain compromise which led to replacing expropriation with a system of agreements and to shelving the principle of undivided ownership.

[14]The achievement of that objective has nothing ideological about it if one considers the results attained within the country and, above all, the growing weight that East Germany was acquiring within the economic system of the socialist countries. Certain quite schematic data assembled by L. Spagnoli give an idea of the rapidity and extent of that process of development. If the industrial output of East Germany in 1960 is taken as the base index of 100, then the corresponding indexes of production per capita in the other Soviet bloc countries were as follows: Hungary, 55; Czechoslovakia, 110; Poland, 60; Bulgaria, 33. Six years later, taking Poland at 100 as base, the levels were: East Germany, 201; Czechoslovakia, 177; Soviet Union, 120; Hungary and Rumania, 107; Bulgaria, 73.

[15]The building program adopted in November, 1955, called for increasing housing by 11.2 million square meters between 1956 and 1960. Two years later those targets were recognized to be insufficient and were considerably revised with the aim of putting an end to the housing shortage in the next decade. In achieving that goal the role played by the development of industrialization in building methods is obvious: in 1950 only 25 percent of the components were prefabricated, but by 1958 the fraction had risen to 70 percent. It was precisley for the building sector that the planned increases in productivity were among the highest. The realization of that policy, however, had a grave setback in the lack of coordination of the various urbanistic projects and in an excessive proliferation of planning bodies. Nor was this remedied by the creation of the Sovnarkoz, the regional economic councils set up in 1957 to coordinate the various productive and administrative sectors. This had a direct effect on the overall efficiency of the building projects, although there was some rationalization in the building sector beginning in 1954 when the Russian Communist Party explicitly intervened to deal with its problems. This led to restructuring of the administrative apparatus and especially to setting up new bodies such as the Mosproekt and the SAKB. The formation of the Glavmostroi made it possible to unite in a single organism, regionally structured, hundreds of public bodies and undertakings involved in the building sector.

CHAPTER XVIII

[1]The Swedish urbanism act of 1947 authorized the municipalities to acquire land for public use on the basis of regulative plans renewable every five years and supplemented by detailed subplans. Land for housing can be acquired on the open market or conceded in rental for sixty years to cooperatives, municipal building societies, or private individuals. Here we have a mixed economy, but one which aims to give the advantage to the public agent. Thus, as a result of a policy dating back to 1904, Stockholm now owns the greater part of all building sites. Understandably, certain Swedish economists now go so far as to consider Keynes' theories about anti-cyclical interventions to be outmoded and to counterpose innovative proposals for types of planned development.

[2]In any case, the efforts of Michelucci have been contradictory. His "city of man" ended up in disastrous urbanistic operations, as did his 1968 project for restructuring the Santa Croce district in Florence. His recent design for a memorial to Michelangelo at the Carrara marble quarries offered him the opportunity to integrate artificial forms into a natural setting on which the past has left its imprint.

CHAPTER XIX

[1]The structuralist current includes others besides Morandi who are committed to making technological experimentation the occasion for formal audacities, for modern icons of the calculated risk; for example, the slablike structures with umbrella and membrane by Felix Candela in Mexico, the shelters of the Madrid hippodrome by Eduardo Torroja, and the experiments by Joseph Polivka (collaborator with Frank Lloyd Wright on some projects) or Frei Otto.

[2]The work of Jean Prouvé (b. 1901) has not yet had the attention it merits from historians. Trained in the École de Nancy, Prouvé was experimenting with prefabricated construction techniques as early as 1925, collaborating with Citroën, Renault, Aluminium Français, and with architects like Beaudouin and Lods (notably in the covered market and Maison du Peuple at Clichy, built, respectively, in 1936-38 and 1937-39). His structural experiments carried out in his laboratory at Maxeville near Nancy have not been adequately exploited and only in part brought into play in works such as the French pavilion at the Brussels World's Fair (done in 1958 with Gillet) or his office building of 1963 in Neuilly-sur-Seine.

[3]In the United States John Johansen has aimed at an architecture compounded only of dissonances as can be seen in the Spray house in Weston, Connecticut, the Clark University Library in Worcester, Massachusetts (1966-69), and the Mummers' Theater in Oklahoma City. The results are rather softened fragmentations. However, in our opinion the so-called poetics of the ugly practiced in Italy by Guido Canella (b. 1932) and Maurizio Sacripanti (b. 1916) are preferable, despite the diverse connotations they give to their respective experiments with form, as in Canella's complex at Segrate and Sacripanti's competition project for the Parliament offices in Rome or his Osaka pavilion.

[4]An outstanding figure in Brazil is the landscape architect Roberto Burle Marx (b. 1909). From the Kronforth garden of 1937 in Theresopolis near Rio de Janeiro, to his arrangement of parks along the Rio coastline and an extensive series of gardens and the like, Marx has made himself interpreter of the expressive potential of tropical vegetation and ecology in an exuberant surrealism of the landscape.

[5]The Olympic Village in Rome was designed by Luigi Moretti and Adalberto Libera in collaboration with V. Cafiero, A. Luccichenti, and V. Monaco. In the postwar years Libera, too, lapsed into mannered formulas despite the notable typological experiment he carried through in the horizontal dwelling unit for the Tuscolano quarter of Rome.

CHAPTER XX

[1]The project of Gropius referred to here was shown in the traveling exhibition, *Walter Gropius: Buildings, Plans, Projects, 1906-1969*, International Exhibitions Foundation, 1972-74, organized by Ise Gropius. The three megastructures are dated 1928, but there is no indication of what they might have been done for. In any case, it is astonishing to find curving, enclosing structures of decidedly Expressionist taste combined with a cross section virtually identical with that proposed by Tange for Boston. It is difficult to explain how such a prophetic anticipation could have remained unknown for so long and also what relationship there could have been between that isolated work and the normal urbanistic approach of Gropius in the 1920s.

An up-to-date reading list in the history of contemporary architecture and urbanism would require a companion volume of more or less the same number of pages as this book because studies dealing with its principal subjects have been appearing in varied and unexpected channels of information. Research papers from American and European universities, congress reports, catalogues of poorly publicized exhibitions, provisional reports, articles in journals of limited circulation are often more important historically, and sometimes critically, than the texts considered required reading. Then, too, the character of our book calls for references to books and documents not directly related to architecture or sanctified by academic tradition, but which reflect our personal interests and a critical approach that is not found in the standard history books. We hope this is clear from the effort made in these pages to single out key material often outside the architectural tradition and therefore impossible to accommodate in the space available here.

To stress the difficulty of the task we can say that nineteenth-century manuals, also texts by thinkers such as Bloch, Sombart, Simmel, Weber, Nietzsche, or Benjamin, cast as much light on the problems as the most enlightened specialized studies modern architecture. As concerns the central problem of language, we do not think it possible to omit the contributions of Freud, Heidegger, the formalist school, Foucault, Derrida, Cacciari—authors from whom we have drawn approaches and hypotheses that have enriched our fundamental conviction; still today, the "metropolitan relationship" of which we have made so much in our book corresponds, in its structure, to that analyzed by Karl Marx in *Das Kapital* and the *Grundrisse*. On the other hand, a bibliography including the new fields of research being propounded with ever increasing authority would have to make room for the imposing bulk of studies on the significance of the American urban civilization, the enormous problems relative to economic policy in the socialist countries and their effect on the administration of the territory, and the contradictions that arise in the traditional view of the modern movement when seen in relation to the socio-democratic ideology and the history of the workers' movements and trade unions.

For this reason, and because the other volumes in this series include bibliographies, we have prepared a list of general works that deal only with the specific field of architecture. Although this is treason to our interests, it is at least not the usual essential reading list and is less likely to set the reader on the wrong track.

The interested reader can consult a number of bibliographies of general character or concerned specifically with the works of the leading figures of modern architecture. The most extensive is in the most recent edition of the *Storia dell'architettura moderna* by Bruno Zevi (Turin 1975).

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