

Reyner Banham

The New Brutalism



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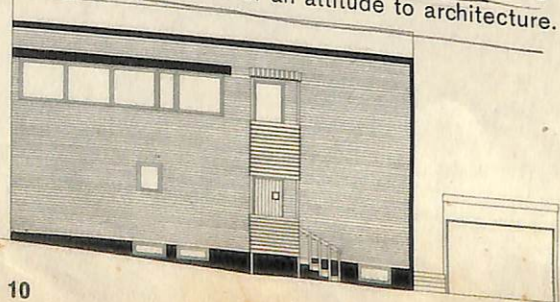
1.1 In the beginning was the phrase ...

One of the more ironical aspects of the recent history of architecture is that the invention of the term 'The New Brutalism' should already be shrouded in historical mystery, in spite of the fact that it occurred as recently as the early nineteen-fifties and under conditions which should have rendered the whole process visible to any historian who was interested. The mystification derives from two simple circumstances: one, that the term was coined, in essence, before there existed any architectural movement for it to describe; two, that it was then re-minted to describe a particular movement, to which it adhered for reasons that were, in part, so trivial and ridiculous that they could not be taken seriously until later. By that time the term 'The New Brutalism' had come to stand for something so portentous that the explanation "It's somebody's nickname", would have seemed utterly inadequate.

The originator of the word 'Brutalist' seems fairly certainly to have been Hans Asplund, son of Gunnar Asplund. He gave his account of the invention of the term in a letter to Eric de Maré which was reprinted in the 'Architectural Review' in 1956¹, and there seems no reason to doubt his version:

"In January 1950 I shared offices with my esteemed colleagues Bengt Edman and Lennart Holm. These architects were at the time designing a house at Uppsala. Judging from their drawings I called them in a mildly sarcastic way 'Neo-Brutalists' (the Swedish word for 'New Brutalists'). The following summer, at a jollification together with some English friends, among whom were Michael Ventris, Oliver Cox and Graeme Shankland, the term was mentioned again in a jocular fashion. When I visited the same friends in London last year, they told me that they had brought the word back with them to England, and that it had spread like wildfire, and that it had, somewhat astoundingly, been adopted by a certain faction of younger English architects."

But if this account of the invention of the term is accurate, the version of its spread in England is misleading (though Asplund could not know this). 'Neo-Brutalist' is not the same as 'The New Brutalism', and it was the latter phrase that had spread and been adopted by a younger faction in England. The difference is not merely one of form of words: 'Neo-Brutalist' is a stylistic label, like Neo-Classic or Neo-Gothic, whereas 'The New Brutalism' is, in the Brutalist phrase "an ethic, not an aesthetic". It describes a programme or an attitude to architecture.



1
Bengt Edman and Lennart Holm; Uppsala (Sweden), private house. 1950
Design for facade

Nevertheless, the term 'Brutalist' undoubtedly was brought back to England by the three architects named by Asplund, and from them passed into the common colloquial vocabulary at the two main centres of architectural discussion in London at that time: the Architectural Association (a professional club with an attached school) and the Architect's Department of the London County Council, which was just about to embark on its period of greatest productivity. Within this context of professional gossip and discussion, however, the word 'Brutalist' was used in a rather specialised sense (for polemical reasons which will appear later). Whatever Asplund meant by it, the Cox-Shankland connection seem to have used it almost exclusively to mean Modern Architecture of the more pure forms then current, especially the work of Mies van der Rohe. The most obstinate protagonists of that type of architecture at the time in London were Alison and Peter Smithson, designers of the Miesian school at Hunstanton which is generally taken to be the first Brutalist building. The term 'Brutalist' was doubtless applied to their ideas lightly and in passing, but it stuck to them for two reasons: firstly, because they were prepared to make something serious of it; and, secondly, because Peter Smithson was known to his friends during his student days as 'Brutus' from a supposed resemblance to classical busts of the Roman hero.

This last circumstance seemed so ridiculous that it spread about the world as fast as the Smithsons' architectural reputation: even before Peter Smithson's first visit to America, Sigfried Giedion's students were in possession of a garbled version ("Brutalism equals Brutus plus Alison"), but the satirical correspondent in 'Architectural Design' who wrote "... had Peter's nickname been Fido, it would surely have been 'The New Fidelity' " had missed the point. When Peter Smithson finally committed the phrase to print in December 1953 "In fact, had this been built, it would have been the first exponent of the 'New Brutalism' in England..."² the situation had already developed so far that no word but 'Brutalism' could have served to express what the Smithsons and many others of their generation urgently felt they must express, even if they had, as yet, no architecture to express it. Even if 'The New Brutalism' as such did not really exist in December 1953, the situation which made it necessary did exist, a situation which needs to be examined in order to understand how it was that a Swedish phrase dropped into an English context should become a slogan with worldwide echoes.

¹ 'Architectural Review', August 1956

² 'Architectural Design', December 1953

1.2 Polemic before Krushev

The English context into which the Swedish phrase was dropped was a violent and sustained polemic on style, such as England had not seen since the nineteenth century, though very little of this polemic reached the public print at the time. In part, this was a classic quarrel of the generations, but the quarrel was focussed and concentrated almost entirely within one organisation, the Architect's Department of the London County Council, which was almost the only place where newly-graduated architects could find work in London in the early Fifties, and the quarrel was kept open and alive by one dominant factor — that the social conscience of the older architects in the Department had, in many cases, hardened into an acceptance of Communist doctrine.³

Such a development might well have been anticipated — social conscience in architecture is an English tradition that goes back to William Morris, and the very earliest works of the LCC Architect's Department after its foundation had been mostly in such 'social' fields as housing. In addition, the rise of Modern Architecture in England in the thirties had been greatly influenced both by the social attitudes of distinguished refugee-architects like Gropius, and by the 'Popular Front' politics of the Spanish Civil War (an event which left permanent scars on the conscience of the English Intelligentsia). Many architects who returned to their calling (or their training) after World War II, had fought that war to make the world safe for some form of benevolent socialism, and they were heavily committed to the Welfare-State ideology of the Labour Government which swept to power in the first post-war election in 1945. Not unnaturally they looked for inspiration to countries that could offer examples of advanced Welfare-State architecture — and this was one of the reasons why architects like Oliver Cox and Graeme Shankland were in Sweden talking to Hans Asplund, as mentioned in the previous chapter.

But, in addition to this interest in Sweden, there was also a conscious attempt, by architects committed to the Communist line, to create an English equivalent of the Socialist-Realist architecture propounded in Russia by Zhdanov's architectural supporters. Within the LCC Architect's Department, attempts to enforce an Anglo-Zhdanov line were conducted with a grotesque mixture of Stalinist conspiratorial techniques (as was also the opposition to them) and the traditional methods of British snobbery. Thus, disapproval of the architectural views of

³ For the purposes of this discussion, 'Communist' is taken to mean an acceptance of Marxist doctrine on aesthetics, without necessarily implying membership of the Communist Party, since there were a number of purely stylistic fellow-travellers among British architects at the time; the phrase 'People's Detailing' identifies the sentimentally Marxist architecture of this trend and recognises its purely superficial character. It is a better stylistic label than 'socialist-realist' in the British context, because the commonly loose use of the word 'socialist' in Britain (meaning any member of the 'non'-revolutionary Left) made Socialist-Realism an almost meaningless concept in English.

Colin A St John Wilson (working in the LCC Housing Division at that time, like many other architects who will appear in this book) was expressed through the time-honoured technique of snubbing — one of the senior architects who had always previously addressed him by his nick-name of 'Sandy', took care to address him after the hardening of the party line as Colin, the first name by which he is never addressed by his intimates.

This hardening of the architectural line by the Communists occupying the middle ranks of the LCC architectural hierarchy stemmed partly from a genuine conviction that something related to English nineteenth-century brick-building was the correct approach (for which they produced William Morris's 'Red House' by Philip Webb as justification) and partly from a defensive response to their own worsening situation. The post-war years had disappointed the hopes of everybody, but for the Welfare architects further disappointments followed with the fall of the Labour Government in 1951, and the ridiculous anti-Communist witch-hunts which were pursued into all walks of life, even architecture. About the closing stages of the People's-Architecture period at the LCC there hangs the unmistakable atmosphere of a grand old British lost cause hurling its gentlemanly defiance to the world. Early in December 1954 the entrenched Communist members of the hierarchy gave out the formal line on architecture in such detail as the following: Buildings of four storeys or less are to be considered as domestic in scale, and must have pitched roofs, but those of greater height are not domestic, and the form of roof is to be settled by discussion in the department. Several younger members of the Housing Division to whom this 'ukase' was directed, seriously considered giving in their resignations, but they were saved from the need for such action by no less a person than Mr Krushev himself, who — only a few days later — first entered the world headlines with his intervention at the All-Union Congress of Architects, an intervention that brought the Zhdanov line into official disfavour, marked the beginning of the cultural thaw in the USSR, and left advocates of Socialist-Realist architecture all over the world without ideological support.

But before Krushev brought this architectural polemic to a sudden and unexpected close, a clear and distinctive character had appeared in both parties, each with its array of fighting slogans, hero-figures and cult-object buildings. The negative aspects of the younger generation's attitude may best be summed up in the exasperated statement by James Stirling: "Let's face it, William Morris was a Swede". The factual accuracy of this statement need not detain us here, it is its emotional truth as a total rejection of the style of all forms of Welfare architecture that is of consequence. The William Morris revival, or People's Detailing, or whatever term was commonly employed to satirise attempts to revive nineteenth-century brick-building techniques, complete with small, shoulder-arched windows, etc, was occasionally dignified by the grandiose title



2/3
London County Council Architect's Department (Housing Division); Roehampton (London, England), Alton East Housing, 1953-56
Terrace-housing and low-rise apartments



12

'The New Humanism', which was in itself a reworking of a title invented (by the 'Architectural Review') for the Swedish retreat from Modern Architecture: The New Empiricism. Given the polemical circumstance, the phrase The New Brutalism clearly has strong elements of parody of both the other movements, which — in practice — are often very difficult to tell apart when built. Both exhibited cottage-sized aspirations, a style based on a sentimental regard for nineteenth-century vernacular usages, with pitched roofs, brick or rendered walls, window-boxes, balconies, pretty paintwork, a tendency to elaborate woodwork detailing, and freely picturesque grouping on the ground. The smaller housing in the Alton East section of the LCC's now-famous Roehampton Estate, though designed by Zhdanov precepts (albeit completed after Krushev's revisions) could equally well be a demonstration of the New Empiricism — as Nikolaus Pevsner observed, its inspiration is Swedish.

The introduction of Pevsner's name at this point is appropriate, the kind of architecture to which the young Brutalists objected had another ideological support that was not swept away by Krushev's denunciations: the 'Architectural Review', whose enthusiasm for picturesque planning at this time has still not been forgiven by some of the Brutalist generation. Throughout the war years Pevsner, and others such as H F Clark, had been researching into the origins and practice of English picturesque planning⁴ in the eighteenth and early nineteenth centuries, and on this basis 'Ivor de Wolfe' (pseudonym of one of the 'Review's' editors) was later to demand a full-scale theory of 'Townscape'! Such a theory was to proceed from the 'found' or 'given' elements of any planning problem, and by awarding the highest valuation to these elements, was even more empiricist than Swedish housing-design of the period. Such an approach, which "judges every case on its merits", etc, stands on a firm tradition of British Liberalism, democracy and common law, but it seemed of absolutely trivial value to a younger generation to whom the given elements of the planning situation seemed to be social chaos, a world in ruins, the prospect of nuclear annihilation, and what appeared to be a complete abandonment of architectural standards on the part of their elders.

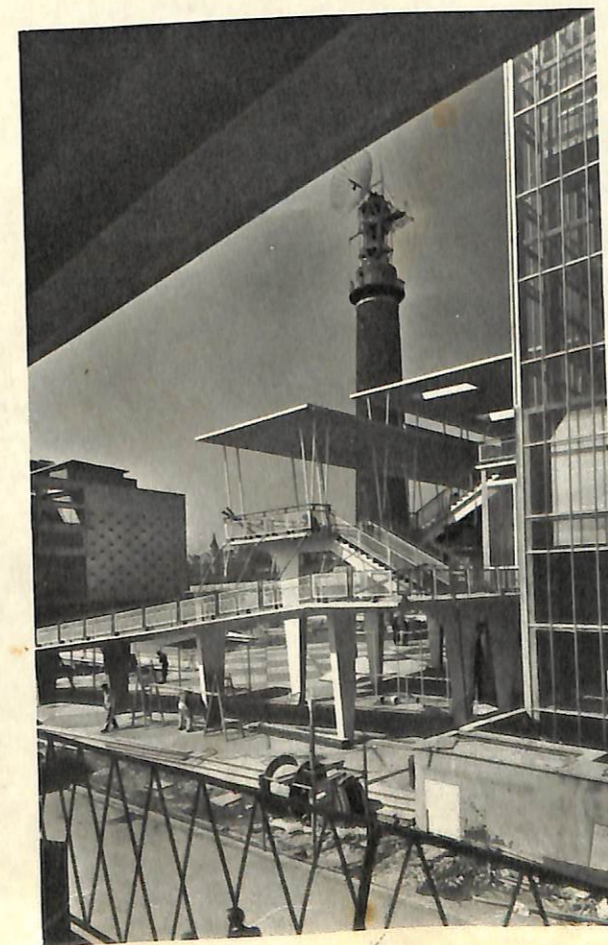
This last was the aspect of the situation that disturbed them most profoundly. The fundamental command of picturesque theory, to "consult the genius of the place in all", (a tag from Alexander Pope that

⁴ 'Picturesque' in this sense referred originally to the purely visual discipline of planning landscape-parks, model-villages etc, in order to produce scenes resembling those in the landscape paintings of, eg Claude Lorraine, or his English followers. Since this involved irregular groupings of buildings, and the adaptation of existing landscape and structures it became a favourite historical justification for free, asymmetrical planning in buildings and adaptive techniques in urban design. The garden-city planning of Raymond Unwin (eg Letchworth) probably represents the point where this constellation of ideas emerges as a conscious doctrine (1903), and the Smithsons' 'Economist' scheme is the most distinguished example discussed in this book (see section 9).



4
Frederick Gibberd; Harlow New Town (England), Housing at The Lawn, 1952

5
Sir Hugh Casson (architektonische Leitung): Festival of Britain, London/England, 1951
Blick auf die Abteilung 'Downstream'



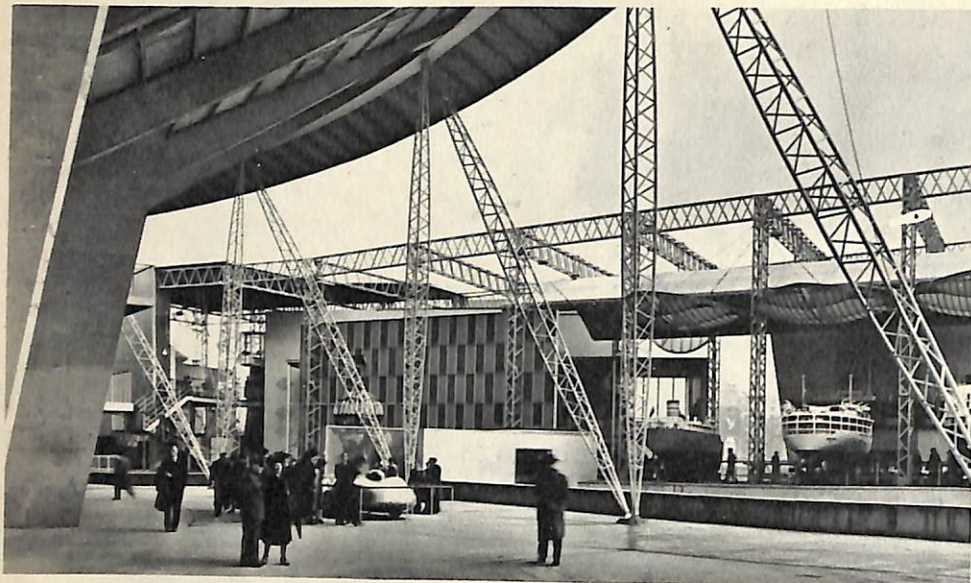
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was much employed by the 'Architectural Review') seemed to be employed to justify, even sanctify, a willingness to compromise away every 'real' architectural value, to surrender to all that was most provincial and second-rate in British social and intellectual life. There were, of course, understandable historical reasons for this 'soft' attitude on the part of the middle-aged generation. They had been defending some version of the British way of life from points all over the globe in World War II, but the quality of that way of life was being steadily reduced (especially in the arts) by isolation from those centres, such as Paris, which had traditionally exercised both a stimulating and a steady influence on the British Intelligentsia.

Thus, in England, there had grown up during the war a romantic and fashionably morbid school of landscape/townscape painting, exemplified by the work of John Piper and Graham Sutherland, and the vision of this school was influential in preparing a mood of elegant despair that affected many branches of British culture in the ensuing peace. Thus Piper, who contributed a dust-jacket to the classic monument of post-war intellectual self-pity, Cyril Conolly's 'The Unquiet Grave', also executed both the dust-jacket and the illustrations to 'The Castle's on the Ground', a specimen example of wartime 'home thoughts from abroad', a sentimental evocation (written in Cairo) of the virtues and less damaging vices of Victorian Suburbia, composed by the distinguished critic J M Richards, also an editor of the 'Architectural Review', like Pevsner. This book in particular was regarded by the young as a blank betrayal of everything that Modern Architecture was supposed to stand for, and a worse act of treachery in that it had been written by the man whose 'Introduction to Modern Architecture', had indeed served to introduce many of them to the art of architecture.

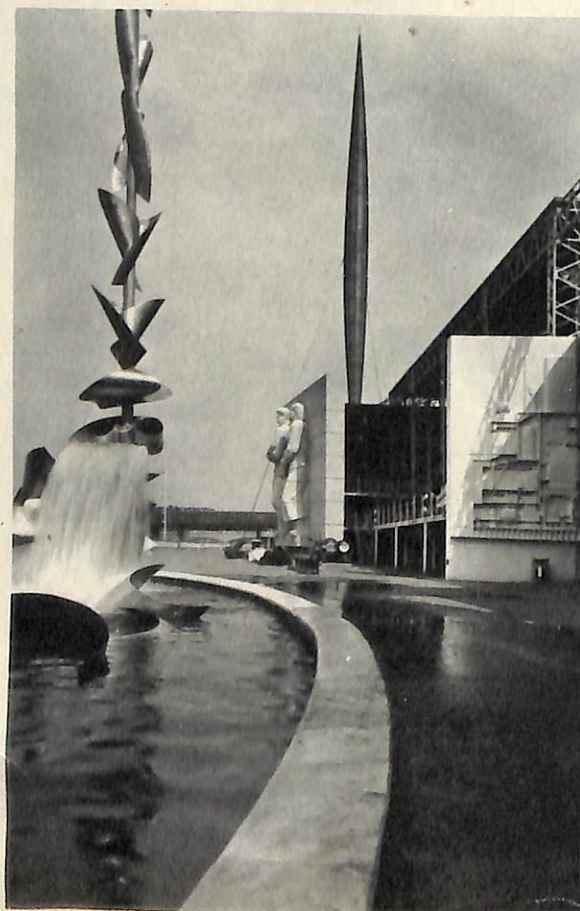
There can be no doubt that these wartime experiences had served to confuse the aims and blunt the intellectual attack of the men to whom were entrusted such major enterprises as the design of the first generation of New Towns, or the Festival of Britain in 1951. The younger generation, viewing these works, had the depressing sense that the drive was going out of Modern Architecture, its pure dogma being diluted by politicians and compromisers who had lost their intellectual nerve. Young architects, of course, were not the only members of their generation to feel sentiments like this. Their revolt has been compared to the rise of the 'Red-Brick' novelists⁵ and the 'Angry Young Men' in the British theatre, but while it is true that many of the Brutalists hail from 'Red-Brick' universities and hold the kind of absolute and uncompromising views that characterise the Angry Young Men, the fact remains that the first

⁵ 'Red-Brick' universities (so-called because of their preferred building-material) are mainly of 19C origin, unlike the ancient universities in Britain, such as Oxford or Cambridge, which are mostly built of stone. The new universities have never enjoyed the social status and political prestige of the ancient foundations, and they are therefore one of the main breeding grounds of social, political and intellectual protest in Britain.



6/7
Sir Hugh Casson (Director of Architecture); London (England),
Festival of Britain, 1951

6
The Sea-and-Ships Pavilion (designer: Sir Basil Spence) seen
from the Dome of Discovery (Ralph Tubbs)



Water-mobile (David Huws) and the Sky-
on (Powell and Moya) beyond

appearance of the New Brutalist attitude precedes by some years the first 'Angry' play, 'Look Back in Anger', and they flatly rejected the provincial background of which novelists like John Wain and Kingsley Amis made so much.

Instead, they deliberately sought out non-provincial standards and measured themselves against International figures. Refusing empiricist compromise or picturesque traditionalism, they set up as their standards men like Le Corbusier, Mies van der Rohe, Philip Johnson (still in his Miesian phase), Alvar Aalto or Ernesto Rogers. They rejected their immediate predecessors in Britain, except perhaps Wells Coates, always true to a Parisian aesthetic, and Berthold Lubetkin, the distinguished Russian refugee whose political convictions had never led him to compromise with vernacular standards, much to the embarrassment of other Communist architects in Britain. As early as CIAM VIII in 1951, the young had invaded the congress in order to sit at the feet of 'grands maîtres' whose views they could respect (whatever may have happened later) in preference to listening to their English seniors whom they were fast coming to despise.

At the same time they seemed to be setting out to find a historical basis for their architectural convictions outside the English tradition. Here again, Pevsner was an authority they had to reject. Not only did his 'Pioneers of the Modern Movement' place a very high valuation on the English contribution to the rise of Modern Architecture, but he had also, in an essay published in April 1954, made a strong case for the continuing use of picturesque methods even in architects like Le Corbusier. This article was consciously intended as a contribution to the public debate on the Picturesque then in process: it was written in reply to a radio talk in which Basil Taylor (an aesthetic philosopher then in vogue) had attacked the corrosive influence of picturesque practice, and Pevsner provoked a spirited reply from Alan Colquhoun, an important, though largely unpublished, contributor to the architectural ideas of the younger generation.⁶

What this generation sought was historical justifications for its own attitudes, and it sought them in two main areas of history — the traditions of Modern Architecture itself, and the far longer traditions of classicism. In the first tradition, they laid particular emphasis on the form-givers — not only on Le Corbusier and Mies van der Rohe, but also on such figures as Rietveld (whose Schröder house was described by Peter Smithson as "the only truly canonical modern building in Europe" — a striking and suggestive turn of phrase) or Hugo Häring, whose farm at Garkau they knew only through a tiny illustration in a relatively obscure book, Bruno Taut's 'Modern Architecture', of 1930. Their degree of sophistication about the history of Modern Architecture was remarkable by world standards at the time;

⁶ Taylor's radio text was never printed. Pevsner's article appeared in 'Architectural Review', April 1954, a correction from Taylor in the June issue, and Colquhoun's letter (with Pevsner's reply) in 'Architectural Review', July 1954.

their sophistication about classicism was remarkable for its peculiar interests rather than its extent. Most of this generation had passed through some form of rundown Beaux-Arts training (though Peter Smithson enrolled deliberately at the Royal Academy schools in London, in the hope of acquiring a more convincing form of classical expertise), all had had their interest in classicism confirmed by their readings in Le Corbusier, but all came very directly under the influence of the brilliant revival of Palladian studies in England in the late Forties, either directly through Rudolf Wittkower and his book 'Architectural Principles in the Age of Humanism', or through the teaching of his outstanding pupil, Colin Rowe.

Like many others among them, Rowe believed that there was direct architectural relevance between the classical past and the work of twentieth-century masters. Thus, while Ruth Olitsky and John Voelcker could say (in 'Architectural Design'⁷): "It is seldom that chance timing in the publication of two books has been so fortunate as in the case of Dr Wittkower's 'Architectural Principles in the Age of Humanism' and Le Corbusier's 'Modulor' ... each book illuminates the significance of the other, and through them both it becomes possible to see the origins of many issues which are very much alive among architects at the present time."

Rowe was taking this bridge-building technique between ancient and modern much further in two influential essays (published, ironically enough, in 'The Architectural Review') entitled, 'The Mathematics of the Ideal Villa' (comparing Palladio and Le Corbusier) and 'Mannerism and Modern Architecture' (a wider search for precedents in what was then an intellectually fashionable period of art history). Somewhere in this amalgamation of ancient and modern exemplars of architectural order, there was thought to lie the one real and true architecture implied in the title of Le Corbusier's first book 'Vers une architecture', the image of a convincing and coherent architecture that their elders had lost, and their teachers could no longer find. In spite of the accusations of Formalism levelled at them by their elders (some seemed to revel in the label — a small house by John Voelcker was published as an example of 'The New Formalism', with his approval, and a garland of references to Wittkower, Palladio and the Modulor) this generation of architects just approaching the age of thirty at the moment when the Smithsons accepted the title Brutalist, turned consciously to the great form-givers of their time for inspiration — to Frank Lloyd Wright, but above all to Mies van der Rohe and Le Corbusier.

⁷ 'Architectural Design', October 1954 — the tendency to combine all sorts of disparate 'Classical' authorities exemplified here, is entirely typical of the British attitude to 'The Classical Tradition'. In the British view, the importance of that tradition lay in its abstract intellectual disciplines (proportion, symmetry) and habits of mind (clarity, rationalism) far more than matters of detailed style. Thus, the revival of interest in the primitive Neo-Classicism of Lord Burlington's Palladian Revival (1715 — 1750) led Voelcker to propose 'Palladian' plans for electrical generating stations, but the Palladianism was restricted to an abstract planning diagram, and did not involve even room-shapes, let alone the detailing of the elevations.

2.1 Unité d'Habitation, Marseilles

Behind all aspects of the New Brutalism, in Britain and elsewhere, lies one undisputed architectural fact: the concrete-work of Le Corbusier's 'Unité d'Habitation' at Marseilles. And if there is one single verbal formula that has made the concept of Brutalism admissible in most of the world's western languages, it is that Le Corbusier himself described that concrete-work as 'béton brut'. Word and building stand together in the psychological history of post-war architecture, with an authority granted to few others concepts. In the early years of the fifties, few buildings anywhere in the world had such a hold on the imagination of younger architects, especially in the English-speaking countries, and — above all — in England itself. It was the largest single building of architectural importance in course of erection in Europe at the time, and it was the first genuinely post-war building, in the sense that its innovations separated it definitively from Modern Architecture before 1939.

However naively Le Corbusier may have played into the hands of Marxist critics like André Lurçat by saying "It is the building I have wanted to create for thirty years", the 'Unité' was unmistakably a building of the fifties; it was not conceived in some re-worked version of a pre-war style (as were, for instance, the various second-hand 'exercices de style' of the buildings for the Festival of Britain). The crucial innovation of the 'Unité' was not its heroic scale, nor its originalities in sectional organisation, nor its sociological pretensions — it was, more than anything else, the fact that Le Corbusier had abandoned the pre-war fiction that reinforced concrete was a precise, 'machine-age' material.

That fiction had been maintained, even in the thirties, by two main devices: either by rendering over the roughness and inaccuracies of concrete with plaster and paint; or by lavishing on it skilled labour and specialised equipment beyond anything the economics of the building industry normally permitted ... and even this did not always succeed, as faults and errors of execution in the work of Auguste Perret can show. Le Corbusier at Marseilles, under the pressure of economic and political circumstances that forced him to abandon his original steel-framed design for the 'Unité', reacted with his customary originality and acute sense of the mood of the hour, and decided to recognise that concrete starts life as a messy soup of suspended dusts, grits and slumpy aggregate, mixed and poured under conditions subject to the vagaries of weather and human fallibility, and left to harden in formwork whose carpentry rarely (in France) attained the level of precision required in the construction of a garden fence. Perret, or Freyssinet, under their specially favourable circumstances, might have been able to make it otherwise, but for Le Corbusier to expect anything better on an open site in southern France in the late forties, would have been an idle and irresponsible dream.

Yet his appraisal and resolution of this problem was the very opposite of defeatist. Out of a superficially discouraging situation, Le Corbusier conjured concrete almost as a new material, exploiting its crudities, and those of the wooden formwork, to produce an architectural surface of a rugged grandeur that seems to echo that of the well-weathered Doric columns of temples in Magna Graecia — it was not a question of "Architecture is that which makes magnificent ruins", the concrete work at Marseilles started as a magnificent ruin even before the building was completed. Nor was it simply a matter of exploiting happy accident: the rough wooden formwork which was allowed to impress its grain, knots and blemishes on the face of the concrete was laid in carefully-planned patterns of planking, which broke the surface into large squares and thus created a kind of modern equivalent for rustication. The coarseness of the surface, the pattern of the plankwork and the scale of the building produced an architectural texture that was not only interesting in itself but, under the hard glare of the Mediterranean sun gave something of the effect of the coarse travertine and giant scale of the apses of Michelangelo's St Peter's in Rome, on which Le Corbusier had written some of the most emotional prose in 'Vers une architecture'.

The Brutalists were not alone in seeing that in this building, modern architecture had finally come to terms with what northern Europe loosely calls 'The Mediterranean tradition', a consummation humorously expressed in the form "the first modern building that has room for cockroaches". Without doubt, it is one of the buildings in which Le Corbusier enters most convincingly into the great and true tradition of architecture as he understands it; the building in which all the rhetorical consonances between modern technology and ancient architecture in 'Vers une architecture' most nearly come true. Indeed, Marseilles is where the promise of that book's title is fulfilled. The Brutalist generation in Britain never tired of pointing out the title given to the English translation — 'Towards a New Architecture' — falsified Le Corbusier's intentions (as did the original title of the German translation also; 'Kommende Baukunst'). Reading 'Vers une architecture' as a sacred text, they knew that it promised not a new architecture, but simply architecture as it had always been and always would be, as Le Corbusier believed the term had been understood by Perret, by Phidias, by Mansart or Michelangelo. Right or wrong, Le Corbusier had vouchsafed his younger readers a vision of a grandiose Mediterranean architectural tradition. An historian might object that they were in error in interpreting the 'Unité' in the light of a book written twenty years earlier, and yet that book offered a phrase that seemed a veritable key to the majestic and magisterial authority of Marseilles (and of all other good architecture as well): "L'Architecture, c'est, avec des matières brutes établir des rapports émouvants". To construct moving relationships out of brute materials was to be the central ambition of Brutalism.

For illustrations see page 28-31

2.2 Illinois Institute of Technology, Chicago

Yet the first completed building to carry the title of 'New Brutalist' was not Corbusian; rather, it was the most precise imitation of the building style of Mies van der Rohe to have appeared outside the USA by that time, and in view of importance accorded in later developments to the presence of béton brut and other naturally surfaced materials, this puritanical exercise in the assembly of highly finished synthetic materials such as glass and steel, the 'Technological' materials, may seem a surprising beginning. Yet the morality that approved the raw concrete of the 'Unité' could equally well approve the use that Mies van der Rohe had made of steel, glass and brick in the campus buildings for the Illinois Institute of Technology at Chicago.

In spite of what is commonly regarded as the 'fine-drawn fastidiousness' of Mies's detailing, the honesty with which he handles steel for the solid material it is, can be compared with Le Corbusier's honesty in demythologising concrete and recognising it for what it is. In spite of the rhetoric about steel that had been ringing in the ears of modern architects from the time of the Futurists onwards, very little of it had actually been made manifest to the eye in Modern Architecture. Apart from glazing bars, visible steel — and visible structural steel above all — had been restricted to a few very specialised settings like Chareau's 'Maison de Verre' in Paris. Under normal circumstances, the steelwork lurked invisibly behind the fireproofing required by local building ordinances.

By an astute and casuistical reading of the local fire-regulations, Mies had been able to give an exposed frame to nearly all his structures on the IIT campus, and thus offer the outlines of a grammar of visible steel framing. This grammar was, inevitably, as refined as that of the 'Unité' was coarse. Furthermore, where the 'Unité' had, perforce, to glory in its technical imperfections, the buildings at IIT were full of flourishes of precision-craftsmanship, especially in the welding. However, it should be remembered that welding is as natural to this concept of steelwork as is shuttering to concrete, and that fine craftsmanship in welding is readily available in the USA, where welding is as widely distributed a skill as are peasant crafts in Europe. It is doubtful if this aspect of IIT was fully understood in Europe at the time, because the welding does not register very noticeably in the book and magazine illustrations that were virtually the only source of information to European architectural students, to whom currency restrictions still made the USA as remote and inaccessible as the moon.

But they could still see that Mies had made an honest use of steel as a builders' material, employing it, not as an abstract ideal of structural stiffness, but as a real substance having a surface, substance and character of its own, and structural habits as reliable and comprehensible as those of brick or masonry. And the steel is not only made visible, but the manner of its assembly is made manifest, so that the out-

line grammar of it is filled out with detailed usages. As Mark Hartland Thomas wrote in 'Architectural Design'⁸ (at that time the preferred magazine of the younger generation) "Mies takes the elements in a piece of building, and sets them together in a manner that is most characteristic of themselves, and in these positions they make spaces and architecture". Hartland Thomas had seen the buildings for himself and could appreciate the importance of their purely material qualities even in the details, but very few other contributors to the English architectural polemic had. Faced with usages such as Mies's manner of turning the corners of the building with a richly plastic incident, they did not see the structural logic and material ingenuity of this detail. Instead they saw a philosophical problem in abstract aesthetics: did the failure of the two wall planes to meet at the corner mean that Mies's facades were to be read as endless, indeterminate?

This question (meaningful, surely, only to those who know the buildings through such abstract representations as plans and photographs, but not in the real?) was first raised by Richard Llewelyn-Davies in a paper given at the Architectural Association⁹, and could only have been propounded in the historically sophisticated mental atmosphere of English architectural debate at the time, involving (as it does) reference to Mondriaan's concept of the rectangle as an impure form bounded by lines which intersect but do not stop at the intersection. From this proposition, Llewelyn-Davies, like Gerhard Kallman in an influential article on the impact of technology which had appeared in a special issue of the 'Architectural Review' on America, went on to the idea of an endless or indeterminate architecture, in which units of accommodation could be added or subtracted without altering the aesthetic quality.

Though the Brutalists (and their even younger successors) have always been ready to flirt with this idea, they scouted its application to Mies van der Rohe, insisting on the regular symmetry of the composition of the facades of the buildings at IIT, and their axial planning. They also — and this was wishful thinking — believed that Mies made conscious use of the Golden Section in designing his buildings. There has never been any convincing evidence from the Mies office to support this proposition, it was purely the transposition to one esteemed master, of the 'Modulor' mystique of the other. For the 'Modulor' was an extremely lively topic at the time. In spite of the difficulties of using it in practice, it seemed to stand for a principle of reliable mathematical order against a sea of compromise and architectural irresponsibility, and it was easier to visualise such a proportional system against the background of a seemingly flat and diagrammatic facade of the type found at IIT, than to bend and fold it to fit the deeply modelled plasticity of the 'Unité'. The fusion of the Mies-image with the Corb-image was an understandable, if philosophically reprehensible, step towards the creation of the kind of single vision of a real and convincing architecture that this generation sought.

⁸ 'Architectural Design', July 1952

⁹ Llewelyn-Davies' paper was reprinted in the 'Journal of the Architectural Association', November 1951, and Kallman's article appeared in 'Architectural Review' December 1950.

For illustrations see page 32-40

3 Secondary School, Hunstanton

The first building completed in the world to be called 'New Brutalist' by its architects, was the school at Hunstanton in Norfolk. In chronological fact, it had been designed even before Hans Asplund first uttered the words 'Neo-Brutalist' since it was the winning entry in a competition held in 1949. Not only was the award of the first prize to architects as young as the Smithsons then were, a remarkable event, but that it should go to so extreme a design was equally remarkable, since Denis Clarke-Hall, the assessor, was no extremist himself, although he had been one of the pioneers of modern school design in Britain. But, by the time the school was completed in 1954, the Smithsons had become avowed Brutalists, and the term New Brutalism was rapidly gaining currency outside Britain — a circumstance which clearly disturbed some of those who were prepared to admire the school, but not the Brutalist programme which had subsequently become attached to it. The reason for the long delay between design and completion was one of those spasmodic steel-shortages of the post-war epoch which constantly interrupted building-work, but whereas Le Corbusier had turned such a crisis to advantage at the 'Unité' the Smithsons were too young and absolutist to consider scrapping the deeply pondered work that had been put into the steel-framed design for Hunstanton. It would be visible steel or nothing.

While this insistence on visible steel gives a clear indication of the stylistic affiliations of Hunstanton, there are some striking and important differences from the buildings at IIT, differences which were largely, and understandably, overlooked at the time. To begin with, there is no risk of the facades being read as endless, in the Llewelyn-Davies sense. At the expense of some of Mies van der Rohe's intellectual clarity, the building makes neat and unarguable corners, and the closed symmetry of the composition of the main elevations of both the school proper and its off-lying gymnasium is immediately striking to the eye. This is particularly so in the gymnasium which, being a single volume, reveals the more clearly its symmetry inside and out.

In the larger block housing the school proper, symmetry persists, even if it is less obvious. The central multi-purpose hall is placed across the shorter axis, and is flanked by two open light-courts. The rest of the accommodation — service rooms, heavy and dirty areas, on the ground floor; classrooms on the floor above — is disposed in a large rectangular loop embracing these three central voids. The main elevations are expressed in terms of room-sized areas of total glazing, or room-sized panels of blank white brickwork, either for privacy or to act as wind-bracing for the structure. However, the symmetry of the plan and of the elevational pattern, should not be seen as major architectural objectives of the design, however full the architects' minds may have been of Wittkowerian or Palladian ideas. The formal clarity, like the insistence on almost total glazing of working areas, is to be seen as part of a determination

to make the whole conception of the building plain and comprehensible. No mystery, no romanticism, no obscurities about function or circulation. In this, it succeeded almost too well for a large section of architectural opinion in England that had become committed to empiricist romanticism — in spite of its manifest importance in the development of English architectural ideas (the 'Architectural Review' called it 'the most truly modern building in Britain') it does not form part of the collection of slides assembled by J M Richards for the use of official lecturers sent abroad by the British Council.

But what caused even more profound shock, not only to architectural romantics but to educational sentimentalists as well, was the attitude of the architects to the materials of which the school is constructed. The basic framing is of partly prewelded steel frames, calculated according to the Plastic Theory (then an innovation in itself) for extreme economy. The floors and roof-slabs are built up of pre-cast concrete slabs, and these are left as exposed concrete on the underside. Walls that are brick on the outside are brick (the same bricks) on the inside, fairfaced on both sides. Wherever one stands within the school one sees its actual structural materials exposed, without plaster and frequently without paint. The electrical conduits, pipe-runs and other services are exposed with equal frankness. This, indeed, is an attempt to make architecture out of the relationships of brute materials, but it is done with the very greatest self-denying restraint.

Nothing is done to 'dramatise' the services (as was done in some of the open-ceilinged committee rooms at the United Nations building, New York, for instance) and the standard metal sections of which the frame and window-framing are assembled do not repay intense study in the ways that those of Mies's work at IIT do. Whereas Mies builds up rich and complex mouldings, the Smithsons assemble their standard sections with a conspicuous understatement that makes it seem that it must have been they, and not Mies, who had said "I don't want to be interesting, I want to be good".

In this, as in other aspects of the building, the Smithsons might be said to be conforming to basic patterns in English architectural psychology. In importing the Miesian style, and then appearing to offer to correct it (in some ways, Hunstanton is more frank about its materials and structure than anything by Mies) they may be compared to Colin Campbell offering to remove certain 'irregularities' from the style of Palladio at the beginning of the Anglo-Palladian movement of the eighteenth century. But even more securely within engrained English traditions is the insistence on a pure geometrical grid of horizontals and verticals, and an air of suppressed extremism, of gentlemanly 'bloody-mindedness' imprisoned within the grid. Not long after the building was completed, Nikolaus Pevsner gave a series of radio talks on 'The Englishness of English Art', in which he drew attention to this barely suppressed geometrical extremism in both Gothic and Renaissance architecture in England, and cited

Hardwick Hall (1590–1597) as a prime example of this tendency. He did not go on to note that Hardwick's architect had the same name as Hunstanton's — though spelled Smythson — but other commentators were not so slow off the mark.

Those who damned the Hunstanton School for merely 'importing a foreign style' missed its intense Englishness. Those who damned — or praised — it for its Brutalism were on more secure ground. Even so, some influential critics doubted whether it was really an example of The New Brutalism. Thus Philip Johnson, who probably knew the Smithsons and their background as well as anyone on the international scene, observed in the 'Architectural Review' at the end of a glowing critique of Hunstanton:¹⁰

"Now that the Smithsons have turned against such formalistic and 'composed' designs toward an Adolf Loos type of Anti-Design which they call the New Brutalism (a phrase which is already being picked up by the Smithsons' contemporaries to defend atrocities)..."

while the 'Review' added in a footnote:

"The architects themselves would certainly disagree with Mr Johnson's separation of Hunstanton from the New Brutalist canon, even though the term had not been coined when the school was designed."

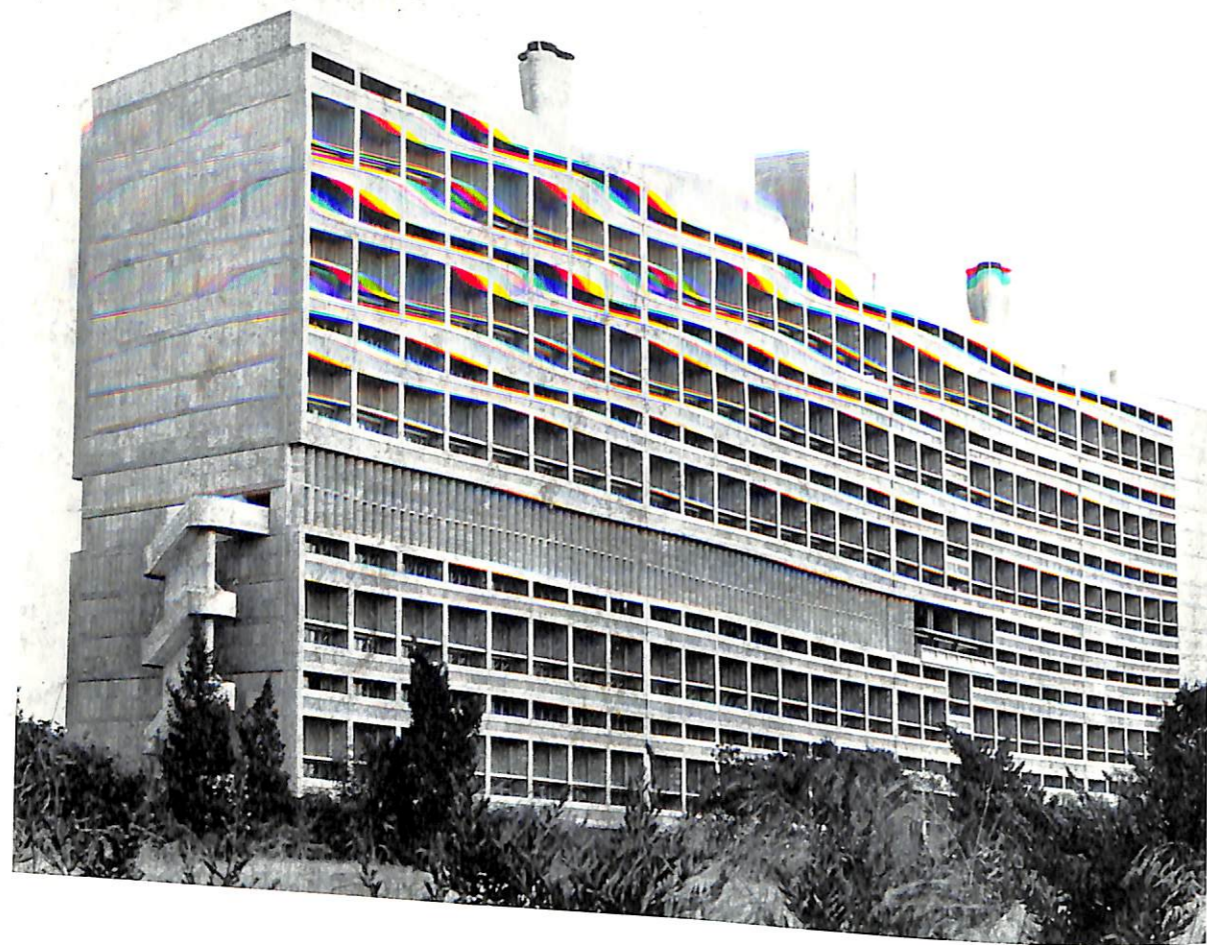
The situation was becoming confused by the many things that happened to the Smithsons, to architecture in Britain and the world, and the word Brutalist itself, which was being heavily overworked already.

¹⁰ 'Architectural Review', September 1954

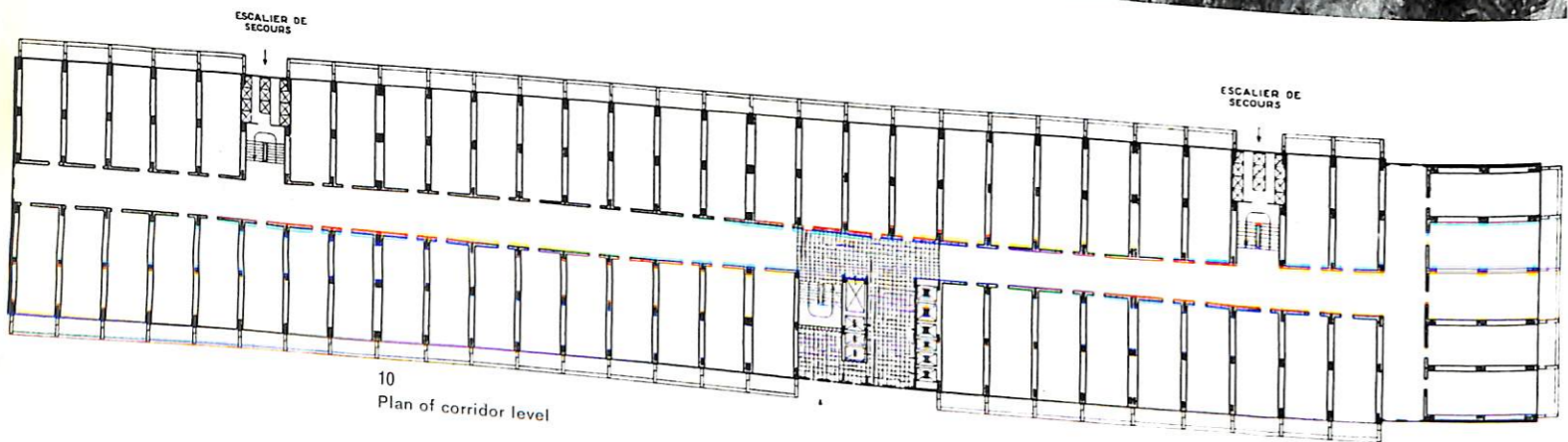
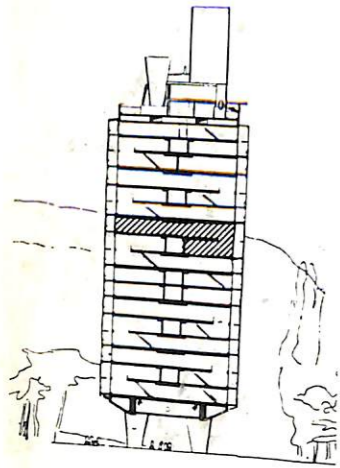
8–20
Le Corbusier; Marseilles (France).
Unité d'Habitation. 1948–54
8
External escape stair



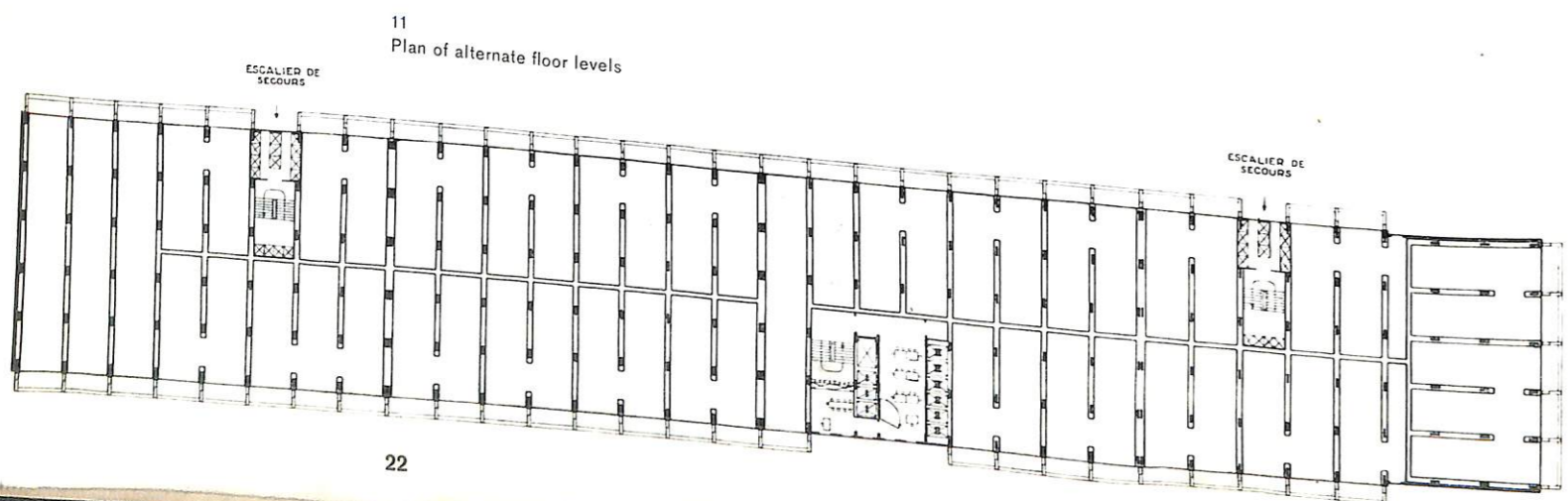
12
General view



9
Section



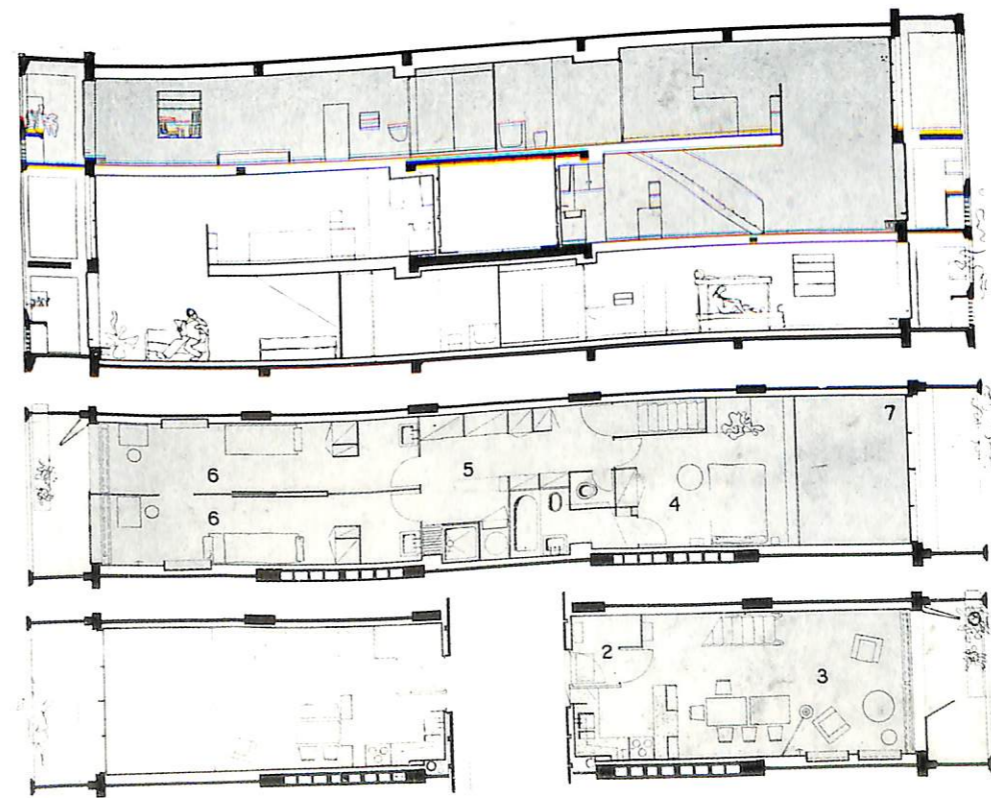
10
Plan of corridor level



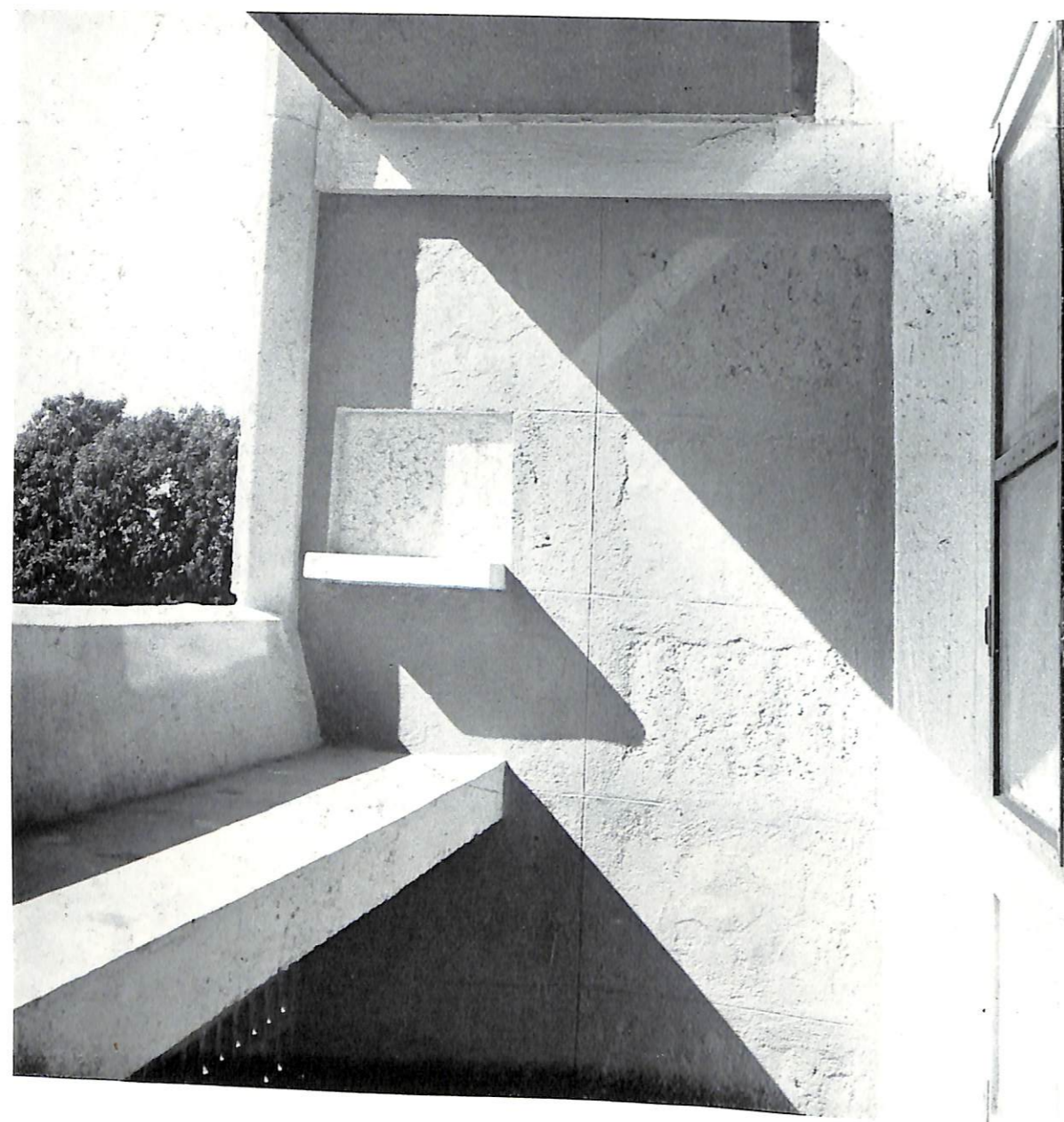
11
Plan of alternate floor levels



13
General view of the site

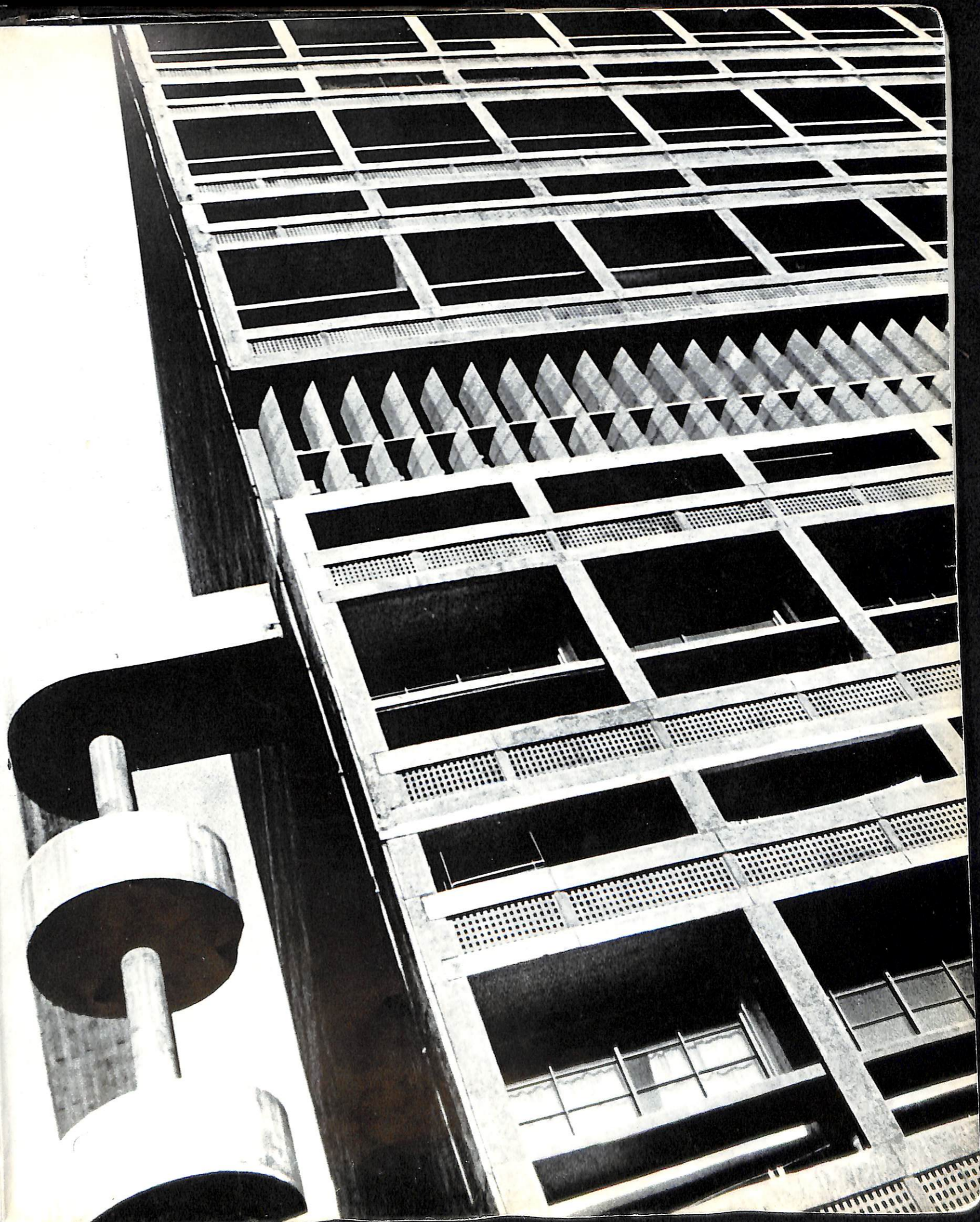


14
Sections and plans of basic apartment type (scale 1:200)
2 entrance
3 living room and kitchen
4 parents' bedroom and bathroom
5 cupboards and shower for children
6 children's room
7 void over living room



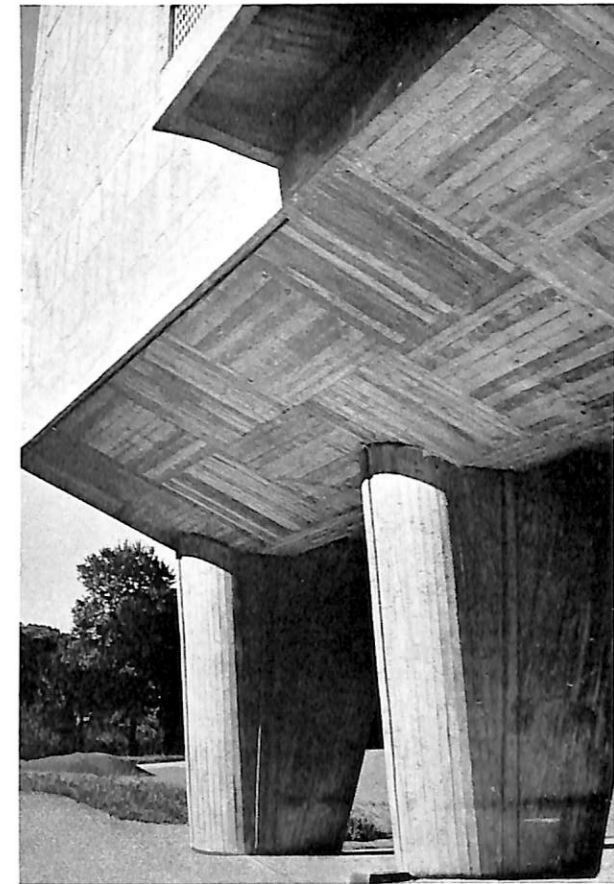
15
External balcony of an apartment

16 (right)
Close up of balconies and brise-soleil

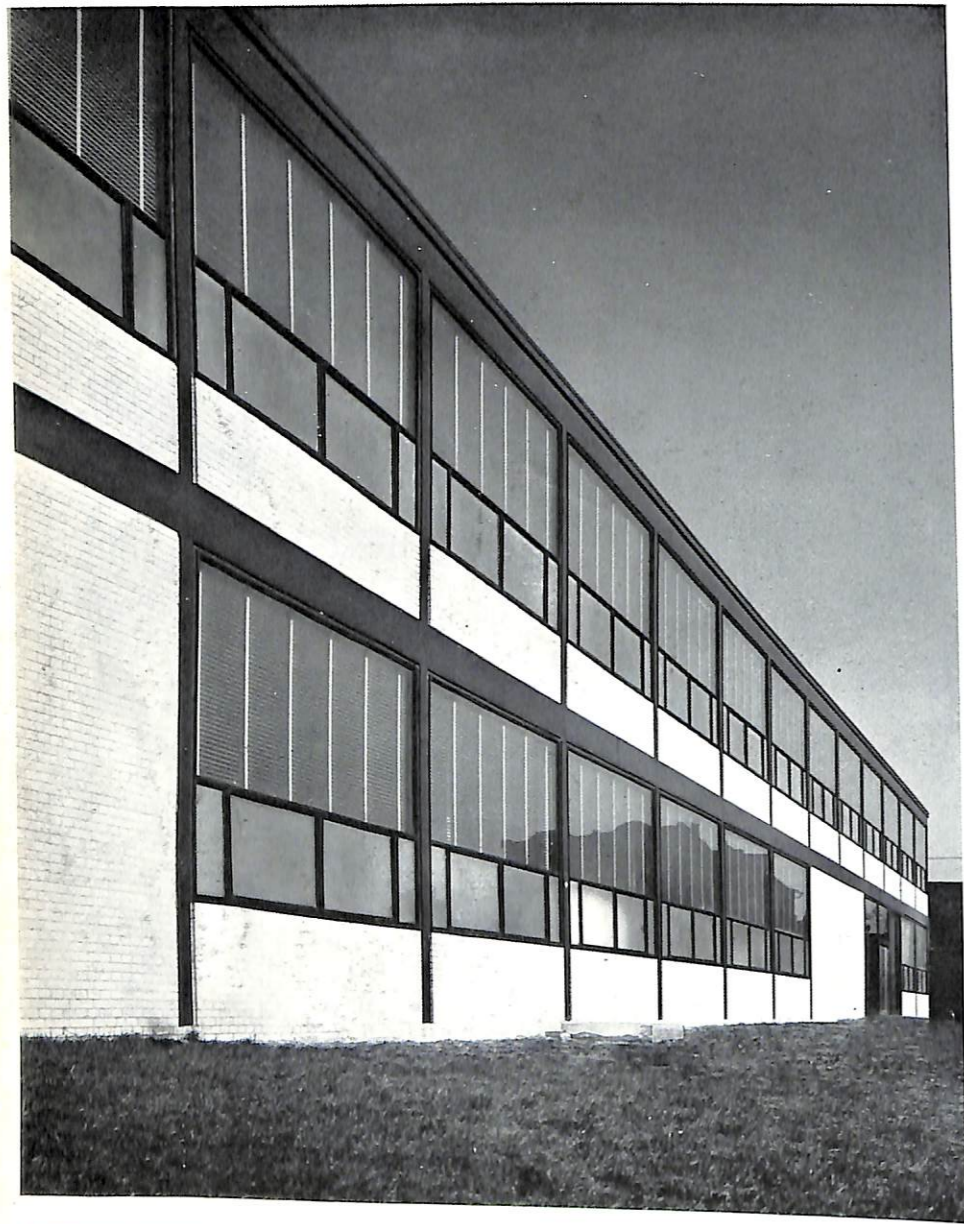




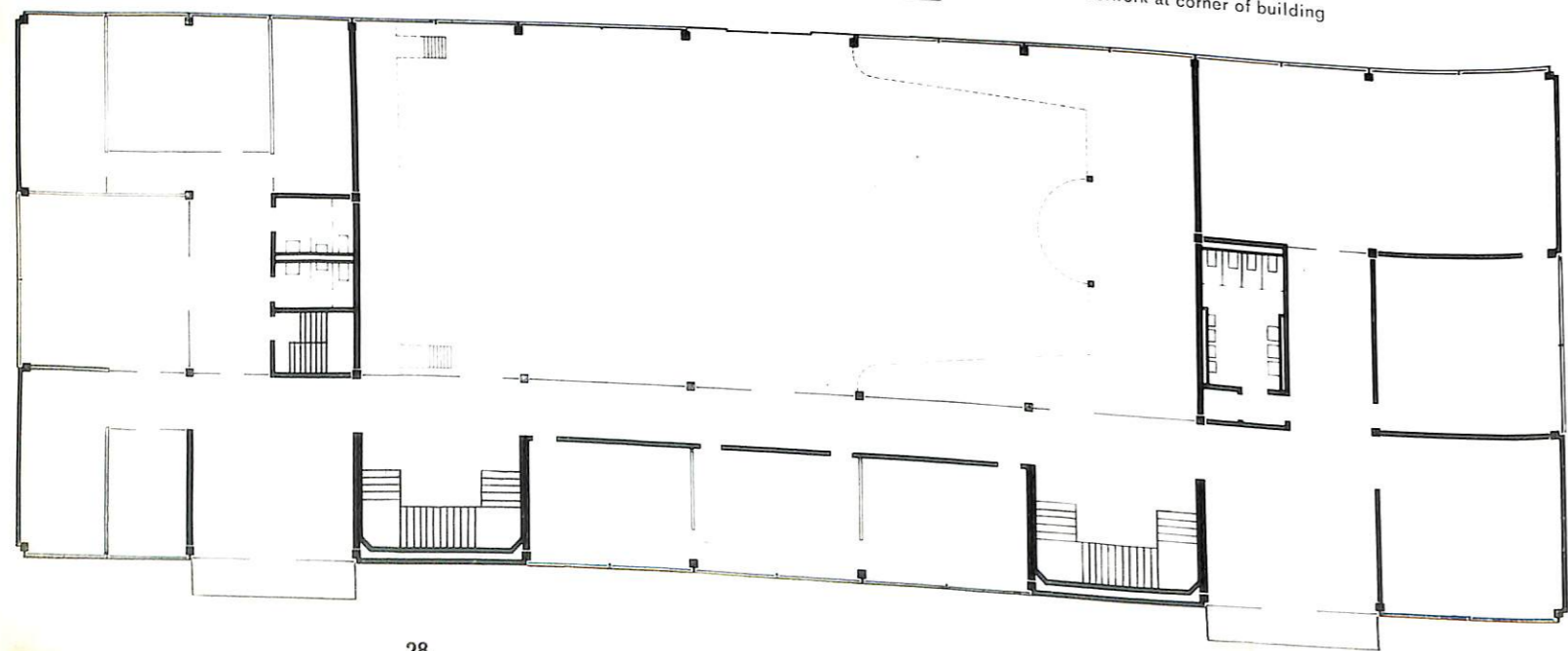
17
Entrance area



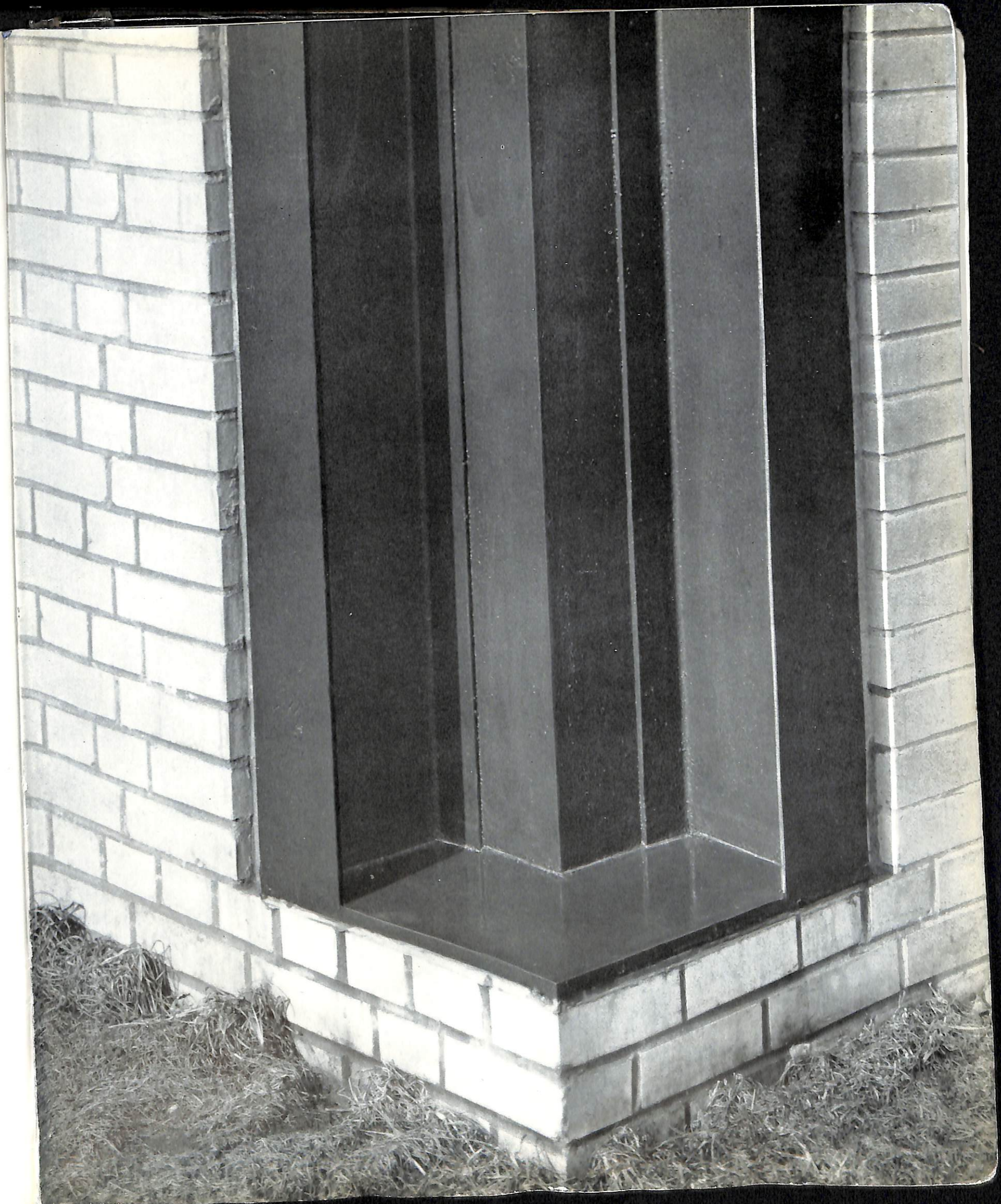
18 / 19
Ramps and play-areas on roof
20
Detail of pilotis



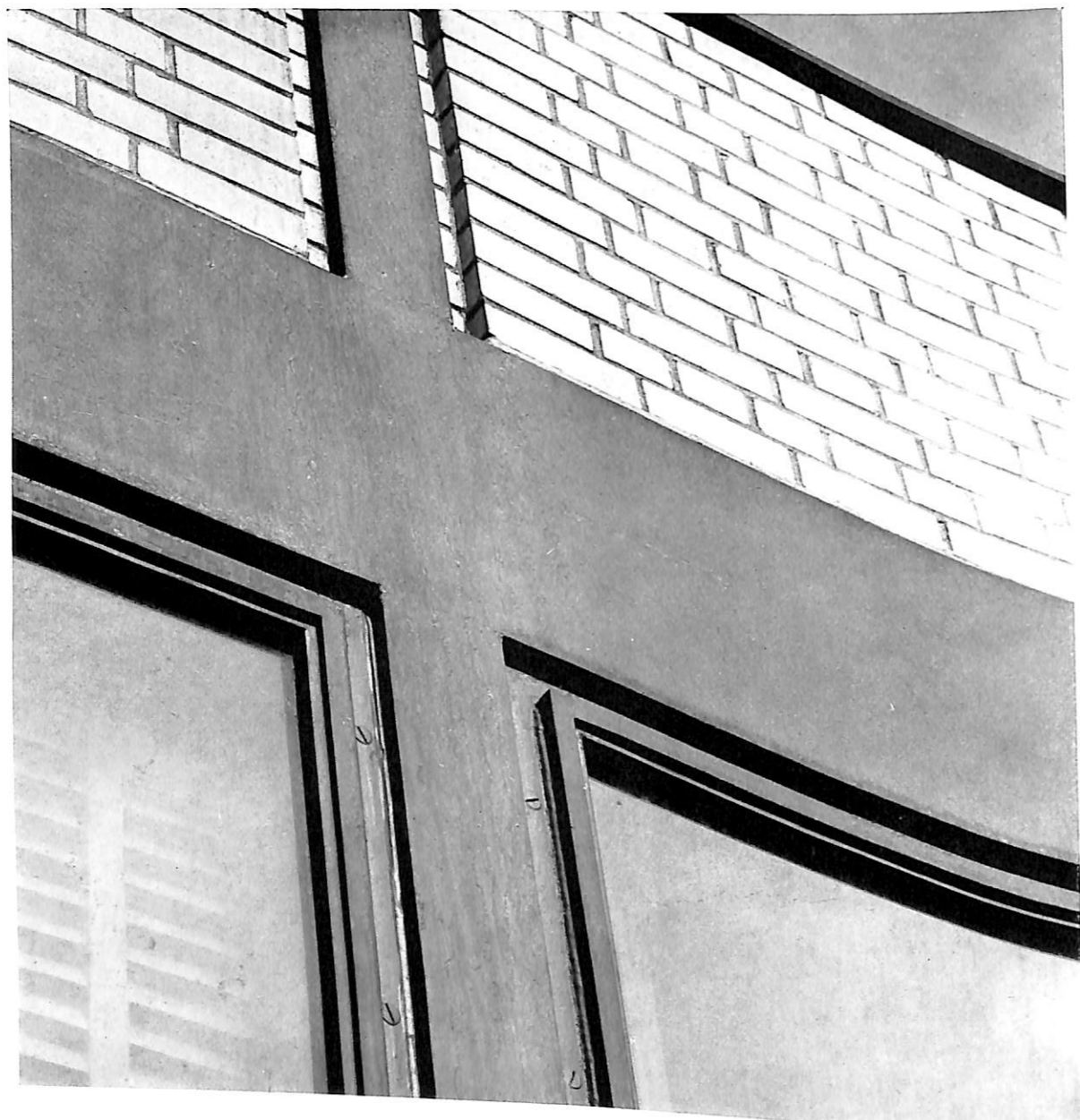
21-26
Ludwig Mies van der Rohe; Chicago (Illinois, USA), Alumni
Memorial Hall (Illinois Institute of Technology). 1945-47
21
Entrance side
22
Ground floor plan



23 (right)
Detail of steelwork at corner of building



24
Close up of window-frames and brickwork



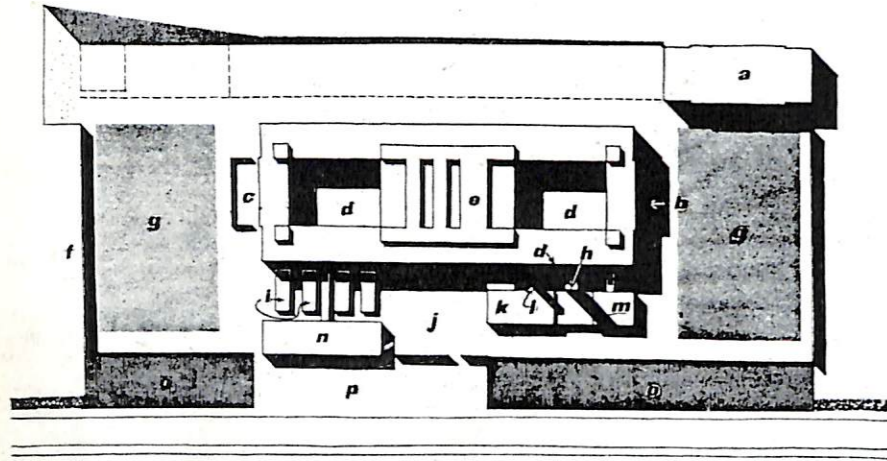
25
The Hall seen as part of the campus with the Metallurgy Building (centre) and the Chemistry Building (right)



26 (right)
Stairs and stairwell of the Alumni Memorial Hall

30

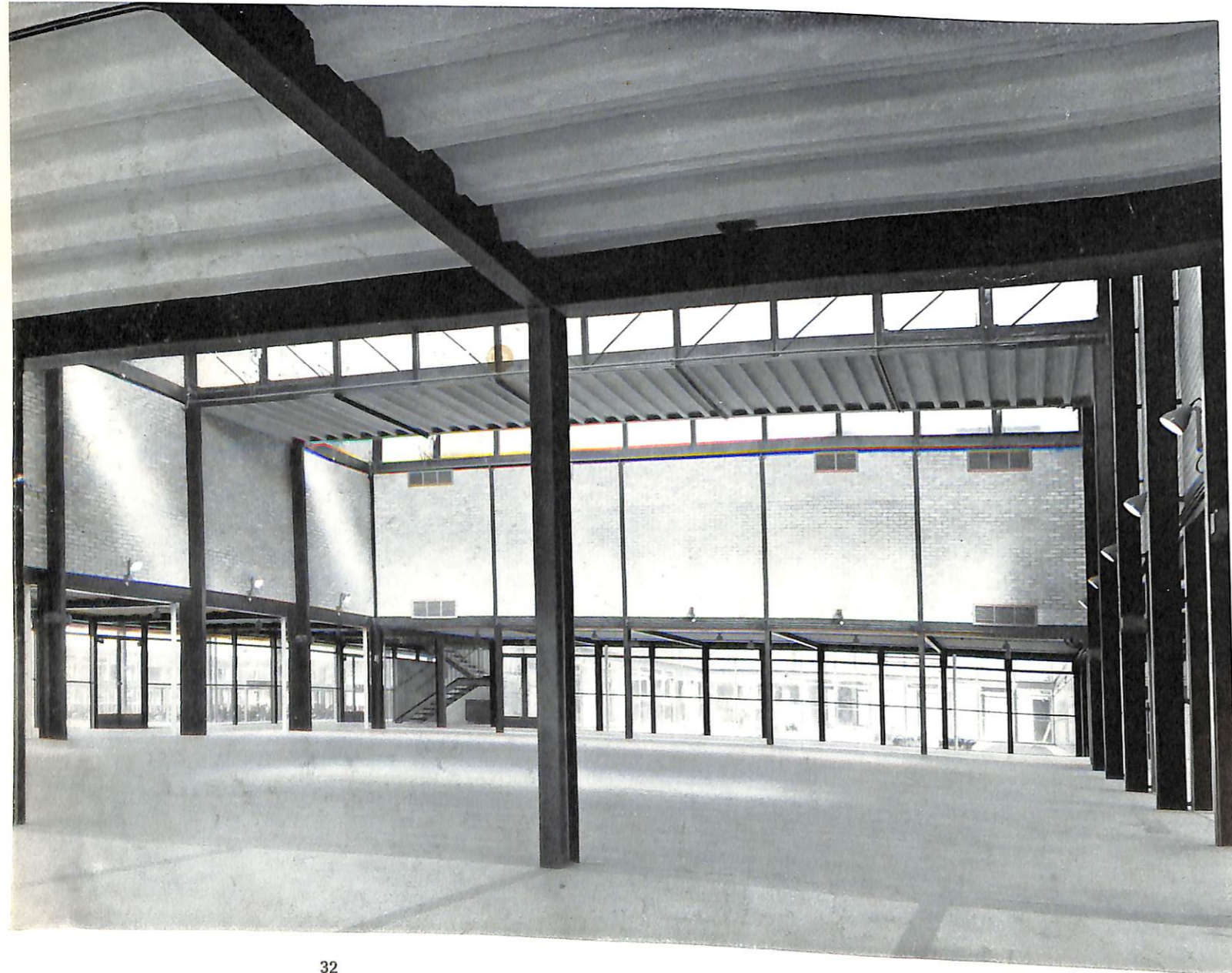




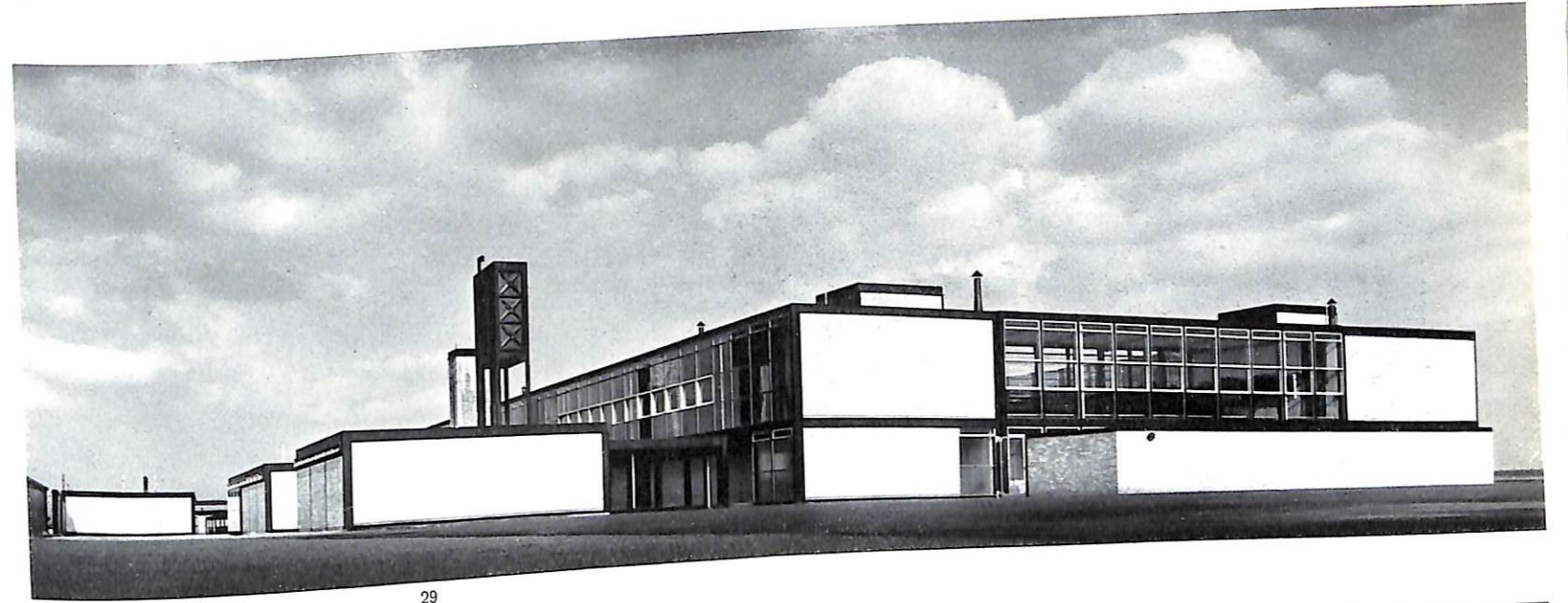
27-42
 Alison and Peter Smithson; Hunstanton (England),
 Secondary School. 1949-54

- 27
 Block plan
 a gymnasium
 b caretaker's garden
 c school garden
 d garden courts
 e main teaching-block
 f wall
 g games field
 h water-tower
 i bicycle sheds
 j forecourt
 k/l kitchen and chimney stack
 m house-craft room
 n workshops
 o embankment
 p car parking
 28
 Interior of the central hall
 29/30
 Exterior views

27
 28

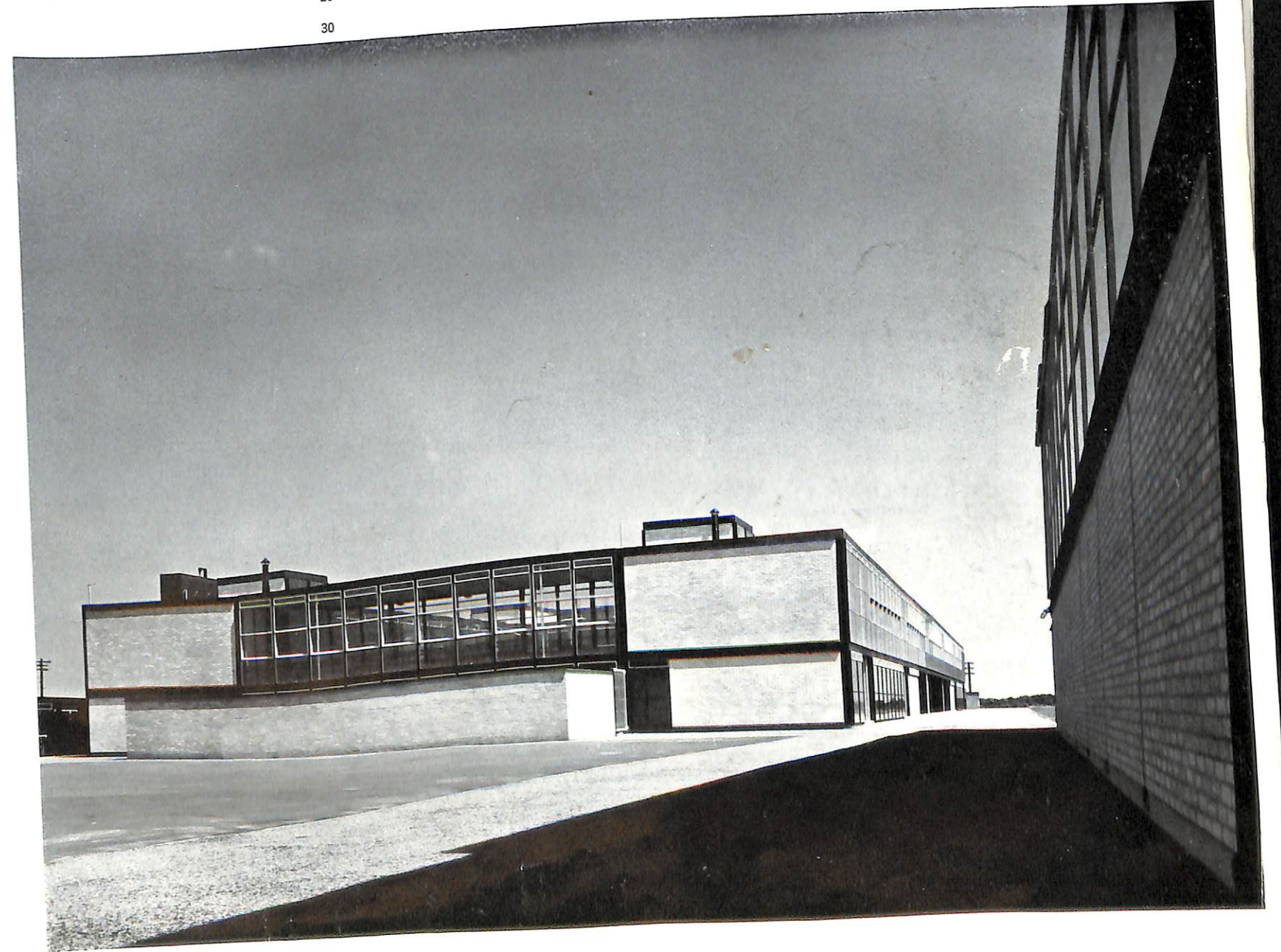


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29

30



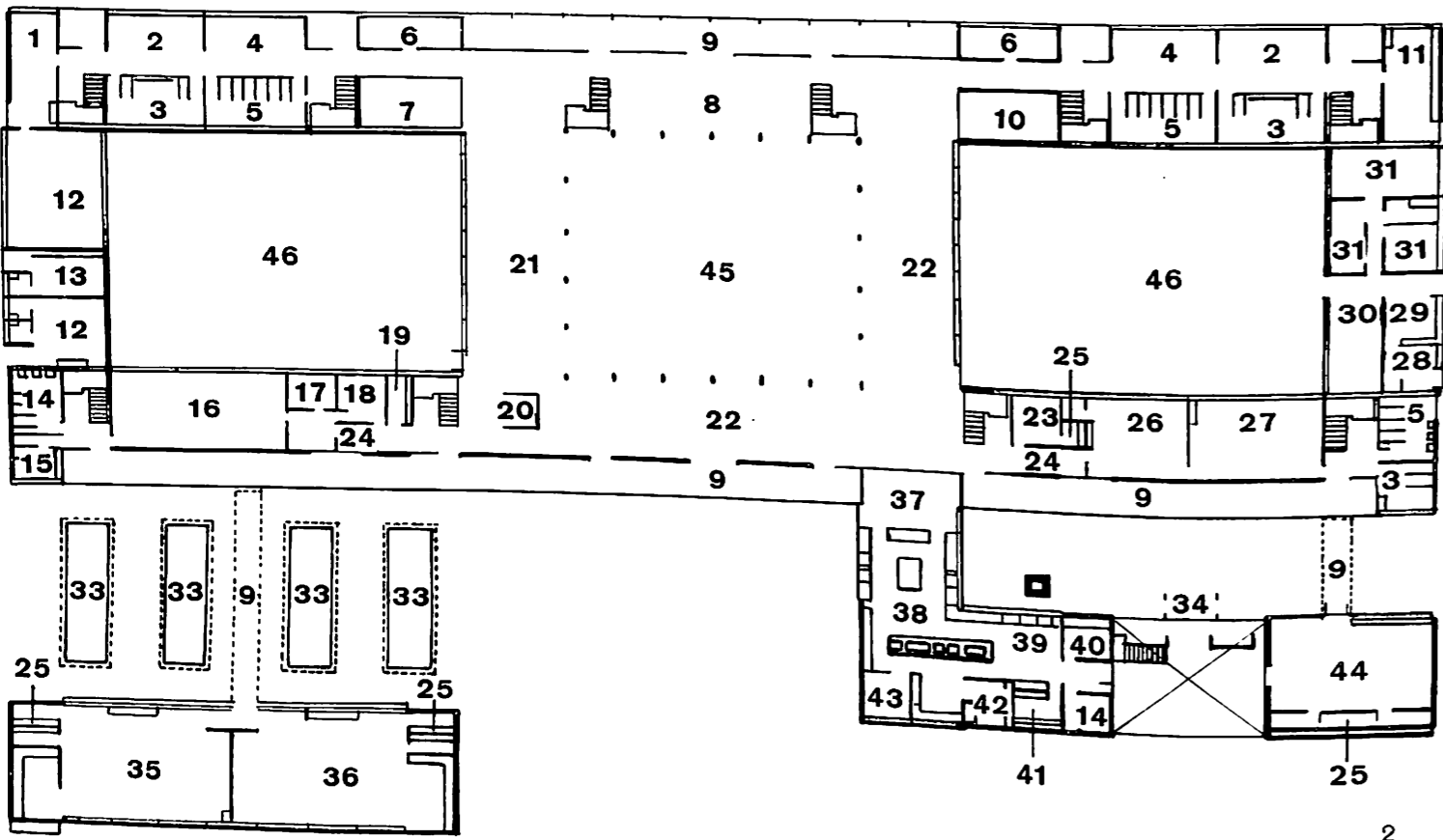
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31
Water-tower and service rooms



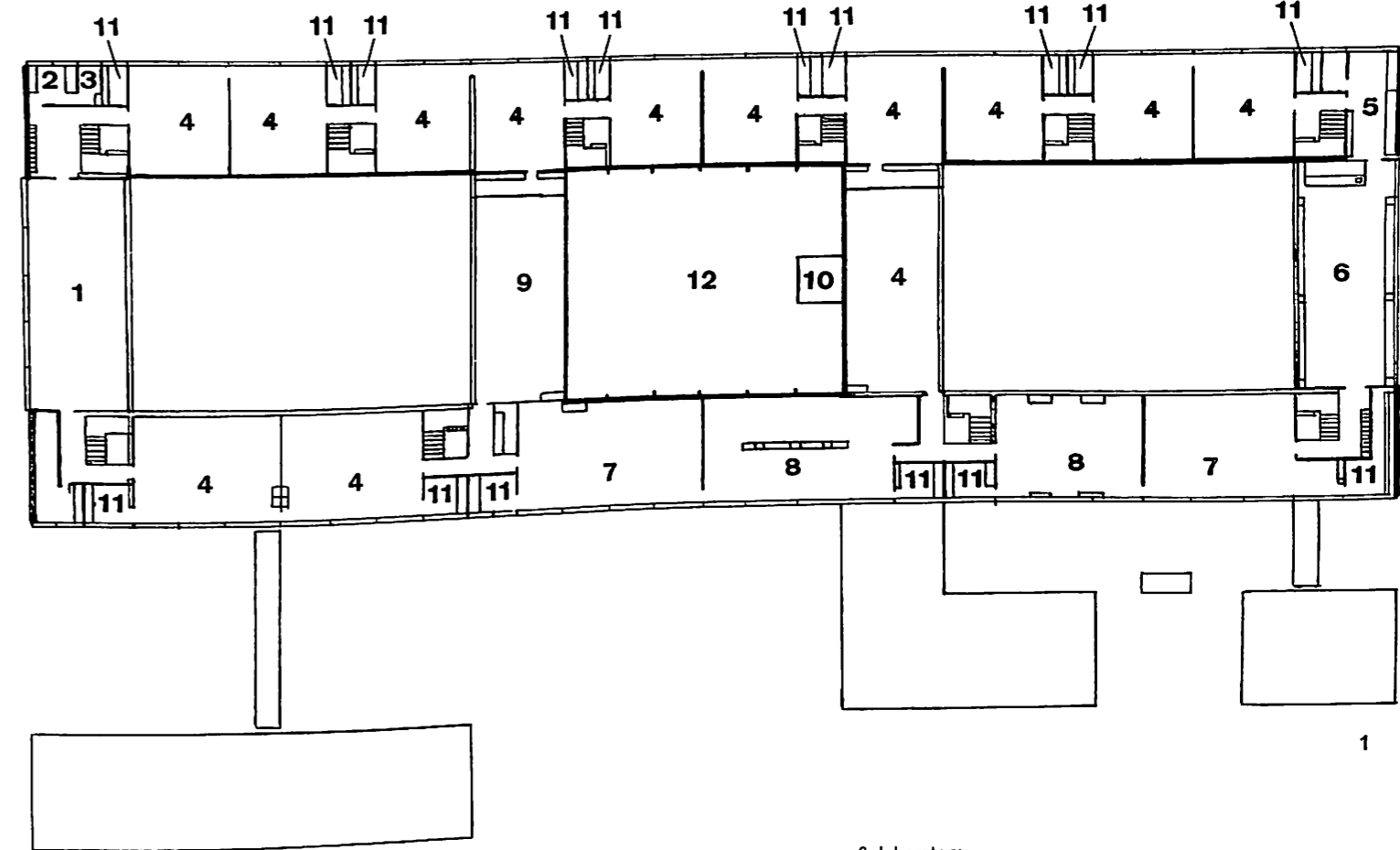
32 (right)
Staircases and entrance area



33
Ground floor plan (scale 1:500)

- 1 conservatory
- 2 boys' cloakrooms
- 3 boys' lavatories
- 4 girls' cloakrooms
- 5 girls' lavatories
- 6 drying room
- 7 theatrical store
- 8 south exit
- 9 covered wing
- 10 chair-store
- 11 caretaker
- 12 garden crafts
- 13 gardener
- 14/15 staff lavatories
- 16 staff room
- 17 assistant head teacher
- 18 head teacher
- 19 secretary's store

- 20 secretary's cubicle
- 21 green room area
- 22 dining area
- 23 warden
- 24 waiting room
- 25 store
- 26/27 medical suite
- 28-32 house-craft suite
- 33 bicycle sheds
- 34 water-tower
- 35 metal workshop
- 36 carpentry workshop
- 37 servery
- 38 wash-up room
- 39 main kitchen
- 40 vegetable room
- 41 dry food store
- 42 larder
- 43 kitchen supervisor
- 44 adult house-crafts
- 45 main hall

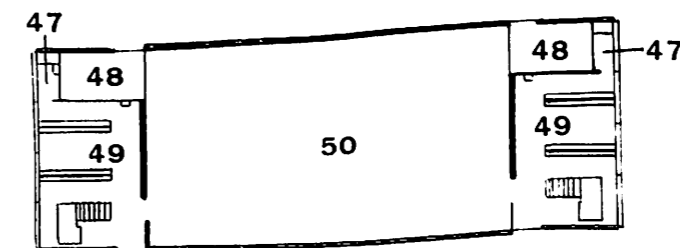


34
Upper floor plan (scale 1:500)

- 1 library
- 2 book store
- 3 cleaners
- 4 classrooms
- 5 preparation room

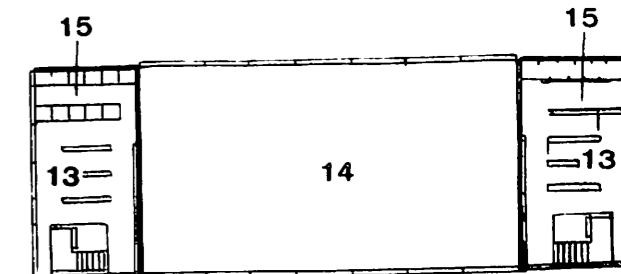
- 6 laboratory
- 7 crafts room
- 8 house-crafts
- 9 art room
- 10 projection room
- 11 supply room
- 12 upper part of hall

35
Gymnasium, ground floor plan (scale 1:500)

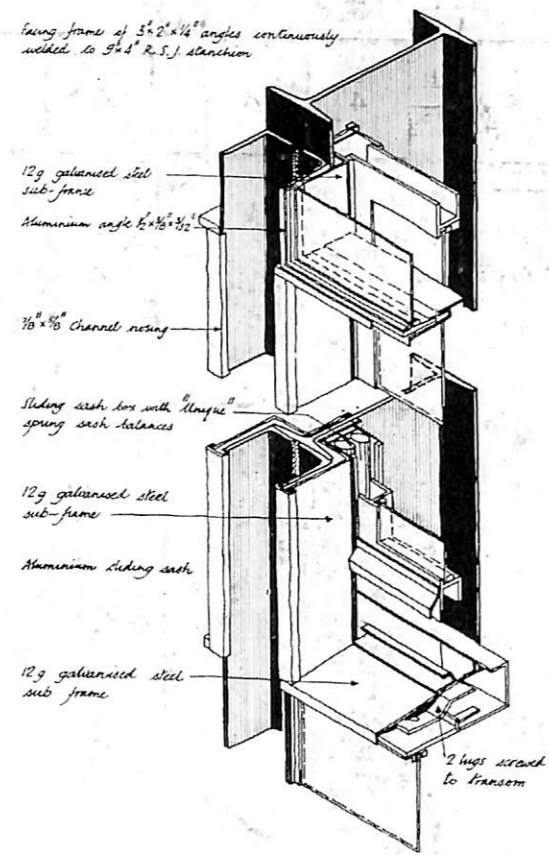


37

36
Gymnasium, upper floor plan (scale 1:500)



Detail of window construction



South-west corner of main building



Library



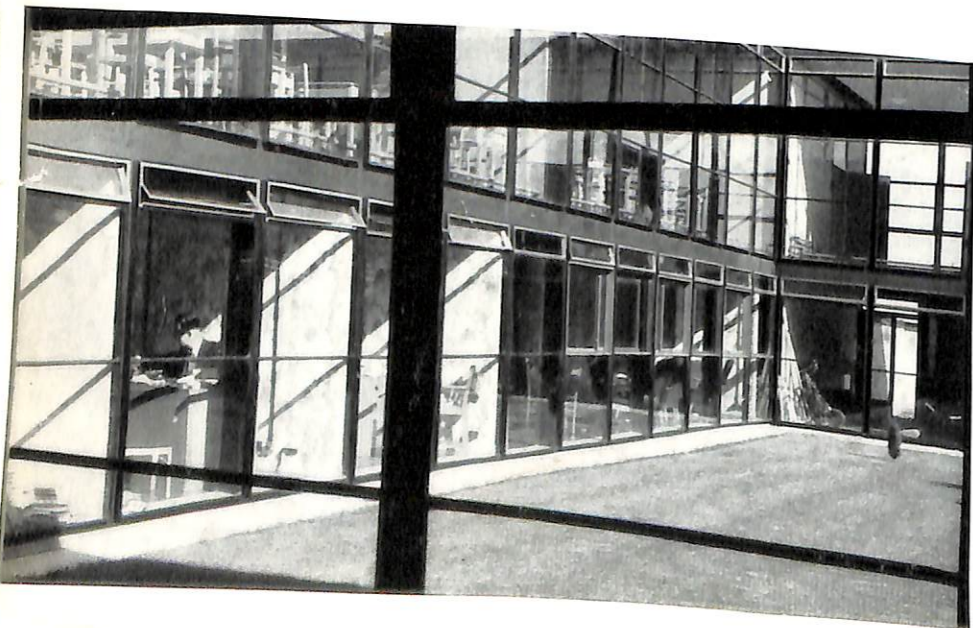
General-purpose room on first floor



41
Washbasins in cloakroom



42
View into garden court



For illustrations see page 42-53

4.1 Progress to a-formalism

As has been said, Hunstanton School was finally published in a situation in which the words 'The New Brutalism' were already circulating and had acquired some depth of meaning through things said and done, over and above the widely recognised connection with 'béton brut'. The phrase still 'belonged' to the Smithsons, however, and it was their activities above all others that were giving distinctive qualities to the concept of Brutalism. Outstanding among these activities was the exhibition 'Parallel of Life and Art', and three more competition projects, none of which had proved successful.

'Parallel of Life and Art' was a title chosen after much debate for an exhibition of some hundred photographic images which was staged in 1953 by the Smithsons in collaboration with the photographer Nigel Henderson and the sculptor Edouardo Paolozzi. More must be said about this exhibition in a later chapter, since it gave several first indications of the connections between The New Brutalism and analogous manifestations in the other arts. Suffice it to say here that 'Parallel' dealt almost exclusively in images drawn from anthropology and technology and that, as objects to be exhibited in an art gallery (The Institute of Contemporary Arts) they were a deliberate flouting, not only of conventional ideas of 'beauty', but also of the common concept of 'good photograph'. Many offered scenes of violence and destruction, distorted or anti-aesthetic views of the human figure, all had a coarse grainy texture which was clearly regarded by the collaborators as one of their main virtues. These coarse textures were, obviously, easy for superficial critics to relate to the exposed concrete and brick surfaces in Hunstanton, and thence to suppose that the other qualities of the exhibition were an intentional part of Hunstanton's architecture, which was damned as anti-human, repulsive and 'brutal' in the sense of sub-human. Although a Zhdanov-line 'parti-pris' can be detected in much of this onslaught on the Smithsons, the collapse of Anglo-marxist criticism in architecture has not in every case cleared the vision of critics, and Hunstanton is still damned out-of-hand in these terms (especially by those who have never seen it). Furthermore, similar critical objections were projected forward onto other Smithson schemes, however irrelevantly, and also retrospectively on to the three competition designs about to be discussed.

Coventry Cathedral competition, as is well-known, was won by Sir Basil Spence with a modernised version of a traditional long-plan cathedral. A large number of younger architects in Britain submitted designs of a much more radical tendency, though few were as radical as that submitted by the Smithsons. Basically, they offered a vast square space covered by a saddle-shaped 'anticlastic' roof, supported at two opposite corners. Within this space the liturgical functions were laid out with great formality and symmetry around two axes given by the diagonals of the square plan. Though this could

hardly be called a centralised plan, its intense formality reveals the direct influence of Wittkower's Palladian studies, and the use of a simplified geometrical grid to dispose the parts suggests also a study of Le Corbusier's 'Tracés régulateurs'. Although no direct influence from European 'liturgical' thinking is likely at such an early date, this project is much admired by the Liturgicalist school of church architects, even outside Britain, and appears to have had some considerable influence on the entries submitted for the later competition for the Roman Catholic Cathedral at Liverpool. But, as far as the development of the Smithsons was concerned, the importance of the design is purely negative — it was their last, formal¹¹ or Palladian scheme, and their defection at this early date (1951) was to cost them the support of that faction whose reply to the compromising and empirical mood of the Festival of Britain had been merely to fall back on the rules of classical symmetry. Even as late as 1957 bafflement and confusion on this subject persisted in some quarters, and a contributor to a discussion on The New Brutalism in 'Architectural Design'¹², could declare that he and many others had thought that the New Brutalism:

"... represented a revolt against... the lack of rigour and clear thinking, the romantic pastiches of the Festival of Britain, and its offspring, the free empirical manner derived from Sweden and loose handling of prefabricated elements in works like the Hertfordshire schools. I imagined that the Brutalists opposed to all this a recall to the basic classical organisation of the parts of the building into an organic whole..."

How far the Smithsons were from regarding Beaux-Arts classicism as the only antidote to lack of rigour and clear thinking, was to become clear — for those who cared to look — in their next two major projects.

Golden Lane housing development for the city of London was put out to competition in 1952, and was won by Chamberlin Powell and Bon. It was the first major competition for a housing scheme for some years and attracted a great number of entries, of considerable variety both in quality and architectural method — there was even one strict Zhdanov-line exercise in 'People's Detailing'. The winning design was a fairly routine exercise in Mainstream Modernism, with the usual mixture of high and low blocks, rather elegantly styled in a formalistic manner, but the Smithsons and some of the other younger entrants again revealed a much more radical approach.

¹¹ It will be observed that 'Formal' has two different antonyms in this argument: 'Informal' and 'A-formal'. The meanings to be allocated to the three words in the context of the present argument can be crudely distinguished as follows — 'Formal', symmetrically composed, or ordered by some other very explicit abstract geometrical discipline; 'Informal', asymmetrical and subject to some less strict visual discipline (such as Picturesque composition); 'A-formal', unconcerned with geometrical or visual compositional techniques of any pre-conceived type. (See also section 5.2)

¹² 'Architectural Design', April 1957



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The radicalism lies in an attempt to see what they were designing as a complete environment for human beings, not just the provision of a certain number of bedrooms, living rooms, kitchens and so forth, packaged into an acceptable architectural composition. An awakening interest in the real life of the cities, something of an ecologist's approach to urban man (though they were not yet using the word 'habitat') influenced by the work of sociologists like Wilmot and Young, was eventually to become one of the mainstays of Brutalist planning theory, but at Golden Lane it is still subservient to the manifest influence of Le Corbusier and the 'Unité' at Marseilles. This appears clearly enough in the roof-structures of the Smithson project, but what is equally noticeable is the attempt to 'rectify' the errors of the older master. The 'rue intérieure' — that dark corridor without natural lighting — was always the weakest point of the 'Unité' section, and at Golden Lane the Smithsons moved it to the exterior of the block, enlarged it to a sizable pedestrian walk twelve feet wide, and denominated it 'street deck'. This concept was not the Smithson's private property — it appears in one or two student projects of the time (possibly under Smithson influence) including another entry for Golden Lane, which was to be, in the end, of greater consequence than the Smithson entry. This was the scheme submitted by Jack Lynn and Ivor Smith which, though equally unsuccessful at Golden Lane, was instrumental in their appointment to the staff of the City Architect in Sheffield, and led to the design and construction of the largest street-deck building completed to date at Park Hill.

Certain philosophical, psychological and architectural consequences of the street deck concept need to be noted here: the deck was intended to function socially and psychologically in the manner of the street which — in working class areas in Britain — is the main public forum of communication, the traditional playground for children, and the only public space available for mass meetings and large-scale sociability. If it was to fulfil these functions convincingly, the street deck would have to be continuous and reach every part of the development — if it was necessary to go down to ground level at any point it would reduce the deck, psychologically, to the status merely of a corridor inside a building. This continuity was gained by putting the whole of the accommodation into one single building, which perforce had to be bent or branched to get it on to the site. The result, inevitably, was not a building that could be appreciated or understood from any single outside viewpoint, as could an isolated block like the 'Unité' at Marseilles, and street-deck schemes are usually better regarded as a serial composition, held together by the continuity of the circulation routes. The full implications of this 'topological' approach to composition by means of the circulation routes became very clear in the Smithsons' next major project.

The extensions to Sheffield University were the subject of a competition (won by a routine modern glass-box style entry from Gollins Melvin Ward and

Partners) which also attracted a number of very extreme entries from younger architects, including a compact and sophisticated variation on Corbusian themes by James Stirling and a project by the Smithsons that seemed to be a deliberate affront to everything that was commonly regarded as architecture. At first sight the grouping of the blocks of accommodation is as loose and unrigorous as any Picturesque composition by the Brutalists' despised elders, but whereas Picturesque compositional techniques were normally used to build up images of rich and confusing abundance, the effect of the arrangement offered by the Smithsons appears in the drawing to be aloof, rebarbative and deliberately anti-graceful, replacing the sweetness and sentimentality of the Picturesque with a blunt and uncompromising statement of structure and function in every part. Above all, it made a plain statement of the facts of circulation at ground level, on elevated street-decks, or on pedestrian bridges spanning between one building and the next (usually in conjunction with duct-bridges for service-runs, thus emphasising that human beings are not the only bodies that circulate). Because of this flourishing display of the circulation system, the unifying principle of the design — in the absence of any comprehensible visual aesthetic, — becomes the connectivity of the circulation. Hence the use of the term 'topological' to characterise the design, a term not applied by the Smithsons themselves, though Smithson himself admitted more than once at this period that he found topological considerations of this sort a growing preoccupation in his larger designs.

The extremism of this Sheffield project was widely felt at the time — it has no conceivable precedent, except that the relationship of structure to glazing may have been remotely suggested by the one of the works of that great British anti-aesthete — Sir Owen Williams — the 'Dry' manufacturing block (but not the well-known 'Wet' factory alongside) of the Boots chemical plant at Beeston, Nottinghamshire. For the Smithsons, the anti-formalism of Sheffield was also an extreme point; nothing later from their drawing board has quite the same 'je-m'en-foutiste' quality, as if they had completed some private voyage of exploration into the anti-architectural and were now turning back. Nevertheless, the extremism of the gesture was profoundly appreciated by the more dissatisfied members of the generation of students who were beginning to look to the Brutalists for leadership, and there ensued a tradition of wild visionary town-planning projects, cast in this topological mode, and even one or two major building designs, such as the Fun Palace project of Cedric Price¹³, one of the most complete 'anti'-buildings ever projected in Europe. But this was not the direction in which the New Brutalism as an international movement was now headed. That direction was obscurely suggested by the first building outside Britain of which anyone felt required to ask 'Is it Brutalist?' — Louis Kahn's art-gallery building for Yale University.

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Alison and Peter Smithson, Edouardo Paolozzi and Nigel Henderson; London (England), Exhibition 'Parallel of Life and Art'. 1953
Three views of the version at the Institute of Contemporary Arts

¹³ The 'Fun Palace', promoted by the left-wing impresario and theatrical producer, Joan Littlewood, is essentially a project for a gigantic machine fulfilling the functions of a number of building types in the realm of entertainment and community activities. Operationally it consists of a system of cranes, which can draw from stock a variety of components (mechanical, structural, environmental) from which are assembled covered or open spaces for all types of spectacles, sports, artistic and recreational activities. These structures are then dismantled when the ground-space is required for other spaces for other activities, and new ones are built, on a day-to-day basis. There are thus no permanent architectural spaces inside, and no permanent architectural volumes inside, the structure for the gantry cranes and mechanical services being the only constant element.

4.2 Yale Art Gallery, New Haven

The introduction of the Yale Art Gallery into the Brutalist canon was first suggested by Ian McCallum (then executive editor of the 'Architectural Review') early in 1955, but it had already caught the eye of the Brutalist connection in England. Not only did it appear to share their preoccupations and interests, but it also marked a clear break with existing US traditions in Modern Architecture, whether native and romantic, or imported and rationalistic. In this circumstance, it is not surprising that it should be, in some ways, almost as tentative as Hunstanton — though it is surprising enough that a work by a man twenty years older than the Smithsons should be so tentative. Like Hunstanton it has a formal and axial plan (rather more sophisticated in its planning, too) and its basic aesthetic leans heavily on the frank expression of structure and materials. There is even a radical structural innovation to match Hunstanton's use of Plastic Theory — in this case, the tetrahedral concrete space-frame floor-structures spanning between fairly widely set concrete columns. As with the English Brutalists of the Hunstanton phase, there is a sense of appeal to basic architectural principles, even to academic principles (as in the sequence of regular geometrical forms speared on the central axis) and there is also an air of deliberate disregard for customary good architectural manners, especially in the way the whole block turns its back on the public street with a blank brick wall that reveals nothing about the interior except the floor-levels.

The whole building has a powerful 'image' quality, but it is an image that the mind assembles from memory after one has left the building, because its actual presence is both mysterious and muddled. Perhaps 'irresolute' might be a better term than 'muddled' for some aspects of the design. For instance, the glazing of the courtyard-wall, falls well below the quality and inventiveness of the rest of the building. It is a functionally adequate and honest solution to the problem, but its honesty lies chiefly in its frank admission of Kahn's inability to think of a better way of covering this facade with glass. The expression of the structural system is muddled by the fact that, for reasons of simplifying the engineering calculations the apparent space-frame of the floor structure became, as built, a system of braced beams instead.

But this nicety of structural mathematics does not alter the visual fact that these structures appear as space-frames to the eye, and when a floor is cleared of screens and clutter, as during the preparation of an exhibition, they are impressive both as architectural artefacts and as a means of giving order and scale to the spaces they cover. Though the design is everywhere less lucid than at Hunstanton, its mysteries contribute to its quality as an architectural experience. The concealment of the stairs within an almost unpierced drum of concrete, heightens one's awareness of the experience of ascending the stairs, three short flights arranged in a triangle between one floor and the next, rising be-

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But the fact remains that this, the high point of Kahn's architectural achievement at that time, is conducted in secret, so to speak, and contributes nothing to the visual image of the rest of the building. In a somewhat similar manner, the axial part of the plan remains a 'secret'. On the street elevation it is totally concealed, on the courtyard side it is muddled by the asymmetrical central panel of the facade, and in the normal use of the building as an art gallery the exact equipartition of the plan contributes little to its functional organisation or the visual experience of the visitor.

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4.3 Manifesto

The Smithsons had been contributing statements and letters on The New Brutalism to the English architectural magazines ever since the publication of their projected house in Soho, and continued to do so well into 1956. Although these miscellaneous literary activities had contributed some resounding rhetorical phrases — "We live on moron-made cities!" etc — to the discussion, there had been no extended statement of aims and orientation until the effects of a change in the editorial staff of 'Architectural Design' began to take full effect in 1954. During the course of the previous year Theo Crosby, who had been associated with the Smithsons and friends of theirs, such as Edouardo Paolozzi, joined the staff of 'Architectural Design', and was able to swing the magazine's policy toward the interests of the younger generation, with a conscious appeal to student opinion. The Brutalist/Palladian wing of opinion benefited in the creation of a publishing outlet for their views, and none profited better than the Smithsons.

The first major manifestation was in August 1954, when Peter Smithson contributed a study of recent architecture in Holland. In view of his predilections, it is not surprising that van den Broek and Bakema emerged as the heroes of this piece, with illustrations of van den Broek's house and the Lijnbaan scheme. But equally conspicuous is the fact that Smithson was far more familiar with the history of Modern Architecture than were the more senior members of the profession who had previously contributed to the magazine. Not only is Mondriaan discussed (familiar to British architects in this connection because of his sojourn in London) but also less well-publicised figures such as van Doesburg and Kurt Schwitters (the latter's stay in Britain had left him as unknown as when he arrived) and, above all, Gerrit Thomas Rietveld is given an importance strikingly at variance with the general opinion of him in the bulk of architectural writing at the time. There were specific local and contemporary reasons for this: Rietveld was cast in the role of the guiding father-figure so painfully absent from the British scene.

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The New Brutalism

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"Our belief that the New Brutalism is the only possible development for this moment from the Modern Movement, stems not only from the knowledge that Le Corbusier is one of its practitioners (starting with the 'béton brut' of the Unité) but because fundamentally both movements have used as their yardstick Japanese architecture, its underlying idea, principles and spirit.

Japanese architecture seduced the generation spanning 1900, producing, in Frank Lloyd Wright, the open plan and an odd sort of constructed decoration; in Le Corbusier the purist aesthetic — the sliding screens, continuous space, the power of white and earth-colours; in Mies, the structure and screens as absolutes. Through Japanese architecture the longings of the generation of Garnier and Behrens found FORM.

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For illustrations see page 54-55

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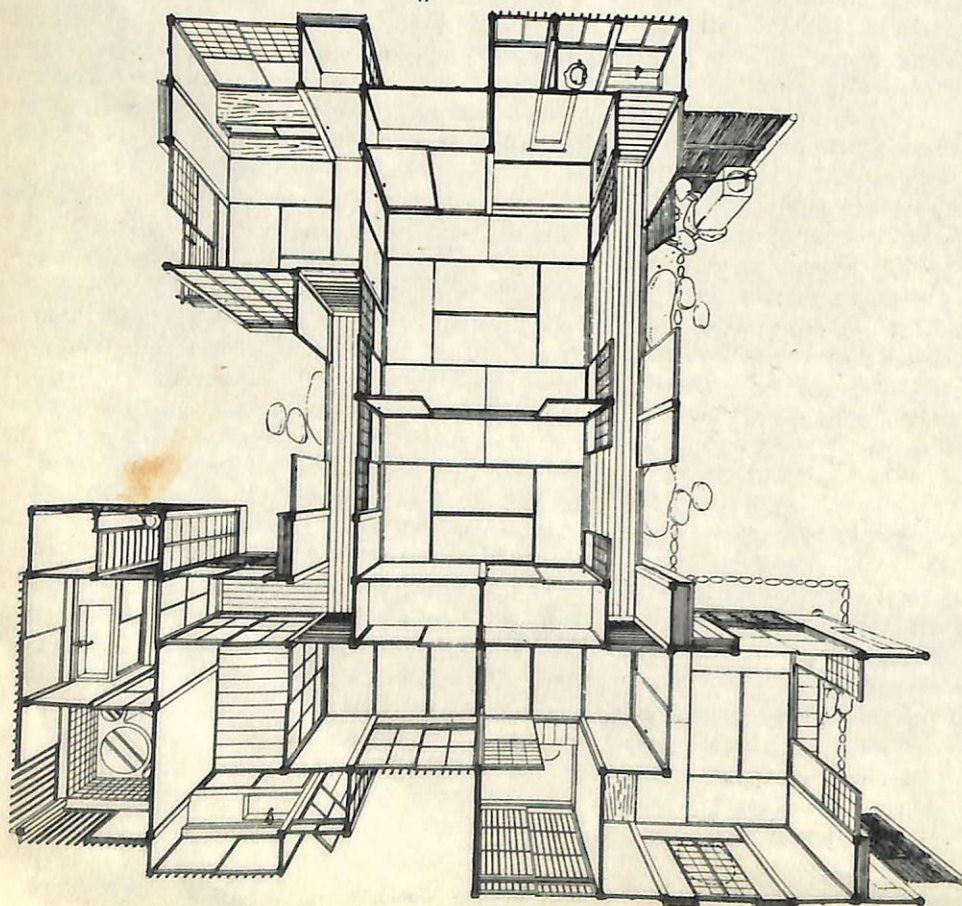
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But, for the Japanese, their FORM was only part of a general conception of Life, a sort of reverence for the natural world and, from that, for the materials of the built world.



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It is this reverence for materials — a realisation of the affinity which can be established between buildings and man — which is at the root of the so-called New Brutalism.

It has been mooted that the Hunstanton School, which probably owes as much to the existence of Japanese architecture as to Mies, is the first realisation of the New Brutalism in England.

This particular handling of materials, not in the craft sense of Frank Lloyd Wright, but in intellectual appraisal, has been ever present in the Modern Movement, as, indeed, familiars of the early German architects have been prompt to remind us.

What is new about the New Brutalism among movements is that it finds its closest affinities, not in past architectural style, but in peasant dwelling forms. It has nothing to do with craft. We see architecture as the direct result of a way of life.

1954 has been a key year. It has seen American advertising rival Dada in its impact of overlaid imagery; that automotive masterpiece the Cadillac convertible, parallel-with-the-ground (four elevations) classic box on wheels; the start of a new way of thinking by CIAM; the revaluation of the work of Gropius; the repainting of the villa at Garches?"

Certain obvious points jump out from this text: the mixed naïveté and knowingness of the preamble, which can stand as a potted intellectual biography of the Crosby age group but is already out of date as far as the Brutalists' attitude to classical proportion was concerned. Already at the time of 'Parallel of Life and Art' Peter Smithson had said "We are not going to talk about proportion and symmetry", — and it will be noted that neither topic is mentioned in the statements above. It was also a regrettable — but probably inevitable — irony of architectural history that many Brutalist usages should become part of the repertoire of clichés that kept 'Contemporary' alive as a 'style', and within three or four years of this preamble being written.

In the Smithsons' statements it is the references to Japan and peasant building that are the most confusing and/or misleading. Neither of them had been to Japan at this date, and the architecture is not that of Mayekawa/Tange school, largely as that was to feature in the later history of Brutalism. The Smithsons' Japan was the Japan of Bruno Taut's book on Japanese houses (Houses and People of Japan, Tokyo, 1937) and illustrations of the Katsura detached palace (A revealing footnote to the Smithsons' third paragraph reads "The Japanese film 'Gate of Hell' showed houses, a monastery and palace, in colour for the first time.") and serves to illustrate the sense of the sudden discovery of a whole culture capable of carrying, as naturally as clothes, a traditional architecture whose spatial sophistication seemed light-years beyond the capacity of the West. Something similar applies to the references to 'peasant dwelling forms'. The search for Wittkowerian architecture in Italy, and for the 'Unité', had been part of a general rediscovery of the Mediterranean basin by that generation. Through eyes tu-

tored by Le Corbusier's sketches (and, doubtless, by the art of Cezanne and Picasso) they saw, in Mediterranean peasant buildings, an anonymous architecture of simple, rugged geometrical forms, smooth-walled and small-windowed, unaffectedly and immemorally at home in its landscape setting.

Discovering similar or analogous qualities in, say, crofters' houses in Scotland or farms in Götland, they translated this vision of a 'Basic' architecture into a series of rural housing projects prepared for CIAM-X in Dubrovnik. They measured against these standards Aalto's work at Saynatsalo and Quaroni's at La Martella, and finally translated them into built fact, not through the agency of the Smithsons, but of Richard Llewelyn-Davies and John Weeks in the village rebuilding at Rushbrooke, Suffolk. The architects of this scheme have since become anathema with the former Brutalist connection, but at the time the Rushbrooke housing fascinated and provoked them into a lengthy (and largely approving) correspondence in the 'Architects' Journal'.

The insistence in the Smithsons' statements on the importance of materials almost at the expense of all other aspects of architecture may cause no surprise in retrospect, since common opinion has always regarded the New Brutalism as chiefly a matter of exposed materials and untreated surfaces, but this emphasis does less than justice to what was in the Smithsons' minds at the time. The extraordinary collection of topics in the last paragraph (with its inexplicable terminal query) may give some clue to the other things that pre-occupied them: preoccupations summed up in the sentence "We see architecture as the direct result of a way of life".

Like many others of their age, they were trying to see their world whole and see it true, without the interposition of diagrammatic political categories, exhausted 'progressive' notions or prefabricated aesthetic preferences. That world, and their way of life in it, included Gropius as a crumbling reputation from the remote past, the works of Le Corbusier as ancient monuments, CIAM as a corrupt parliamentary body in need of anti-oligarchic reform — and American product-design and advertising as the inheritors of the drive and adventure that had gone out of 'Modern Art.' — and of much of the skill, in detailing and formal composition, that had gone out of architecture. As was to become clear later:

"Any discussion of Brutalism will miss the point if it does not take into account Brutalism's attempt to be objective about 'reality' — the cultural objectives of society, its urges, its techniques, and so on. Brutalism tries to face up to a mass-production society."¹⁵

But in 1954–55 this facing-up process had only just begun and lacked the sophisticated techniques that were to be contributed by the Brutalists' associates in the other arts. These activities, such as the pioneering studies of the 'Pop' arts made by Lawrence

Alloway and others, will be discussed in the next chapter, but an early attempt to face up to a more primitive society and its 'way of life' in architecture, may be seen by simply turning the page of January 1955 issue of 'Architectural Design'.

There, the Smithsons review the work of Vladimir Bodiansky and Atbat-Afrique, especially the low-cost housing in Morocco. They draw a comparison with their own socio-architectural intentions at Golden Lane and go on:¹⁶

"What we termed back-yard ... they term 'patio', drawing on their knowledge of Arab needs from the area of greatest migration ... where the established collective system includes outdoor living-space. Whereas the Unité was the summation of a technique of thinking about 'habitat' which started forty years ago, the importance of the Moroccan buildings is that they are the first manifestation of a new way of thinking."

To judge from a 'Statement of principle' that appears at the bottom of the same page, but might have been more effective as part of the preceding Brutalist statement, the new way of thinking was to include not only a close study of the way people actually lived, but also a fair degree of permissiveness in design as well:

"It is impossible for each man to construct his own home.

It is for the architect to make it possible for the man to make the flat his house, the maisonette his habitat...

We aim to provide a framework in which man can again be master of his house. In Morocco they have made it a principle of 'habitat' that each man shall be at liberty to adapt for himself."

The thin, stick-and-matchbox aesthetic in which this ethic of permissiveness was offered in Morocco hardly accords with the idea of Brutalism as an architecture of massive plasticity and coarse surfaces, but what the Smithsons meant by Brutalism at this time certainly included social ethics, to which they attached quite as much importance as to formal architectural aesthetics. The growth of this ethic in their minds is inextricably entangled with the process by which other people came to identify the New Brutalism with 'art brut' and other expressions of the aesthetic of the time, while the attempt to visualise the total environment in which this ethic could be realised involved them in a course of action which led to the destruction of CIAM. These two aspects of the New Brutalism — 'art brut' and the reform of urbanism — are of such pivotal importance at this point in the argument that they are worth tackling out of their strict chronological position in this historical narrative.

46

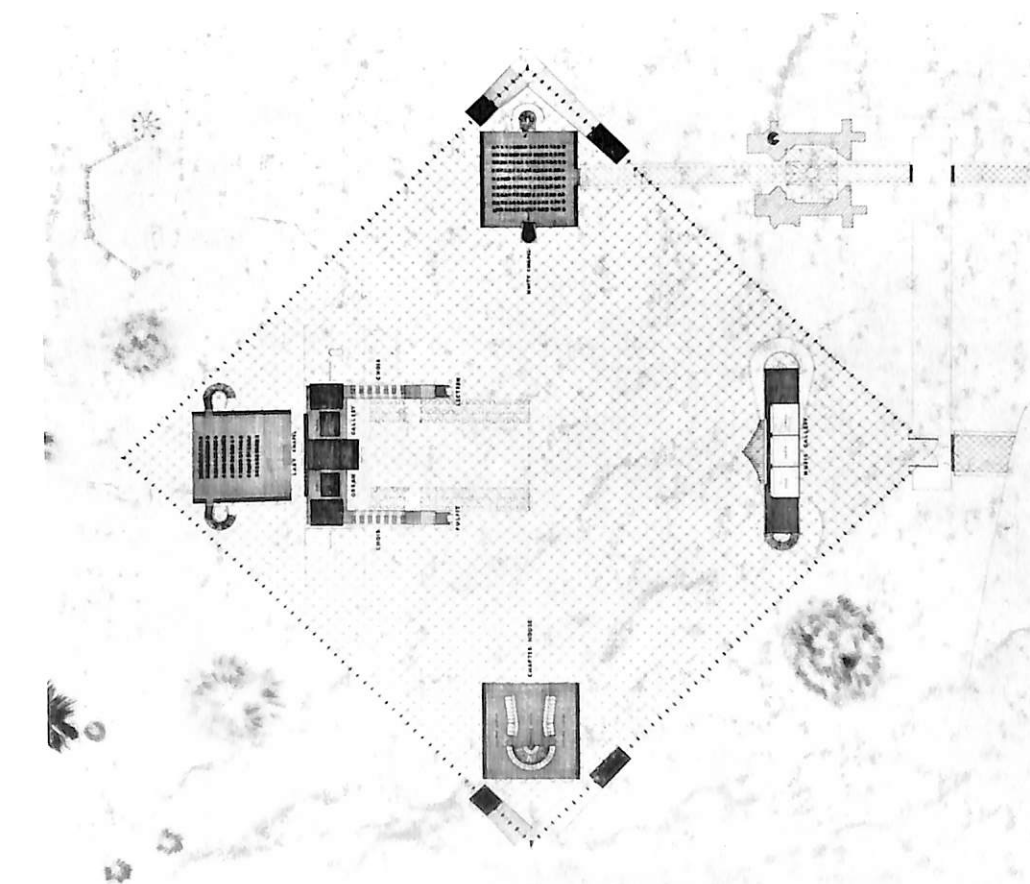
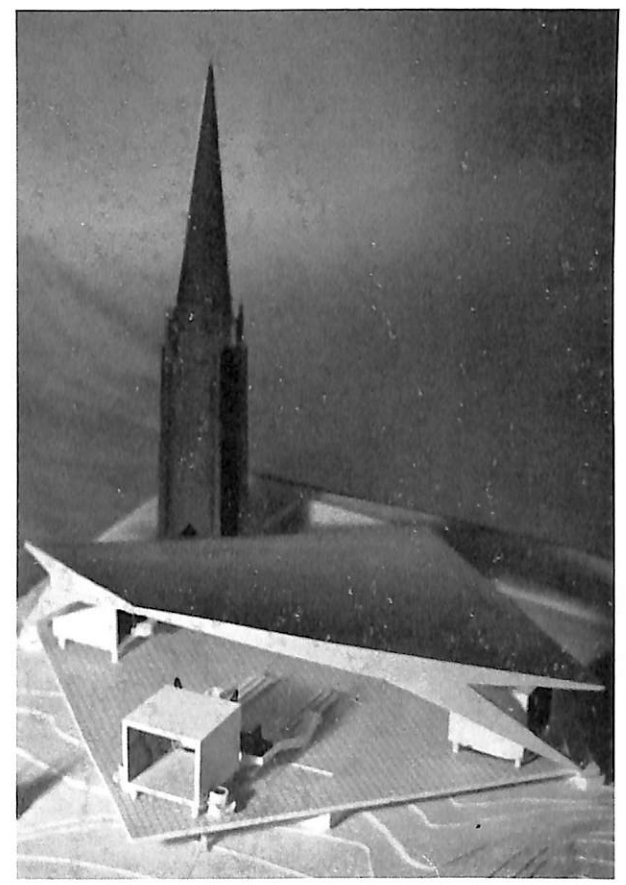
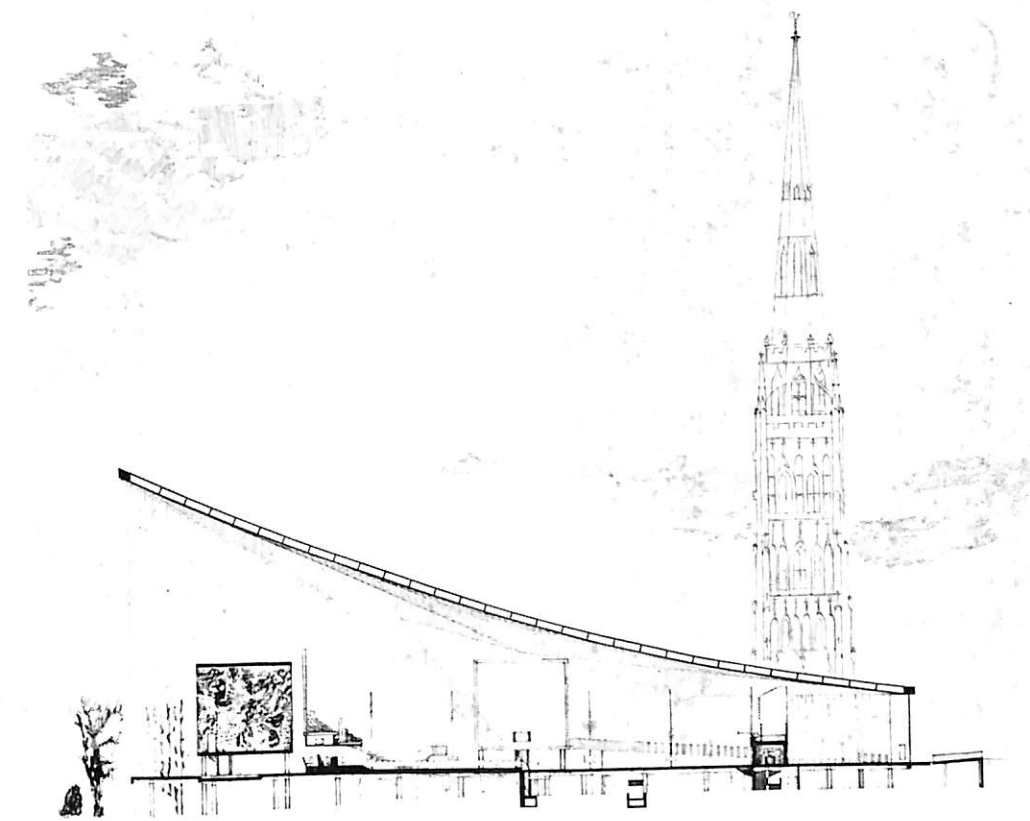
Kyoto (Japan), the Katsura detached palace. Seventeenth century
External gallery at the North-East corner

47

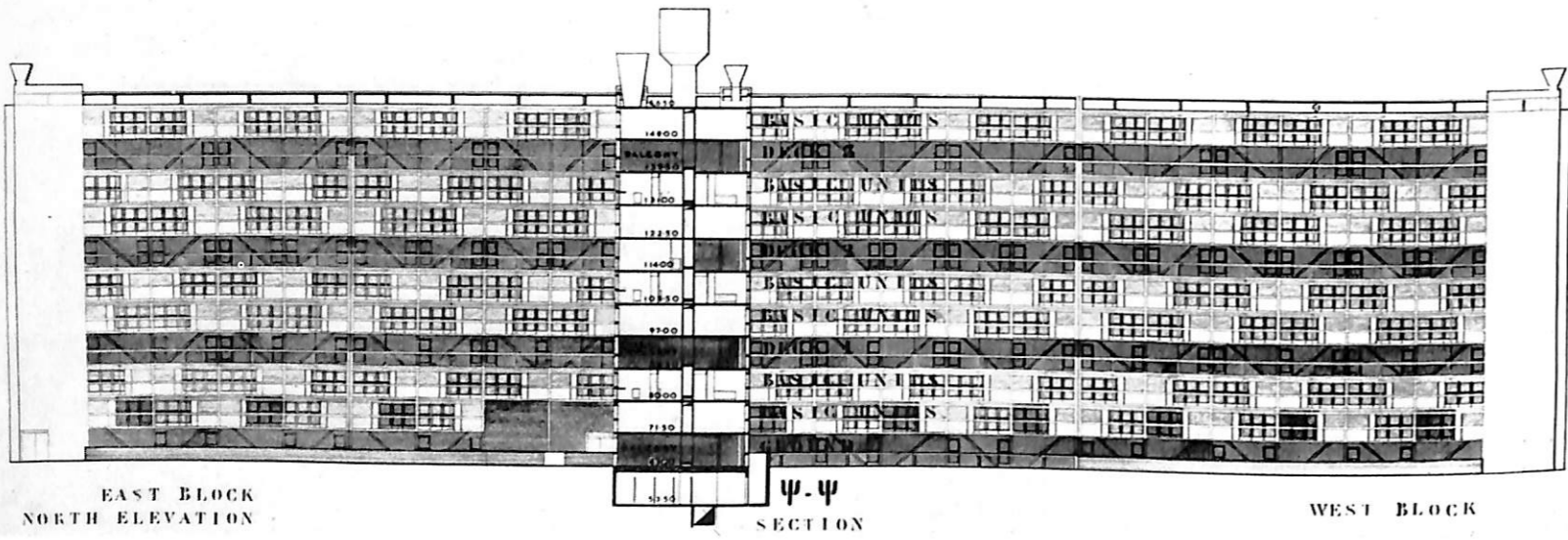
Diagram of mat-planning and sliding screens used in traditional Japanese houses

¹⁵ 'Architectural Design', April 1957

¹⁶ 'Architectural Design', January 1955



48 - 50
Alison and Peter Smithson; Coventry Cathedral (England),
competition design. 1951
Section, plan, and model



EAST BLOCK
NORTH ELEVATION

WEST BLOCK

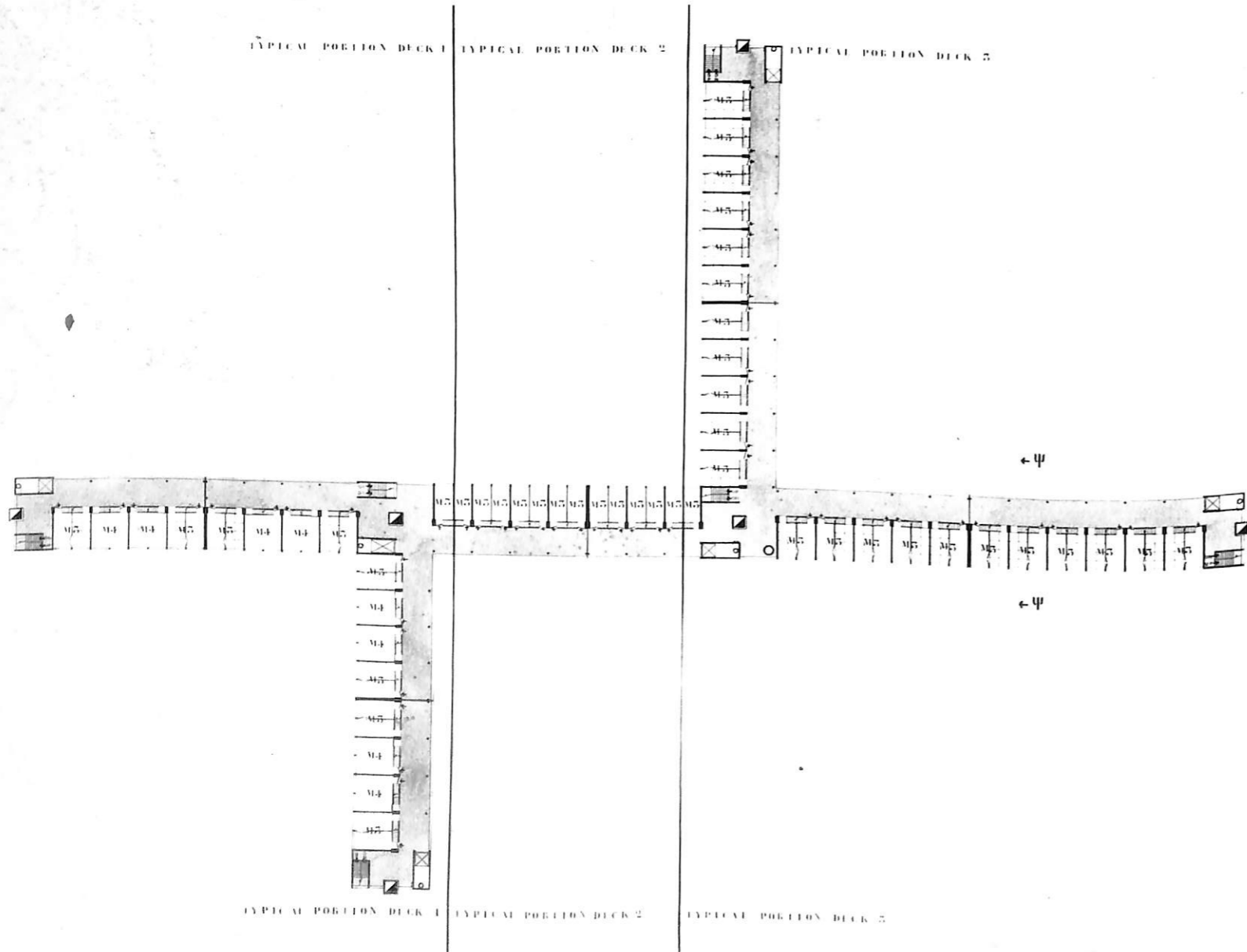
SECTION

51

52

TYPICAL PORTION DECK 1 TYPICAL PORTION DECK 2

TYPICAL PORTION DECK 3



TYPICAL PORTION DECK 1 TYPICAL PORTION DECK 2 TYPICAL PORTION DECK 3

50

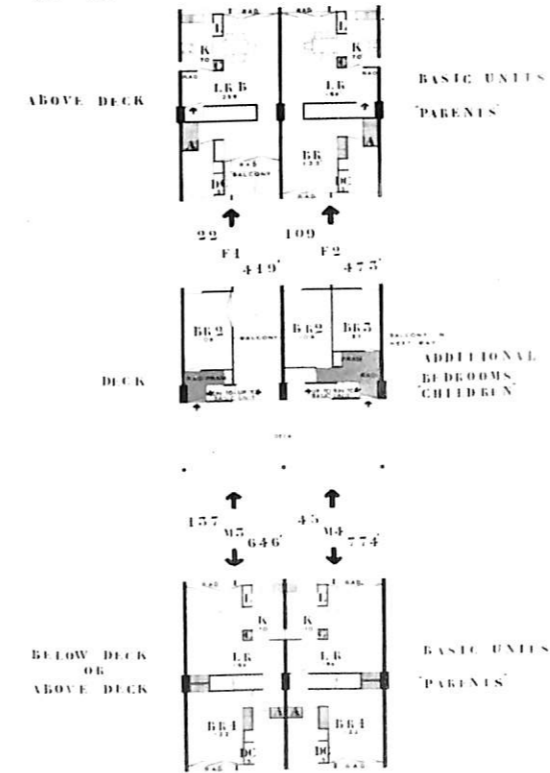
51-53
Alison and Peter Smithson;
City of London (England), Golden-Lane
Housing, competition design. 1952

51
Elevations, section

52
General plan at street-deck level

53
Typical apartment plans, elevations, site plan

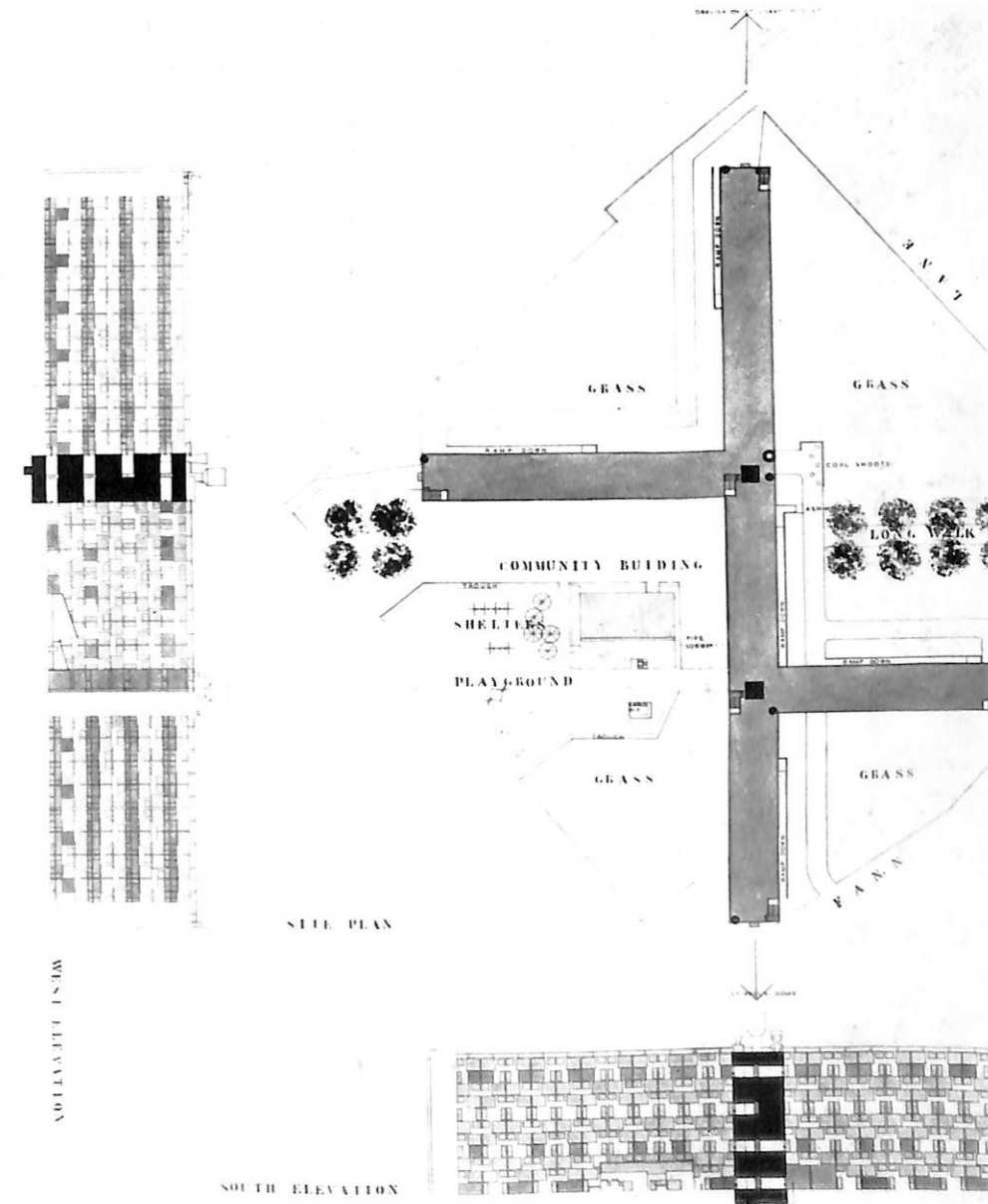
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NOTE: ALL DWELLINGS CONSIST OF A STANDARD
BASIC UNIT WITH ADDITIONAL BEDROOMS AT
DECK LEVEL AS REQUIRED.

**GOLDEN
LANE**

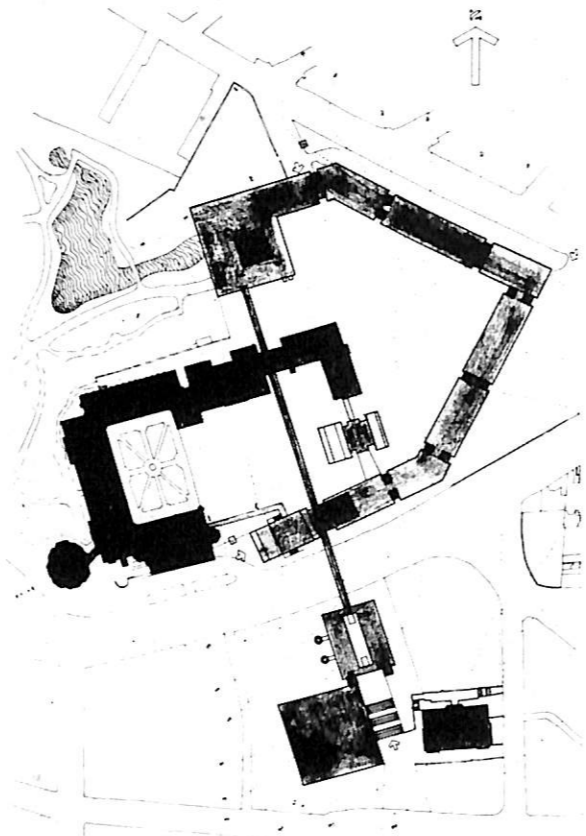
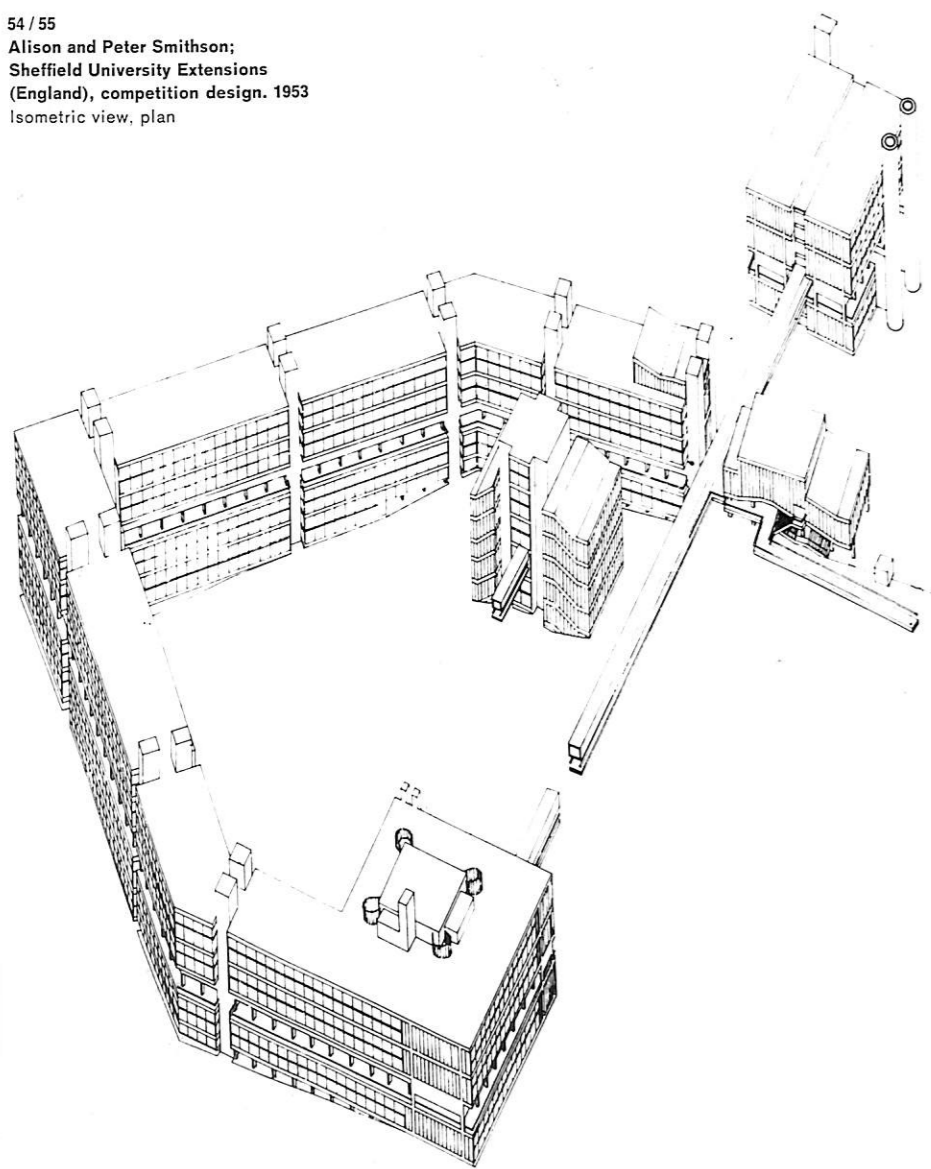
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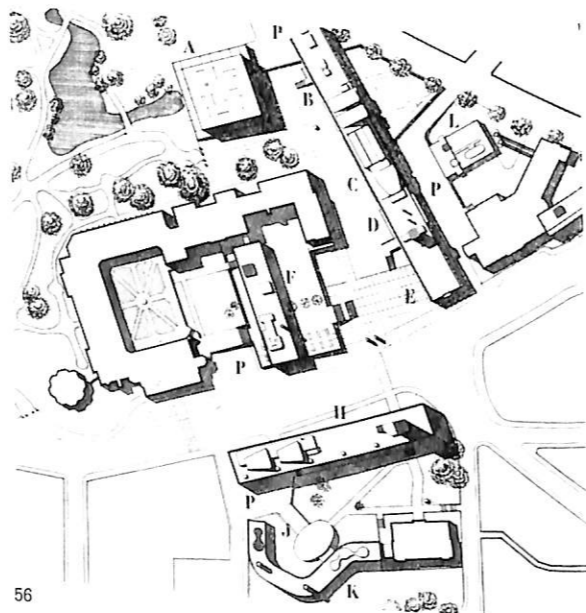
SITE PLAN

SOUTH ELEVATION

54 / 55
 Alison and Peter Smithson;
 Sheffield University Extensions
 (England), competition design. 1953
 Isometric view, plan



55

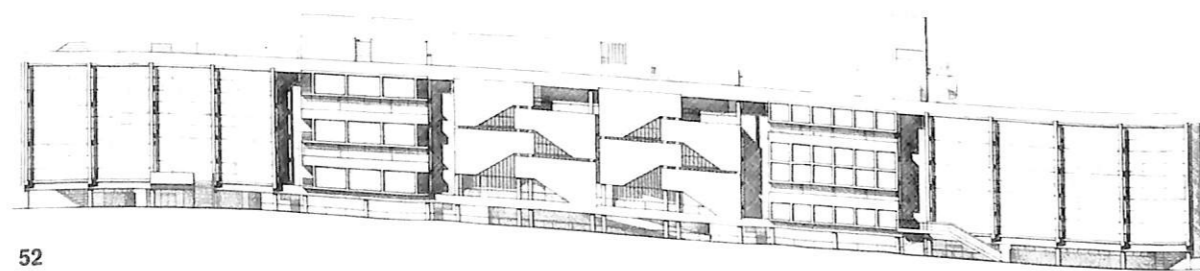


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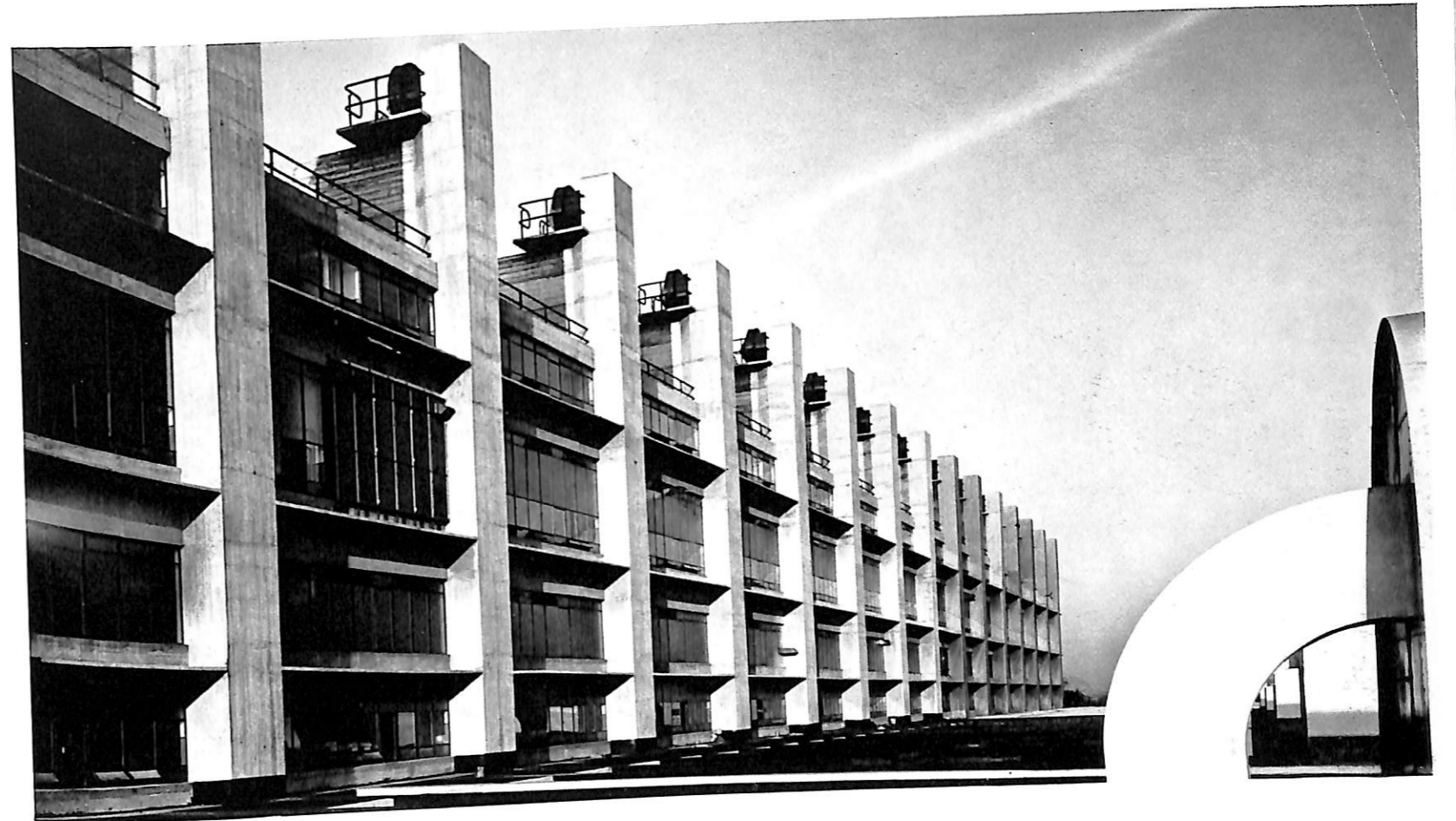
57

56 / 57
 James Stirling and Alan Cordingley; Sheffield University
 Extensions (England), competition design. 1953
 56
 Site plan
 A library
 B architecture
 C arts
 D staff
 E administration
 F physics
 G chemistry
 H medical
 J hall
 K union and refectories
 L boiler house
 P car park

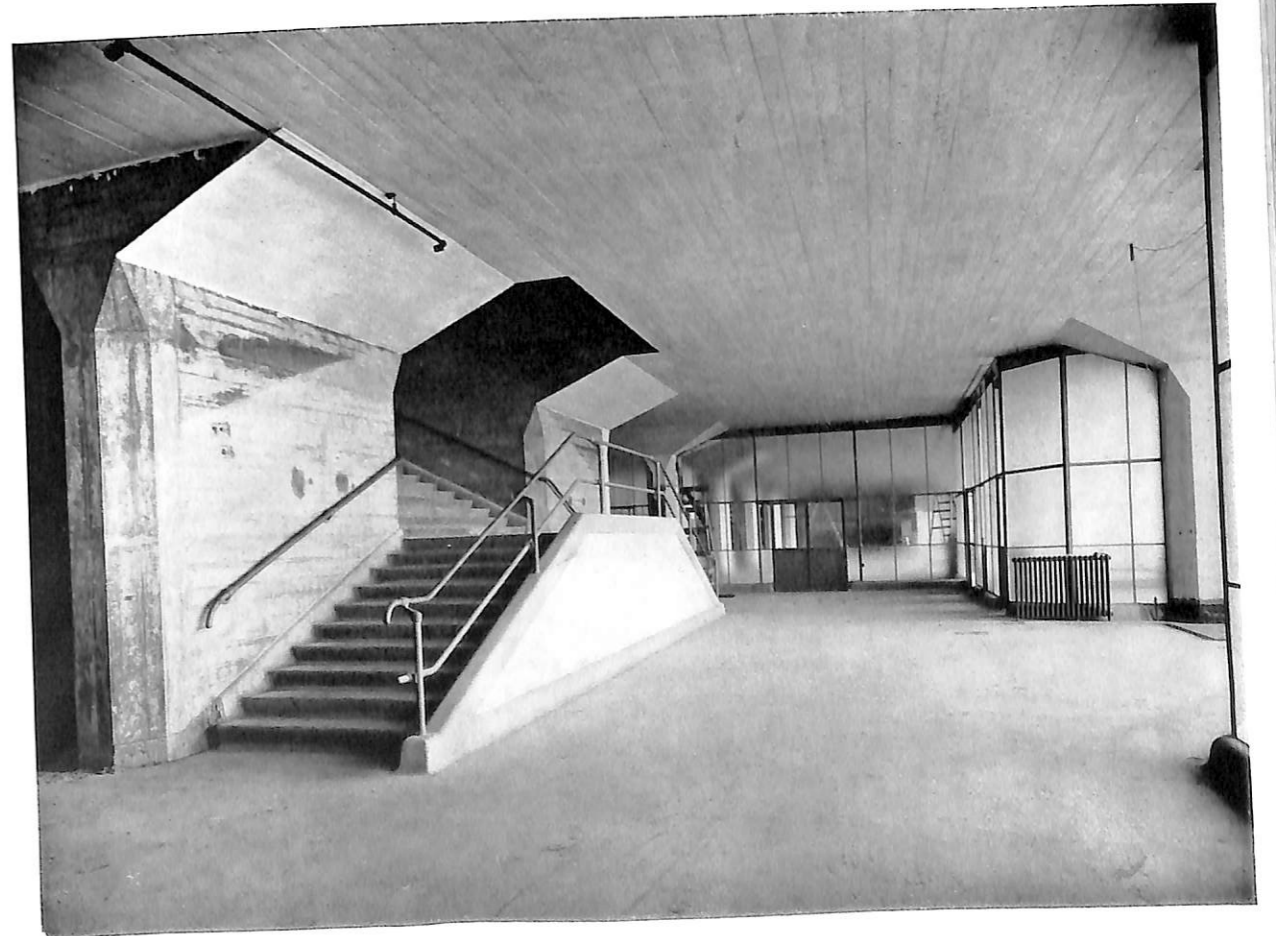
57
 Elevation of main teaching-block



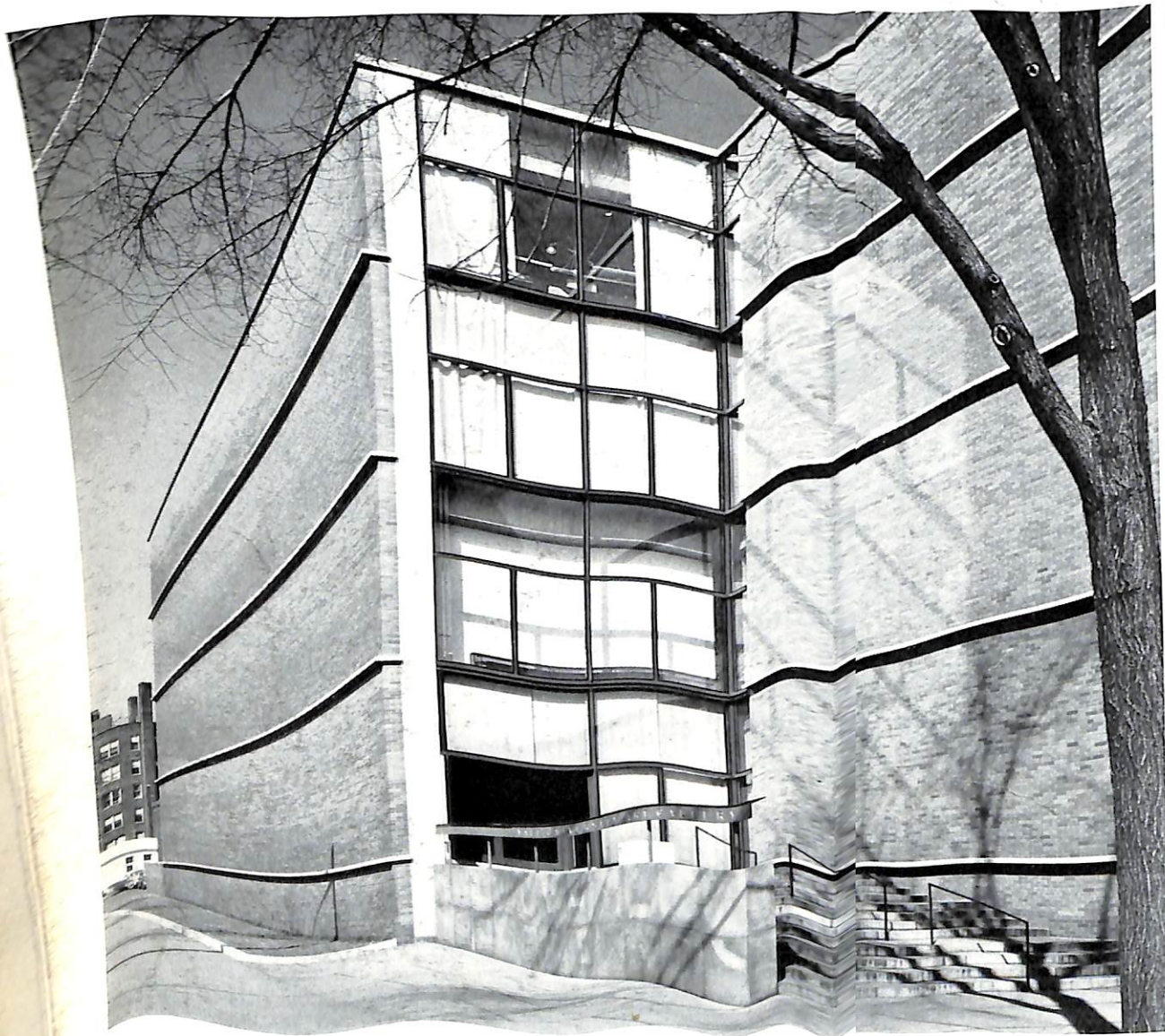
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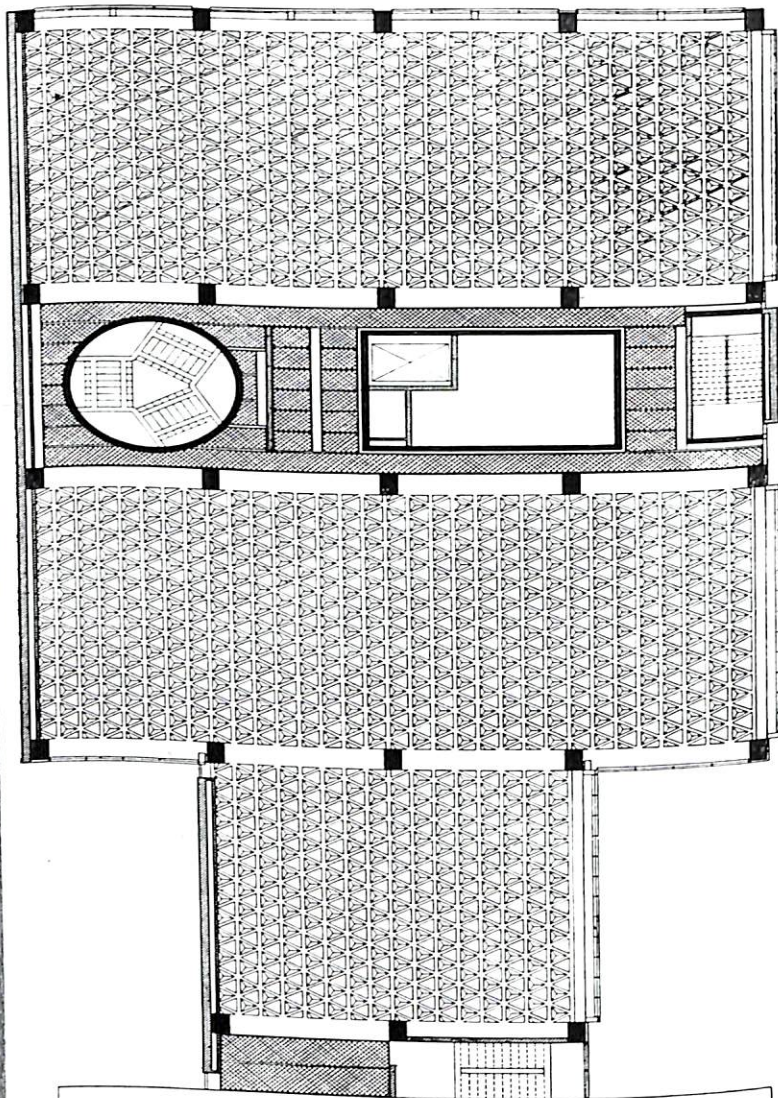
58 / 59
 Sir Owen Williams; Beeston (Nottingham,
 England), Pharmaceutical Factory
 (dry processes block). 1932
 Rear facade, and entrance-hall and stairs



53



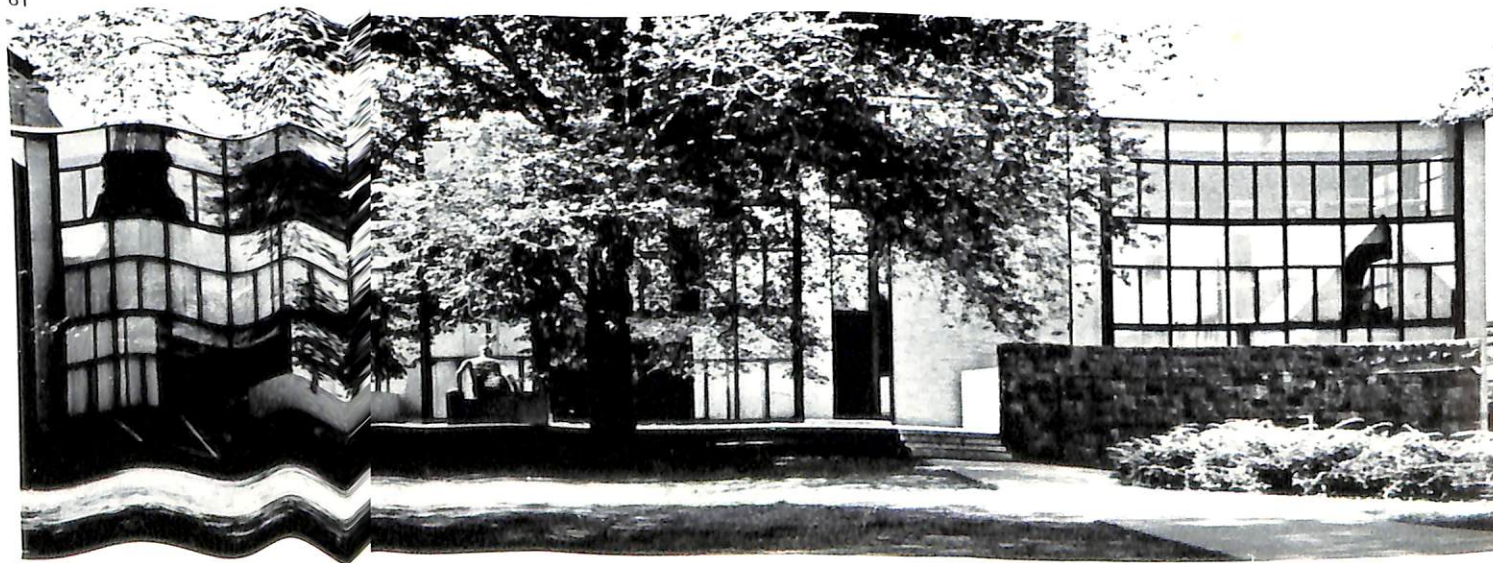
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62

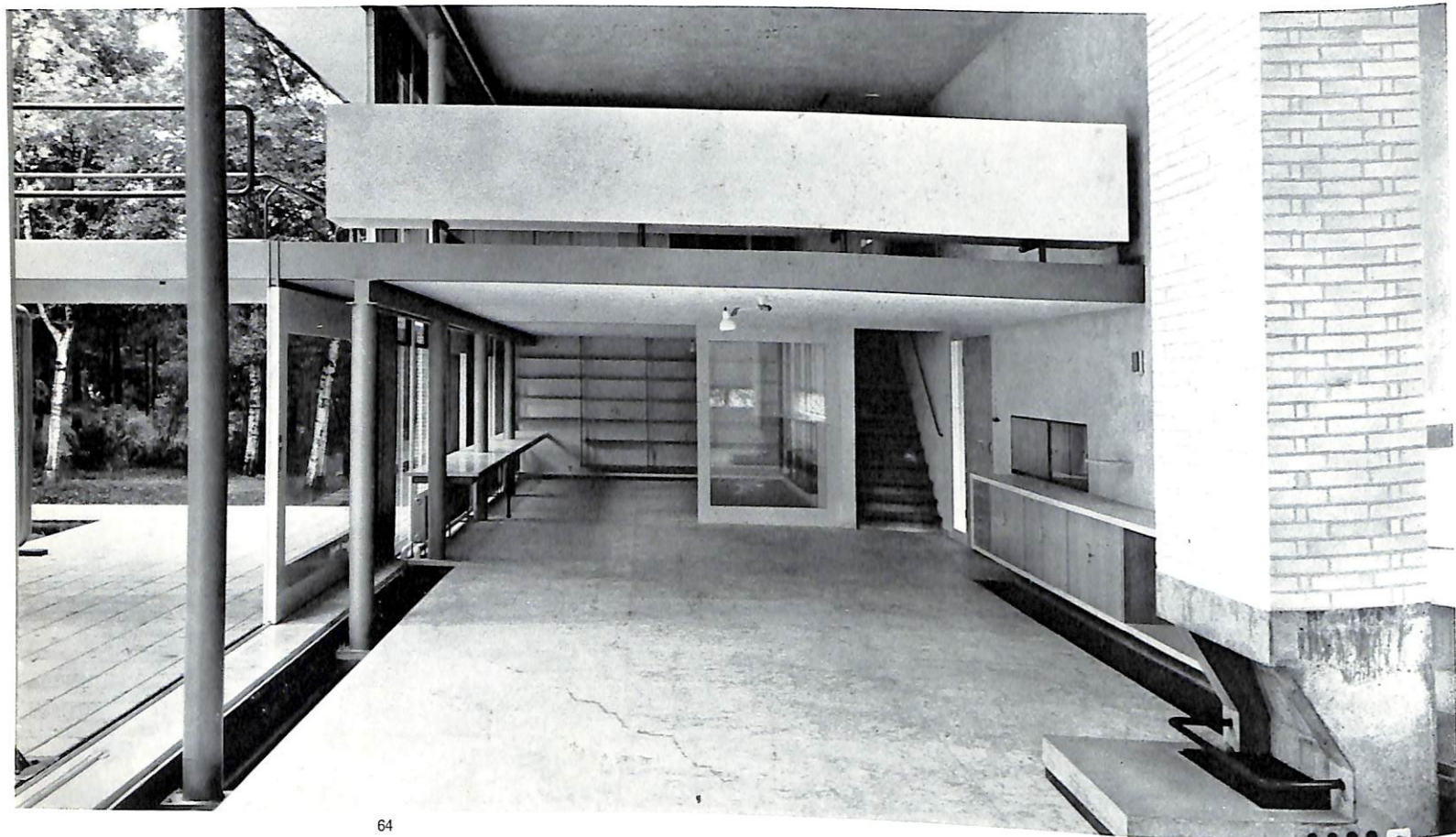
60-63
 Louis I. Kahn and Douglas Orr;
 New Haven (Connecticut, USA),
 Art Gallery for Yale University, 1953
 60
 Entrance and street-front
 61
 Courtyard elevation
 62
 Projected ceiling plan

61

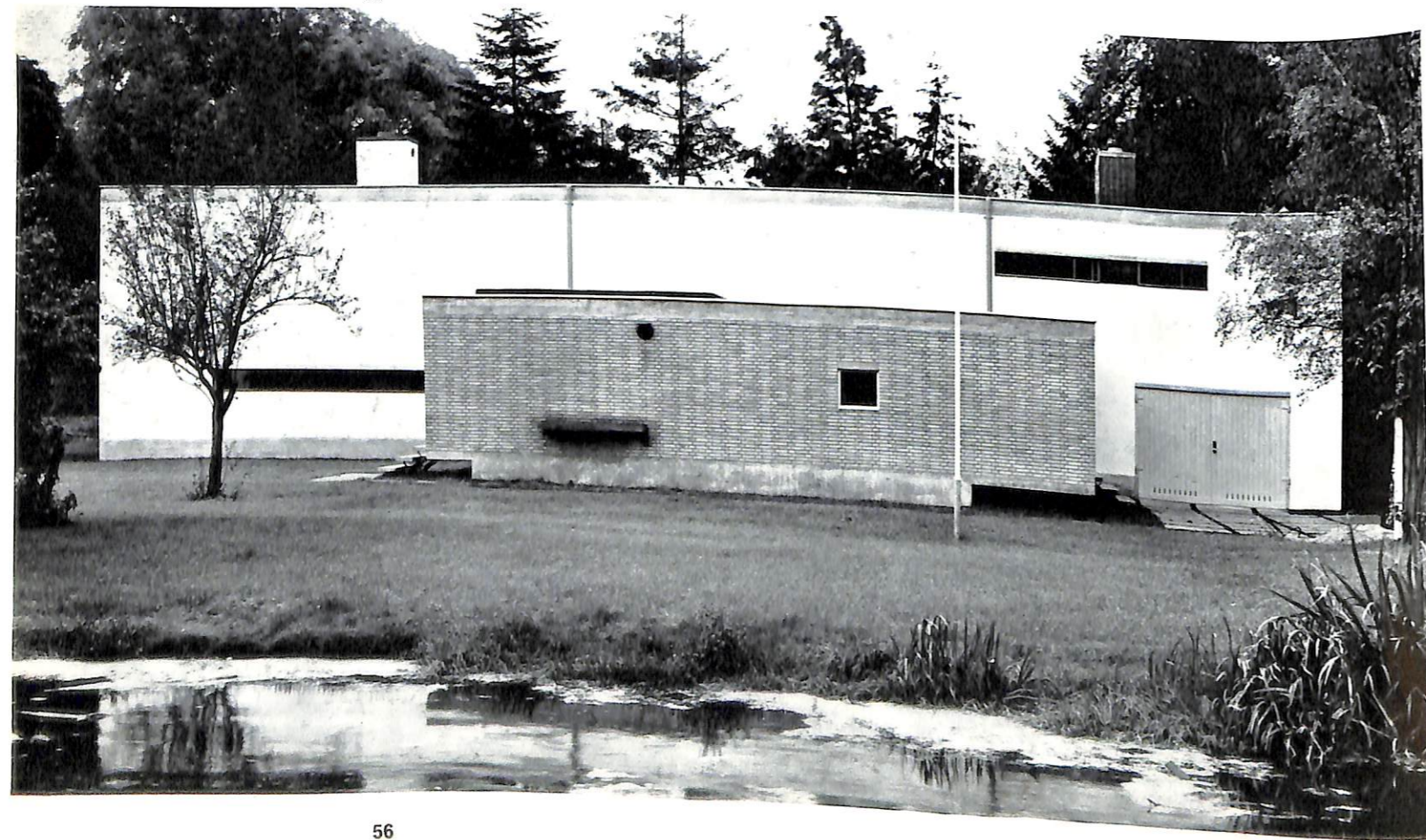


63 (right)
 interior of gallery-space

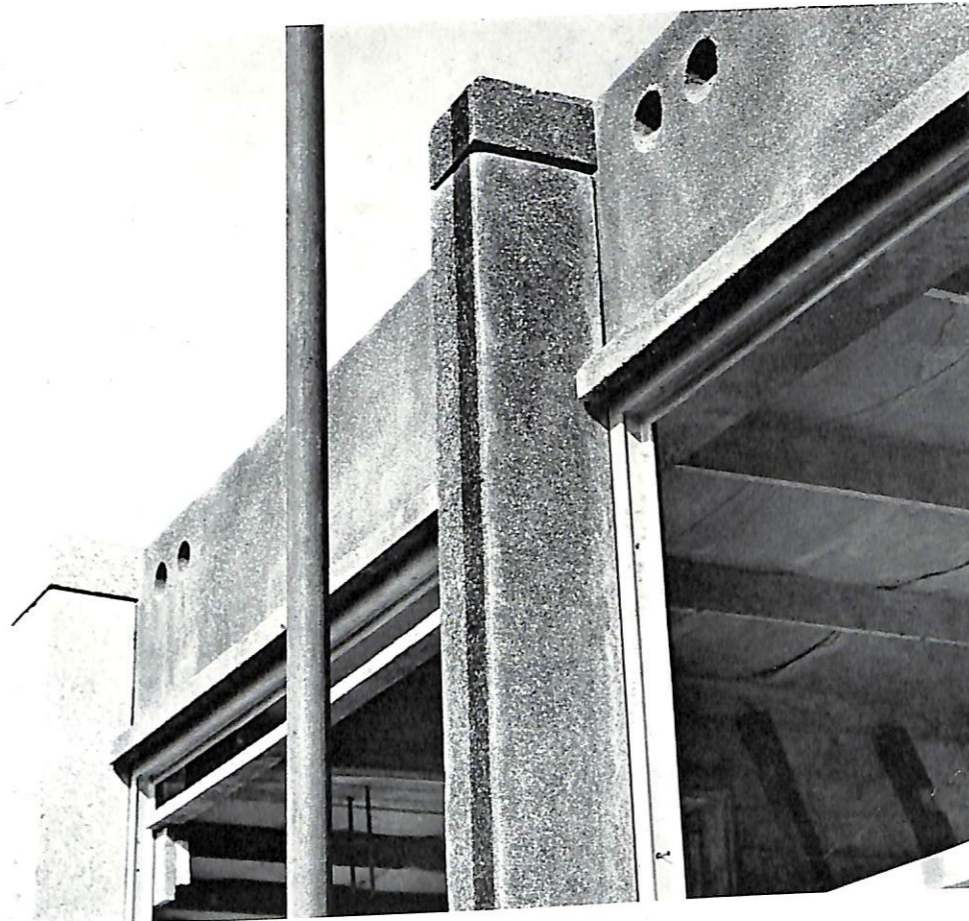
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64
65



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64 / 65
Johannes H van den Broek and Jacob B Bakema; Rotterdam
(Holland), van den Broek House. 1953
Living room, and entrance facade

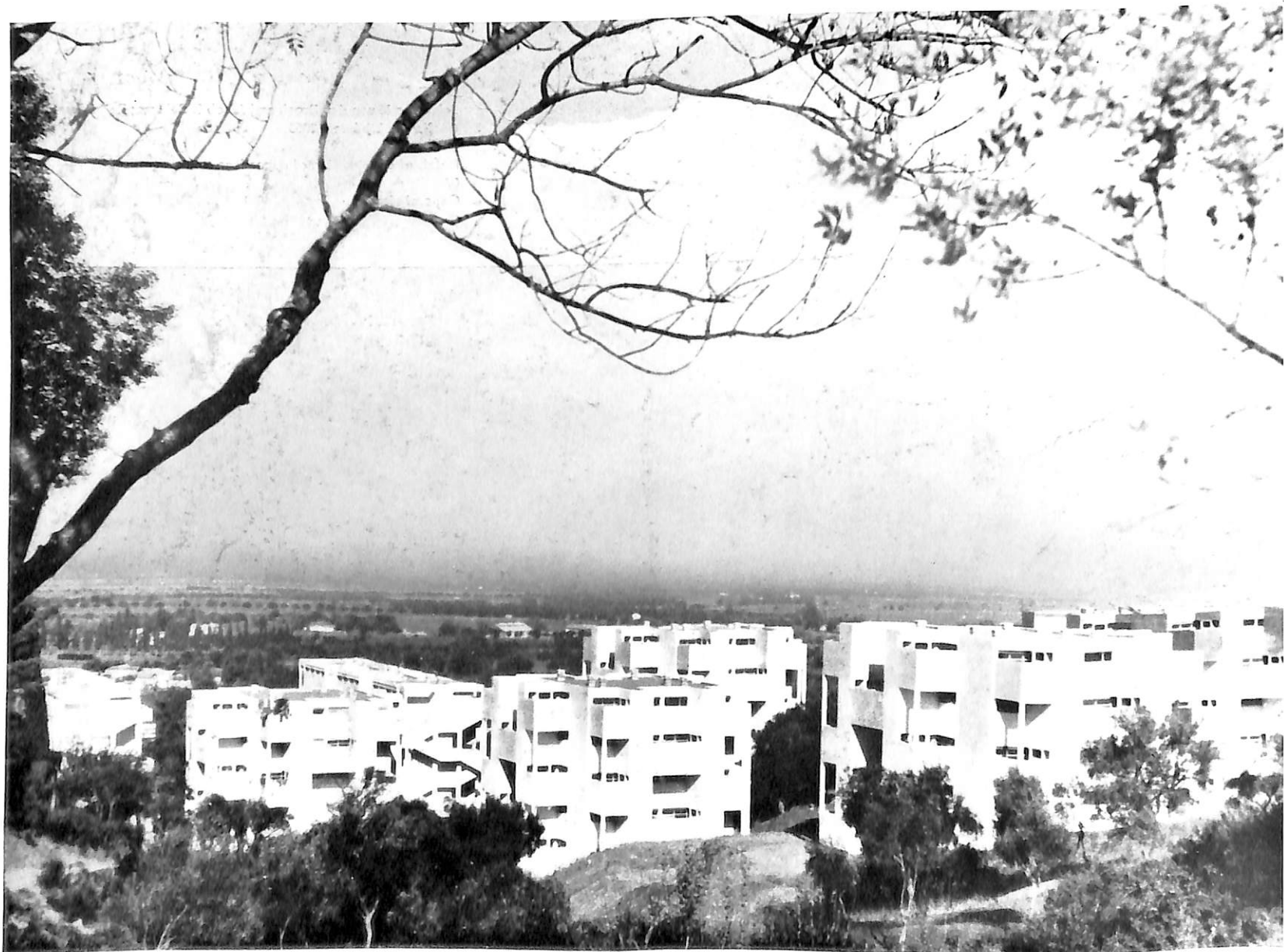


66 / 67
Johannes H van den Broek and Jacob B Bakema; Rotterdam
(Holland), Lijnbaan. 1953
66
Detail of construction of upper facade
67
General view

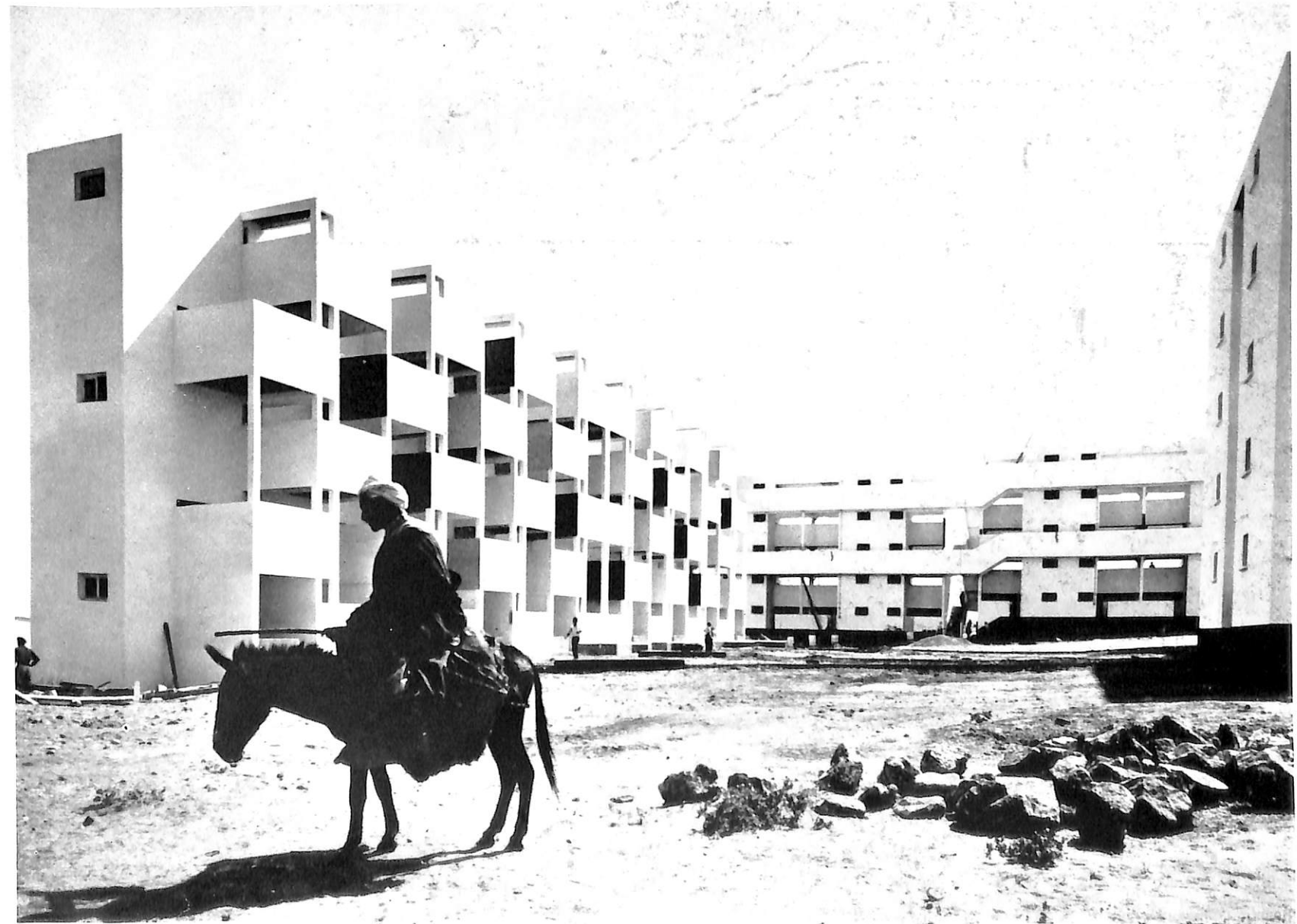
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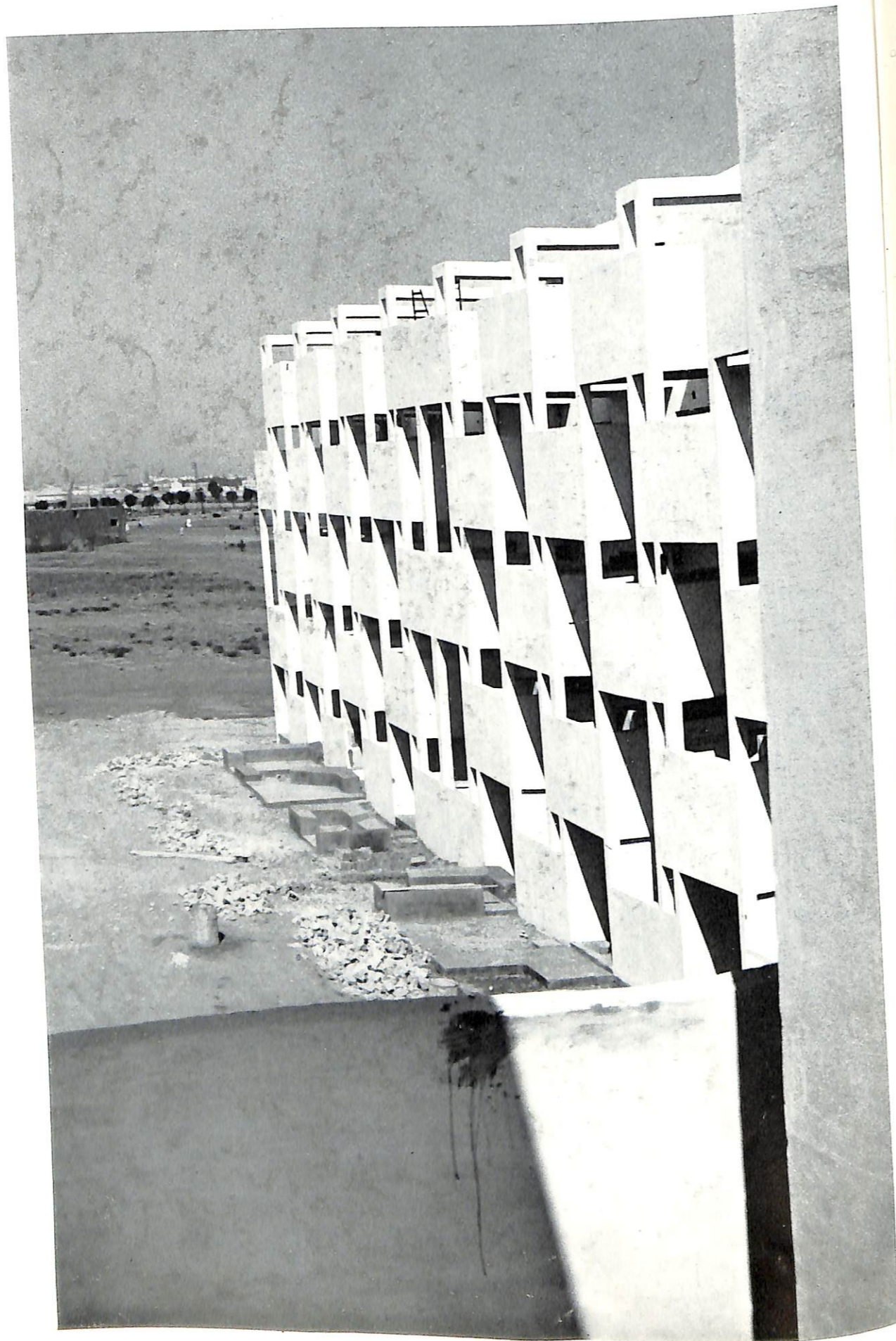
68 - 70
Vladimir Bodiansky and ATBAT-Afrique; Algiers, Mass Housing.
1953 onwards

68
General view



69
Elevation with patio-balconies





70
General view during construction

5.1 Brute, non and other art

The team that assembled the one hundred and twenty-two Brutalist images that made up the exhibition 'Parallel of Life and Art' in 1953, consisted of Nigel Henderson, Edouardo Paolozzi and the two Smithsons. Henderson, an experimental photographer, is little known outside Britain though his influence on the other three was considerable and admitted by them (if, indeed, it was he who had invented their special use of the word 'image' then his influence was probably crucial). Paolozzi, on the other hand, is not a back-room figure and his sculpture is known in Modern Art circles all over the world. As early as 1952 it had earned him a place in Michel Tapié's book 'Un art autre', alongside Jackson Pollock, Jean Dubuffet, Jean Fautrier, Georges Mathieu and other representative 'anti-artists' of the period. Dubuffet's work was already (and justifiably) being described as 'art brut', and this term could equally justifiably be applied to the work of Paolozzi as, in 1952-54, he moved rapidly away from coarse abstraction towards a species of primitive figuration — especially the small bronze busts which have the look of Dubuffet in three dimensions. The Smithsons were certainly aware of the connection with the emerging anti-art movement that was established by their friendship with Paolozzi, but they also had a more direct acquaintance with it. Like many other young Europeans they had been brought up against the art of Jackson Pollock for the first time, and without any preparation by the European art-press, at the 'Biennale di Venezia' of 1950. The impact of these pictures on the intellectual edifice which architects had built around classical theories of measure and proportion was to be extremely destructive. But it was delayed, because Pollock's free-form dribble painting was almost completely incomprehensible to European eyes. Yet it left an indelible 'image' on many minds and when it seemed to be time to try and overthrow the classical

tradition (and with it, the dominance of France in European intellectual life) then Pollock was immediately remembered, and became a sort of patron saint of anti-art even before his sensational and much published death.

A picture of Jackson Pollock in his studio — one might almost say 'a sacred ikon' — was one of the images in 'Parallel of Life and Art', but there were very few other references to 'art' in any of the culturally-accepted senses and the section of the exhibition which was labelled 'architecture' included a Mexican mask and a plate from a book of Vegetable Anatomy, as well as a number of subjects that would normally be regarded as engineering structures, or settlements that would normally be regarded as too primitive to be counted as 'architecture'. In all sections, the exhibition dealt primarily with bizarre or anti-aesthetic images culled from newspapers, magazines, scientific and anthropological textbooks, or extreme modes of vision such as X-rays and micrographs. All had clearly been selected because of some very direct (and often inexplicable) emotional impact on the organisers of the show, and many carried that impact to those who came to see it.

Although 'Parallel' was one of the crucial stages in the demolition of the intellectual prestige of abstract art in Britain, it is worth noting that it accepted one form of abstraction without question, that of photographic reproduction in two dimensions, and put a high value on the qualities of grain and 'chiaroscuro' that resulted from printing-down gross over-enlargements on unglazed photographic paper. This particular aesthetic was not absolutely original — something like it had been seen during 1951 both in the 'Triennale di Milano', and an exhibition 'Growth and Form' in London (with which Henderson had been involved at one stage) but the exploitation of these visual qualities to enhance the impact of subject matter that flouted humanistic conventions of beauty in order to emphasise vio-

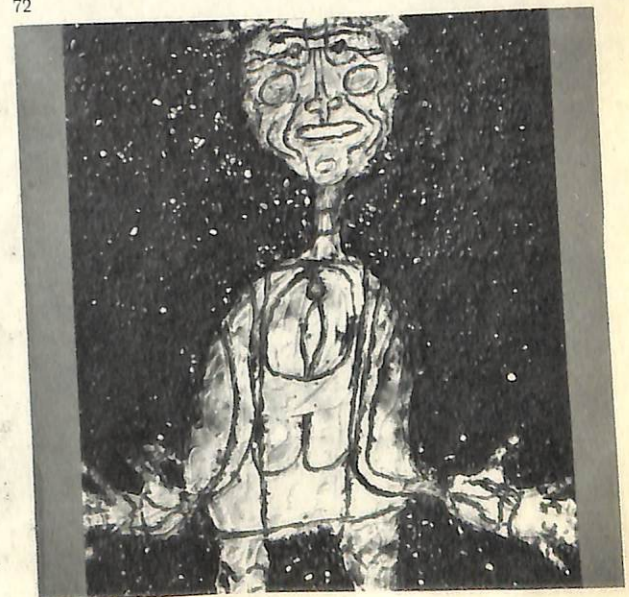
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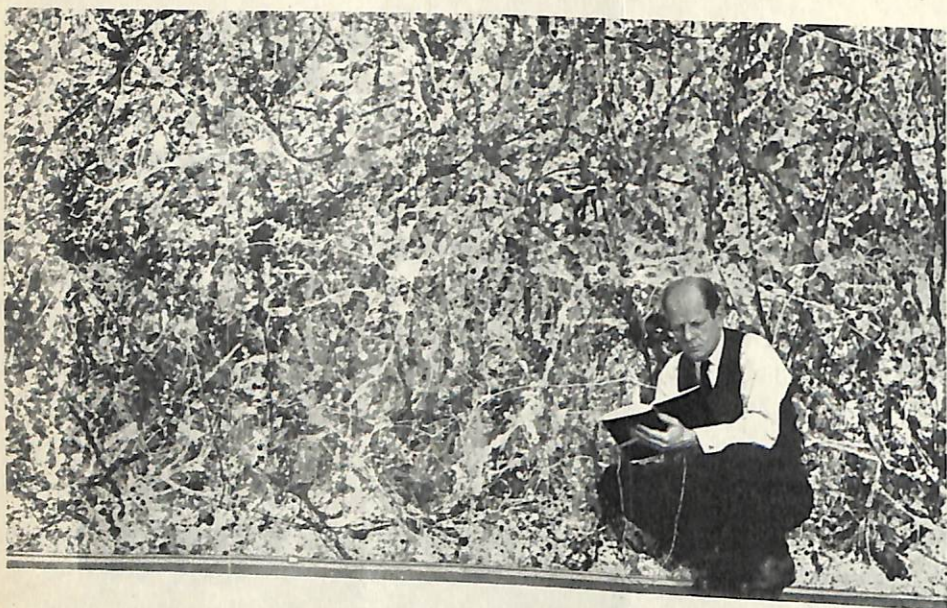


71
Edouardo Paolozzi; Bronze Head. 1954
72
Jean Dubuffet; Monsieur Macadan. 1945

61

72





73
Jackson Pollock in his studio. 1950

lence, distortion, obscurity and a certain amount of 'humeur noir', was a subversive innovation whose importance was not missed. There is no doubt that it coloured many hostile critics' attitude to Brutalist architecture when it finally appeared.

By 1954-55 one could see at least three different conceptions of the New Brutalism circulating in architectural gossip and criticism:

1 Certain thoughtful modernists with a 'beaux-arts' background (a group which has always made a major contribution to architectural discussion in England) still hopefully regarded Brutalism as a 'rappel à l'ordre', a search for the traditional fundamentals of architecture as they understood them.

2 Direct practical experience of the business-like methods of the Smithsons had convinced certain of their collaborators (engineers and other consultants) that the New Brutalism was "judging every case on its merits in the best traditions of British pragmatism".

3 An aesthetically sophisticated body of opinion, aware of the recent developments in, for instance, 'musique concrète' and abstract expressionism, saw it as part of a world-wide revolution of the young against the accepted conventions of Life and Art, a reaction against the categorised responses of the connoisseur or aesthete, a reaction in favour of direct physical and emotional experience and involvement in the creative process.

All three estimates of the New Brutalism contained a strong element of truth, though the classicist version was not, in fact, to establish its truth until after Brutalism had passed out of the hands of the Smithsons, had ceased to be 'an ethic not an aesthetic', and had become merely one of the accepted modes of architecture in the nineteen-sixties. As the situation stood in 1954-55, however, this estimate involved a complete misunderstanding of the Brutalist concept of order. That concept was not classical, but topological: its implementation on a site such as that of the Sheffield University project,

would have involved judging the case on its merits (or rather, dominant factors) such as the land-form, the accommodation required and the finance available, rather than in accordance with some pre-established classical or picturesque 'schema' in the usual manner of post-war architecture; and the execution of the buildings would certainly have been a calculated affront to the accepted conventions of architectural detailing at that time — there would have been no exquisite surfaces, fine-drawn metal-work or harmonious colours, no integration of architecture with the other plastic arts, etc. Constructed, Sheffield University as conceived by the Smithsons would have been the most extreme Brutalist building ever realised, and the whole subsequent history of Brutalism would have been different.

But it still might not have been the most complete example, however extreme, because it did not include one 'other' architectural possibility that was in the Smithsons' mind by 1955, a possibility that owed much to their involvement with the anti-art movement. Their prototype 'House of the Future' assembled early in 1956, was a serious attempt at a 'Pop Architecture' comparable to the 'Pop Art' which has subsequently appeared in Britain and America. The early date may cause some surprise, since Pop Art is commonly regarded as a phenomenon of the sixties, but the group who assembled 'Parallel of Life and Art' were among the very first, anywhere in the world, to direct their attention to the visual skill and rich imagery of much advertising and commercial design — hence the references to these topics in the New Brutalist 'manifesto' of January 1955. From the point of view of Paolozzi, say, the interest of American advertising was as a source of powerful and outrageous images (comparable in emotive effect to those in 'Parallel') but as early as 1953 even he was insisting on the need to study the 'social symbology' of these advertising images. The Smithsons went farther than this, and seem to have regarded American magazine advertisements for kitchen equipment, for instance, as demonstrations of a way of life — a way of life as complete and rich in half-understood cultural overtones as those they sensed in photographs of the kitchen of the Katsura detached palace or the kitchen of Le Corbusier's Villa Savoye.

In the heyday of the pin-board, such advertisements were torn from the magazines and displayed on the wall (the Smithsons contributed an article entitled 'But Today we Collect Ads' to the student magazine 'ARK' at about the same time that the 'House of the Future' was being designed), and on the wall they had the double status both of emotive images, and as exemplars of a style of life, a standard of finish and design that day-to-day existence in post-war Britain could not hope to emulate. Outside the advertisements, the only tangible visions of such a life vouchsafed in London were occasional American-made cars, belonging to embassy officials or NATO dignitaries (private citizens could not import them) and, hence, the reference to the Cadillac in

the 1955 'manifesto'. The sight of such an artefact could be disturbing for more than one reason.

It was, as has been said, solid testimony of 'another world', but it was also an affront to 'good taste', and accepted progressive sentiment. Not only were 'progressive' habits of thought still dominated by older, anti-American members of the Left, but from the time of Sigfried Giedion's book 'Mechanisation takes Command', or even earlier, the styling of US commercial products had been specifically regarded as 'bad design', so that to admire it in public was to adopt an anti-conformist or 'angry young man', attitude. But for those whose views had not been polarised by the politics of the Cold War (or the politics of Modern Architecture) it was possible to admire the Cadillac or Plymouth for non-polemical reasons. Unlike European architecture, US car styling seemed to have tapped an inexhaustible supply of new forms and new symbols of speed and power, the sheer aesthetic inventiveness displayed by Detroit designers in the middle years of the fifties was a constant reproach to the faltering imaginations of European architects and the industrial designers they appeared to admire (eg Nizzoli of Olivetti). But even more unlike British designers and architects in particular, the American stylists exhibited a dazzling command of details, joints and connections, the three dimensional coordination of different materials, and skill in fitting accessories and components into the total design (rather than sticking them on as afterthoughts as in British car-design and buildings).

The House of the Future was, in a sense, a statement of Le Corbusier's Citrohan/Citroën pun;¹⁷ a house built like a motor-car. But those aspects of

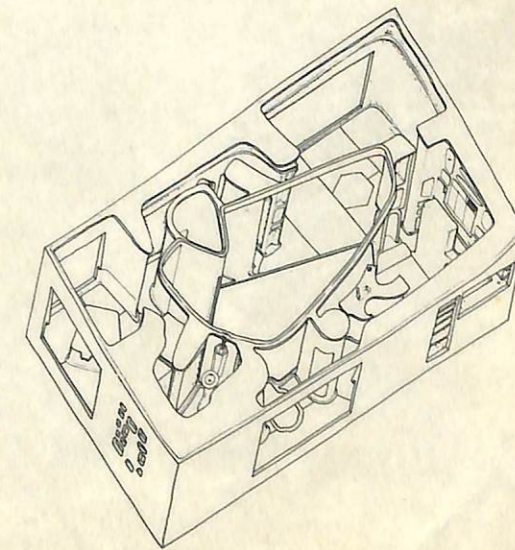
¹⁷ On the 'Citrohan' house, see: Le Corbusier, 'Vers une architecture' (1923), section on 'Maisons en série', his first extended discussion of prefabrication and mass-production of buildings, in which the name 'Citrohan' was coined as a deliberate echo of 'Citroën', already established as the leading mass-produced French popular car.

74/75
Alison and Peter Smithson; House of the Future (prototype). 1956
Bathroom, and cut-away drawing



automotive technology which Le Corbusier had rejected as un-architectural (notably technical obsolescence and physical expendability) were accepted by the Smithsons as an inevitable part of the mass-production situation, and were fused by them with one of the most traditional of architectural conceptions, the patio-dwelling. The design had been commissioned for the annual 'Ideal Home' exhibition in London, and what the Smithsons offered to baffled (but often enthusiastic) visitors to the exhibition was a simple box without external windows, and a door on only one side, so that the three other sides could be packed hard up against other similar buildings to give high residential densities even in single-storey developments. All the rooms were lit from continuous glazing looking into a small oval patio in the centre, the height of the roof being varied in a continuous curve to give daylight-factors suited to the use and aspect of the rooms around the patio.

The level of technical equipment was clearly intended to surpass even the vision vouchsafed by the American advertisements they had been collecting, and this preoccupation has persisted in later imaginative projects for domestic design that the Smithsons have produced. The proposed form of structure represents a different kind of raid into US industrial design however: the double plastic shell was conceived as the equivalent of the panelling of a car body. Thus, no single panel was interchangeable with any other in the same house, only with its twin in another house. This situation, long since accepted in the construction of industrially produced shells (such as car-bodies, aircraft fuselages etc) of course runs exactly counter to ideas current in architectural circles on prefabrication (eg all the various prefabricating projects associated with the names of Gropius and Wachsmann) where the attempt has always been to work towards a single universal element that can fulfill any role the structure requires. The practical economics of the kind



FRIGIDAIRE BUILT-IN COOKING
fold-back or counter-top units—
which one for your new kitchen?



76-78
American advertisements for kitchen-
appliances and cars. 1953-55

76



77

78



of design philosophy exhibited by the Smithsons' structure implies a volume of production rivalling that of a major automobile manufacturer, and (in the kind of Open Society to which the Smithsons seem devoted) marketing techniques comparable to those of Detroit. The House of the Future was therefore 'styled' as much as it was designed. A complete aesthetic of panels and joints (avowedly modelled on automobile practice) was devised, and the exterior even boasted a certain amount of token brightwork that underlined its affinity to the chromium styling of a car or, indeed, the domestic appliances inside. Even the possibility of an annual model-change was entertained. In spite of its patio-plan, this was still a very extreme conception for its time (in many ways much more extreme than Ionel Schein's contemporaneous plastic house designed for the 'Exposition des Arts-Ménagers') and as so often in the history of Bru-

64

talism, the attainment of an extreme position was followed by a withdrawal to a more traditionalist position. The Pop-Art patio-house was not to be, and when the Smithsons produced another patio-house mock-up later in that same year of 1956, it revealed very different intentions and produced a very different effect.

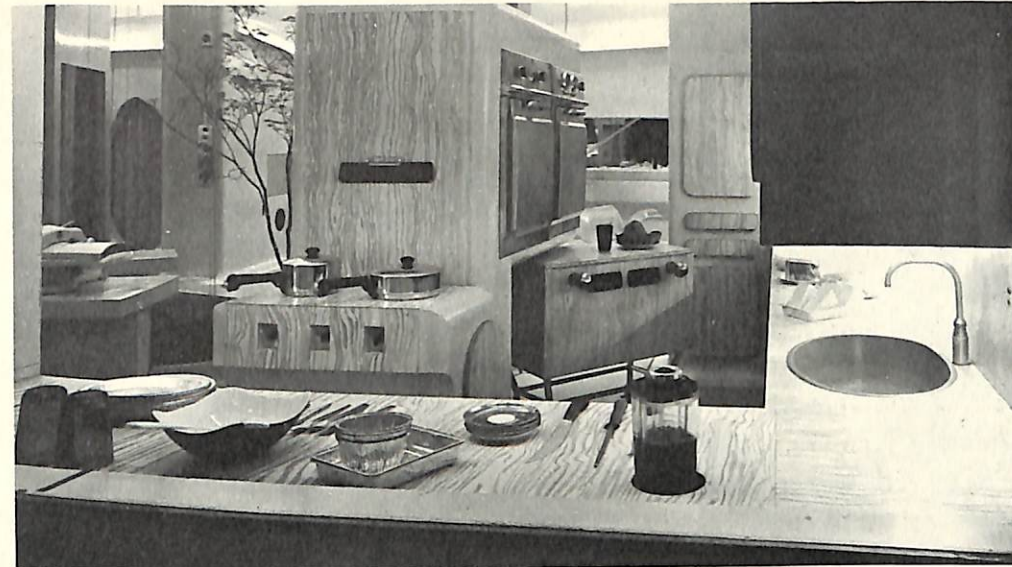
Concurrently with other international avant-garde activities in the plastic arts, during the early nineteen-fifties, there had been an attempt to establish an English 'filiale' of the Paris-based 'Groupe espace'. Since British artists like Paolozzi, Turnbull, Hamilton or McHale had long since abandoned the rather naïve tenets of 'integration of the arts' held by the 'Groupe espace' at that time, the project came to nothing, but the painters, architects, sculptors and critics who had gathered to discuss the proposal continued to meet and finally decided to stage an exhibition (called, for reasons now impossible to reconstruct, 'This is Tomorrow'). The show consisted of environments or constructions devised by groups each consisting (more or less) of a painter, a sculptor and an architect, but there was no overall dogma or programme covering the whole manifestation. Each group worked as it liked, and as Lawrence Alloway wrote in an introduction to the catalogue:

"The independent competing groups do not agree on any universal design principles... would not submit to the dogmatic ideas of synthesis held by 'La Groupe espace'.

In 'This is Tomorrow' the visitor is exposed to space effects, play with signs, a wide range of materials and structures which, taken together make of art and architecture a many-channelled activity as factual and far from ideal standards as the street outside."

At least one of the group-constructions could be regarded as an attempt to bring the street inside the exhibition: John Voelcker, Richard Hamilton and John McHale put together the first Pop-Art manifestation to be seen in any art gallery anywhere in the world, complete with juke box, advertising imagery, science fiction quotations, and made great play with communications theory, topology and other topics generally associated with the 'anti-classical' approach in England at that time. From this extreme, the exhibits shaded right across to the other extreme of orderly geometrical exercises in the 'Groupe espace' manner. Although the Henderson/Paolozzi/Smithson exhibit cannot be fitted neatly into this sequence at any one point, it must be said here that theirs was a traditionalist exhibit, a very long way removed from the Pop-Art extremism of Voelcker, Hamilton and McHale.

Their 'Patio and Pavillon', though put together out of non-traditional materials such as aluminium and corrugated plastic, exhibited an architectural form that would be described nowadays by critics like Vincent Scully as "essentially a megaron in a temenos-enclosure" and was described by the group themselves in the exhibition catalogue in terms of "... necessities of human habitat... the first neces-



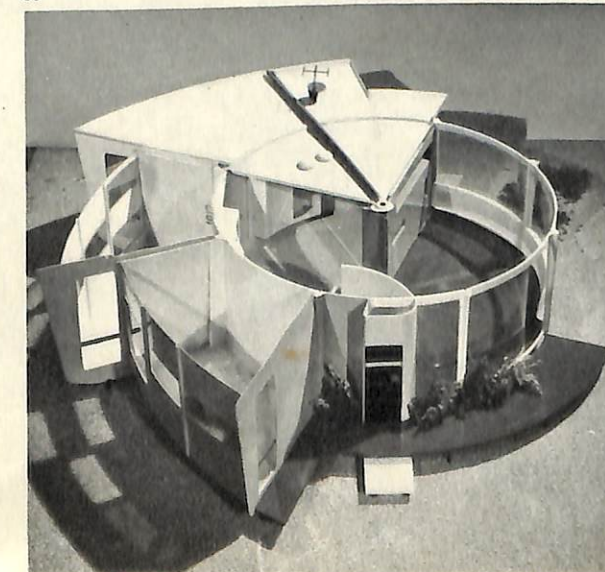
79
Alison und Peter Smithson; House of
the Future. 1956
Kitchen area

sity is for a piece of the world, the patio. The second necessity is for an enclosed space, the pavillon." Such an appeal to fundamentals in architecture nearly always contains an appeal to tradition and the past — and in this case the historicising tendency was underlined by the way in which the innumerable symbolic objects made or gathered by the group were laid out on beds of sand in a manner reminiscent of photographs of archaeological sites with the finds laid out for display. One or two discerning critics, who knew their Smithsons and were acquainted with Henderson's preoccupations with the folkways of the East London poor, described the exhibit as 'the garden-shed aesthetic' but one could not help feeling that this particular garden shed, with its rusted bicycle wheels, a battered trumpet and other homely junk, had been excavated after the atomic holocaust, and discovered to be part of European tradition of site planning that went back to archaic Greece and beyond.

The Smithsons were already beginning to exhibit that fascination with ancient planning that was to take them to visit the original sites in Greece, and was ultimately to affect their own ideas of site organisation in a practical manner in the nineteen-sixties. Had they abandoned their extreme anti-traditionalist position of 1953? Certainly they had made a move in the same general direction as did many leading figures in the world of Anglo-Saxon architecture on both sides of the Atlantic as the neo-Classical revival set in (that is, from Philip Johnson's synagogue at Port Chester, completed in this same year of 1956) but theirs was not Classicism in that sense — the pavilion was not placed axially in the patio, and the planning 'grid' was more like an irregular version of Japanese mat-planning than a classical system of modules. Further, when Peter Smithson came to present the results of his Greek investigations in public lectures in 1959¹⁸,

¹⁸ Reprinted in the 'Journal of the Architectural Association', London, February 1959

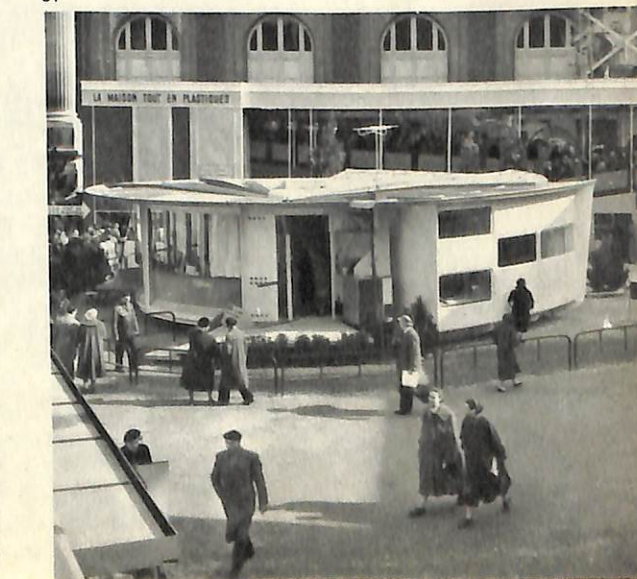
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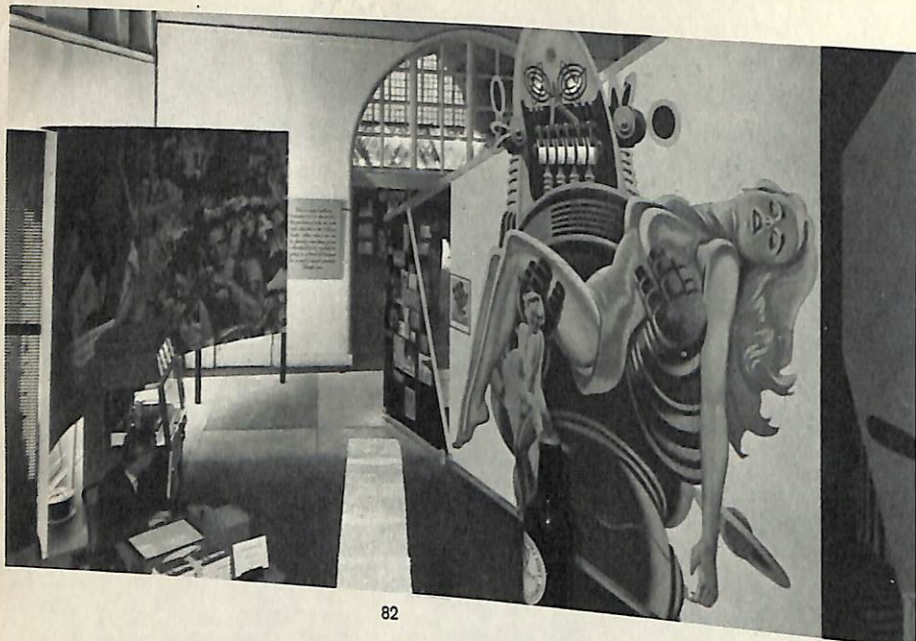


80/81
Jacques Coulon and Ionel Schein; Maison
Plastique (prototype). 1956
Model and general view

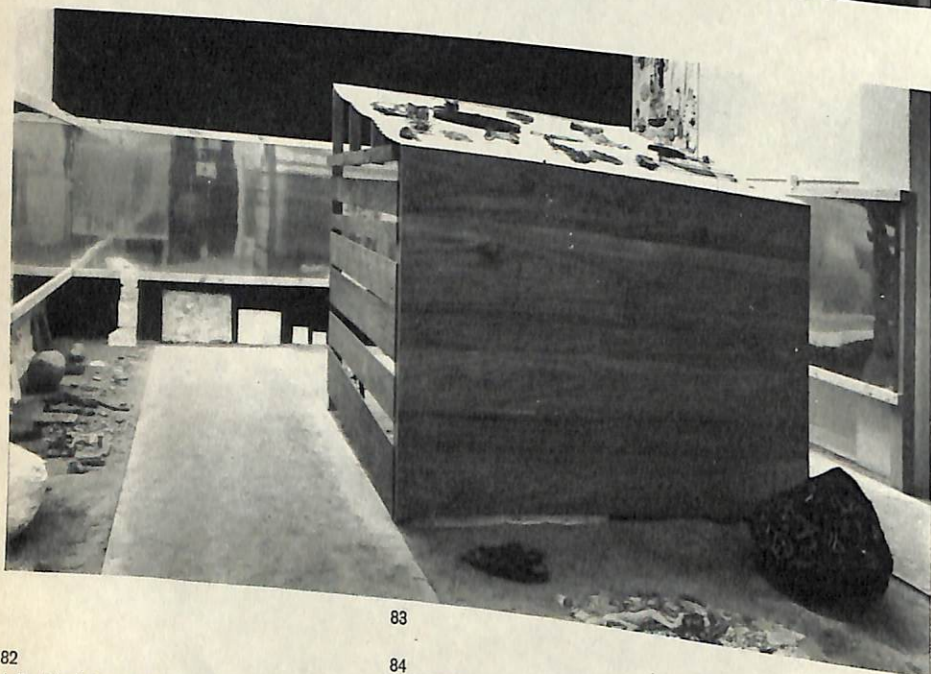
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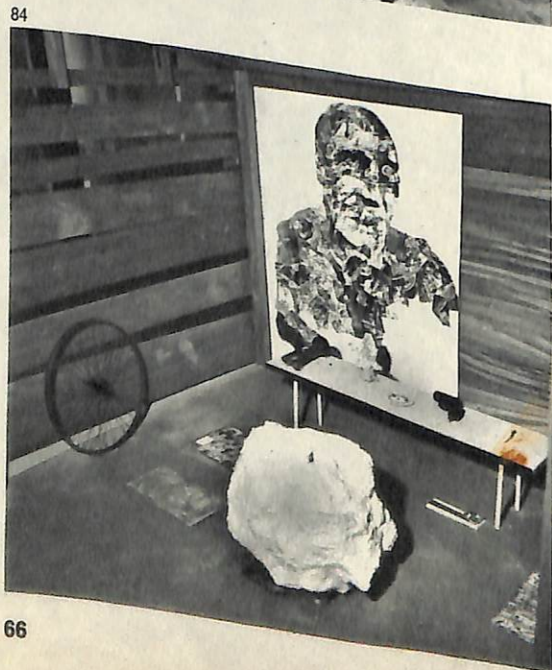


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82
John Voelcker, Richard Hamilton and John McHale; London (England), section of exhibition 'This is Tomorrow'. 1956



66

83/84
Alison and Peter Smithson, Edouardo Paolozzi and Nigel Henderson; London (England), section of exhibition 'This is Tomorrow'. 1956

personal observation on the actual sites had convinced him that the Greeks used no systems of proportion nor geometrical devices in their planning, but had proceeded in a manner analogous to his Sheffield University project, the various buildings being sited for convenience, oriented for ritual and topologically related by connecting 'routes'. If this was classicism, then it was classicism of a very diffuse and generalised kind. If it was traditionalism, then only in the sense that Dubuffet or Paolozzi were traditionalist in occupying themselves with that traditional subject of art, the human presence. Still it was clear that the Smithsons were withdrawing imperceptibly from their close approach to an Other Architecture comparable to Taroach to an Other Architecture comparable to Taroach pié's conception of 'un art autre'. But the withdrawal was very gradual indeed at this stage, especially in their own eyes, as one may see from this statement (made in response to a very dull discussion of the New Brutalism in 'Architectural Design') which they published in April 1957:

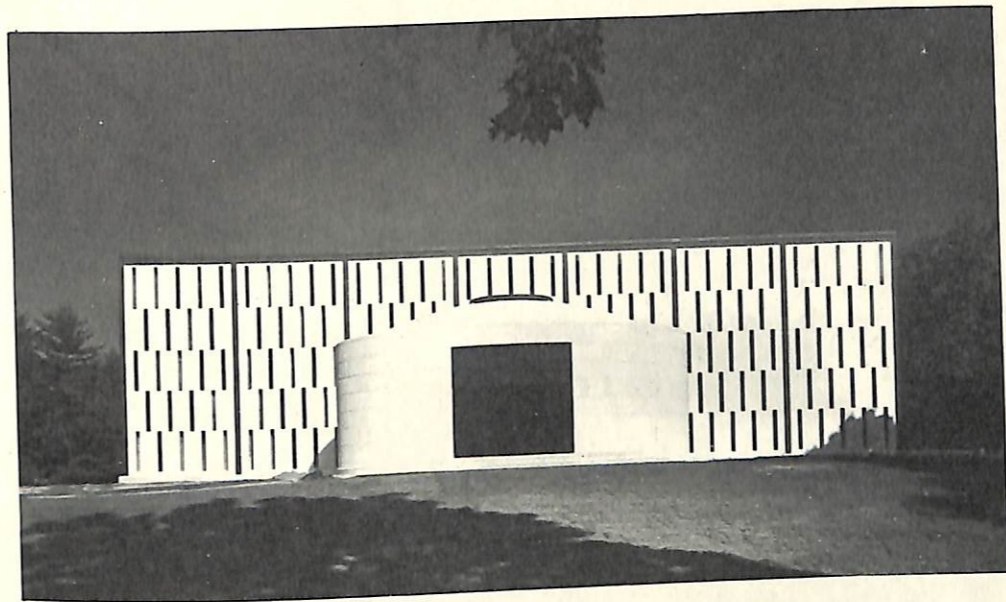
"If academicism can be regarded as yesterday's answer to today's problems, then obviously the objectives and aesthetic techniques of a real architecture (or a real art) must be in constant change. In the immediate post-war period it seemed important to show that architecture was still possible, and we determined to set against loose planning and form-abdication, a compact, disciplined architecture. Simple objectives once achieved change the situation, and the techniques used to achieve them become useless. So new objectives must be established.

From individual buildings, disciplined on the whole by classical aesthetic techniques, we moved on to an examination of the 'whole' problem of human associations and the relationship that building and community has to them. From this study has grown a completely new attitude and a non-classical aesthetic.

Any discussion of Brutalism will miss the point if it does not take into account Brutalism's attempt to be objective about 'reality' — the cultural objectives of society, its urges, its techniques and so on. Brutalism tries to face up to a mass-production society, and drag a rough poetry out of the confused and powerful forces which are at work.

Up to now Brutalism has been discussed stylistically, whereas its essence is ethical."

This statement is not altogether clear in many ways, but it can be related to a real and completed building, the Sugden house at Watford, which was published later in the year. Here one can see the Smithsons seriously facing the realities of the situation in which English suburban houses were built at the time, under all the pressures of domestic symbolism, the entrenched aesthetic prejudices of the local bureaucracy, a routine and unrewarding site surrounded mostly by routine and unrewarding brick houses, and the usual inadequate budget. Characteristically, Peter Smithson developed a grudging admiration for the way in which the com-



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Philip Johnson; Port Chester (N.Y., USA), Synagogue Knesset Tifereth Israel. 1956
Entrance front

mon speculator-built houses of the area extracted the maximum of ostentatious effect from the poor stock of status symbols that could be contrived from the economically possible range of materials, chiefly brick and timber. But he did not accept their 'cultural objectives' and set out to do as honest a job as the limitations of the local 'reality', including the same economically possible range of materials, would permit. The result, like the other houses in the area, was basically a simple brick box, but within it the Smithsons contrived some more enterprising spatial arrangements than are common in British suburban architecture, and tried to illuminate them with windows placed according to internal need, rather than the outworn suburban conventions derived from the Arts-and-Crafts tradition of the nineteenth century. The result has neither the shameless styling of the House of the Future, nor the timeless 'necessity' of the Pavilion in the Patio — and it received an extraordinarily hostile response as these two extracts from the the correspondence columns of the 'Architectural Review'¹⁹ will show:

"... it seems to me that in their efforts to avoid doing the same (as speculative builders) they have done not better, or even as well, but worse. Now I cannot think that this is because they lack ability. Can it be that they are not equipped with a sound theory...?" (Norman Harrison):

"The house at Watford, Hertfordshire, ... is a shocking piece of architectural illiteracy in plan, construction and appearance" (Fred Lasserre).

'Illiteracy', 'not equipped with a sound theory': had the Smithsons for once actually achieved anti-architecture, or even 'une architecture autre'? They had certainly flouted the picture-book conventions of gracious living that had so long circumscribed the ambitions of modern domestic architecture, and although the result was not so extreme as, say, the Sheffield University project, timid souls recognised that it was a subtly subversive building.

¹⁹ 'Architectural Review', December 1957 and February 1958

For illustrations see page 77

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5.2 A note on 'une architecture autre'

What is a subversive proposition in architecture — which, as an art, has been forced, by outside circumstance, to absorb many concepts and usages felt to be hostile to its best traditions, and yet has survived? There was something in the air in the middle of the nineteen-fifties that suggested that a really subversive trend was emerging, something that the traditions of architecture could not absorb, and it was to label the intimations of such a trend (discernible in the Smithsons' Sheffield scheme) that the present author coined the term 'une architecture autre' in December 1955. Whatever I thought I meant by the term at the time, it was snapped by Udo Kultermann ('Baukunst und Werkform', August 1958) in an article subtitled 'Ein neugeknüpfter Faden der architektonischen Entwicklung' (A newly-tied thread of architectural development) but he so narrowed the meaning of the term, to cover little beyond the purely formal alternatives to 'rectangular' architecture, that it is necessary here to re-establish the full meaning of the phrase in terms of the New Brutalism.

As has been implied already, the term was coined by analogy with Tapié's concept of 'un art autre', and was intended to stand for something equally radical. That is, an architecture whose vehemence transcended the norms of architectural expression as violently as the paintings of Dubuffet transcended the norms of pictorial art; an architecture whose concepts of order were as far removed from those of 'architectural composition' as those of Pollock were removed from the routines of painterly composition (ie balance, congruence or contrast of forms within a dominant rectangular format — we argued much whether Pollock paid any regard to the edges of the canvas when dribbling his action paintings); an architecture as uninhibited in its response to the nature of materials 'as found', as were the composers of 'musique concrète' in their response to natural sounds 'as recorded'.

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Drive-in cinema



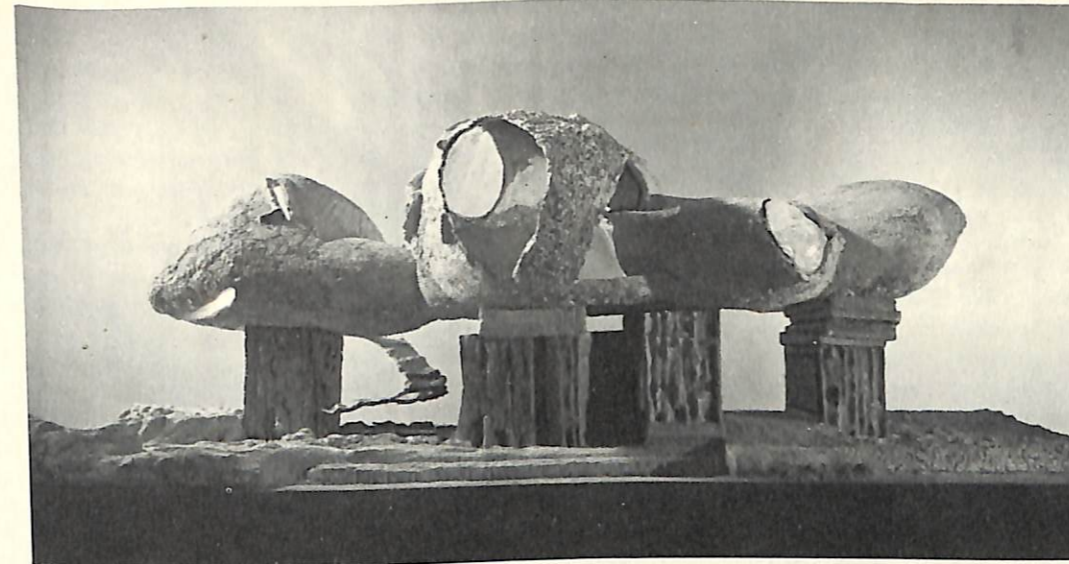
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Thus, the final and absolute abandonment by 'musique concrète' of any traditional kind of scale or even the twelve-tone series, and with it the abandonment of any kind of harmony or melody (in the sense accepted in the theory of music as taught in the 'conservatoires') gave a measure of the extent to which 'une architecture autre' could be expected to abandon the concepts of composition, symmetry, order, module, proportion, 'literacy in plan, construction and appearance', in the sense accepted in the theory of architecture as taught in the *Écoles des Beaux-Arts*, and piously preserved in the Modern Architecture of the International Style and its post-war successors. By this token, 'une architecture autre' ought also to have abandoned even the idea of structure and space — or rather, it ought to abandon the dominance of the idea that the prime function of an architect is to employ structure to make spaces.

Many would agree that to abandon this structure/space synthesis is to abandon architecture altogether, but all that is really abandoned is the notion of the art of architecture that has been current since the Renaissance. Society at large has never shown much interest in this notion, because it has nothing to do with the architect's function in relation to society. What the corporate and private patrons, who have had to represent the desires of society, have demanded of architects is environments for human activities and symbols of society's cultural objectives. For most of human history some kind of space/structure artefact has been the unquestioned manner of satisfying both these desires, but this was never the only possible solution, and it is even less so today. A modern example would be a drive-in cinema, where the structure above ground level encloses no space, and the cultural symbols are transient light-play. But one can adduce much more primitive and genuinely a-formal examples than this, entirely devoid of structural elements or enclosed volume. The camp fire of a nomadic tribe, for instance, creates an environment for human social activity and marks it with a powerful symbol, but the size and shape of the useful environment are defined by no structure, simply by the heat of the fire, the strength and direction of the wind, the physiology of the individuals involved and the activities they are performing.

Given a genuinely functional approach such as this, no cultural preconceptions, and the full battery of modern mechanical services, an 'other architecture' might well employ structure merely as a way of holding up other environmental controls, without endowing it with the monumental significance it enjoyed when massive construction was almost the only environmental control mankind possessed, and with these controls it might or might not happen to define a space without endowing that volume with the cultural significance loaded on it by societies trapped within volumes defined by massive structures.

Formless (sic) buildings, such as Frederick Kiesler's 'Endless House' or Herb Greene's dwelling house



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at Norman, Oklahoma, only superficially fulfil this concept of 'other'. The Sugden House comes nearer to it, in some senses, precisely because it is put together out of traditional materials, and this accentuates its underlying deviations from the norms of constructing environments out of those materials. So Fred Lasserre observes the Smithsons are 'illiterate', and have not employed the grammar associated with domestic planning in brick and wood, but seems not to have entertained the possibility that they might be literate in another language, employing a different grammar.

But more fundamentally 'other' is the approach of a designer like Buckminster Fuller, especially as the architectural profession started by mistaking him for a man preoccupied with creating structures to envelop spaces. The fact is that, though his domes may enclose some very seductive-seeming spaces, the structure is simply a means towards, the space merely a by-product of, the creation of an environment, and that given other technical means, Fuller might have satisfied his quest for ever-higher environmental performance in some more 'other' way. The truth of this has been dawning on architects for some time, and many have come to adopt an attitude of extreme hostility towards him, usually couched in the form of ridicule and harping on certain obvious questions, such as, how do you make an entrance in a dome? (The answer, curiously enough, is the same as for a tower-block by Mies van der Rohe or an Unité by Le Corbusier — you raise it off the ground and go in underneath.) The Smithsons are to be included among those who have adopted this attitude to Fuller, so are practically all others who could carry the name of Brutalist. In the last resort they are dedicated to the traditions of architecture as the world has come to know them: their aim is not 'une architecture autre' but, as ever, 'vers une architecture'.

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Frederick Kiesler; 'Endless House' project. 1957

88
Herb Greene; Norman (Oklahoma, USA), House on the Prairie. 1961

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R. Buckminster Fuller; Carbondale (Illinois, USA), architect's own house. 1960

5.3 The end of an old urbanism

Even if no slogan or label had emerged spontaneously to identify the Smithsons and their international network of like-thinking friends, it would still have become necessary to invent a name of some sort for the purposes of journalism and history-writing. Firstly because their work represents a recognisable trend; secondly, and more urgently, because of the role they played in the politics of the Modern Movement. In the absence of the name 'Brutalists', they would presumably have been known as 'Team-X', and remembered as the destroyers of CIAM.

The relationship between Brutalist ideas and the collapse of the original 'Congrès Internationaux d'Architecture Moderne' is direct, the activities of Team-X in bringing about that collapse deliberate and conscious — at least in the sense of a determination to see their own ideas prevail, no matter what the cost, because they were convinced that they were right and their opponents wrong. However, these ideas were not overnight growths, nor was the formation of the Team-X alliance a sudden secret conspiracy; the process by which the grand old movement was demolished goes back to the beginnings of CIAM's post-war activity, and the creation of Team-X was part of the deliberate policy of the movement's older members, even though the outcome was not what they had intended. To recapitulate briefly: from the seventh congress (Bergamo, 1949) onwards, it was the custom of architectural students (especially from Britain) to flock to CIAM to re-establish contact with the international Modern Movement, to sit at the feet of its great masters and to acquire those non-parochial standards of architectural value that were discussed in section 1.2 At Hoddesdon in 1951, and above all at the crucial ninth congress at Aix-en-Provence in 1954, this mass movement of students gained in strength. Aix, indeed, was almost overwhelmed by the crush of students and young architects, for whom it was a kind of consummation to their 'grande affaire' with the Latin South, with the Mediterranean and, above all, with Le Corbusier. As is well known, a party organised by Le Corbusier's office on the roof of the newly completed 'Unité' at Marseilles was both the crowning moment and major scandal of the Aix congress.

As is so often the case with such emotional occasions as this, the high feelings of Aix were followed by a kind of post-orgasmic reaction:

"We of the younger generation received a shock at Aix in seeing how far the wonder of the 'ville radieuse' had faded from CIAM."²⁰

So wrote Team-X in the preamble to their programme for the tenth congress at Dubrovnik. The content of this statement is as symptomatic of the troubles of CIAM as were the names of it signato-

²⁰ Reprinted in: Oscar Newman, 'CIAM '59 in Otterlo', 1st volume of the 'Documents of Modern Architecture' edited by Jürgen Jödicke, London 1961, which is the best compact source for the references and quotations in this section.

ries. Looking back now, it is clear that the composition of Team-X (so called because they were entrusted with producing a programme for CIAM-X) represented an alliance of genuinely like minds, rather than a temporary grouping of dissident elements: Bakema, Candilis, Gutmann, Howell, van Eyck, Voelcker and the Smithsons were becoming increasingly tied by genuine friendship and admiration for one another's work. On the other hand it is difficult not to sense an odour of cynicism in the motives of the older CIAM in entrusting this group with congress X — some genuinely believed in giving the young an opportunity to prove themselves, but for others the only way to silence the tide of criticism they could feel among the younger members was to confront them with the realities and responsibilities of power, in the hope that this would tame them.

But, with four British members, Team-X was half-committed to the English view of CIAM and its future before its meetings ever began, and the essence of that view is contained in the quotation given above: CIAM was seen as the guardian of the sacred vision of 'la ville radieuse' and the older members were censured for having lost faith. In point of historical fact, of course, this view is a travesty of what CIAM originally set out to do: Le Corbusier's vision of 'la ville radieuse' was only one of a number of town-planning concepts and urbanistic philosophies that had been contributed to CIAM's pool of ideas. There were no reasons for expecting other founder-members to abandon their own urban visions in order to support Le Corbusier's, and even José Luis Sert's 'Can our Cities Survive?', the official compendium of CIAM town-planning, synthesises a number of viewpoints, even though it was compiled after political difficulties in other parts of Europe had allowed the French group (and, therefore, Le Corbusier) to establish a virtual hegemony over CIAM.

But the war, and other causes, had allowed that hegemony to become dominant in the minds of the young, and successive volumes of the 'Oeuvre complète' had taught them to interpret the Athens Charter through Le Corbusier's eyes, and to see some form of 'ville radieuse' as the corporate ambition of CIAM. Also there is no doubt that the post-war aspect of the pre-war heroes — middle-aged, greying, world-weary and wise in the ways of diplomatic compromise — must have come as a shock to those who had previously known them only in glamorous photographs taken during the Athens congress, or in the fervent writings of their youth. Now inclined to be a little sceptical of the possibility of applying even the simple concepts of the Athens Charter among the conditions then ruling in war-ruined Europe, preoccupied with husbanding the structures and resources still in existence rather than making 'tabula rasa' and starting again, they must indeed have looked, in the eyes of the young, like traitors to the great vision.

Soon after Aix, and a few months after their first Brutalist manifesto, the Smithsons gave their view

of the relations between Team-X and the CIAM 'establishment' in their earliest published statement on town planning²¹:

"Each generation feels a new dissatisfaction and conceives a new idea of order. This is architecture.

Young architects today feel a monumental dissatisfaction with the buildings they see going up around them.

For them, the housing estates, the social centres and the blocks of flats are meaningless and irrelevant. They feel that the majority of architects have lost contact with reality and are building yesterday's dreams when the rest of us have woken up in today."

They then go on to attack the Garden City concept (ever a favourite target in Britain) and then the 'Rational Architecture Movement' which one knows from other observations made by them, to mean the town-planning ideas (on housing in particular) of Gropius and his followers as set out in 'Can Our Cities Survive?':

"The social driving force of that movement was slum-clearance, the provision of sun, light, air and green space. This social content was perfectly matched by the forms of functionalist architecture, the architecture of the Academic period which followed the great period of Cubism, and Dada, and de Stijl, of the 'Esprit nouveau'. This was the period of the minimum kitchen and the Four Functions, the mechanical concept of architecture."

The complaint about the 'mechanical concept' of the 'four functions' refers, of course, to the basic postulates of the Athens Charter, which separates out: Work, Residence, Recreation and Circulation as the four functions of the city. Even the older members of CIAM recognised that this analysis was inadequate, but did not reject it, merely adding new functional categories such as 'the historic centre' ('Can our Cities Survive?') or 'the Core' (CIAM-VIII, Hoddesdon, 1951). But the young were for a root-and-branch rejection of all the Athenian categories, which they frequently damned as 'diagrammatic', and the progress of their revolt was summarised thus by Theo Crosby²²:

"The CIAM congress at Aix-en-Provence in 1954 (sic) saw the first crack in the theoretical solidity of the Modern Movement. The Smithsons showed Henderson's pictures, met Candilis (who had produced some remarkable Moroccan housing), J. B. Bakema of Holland and several young men who also found the Athens Charter obsolete. They formed a group to exchange information. This group, Team 10, was entrusted by CIAM to prepare the programme for the 10th CIAM congress at Dubrovnik in 1956 (apparently on the principle: if you can't beat them, join them). The method of analysis for the projects submitted was, roughly, in terms of human association rather than functional organization, thus marking a radical break in architectural thinking.

²¹ 'Architectural Design', June 1955

²² Introduction to 'Uppercase 3', London 1960

At Dubrovnik it became evident that CIAM, with over 3,000 members, had become too diffuse to cover any subject other than by the merest generalisation. There was also a cleavage between the founders, old, famous and very busy, and the followers, young, underworked and ravenous for power. The congress broke up, leaving Team 10 in possession of the field. Most national groups dissolved themselves. Team 10 continued to meet, in Paris (1959) and Otterlo (1959), but they met as individuals."

Of course, CIAM did not immediately vanish, and there was a good deal of recrimination and back-biting among the survivors, which persisted, well after the Otterlo congress, in a lengthy correspondence in all the world's leading architectural magazines, about precisely the kind of legalistic point that tends to obsess the minds of old men in defeat — whether or not Otterlo had the 'right' to decide that "the name of CIAM could no more be used by participants", to quote Bakema's summary statement after Otterlo had broken up.²³ The plain fact was that the old men were defeated — at least within the framework of the old CIAM. It was evident that much had been lost — the middle generation, particularly the Italians like Ernesto Rogers and Ignazio Gardella, had been deprived of the opportunity of succeeding to the seats of power vacated by the old; distant members like Kunio Mayekawa had been deprived of the psychological support of membership in a great international organisation; even the youngsters seem to feel vaguely cheated that their later meetings (eg Royamont, 1962) did not carry the prestige or attract the world-wide attention accorded earlier meetings. If Team-X were left 'in possession of the field', it was because even their potential allies had fled, with the exception of the few, chiefly in Europe, who at that time agreed with them that town-planning is primarily an architectural discipline, and that the word 'city' still stood for something of positive human value expressed as an emotive artefact — as an 'image'.

What did this view mean to them? The preamble to the Dubrovnik instructions again provides valuable clues:

"Each architect is asked to appear, project under his arm, ready to commit himself . . .

We are seeking the ideal habitat for each particular place at this particular moment . . .

. . . we are interested only in the outcome of this collaboration (with sociologists and other specialists), not in diagrams of relationships or analytical studies, but as architecture."

There is an implicit rebuttal of Le Corbusier in these quotations: when he first conceived the earliest version of the 'ville radieuse' it was the generalized solution for an ideal site, avoiding 'all special cases, and all that may be accidental'. The young, in unknowing pursuance of a definition of

²³ Reprinted at the end of 'CIAM '59 in Otterlo', see also his letter circulated to all the magazines which printed the 'anti-Otterlo' declaration of Giedion, Sert, Le Corbusier and Gropius.

Brutalism once offered by Toni del Renzio — "Do as Corb does, not as Corb says" — applied themselves instead to the proposed built environment of a particular place with all its accidental and special features, the unique solution to a unique situation. For even those who felt required to reject the categories of the Athens Charter as 'diagrammatic' could accept the 'Unité' as the ideal habitat for Marseilles in 1950. Concurrent with this emphasis on the realities of a particular place (comparable with the Brutalist insistence on the real nature of particular materials etc) is the insistence on commitment, that the architect should be so personally involved with his proposed habitat that he would be prepared to defend it against detailed scrutiny by his fellow-professionals.

To the young who had recently emerged from architecture schools, especially in Britain where the 'criticism' system was still a workable educational technique, the submission of one's work to public examination by a jury was a work-a-day purgatory, a customary form of intellectual discipline. To some of their continental contemporaries it appears to have come as a novel and welcome exercise in existential self-examination, but can one imagine a Gropius, a van Eesteren or a Neutra submitting his work to the indignities of hostile questioning by men forty years his junior? Even the middle generation had difficulties in acknowledging the criticisms of the young, as may be seen occasionally in the published record of the Otterlo congress.

But if CIAM broke up because many of its older members knew that their work was too heavily compromised for them ever to bare their architectural souls in public (and, worse, they knew that the young were fully aware of this, and were waiting to pounce), the legends of some of these older members survived untarnished, especially that of Le Corbusier, who had survived the disaster of Dubrovnik with Mikoyan-like cunning. His personality, his vision of the radiant city survived everything, and continued to dominate the minds of the Team-X/Brutalist connection even after the Athens Charter had been declared obsolete. This dominance can be seen clearly enough in the following short article or, rather, 'exhortation', by the Smithsons which appeared in the 'Architectural Review' at the end of 1957, and can well stand as a representative sample of their writings on town planning. It commences with an editorial introduction which is, effectively, a profession of support for their views²⁴:

"Throughout the past quarter of a century, from the first congress at la Sarraz in 1928 to its virtual dissolution last year . . . CIAM has brought together the masters of Functionalist architecture — Le Corbusier, Gropius, van Eesteren and many others — in discussion on the problems of their art, and of city planning in particular. Their findings, formulated in methodically drawn-up documents, the most notable being the Athens Charter of 1933, now begin to ap-

pear too diagrammatic, formalistic and legalistic, and here, Alison and Peter Smithson, who have participated in much of CIAM's post-war activity, set out a case for rephrasing CIAM's functionalist tenets on a more humane and pragmatic basis."

Then follows the article proper, under the title 'Cluster City' (the word 'cluster' comes ultimately from the American urbanist Kevin Lynch, and passed into British circulation through Denys Lasdun, who called his residential towers in East London 'cluster-blocks')²⁵:

"The modern architect is interested in the implications of his building in the community and in the culture as a whole. His first concern is with the general problem, from which the specific solution in the particular situation is evolved. The Declaration of the first Congress of Modern Architecture (CIAM) in 1928 was concerned not only with the throwing over of outmoded formulas and the Academies, but with the actual functional basis of the new architecture, with economics, with the rationalisation of building, and also with town planning, for the Functional City was the natural extension of a Functional Architecture.

The situation for the modern architect today is fundamentally the same, we are still functionalists and we still accept the responsibility for the community as a whole, but today the word functional does not merely mean mechanical as it did thirty years ago. Our functionalism means accepting the realities of the situation, with all their contradictions and confusions, and trying to do something with them. In consequence we have to create an architecture and a town planning which — through built form — can make meaningful the change, the growth, the flow, the 'vitality' of the community.

There must be inherent in the organisation of every building the renewal of the whole community structure. Take, for example, the problem of rebuilding three houses in an existing street; the houses on each side of the street form, with the street itself, a distinct urban idea; the three new houses should not just live off this idea, but should give an indication, a sign, of a new sort of community structure. But this cannot be done unless the architect has a more or less completely conceived general idea or ideal towards which all his work is aimed.

It is now obvious that the functional-mechanical concept of town planning and the Cartesian aesthetics of the old Modern Architecture are no longer relevant. Le Corbusier's dream of a Ville Radieuse was supported by a geometry of crushing banality. For that is how we see it now — the plans move us as little as the pattern on the tablecloth at the 'Vieux Paris' which is, indeed, where it may have originated. (How different are our reactions to the same image! His, sparking-point, excitement; ours, art-historical curiosity).

²⁵ Lasdun gave a circumstantial account of his discovery of the cluster concept in 'Architectural Design', February 1958, referring particularly to an article by Kevin Lynch that had appeared in 'Scientific American', April 1954.

Yet the dream was real enough, and is still relevant: 'Here we have a promenade for pedestrians rising on a gentle ramp to first-floor level which stretches before us as a kilometre flight of terrace. It is flanked by cafés embowered in tree-tops that overlook the ground beneath. Another ramp takes us to a second promenade two storeys above the first. On one side of it is a Rue de la Paix of the smartest shops: the other commands an uninterrupted view of the city's limits. Yet a third ramp leads to the esplanade along which the clubs and restaurants are grouped. We are sheer above the expanse of parks with a tossing sea of verdure plumb beneath us. And to the right and left, over there, and further away still, those gigantic and majestic prisms of purest transparency raise their heads one upon another in a dazzling spectacle of grandeur, serenity and gladness . . .' 'Those hanging gardens of Semiramis, the triple tiers of terraces, are 'streets of quietude'. Their delicate horizontal lines will span the intervals between the huge vertical towers of glass, binding them together with an attenuated web . . . That stupendous colonnade which disappears into the horizon as a vanishing thread is an elevated one-way autostrada on which cars can cross Paris at lightning speed . . . When night intervenes, the passage of cars along the autostrada traces luminous tracks that are like the trails of meteors flashing across the summer heavens.'

This quotation is from a piece called 'The Street' which originally appeared in 'L'Intransigeant' in May 1929. It is a description of the 'plan voisin', a project of 1925 which applied the principles and building types of Le Corbusier's earlier project 'une ville contemporaine' (1922) to Paris.

We still respond to this dream, but we no longer believe in the means by which he imagined it could be achieved. His city is a colossal, axially-organised chess-board.

The general idea which fulfils these requirements is the concept of the Cluster. The Cluster — a close-knit, complicated, often-moving aggregation, but an aggregation with a distinct structure. This is perhaps as close as one can get to a description of the new ideal in architecture and planning.

Given this description, the problem of building the three houses in an existing street is one of finding a way (whilst still responding to the street idea) to chop through the old building face and build up a complex in depth, of providing a suggestion, a sign, of the new community structure.

It is traditionally the architect's job to create the signs or images which represent the functions, aspirations and beliefs of the community, and create them in such a way that they add up to a comprehensible whole. The cluster concept provides us with a way of creating new images, using the techniques which have been developed to deal with the problem of a mass-production society, the techniques for example of road and communication engineering. Many solutions have been put forward to deal with the problem of traffic — motorways joining population centres, urban motorways within com-

munities, peripheral controlled parking round the old centre, out-of-town shopping centres, off-motorway factories and residential dormitories; solutions which either disperse the energies of communities or integrate them in an entirely new way.

The accepted concept of the city is one of concentric rings gradually decreasing to the edges in residential density and ground coverage, with a radial road-pattern from the historic nodal point. To this pattern has lately been added concentric self-contained low-density satellites (isolated around London, connected at Stockholm).

In the Cluster concept there is not one 'centre' but many. Population pressure-points are related to industry and to commerce and these would be the natural points for the vitality of the community to find expression — the bright lights and the moving crowds.

These commercial and industrial pressure-points are connected by motorways to frankly residential dormitories and dormitory-used villages. It is useless to pretend that life is so simple that we can all 'live where we work' — we have to accept population mobility and be one step ahead of it in controlling the form it takes. Creating new images both for the new elements themselves and for the old elements which have to be transformed.

We must think out for each place the sort of structure which can grow and yet be clear and easily understood at each stage of development. The word Cluster gives the spirit of such a structure, and existing planning techniques, such as the control of residential densities, comprehensive redevelopment and compulsory purchase, give the power (at least in England). There seems no reason why more freely-flowing, more varied, more useful communities cannot be constructed."

This single article will, for the purposes of the present book, serve to represent the typical contents of a Smithson article on town planning of this period. Most of the themes and preoccupations seen here recur throughout their other writings on the subject, and are simply enriched, rather than transformed by additional thematic material — especially concerned with the automobile, or the transience and permanence of urban buildings, after they had visited the USA. Whatever is added, the central theme remains always the ideal solution 'for a particular place at the present time', with every new building seen as a successful, or unsuccessful, prototype of a new urban order.

The whole 'cluster of ideas' is best summed up in one magisterial 'image' — the scheme with which they won a prize and great kudos in the 'Hauptstadt Berlin' competition in 1958. Their acceptance of 'the realities of the situation' went to the extent of retaining most of the existing street grid of the part of Berlin in question, and then giving the city a completely new pattern of pedestrian circulation on open decks (analogous to the terraces of the 'plan voisin') two or three storeys above the streets. This device of the two contrasting superimposed grids has the air

²⁴ 'Architectural Review', November 1957

of a direct rebuttal of the chess-board geometry of Functionalist town planning, and may even be a conscious gesture of contempt for the defeatist attitude of Gropius at CIAM-VI (Bridgewater, 1947) when he said that Berlin could not be substantially replanned because the existing network of streets, sewers and other services represented too big an investment to be disturbed.

But the 'image' of 'Hauptstadt Berlin' was not only an irregular network of upper pedestrian walks as seen on plan (though that pattern has been much copied) it was also the means of vertical circulation that connected the old, ground-level grid with the new one above it. This was to be an escalator city, in which vertical transportation was to be almost more the norm than horizontal movement. This was both the image of the new elements, and the image of the old that had been transformed, for the urban meaning of the streets at ground level would clearly be quite different now that the main circulation of the city had moved up in the air.

But there is another matter of considerable interest to be seen emerging at this stage in the development of Brutalist town planning — the re-appearance of Picturesque method. It needs to be emphasised that this is more a matter of Picturesque methods of thinking than of Picturesque visual composition. This was not really so surprising when one recalls that both the Brutalists and the proponents of the neo-Picturesque had rejected Beaux-Arts planning as a matter of principle: both would object to the 'plan voisin' because it was an axially-organised chess-board; both sought for a pragmatic planning method that would allow communities to develop ('opened', to use a term not yet current in 1958) and it is difficult to see how the Smithsons' insistence on 'accepting the realities of the situation' as put into effect in their Berlin project, really differed from the Picturesque injunction to 'consult the genius of the place in all' (see section 1.2). Again, the line pursued by the 'Architectural Review', for instance, in insisting that when new buildings were to be inserted into existing environments, then they should be 'sympathetic' but still avowedly 'true to their own time', differs from the Smithsons' problem of three new houses in an existing street chiefly in the tone of voice and choice of words employed in arriving at the same conclusion.

Behind this seemingly unexpected turn of events there were buried causes which cannot be fully explored here — suffice it to give as an example a document submitted to CIAM-V in Paris in 1937 (reprinted in the official report 'Logis et Loisirs' of 1938). This document, headed 'Theory of Contacts' contains some striking anticipations of the ideas put forward in Cluster City, and especially of the insistence on the importance of human association and population mobility as put forward in the Dubrovnik papers:

"Or, la société n'étant que la réunion des hommes, il importe de les grouper le plus harmonieusement que possible en favorisant ainsi les échanges intel-

lectuels et commerciaux de toutes sortes. C'est le réseau de circulation à une échelle nouvelle qui détermine le plan de la ville future."

Though couched in the Gallic rhetoric of pre-war CIAM prose, these opinions were the work of one of the most conscientiously English of Englishmen, H de Cronin Hastings, the intellectual driving force behind the neo-Picturesque campaign of the 'Architectural Review'.

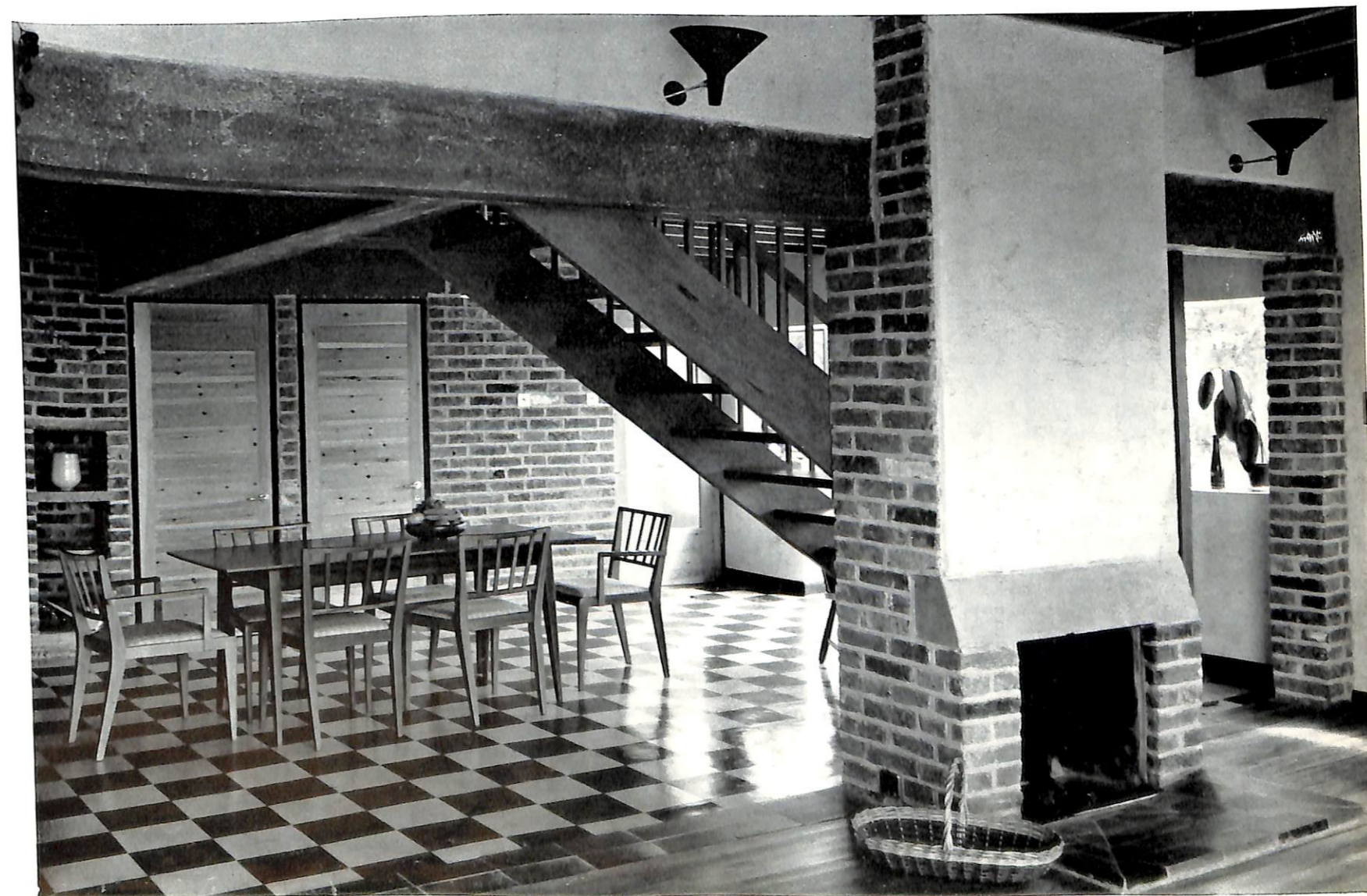
Symbolically, the gap between the Brutalists and the Picturesque Townscape movement may be said to close in 1962, when the Smithsons employed Gordon Cullen, greatest of the Architectural Review's 'Townscape' draughtsmen to prepare the perspectives of their Economist building. But by that late date the old polemical differences of the early fifties were becoming smudged over. As late as 1959, Lawrence Alloway in 'Architectural Design' was still trying to keep the party lines firmly drawn by reminding his readers of the "bitter knowledge of the sweet taste of the Festival of Britain whimsy, the crown of the British Picturesque revival", but in less than a year after that, 'Architectural Design' carried an article on Romantic Gardens by none other than H F Clark, whose articles on this very subject in the 'Architectural Review' had been the first harbingers of the Picturesque revival.

This closing of the circle in about one decade represents many causes at work — shifts of fashion, loss of polemical urge, idealism making its peace with pragmatism, dreams accommodated to the 'realities of the situation', the Englishness of English architects overcoming their interest in exotic influences, the backyard proving a more pressing problem than the patio. In any case, what happened to the English Brutalists did not necessarily happen to the rest of Team-X, and the planning of a Bakema or a Candilis always retained a degree of diagrammatic idealism that disappeared from the work of the Smithsons, Howell, Voelcker or the others who had submitted rural housing schemes as the British contribution to Dubrovnik. Somewhere in the process, what the English were doing had become separated from Brutalism as the world was coming to understand it. In common international usage, the word was shedding its urbanistic and technological overtones, and becoming narrowed to a stylistic label concerned largely with the treatment of building surfaces. It was possible for one of the contributors to the 'Architectural Design' symposium on the New Brutalism in 1957 to refer to "the more specifically Brutalist elements such as the untreated surfaces and exposed pipes and ducts and conduits". The Smithsons might object that this missed the point (see section 5.1) but such was the prestige of Le Corbusier's 'béton brut' that the world was becoming convinced that this heroic material was 'specifically Brutalist' — and, for this, one building was responsible. Though works by Bakema, or Aalto, already existed that might have given substance to Brutalism, it was Le Corbusier who stamped his personal style upon the word.



90 / 91
Alison and Peter Smithson; Watford (Hertfordshire, England),
Sugden House. 1956
90
Front elevation

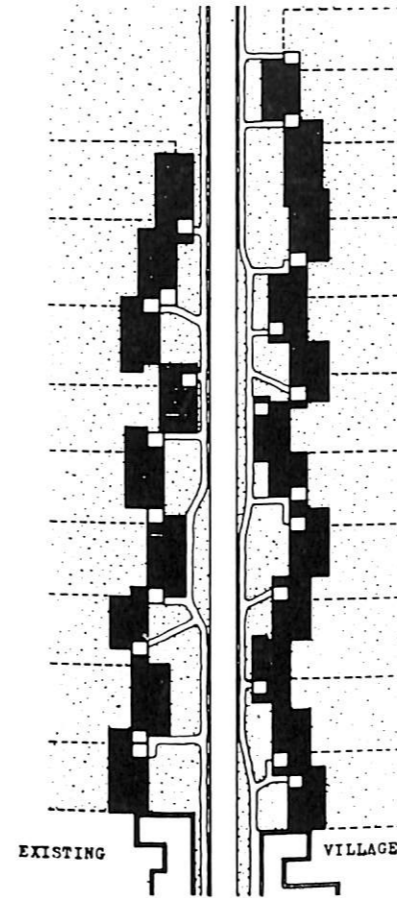
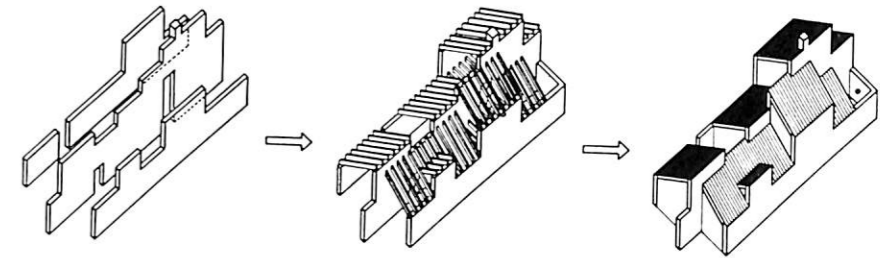
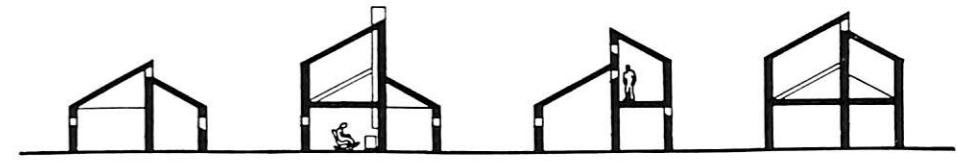
91
Dining area with stairs to upper floor



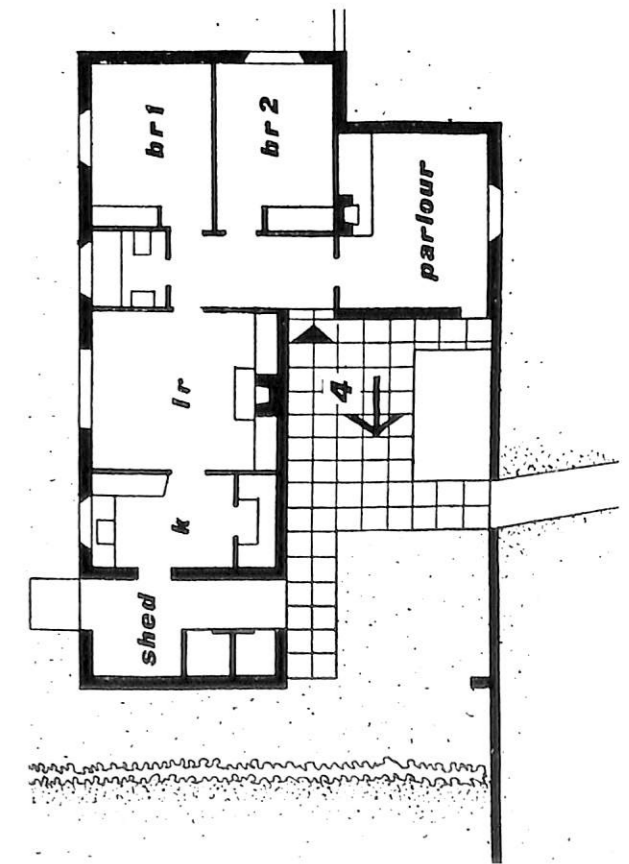
92 - 94
 Alison and Peter Smithson;
 Rural Housing Project for CIAM - X. 1955
 Transverse section showing covered pedestrian walk, elevations and sections



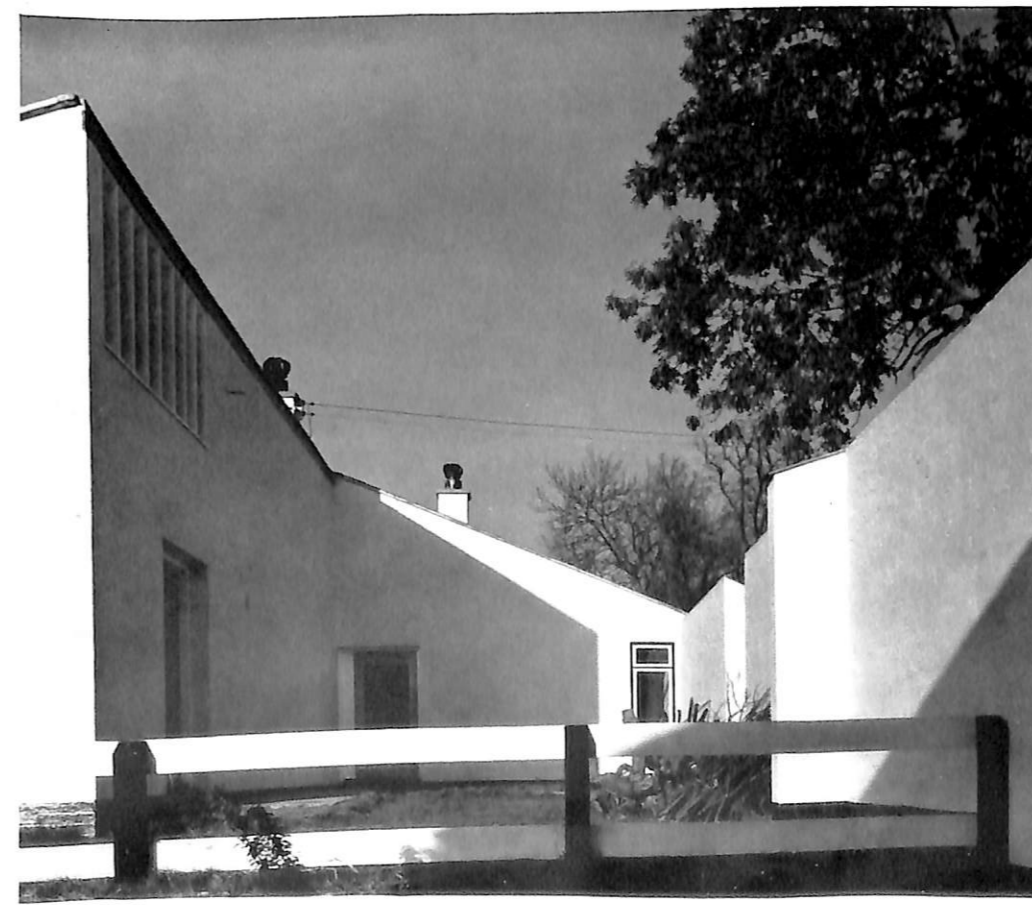
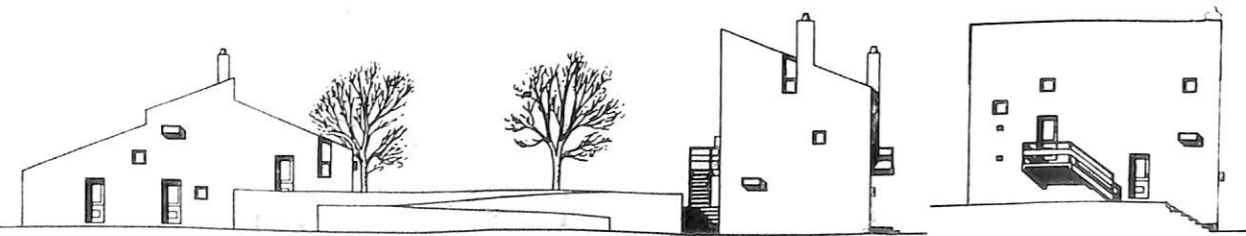
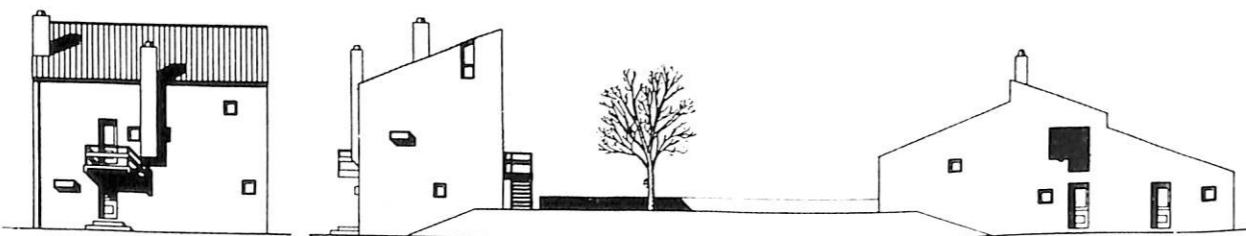
97 - 99
 James Stirling; Rural Housing Project for CIAM - X. 1955
 Diagrammatic layout-plan, sections, constructional system



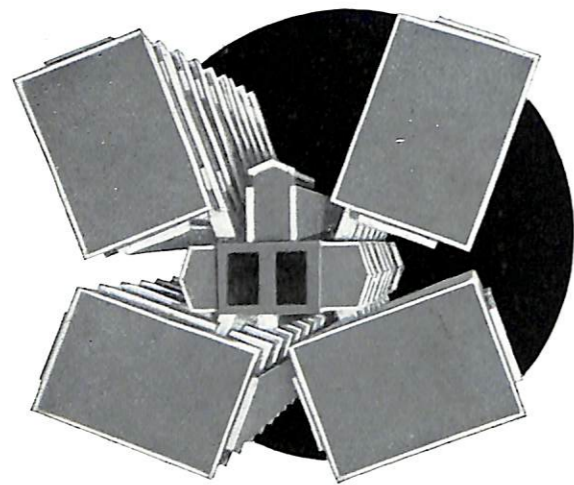
100 / 101
 Richard Llewelyn-Davies and John Weeks; Rushbrooke (Suffolk, England), Village Housing. 1957
 Front yard, and house-plan (scale 1:200)



95 / 96
 William Howell and John Partridge;
 Rural Housing Project for CIAM - X. 1955
 Elevations of community buildings

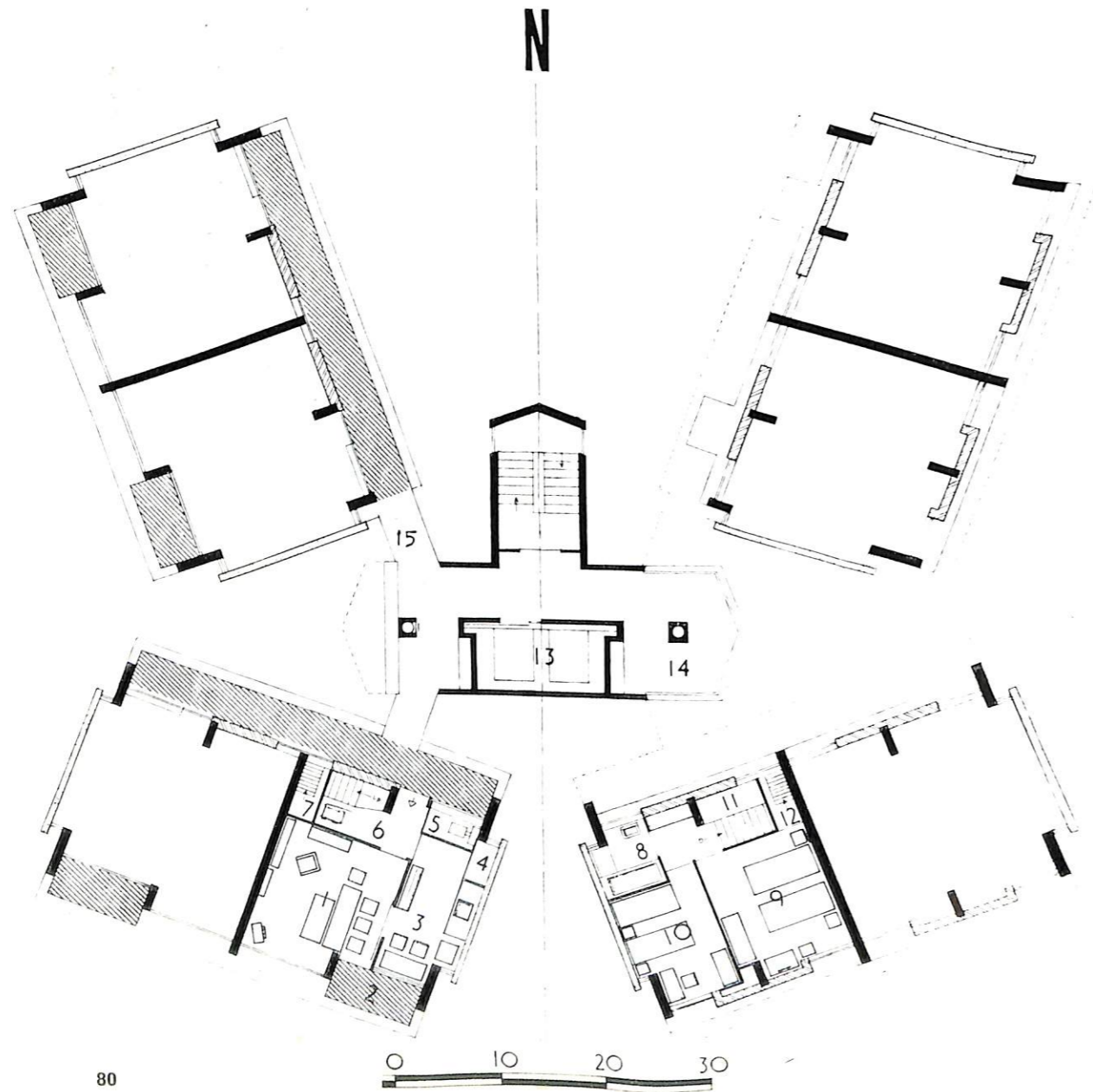


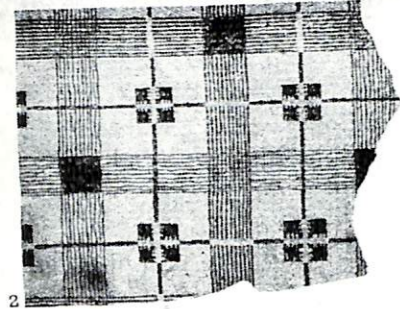
102-104
 Denys Lasdun and Partners;
 Bethnal Green, (London, England),
 Cluster-block. 1957-60
 102
 Model



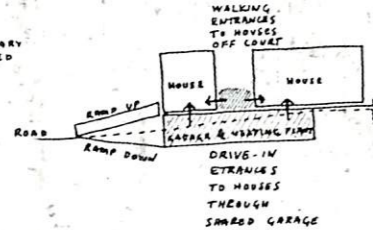
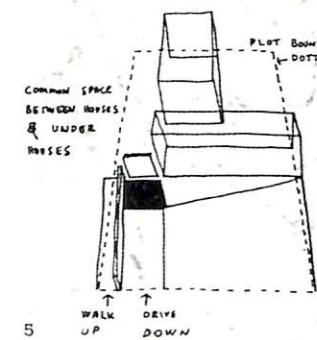
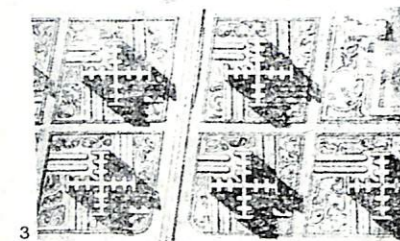
104 (right)
 The tower-block in its townscape

103
 Typical floor plan (scale 1:200)
 1 living room
 2 balcony
 3 kitchen
 4 larder
 5 toilet
 6 entrance
 7 escape stair
 8 bathroom
 9/10 bedrooms
 11 main stairs
 12 escape stair
 13 lifts
 14 drying yard
 15 access bridge

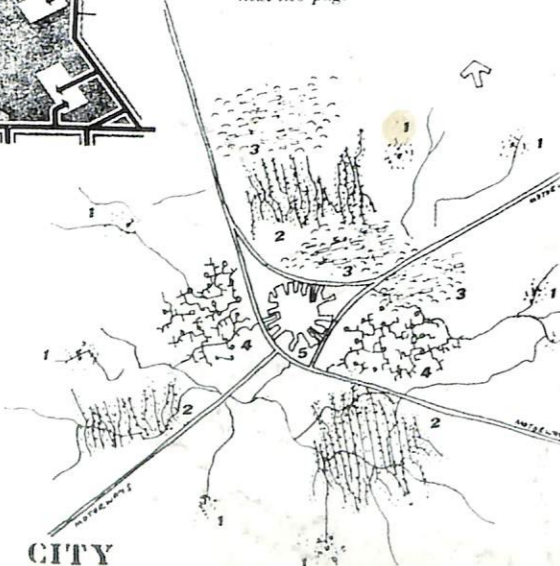
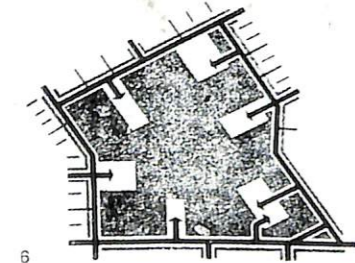




The geometry on which the plans of Le Corbusier's early urban visions were based, proves to have been as banal as that of the pattern of a paper tablecloth. 2, from which it may well have been derived, 3. Though this is of interest to us today as a point in art-history, to Le Corbusier it was the germ of an urban vision that created a convincing image of a city, 4.



Le Corbusier's Maisons Jaoul predict the changed relations of building, site and circulation in a viably motorized world, 5, a change that must have architectural consequences on a civic scale in a project like Victor Gruen's pedestrian core for Fort Worth, 6, or the authors' idea for a city of population clusters, 7, each working or living in types of buildings that have their own appropriate relation to motor traffic, and are described on the next two pages.



CLUSTER CITY

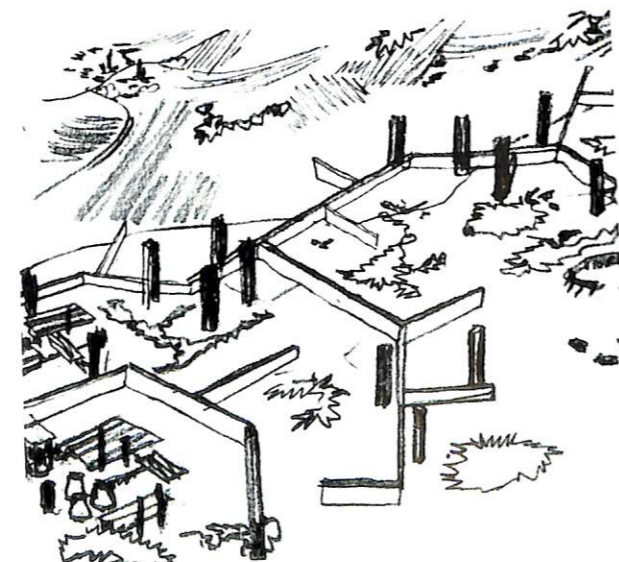
105 / 106
Alison and Peter Smithson; Illustrations to Article "Cluster City". 1957

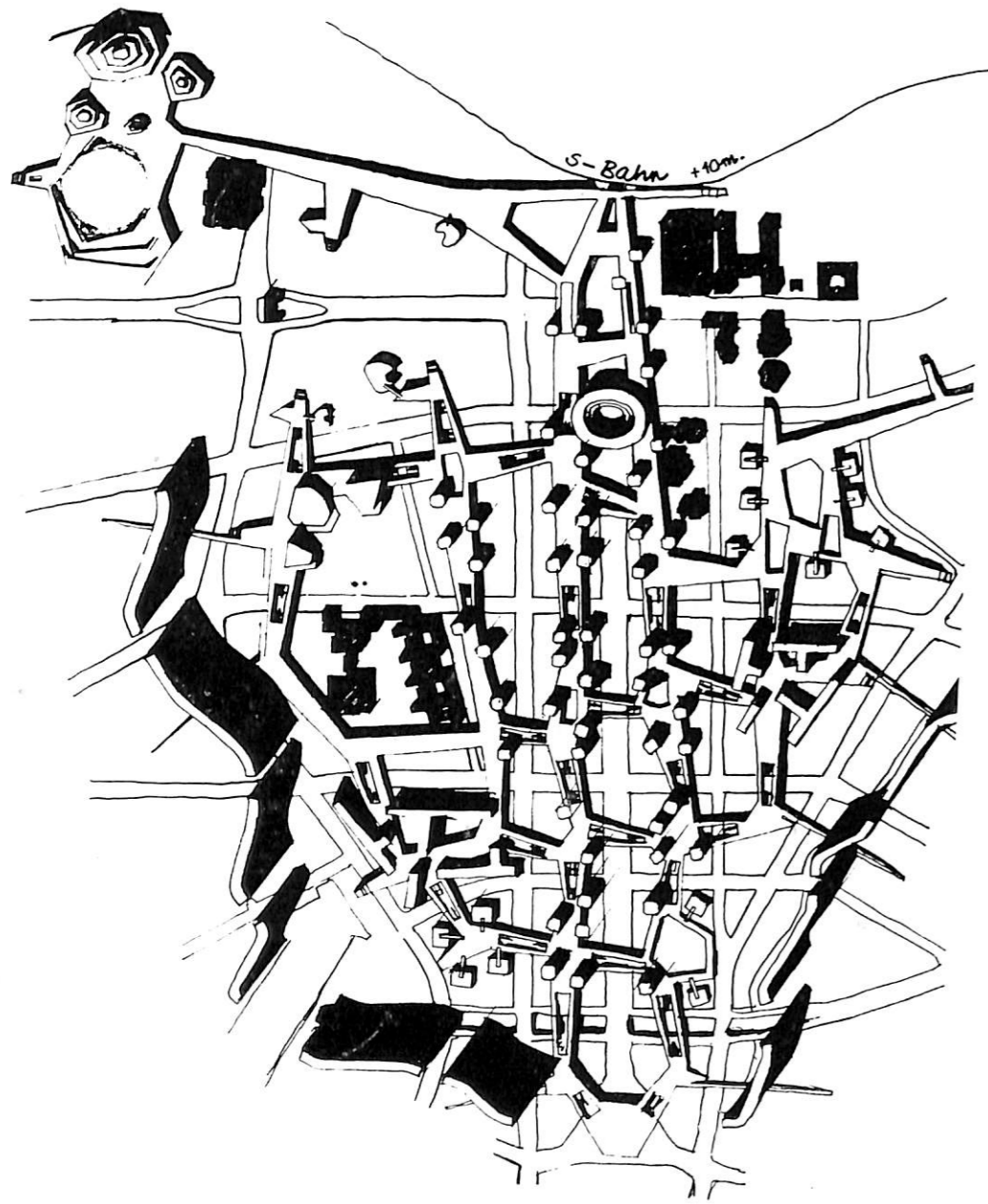
105
Contrast between Le Corbusier's early pattern-making, represented by upper three illustrations, and his Jaoul Houses, Victor Gruen's master-plan for Fort Worth, and the Smithsons' Cluster city, these last three all automobile-determined

107 - 109
Alison and Peter Smithson; Berlin-Hauptstadt (Germany), competition design. 1958

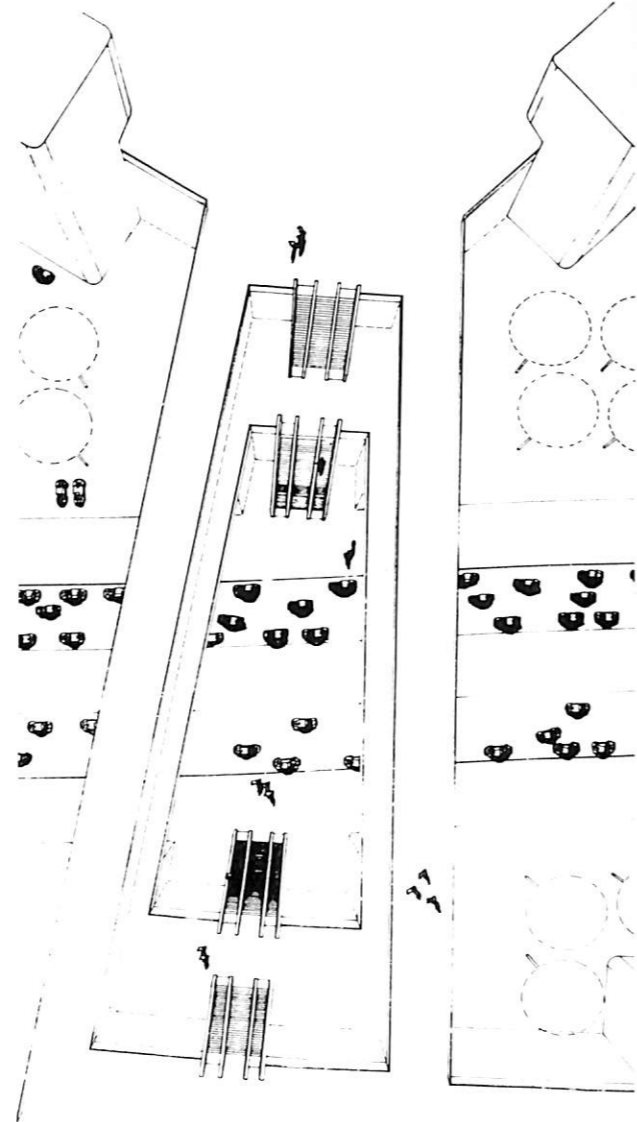
107 (right)
Upper-level pedestrian network (shaded, scale 1:2000)

106
Towers and slabs of Cluster city





108
Central area



109
Interchange between upper deck levels and ground, showing
escalators

For illustrations see page 93-101

6.1 Les Maisons Jaoul, Neuilly

The word 'Brutalism' was circulating, but the general architectural public remained unconvinced by the polemics of the Smithsons or the apologetics of critics like the present author, and were still puzzled by its meaning and hard put to find a building that seemed to match the word. The steel and glass of Hunstanton, even when allied to the rough imagery of 'Parallel of Life and Art' seemed too thin, too elegant to fulfil the implications of violence and crudity carried by the word 'brutal'.

Then came the Maisons Jaoul in 1956, and the vacuum of architectural meaning was dramatically filled. The later history of the New Brutalism has much less to do with the theoretical propositions of the Smithsons than it has to do with the progress and permutations of the style invented by Le Corbusier for these two-houses-on-one-podium at Neuilly. They 'became' Brutalism, and although sympathetic critics like Denys Lasdun might protest that "the Jaoul houses, likeable or not, should be hailed or challenged, but not classified"²⁶, the very phraseology of the protest suggests that he knew it was already too late. They were classified Brutalist, and became the common standard by which the Brutalism of other buildings could be evaluated. However it is worth noting at this point that Le Corbusier seemed reluctant to apply the word 'brut' to them, preferring to speak of their 'briques apparentes' and 'gros béton arme'. Also James Stirling, breaking into print with an article comparing Jaoul with Le Corbusier's villa Stein at Garches even before the Jaoul houses were finished, nowhere called them 'Brutalist' — perhaps because he was close enough to the Smithsons to know what they meant by the term.

Nevertheless, the Jaoul houses were acceptable to the Smithsons, who made frequent reference to them and included them among the illustrations to 'Cluster City'²⁷. On examination, the Jaoul houses show many features that take them close to the definitions of Brutalism already current or about to be enunciated. Quite apart from their emphasis on materials 'as found', their power as an 'image', etc, the relationship of the two houses to their underground car-parking was a fair example of a building as a prototype of a new urban order — hence the illustration in 'Cluster City'.

Yet, what causes the numerous imitations and derivatives of Jaoul to be called 'Brutalist' has nothing to do with prototypes of a new community structure, and a great deal to do with raw concrete and exposed brickwork. Maybe there were predisposing causes — architects naturally looked to Le Corbusier for authoritative statements in architecture; the work of a great established master would clearly prevail over the theories of the young English upstarts, especially when that master was the one who had put the concept 'brut' in circulation. Also, Le Corbusier's earlier work already contained the basic

architectural proposition on which Jaoul was based, so that his admirers were prepared for it. This architectural prototype was his last previous house in the western suburbs of Paris, the Petite Maison de Week-end (as the 'Oeuvre complète' calls it) in Boulogne-sur-Seine, of 1935. Here the archaizing tendency so clear in Jaoul is already visible, in the 'propylaeum' spanning the path that leads to the pool, in the use of mass-concrete vaults and load-bearing walls, the sentimentality about "materials friendly to Man", — visible brick, random masonry and wood — plus an enforced budgetary economy that drove him back into a proto-Brutalist morality — "les éléments de construction étant les seuls moyens architectoniques".

Certain post-war projects had developed this theme on paper, increasing the emphasis on archaism and primitivism, notably the 'cité permanente' at la Sainte-Baume (where the walls were to be of 'pisé'), the very influential 'Roq et Rob' hotel-project for Cap Martin, a year later in 1949, and more specially, the project for the Fueter house on the Swiss side of Lake Constance, which resumes the themes of 1935 on a domestic scale once more, but with precisely the air of ponderous 'angst' (it looks like an air-raid shelter) that was required to turn 'materials friendly to man' into 'matières brutes'.

The Jaoul houses, as built, are less covering and neurotic than this. They present sizable two- and three-storey elevations to outward view (where the constricted site permits such views) and each elevation presents a layered composition of vertical slabs of coarsely-laid brickwork, separated by horizontal beams of plank-shuttered concrete and windows, while the end-walls show a cluster of exposed vault ends (also in 'béton brut') framing compositions of wood and glass. The same repertoire of materials is exposed in the interior, with the addition of occasional plastered walls and the dark tiling of the underside of the vaults (miscalled 'Catalan' by Le Corbusier). The inner face of the infill of the vault ends reveals a composition of shelving and cupboards among the glazing, as part of Le Corbusier's aesthetic of the 'fourth wall', and this led James Stirling to observe that this contrivance was "symptomatic of Le Corbusier's recent attitude to surface depth. Windows are no longer to be looked through but looked at, the eye finding interest in every part of the surface impasto..." The use of the painterly term 'impasto' in this context is telling: elsewhere Stirling observes that the "wall is considered as a surface and not as a pattern", and it was at this time that English critics were discovering that the Brutalist sculpture of Paolozzi was "an art of surface, not of mass".

Brutalism, as a going style, proved to be largely a matter of surfaces derived from Jaoul, in association with certain standard three-dimensional devices taken from the same source — "... at the external centre point of these vaults, bird-nesting boxes are formed, and occasionally concrete rainwater-heads project..." (Stirling) — and a few others, notably gargoyles, derived from the chapel at Ronchamp and

²⁶ 'Architectural Design', March 1956

²⁷ 'Architectural Review', September 1955

Le Corbusier's Indian houses, and exposed concrete walling, also derived from Indian works like the Shodan house at Ahmedabad (1956). But in spite of these Indian borrowings, the Jaoul houses remain the spiritual source of Brutalism as a style, and this must be largely attributed to the fact that Jaoul's architecture implies simultaneously acquiescence in, and an affront to, the norms of European thought. If the Indian houses did this, too, the fact was of no consequence, since departures from the traditional technological myths of Modern Architecture were excusable in India (or so it was felt in those European countries like England where colonialist habits of simultaneous sympathy and contempt for Indians persisted among the educated classes). But the use of Jaoul's crude and primitivistic building techniques in Europe was a shock to sophisticated constructional habits. Stirling admitted that it was "disturbing to encounter the Jaoul houses within half a mile of the Champs Elysées", and felt it worth while to point out later in the article that the labour that built them "with ladders, hammers and nails" was 'Algerian'.

Equally, Stirling and many others were affronted by the fact that the Jaoul houses were not 'Utopian' and did not "anticipate and participate in the progress of Twentieth-Century emancipation". Sensing an abandonment of that preoccupation with 'transcendental sociology' that Stirling's intellectual mentor, Colin Rowe, had once identified as one of the grass-roots of the Modern Movement²⁸, Stirling maintained that the Jaoul houses "are built by and intended for the status quo". This is not altogether true, because the sectional organisation of the group with its car-parking in the podium is an original contribution, but the accusation will stand in substance. Unlike, say, the 'Unité' at Marseilles, and even less like some of the great projects and manifesto-buildings of the pre-war years, the Jaoul houses are so ready to accept the realities of the suburban housing situation (and to tolerate its contradictions and confusions) that many of the Team-X generation were forced to wonder if the splendour of the 'ville radieuse' had not faded for Le Corbusier too.

Yet every post-war building by the old master has been a 'multivalent image' (to borrow a phrase from Paolozzi) and one might pretty convincingly argue that Jaoul also showed Le Corbusier rejecting "the diagrammatic, formalistic and legalistic" categories of the Athens Charter, and trying to create the ideal habitat for a particular place (Neuilly) at that particular time (the mid-fifties). It was factors such as this that once caused Alison Smithson to complain, wistfully but respectfully, that "when you open a

²⁸ Rowe's use of the phrase ('Architectural Review', August 1954) appears to have been intended to be philosophically precise, since he actually used the word 'transcendentalist', which must have been intended to refer to the American philosophical movement of that name, in spite of the absence of the capital letter 'T' at the beginning of the word. The wording used here, with the suffix '-ist', corresponds to the looser sense in which his meaning was generally understood; i.e. a sociological sensibility transcending the unimaginative enumeration of demographic and economic statistics.

new volume of the 'Oeuvre complète' you discover that Corb has already had the best ideas you have just thought up".

But there were further multiple valencies than this to the Jaoul image. Insofar as the manner of building is a rejection of the routine categories of 'progressive thinking' inherited from the thirties, it was extremely sympathetic to men half Le Corbusier's age who had lost patience with their 'bien-pensant' but ineffective elders. Not only were the 'gros béton arme' and 'briques apparentes' an affront to the proposition that Modern Architecture "marches in the forefront of technology", but they were also a 'vote of no-confidence' in the Machine Aesthetic of the "White Architecture of the thirties", (Stirling's phrase)²⁹. This too was extremely sympathetic to the young, who were far too sophisticated historically to believe that the white machine-aesthetic style was in any way inherent in the technical or economical realities of the building situation of the twenties and thirties. They knew it had been an applied style, transferred from post-Cubist painting under the pressure of fashion, and to this disenchantment about the Jaoul houses had the ring of brutal honesty about the state of architecture in that time and place. The danger was that, with the origins of style deprived of their protective myths, the disenchanting young men were free to build cynically for the fashion of the hour, and not for the future.

²⁹ White-walled Modern Architecture did not significantly appear on the British scene until after 1930, precisely during the epoch when most of the inventors of the style were being expelled from the Continent and the style itself proscribed in many countries. A continental architect of Stirling's generation would doubtless have referred to the 'White Architecture of the twenties', but this would carry less historical scorn than Stirling's version, for whereas the white aesthetic was an original invention of the twenties it had already become a borrowed style for most of the British modernists who employed it after 1930.

For illustrations see page 102-106

6.2 Flats at Ham Common, London

A degree of dexterity with the niceties of style is not necessarily a disadvantage for an architect. If he consciously works to a programme that calls for the ideal solution for a particular time and a particular place, he can hardly expect to apply a single fixed style for every building. In finding the correct 'image' he will have to come to some conscious decisions about the 'Style for the Job' — and this is a phrase that belongs to the partnership of James Stirling and James Gowan more than to any other design office (even Eero Saarinen's) in the recent history of architecture.

But if 'the style for the job' was theirs, 'The New Brutalism' was not. They repudiated it both in spoken and printed statements, largely on the practical grounds that it was not good public relations — a word like Brutalism, they felt, frightened off potential clients as easily as it did most English critics, who tend to be both squeamish and hypersensitive about words. But this led to difficulties: Stirling's role as the man who introduced Jaoul to the English-speaking world linked his name closely to what was, by 1958, the canonical Brutalist building, and when, in that year, the Stirling and Gowan flats at Ham Common were completed, certain obvious affinities to Jaoul made it almost impossible for critics and historians to avoid calling them Brutalist. Against their designers' wishes, the subsequent usage of the word has made these flats almost as canonically Brutalist as Jaoul itself.

This purely linguistic shift in the meaning of the word has also had the effect of edging some other buildings into the Brutalist canon. When the 'Architectural Review' published the Ham Common flats³⁰ it associated with them (though without using the word Brutalist) some earlier houses by the Smithsons, by the variable partnership around William Howell and Stanley Amis, and by Stirling and Gowan themselves, and it might with justice have gone on to include a projected house by John Voelcker, all representing a sudden upsurge of architectural quality in English domestic design, all influenced in varying degrees by Palladianism, the Modulor, Marseilles, etc, and all capable of being classed as 'Brutalist' without doing undue violence to the term. All were also built in a simple repertoire of banal materials, chiefly wood and fair-face brick, not only out of sympathy for the nature of materials 'as found' but also under the compulsion of a grinding economic necessity that made any but the most banal materials unthinkable for small house-building. It was not only philosophical preference that made these young architects give heed to the 'realities of the situation'; a brisk realism was the price of their survival. Stirling and Gowan's conspicuous use of concrete at Ham Common stems, in part at least, from the fact that the job was big enough to support the use of this 'luxury' material. Against this unwonted freedom must be set the 'realities' of the site, so ridi-

³⁰ 'Architectural Review', October 1958

culously long and narrow (it was the back garden of an old mansion called Langham House) that the only way to accommodate the legally permissible and economically desirable maximum number of apartments (30) while respecting the legal rights of adjoining land-owners to daylight and privacy, was to organise them in three detached blocks — a large one of three storeys, and two smaller ones of two storeys with identical plans, except that they are reversed left and right-handed. All three have brick bearing wall structures (of 'calculated brickwork' frequently reduced to the minimum section capable of carrying the load) and concrete floor slabs. In spite of the fact that these slabs are flat, not vaulted, and the planning is very different, the likeness to Jaoul is striking. The most profound difference is too subtle to register in many photographs — it is that Ham Common is neat where Jaoul is casual and untidy. The brickwork is careful, the exposed shutter-patterned concrete is much less assertive than Le Corbusier's and brick and concrete are not allowed to run messily together (as at Jaoul) but firmly separated by a thin recessed detail.

The dropped or 'inverted-L' window which makes one or two modest appearances at Jaoul, here becomes a major theme, even being bent around corners with mannerist zest (the presence of strip windows under the edge of the floor-slabs, leaving them unsupported for considerable lengths, and concentrating the loads on narrow piers of brick, would be unthinkable without a fully-calculated structure). Projecting boxes, for ventilation, and water-spouts, take up a Jaoul theme. Internally the fireplaces become free-standing sculptures, floor-to-ceiling piers of brick carrying cantilevered concrete slabs — a compact summary of the main themes of the exterior, and of the ingenuity with which a few hints from the Maisons Jaoul have been expanded at Ham Common into a complete, rich and flexible style.

But Jaoul is not the only ingredient of the style. Stirling always insisted that if there was influence from anywhere, there was another source besides Le Corbusier, and that was 'de Stijl'. At first sight there may seem to be no connection between Ham Common's coarse natural surfaces and the smooth abstract planes of, say, Rietveld's Schröder house, nor do these boxy sections and squared-up silhouettes appear to owe much to the hoverings and spatial penetrations of neo-Plasticist aesthetics. Yet in the two-storey blocks with their almost totally glazed ends, one can appreciate the floor-slabs as planes in space, and the use of the strip window under the slabs on the side elevations gives a degree of visual independence to horizontal and vertical planes, while the handling of the woodwork at the corners of the windows often comes very close to Rietveld.

But it is in the entrance-lobbies of these smaller blocks that the possible intervention of a neo-Plasticist aesthetic is most apparent. Effectively these lobbies are glazed links containing the stairs and joining the three apartments on each floor. The glazed side-walls are continuous from floor to roof-slab

because there is no intermediate slab at first-floor level, and instead of a floor there is a bridge, hung well inside the glass walls, connecting the three entrance-doors to the top of the stairs. Thus, the spatial effect of arriving on this bridge-landing from the stairs is not that of entering a closed space-box on a higher level, but of being raised midway up in a continuous space. Nothing comparable happens in Jaoul, nor is it ever common in Le Corbusier's work. But something like it had happened before in British Brutalism — the elevated walkways connecting the different blocks of the Smithson's Sheffield project — and was to appear again in Jack Lynn and Ivor Smith's gigantic Park Hill apartments in Sheffield, the biggest Brutalist building ever completed. The U-section pedestrian bridge within a building complex is one of the few Brutalist thumb-prints that is not directly derived from Le Corbusier, yet survived creatively into the period when Corbusian idioms dominated the public idea of Brutalism. For this reason it is an important tell-tale which facilitates discrimination between Brutalism as a creative style and mere imitation of Le Corbusier. As Stirling and Gowan's later work shows, they were far from being disciples of the Master, and the use of the 'topological' bridges and de Stijl spatial aesthetics at Ham Common gave notice that, for them, the idiom of 'briques apparentes' and 'gros béton armé' was to be exploited, not slavishly imitated.

For illustrations see page 110–123

6.3 The Brutalist style

Ham Common focussed a good deal of attention on Stirling and Gowan, outside Britain as well as within, and led to some retrospective speculation about their possible role as designers of buildings that had appeared over the signatures of various well-established offices in which they had worked as assistants. For instance, a workshop and scene-painting building for the 'Old Vic' theatre in South London was published in the magazines just after Ham Common, and the architects were Lyons, Israel and Ellis, for whom both Stirling and Gowan had worked during the months immediately preceding the setting up of their independent practice. The style of the building was undoubtedly Brutalist — as the term was then understood, not only in its frank exposure of its materials, but also in the way that the peculiarities of the internal section (the need for a very high paint shop and a tall, narrow slot through which scenery could be taken across the road to the theatre) were allowed to dictate the external appearance, rather than being concealed by a tidy external box in the manner previously in vogue.

In spite of this, neither Stirling nor Gowan was involved in the design process, which appears to have been as follows (as far as it can be reconstructed): the basic functional solution was proposed by the middle partner Lawrence Israel, was converted to a recognisable architectural 'parti' by the third partner, Tom Ellis, and worked out in final detail by two assistants, Alan Colquhoun and John Miller (who later followed the Stirling and Gowan example and went into independent partnership together). The process is worth examining: Israel's original functional breakdown would have established the basic topological relationships between volume and volume; Ellis's parti would be a work of some architectural sophistication (he was held in high esteem by all the younger architects who passed through the firm, for his architectural erudition as much as his ability as a designer); and that sophistication would probably be matched by that of the final detailing, for Colquhoun's erudition was (and is) the match of anybody's. All through the fifties he was one of the guardians of the intellectual conscience of his generation of London architects. Indeed, one of the most notable aspects of the work of Lyons, Israel and Ellis throughout this period was, quite simply, that its quality was high enough, and the office organisation flexible enough, for the partnership to attract, and hold, first-class talent as assistants.

In this, it exemplifies the processes, motivations, and organisational methods by which Brutalism in Britain was tamed from a violent revolutionary outburst to a fashionable vernacular. Wherever an established office can be found 'converting' to Brutalism, the presence of new assistants, fresh from the schools (where they probably studied under Smithson or Stirling) and in touch with world events in architecture, can usually be taken for granted. So can an office organisation sufficiently relaxed, and partners sufficiently sympathetic, to give them the

opportunity for creative work. So can the fact that the controlling partners had recognised in Brutalism, once called 'the warehouse aesthetic', a style economically suited to the architectural requirements of an economy-minded society.

On some such basis as this rests the efflorescence of Brutalism as a commercial vernacular in Britain in the six or seven years on either side of 1960, beginning, roughly, with the control-tower of Gatwick Airport (Yorke, Rosenberg and Mardall, 1957) and running on to a sort of apotheosis in 1963–64 in such works as the externally flamboyant but internally conventional Eros House office-block in South London (Owen Luder, 1963), Churchill College, Cambridge (where it is married to traditional picturesque planning concepts), a much-modified competition winning design by Richard Sheppard, Robson and Partners (1964), or the first quadrangle of Sussex University, in which Sir Basil Spence's office attempted to inflate the vaulted idiom of Jaoul to monumental proportions (1962–63).

During the same period, the variety of architectural expression possible within the nominally Brutalist canon can be seen, for example, in the interior concrete work of the Hille showrooms in London (1963) where Peter Moro handles shutter-patterns and exposed bolt-heads 'à la Kahn', with such delicacy that it resembles wall-paper, or in the penthouse-structure of Denys Lasdun's slightly earlier block of flats in St James's Place, where shutter-patterned concrete had been raised (or debased?) to the level of a fine-art material. Brutalism was certainly becoming 'une architecture', an idiom, a vernacular style; an aesthetic universal enough to express a variety of architectural moods, even if it had lost some of the moral fervour that had illuminated its earlier pretensions to be an ethic.

In the same period, other trends loosely called Brutalist can be seen coming to fruition. The younger architects at the LCC had their revenge for the ideological difficulties of the pre-Kruschev regime, and the fifties closed with an architectural triumph for their viewpoint. The second phase of the Roehampton development (Alton West) scorns Swedish or empiricist design methods, and the slab blocks overlooking the sloping lawn which is the heart of the development unequivocally reveal the Corbusian convictions of their designers. Very much like Ham Common, they mark a crucial stage in the evolution of a general-purpose idiom from one of Le Corbusier's special cases, but whereas an equal subjection to a brick-building status-quo unites Ham Common and Jaoul, the greater technical and economic resources of the LCC enabled the designers of Alton West to go forward from the propositions inherent in the 'Unité' at Marseilles.

By this time, the technical resources of the LCC were considerably greater than those available on the 'chantier' at Marseilles, more sophisticated and more precise, with the curious result that the extensive use of precast cladding elements gives an air of that preoccupation with repetitive rectangular geometry that Pevsner had identified as peculiarly

English. Anglicised, the coarse, swaggering, patchy-dermatous forms of Marseilles, become stiff, formal and elegant in the 'little unités' of Roehampton. To be fair, some other LCC variants on the theme (such as the blocks at Bentham Road) have a less spindly sub-structure and have more of the swagger of the original, and some of the smaller blocks at Roehampton which exhibit more genuine 'béton brut' around the staircases at the ends (especially the terraces of shops) also seem to have pioneered the use of a Corbusian concept that had hitherto remained on paper — the narrow path, stepped or ramped, passing through a terrace of deep-plan units (here shops with apartments over and backyards behind) which first appeared in the Sainte-Baume and 'Roq et Rob' projects.

The end-walls and staircases of these blocks also bear a distinct family relationship to the end-walls and stairs of the residential blocks of the Portales neighbourhood unit at Quinta Normal, outside Santiago, Chile. It seems extremely unlikely that there is any direct connection between the two schemes, or that the architects (Bresciani, Valdes, Castillo and Huidobro) had any direct acquaintance with the LCC architects. Brutalism was becoming a style of wide diffusion from its original sources, but those sources still had sufficient authority to stamp a fairly consistent image on all their derivatives, even if the exact links in the chain of relationships cannot be established.

Sometimes, however, the connections are clear. André Wogenscky's house for his own occupation at Rémy-les-Chèvreuses in France, is strikingly Corbusian, and differently so from most of the English derivatives — and for the very good reason that he was 'homme de charge' in Le Corbusier's office. Where it differs from the English work is, for example, in the use of references to the chapel at Ronchamp (rare in English Brutalism of domestic scale) in the form of the boiler house at ground level and in the structures on the roof, and in the use of a few random windows here and there. But like much of the English work it relies on Modulor dimensions, makes extensive use of vertical shutter-patterns and gargoyles (though these are the tapering Ronchamp type again). Parts of the house, however, are clad in white limestone slabs, almost in the manner of the Master's panelled facades of the thirties (such as the Pavillon Suisse) and there are other devices, such as the projecting-box brise-soleil which recall earlier work. Wogenscky, in fact, was not influenced solely by the work being done in the office while the house was being designed: his view of Le Corbusier has greater historical depth to it, even a touch of book-learning.

A similar eclectic and historical approach can be seen in Brutalism of the Swiss school, not only in obvious examples like Dolf Schnebli's holiday house at Campione d'Italia, but also throughout the work of such distinguished design teams as 'Atelier 5' — Erwin Fritz, Samuel Gerber, Rolf Hesterberg, Hans Hostettler, Niklaus Morgenthaler, Alfredo Pini and Fritz Thormann. The most important work of this

team, Siedlung Halen near Berne, will be discussed later, but their minor works can conveniently be reviewed here as a contribution to a growing Brutalist tradition. Their contribution to that tradition is outstandingly their skill in using a variety of Corbusian devices, large and small, to build up an artificial 'maniera', which they employed with great intelligence, verve and good taste, without ever quite welding it into an idiom as personal as that achieved by, say, Stirling and Gowan at Ham Common. For this reason they are often criticised for their eclecticism, even though a sympathetic critic like Neave Brown could say of their 'eclectic predicament'³¹:

"... The eclecticism of Atelier 5 or any other group with a similar attitude is something of an act of faith. It affirms that if the future course is not clear, to progress at all it is necessary to adopt the successful forms and idioms of the immediate past, and thus avoid working endlessly over the same ground, or degenerating into a chaotic individualism. It is therefore wise to choose the best source..."

and for Atelier 5 the best source was unequivocally Le Corbusier. But they cannot be accused of straight plagiarism, and this is due largely to their depth of historical perspective on the master. New combinations of given forms alter their meanings and those new meanings are knowingly exploited. As Aldo Rossi put it³²:

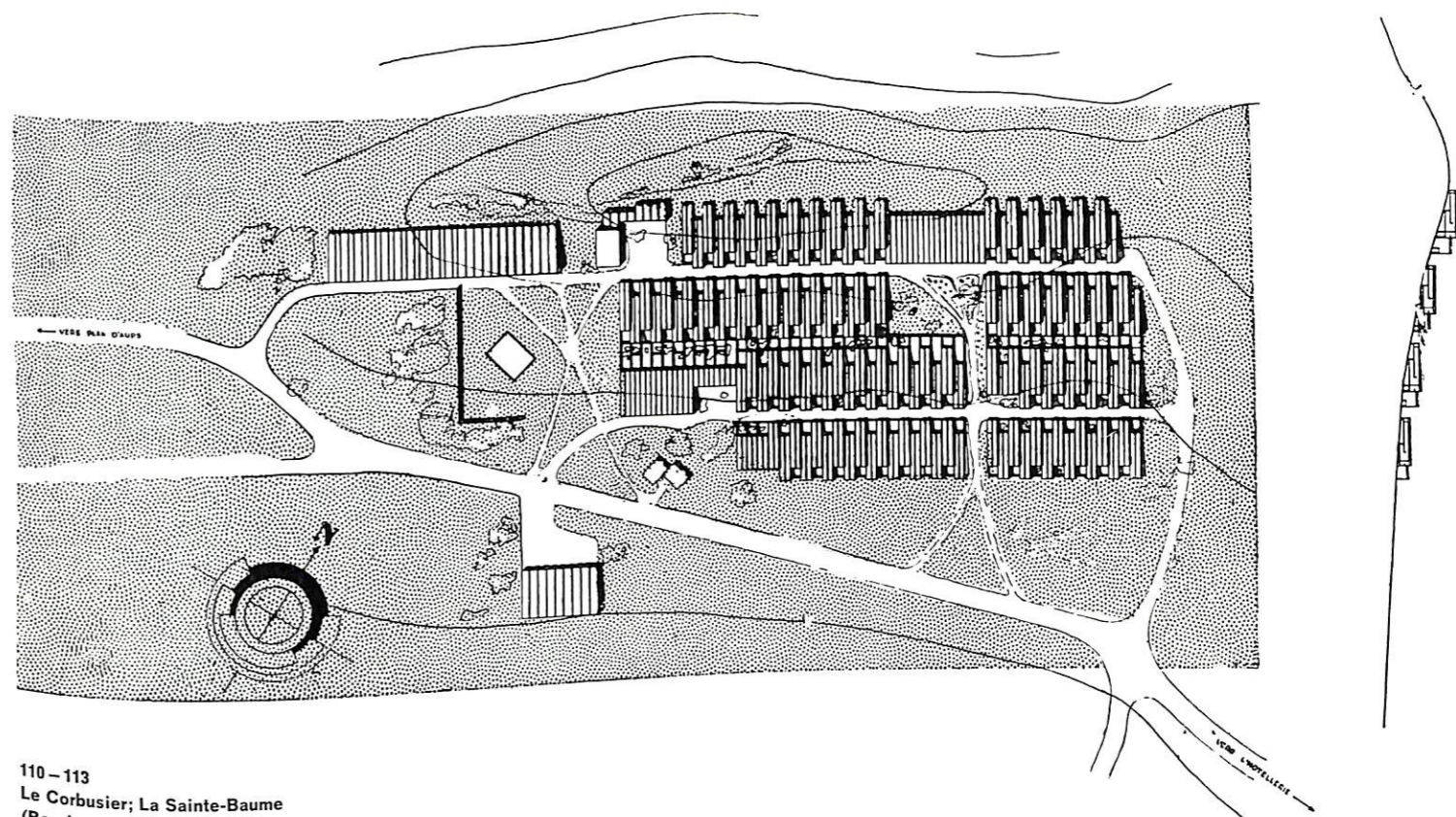
"Also, forms derived from typical usages of the great French Master, eventually become stabilised on a new footing and with a new meaning in this different context."

The part played by their depth of historical perception in establishing these transformed meanings can be seen even in quite small works, such as the house at Rothrist completed in 1958. The exterior with its plank shuttered exposed concrete, its Ronchamp gargoyles and random windows, its roof light cut down from the upper works of the parliament house at Chandigarh — all this is 'brut Corbu' of the fifties, but in its sections the house belongs to another epoch entirely. As a habitable volume it is effectively a box on stilts, a solution virtually abandoned by the master after the war. Within that volume it offers the 'studio-house section' double height living-room with a balcony across the back and, although versions of that section were used by Le Corbusier in most of the 'Unités', it appears here in something more like the format, scale and domestic function for which it was first devised in the early twenties. At the other end of the block is a sun-room on the second floor, recessed back from the visible frame at that point and overlooking a projecting terrace with stair to ground level — a clear restatement of the 'terrasses' which gave the name

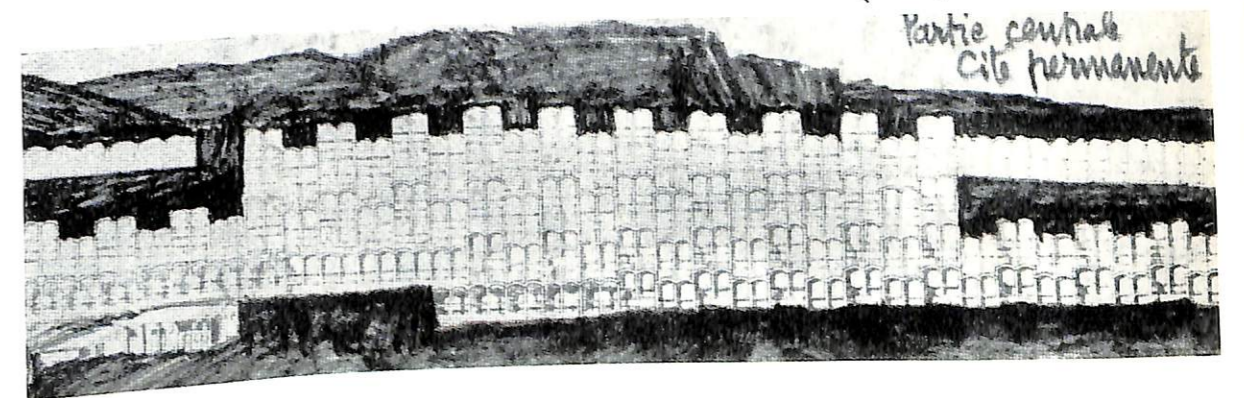
³¹ 'Architectural Design', February 1963

³² 'Casabella' no. 258, 1961

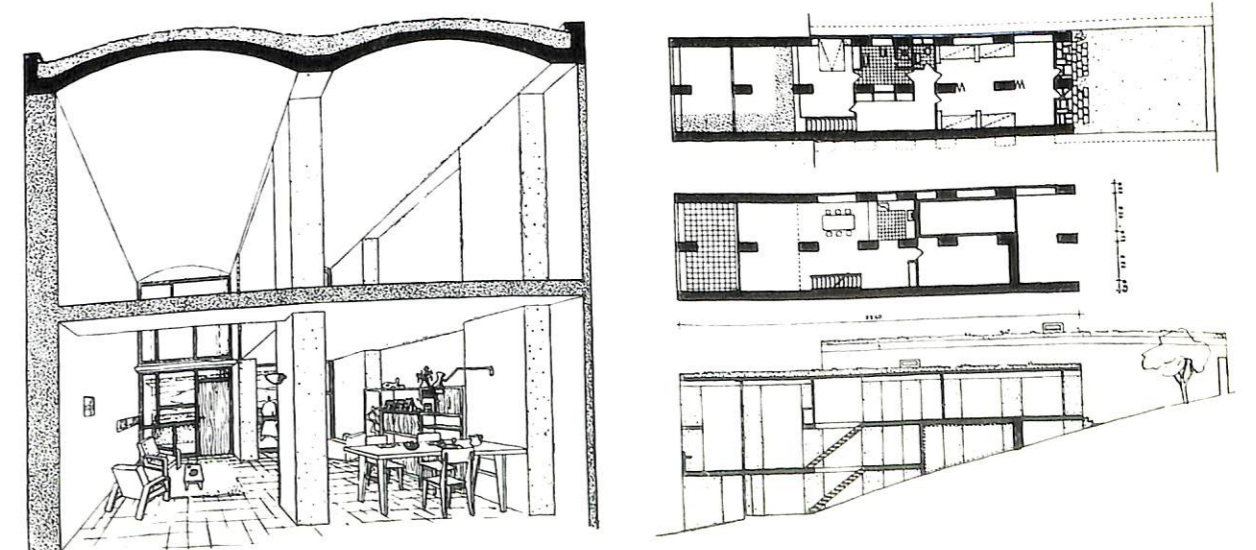
to the villa Stein at Garches of 1926–28; though, clipped to the side of a long narrow block such as this, it also recalls slightly earlier projects which survive only in the pages of the 'Oeuvre complète'. Similar restatements, similar transformations, occur throughout their work of the period, though their formalism is kept within bounds, partly by their respect for their 'best source' and partly by a certain sense of architectural decencies that prevents them ever mistaking architecture for sculpture as Walter Förderer, Rolf Otto and Hans Zwimpfer did in their over-wrought display of 'de Stijl' mannerisms in the school at Aesch which is sometimes mistakenly compared with Atelier 5's work, simply because of its 'brut' concrete. Atelier 5 avoid such extremism, they prefer to simplify, as in the way they reduce the variable idiom of Le Corbusier's factory at St Dié to the much simpler language of their own factory at Thun. Many of the details (such as the brise-soleil) are virtually identical; the difference in total effect illustrates as clearly as anything in Modern Architecture could, the difference between an intelligent follower and an original creator. Atelier 5's factory reassuringly demonstrates the coherence that comes from consistency, a faultless exercise within the limits of a given style; Le Corbusier's startlingly affirms that coherence can also come from the disturbing inconsistencies that arise from the exercise of a major creative talent.

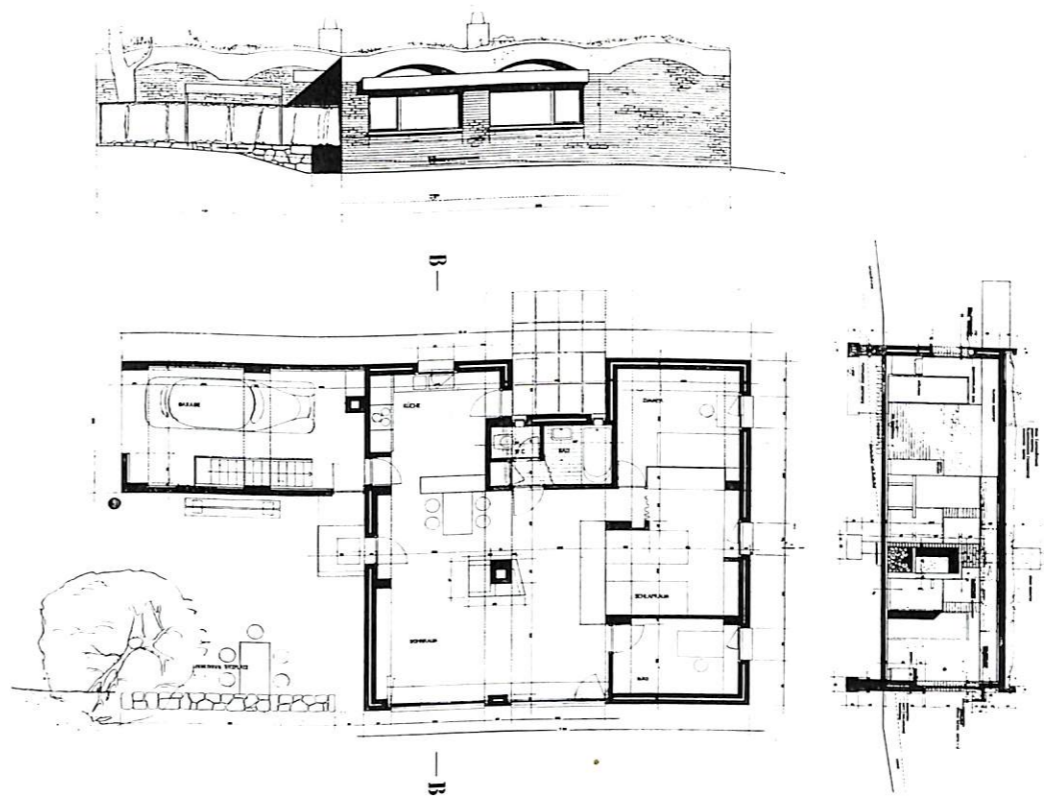
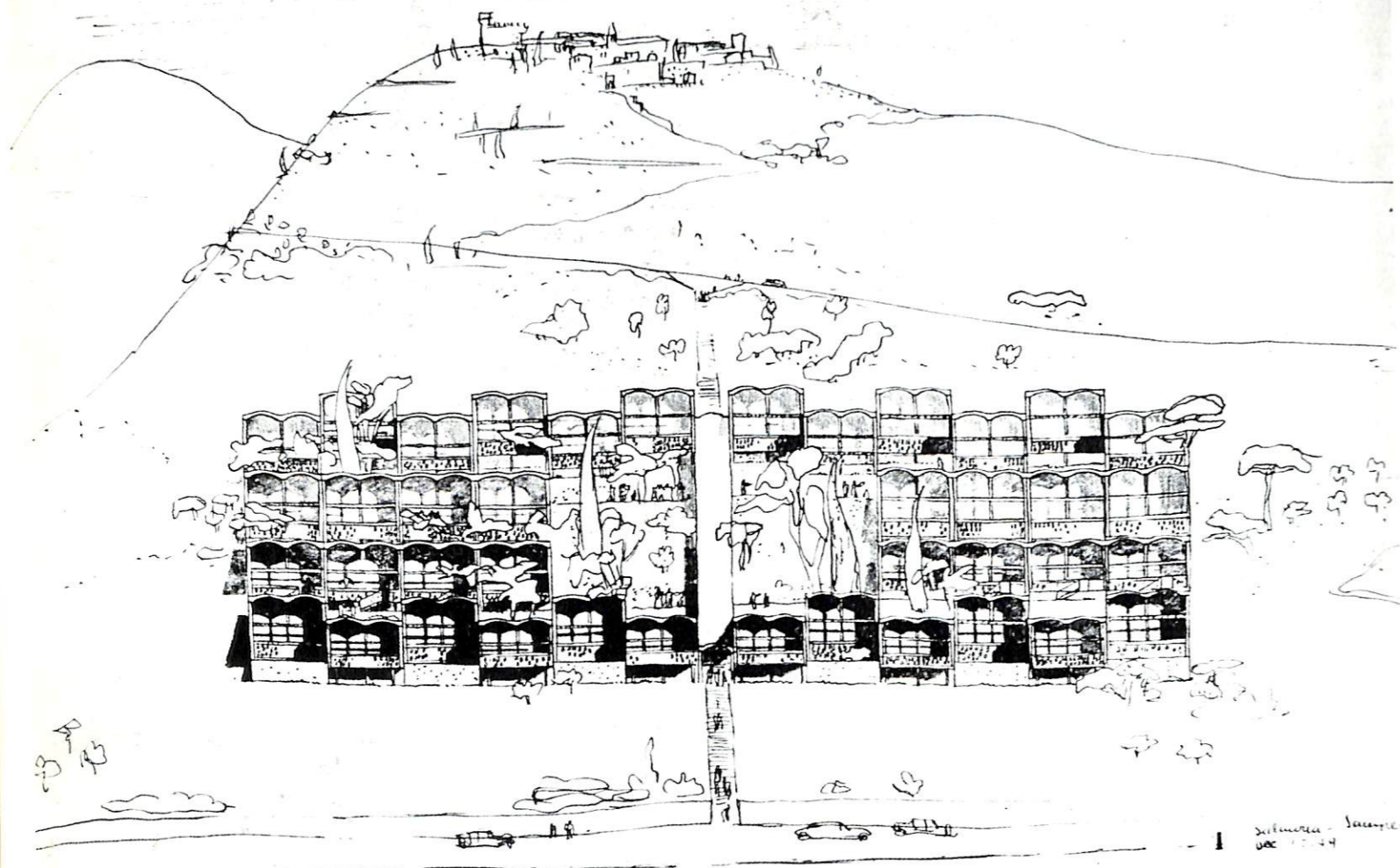


110-113
 Le Corbusier; La Sainte-Baume
 (Bouches du Rhône, France),
 Pilgrimage Centre (La Cité Permanente),
 first project, 1948
 110/111
 Plan, end elevation, the central part of
 the facade



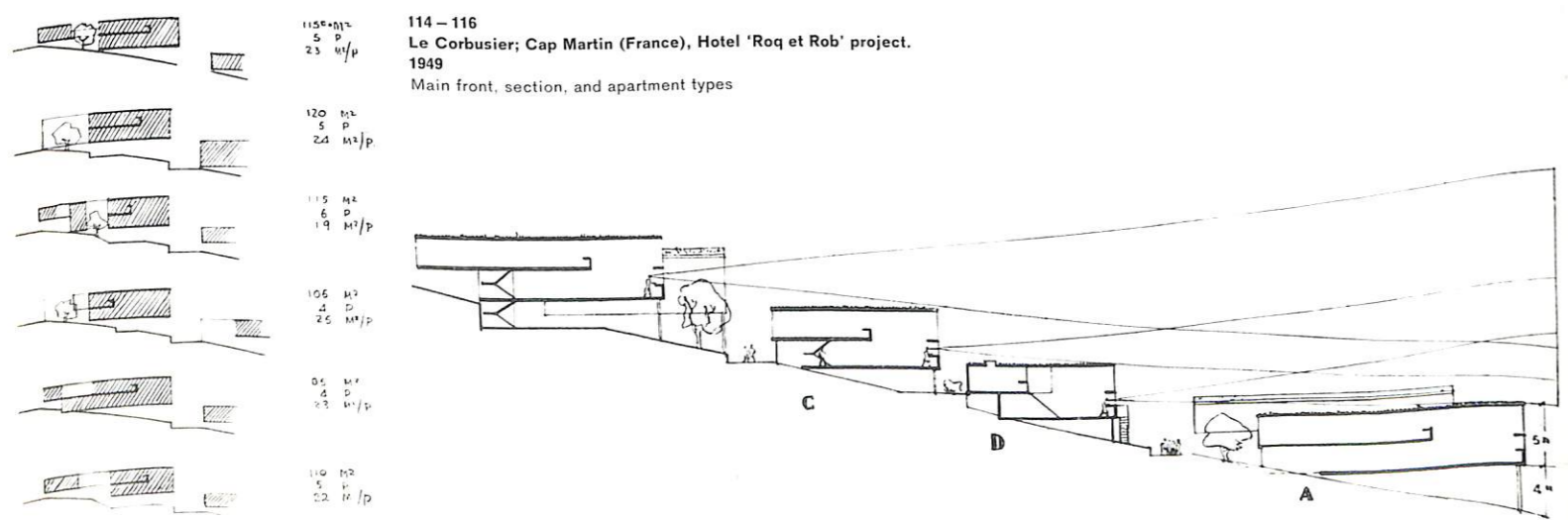
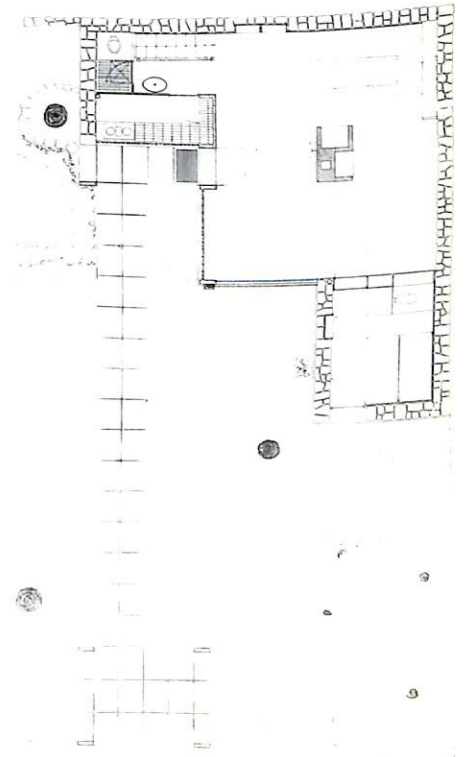
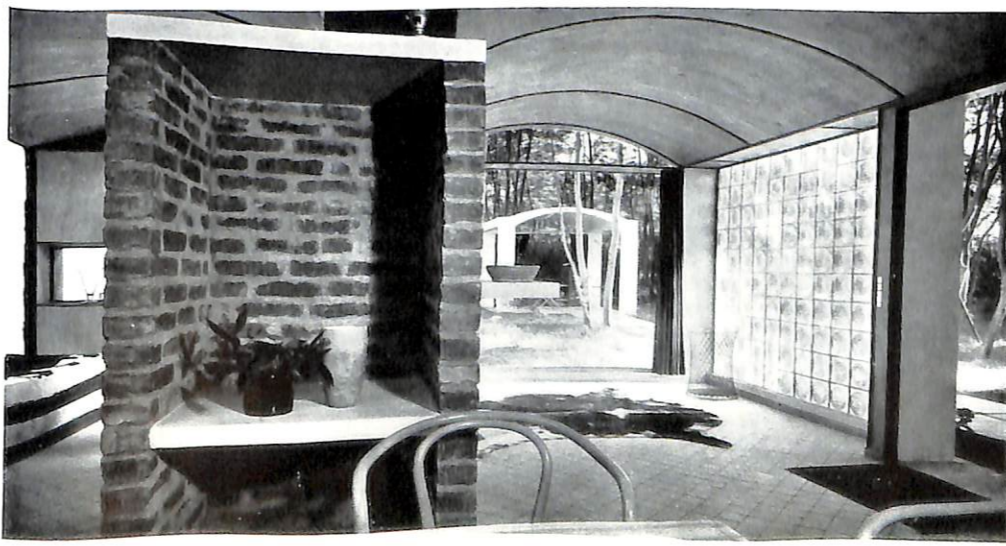
112/113
 Perspective, plans, and section
 (scale 1:500) of a typical apartment





117-119
 Le Corbusier; Lake Constance (Switzerland),
 Fueter House project. 1950
 South elevation, plan, and section (scale 1:200)

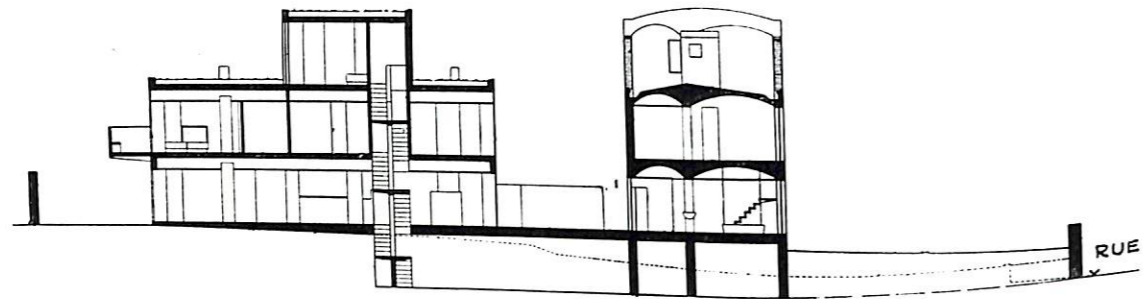
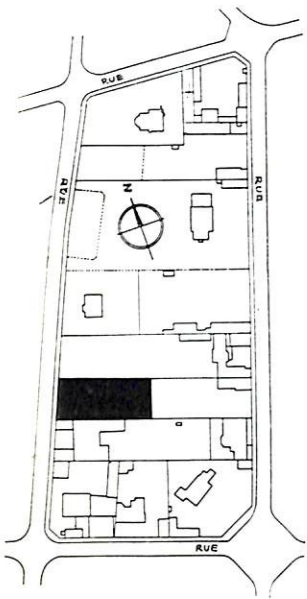
120 / 121
 Le Corbusier; Boulogne-sur-Seine (Paris, France),
 'Petite Maison de Weekend'. 1935
 Interior and plan (scale 1:200)



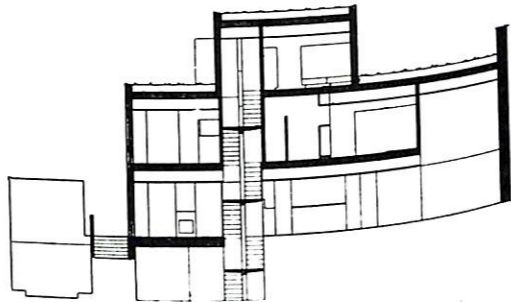
114-116
 Le Corbusier; Cap Martin (France), Hotel 'Roq et Rob' project.
 1949
 Main front, section, and apartment types

115-117	5 p	23 m ² /p
120	1/2 p	24 m ² /p
115	1/4 p	19 m ² /p
106	1/2 p	25 m ² /p
05	1/4 p	13 m ² /p
110	1/2 p	22 m ² /p

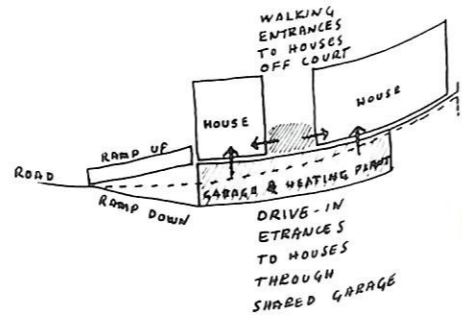
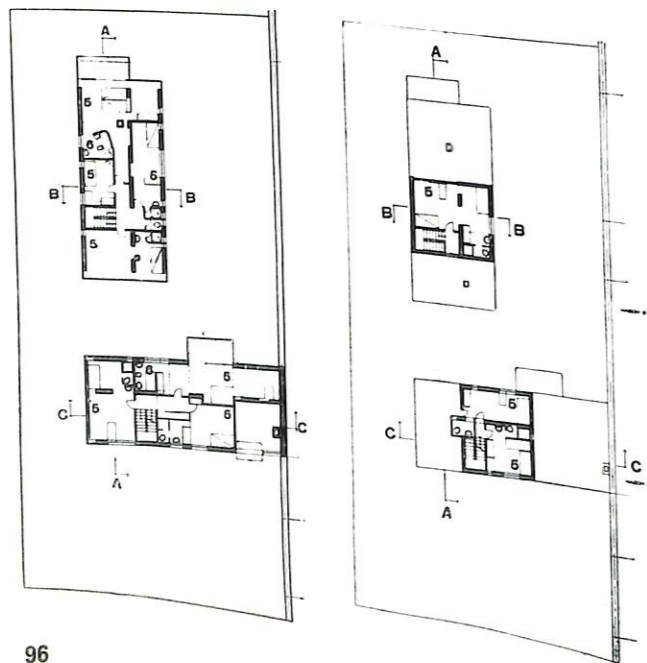
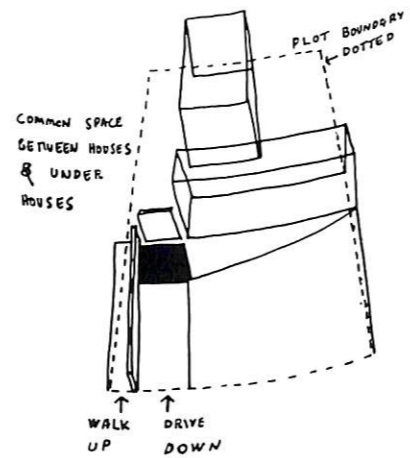
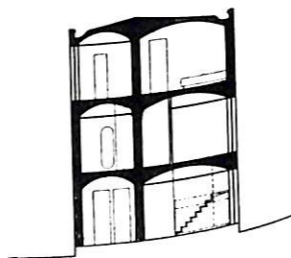
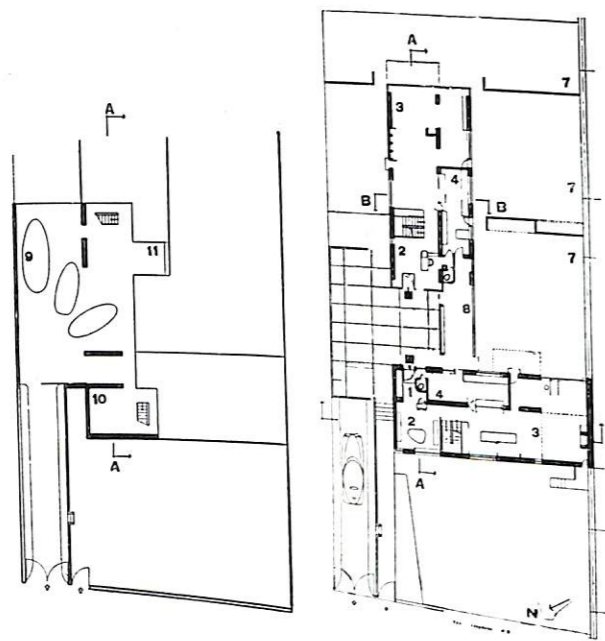




122-139
Le Corbusier; Neuilly (Paris, France), Maisons Jaoul. 1956
122-125
Site plan, sections

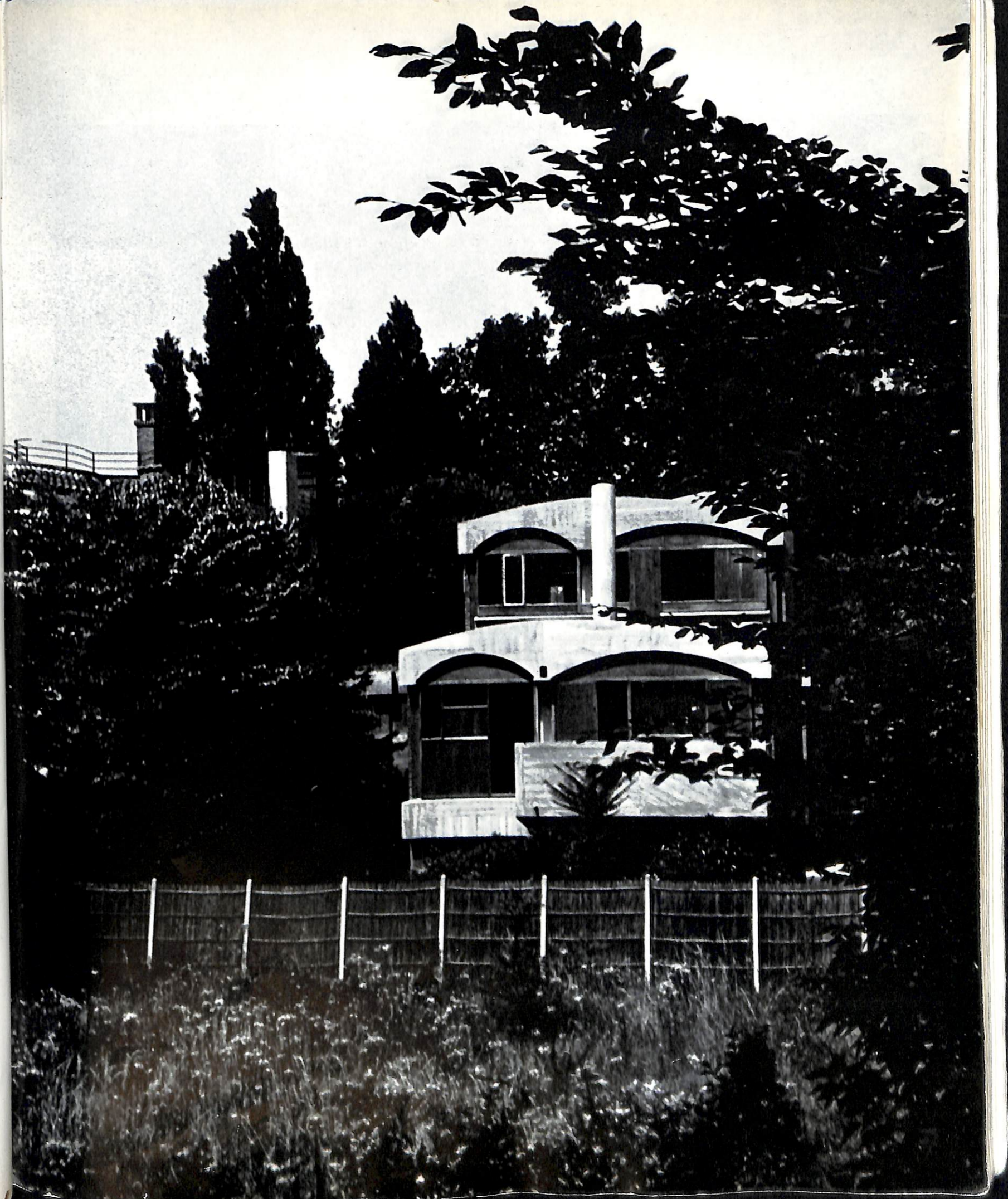


126-129
Plans at basement, ground floor,
first and second floors
(scale 1:600)
1 entrance
2 hall
3 living room
4 kitchen
5 bedrooms
6 bathroom
7 garden
8 kitchen-court
9 garage
10/11 courtyards

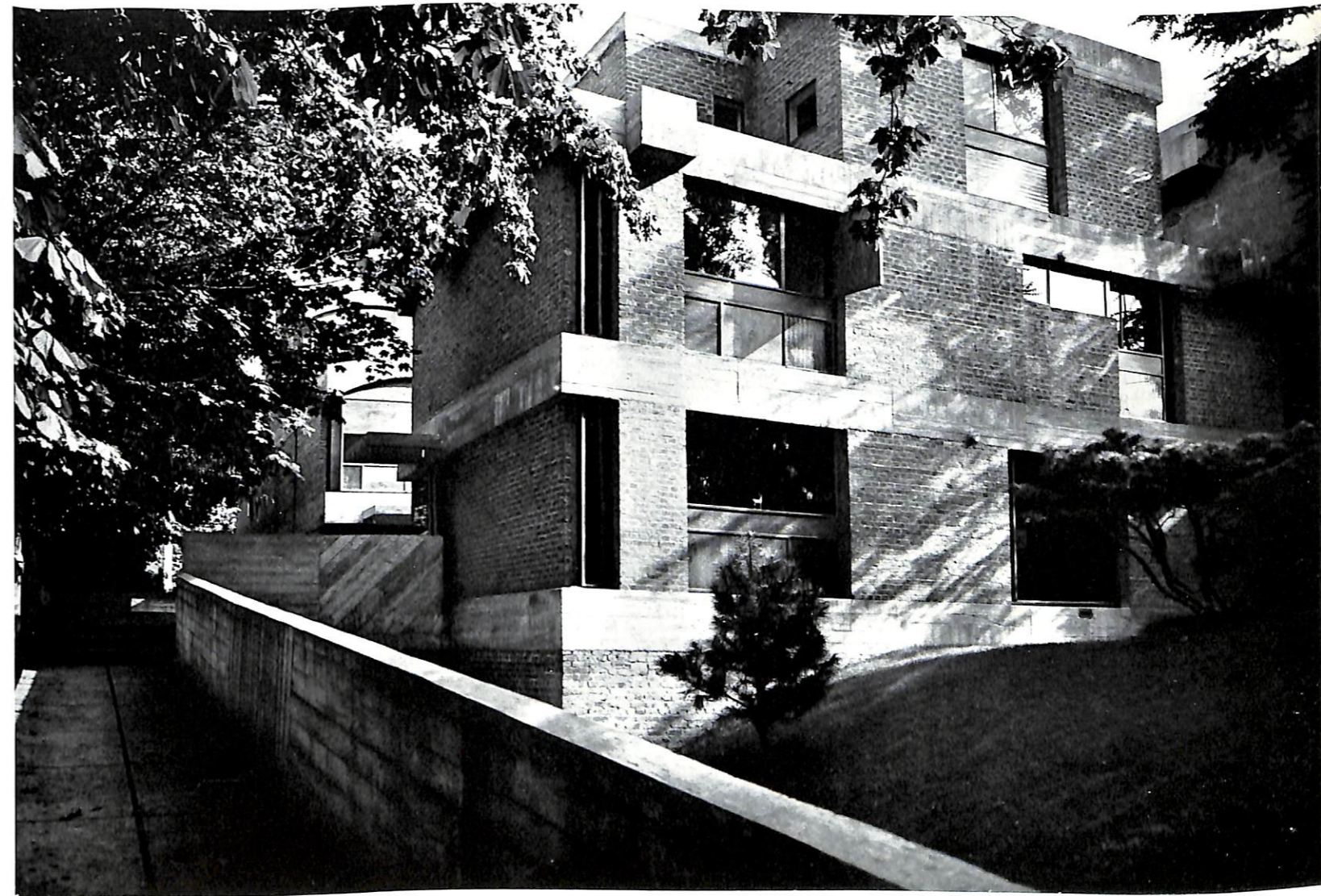
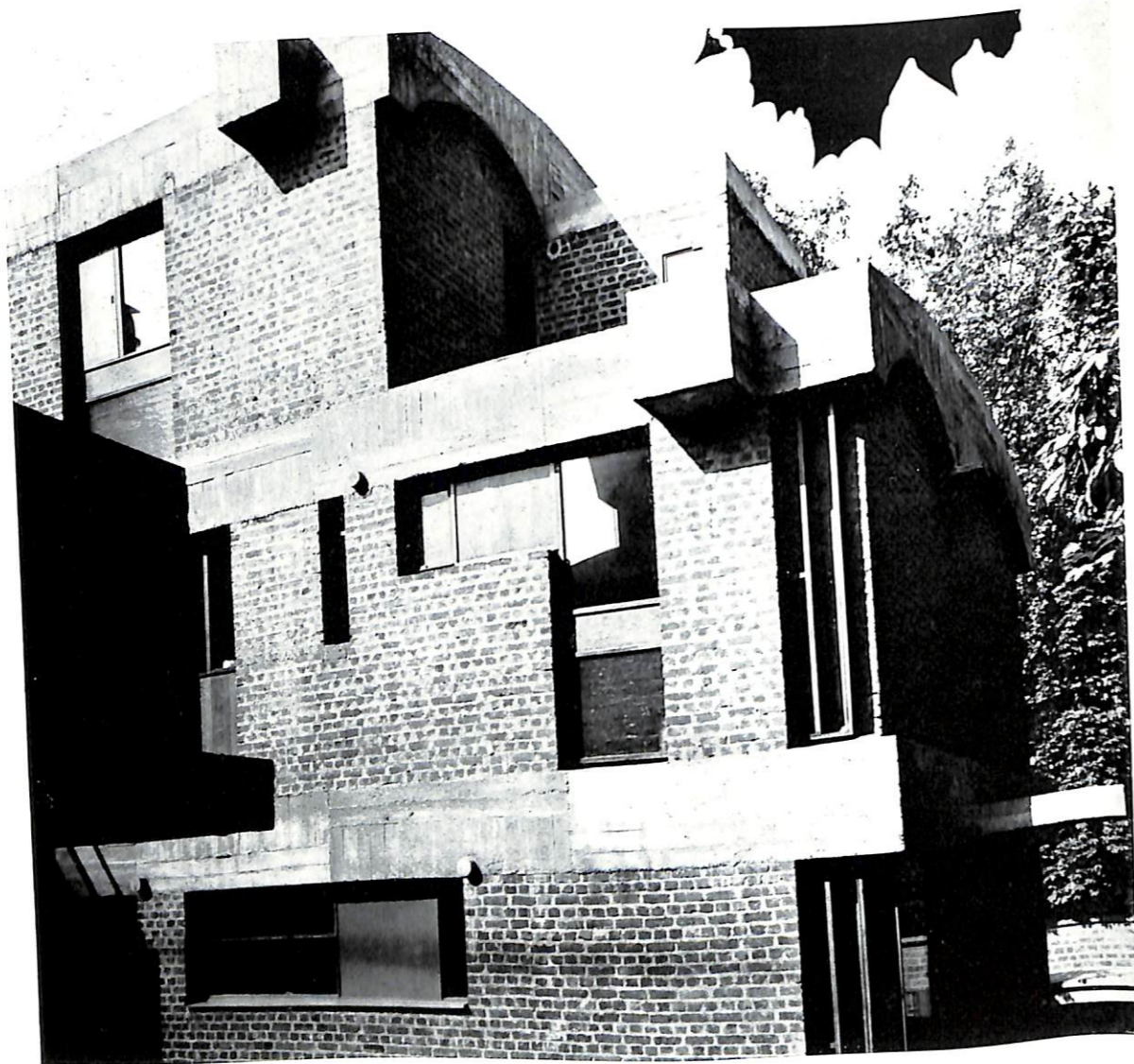


132 (right)
End elevation of western house

130/131
Diagrams of sectional organisation (A & P Smithson)



133 / 134
Details of corner treatments



135
View from entrance ramp



100

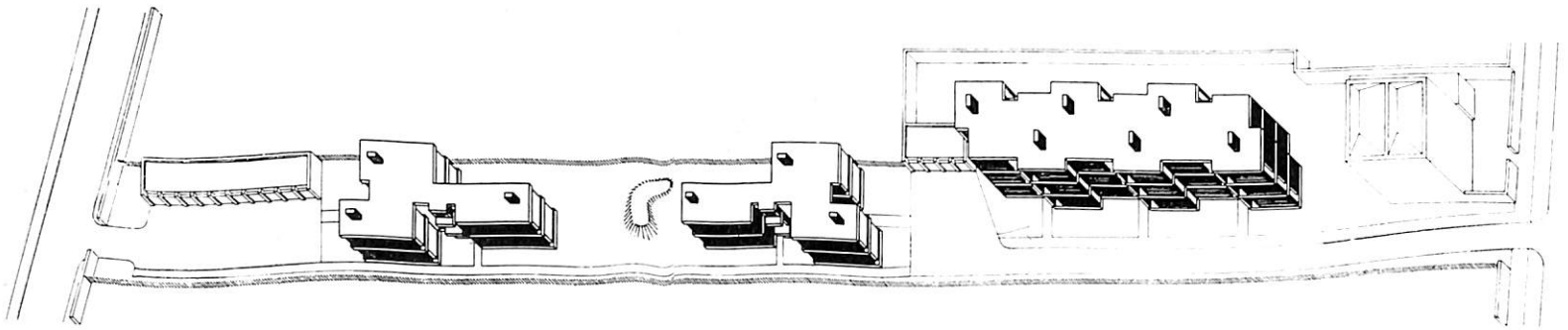
136 - 138
Interiors

139 (right)
Side wall of eastern house

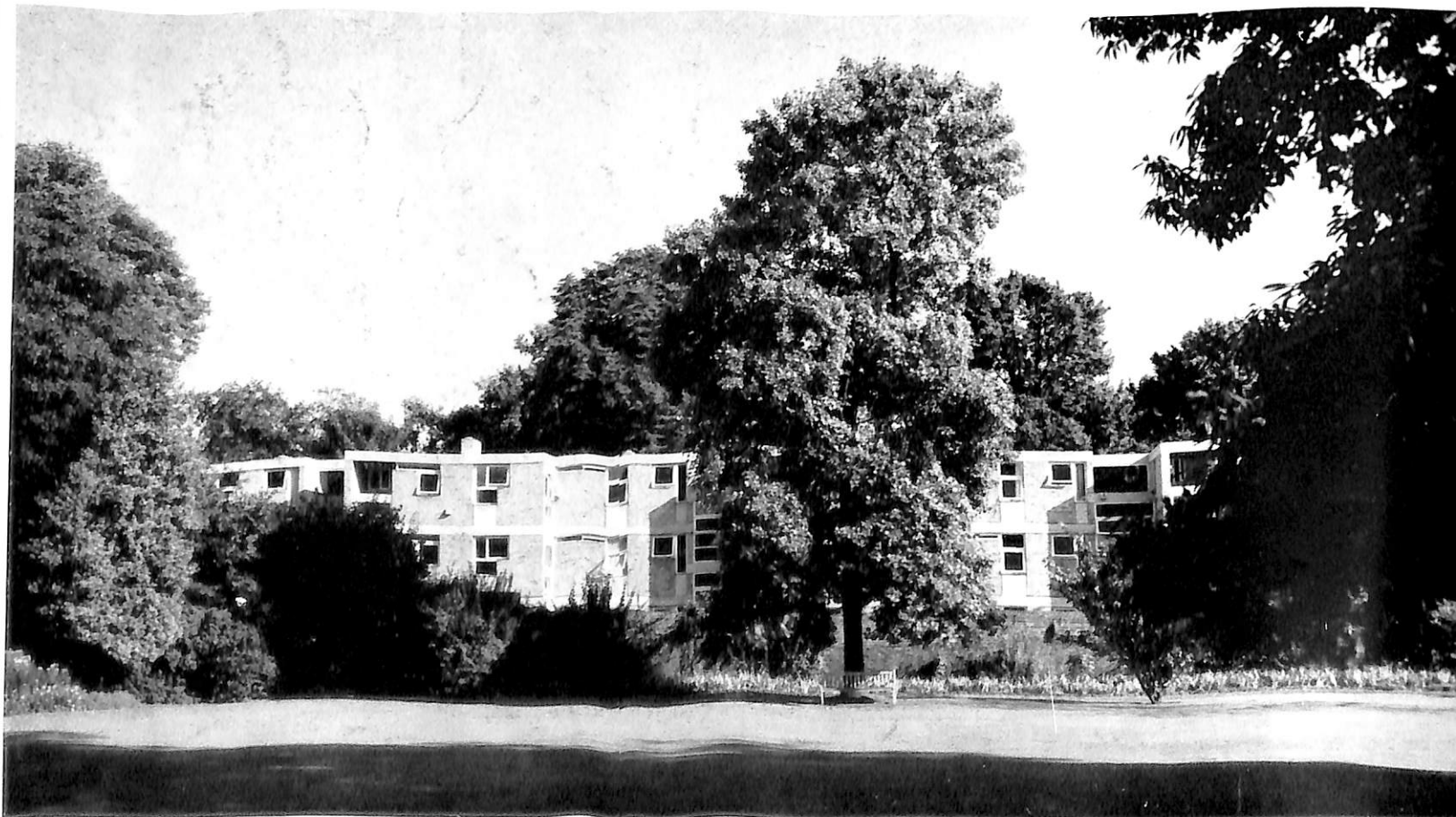


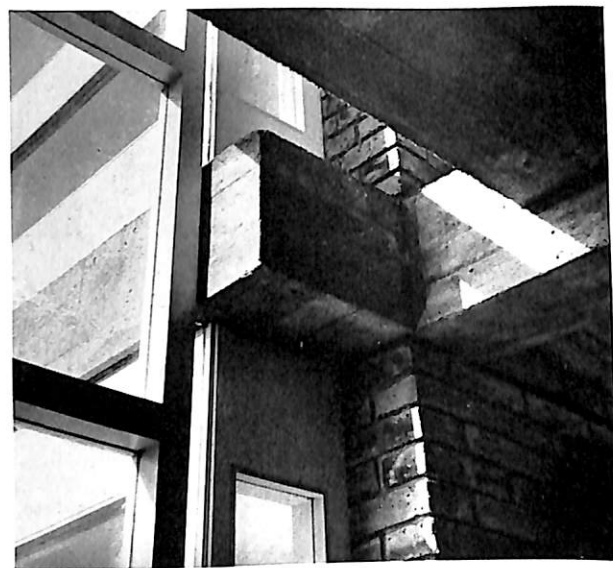
140 – 148
James Stirling and James Gowan; Ham Common (London, England),
Langham House Development. 1958
140
Site plan

142 (right)
Garden elevation of three-storey block



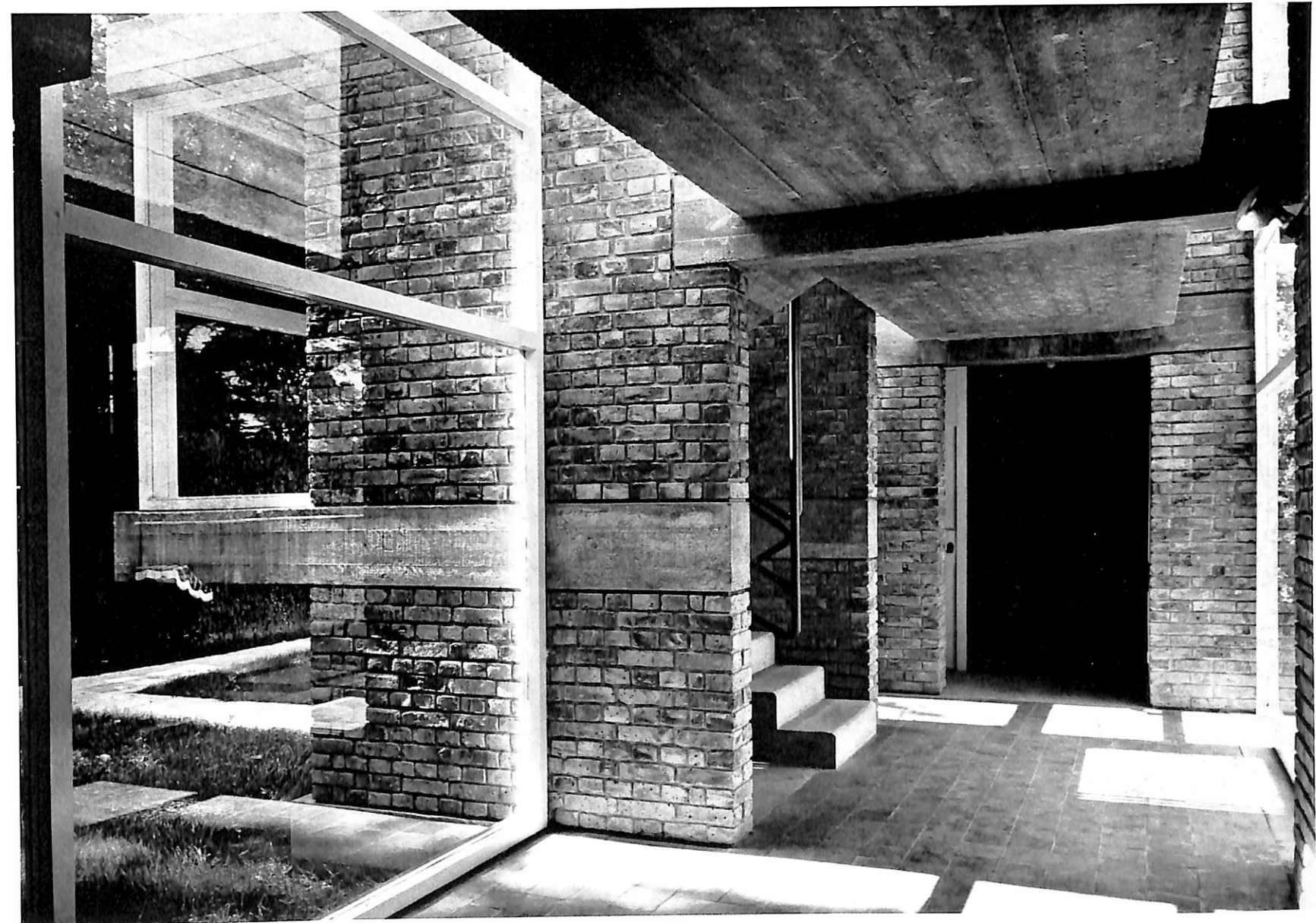
141
Three-storey block seen from adjoining parkland



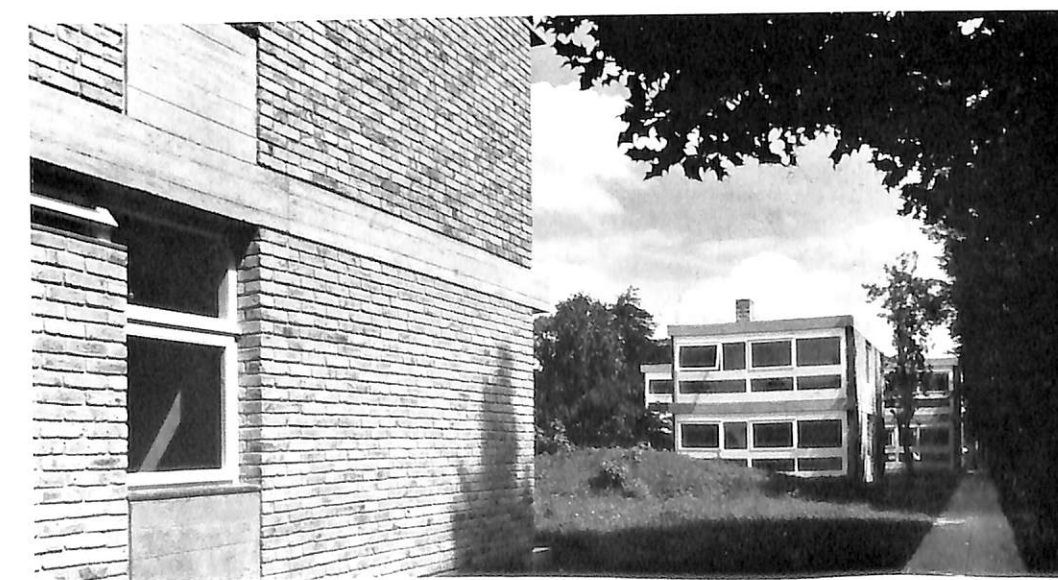


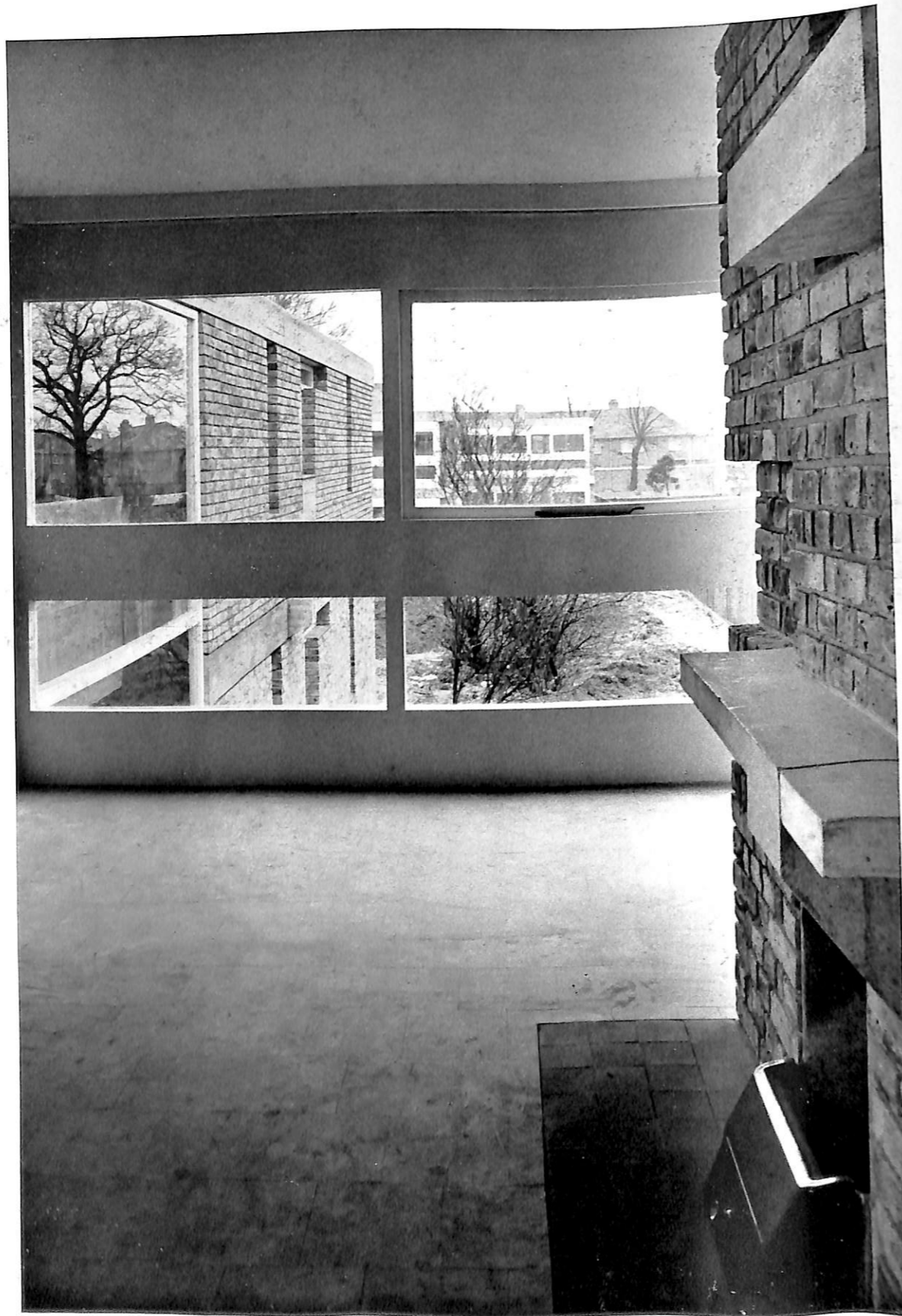
145
Glazing details at corner of entrance hall

143
First-floor bridge in two-storey block
144
Elevation of two-storey block

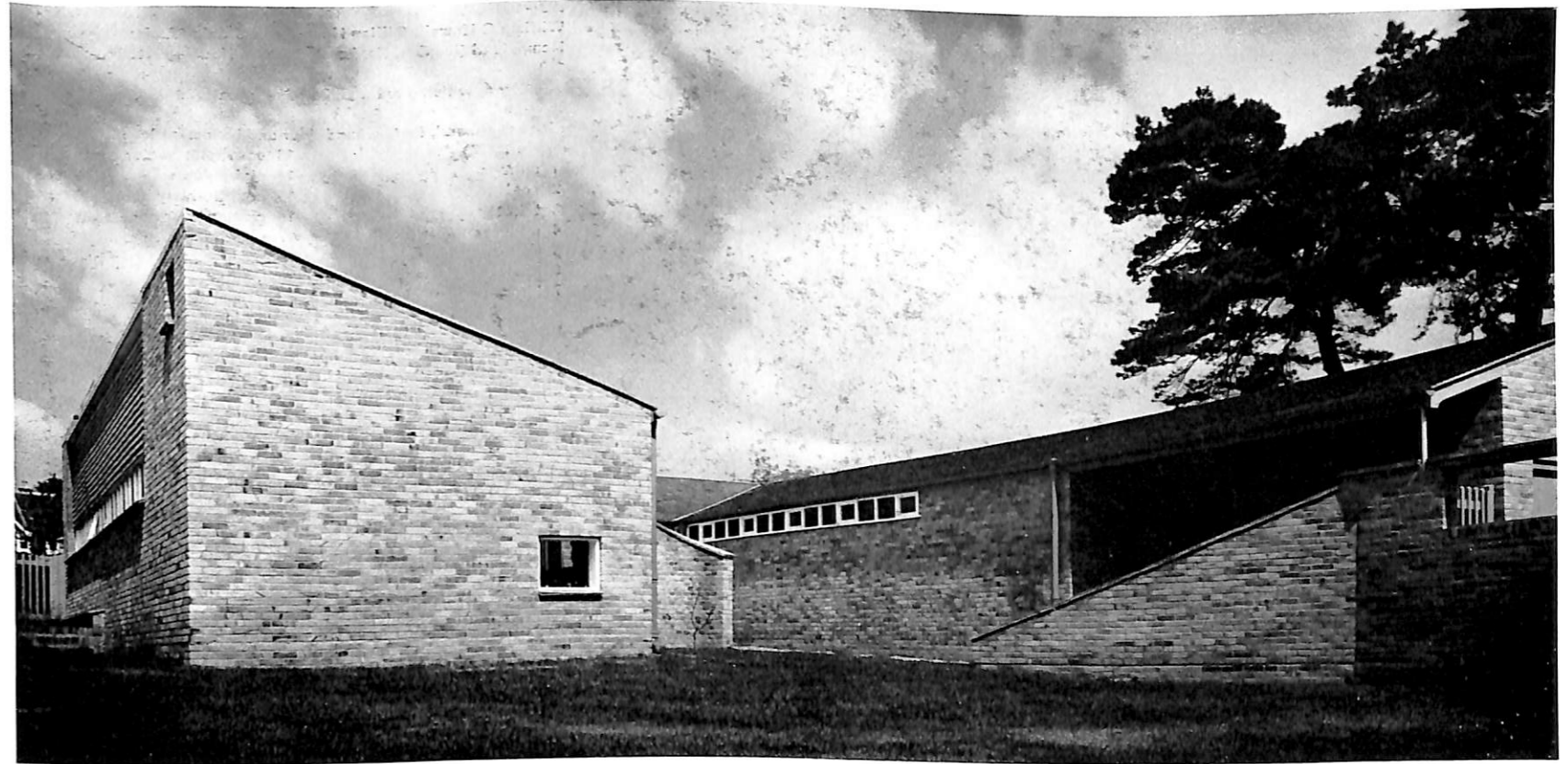


146 / 147
Entrance hall and exterior of two-storey blocks

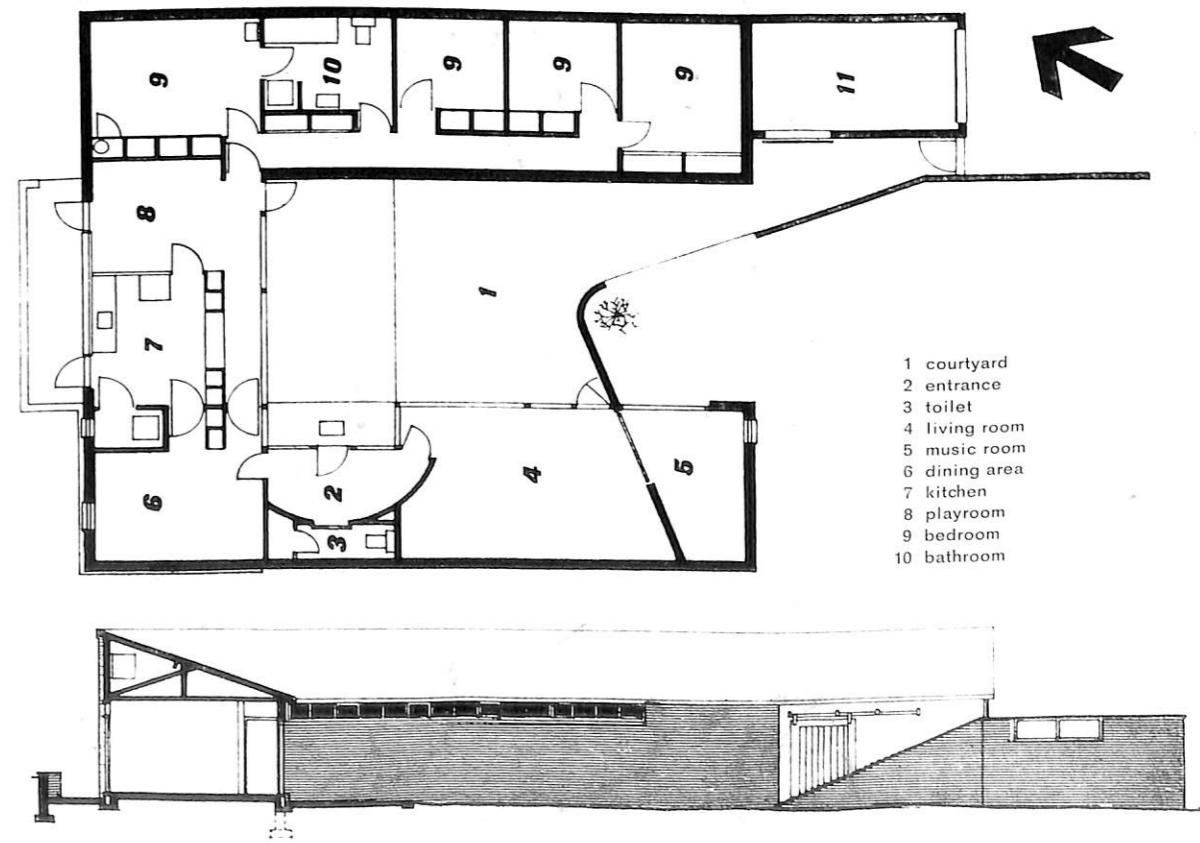




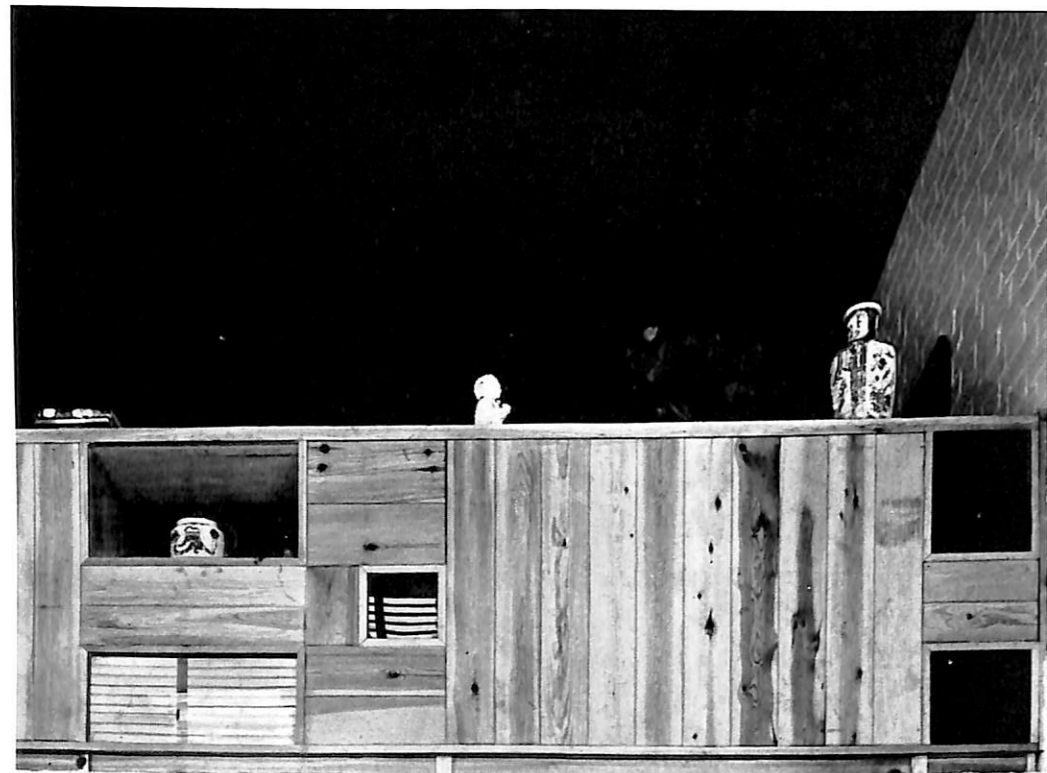
148
Living room on upper floor of two-storey
block



149 - 152
John Voelcker; Arkley (Hertfordshire,
England), Lyttleton House. 1956
149 / 150
Entrance front, living-room block
151 / 152
Plan and section through courtyard
(scale 1:200)

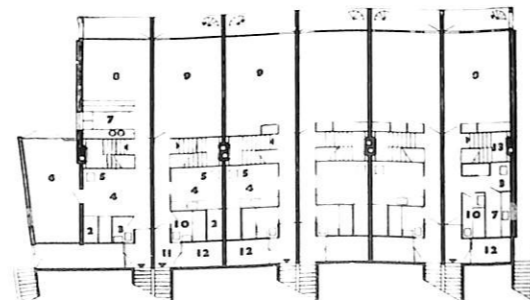
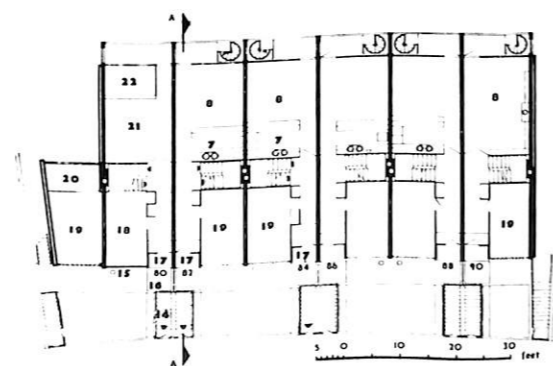
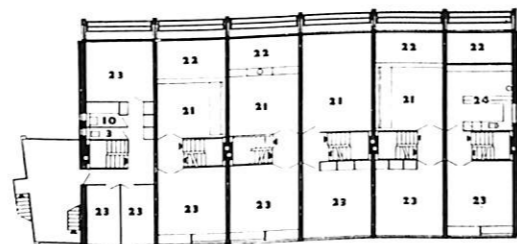
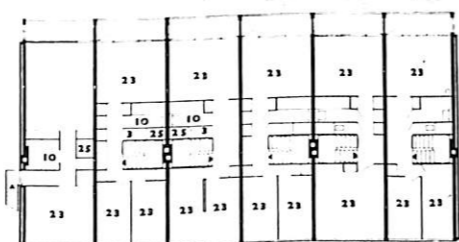


- 1 courtyard
- 2 entrance
- 3 toilet
- 4 living room
- 5 music room
- 6 dining area
- 7 kitchen
- 8 playroom
- 9 bedroom
- 10 bathroom



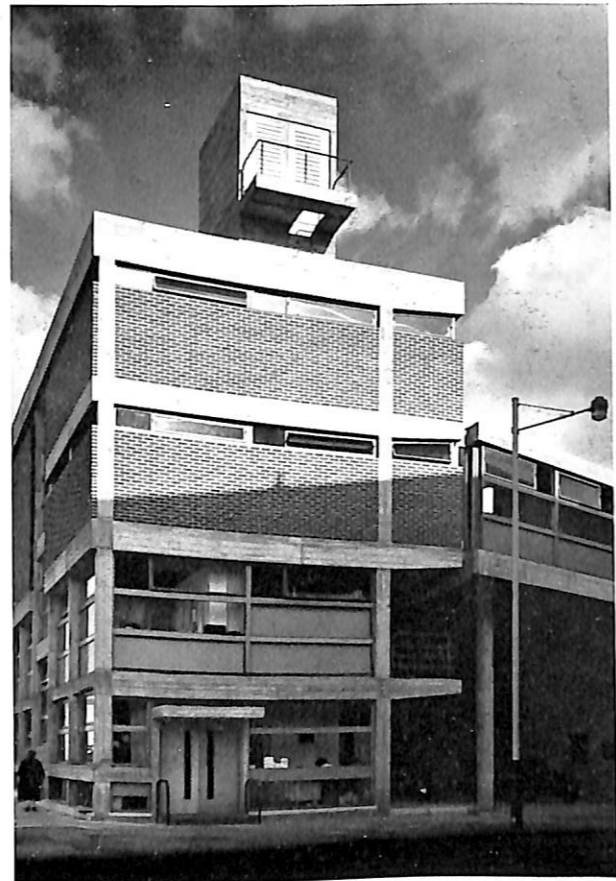
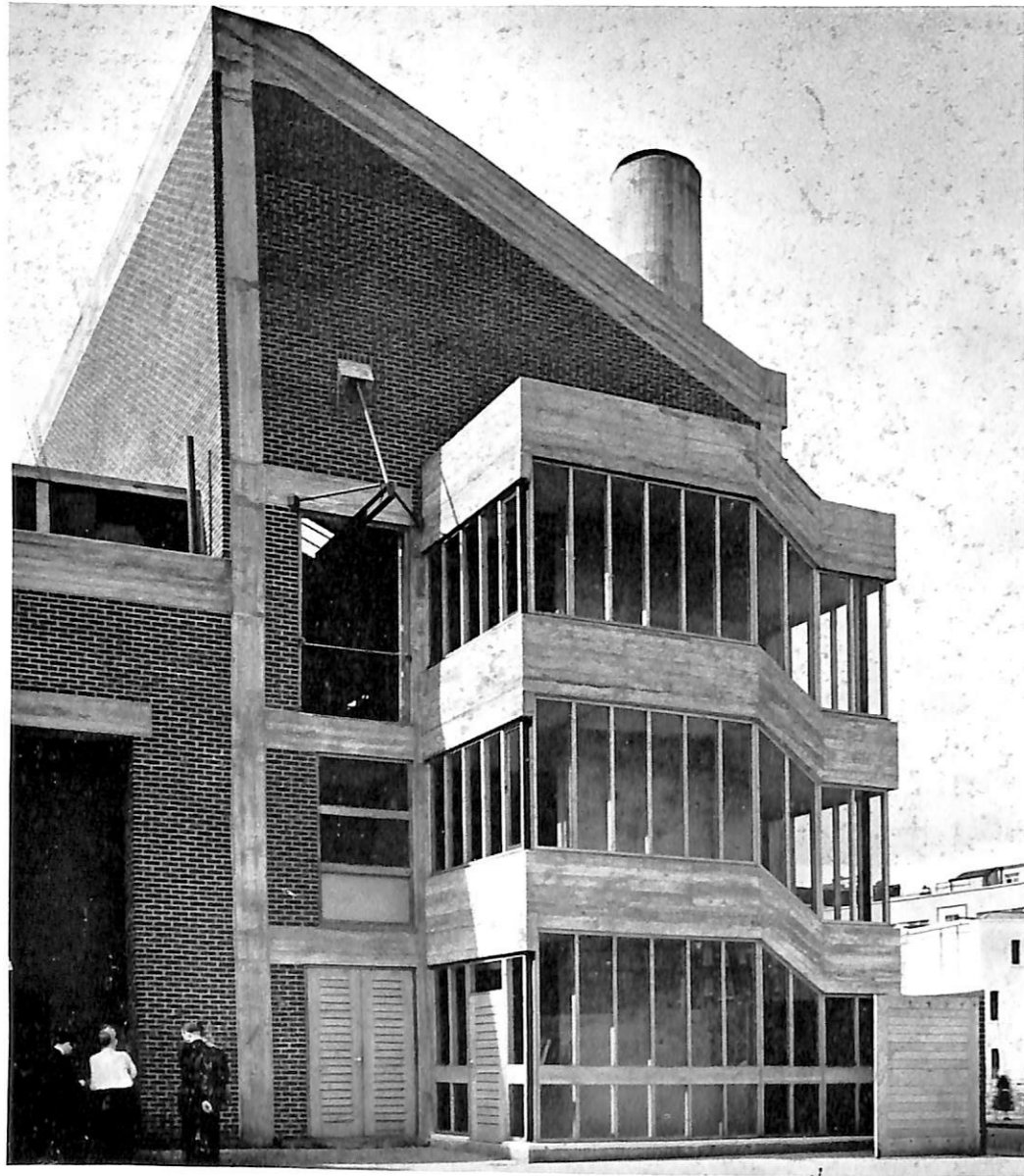
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 William G Howell, Gillian Howell and Stanley Amis;
 Hampstead (London, England), Terrace Housing. 1956 ✓

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 Balcony over living room and kitchen area
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 Plans at second, first, ground floor and basement levels
 (scale 1:500)
- | | |
|----------------------------|---------------------------|
| 1 storage | 13 convector heater |
| 2 coal | 14 stairs down |
| 3 toilet | 15 coal delivery hole |
| 4 utility room | 16 grating over open area |
| 5 boiler | 17 entrance porch |
| 6 studio | 18 study |
| 7 kitchen | 19 garage |
| 8 living room | 20 conservatory |
| 9 spare room | 21 sitting room |
| 10 bathroom | 22 void over living room |
| 11 open area | 23 bedroom |
| 12 cycle and dustbin store | 24 dining / kitchen |
| | 25 water tanks |

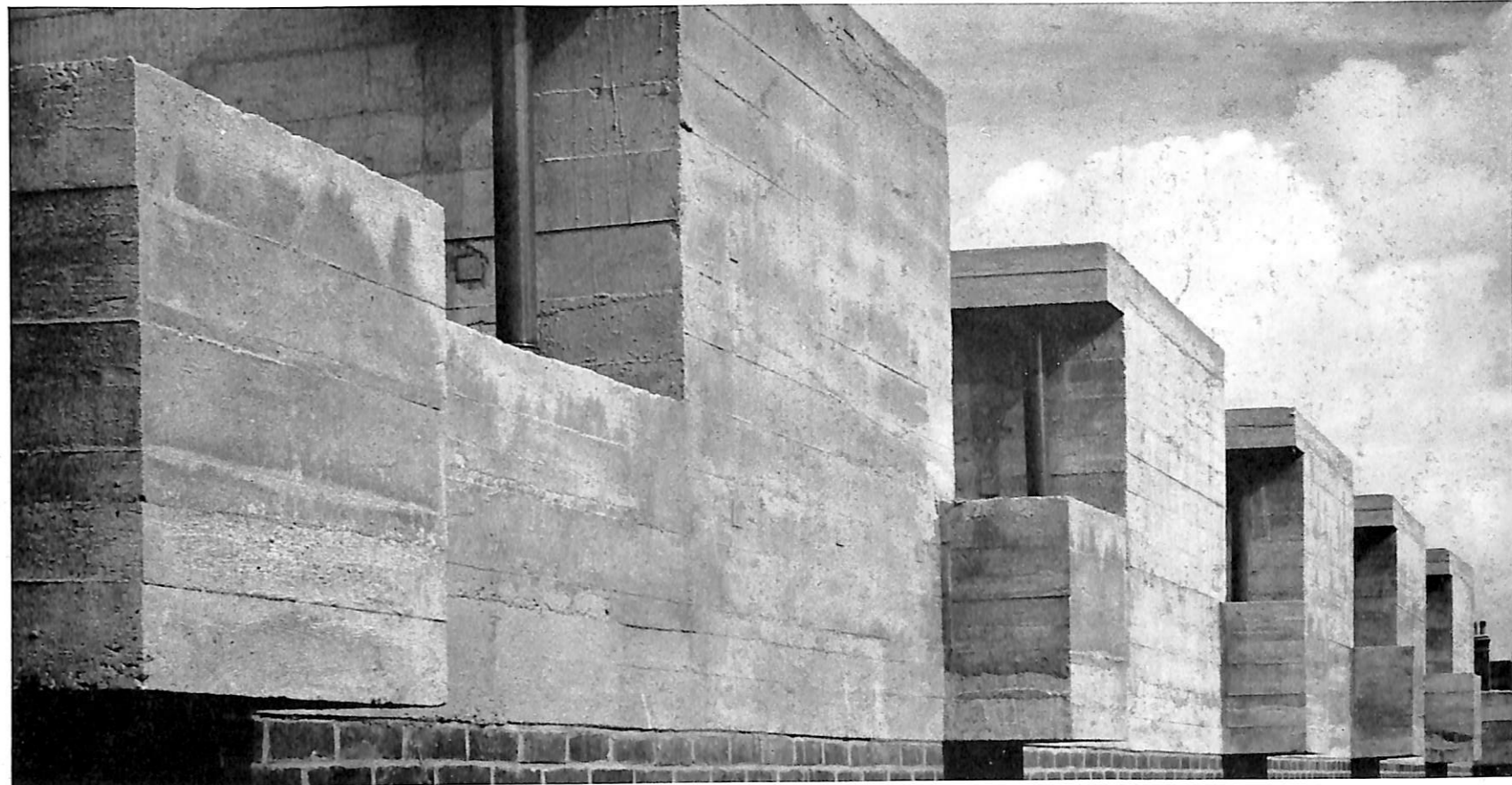


158
 Garden front



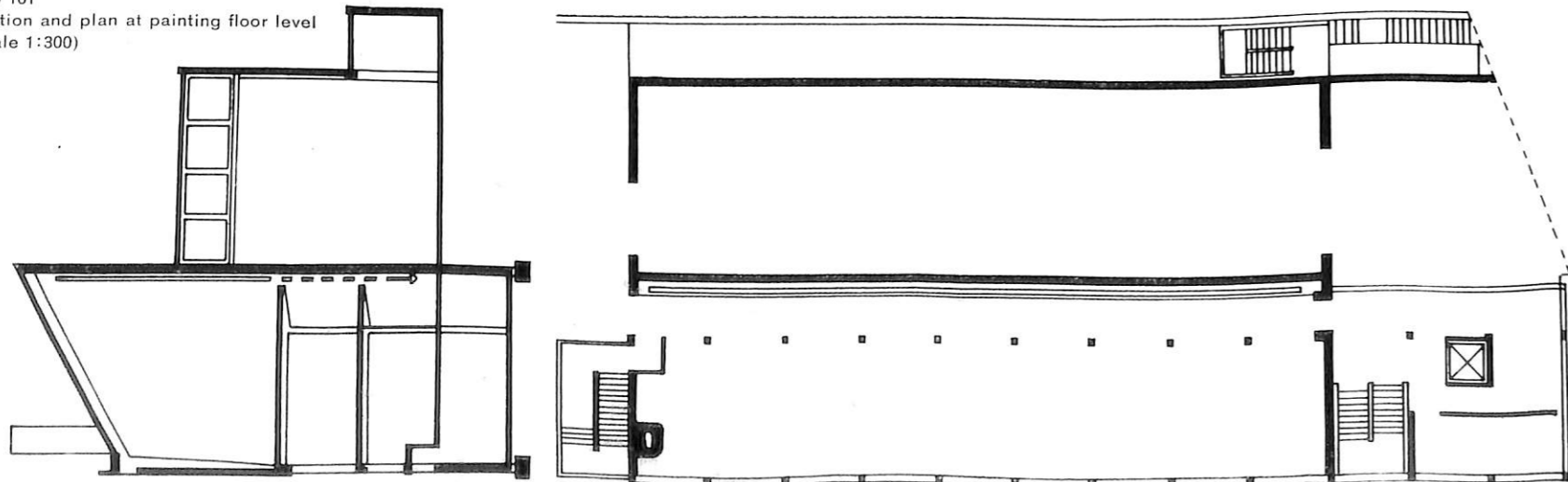


159 - 163
 Lyons, Israel and Ellis; London (England),
 'Old Vic' Theatre Workshops. 1958
 162
 Entrance elevation
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 Roof details
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 Yorke, Rosenberg and Mardall; Gatwick (England), Airport. 1957
 Control-tower building
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 Owen Luder and Partners; Catford (London, England),
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 Stair-tower and entrance



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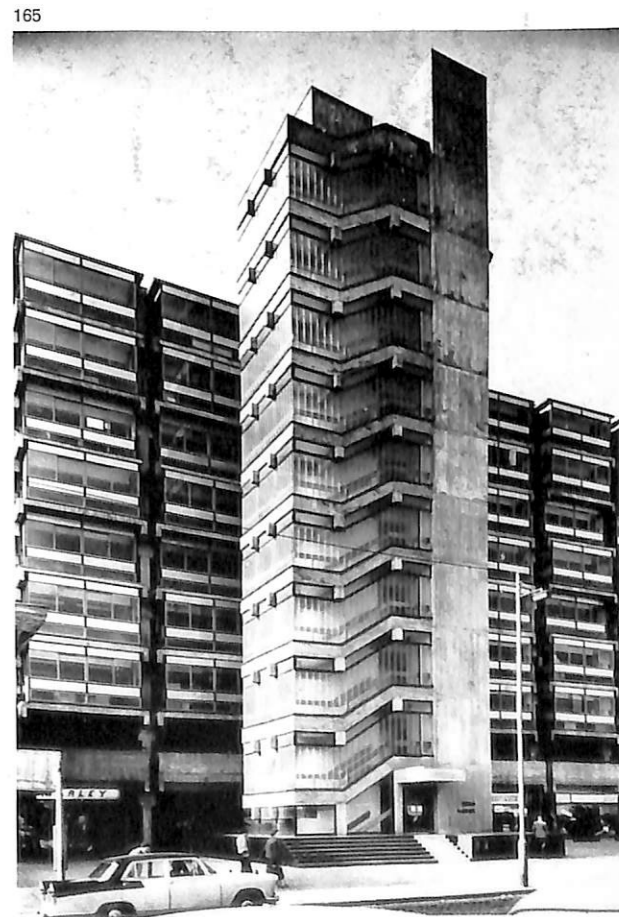
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 Stair-tower
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 Section and plan at painting floor level
 (scale 1:300)



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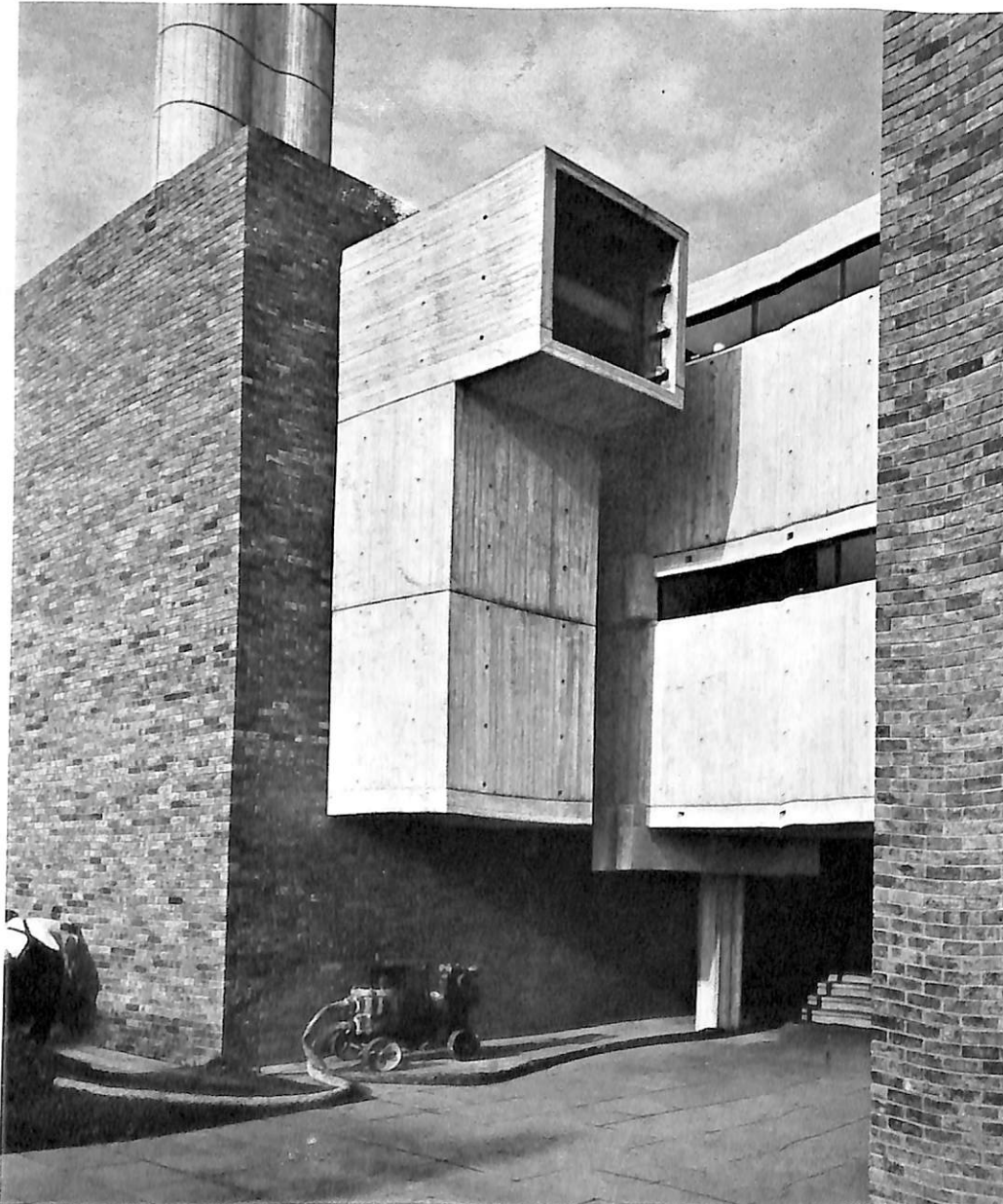
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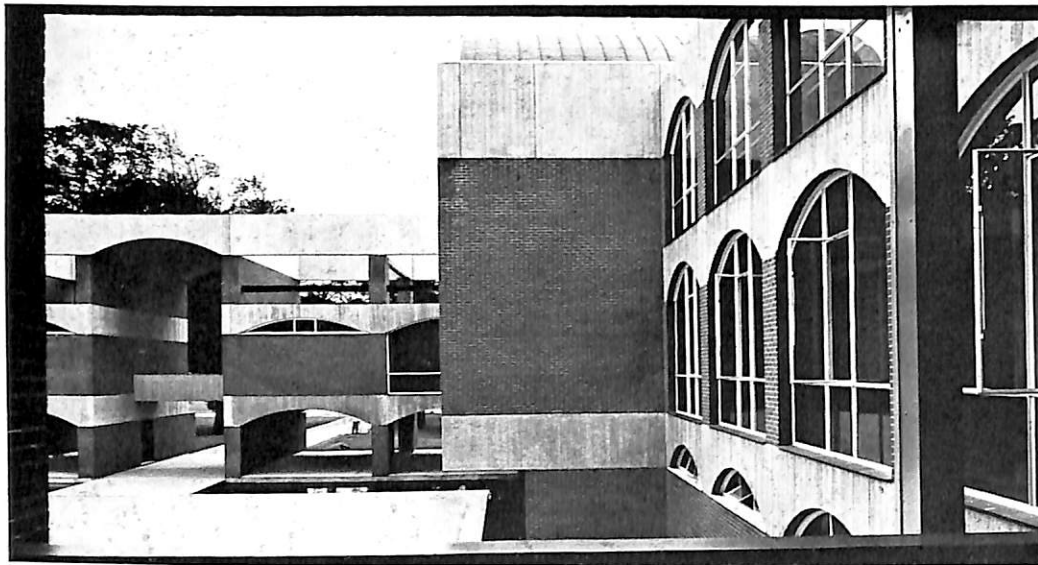
166 – 168
Sheppard, Robson and Partners;
Cambridge (England), Churchill College.
1964
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Entrance to Master's lodge



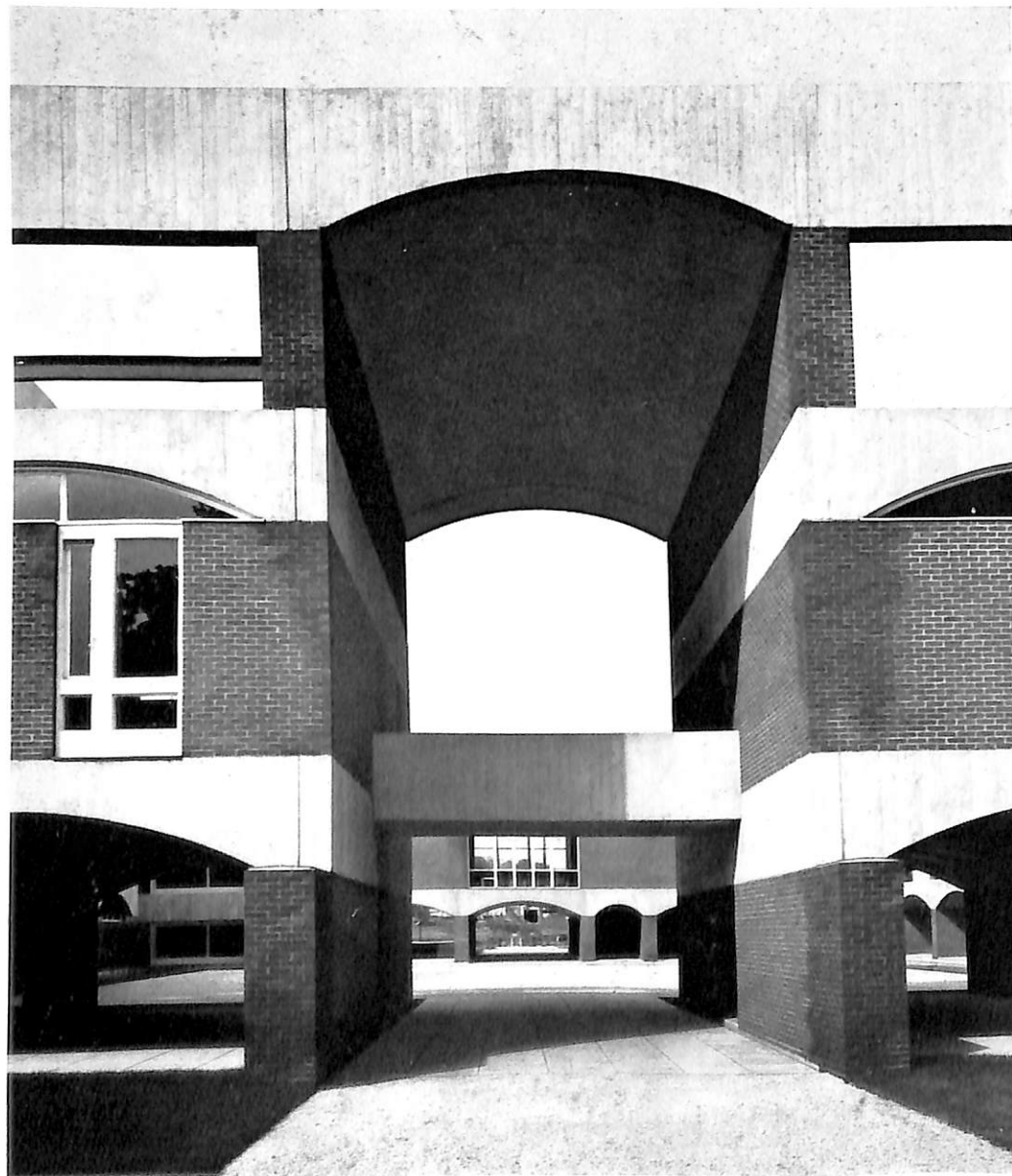
168 (right)
Detail of corner of residential court

167
Boiler house





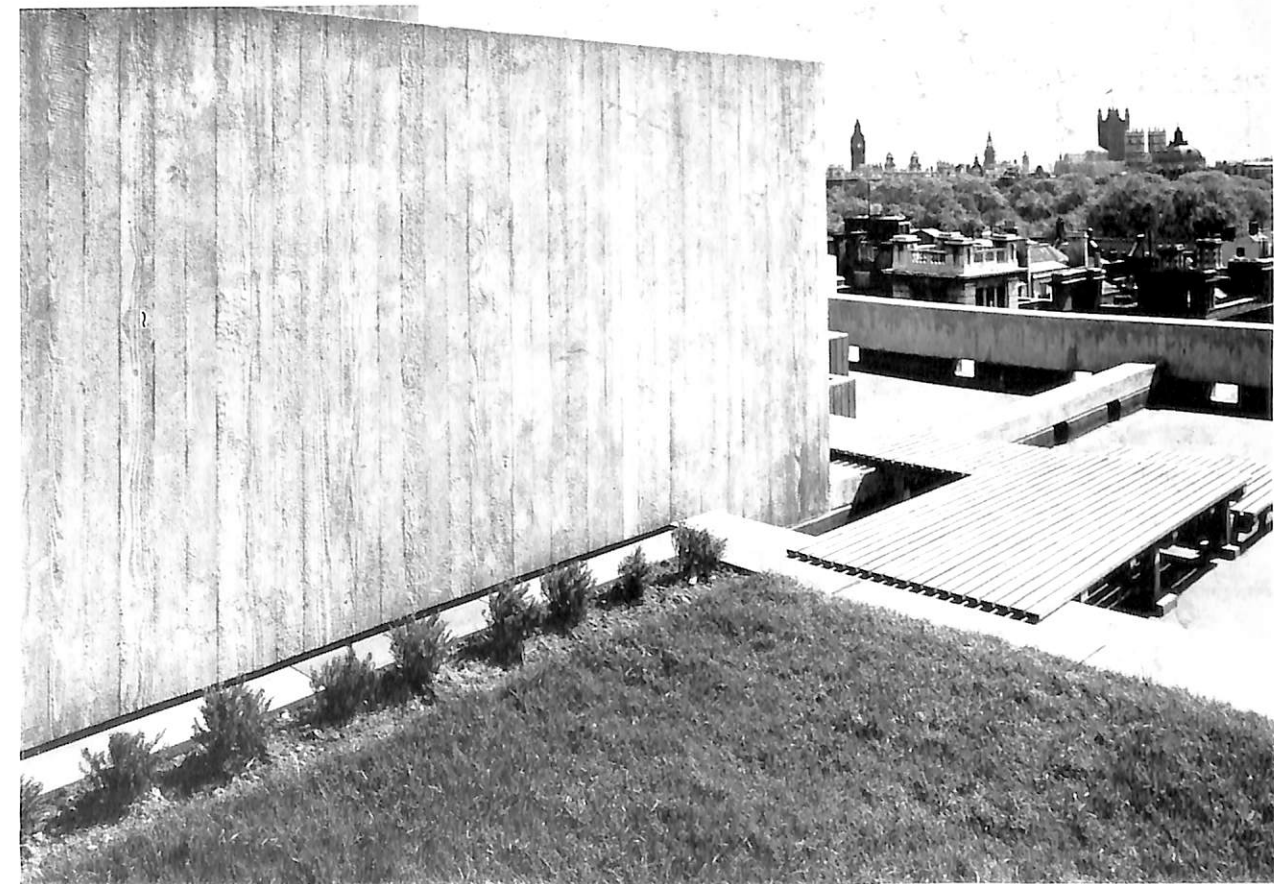
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Sir Basil Spence and Partners; Brighton (England),
University of Sussex. 1962/63
First courtyard, entrance passage

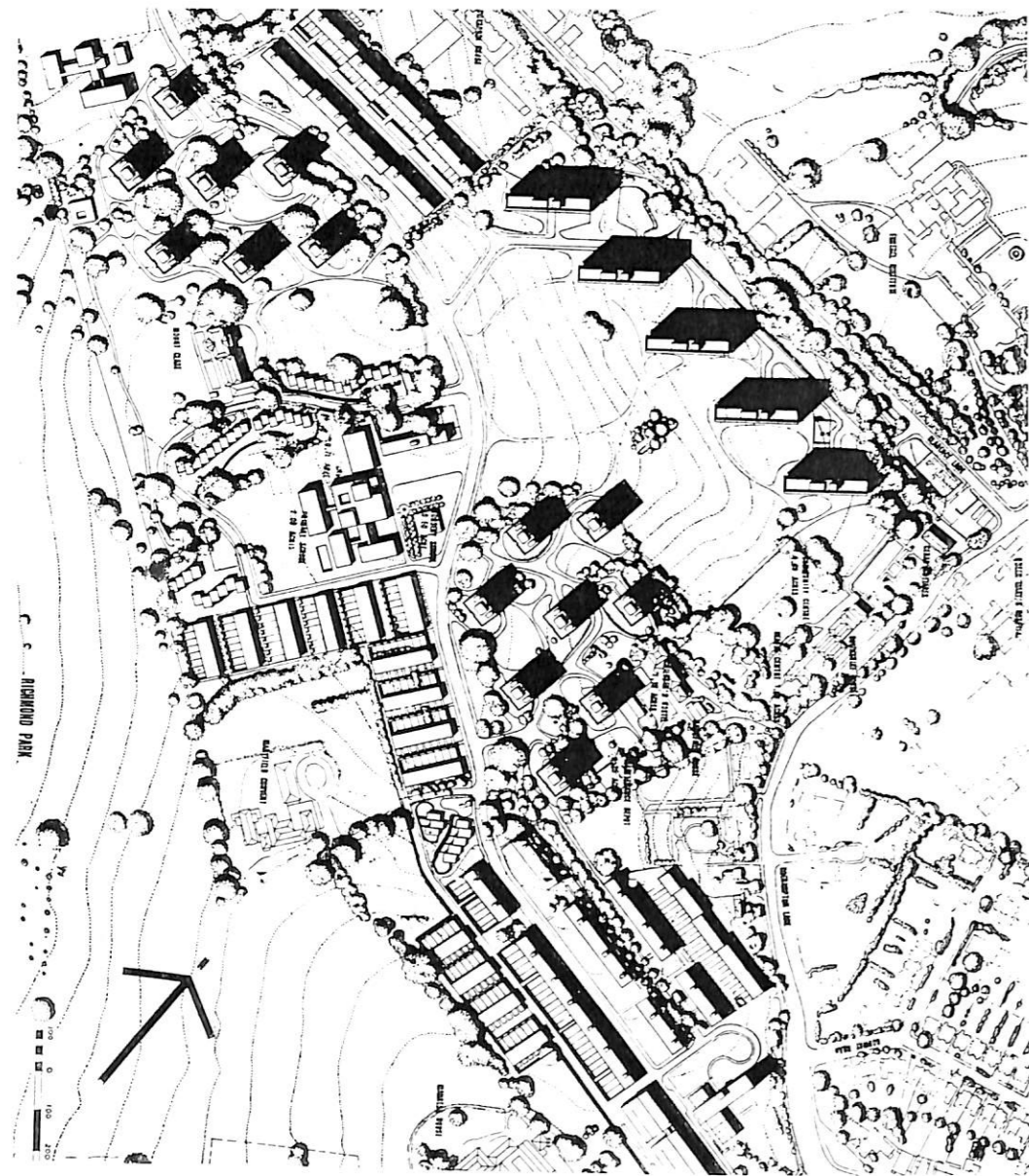


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Peter Moro; London (England),
Hille Furniture Shop. 1963
Display area



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Denys Lasdun and Partners;
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Flats in St James's Place. 1961
Garden wall of penthouse





173 - 179
 London County Council Architect's Department (Housing Division);
 Roehampton (London, England), Alton West Housing. 1959
 173
 Site plan (scale 1:6000)



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175
 Gable walls of slab blocks

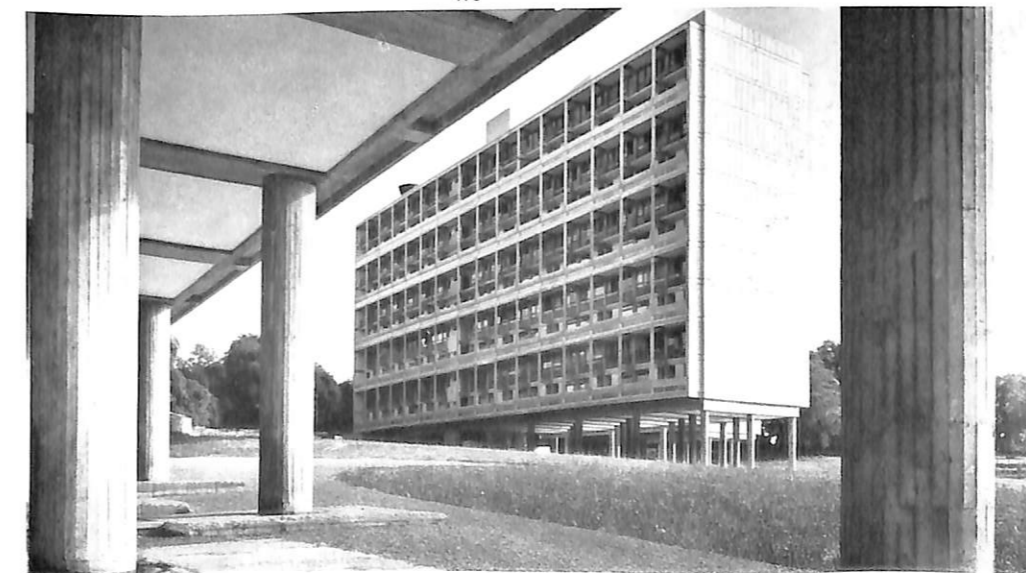
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 Close up of pilotis and space under a slab block

177
 Social service building under slab block

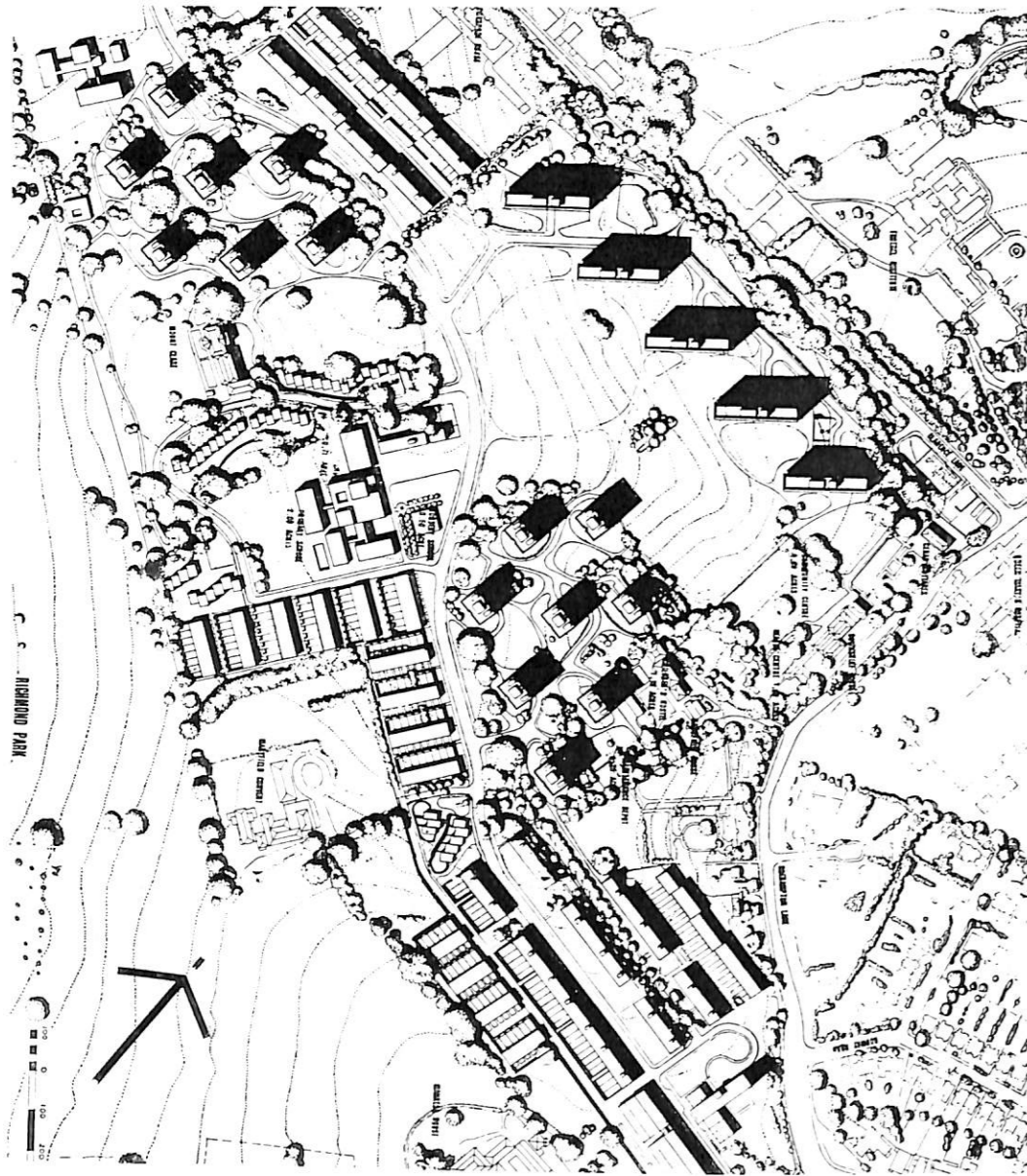


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174
 Slab blocks seen from the central lawn



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173 - 179
 London County Council Architect's Department (Housing Division);
 Roehampton (London, England), Alton West Housing. 1959
 173
 Site plan (scale 1:6000)



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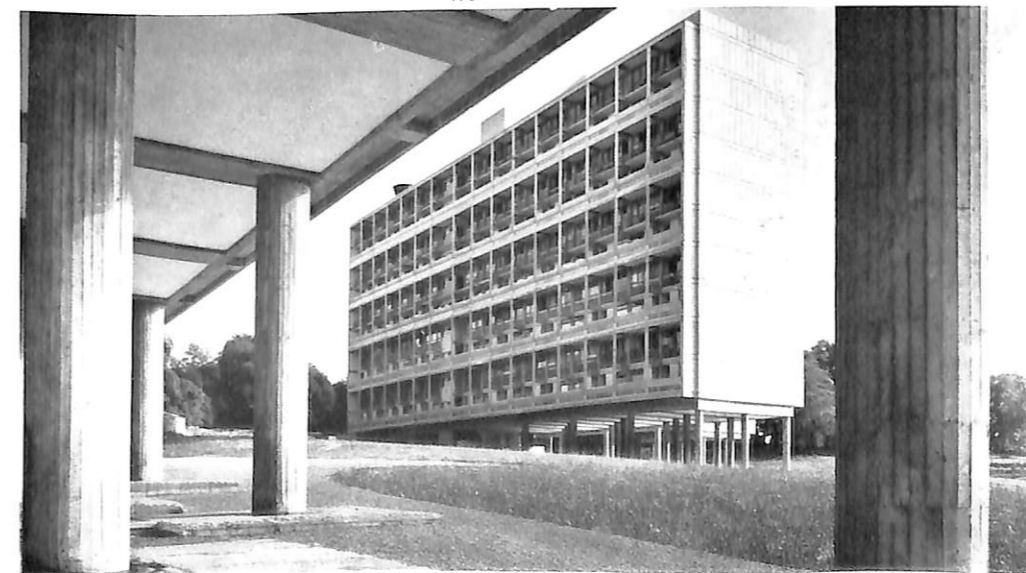
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175
 Gable walls of slab blocks
 176
 Close up of pilotis and space under a slab block
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 Social service building under slab block

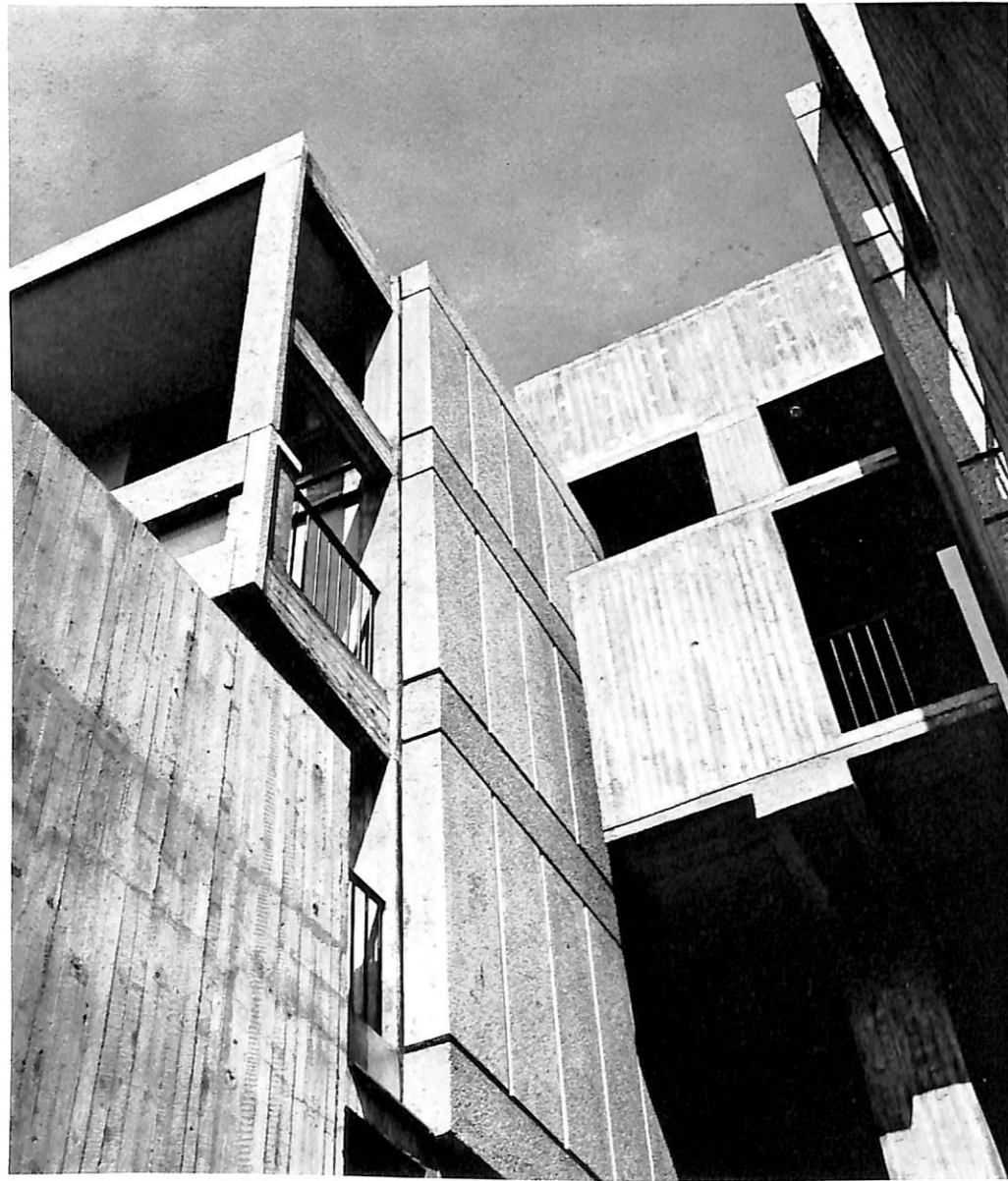


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174
 Slab blocks seen from the central lawn



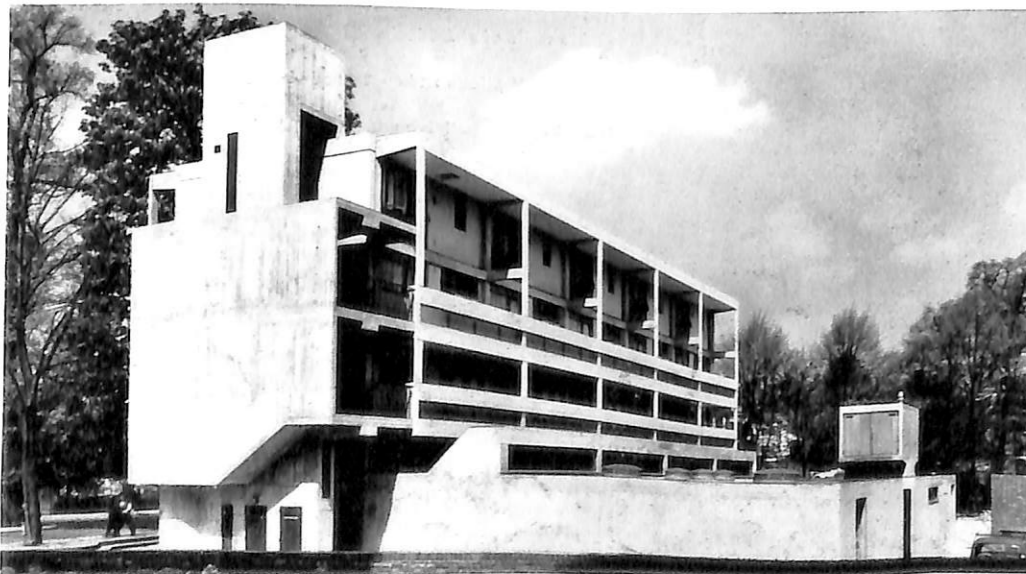
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Detail of stairway-passage and end staircase of block of shops



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Bresciani, Valdes, Castillo and Huidobro; Santiago (Chile),
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External staircase, gable wall of six-storey block two-storey
row-housing

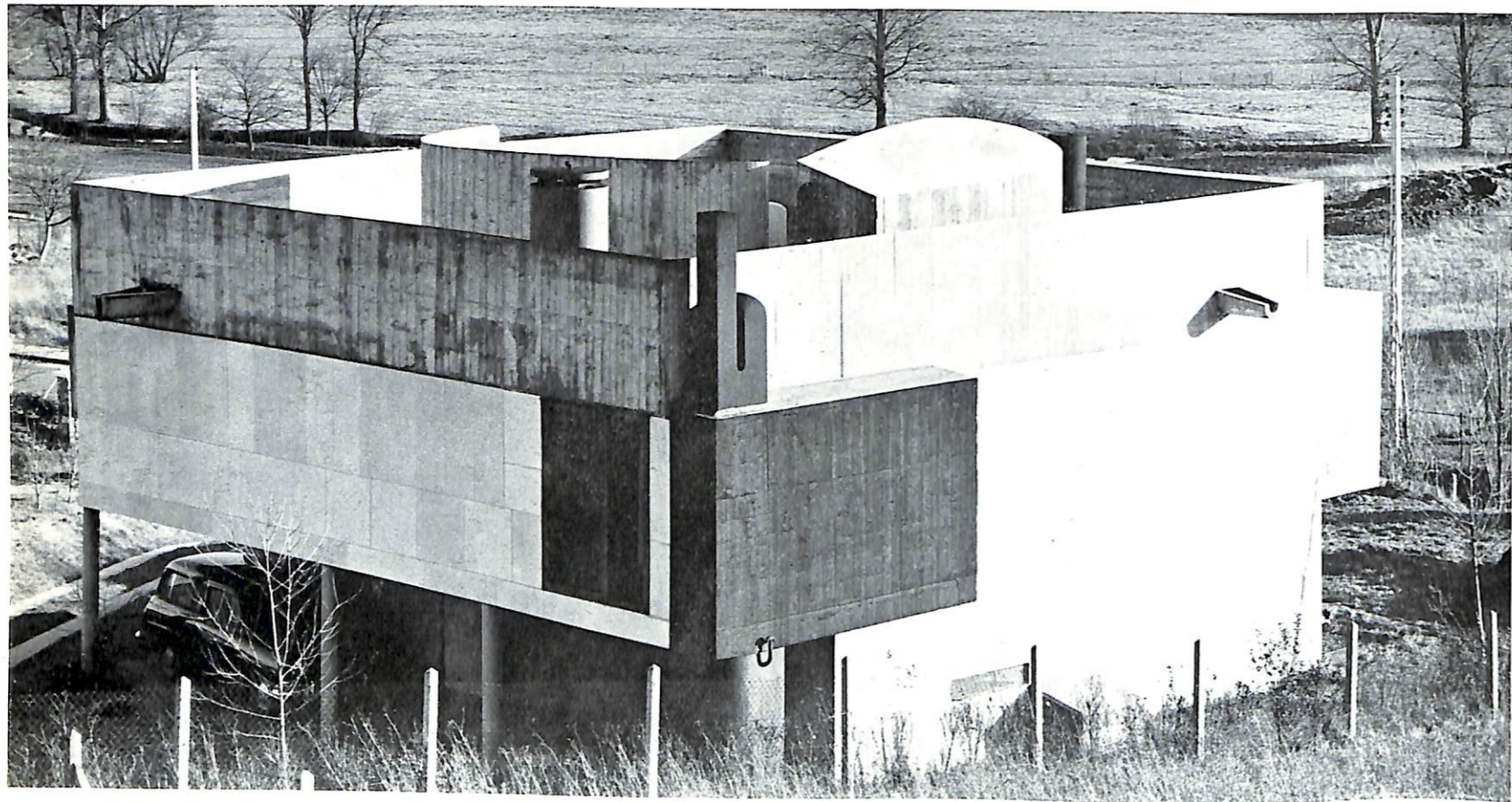


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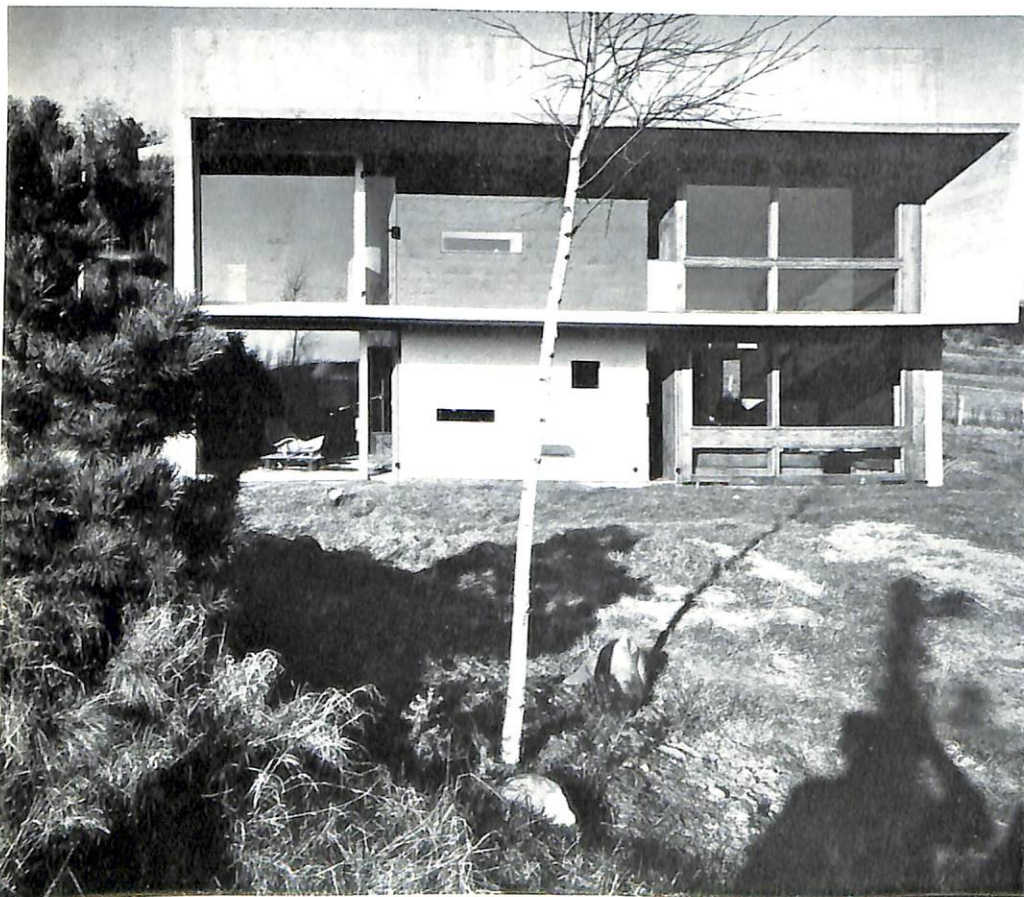
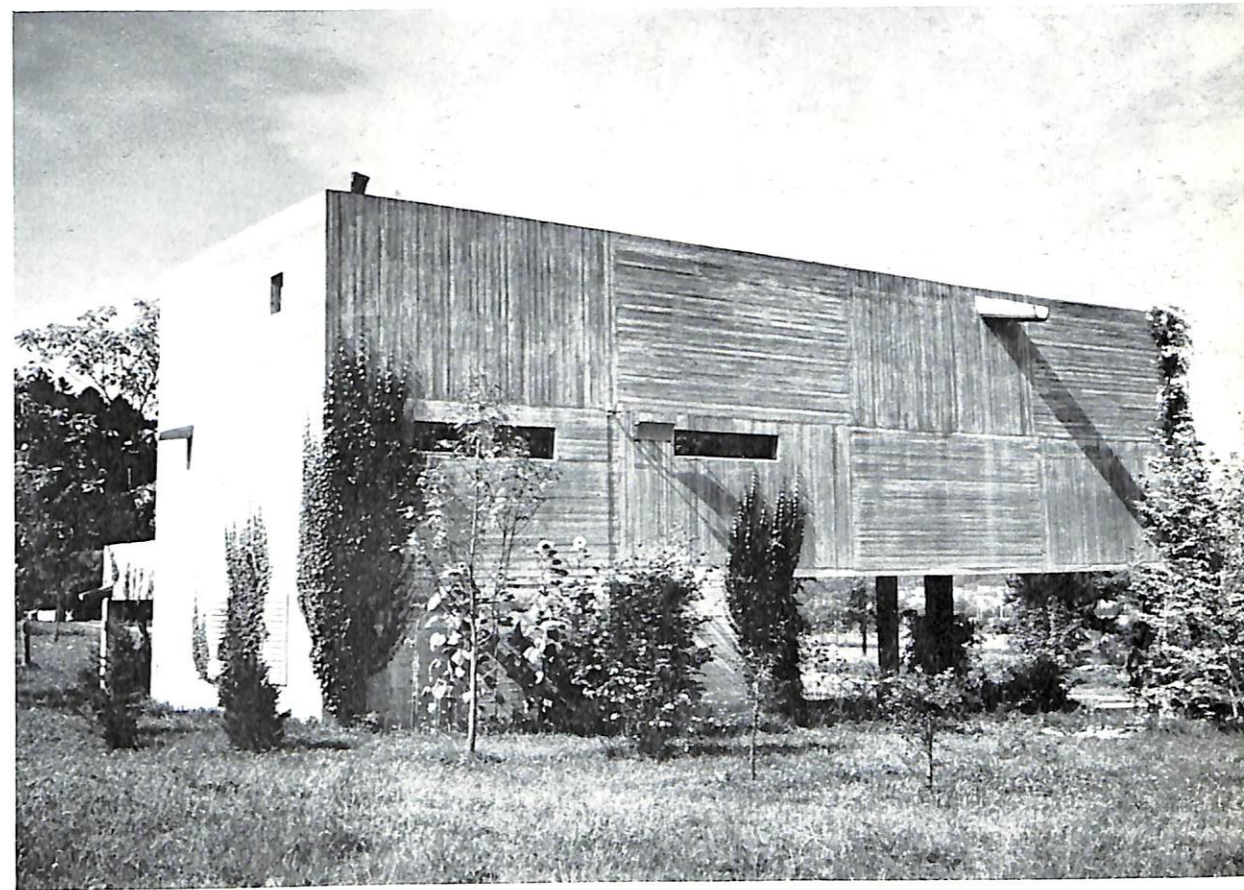


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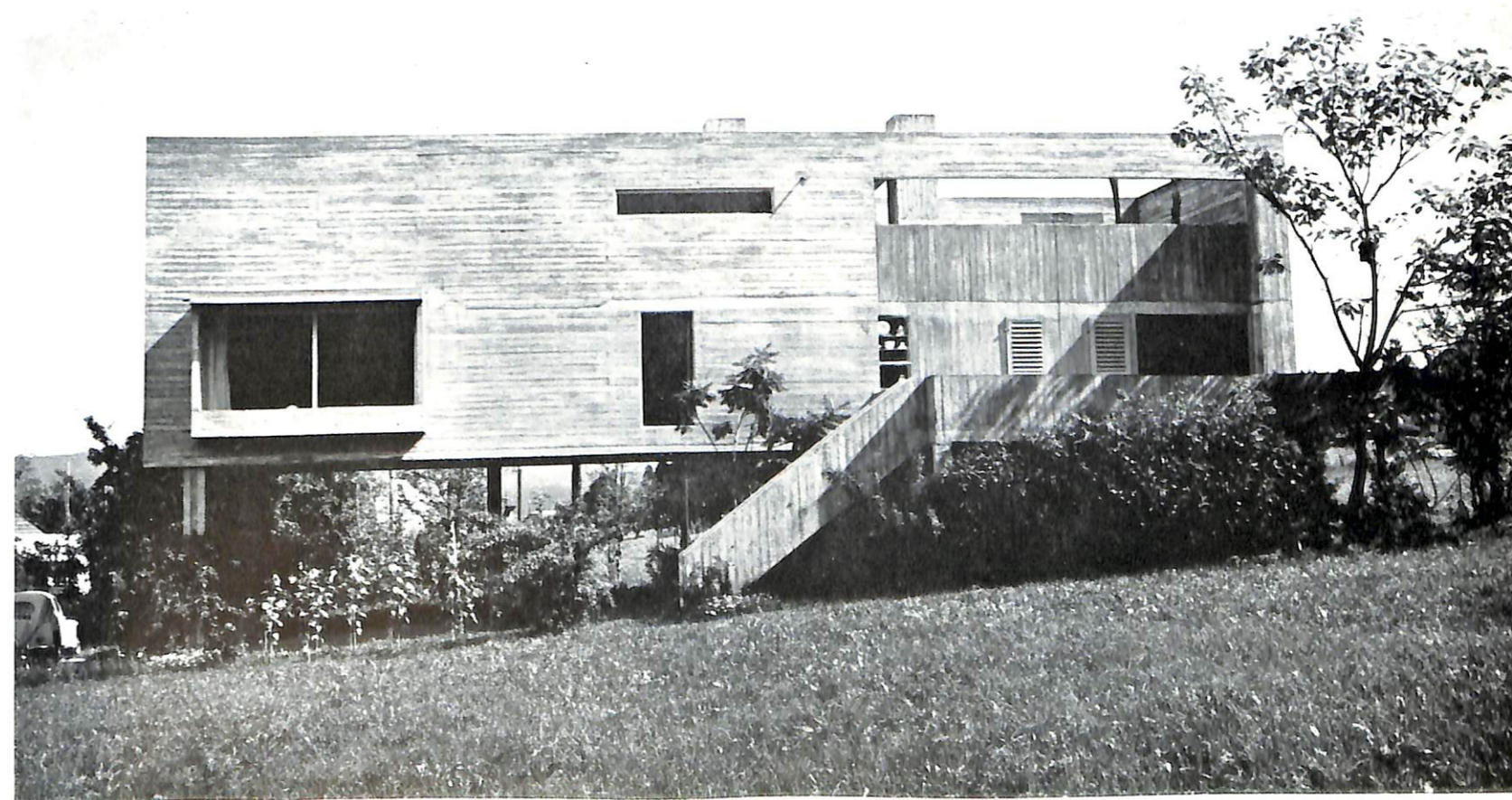
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Atelier 5 (Erwin Fritz, Samuel Gerber,
 Rolf Hesterberg, Hans Hostettler,
 Niklaus Morgenthaler, Alfredo Pini);
 Rothrist (Switzerland), Alder House. 1958
 Rear elevation, terrace side



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André Wogenscky; Rémy-les-Chévreuses (France).
 Architect's Own House. 1957
 Roof structures, garden front





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Brise-soleil



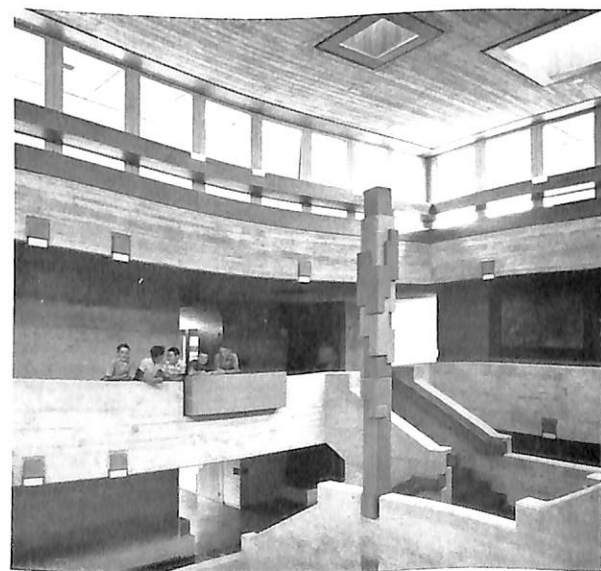
187 - 189
Atelier 5 (Erwin Fritz, Samuel Gerber, Rolf Hesterberg,
Hans Hostettler, Niklaus Morgenthaler, Alfredo Pini);
Thun (Switzerland), Factory. 1960
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Street front, roof-garden



190
Le Corbusier; St Dié (France), Factory. 1950
Brise-soleil



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 Walter Förderer, Rolf Otto, Hans Zwimpfer; Aesch (Switzerland),
 School. 1962
 Entrance steps, interior of central hall



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7 Hard cases: the Brick Brutalists

Around the succession of buildings which belong to the main stream of Brutalist development, critics have grouped others which, for the purposes of argument, might be regarded as Brutalist, or might not. It is difficult, to know where to place Sverre Fehn and Geir Grung's museum at Maihaugen in Norway. Both men are members of that network of British connections with Norway which is sometimes humorously called the 'Arctic Circle', and Grung, like Norway's senior member of CIAM, Arne Korsmo, was present at the Otterlo congress in 1959. The museum might well be regarded as an attempt to find an ideal solution for a difficult site, and it sports a certain amount of 'brut' concrete on its exposed roof-slabs. But in a world of architecture as small as that in Norway, every major building is so much of an unique occasion that it is dangerous to try to link it to any particular movement.

Many of these hard cases are churches — obviously a confluence between a puritan aesthetic and a puritan ethic might be looked for in the Protestant connection, but not all the likely candidates have a Lutheran or Calvinist background. Figini and Pollini's Santa Maria dei Poveri in Milan prompted Kidder Smith to observe that its exterior "suggests more a warehouse than a church" and he described the interior as 'near-brutal' but there is a good deal of justice in his proposition that this is in the established tradition (compare the present state of many Renaissance churches) of not bothering with finishes and cladding once the shell of the church was weathertight. In the Protestant connection, however, a lack of obvious 'finish' is more likely to be deliberate. The bare concrete block-work and precast beams of van den Broeck and Bakema's church at Nagele in Holland seems to represent the same ethic and aesthetic as is seen in the bare white-washed interiors of other temples of the 'Hervormd Kerk'; the shelter wall that wraps around the adjoining courtyard is an attempt to create the necessary shelter required for 'that particular place' (a bleak, newly-reclaimed polder).

But the hardest case, certainly the most enigmatic, is Sigurd Lewerentz's Markuskyrka outside Stockholm. It is a building that would greatly enrich the Brutalist canon if it could safely be included within it, but how convincing could such a classification be made? It is not the revolutionary outburst of a dissident young architect, nor is it a work of opportunism on the part of a middle-aged and successful architect adapting to a change of fashion. Lewerentz is of an age with Le Corbusier (he was born in 1885) and the church seems to be the unexpected product of a long process of architectural maturity. It combines shallow vaulting, plane and curved walls — all in resolutely coarse brickwork that makes Jaoul look rather inhibited — with a concept of plan, space and geometry that has nothing in common with any of the Brutalist buildings that use brick in any related manner. In some ways this is very 'other' architecture: Lewerentz's command of architectural form

is secure and explicit, and yet the building has a genuine informality, a relaxed indifference to such concepts as 'rectangle' that goes far beyond the forms of, say, the Smithson Sheffield scheme. However casual the grouping of the buildings in that project may have been, the individual parts still answer to a few regular geometrical archetypes, whereas the plan of the Markuskyrka is studiously irresolute about such archetypes, especially at the altar end, where the walls vary in thickness and curve away in various directions — echoing the formal indifference of those mediaeval castle builders whom Louis Kahn so much admires but shows no desire to imitate. When one observes how this 'other' architecture is the work of a man firmly grounded in the Scandinavian traditions of neo-Classical order and picturesque sensibility, one cannot help wondering if Hans Asplund, in coining the term 'Neo-Brutalist', was not identifying a trend that might have emerged anyhow, without any assistance at all from Le Corbusier, Louis Kahn or the British.

But, in the end, the Markuskyrka remains an enigma; it poses a question but illuminates no possible answer, least of all about the other Brick Brutalists. This sub-category or marginal grouping of doubtful Brutalists, to which Stirling and Gowan might be taken to belong at the time of Ham Common, is not perhaps to be taken too seriously, especially since the use of brick is not the main factor they have in common, merely the most obvious. As between Ham Common, Oswald Mathias Ungers's house in Cologne, and the extension to the architecture school at Cambridge University, there is no agreement as to external form, detailing or spatial aesthetics. What they have in common is great erudition and sophistication, worn with a flourish, about the recent history of Modern Architecture.

With Ungers, his sophisticated awareness seems at times more like an inflamed sensibility. It spills out of him in conversation, it gives him a response to modern masterpieces that can be personal and violent, yet his part in the organisation of the 'Gläserne Kette' exhibition in 1963 shows that it can be put to disciplined and scholarly ends. His house is a manifesto-building, and although it could have been built at no other time than the late fifties (the enclosed garden courts in particular seem to belong to that time) it evokes remarkable echoes of the architecture of thirty years before. For a start, its location, at the end of a street and attached to a house in an earlier style, recalls the siting of Rietveld's Schröder house in Utrecht, though its detailed architectural idiom has less connection with de Stijl than with more cautious Dutch derivatives from the work of Frank Lloyd Wright. In any case, its main affinities tie it more directly to Germany, to Erich Mendelsohn's early houses in Berlin (eg the Stern house), to Hugo Häring's farm at Garkau, and even, in the way the garden structures relate the main mass of the house to the street, to some of the terracing around the houses of the Weissenhofsiedlung. It is very striking that in a generation that was well aware of the innovations offered by Häring at Garkau (it

was one of the Smithsons' favourite 'images') Ungers should be the only Brutalist of any sort to make any kind of architectural reference to that much-admired source.

For reasons such as these, Ungers's house is perhaps the only building of quality in Northern Europe that can be compared to the work of the Neoliberarians in Italy, though any such comparison would certainly go in Ungers's favour, since his erudition is far better digested, far more apt to the type of building he had to design, and far less restricting to his imagination. Even so, it is still far more directly involved with historical interests than is the comparable work of the English Brick Brutalists, even erudite members of the 'Cambridge School' who represent the extreme intellectual wing of the movement in England.

Nevertheless, the Cambridge movement begins with a manifesto building almost contemporary with Ungers's house. The extension to the school of architecture was designed by Alex Hardy and Colin A St J Wilson (the same Sandy Wilson mentioned in 1.2) in 1957-58, and into this relatively small building were poured most of the intellectual aspirations of the Wilson, Smithson generation; it is one of the most eclectic designs ever to be packed into an anonymous-looking brick box.

Yet even the exterior of that box betrays some of the intellectual concerns that run through the whole design, for the heights of the two storeys, as revealed by the exposed concrete edges of the floor and roof-slabs, are related by the Golden Section ratio (which underlies the 'Modulor', of course) and a consistent proportional obsession runs through the relations of the windows to one another and to the facades on the exterior, and penetrates the relationships of even the smallest designed details of the interior. Many of these internal details give instant information about the interests and predilections of the architects. Thus the elevated 'pulpit' which carries the projector for the slides used in lectures, recalls in its bulk form the Elementarist sculpture of a Malevitch or a Vantongerloo; but it carries a concrete shelf recalling the forms of the brise-soleils of the Secretariat in Chandigarh, and is reached by a tubular ladder in the manner of the Machine Aesthetic of the twenties. But the game of intellectual cross-references also embraces the less obvious machine aesthetics of the 1950's, and the lecturer at the reading desk finds himself confronted with a battery of controls with which to adjust the natural and artificial lighting and communicate with the projectionist.

Yet, intellectual sports aside, this is a fundamentally simple and workmanlike building containing reasonable and necessary accommodation for the teaching of architecture — lecture and criticism rooms on the upper floor, tuition rooms and a crypt-like common-room on the floor below. Its means of architectural expression are few — brick, concrete and wood — but they completely dominate the visual aesthetic, and the architects were at some pains to ensure that they did so, with the result that the walls are uncon-

monly thick (13½ inches) for the sake of being able to offer the right kind of effect of 'briques apparentes' on both sides. All these elements are handled with a didactic fervour and moral earnestness that strike a familiar Brutalist note; as Nicholas Taylor says in 'Cambridge New Architecture'³³:

"Paint and plaster which normally cover inaccuracies and birthmarks of building are excluded, and even the bolt-holes for the stairway shuttering are left exposed",

or, in other words, the ethic and aesthetic of materials 'as found'. Perhaps because the concentration of intellectual effort and didactic urgency could not be repeated, later buildings in this same idiom are less successful, and the Cambridge School does not really strike its best form again until Harvey College, a residential hostel for students at Caius College, Cambridge. Designed by Wilson, with Patrick Hodgkinson, and under the general tutelage of Sir Leslie Martin, it makes a very different proposition to the Architecture School extension. In plan it consists of four ranges of student rooms around a square court, in the English collegiate tradition. In section, however, it departs from that tradition in that the rooms are stepped back floor by floor with terraces in front; also, the short range of rooms on the south side is turned to face outward and has its back to the court. Another departure is that the court is raised the equivalent of one storey above ground level, and has service rooms and a snack bar under it, lit by a large skylight in the form of truncated pyramid which rises off-centre in the court. The whole concept thus adopts an equivocating position vis-a-vis the 'status quo' in British university architecture, accepting a mediaeval tradition of urban planning of doubtful validity for a suburban garden site in the twentieth century, only to modify it in the interests of other concepts of communal living.

Its claim to inclusion in the Brutalist canon derives partly from its obsessive interest in its chosen material, for it appears, from some points of view, to be almost carved from a solid mass of brick, though close examination reveals some very craftsmanly brick details (as if the architects had taken a refresher course in detailing from such early Mies van der Rohe buildings as the Wolf and Lange houses). But even more, its claim to inclusion stems from its planning concept, related to the Smithsons' interest in ancient sites. It aims to create a distinctive 'place', and has the air of a sacred enclosure. Because the surrounding ranges of rooms are terraced back, they do not enclose the central court so much as form an amphitheatre around it. From the south one reaches the court by mounting a broad flight of ceremonial steps (as if to the terraces at Chichen-Itza, for example) and is then confronted with the altar-skylight in a raised court that does not shelter one from the elements so much as offer one to the sky. It is a strange, moving and quite un-English place, having no relationship with anything else in Cambridge, not even the quasi-Brutal buildings of

³³ Nicholas Taylor, 'Cambridge New Architecture', 1964

For illustrations see page 153-163

Churchill College, not even with the small residential cluster that forms the first, and better, part of the Churchill development. It is doubtful if Harvey Court, in the end, relates to anything and — as has been said — its relationship to Brutalism is arguable, especially as the architects were not consciously committed to Brutalism as a deliberate programme. It is doubtful, of course, if any architect other than the Smithsons was so committed — with the baffling exception, to which we should now turn, of Vittorio Viganò in Milan.

8.1 Istituto Marchiondi, Milan

Viganò's Istituto Marchiondi was one of the major surprises of European architecture in the late fifties. At a time when most Italian architects seemed to be sinking into comfortable compromise with the politico/clerical regime, into submission to the speculators who had 'le mani sulla città', and thus controlled the progress of building, Viganò produced this 'habitat' for an organisation whose programme of psychological rehabilitation was outside the normal church-controlled pattern of charity; at a time when the acceptance of compromise was being expressed in the sentimental formalism of Neoliberty, he offered a tough-minded and unsentimental building (which has gravely offended tender-minded sentimentalists from all over the world); and at a time when great historical casuistry was being exercised to justify Neoliberty's betrayal of the promise of the Italian Rationalist movement, Viganò peremptorily condemned them all by employing an architectural idiom that recalled the fervour and discipline of the pre-war 'architettura razionalista'.

This point about the building's parentage is important, because it lends substance to its claim to be Brutalist, but most foreign critics have overlooked it, and even Renato Pedio, in his presentation of the Istituto Marchiondi in 'L'Architettura'³⁴, keeps the historical references unspecific and generalised:

"Brutalism, according to the English critic Reyner Banham, signifies, in architecture:

- 1 the building as an unified visual image, clear and memorable,
- 2 clear exhibition of its structure,
- 3 a high valuation of raw, untreated materials

This alternative definition is adduced from 'L'Espresso', 2 March 1958: clean virgin surfaces; heavily corrugated volumes, but of prismatic simplicity; services exposed to view: zones of violent colour. Brutalism is thus a taste for self-sufficient architectonic objects, aggressively placed in their surroundings; it is an energetic affirmation of the structure, the revenge of mass and plasticity over the aesthetics of match-boxes and cardboard; it aims to profit (on the basis of historical study but outside academic categories) from the lessons of Modern Architecture stripped of all literary excuses. It is a method of working, certainly not a recipe for poesy. And if, on the one hand its polemical power now seems reduced (especially outside its native England) its strong moral basis, on the other hand, distils the most significant essence from the now long history of Modern Architecture. This moral chastity, these rigorous standards of conduct in face of the world; this courage and revolutionary spirit, could lead back to a truer sense of the relation between architecture and society, currently obscured by nostalgic revivalism."

Though Pedio, making a polemical defence, names no historical sources, trend-spotters have always

³⁴ 'L'Architettura', February 1959

regarded the building as fair game, and have usually classed it with attempts to revive the architecture of 'de Stijl'. Thus Nikolaus Pevsner in his famous lecture on Neo-Historicism³⁵, after discussing the revival of 'de Stijl' in furniture design, went on to say:

"In architecture, neo-de-Stijl is, I think, just as striking. Illustration 19 is a building at Harlem by the Dutch architect J. W. E. Buys, and illustration 20 shows not another view of the same building but the Marchiondi Institute in Milan, by Vittoriano Viganò of 1957."

But this was not how Viganò saw the situation; he admitted, even claimed influence from Giuseppe Terragni above all others, and the buildings abound in details, especially window-details, that recall Terragni fairly directly. Beyond this, the manner in which the main forms and exposed structure of the buildings transcend the expressive language of the Rationalist movement, has less to do with 'de Stijl' than with the manifest spatial ambitions revealed by Terragni's preoccupation with exposed frames, open stairs and bridges penetrating volumes from side to side. It is as if Viganò were going forward from where Terragni left off, while those of Terragni's generation who survived were going backwards from that point. If one were to extrapolate Terragni's architecture forward from his last pre-war projects into a post-war situation that contained the Jaoul houses and the work of Kenzo Tange, one might well produce something like Marchiondi.

Yet one may suspect that what Viganò really sought from Terragni and the history of the Rationalist movement was less a formal aesthetic than a functional ethic. If, in 1956, one were to set out to design a school in Italy there were very few native examples for study that were not an affront to human dignity and the decent aspirations of pedagogy, and of those few, two were of outstanding interest — the tuberculosis colony at Legnano by BBPR, Gianluigi Banfi, Lodovico B. Belgiojoso, Enrico Peressutti, Ernesto N. Rogers (1938) and Terragni's Asilo Sant'Elia in Como, completed a year earlier. The Asilo could have contributed formal usages (such as frames standing clear of the volumes they support) but more than that it would suggest a severe and calm educational ambience, and this would be reinforced by the example of Legnano, which stood, in some ways, closer to Viganò's own problem of a curative institute.

Functionally, the Istituto Marchiondi is a residential rehabilitative school for psychologically disturbed boys, run on firm and progressive lines, and formerly accommodated in unsuitable and run-down premises in Central Milan. There has been much speculation about the motives behind the severe aesthetic of Viganò's design, which in many detailed ways resembles Hunstanton redone with a concrete frame, even though the bulk form is more complex; how far

³⁵ Reprinted in 'Journal of the Royal Institute of British Architects', April 1961

does it derive from the psychiatric programme? There were many at one time who, observing its differences from Viganò's other works, dismissed it as 'a mere styling job', architecto-psychiatric fancy-dress. This was a plausible enough argument to put forward around 1960 when Milan was the world centre for facile fashion-mongering, but a second visit and mature reflection will not support the idea. The building convinces, and is all of a piece; and this is the more remarkable in view of some of the very extreme devices employed by Viganò. For instance, each dormitory-room is crossed by a typical brutalist pedestrian bridge half way up, connecting the lavatory, which is also at the higher level, to a balcony containing clothes cupboards at the other end of the dormitory — the cupboards being double-sided, with staff access to the far side from a corridor not normally used by the boys. By this desperate-seeming shift, Viganò is able to offer the legally required minimum volume per boy without making the floor area of the room ridiculously and inhumanly large, and then exploit the double height to give boys and staff separate access to the cupboards. Doubtless there would be simpler methods of achieving these results, but there seem to be no particular functional or structural advantages that would result, and there may be some psychiatric advantages in making a trip to the lavatory or cupboards something of a public ceremony, if the dormitory is not directly supervised by one of the staff. In any case, this device has the conviction of extremism that informs the rest of the design. Even if Viganò and his clients consciously decided on Brutalism as the only style (they seem rather to have achieved this decision by mutual persuasion and analysis of their problem) it clearly was not out of merely fashionable preference. It is part of the real presence of the building — handsome in sunlight, intimidating in bad weather — and emphasises that 'moral chastity' of which Pedio had written. On this score of a sternly moral building as part of a reformative educational programme, it is interesting to compare Marchiondi with Aldo van Eyck's orphanage-school in Amsterdam. Here is a building designed by an architect in far closer touch with the Smithsons and the origins of Brutalism than Viganò was, and working with a repertoire of materials that — as catalogued in purely verbal description — sounds the same as Viganò's: concrete, brick, wood, glass. Some of the interior spaces, such as the common room at the Istituto Marchiondi and the play-room for very small children at the orphanage, even look rather alike in photographs. But the effect is very different in reality: Marchiondi is stern, but the orphanage is very gentle, the final disproof that exposed brick and concrete are 'inhuman'. Viganò's building, therefore, is the more Brutalist in the common usage of the term, the purely aesthetic, but in terms of the 'ethic' of Brutalism, the two schools are on an even footing, both serious attempts at the right human environment, or habitat, for a particular human situation in place and time. What one cannot be certain about, however, is how Viganò him-



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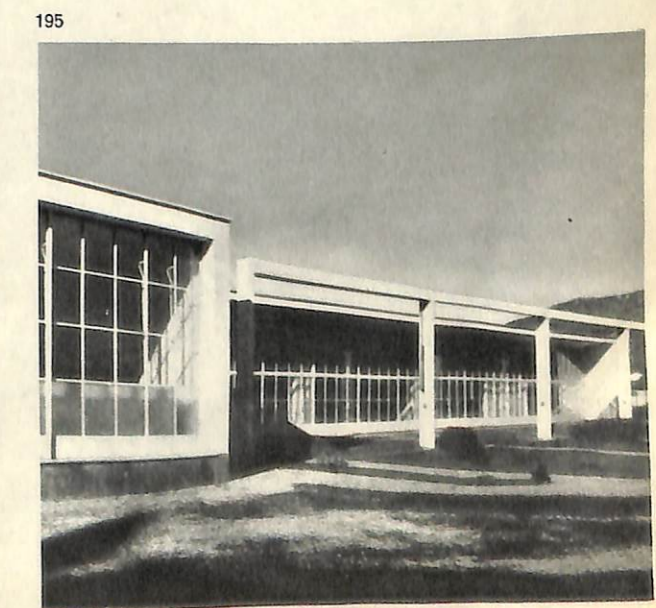
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self would have regarded this comparison of the two buildings in 1958 or 59. He had, after all, just performed the unique feat of consciously joining the Brutalist movement, and the feeling emerges from conversation with him, that he was joining a tough, stern movement. And those who insist that Brutalism is an affair of exposed concrete, rough brickwork and a deliberate disregard for the traditional graces of Modern Architecture would probably agree with him, and regard Marchiondi as the harbinger of the high period of concrete Brutalism: a harvest-season exemplified in three notable habitats completed at this time or a little later, one in Switzerland, one in Japan, and one in Britain.

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BBPR (Gianluigi Banfi, Lodovico B. Belgiojoso, Enrico Peressutti, Ernesto N. Rogers); Legnano (Italy), Sanatorium. 1937
The sun-porch and a general view
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Giuseppe Terragni; Como (Italy), Asilo Sant'Elia. 1937



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8.2 Habitats: Halen, Harumi, Sheffield

The preoccupation with habitat, the total built environment that shelters man and directs his movements, is a continuing theme that connects together many diverse Brutalist buildings, and connects Brutalism with other progressive thinking (and action) outside the field of architecture. This preoccupation with the 'dwelling of Man' arose, in the post-war years, from a real sense of social need — a need for dwellings, a need for better dwelling-habitat than society was, in fact, providing. But it remains true that Brutalist practice in habitat has never even tried to deal with the 'total' environment; the practice has been dominated by purely visual images, purely spatial concepts. Weak on the mechanical and communicative services needed for a fully effective habitat, Brutalism as a movement concentrated on the domestication of a few basic residential and social concepts derived from Le Corbusier, and from that mythology of a 'Mediterranean way of life' that had grown up under his influence, and under the influence of such modern Italian habitats as Quaroni's work at La Martella. Thus, the work of Paul Rudolph that most persistently receives the epithet 'Brutalist', is not his Art and Architecture Building at Yale with its artfully coarse concrete surfaces, but his married-student housing for the same university, of which he himself wrote³⁶:

"It should look like a village, not like housing ... though parts are repeated, they don't look it. Traditional housing has used repeated housing units, but it doesn't bore. We too must repeat but not bore. Spaces in between the units are important ... courtyards and terraces, paths and entrances."

In the choice of image: 'like a village' (in its built form, specifically a mountain village), and its concern with public spaces: "courtyards and terraces, paths and entrances", this habitat reveals all too clearly its origins, as does the implied ambition to create a literally built-in sense of community. But narrow and restricted as the range of basic concepts may be, it remains a bitter truth that the world at large was not building better habitats, more convincing communities, than Le Corbusier had envisaged, and it remains the chief glory of the younger, or more brutal, Brutalists that they occasionally contrived to surpass the Corbusian standard or propose significant variations upon it. The three major schemes which are discussed here are therefore ranked in order of their degree of departure from Corbusian prototypes, rather than in chronological sequence, though they are so nearly contemporary that the sequence is not important.

Siedlung Halen by Atelier 5, standing on a wooded rise outside Berne, was effectively completed in 1960-61. Its direct dependence on the work of Le Corbusier has never been in doubt: "... the plan is just one step away from the Permanent City of the

Sainte-Baume project", (Neave Brown) and that one step was toward the same primitive archetype as lay behind Paul Rudolph's housing, for Neave Brown also described Halen as "... orderly and complete as an Italian hill town, complete with piazza and campanile-chimney to suggest social identity". But to be more historically precise, the step away from La Sainte-Baume brings Atelier 5 rather closer to the 'Roq et Rob' project of 1949. What was evidently the most beguiling aspect of 'Roq et Rob' duly reappears at Halen, as in so many other schemes — the stepped path splitting the whole terraced composition from top to bottom and passing through a central public space; so too does the idea of composing those terraces out of very deep-plan, narrow-section apartments with the accommodation on more than one level, according to the fall of the land.

Le Corbusier's original vision of such a habitat had been deeply imbued with post-war concerns, with social reform, the simple life, spiritual regeneration, and so forth, and was seen by him as a coarse simple architecture of vaulted roofs carried on walls of rammed earth. Halen, built for comfortably affluent bourgeois suburbanites (who leave their cars under the end of the terraces, and maintain a 'pedestrian image' while within the habitat) inevitably has a more sophisticated aesthetic, derived and assembled by Atelier 5 with their usual cunning from innumerable different Corbusian sources, some of them — such as the brise-soleils from the 'Unité' at Marseilles — seemingly quite out of key, and out of scale with the village image of the plan and section. However, subsequent overgrowth by vegetation, especially grass on the roofs, has largely restored the primitivistic, Sainte-Baume image. What was at first a rather self-assertively clever architecture has been reduced by the obliterative power of nature to the status of a simple habitat, an indifferent hillside village, the mid-twentieth century equivalent of the garden suburb that was the image of progressive habitat in 1900.

Kunio Mayekawa's Harumi apartment block in Tokyo is unlikely ever to disappear behind encroaching vegetation. It is too big, and its unlovely site seems to have been permanently stripped of natural life: its raw concrete will always stare bluntly out at the world. Its date, 1958, still seems to startle Europeans, who tend to regard Kenzo Tange's Kurashiki town hall, which is four years younger, as the first real exercise in 'gros béton armé' in Japan. It is worth remembering therefore, that Maekawa was at one time Tange's master, and represents a direct link between Japan and Le Corbusier that may eventually prove more significant than the better-known connection through Junzo Sakakura. In terms of strict chronology, the design and construction of Harumi occupied a period in the history of Japanese architecture that was rich in generically Brutalist experiments — Kikutake's graceless Tonogaya apartment-development, for instance, or that curious variation upon the 'Roq et Rob' format, the Fuji Juko Omiya development by Ikuta, Oki and Miyajima.

³⁶ 'Architectural Record', March 1961

In this context, the big Harumi block looks less startling, but it is no less of an innovation, technically, aesthetically and as a proposition for a habitat. On this last point, Harumi may not appear much of a departure from the norm of a large, isolated slab block, but there are two observations which should be made in this connection. Firstly, that the access galleries at every third floor of the block effectively function as a series of linked courtyards between one structural pier and the next, since each receives the entrances of a number of flats, those not at deck level being reached by stairs. The decision to employ an external street deck was apparently taken as a direct choice against Le Corbusier's 'rue intérieure' concept, but even more significant is the attitude toward their function in the total habitat, as expressed by Noboru Kawazoe³⁷:

"It seems to me however, that drying diapers are a sign of life and energy, and if the building becomes nondescript when adorned with them, then the building is at fault. An apartment house should be able to withstand these manifestations of human life. If it cannot, it is a weak building..."

and a few paragraphs later, speaking specifically of Harumi's 'streets suspended in the air' he goes on to observe:

"Here children can play games, or ride tricycles as they might do on the side-walk in other areas. Here too the petty hoodlums of the surrounding districts can prowls at night, to the disconsolation of the inhabitants ... a building does not really belong to the people unless it is capable of absorbing the shadier sides of life along with the more pleasant. To be a true building it must melt into the history of its time."

This must be about the most permissive statement about the use of habitat ever made by a member of the Brutalist connection. It is doubtful if any European, let alone any architect brought up in the 'preventive' morality of British social reform, could tolerate even petty crime as part of the 'realities of the situation'.

But — and this is the second point — the permissive attitude toward the public spaces is matched by a related attitude to what goes on internally. Within the bare bookshelf of the concrete frame, Mayekawa inserts what are virtually Japanese houses of the traditional type, to quote Kawazoe again:

"The larger apartments of the Harumi building resemble traditional city houses in plan, while the smaller ones have the farm-house plan ... people used the (traditional standardised) houses according to their individual needs and were not troubled by the sameness. The fact is that people are the masters of architecture, and architecture must provide them the necessary freedom."

³⁷ 'Japan Architect', March 1959

The closing observation is, in fact, Kawazoe quoting Tange, though the sentiment recalls what the Smithsons had said about leaving man room to adapt his own habitat (see section 4.3). Yet no Smithson scheme, no 'Unité' by Le Corbusier, neither Halen nor Park Hill, Sheffield, is so permissive as to offer its inhabitants their accustomed domestic environment all over again. For Harumi does not merely reproduce the traditional spaces and dimensions; as far as possible it works with traditional 'tatami' mats in the living areas, the customary planked flooring in kitchen, bathroom etc, sliding screens, sliding cupboard-doors, even a sort of 'tokonoma'-alcove in the living room. It is, so to speak, the Smithsons' concept of the "necessity for the traditional backyard", brought indoors.

And what is so striking about Harumi, is that this model exposition of an original Brutalist ethic is realized in an original version of the Brutalist aesthetic that any European Brutalist would have been happy to have conceived.

"Mayekawa and associates have made a concrete building which expresses the material even more positively than Le Corbusier, yet have (sic) a precision and finesse reminiscent of Perret."³⁸

This last observation seems arguable, suffice it to say that the concrete is massive, 'brut' and handled in heroic style. The services that make the building work are carried with an equally Brutalist swagger, not only in the sense that a large tank and associated pipe-works are exhibited on the roof without being clothed in some fanciful structure of the sort that a Corbusian aesthetic commonly enjoins, but also that a massive duct-floor-cum-structural-beam runs visibly through the block from end to end at every alternate third floor to that occupied by a street deck. That such a structure, embracing such a conception of habitat should be created at that time, on the opposite side of the world to that in which two young architects from the English provinces had first enunciated the Brutalist creed, showed how far that creed expressed an architectural mood of the time, and it was to the work of two other young architects in the English provinces that one has to turn to find a conception that is in any way comparable with Harumi.

Park Hill, Sheffield, was effectively designed by Jack Lynn and Ivor Smith, under the direction of J. L. Womersley, the city architect, and it sums up almost as many of the sociological intentions of the younger architects as the Cambridge Architecture School extension does of their intellectual interests. It is a huge single complex building occupying and partly enclosing a recognisable district of the city — a genuinely satisfying achievement in a generation that had big ambitions and had been forced by circumstances to realise them in penny packets. But this vast enterprise is unified and kept humanly comprehensible by a habitat-device that was dear to the

³⁸ 'Architectural Design', May 1959

ideal of built-in community-sense of that generation — a street-deck system even more sophisticated and mature than Mayekawa's. Four, twelve-foot-wide pedestrian promenades thread through whole complex joining its various extremities; on the uppermost it is possible to walk for ten minutes without retracing one's steps.

In order to give the greatest number of apartments the best orientation for light and view, the block divides three times, each of its limbs looping back on itself. The street-decks, keeping always to the shaded side of the block therefore have frequently to penetrate to the other side of the limbs where they bend, thus creating the equivalent of street-corners. At the end of each limb, the deck opens out into a small piazza served by lifts and stairs for vertical circulation. At the three points where the block divides, however, a bridge leaps across from the piazza and connects with the two branches of the street-deck beyond the gap, creating another small public space in front of the service-lift on that side also. It is at these points where three different categories of vertical circulation meet the horizontal circulation provided by the street-decks, here nakedly revealed as pedestrian bridges, that the essence of Park Hill is seen.

This essential pattern of circulation stems, as at Harumi, from a conviction that the 'rue intérieure' of Le Corbusier's 'Unités' would not serve. The street deck emerged as a logical corrective, and at the same time posed the problem of how people should circulate through their habitat, how far circulation-spaces were part of the vital environment of the habitat. At Siedlung Halen the stepped path passes through the central square; at Harumi the circulation is a series of minute public places, but at Sheffield the circulation space generates a variety of public areas, on the precept of the Smithsons' Golden Lane competition entry as well as Lynn and Smith's own:

"The Smithsons' Golden Lane project used a similar street-access to ours, and made the first moves towards their continuity by creating street-corner junctions where refuse chutes would be located, which they likened to the modern equivalent of the village pump."³⁹

Like the suspended streets of Harumi, Park Hill's street decks occur at every third floor, and onto the decks open the front doors of all the apartments. Along the deck itself pass small trucks for deliveries, mail and furniture-removals, but no faster wheeled traffic to menace the playing children or gossiping adults — or, indeed the turbulent teenagers who occasionally disturb the peace, for Park Hill, like Harumi, has melted into the history of its times and absorbed something of the shadier side. But the apartments that are served by the street decks are less permissive, do not reconstruct the previous

³⁹ Quoted in the 'Journal of the Royal Institute of British Architects', December 1962

domestic scene, and call upon the new inhabitants to adopt a new environment.

There were, in fact, fairly cogent sociological and even criminological reasons for breaking up the existing living-patterns of the area, which had become a notoriously blighted slum. This, indeed, was the reason for rebuilding it, and this air of social urgency was one of the reasons why Jack Lynn and Ivor Smith volunteered to design for this difficult site rather than an easier one elsewhere in the city. Thus, if Park Hill can in any way be regarded as an ideal solution for this particular place at that particular time, the ideal is that of the English conception of social justice, as expressed through the English system of local government.

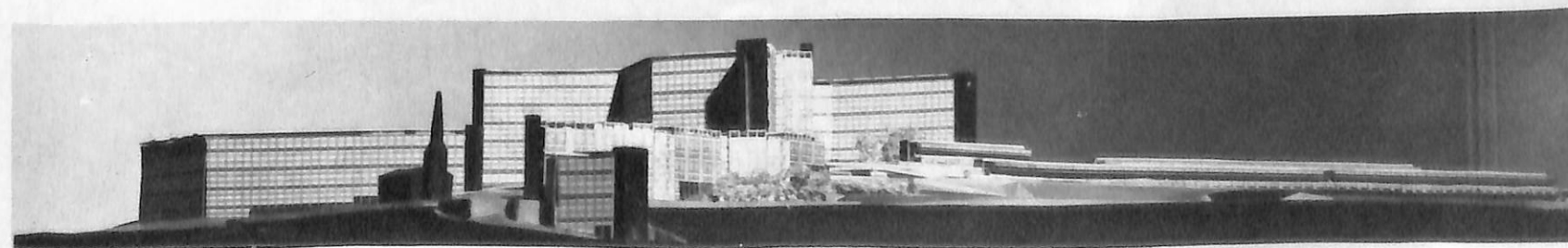
But it differs from Halen or Harumi in more ways than this; the aesthetic is as different as the ethic. Very little indeed of the external detailing makes even token acknowledgement to Le Corbusier, to any other known master, or even to what is normally regarded as architectural detailing. The frame is baldly expressed, emphasising only the cellular nature of the contents. The infilling of the frame is in simple brickwork, windows, or balustrading. Before the building was completed the handling of the facades was described on more than one occasion as 'fashionable' or 'cliché-ridden'. For a certain period of the design process the architects were advised by John Forrester, an abstract sculptor, but neither this, nor the influence of fashion seem to have had much effect — it simply looks as if the architects had more important things on their minds than facade-patterns. Jack Lynn, indeed, has publicly stated that the arrangement of the interiors was allowed to determine the exterior pattern of solid and void, and that he is happy with the result. Not, one presumes, like an old time functionalist morally secure in the knowledge that form has followed function, but more in the mood of one who sees it helping to build the image of a building more concerned with 'life' than with 'architecture'.

For, regard it how you will, Park Hill comes pretty close to 'an other architecture'. Its informal plan-pattern on the ground is more concerned with a proper topological organisation of the site than with Picturesque effect. Indeed its level roof line has an anti-Picturesque quality as one sees the block from the city, though some extremely picturesque silhouettes should be presented by the second phase, Hyde Park, higher up the hill behind it. Hyde Park is also less rigorously organised in terms of topological connections than Park Hill, and the accommodation is grouped in a more conventional manner in high and low blocks. In other words it is housing, not a habitat, and marks a withdrawal from the extreme position established by Park Hill.

The moral crusade of Brutalism for a better habitat through built environment probably reaches its culmination at Park Hill. Nothing proposed since has been extreme in quite the same way, but many of its ideas are diffusing into common usage, just as the aesthetics of 'béton brut' have diffused into a vernacular, a common usage. Brutalism, having run

for ten years or more — which is a fair age for an '-ism' in the present century — had achieved the consummation that awaits all movements which accurately pinpoint real needs and aspirations of their period and social context. They do not achieve the dominance for which their founders hope, but instead they "melt into the history of their time", so that one can hardly imagine what the world could have been like before Brutalism (in this case) came upon the scene. The face of the world does not conform to the Brutalist aesthetic, but the conscience of the world's architecture has been permanently enriched by the Brutalist ethic.

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Sheffield City Architect's Department
(J. Lewis Womersley, City Architect);
Sheffield (England), Hyde Park Housing.
1961-66
View of the model



9.1 Memoirs of a survivor

The reader will have deduced, if he did not already know, that this book is the work of someone fairly deeply involved with the events it describes. I have, in fact, been personally acquainted with most of the British Brutalists and quasi-Brutalists mentioned in the preceding pages, since 1952 or earlier; my personal acquaintance with the non-British architects mentioned is more various, and in one or two cases, such as Kunio Mayekawa, completely non-existent — to my profound regret. The book, therefore, has a built-in bias toward the British contribution to Brutalism: it is not a dispassionate and Olympian survey, conducted from the cool heights of an academic ivory tower. I was there, involved, and the article I wrote for the 'Architectural Review' in December 1955 under the title, simply, of 'The New Brutalism' seems to have been regarded as a more relevant manifesto for the movement than the Smithsons' statement of January in the same year.

The reason why I have not reprinted my article as part of this book is that I do not believe it to be truly representative of the state of the Brutalist movement at that important time in its evolution. In retrospect it reveals only too clearly my attempt to father some of my own pet notions on the movement. Any reader who is interested enough to turn it up should read it 'cum grano salis' as a description of the New Brutalism. On the other hand, it retains some validity as a demonstration of the kind of intellectual climate in which discussions of the New Brutalism, and of architecture in general, were conducted in London, by a certain circle, at that time.

It was an extraordinarily exciting period in the evolution of ideas in Britain, both in the portable arts and in architecture — one of those unrepeatable episodes whose importance is discernible even at the time, although their full consequence cannot be appreciated until much later. One of the ways in which we were able to discern that something important was afoot was in the notice that was taken of our activities abroad — Philip Johnson's interest in Hunstanton school (see section 3) was far from unique, and the predominantly British make-up of Team-X was something of a recognition that British architects had a special contribution to make.

In fact, to write a predominantly British account of New Brutalism is not necessarily to be parochial or chauvinistic. The origins of Brutalism 'as a movement' were British, and the fact was recognised, as in Renato Pedio's reference to England as its 'native land' (see section 8.1). The British, too, left a permanent imprint on the movement and on the concept of Brutalism. It was, in short, the first consequential British contribution to the living body of architecture since the collapse of the 'English Free Building' of Voysey and Lethaby around 1910. It was not, of course, a wholly British movement — the world of architecture is now so closely-knit by rapid communications that only chauvinism or genuine irrelevance to world problems can keep a movement (eg Neo-Liberty in Italy) successfully

shut up within the confines of one nation's architecture. But even if the high style of Brutalism is Le Corbusier's, the ethic behind the aesthetic was British, and the creation of a vernacular Brutalism was as much a British achievement as anybody else's — one may very properly ask oneself what the achievement of Atelier 5 would have meant in a world that did not include the Smithsons' philosophisings and Stirling and Gowan's Ham Common flats.

But, as I write this 'envoi', it is very clear that the biggest and most important fact about the British contribution to Brutalism is that it is over. Whether or not the movement is still a going concern is difficult to say — the future may have more surprises like Marchiondi in store for us. But the recent works of Stirling and Gowan, or the Smithsons, show far less urgency of ethic or aesthetic than in the late fifties. The Smithsons' Economist building or (more accurately) cluster, since it consists of three buildings on a single podium, is a work of studied restraint. It may offer a vision of a new community structure, but it does so upon the basis of an ancient Greek acropolis plan, and in maintaining the scale and governing lines of tradition-bound St James's Street, on which it stands, it handles the 'street idea' very tenderly indeed. Far from being an example of an 'other' architecture, this is a craftsmanly exercise within the great tradition. In many ways, Stirling and Gowan's laboratory-block for Leicester University comes nearer to Brutalism in the emotional sense of a rough, tough building, and in the dramatic space-play of its sectional organisation it carries still something of the aggressive informality of the mood of the middle fifties. But stylistic dependence on any building by Le Corbusier is something it does not show at all. These are buildings that belong to a different book. Their relaxed assurance stamps them as works of maturity, the maturity of original talents that may never need to worry about the problem of style again, confident now that this is something that will resolve itself in the process of satisfying the needs for which the building was created. It has been a privilege and an education to be able to watch this process of maturation from close range, just as it has been a salutary lesson to me as a critic historian to watch a movement being created — to gain a glimpse, thereby, of the manner in which movements as portentous as Gothic architecture could start from the interaction of a few lively minds around Bishop Suger, or the art of the Renaissance from a group of friends few enough to be listed in the dedication to Alberti's 'Della Pittura'.

But the process of watching a movement in gestation and growth was also a disappointment in the end. For all its brave talk of 'an ethic, not an aesthetic', Brutalism never quite broke out of the aesthetic frame of reference. For a short period, around 1953–55, it looked as if an 'other architecture' might indeed emerge, entirely free of the professional preconceptions and prejudices that have encrusted architecture since it became 'an art'. It looked for a

moment as if we might be on the threshold of an utterly uninhibited functionalism, free, even, of the machine aesthetic that had trapped the white architecture of the thirties and made it impossible for Gropius to reach through to the native American machine ethic that might have broken the back of the Beaux-Arts tradition that still cripples architectural thinking in America.

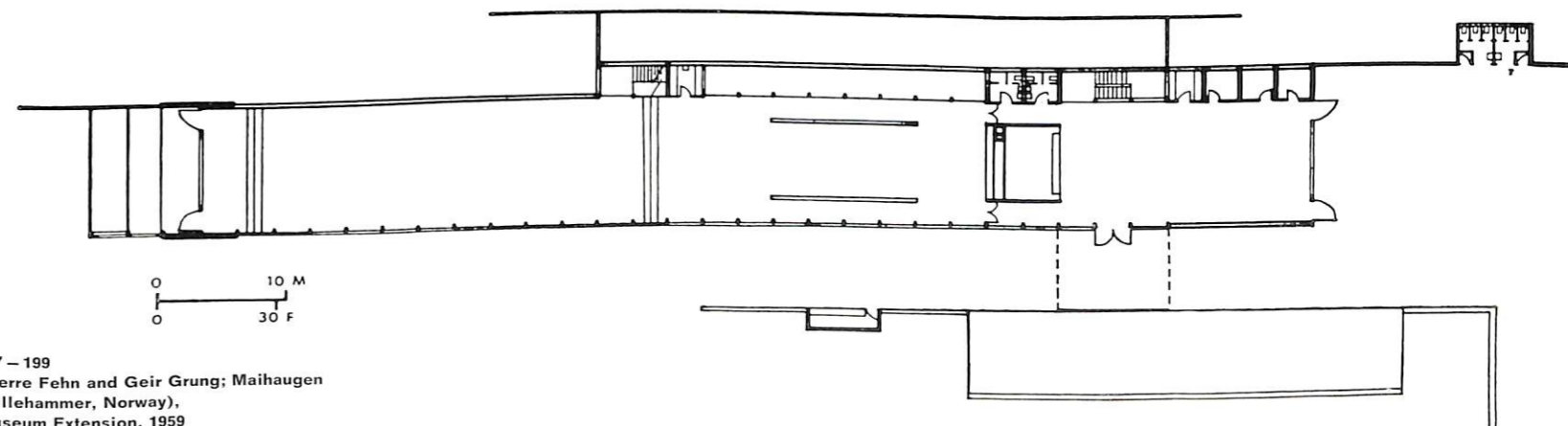
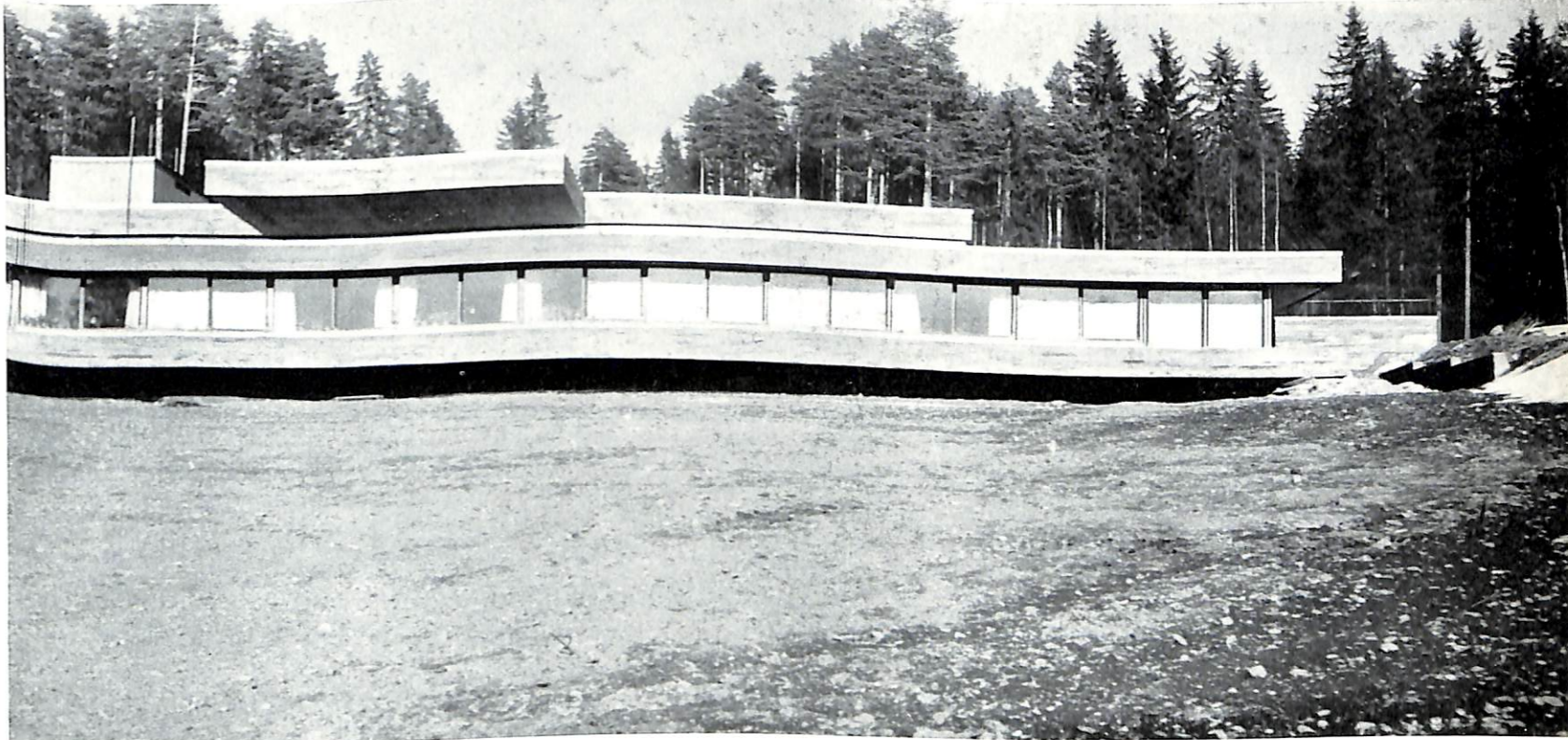
The Johnsons, Johansens and Rudolphs of the American scene were quicker than I was to see that the Brutalists were really their allies, not mine; committed in the last resort to the classical tradition, not the technological. For the ethic of the Brutalist connection, like every reformist trend in architecture, back through Adolf Loos, and William Morris, and Carlo Lodoli and Colin Campbell, is backward-looking. Brutalism may make tremendous bold attempts to bring the automobile phenomenon under control, but in the last resort it is in order to recreate a pedestrian city, as in the central piazza of Siedlung Halen, the street-decks of Park Hill. The Appliance House may make a brave effort to redomesticate the new household gods in their gleaming white and chromium case-work, but it does so by cramming them into the traditional alcoves of the tokonama, or Roman domestic altar; the house itself is still the same kind of shelter as a primitive wattle hut, makes no attempt to put these new household powers to work to create human environment in any radically new way.

The ethic of Brutalism was a campaign of 'mens sana in corpore sano', but no-one should have doubted that the mind and the body would prove, ultimately, to be the mind and body which had always belonged to architecture. For a non-architect like myself to expect them to be otherwise was naïve.

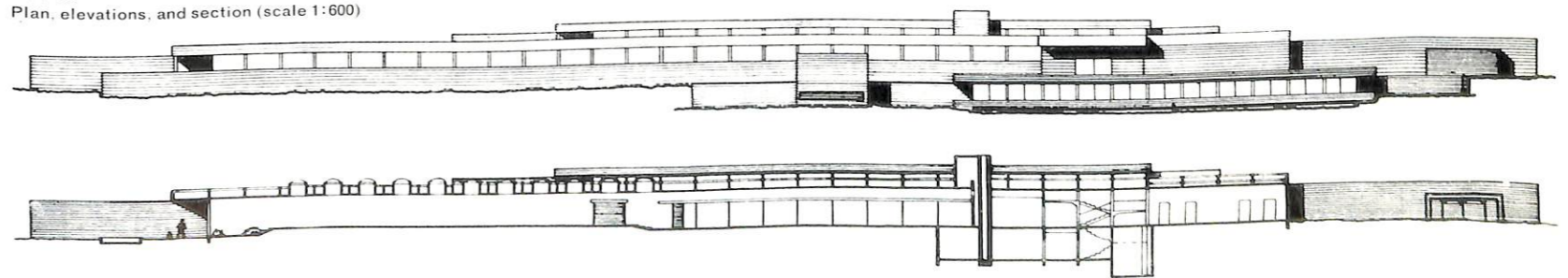
I know now that architects who genuinely see how narrow and restricting are the traditions of their profession, normally get out of it, and become industrial designers, real-estate agents, systems-engineers or any other discipline that enables them to tangle with the 'realities of the situation', in a less inhibited manner. But, for all that, I am not ungrateful to the Brutalists within their role as architects. If we are to continue to have a world in which 'architect' is a meaningful and productive category of human being, then I would rather have the kind of architect who has begun to emerge since Brutalism has become a force in the land, especially the kind of younger architect who has been trained under men like Smithson, Gowan, Stirling, and knows what the traditions of his professions are, and the manner in which he can take a moral stand upon them in the twentieth century. From the time of Berlage, and even before that, the idea of a morality of design has been one of the main motives for serious innovation in Modern Architecture, and the Brutalist proposition that it is even 'possible' to make a moral stand about matters of design is an improvement on the attitude of many architects in the previous two or three generations. I make no pretence that I was not seduced by the aesthetic of Brutalism, but the lingering tradition of its ethical stand, the persistence

of an idea that the relationships of the parts and materials of a building are a working morality — this, for me, is the continuing validity of the New Brutalism.

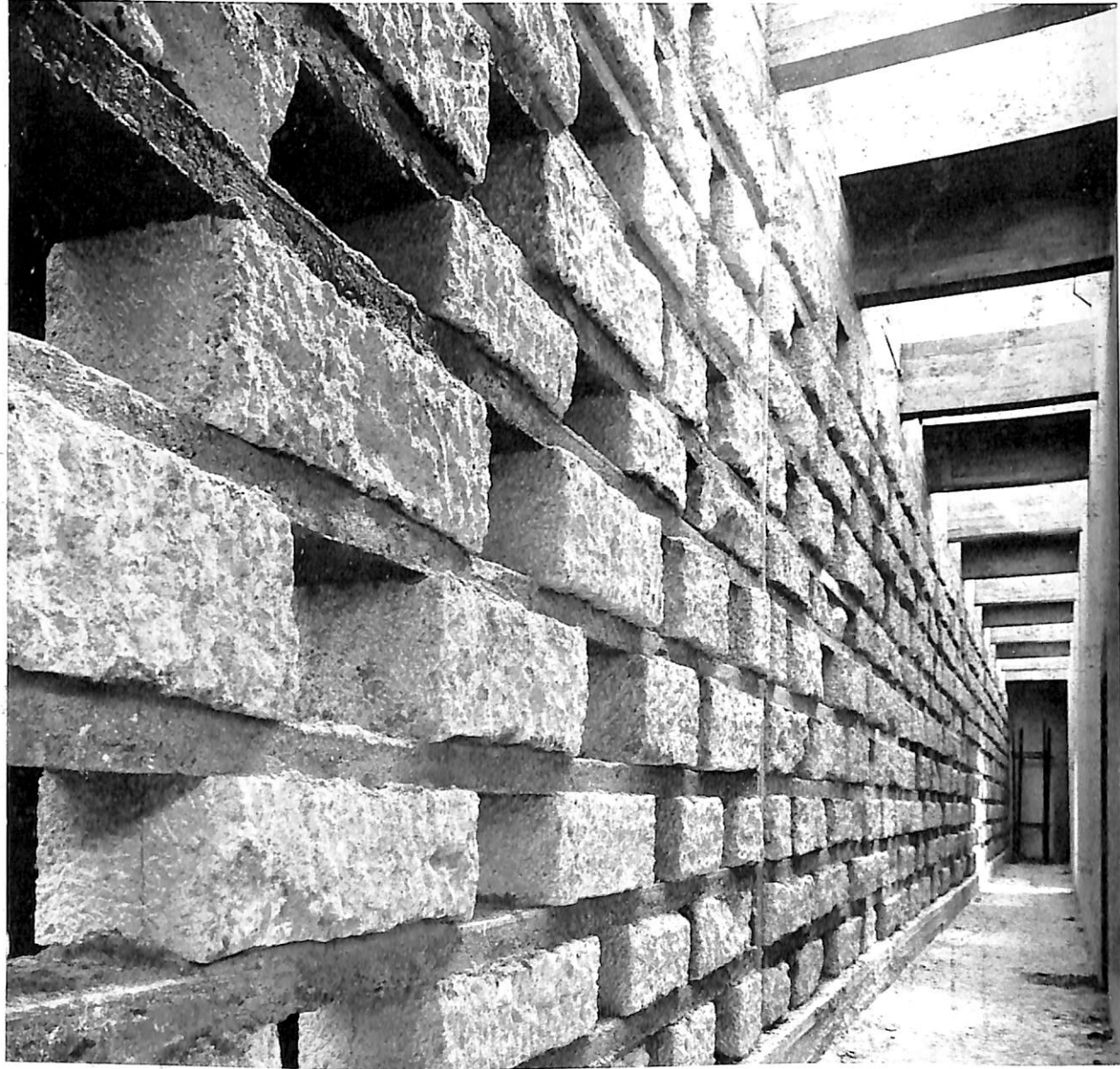
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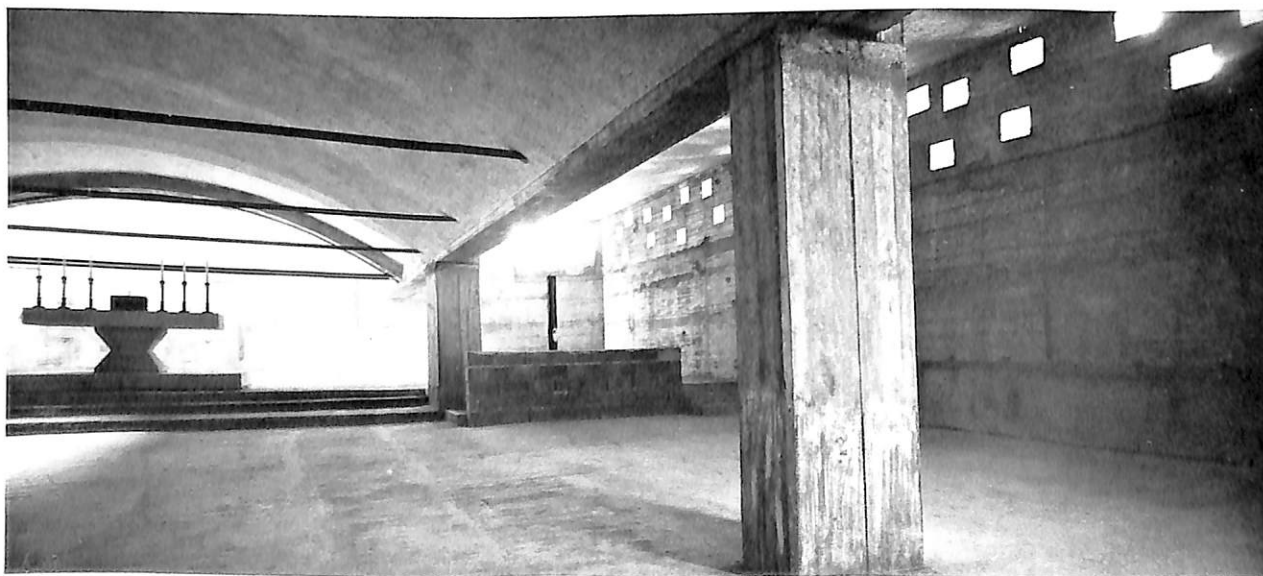
197 - 199
Sverre Fehn and Geir Grung; Maihaugen
(Lillehammer, Norway).
Museum Extension. 1959
197
Part of the main facade
198 / 199
Plan, elevations, and section (scale 1:600)



200 – 202
Luigi Figini and Gino Pollini; Milan (Italy),
Church of the Madonna dei Poveri. 1956
200
Detail of masonry-screen to upper part of
nave

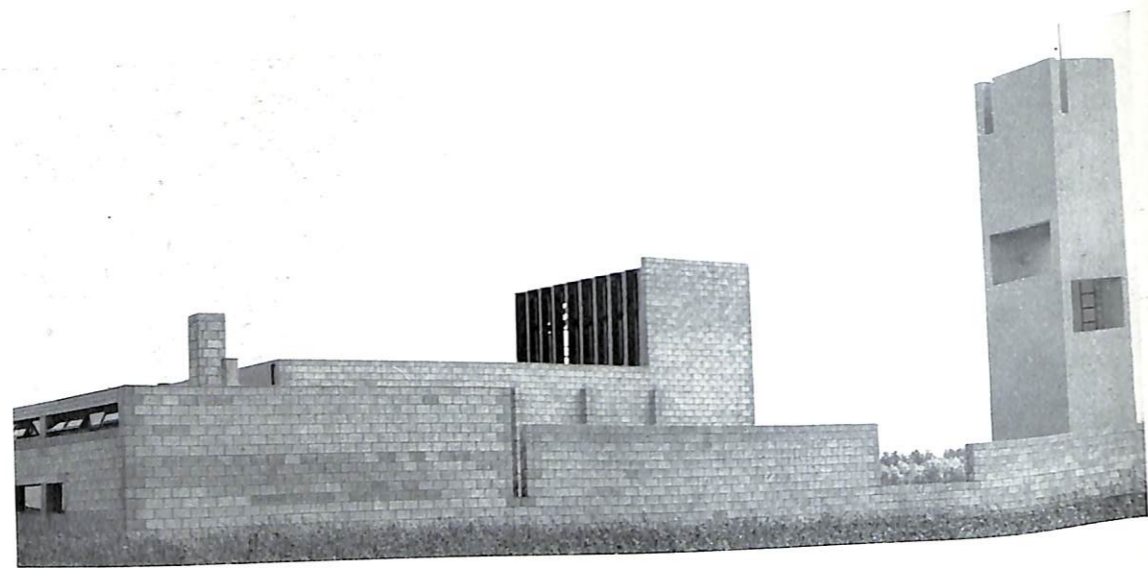


201
View of crypt



202
The nave

203 - 205
Johannes H van den Broek and
Jacob B Bakema; Nagele (Holland),
Reformed Church, 1960
203 / 204
Exterior from the north, bell-tower



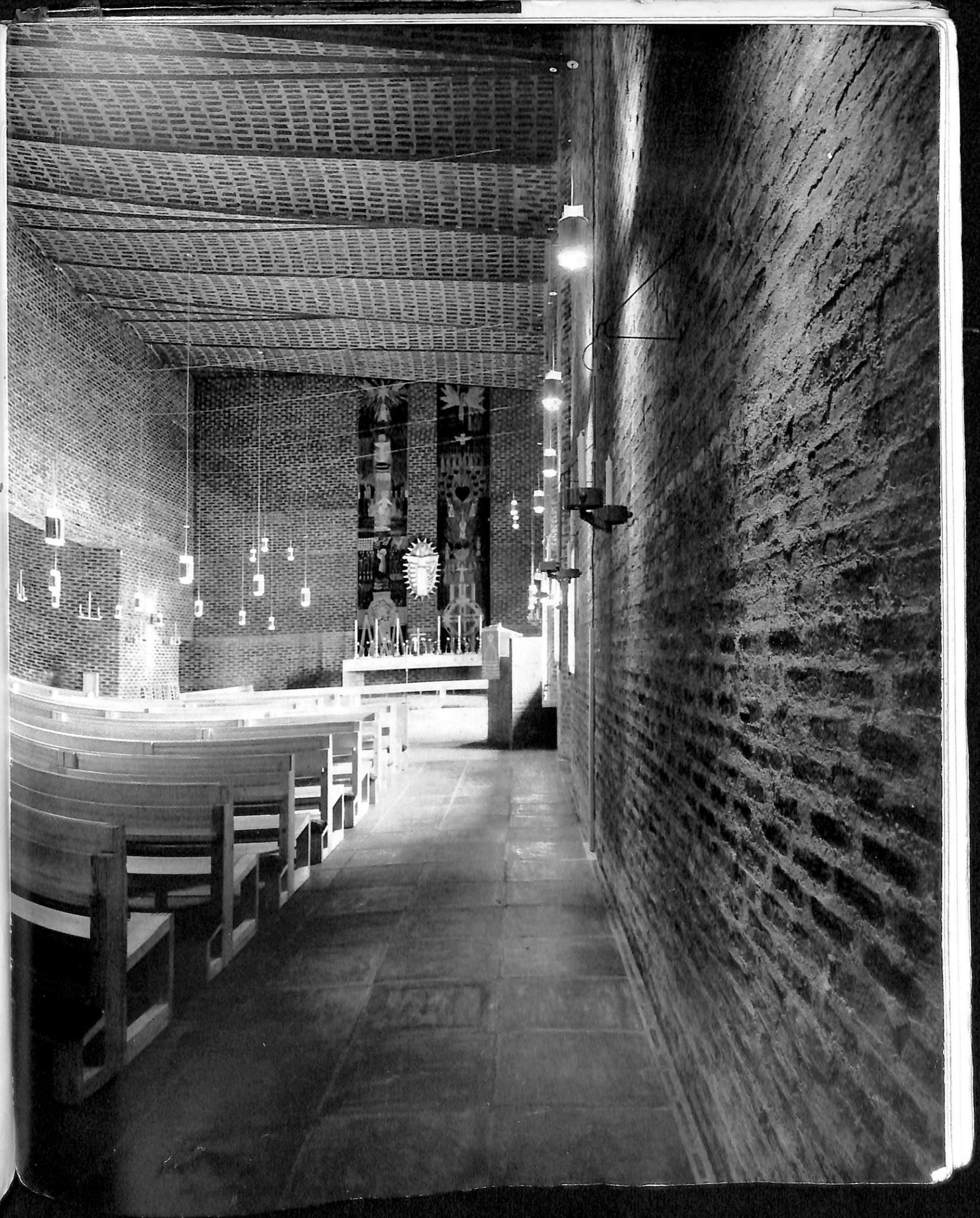
205 (right)
Interior with pulpit and altar





206 - 208
Sigurd Lewerentz; Stockholm (Sweden), Markuskyrka. 1960
206 / 207
Exterior views

208 (right)
The nave, looking towards the altar

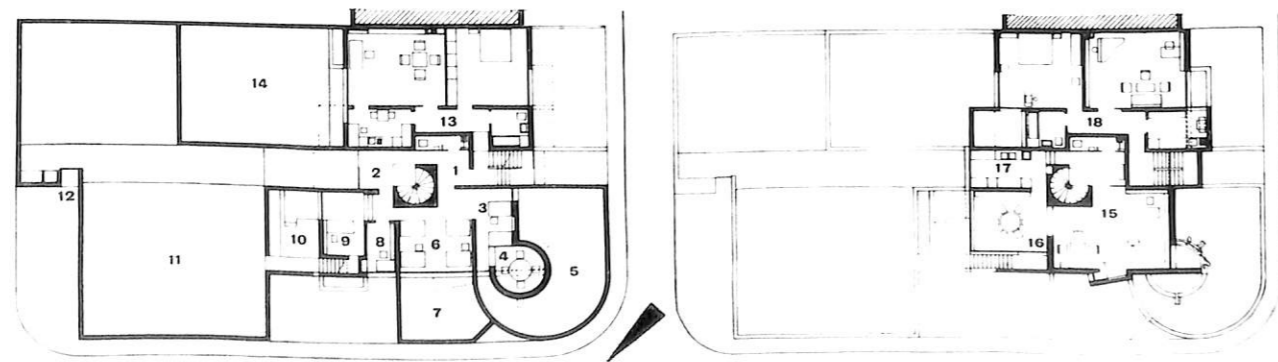




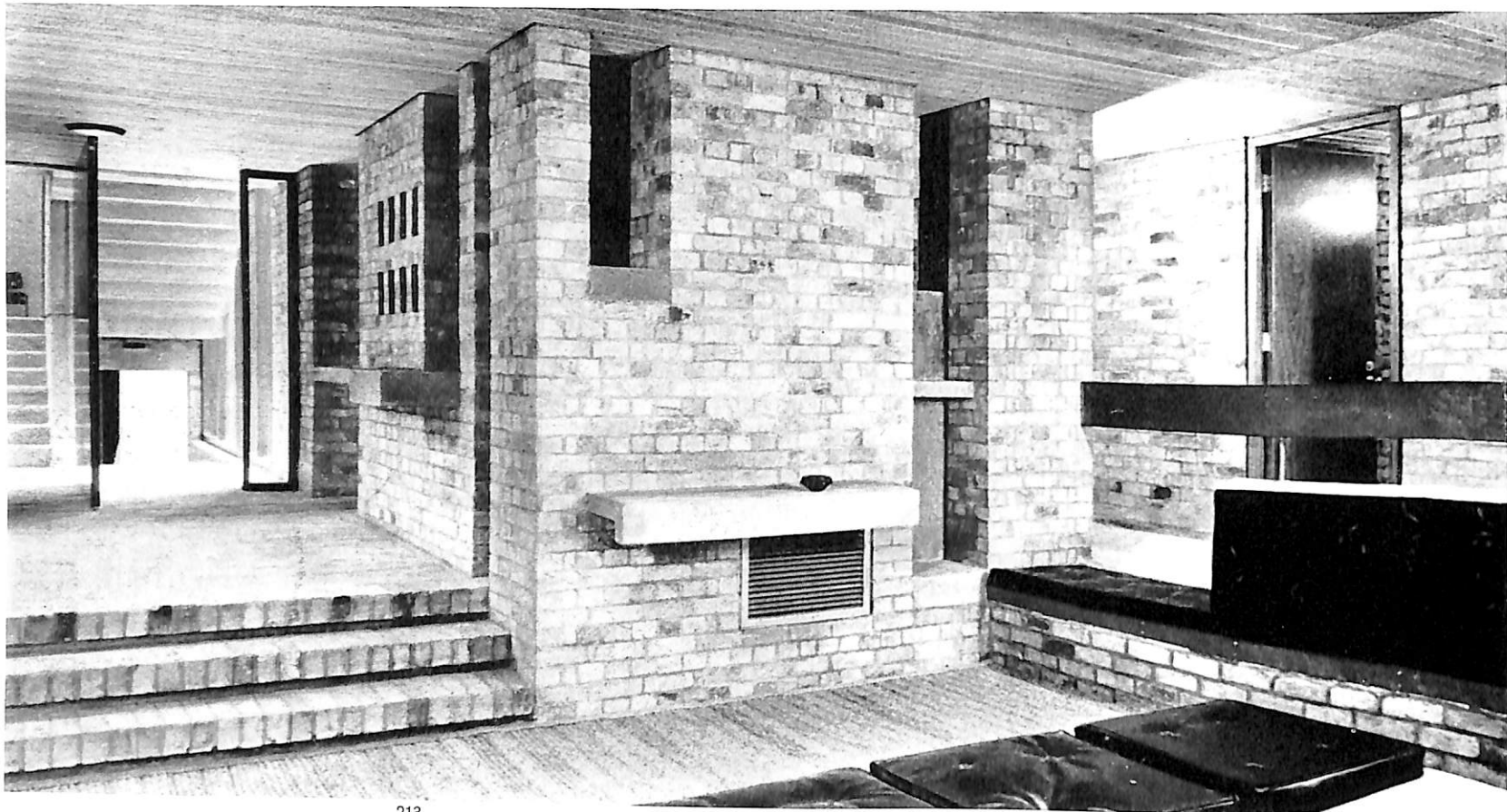
209 - 212
 Oswald Mathias Ungers; Cologne
 (Germany), Architect's Own House, 1959

209
 Garden elevation
 210 / 211
 Plans of ground and first floor
 (scale 1:500)

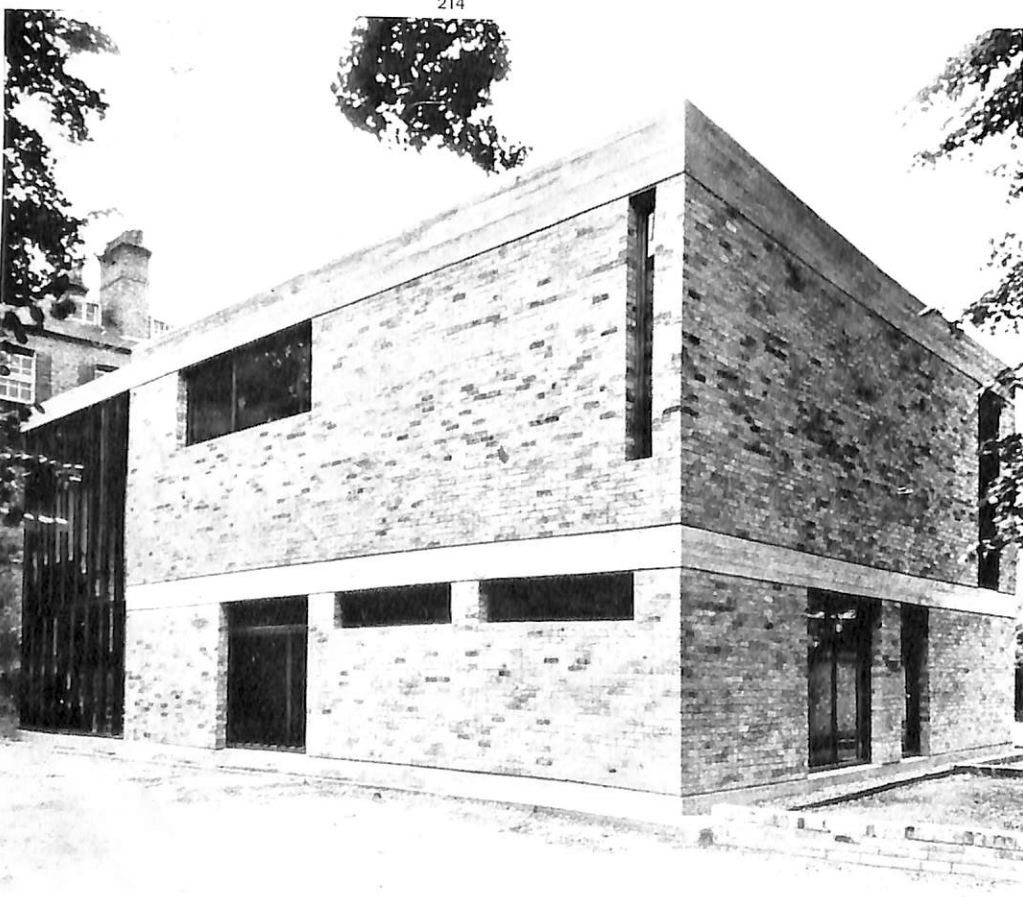
- 1 office entrance
- 2 residence entrance
- 3 reception
- 4 conference room
- 5 garden court
- 6 office-space
- 7 garden court
- 8/9 offices
- 10/11 garden courts
- 12 garden entrance
- 13 private apartment
- 14 private garden
- 15 living room
- 16 dining room
- 17 kitchen
- 18 private apartment



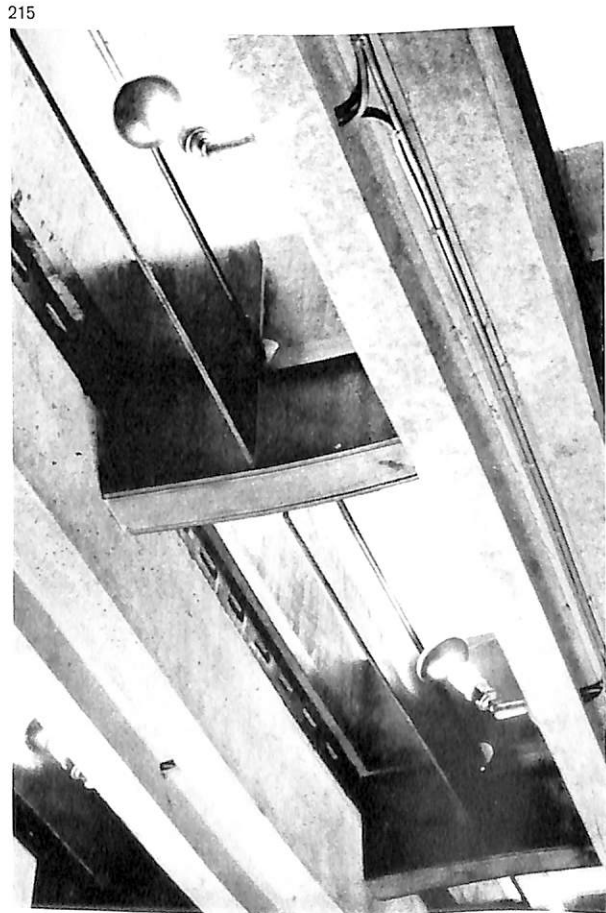
212
 Street-corner elevation



213



214



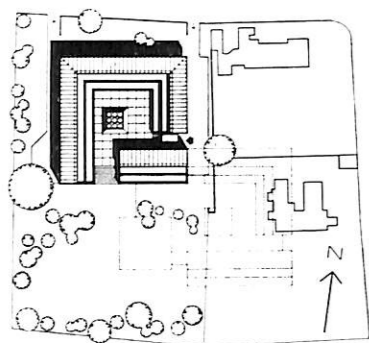
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213 - 216
 Colin St John Wilson and Alex Hardy;
 Cambridge (England),
 Extensions to School of Architecture. 1959
 213
 The coffee room

214
 Rear elevation
 215
 Detail of the lecture room ceiling



216
 Projectionist's pulpit in lecture hall



217 - 220
Sir Leslie Martin and Colin St John Wilson
(with Patrick Hodgkinson); Cambridge
(England), Harvey Court Hostel. 1962
217
Site plan



218 / 219
View of inner court, canopy over entrance-
steps



220 (right)
Steps up from garden





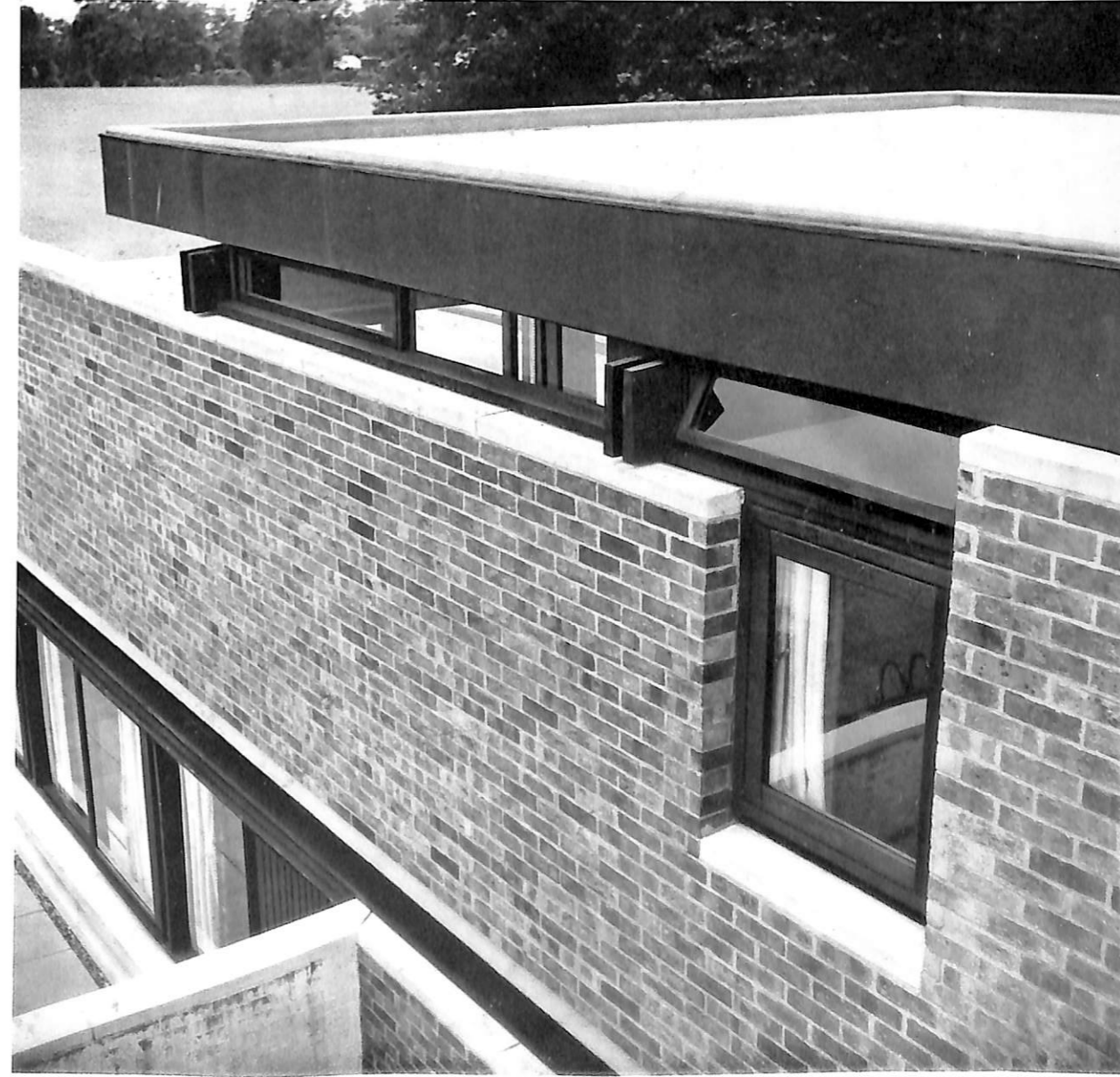
221 - 224
 Sheppard, Robson and Partners;
 Cambridge (England), Churchill College,
 Fellows' Flats, 1960
 221
 Exterior



222
 Ground floor plan (scale 1:500)
 1 living room
 2 kitchen
 3 dining area
 4 bedrooms
 5 study or bedroom



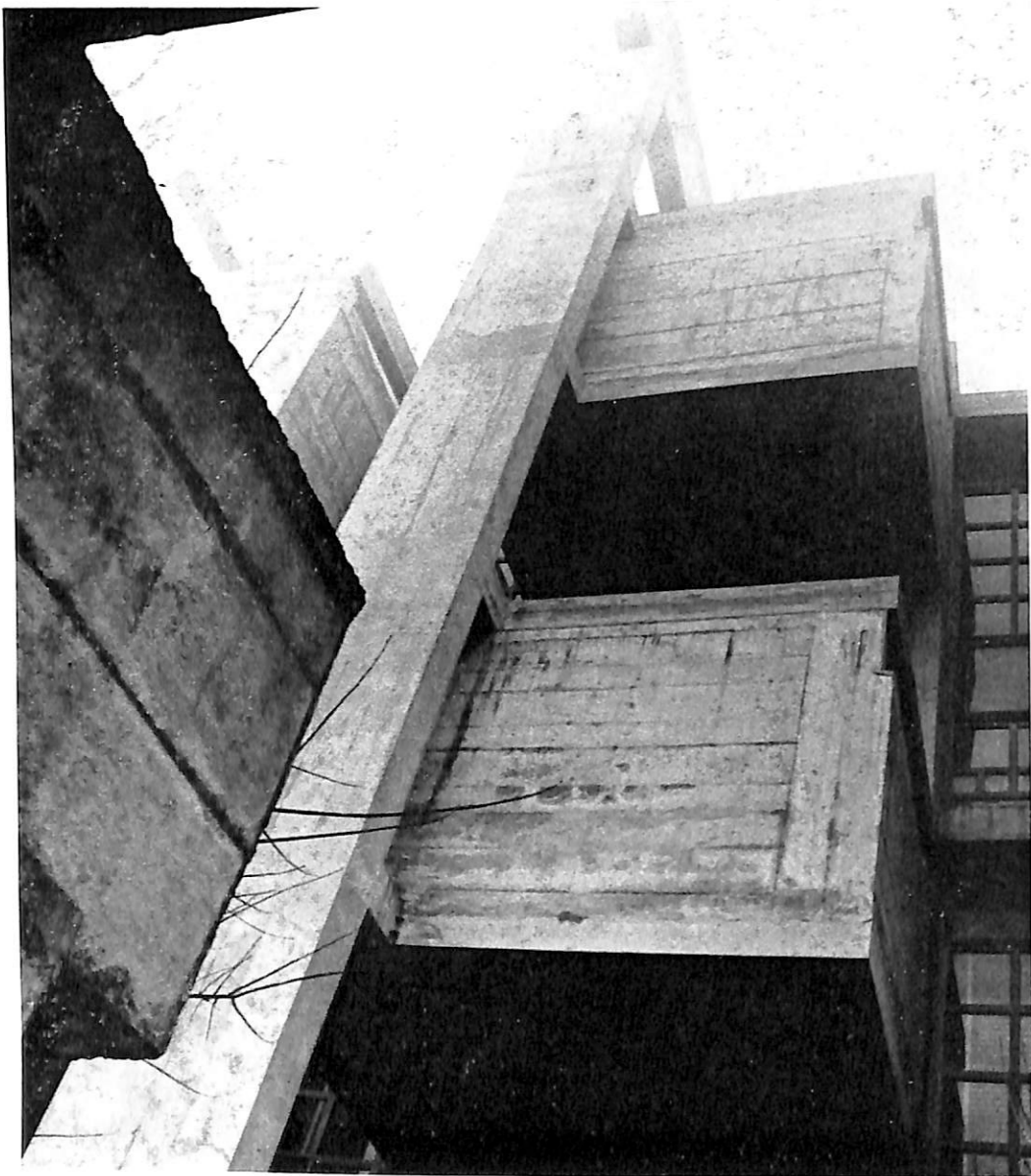
223
 Detail of roof and windows



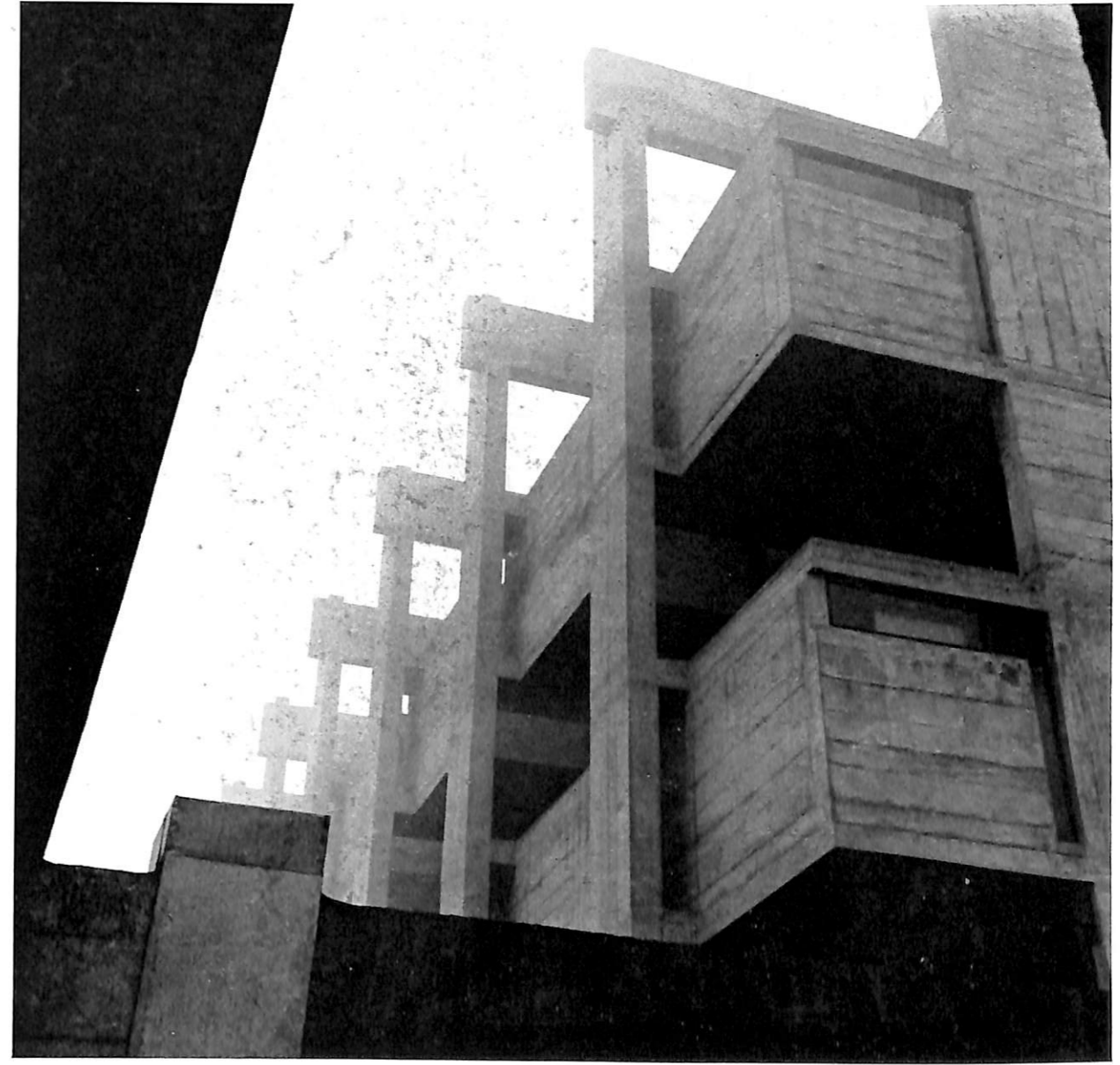
224
Entrance and steps to upper apartments



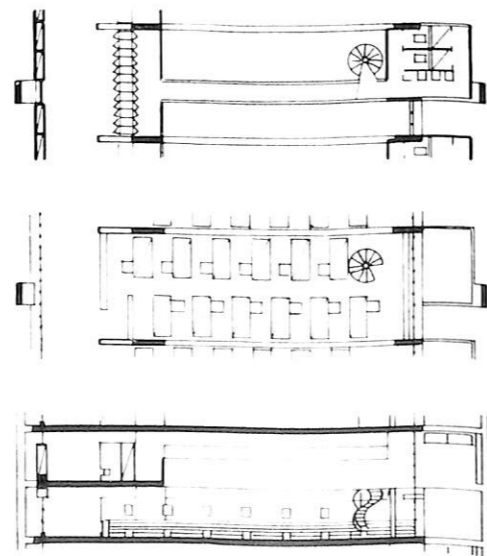
225 - 232
Vittoriano Viganò; Milan (Italy), Istituto Marchiondi. 1959
225 (page 153)
Dormitory block



228
External structural frames



226
Bathroom units of dormitory block

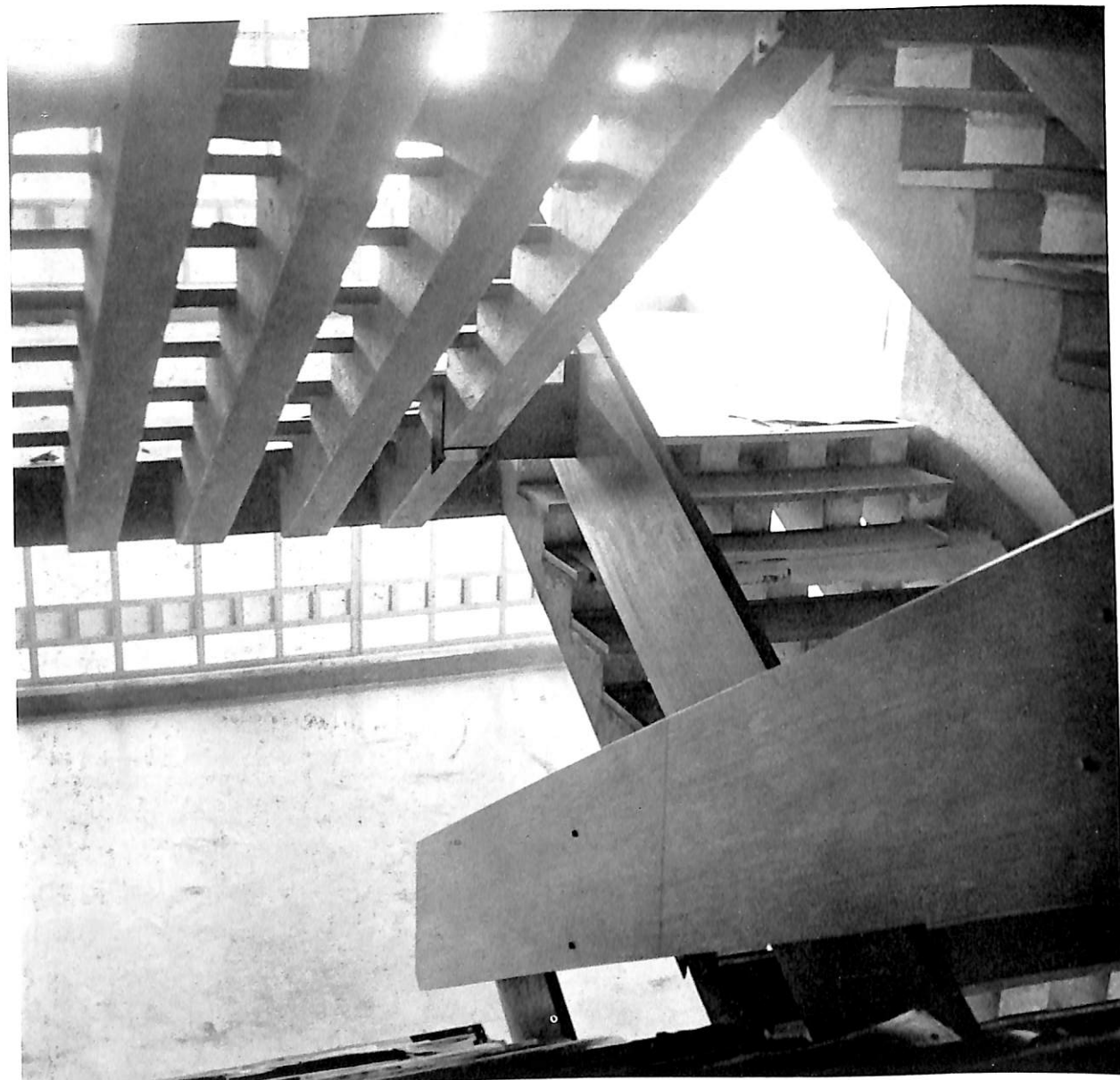


227
Plans and sections of two-storey dormitory room (scale 1:400)

229
Garden and pool at entrance



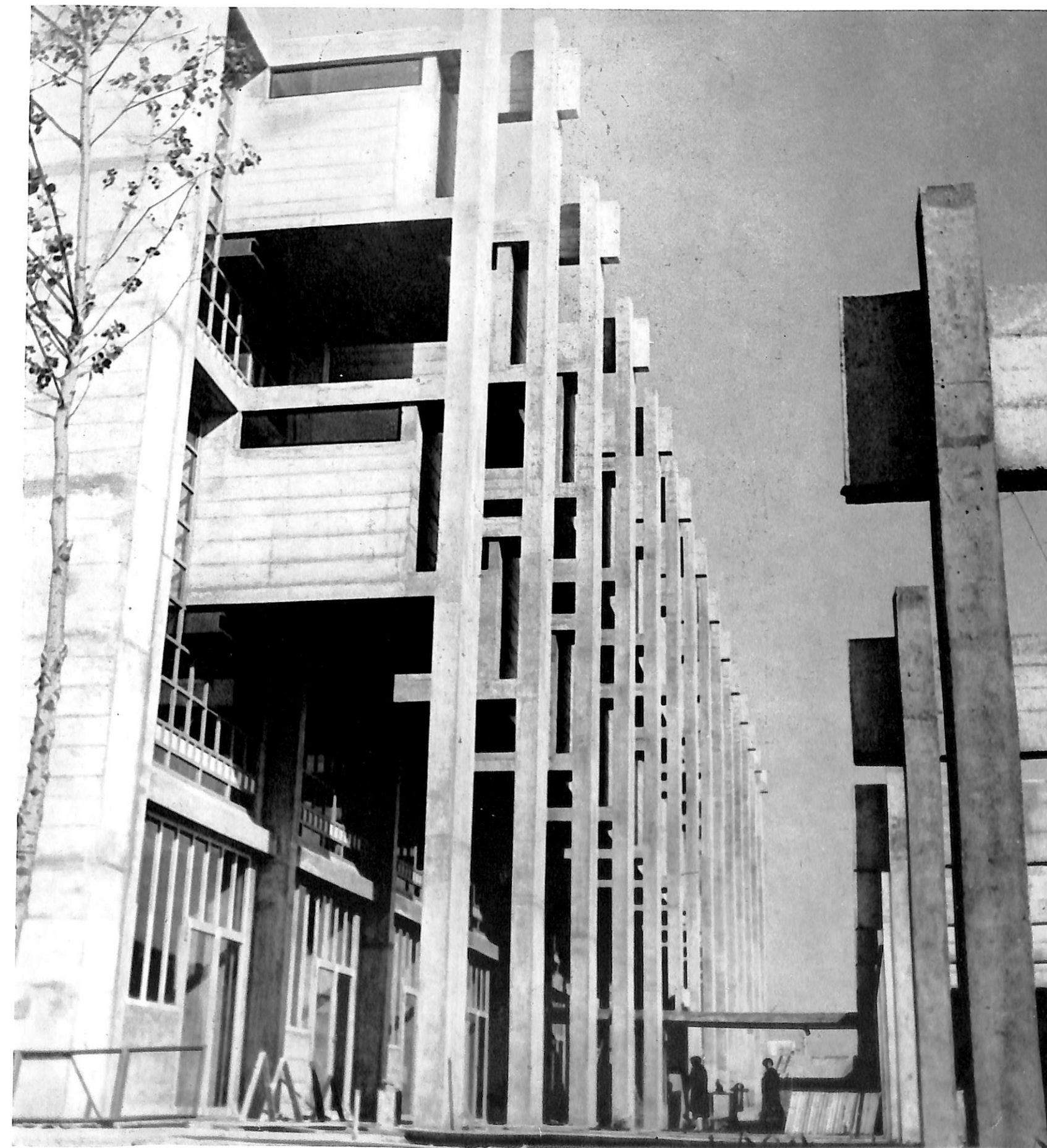
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Stairs in dormitory block

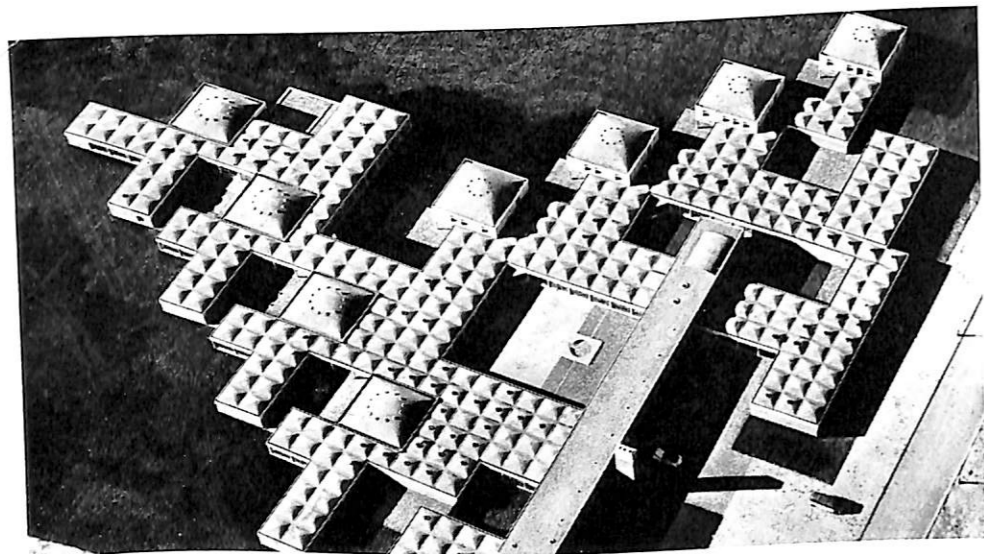


231
Section across site (scale 1:500)



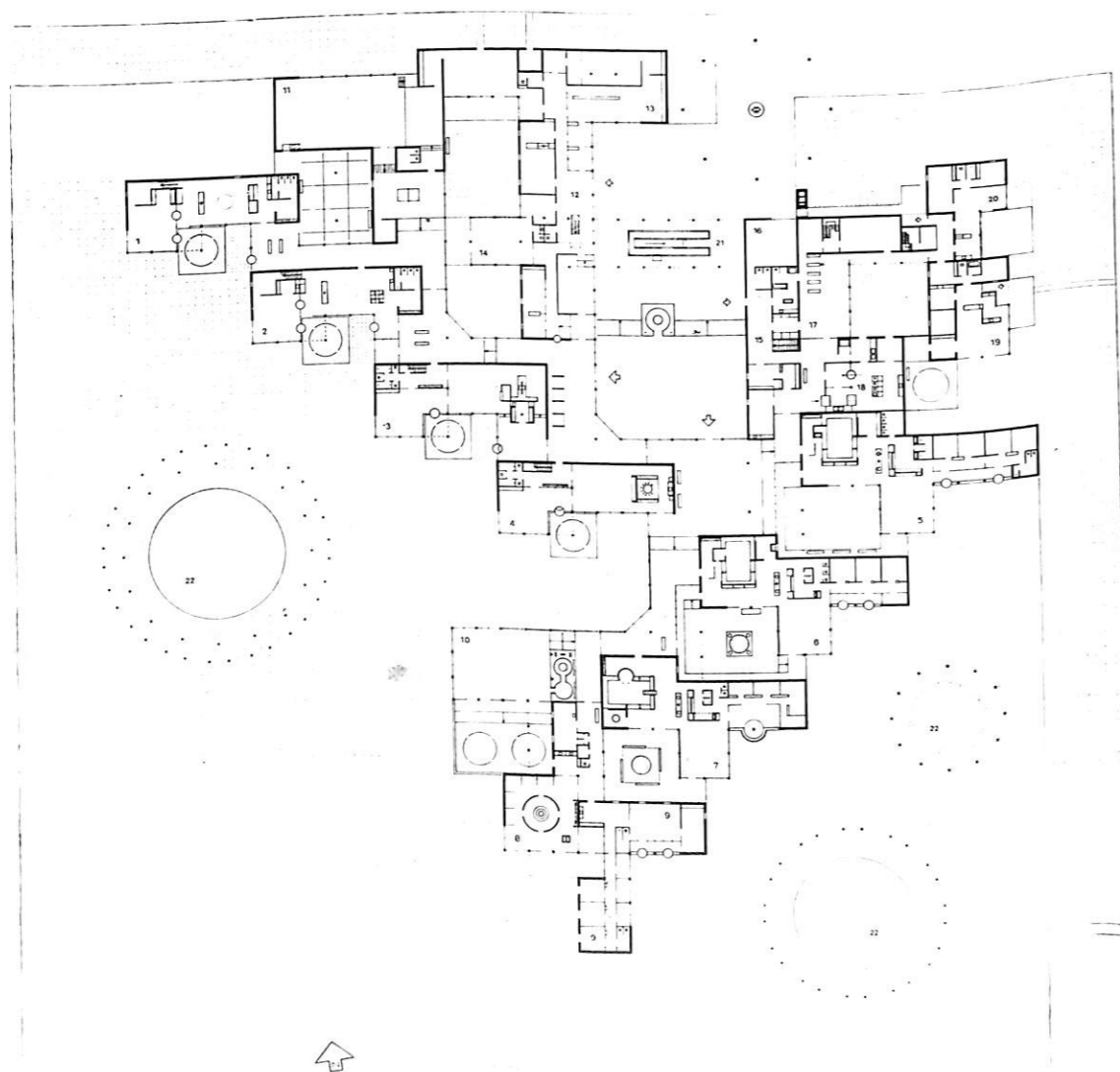
232 (right)
View between dormitories and communal living room





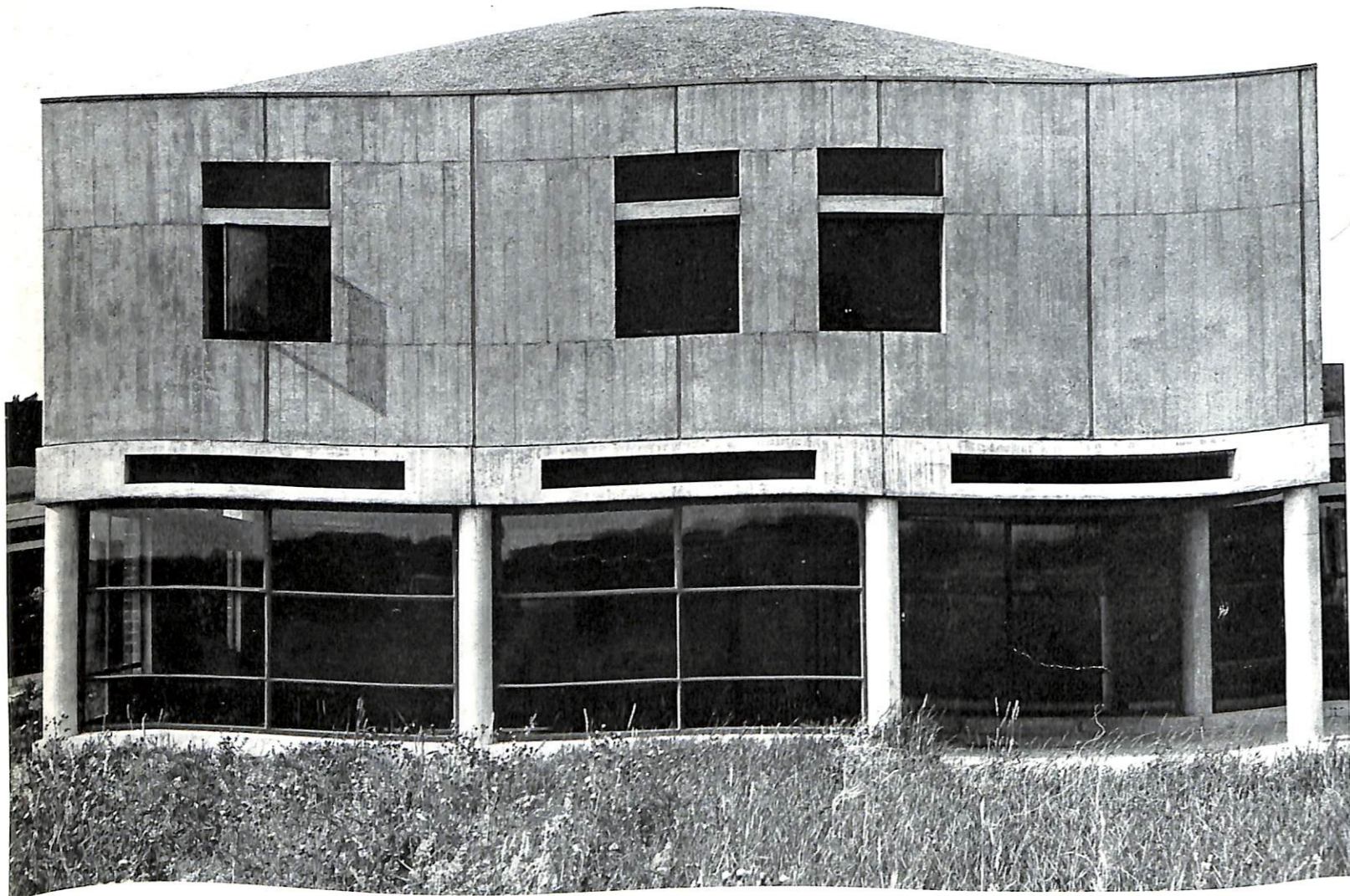
235 (right)
Indoor play-space

235-241
Aldo van Eyck; Amsterdam (Holland),
Orphanage School. 1958-60
233
Air-view



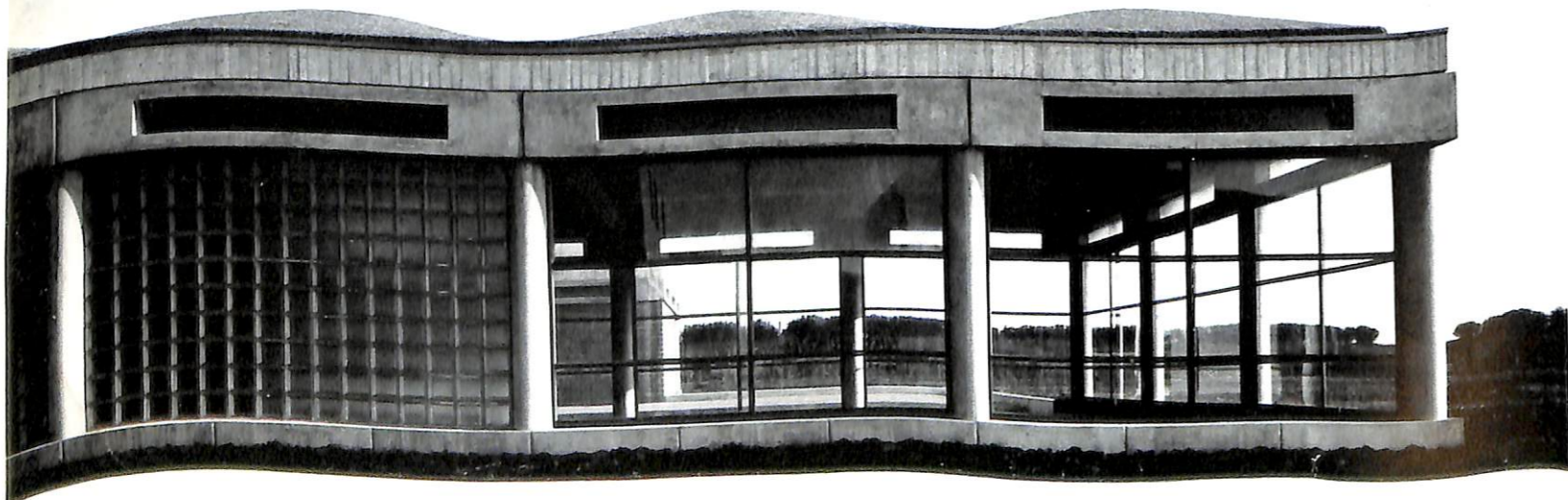
234
Plan (scale 1:1000)
1 boys 14-20 years old
2 girls 14-20 years old
3 boys 10-14 years old
4 girls 10-14 years old
5 children 6-10 years old
6 children 4-6 years old
7 children 2-4 years old
8 babies
9 hospital sickward
10 hall for festivals
11 gym and stage
12 chief staff
13 administration
14 sitting room staff
15 service
16 garage
17 linen room
18 central kitchen
19 house head of staff
20 house vice head of staff
21 ramp for bicycles
22 paved playing areas with encircling
trees, slightly raised level





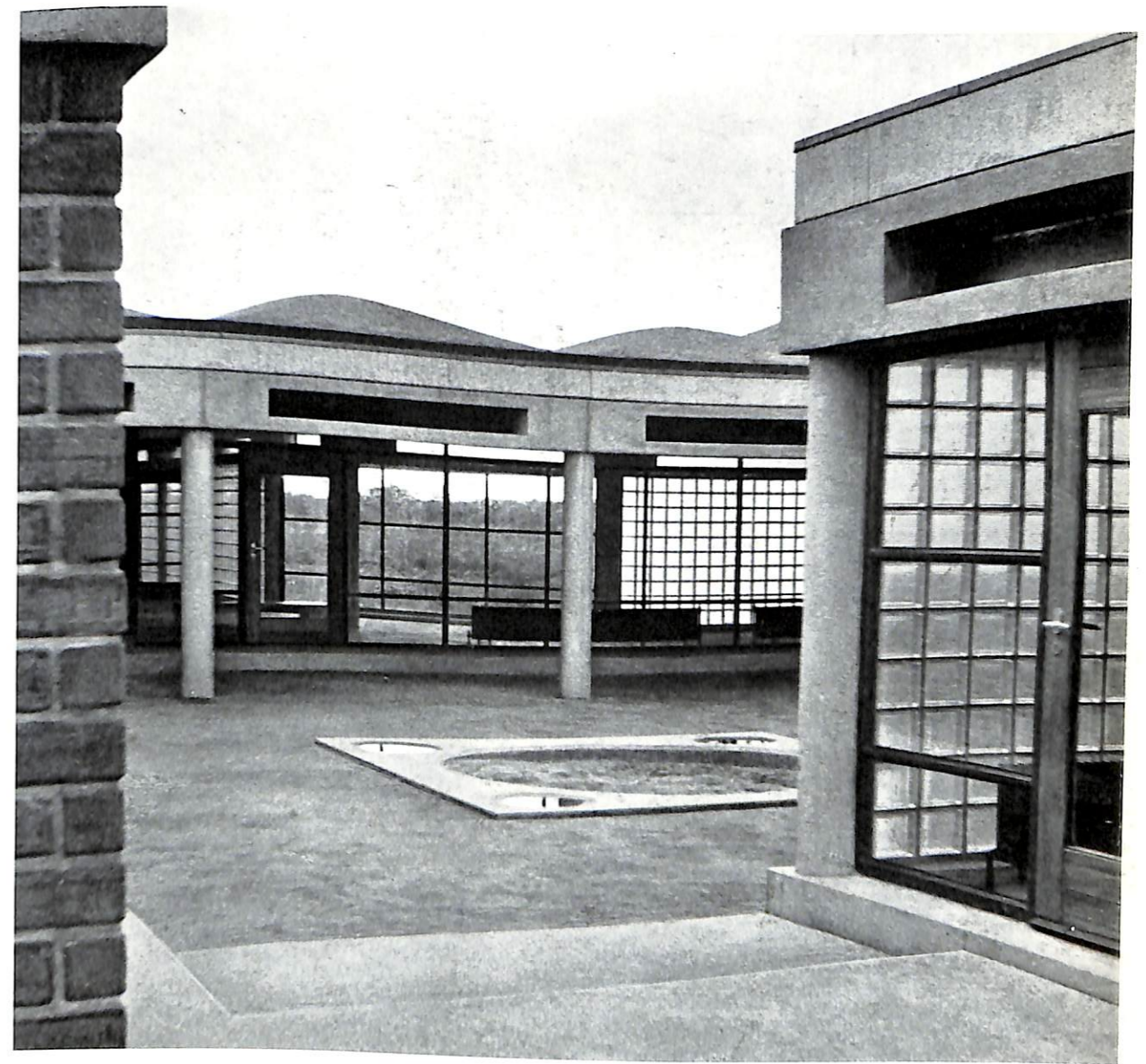
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236
End of a pavilion

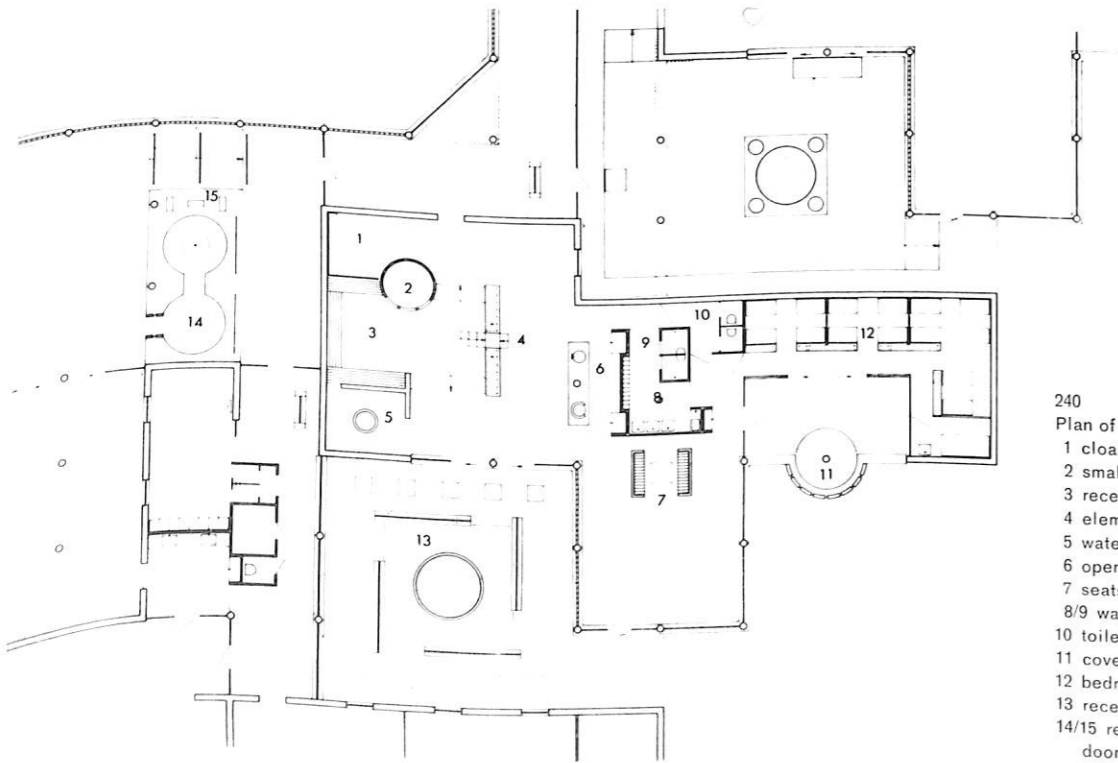


237
Hall for festivals

238
Open courtyard



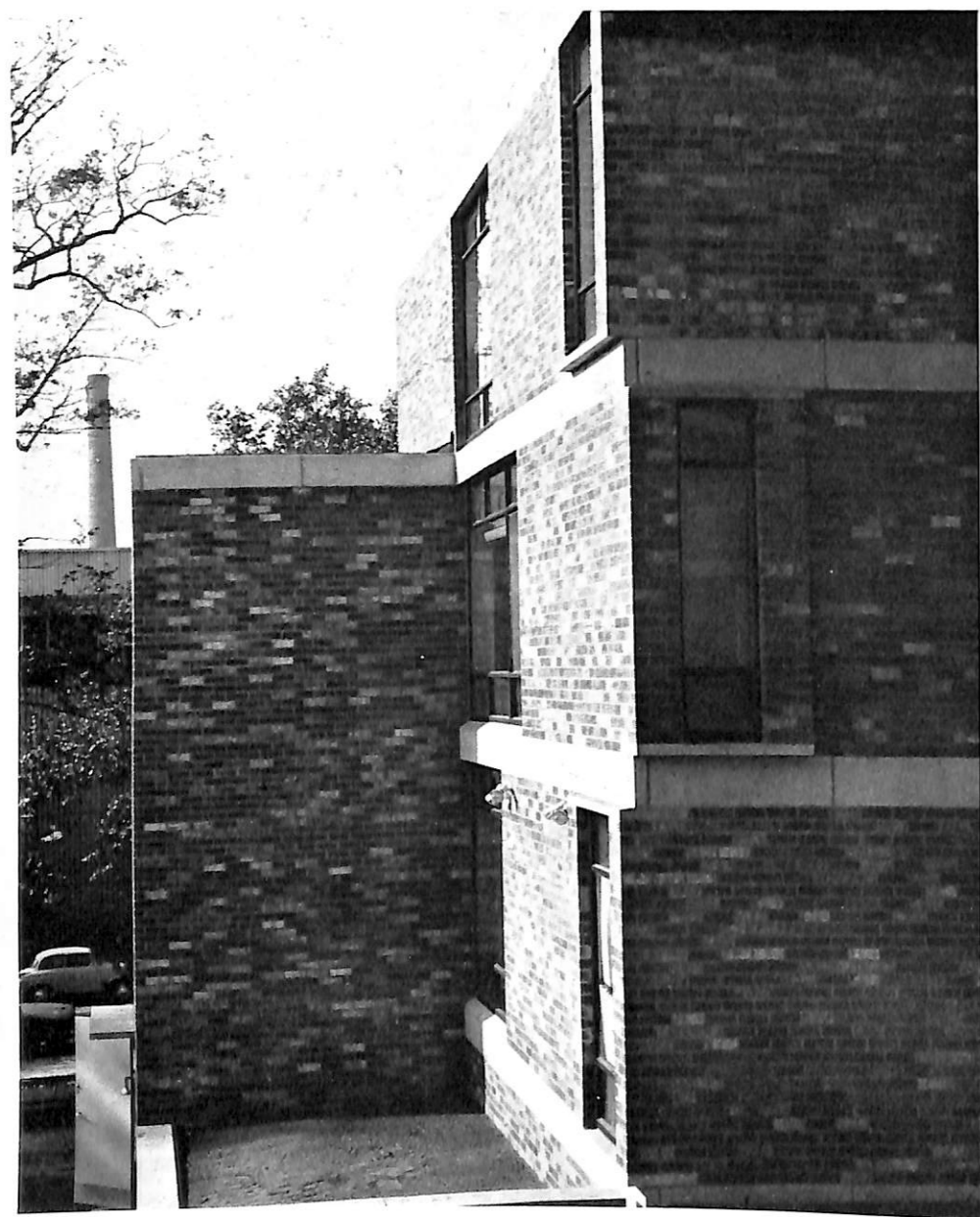
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Door from the hall



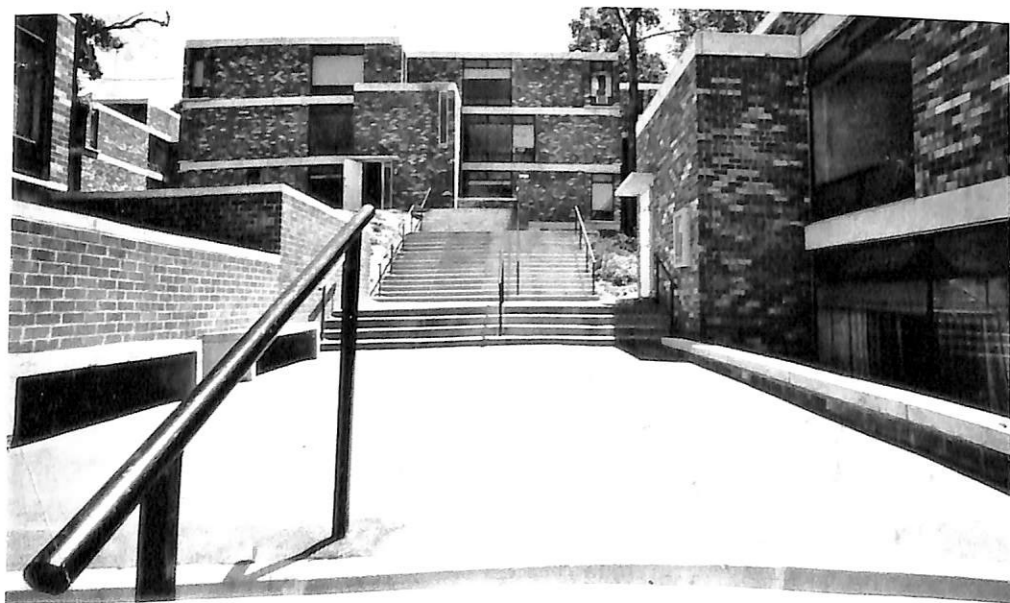
240
Plan of 2-4 years-old area and sick-rooms (scale 1:500)
1 cloakroom
2 small brick house
3 recessed central part with seat and storage for toys
4 element with steps and small cupboards
5 water-basin for play
6 open kitchen
7 seats
8/9 washroom and showers
10 toilet
11 covered terrace with pool
12 bedrooms
13 recessed part with sandpit and seats all round
14/15 recessed circles, bars for somersaulting, and concrete doorway



241
2-4 years-old play room



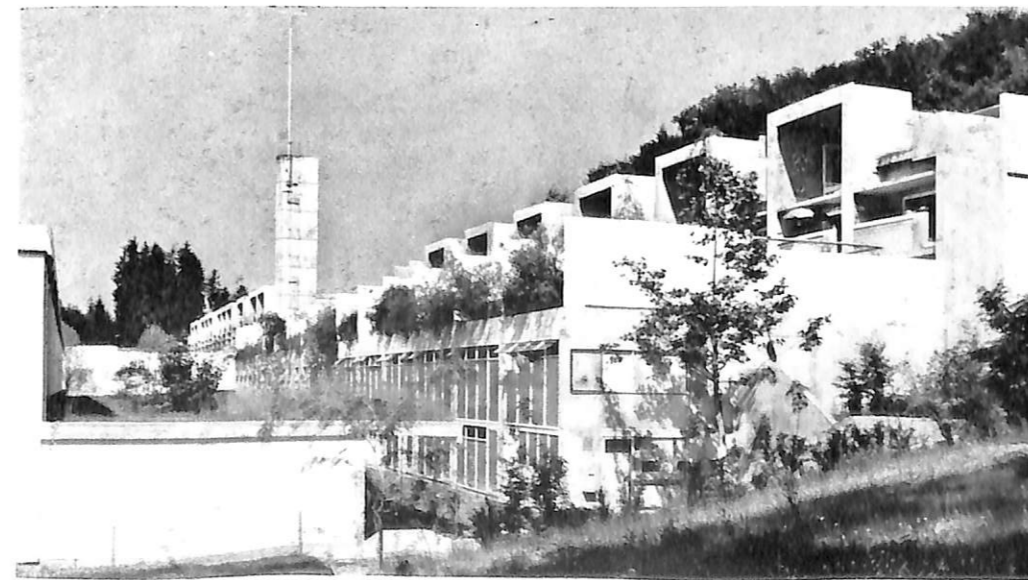
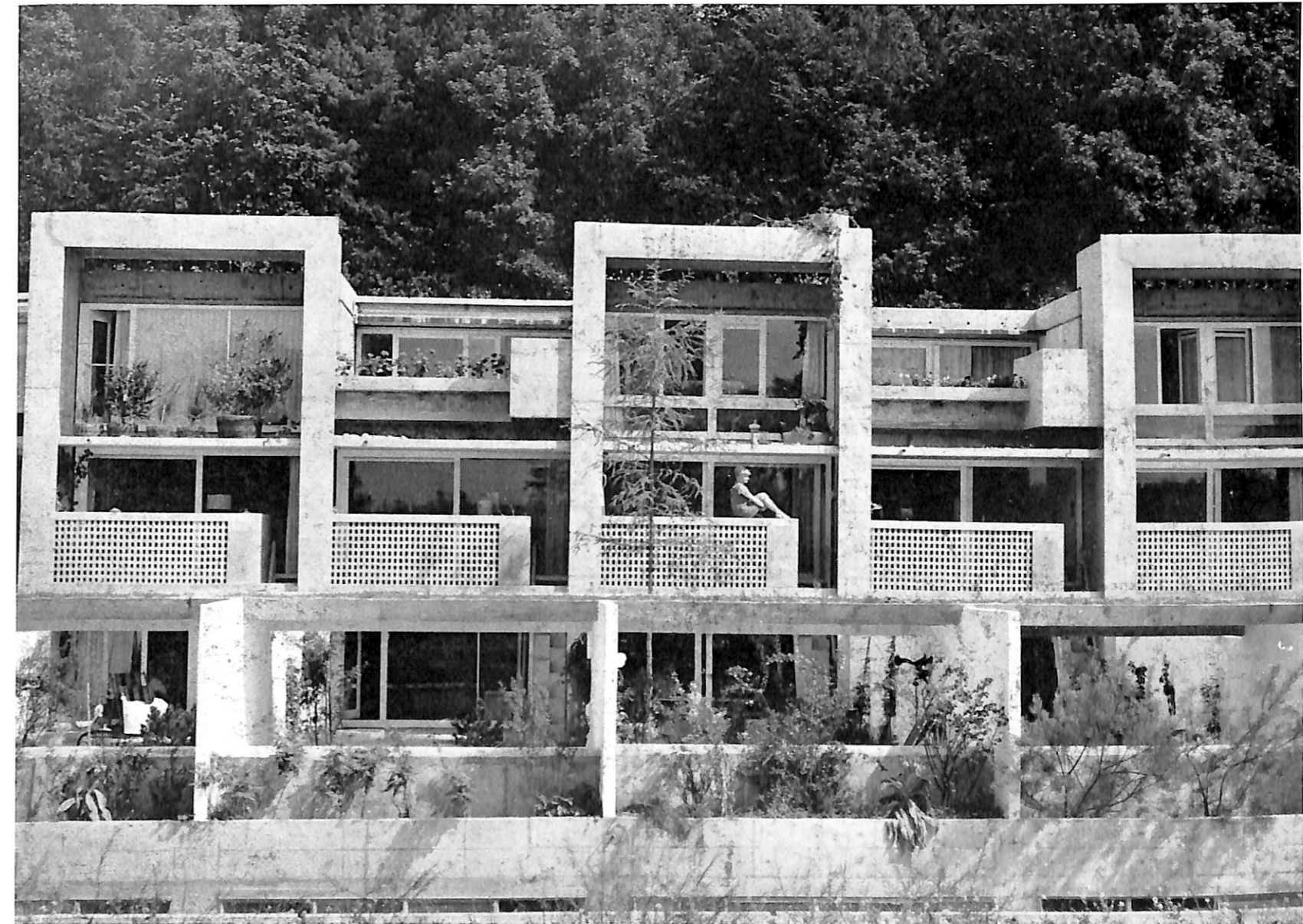
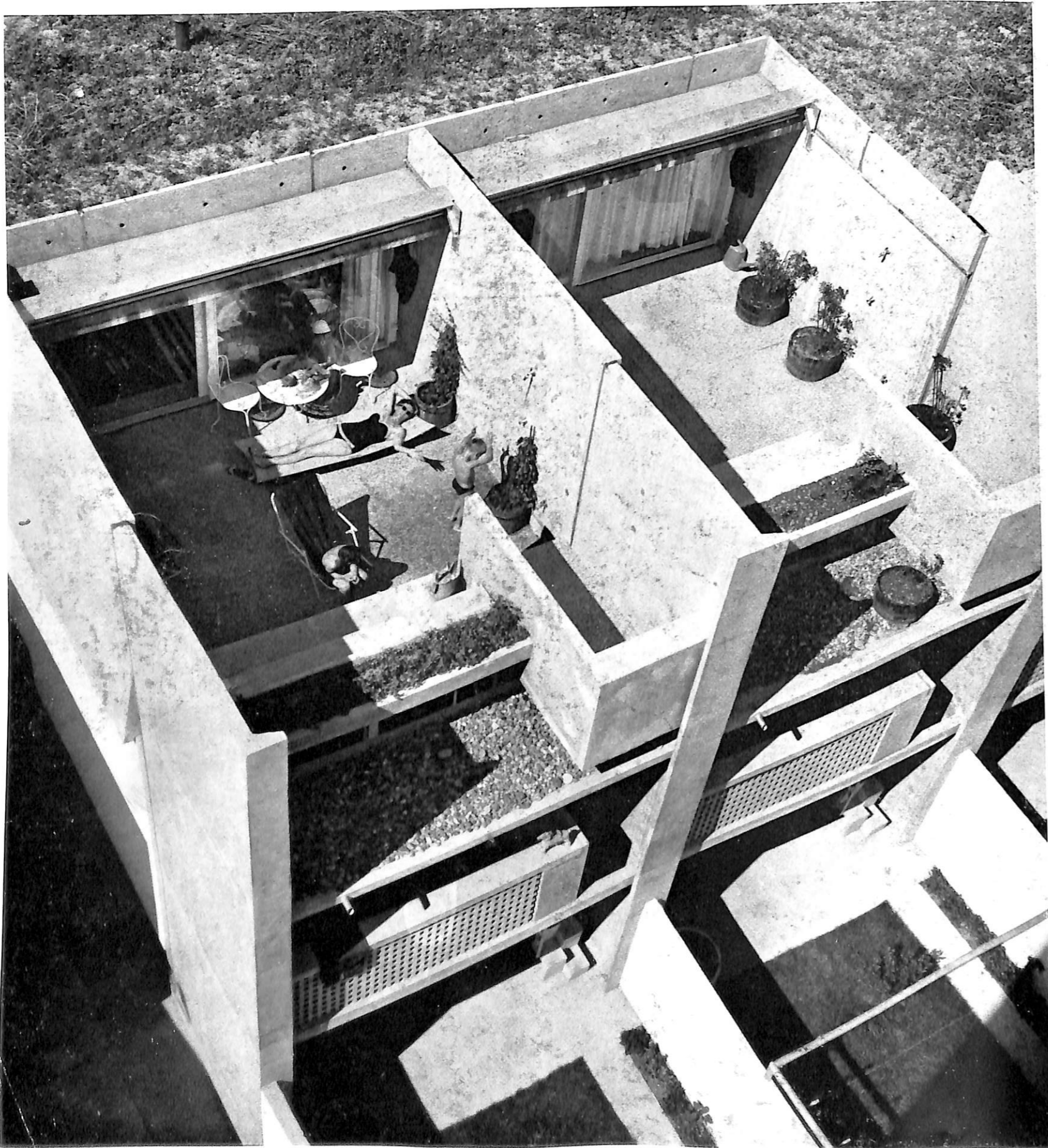
242-244
Paul Rudolph; New Haven (Connecticut, USA), Yale University,
Married Students' Housing. 1962
242
Close up of corner of block



243
Central pedestrian street

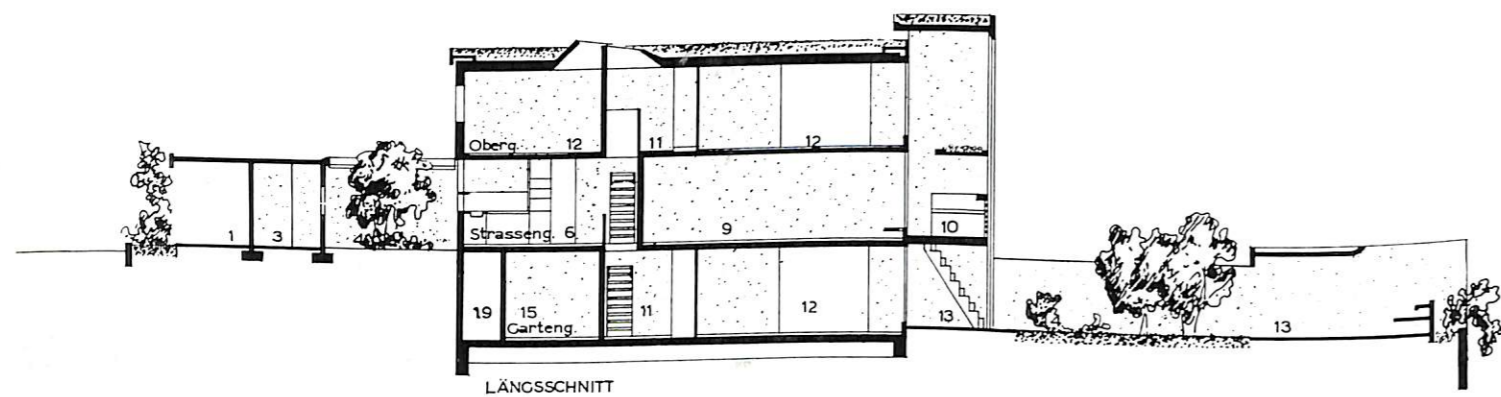


244 (right)
Steps to upper terraces

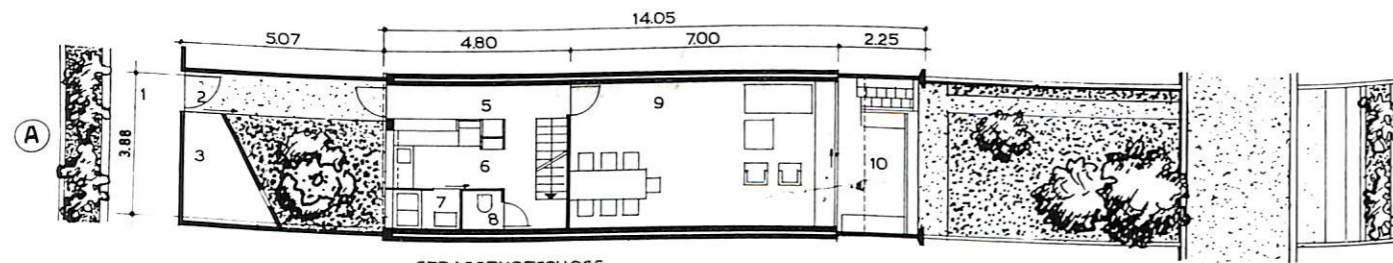


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Atelier 5 (Erwin Fritz, Samuel Gerber, Rolf Hesterberg,
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 Berne (Switzerland), Siedlung Halen. 1961
 245 (left)
 Roof-terraces of narrow-section apartments to east of central
 square
 246
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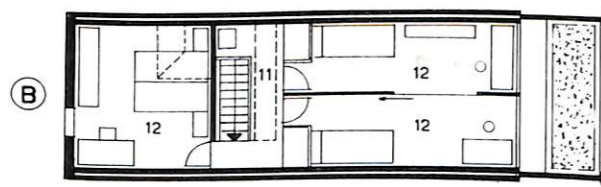
247
 Eastern end of the blocks



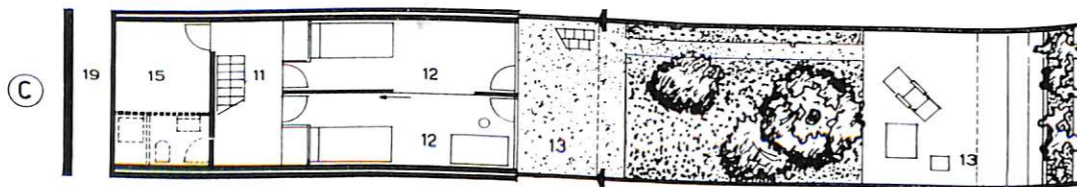
LÄNGSSCHNITT



STRASSENGESCHOSS



OBERGESCHOSS

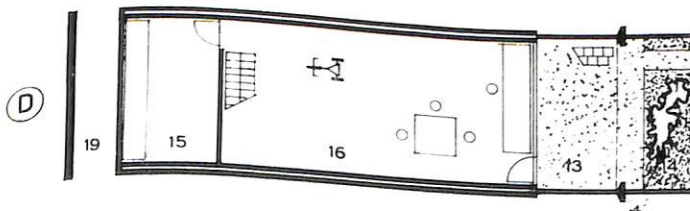


GARTENESCHOSS

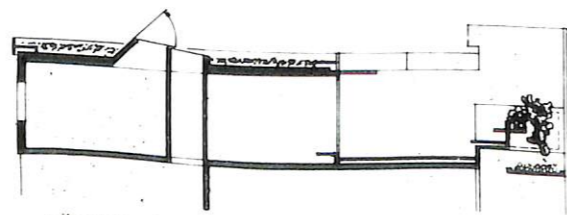
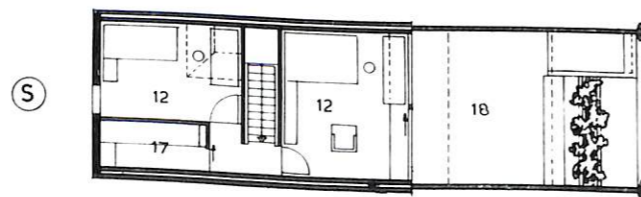
248 - 254
Sections and plans of narrow apartment
types (scale 1:200)

- 1 pergola
- 2 entrance
- 3 storage
- 4 patio
- 5 cloakroom
- 6 kitchen
- 7 bathroom
- 8 toilet
- 9 living room
- 10 loggia
- 11 corridor with cupboards
- 12 bedroom
- 13 covered sitting area
- 14 garden
- 15 cellar
- 16 utility room
- 17 storage-space
- 18 solarium
- 19 duct-space

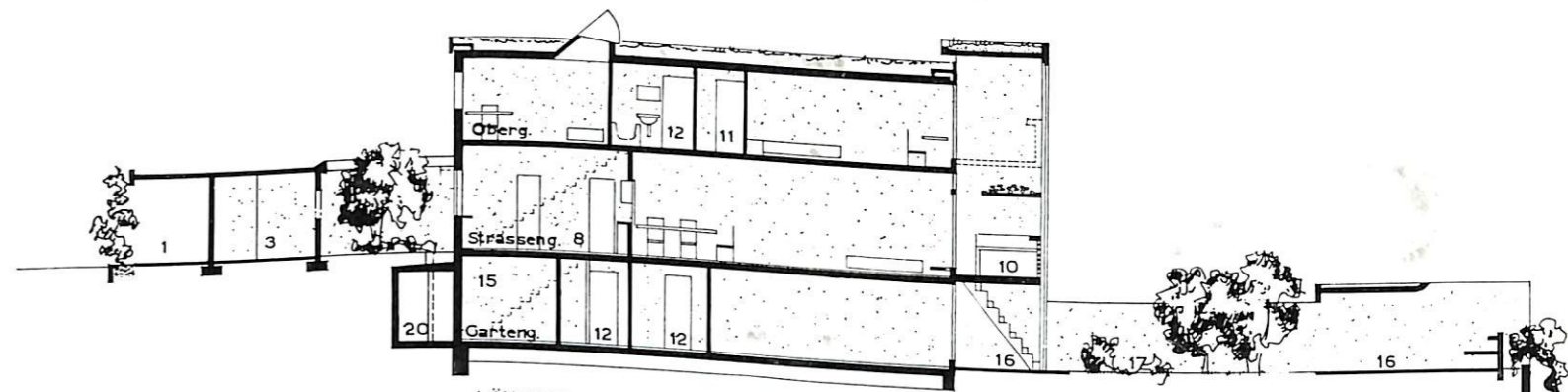
VARIANTE ZU GARTENESCHOSS



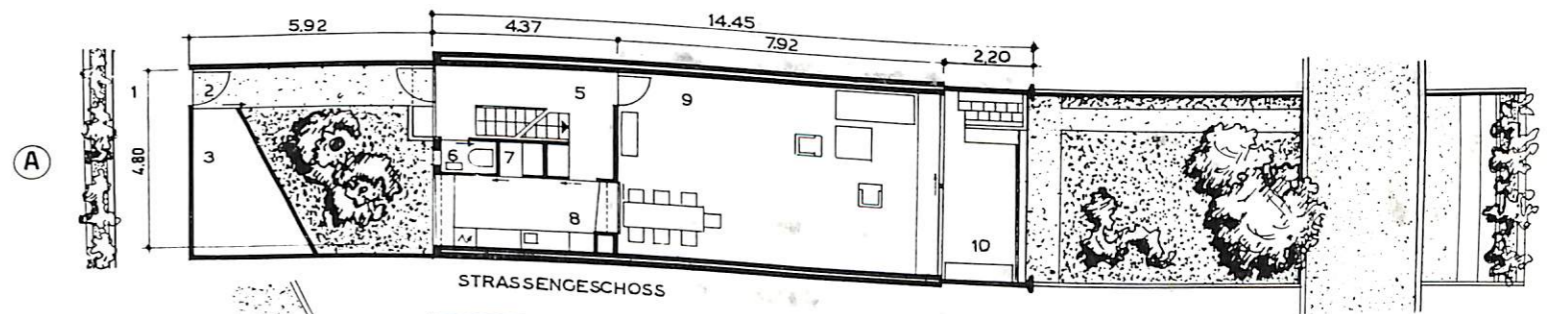
VARIANTE ZU OBERGESCHOSS



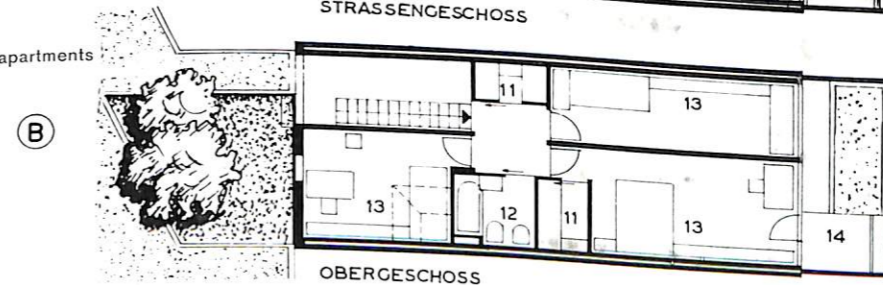
LÄNGSSCHNITT DURCH SOLARIUM



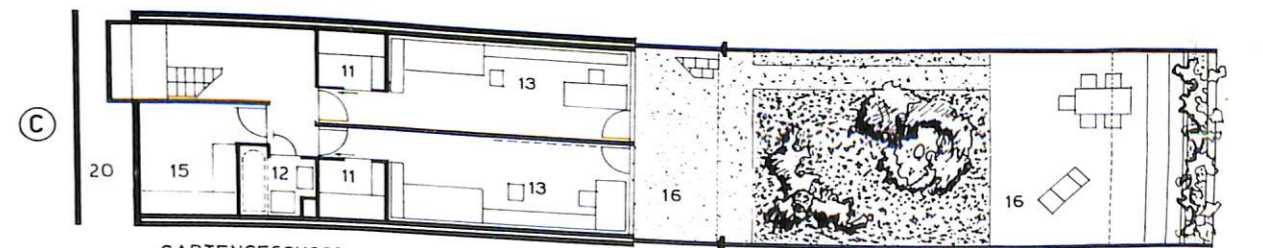
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STRASSENGESCHOSS



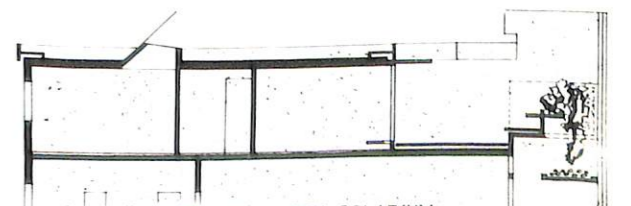
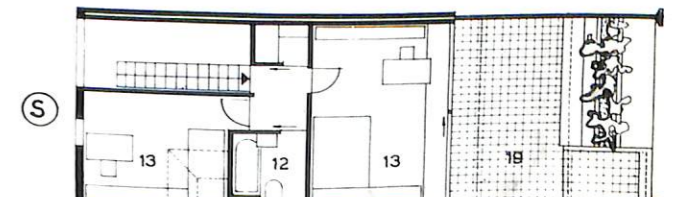
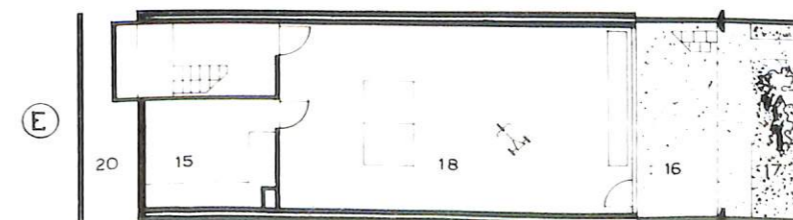
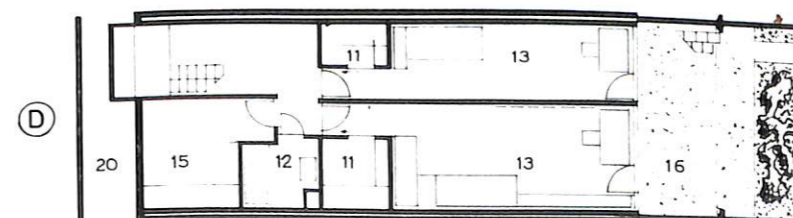
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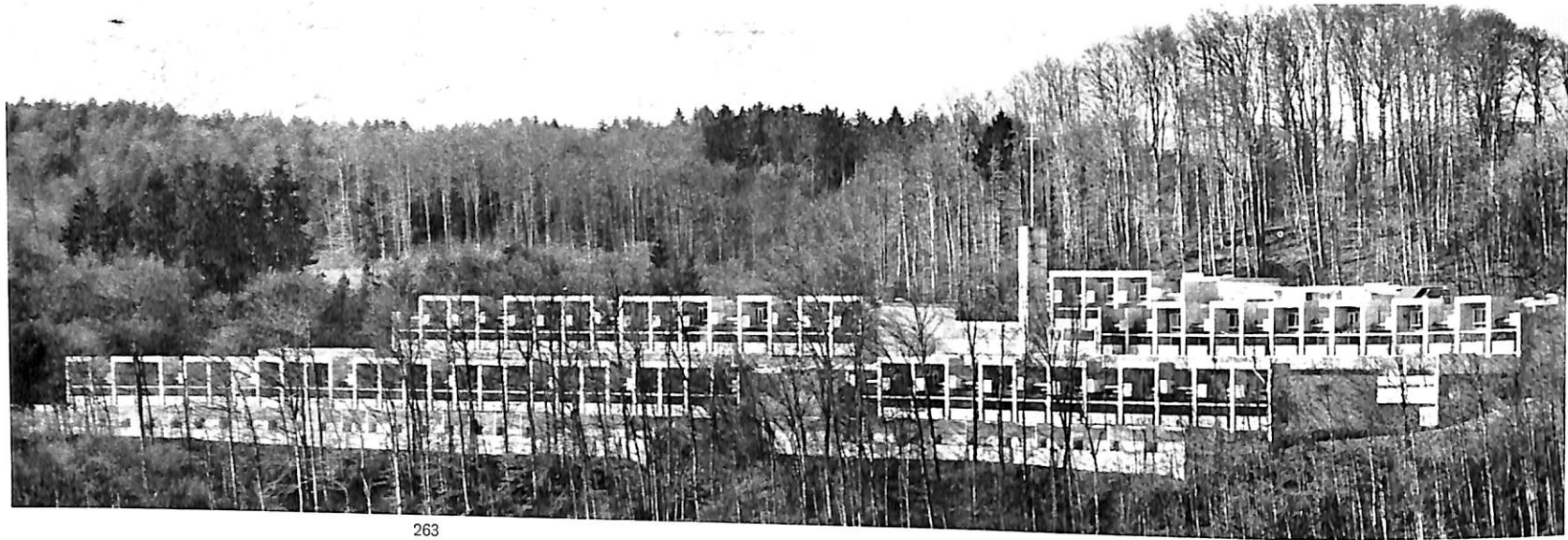
GARTENESCHOSS

255 - 262
Sections and plans of wide apartments
(scale 1:200)

- 1 pergola
- 2 entrance
- 3 storage
- 4 patio
- 5 cloakroom
- 6 toilet
- 7 storage-space
- 8 kitchen
- 9 living-dining room
- 10 loggia
- 11 storage-space
- 12 bathroom
- 13 bedroom
- 14 balcony
- 15 cellar
- 16 covered sitting area
- 17 garden
- 18 utility room
- 19 solarium, roof-garden
- 20 duct-space

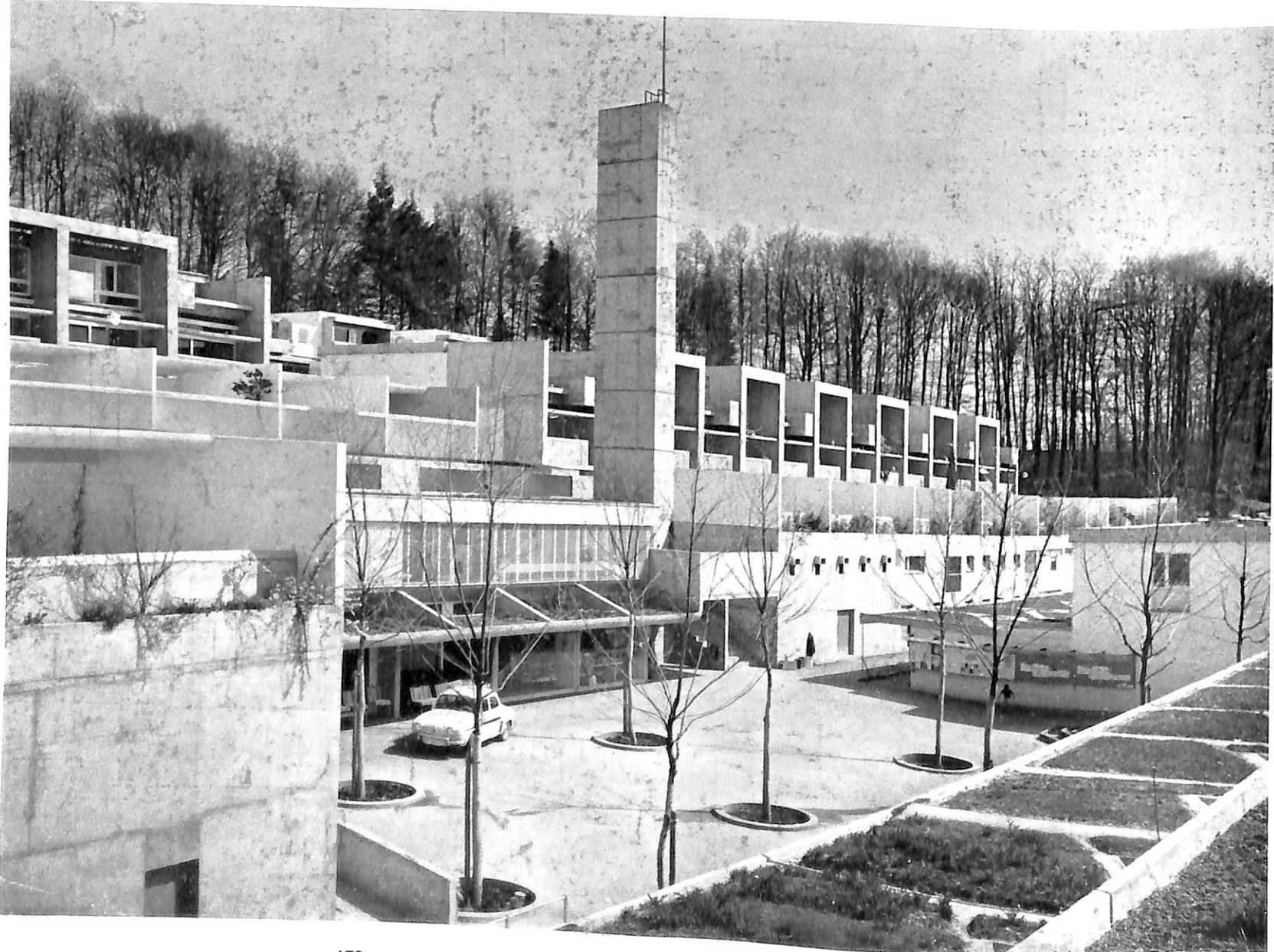


LÄNGSSCHNITT DURCH SOLARIUM



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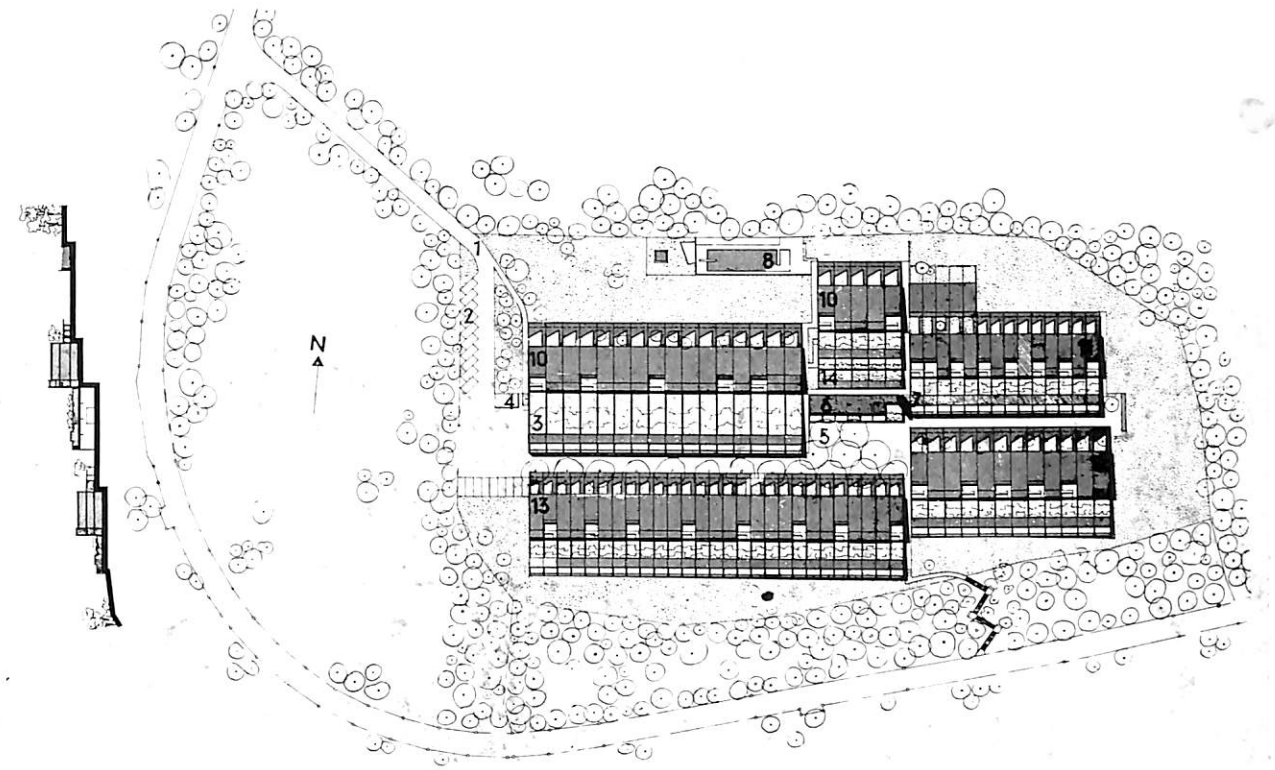
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View from the south, central piazza

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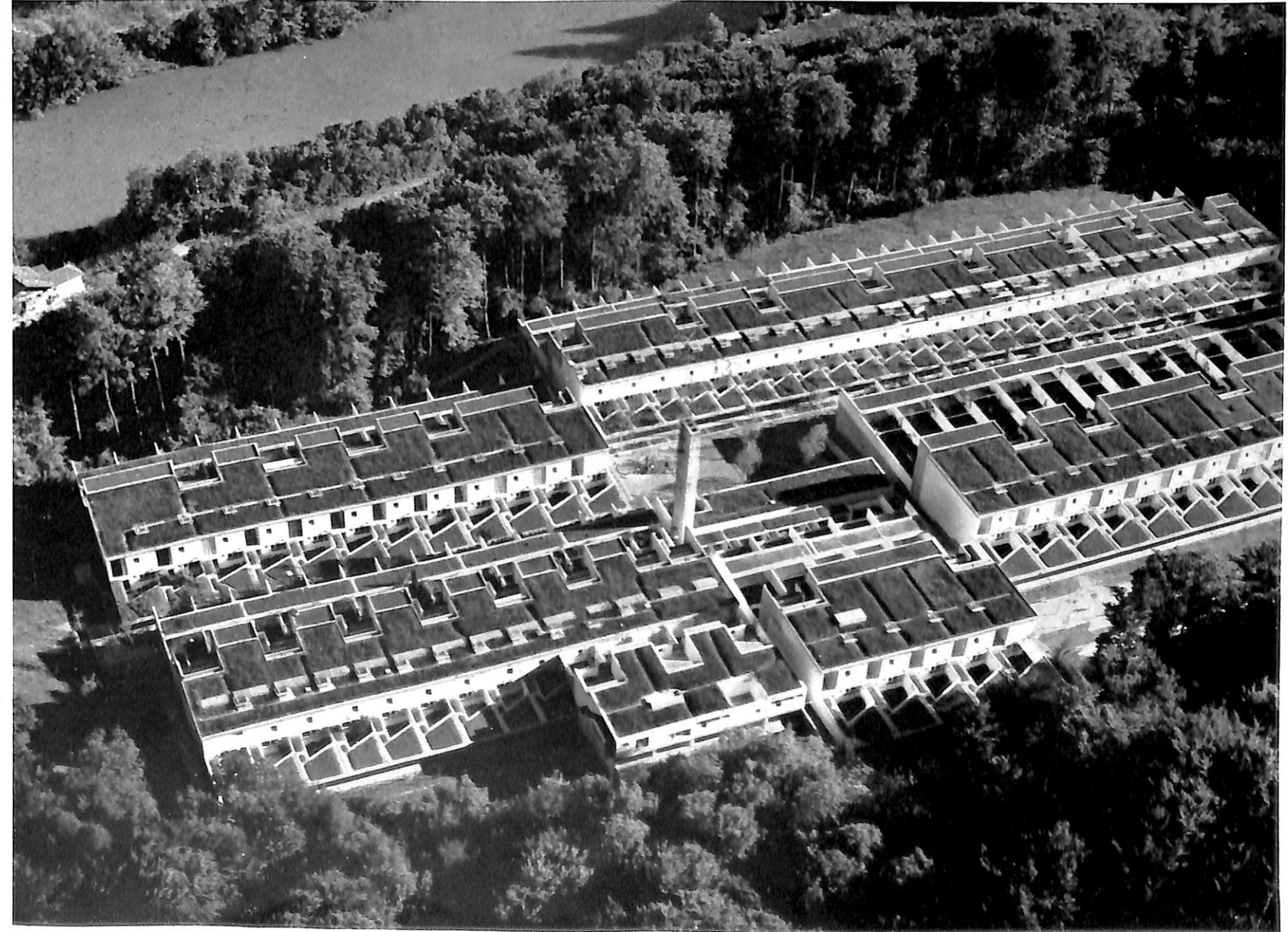
Site plan and section (scale 1:2500)

- 1 access road
- 2 parking
- 3 underground garage
- 4 filling station
- 5 village square
- 6 shops and restaurant
- 7 underground power and utilities station
- 8 swimming pool and games area
- 9 steps
- 10-13 terraced housing
- 14 studio-apartments.



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Air-view



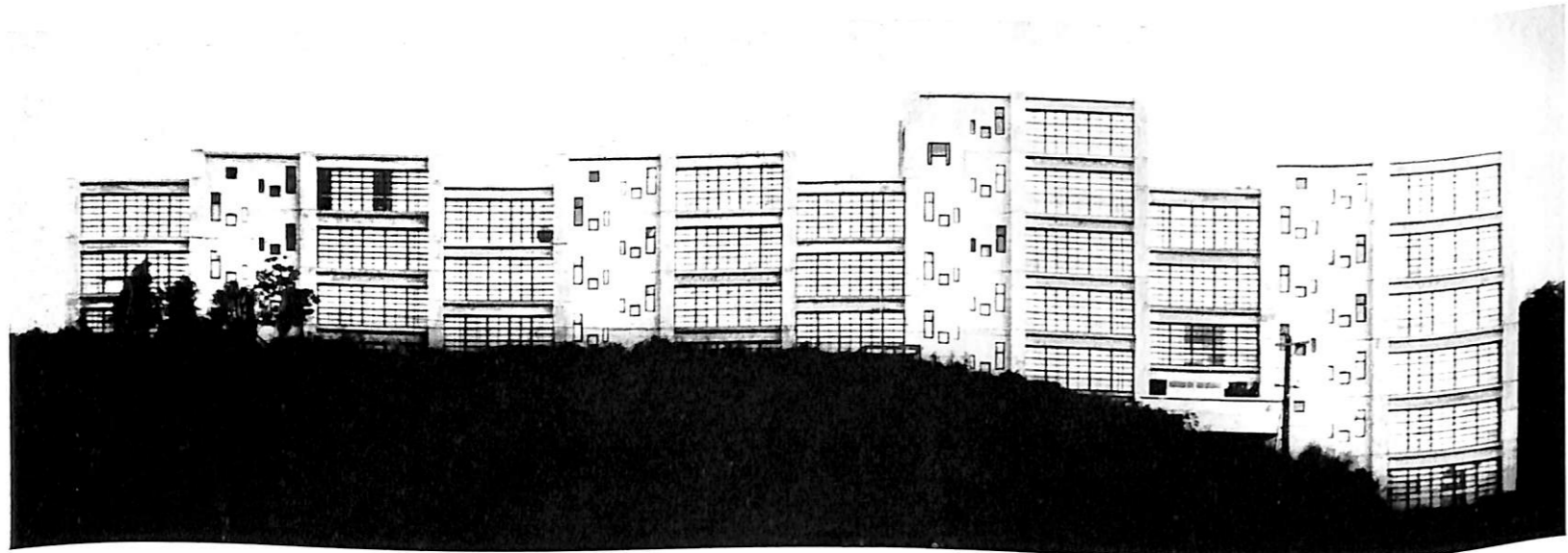
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267
The pedestrian street



268
The terraces from the east

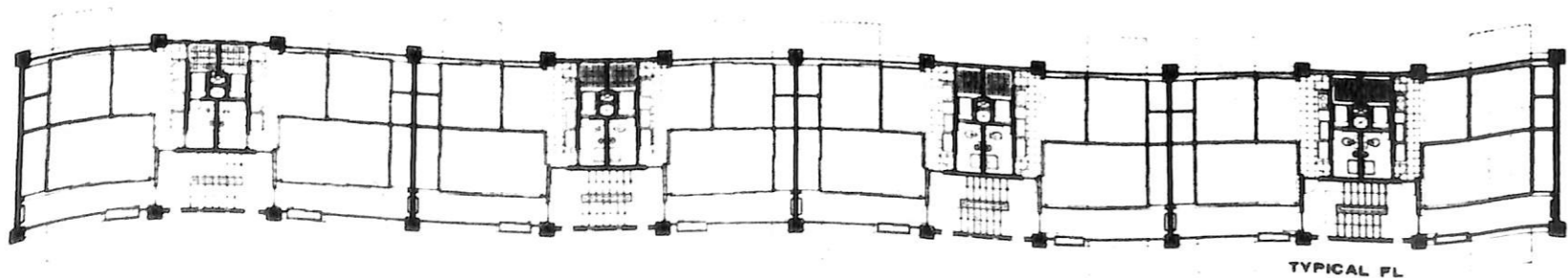


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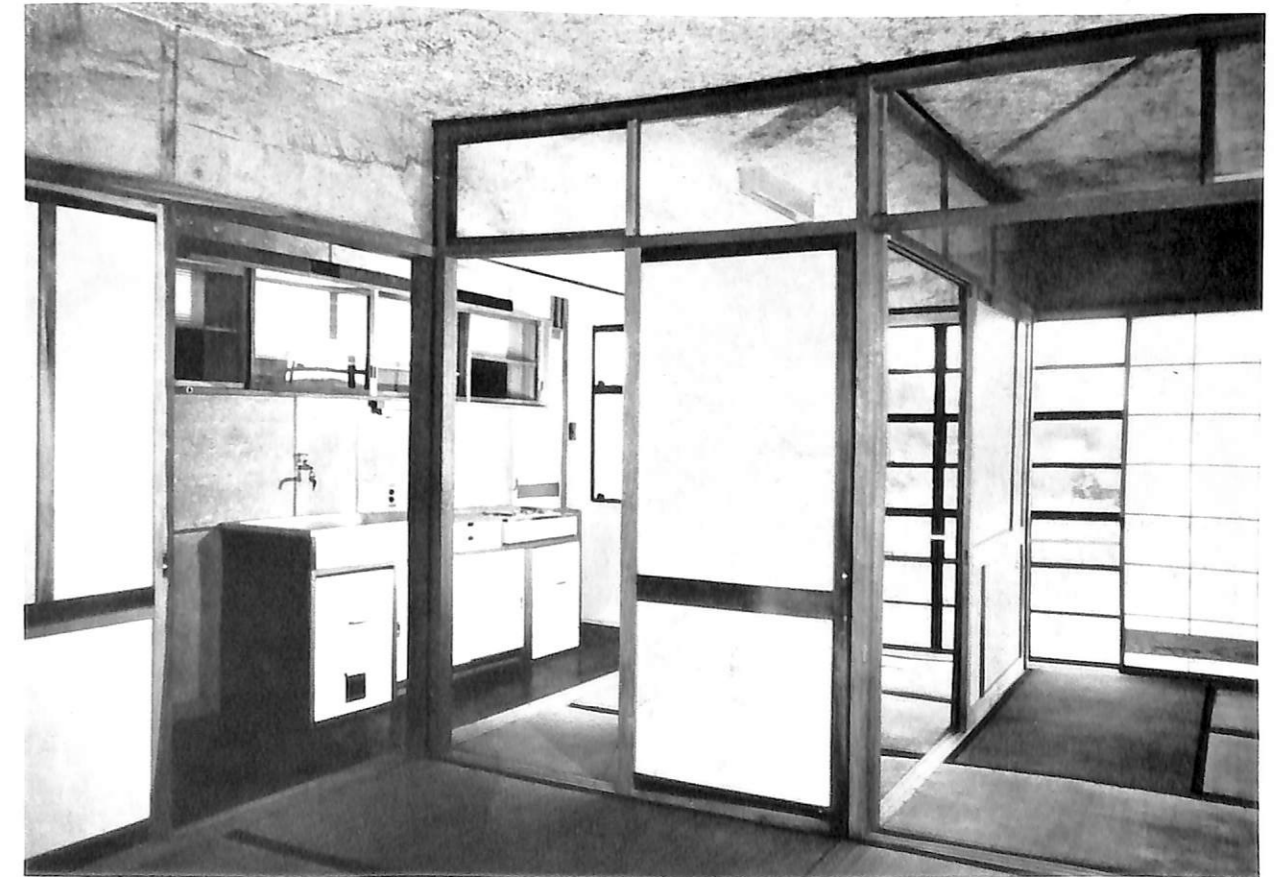
TYPICAL FL

269 - 273
Kiyonori Kikutake; Totsuka (Yokohama,
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269 / 270
Rear elevation by day and night
271
Plan of typical floor



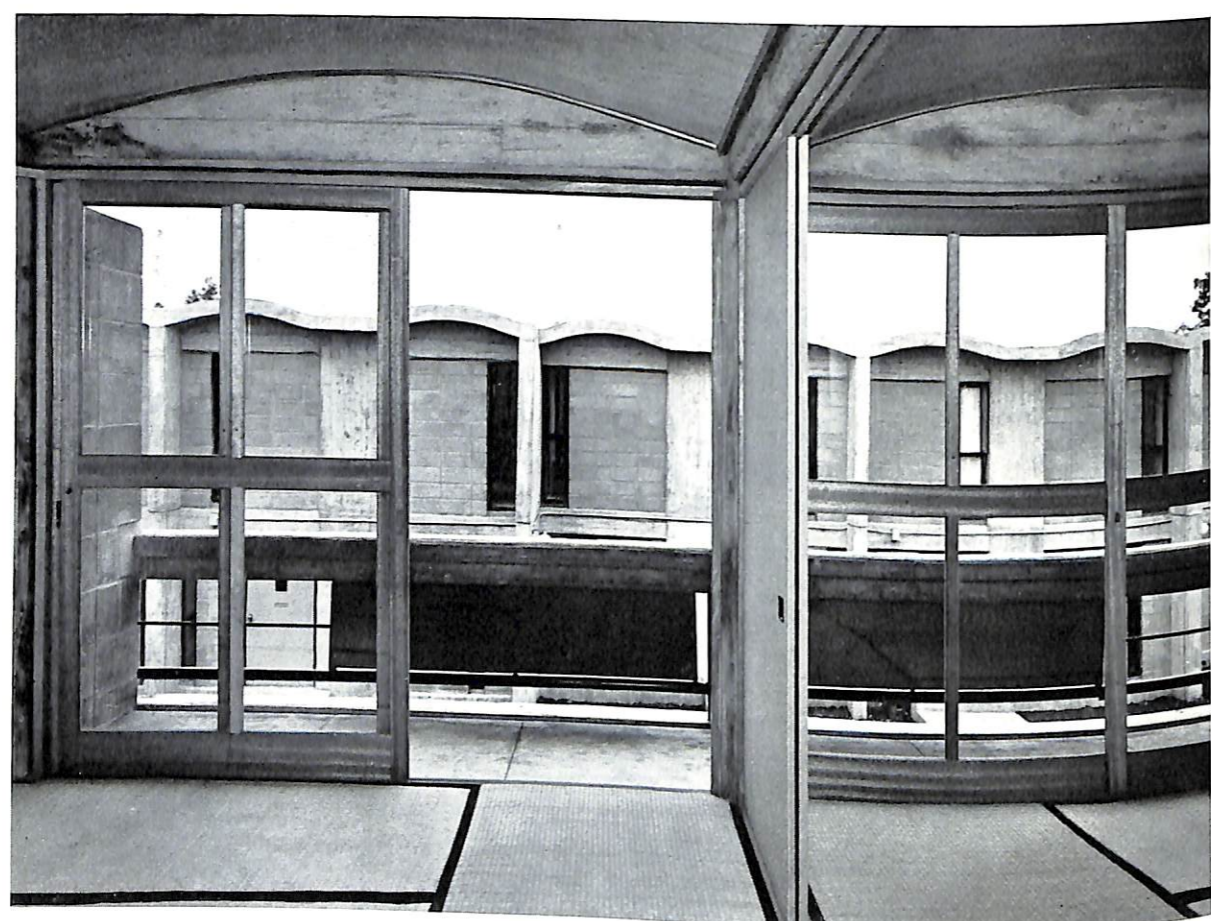
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Main front

273
Interior of an apartment



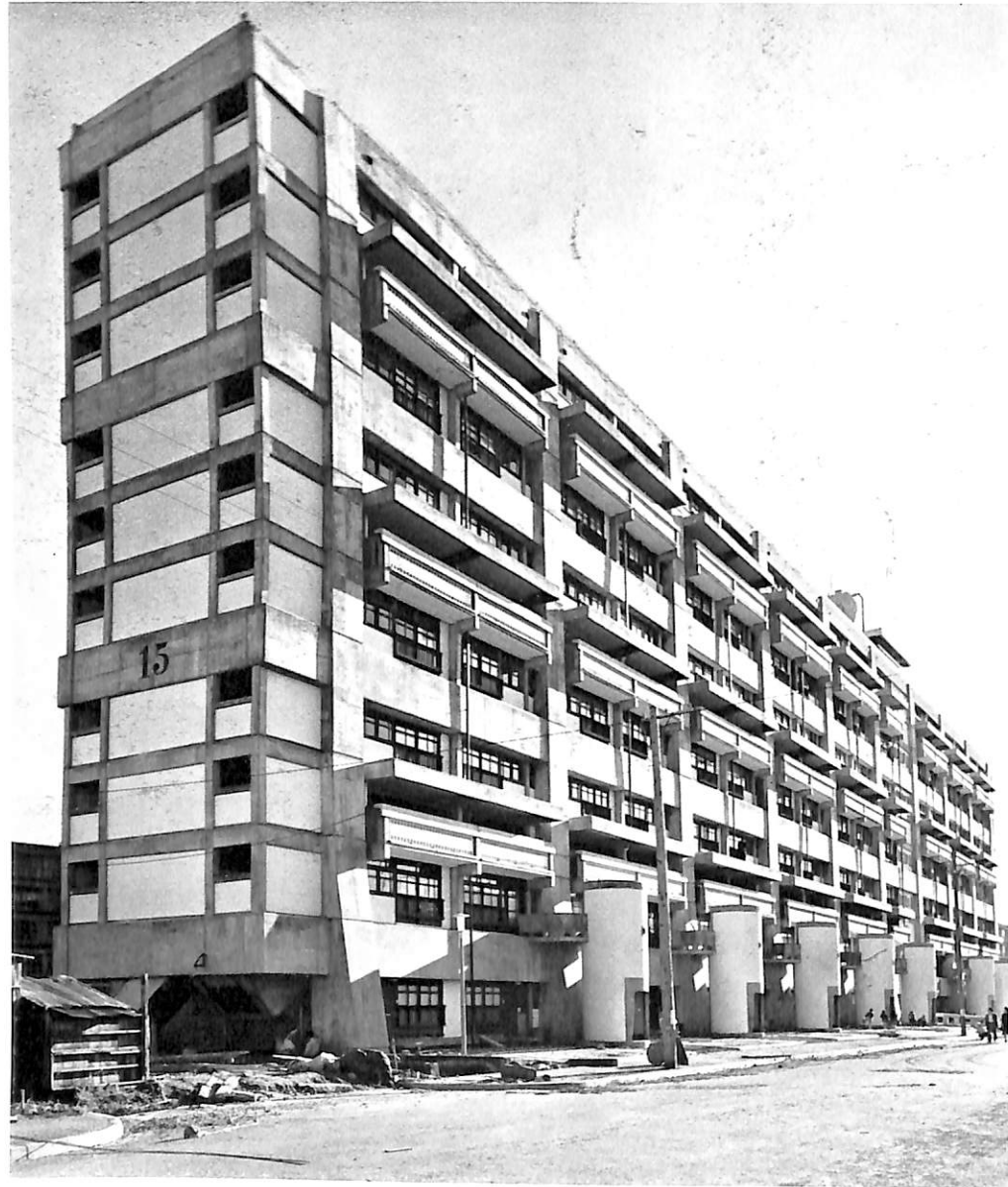
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Ikuta, Oki and Miyajima; Omiya (Saitama,
Japan), Fuji Juko Omiya Development.
1957
274
View north from main block



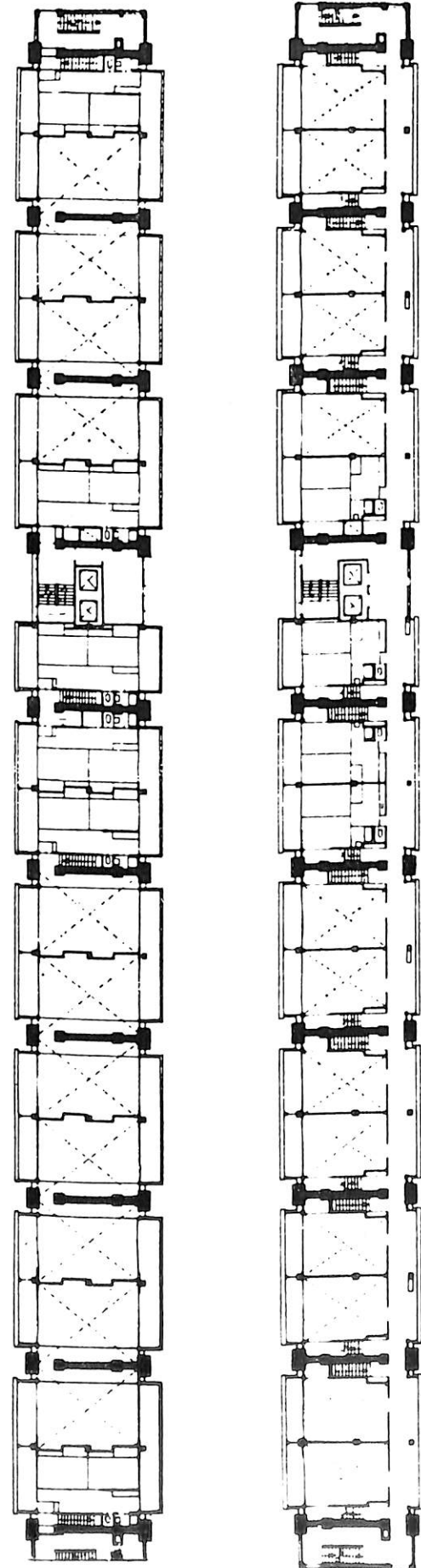
275
Courtyard elevation of main block





276 - 284
 Kunio Mayekawa; Harumi (Tokyo, Japan), Apartment Block. 1958
 276 (page 177)
 Part of garden elevation
 277
 Street elevation

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 Plans at standard floor level and street-deck level (scale 1:500)

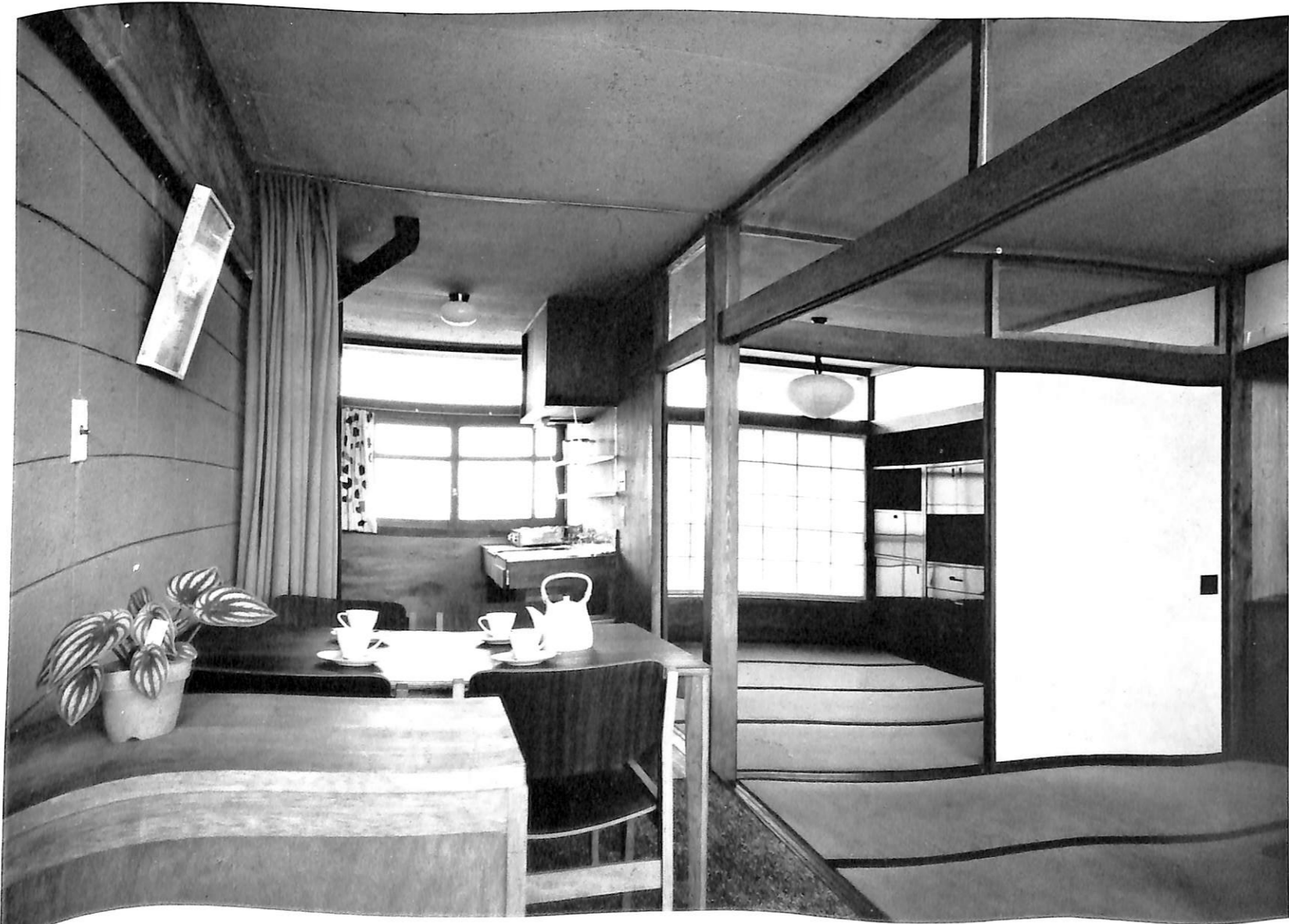


280
 View from harbour



281
 Close up of concrete work

282
Interior of larger apartment type



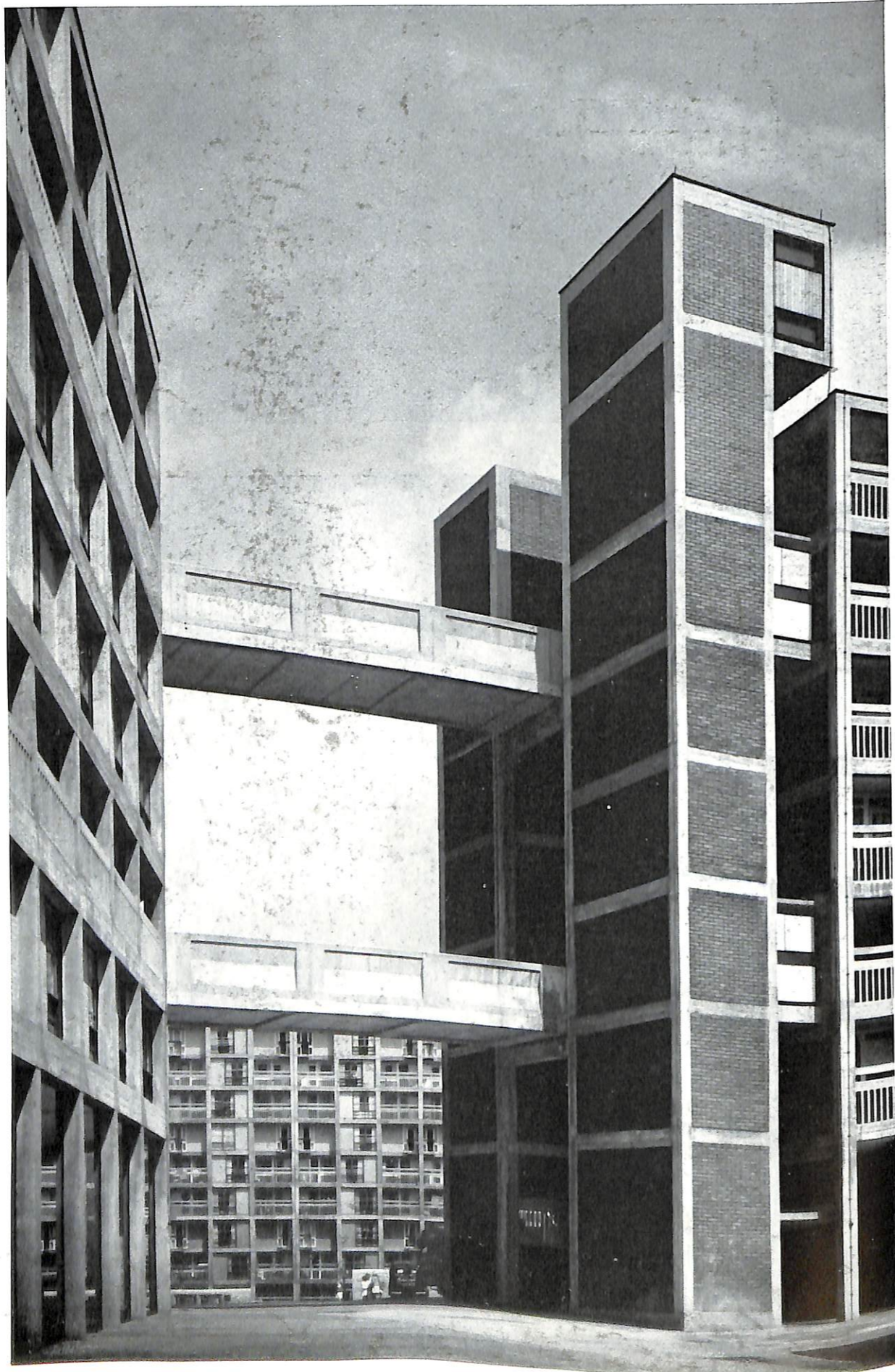
283
One bay of the elevation

284
Interior of smaller apartment type (street-deck level)



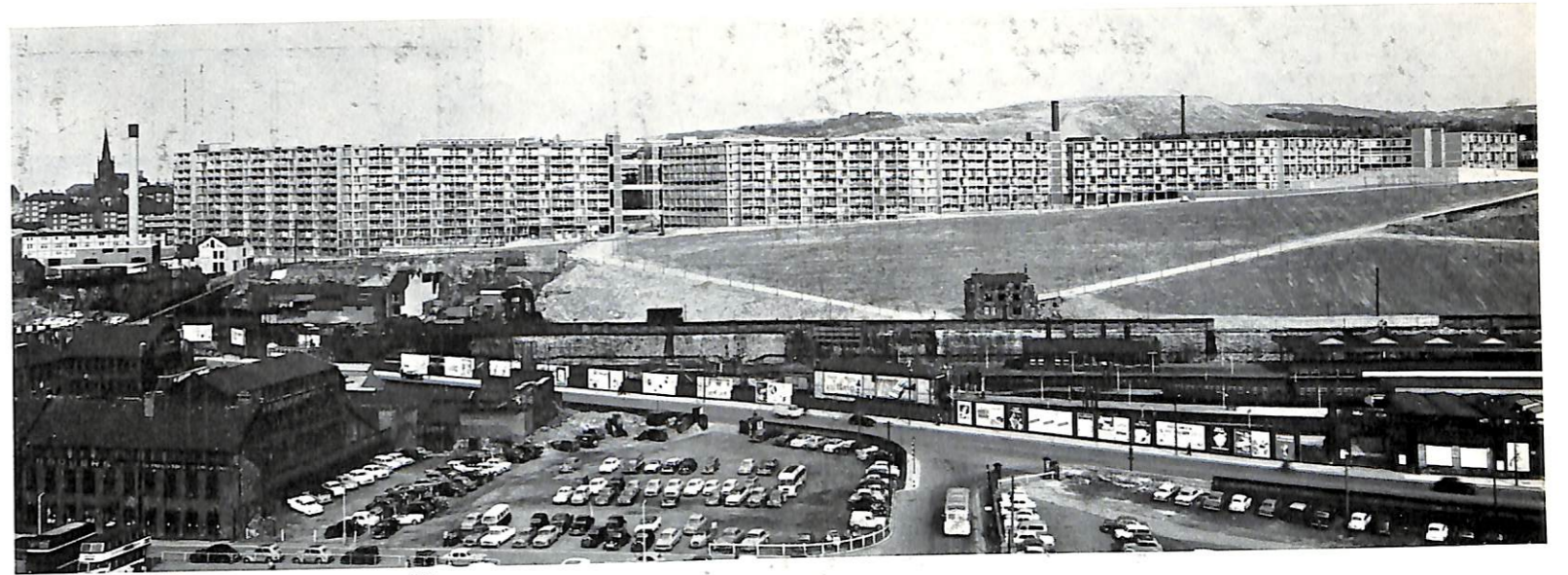
285 - 297
Sheffield City Architect's Department
(J Lewis Womersley, City Architect;
Jack Lynn, Ivor Smith and Frederick Nicklin,
designers); Sheffield (England),
Park Hill Development. 1961

285
Lift-tower, stair-tower, and pedestrian
bridges



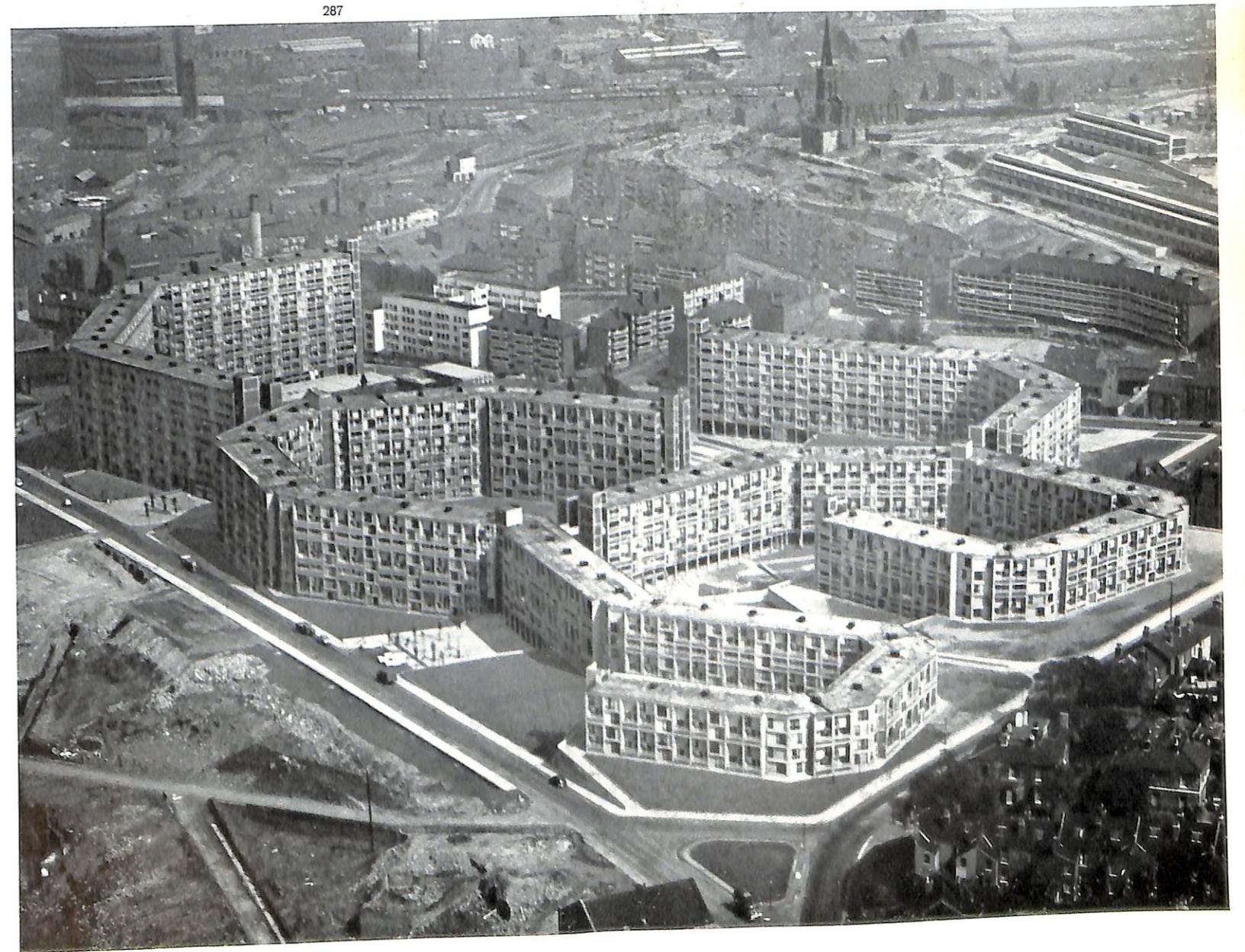
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Park Hill from the city-centre
287
Air-view from the south-west

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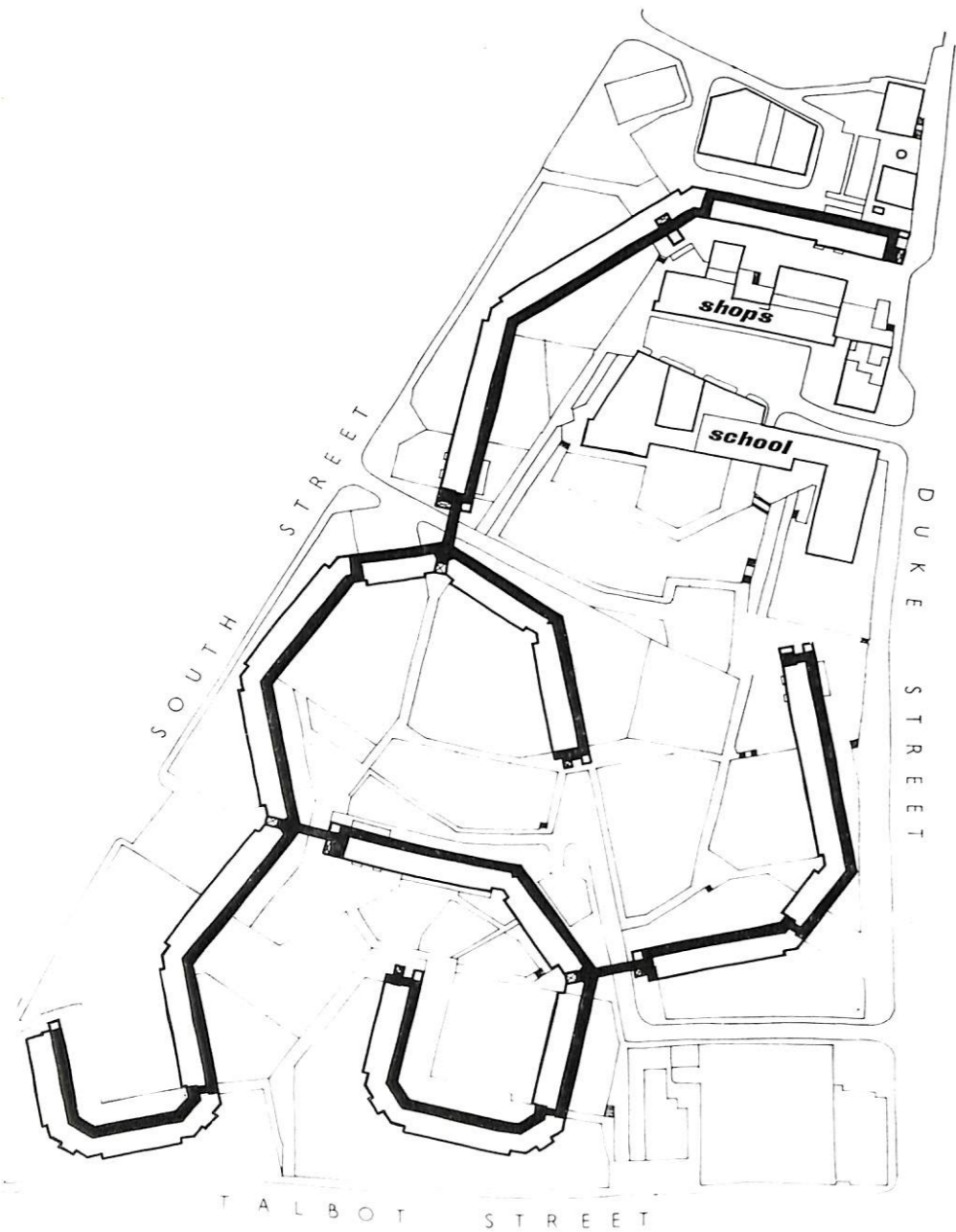


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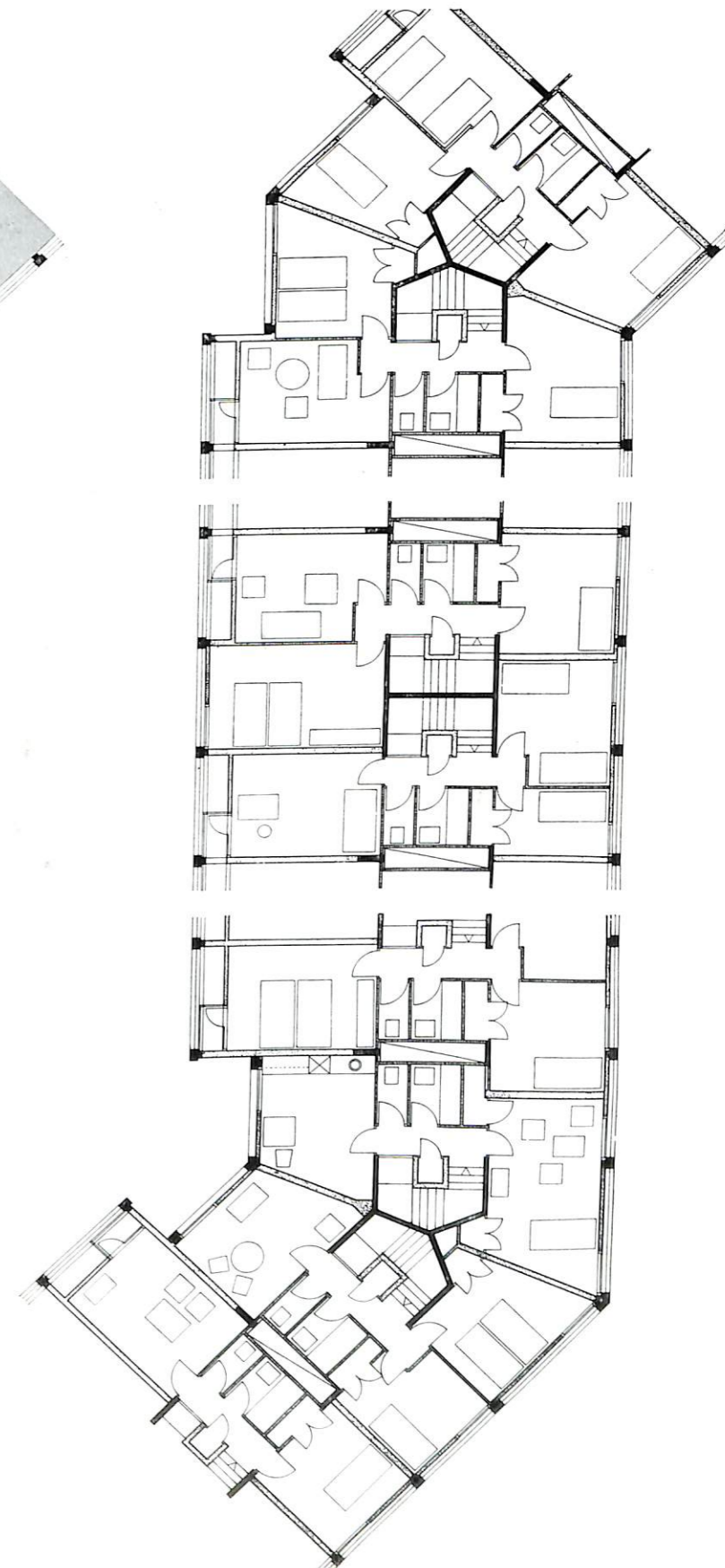
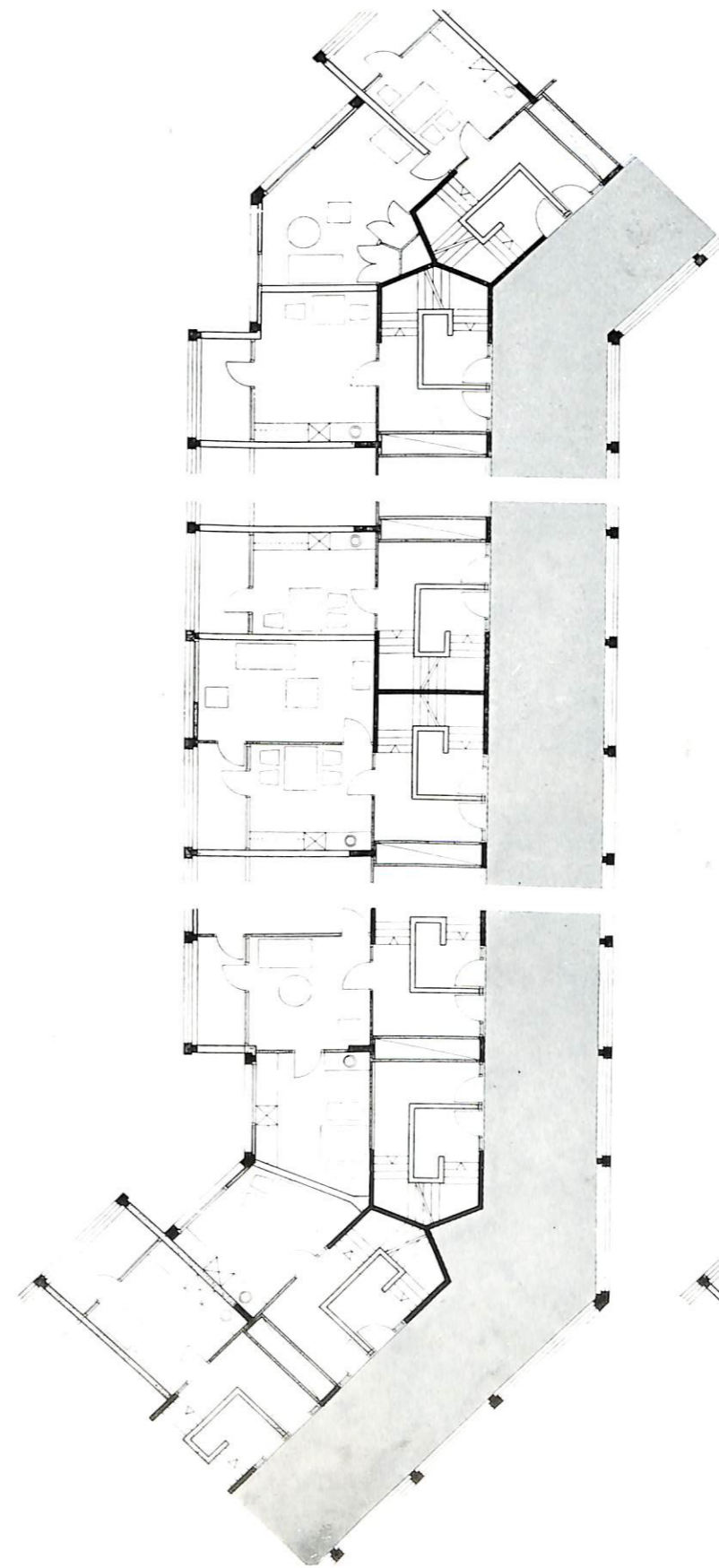
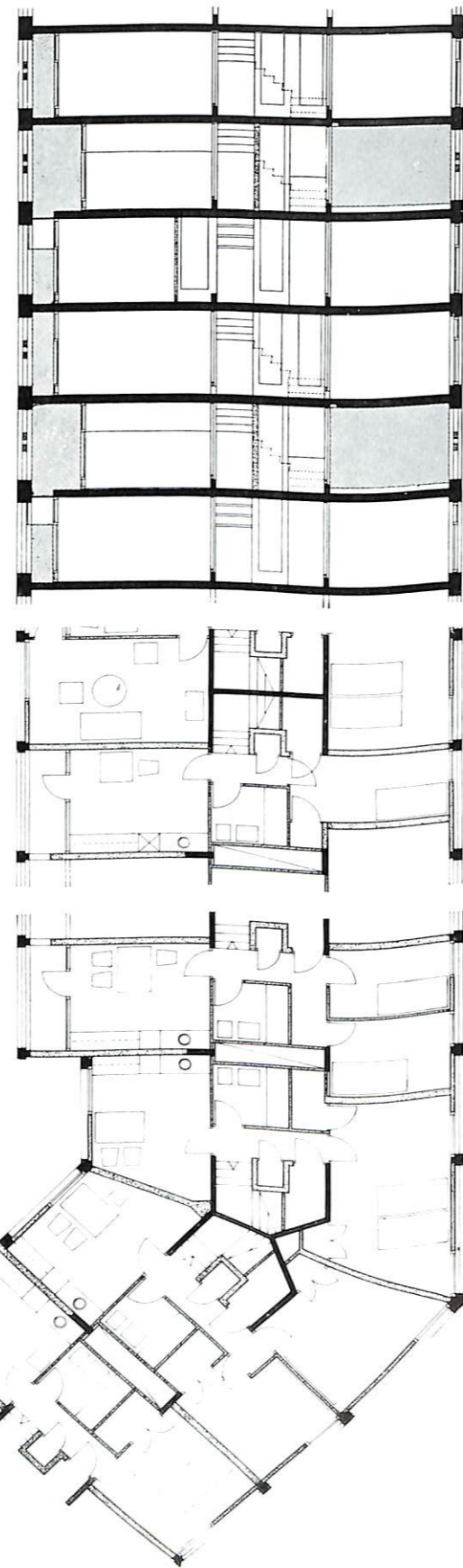


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Site plan (showing street-decks in solid black)

289
Standard three-storey section (scale 1:200)
290 - 292
Plans at upper floor level, street-deck level and lower floor level (scale 1:200)



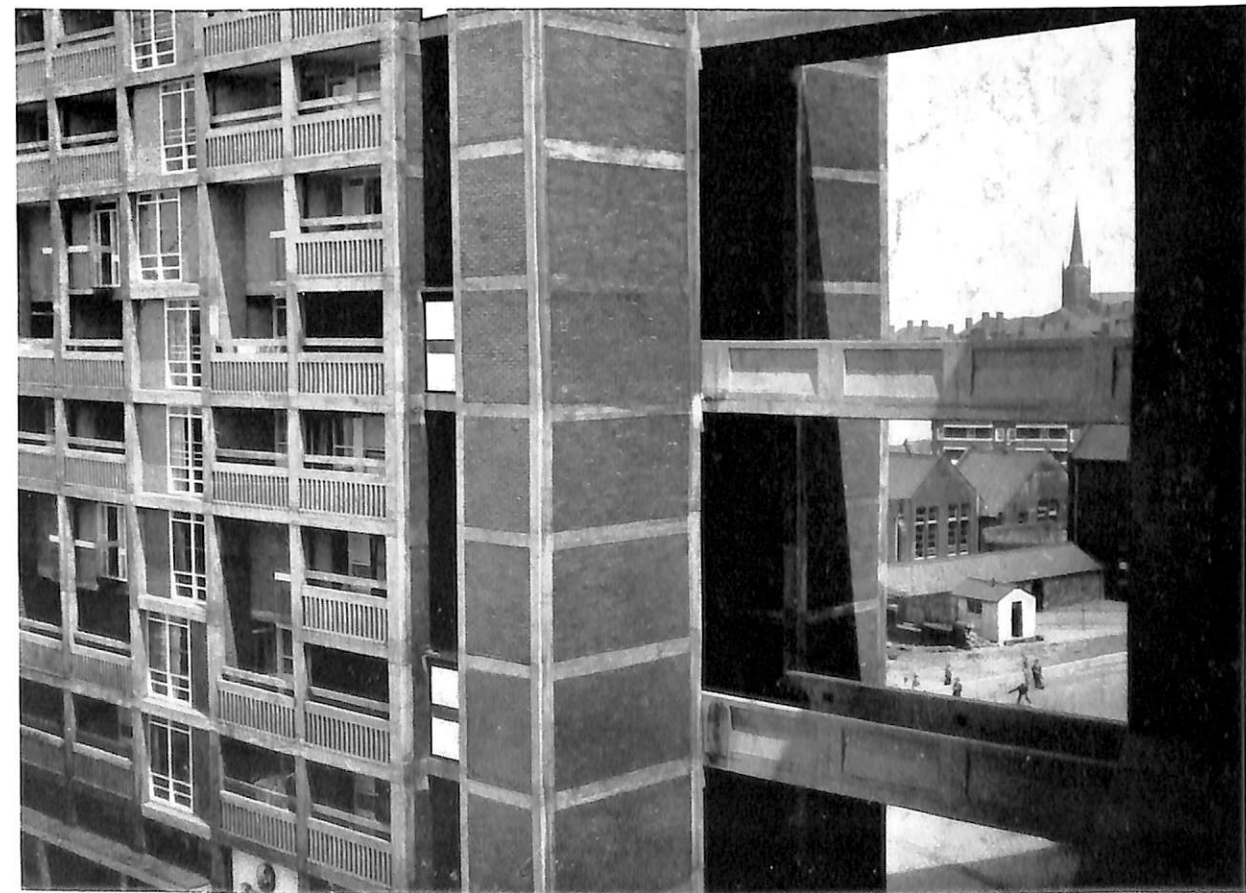


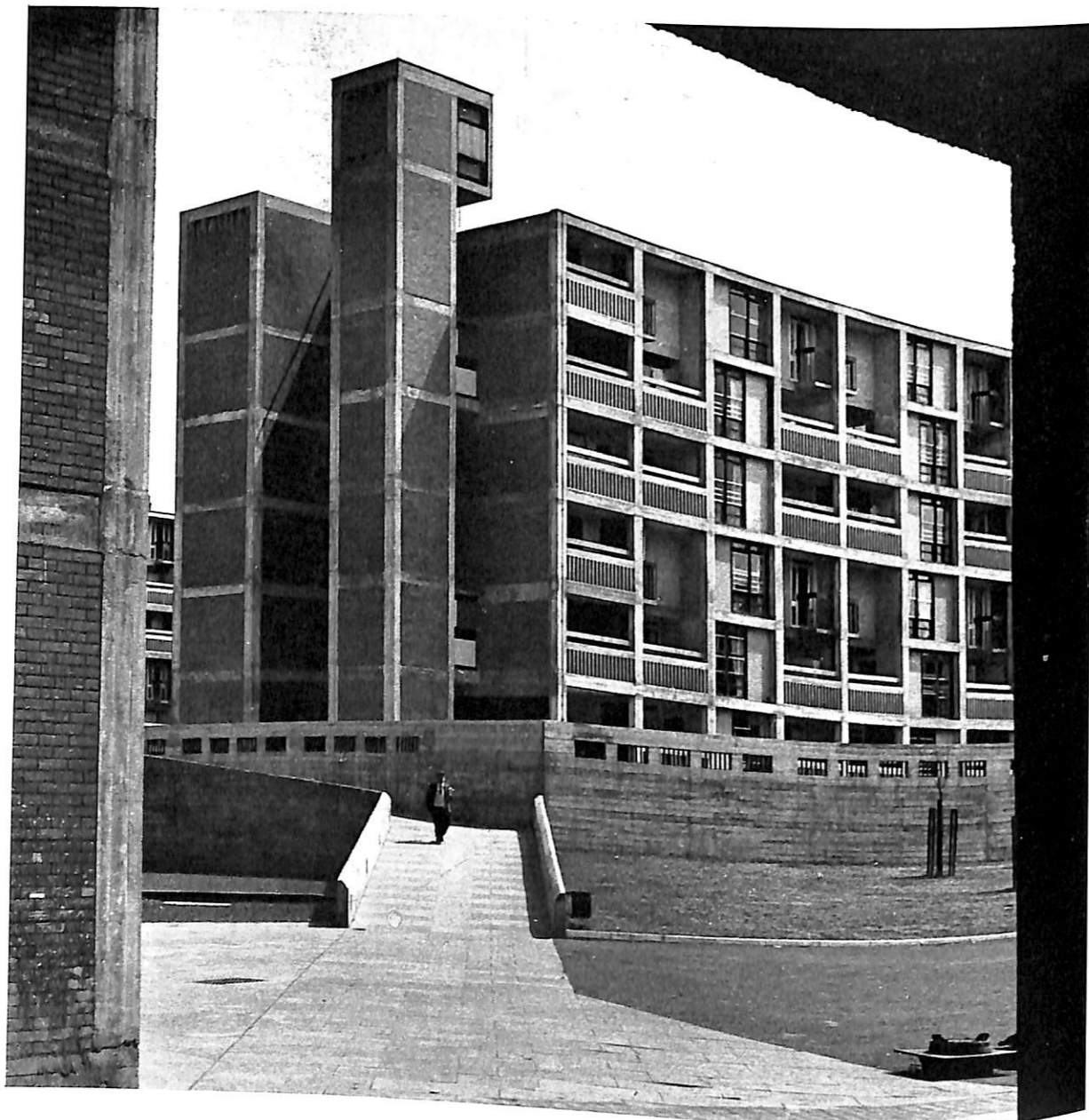
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Street-deck passing through block



294
Steps and retaining walls in upper courtyard

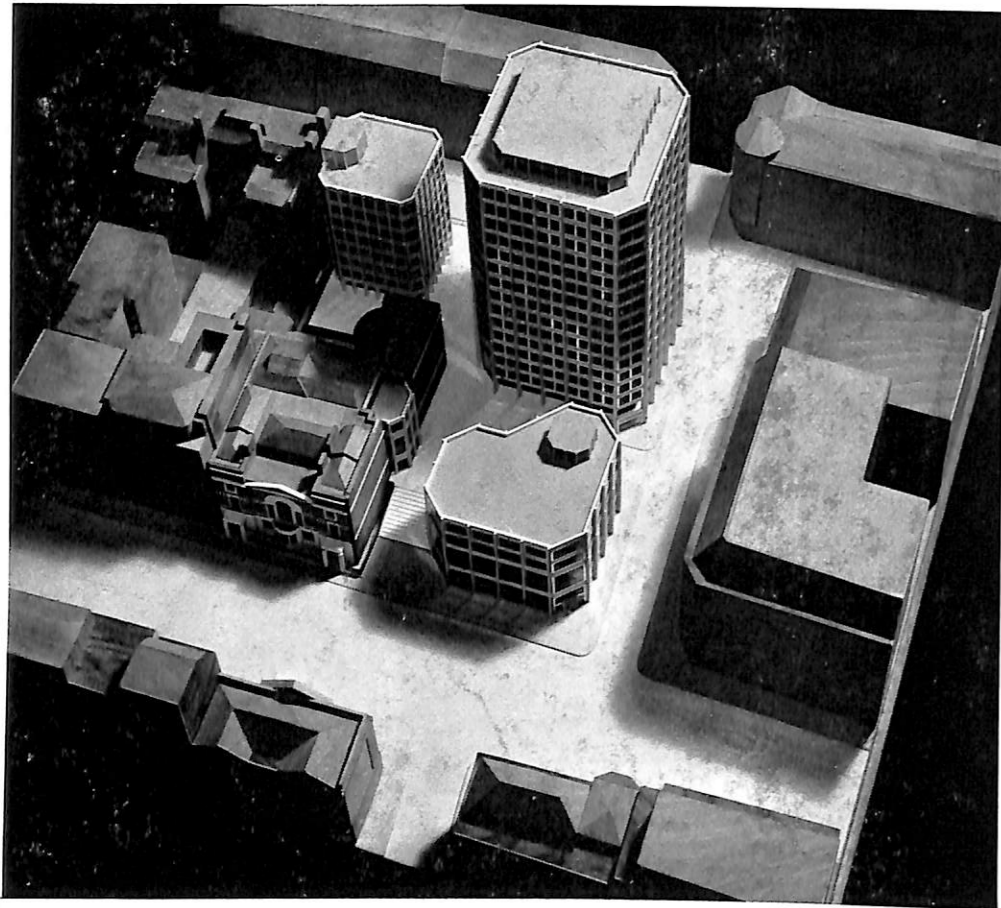
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A street-deck, the triple pedestrian bridge





297
Stair and lift-tower at the end of the block





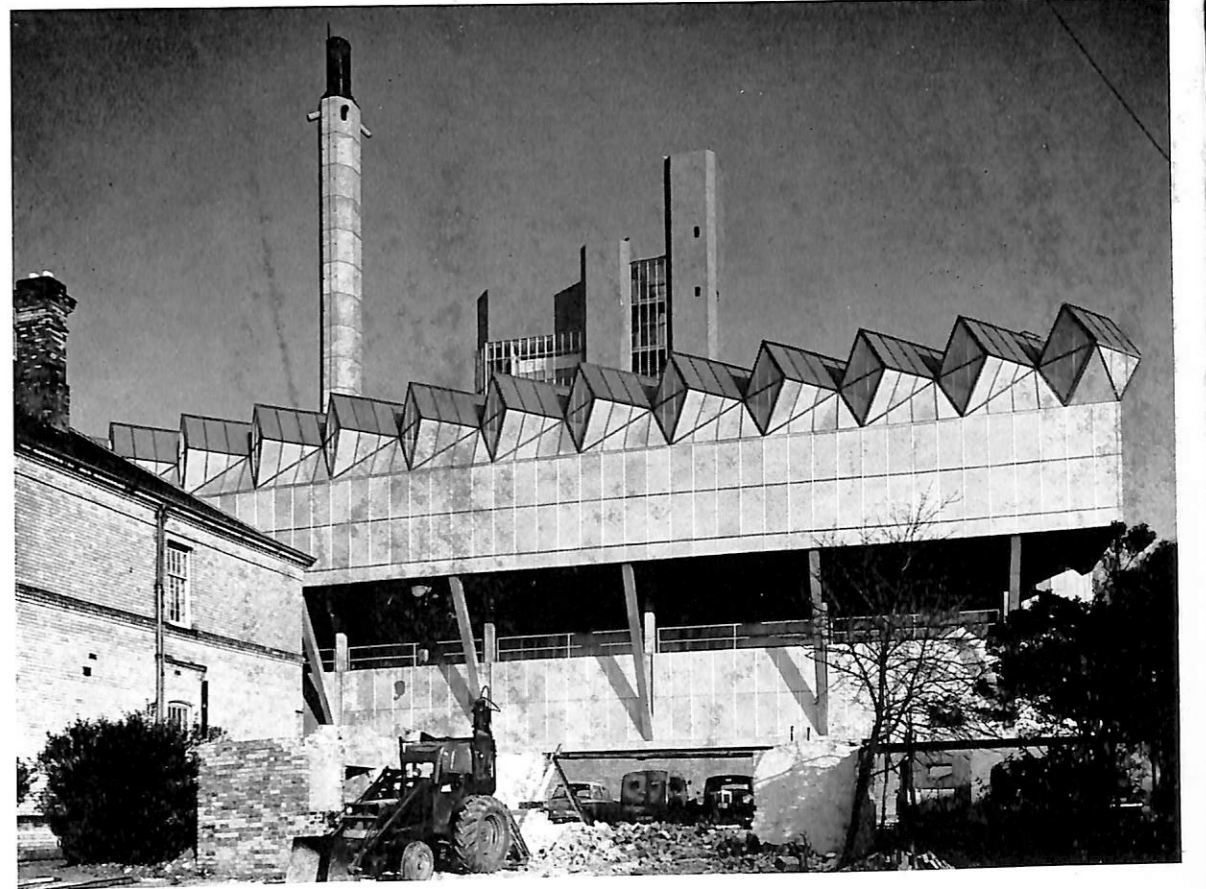
298 - 300
 Alison and Peter Smithson; London (England), Economist Cluster.
 1964
 298 (page 189)
 View from St James's Street

299
 Model of complete design

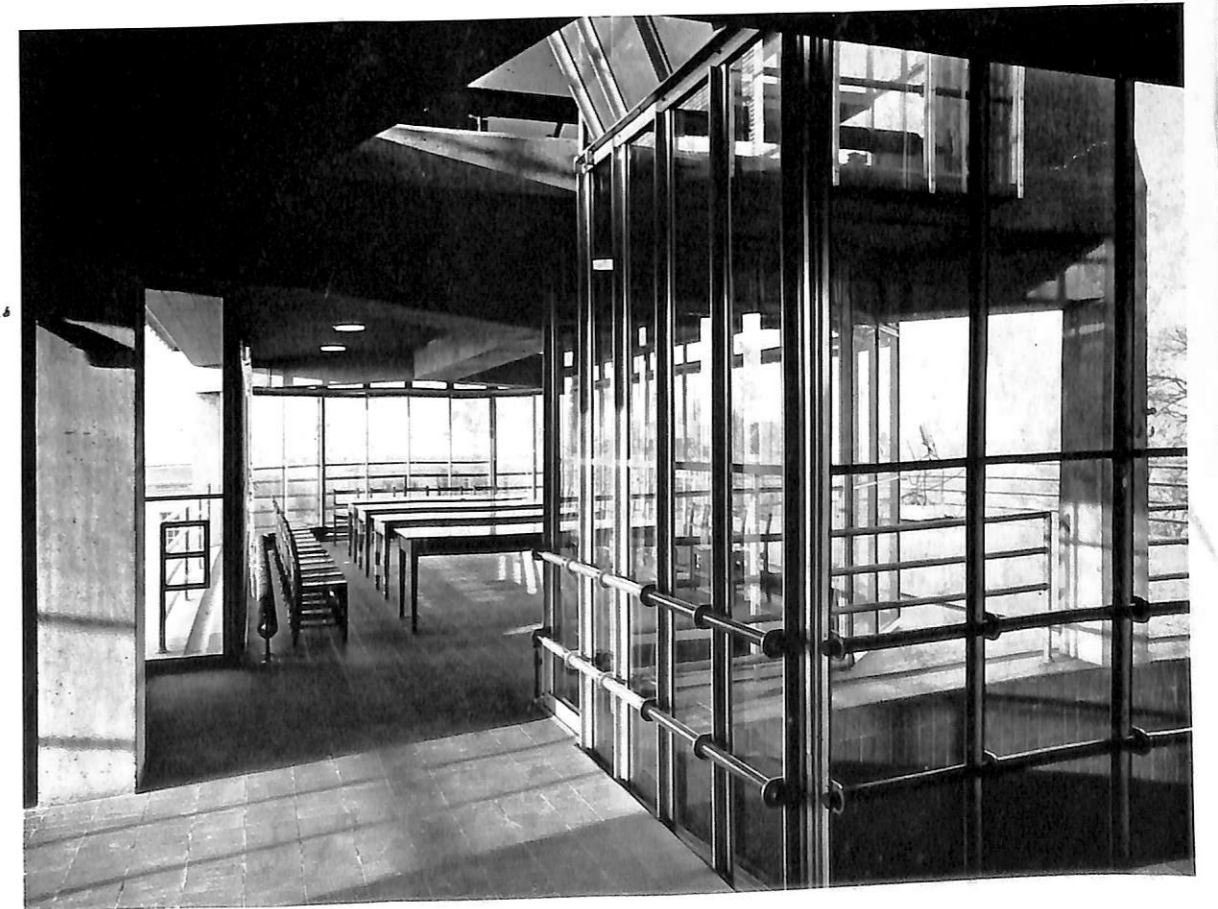


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 Detail of columns in piazza

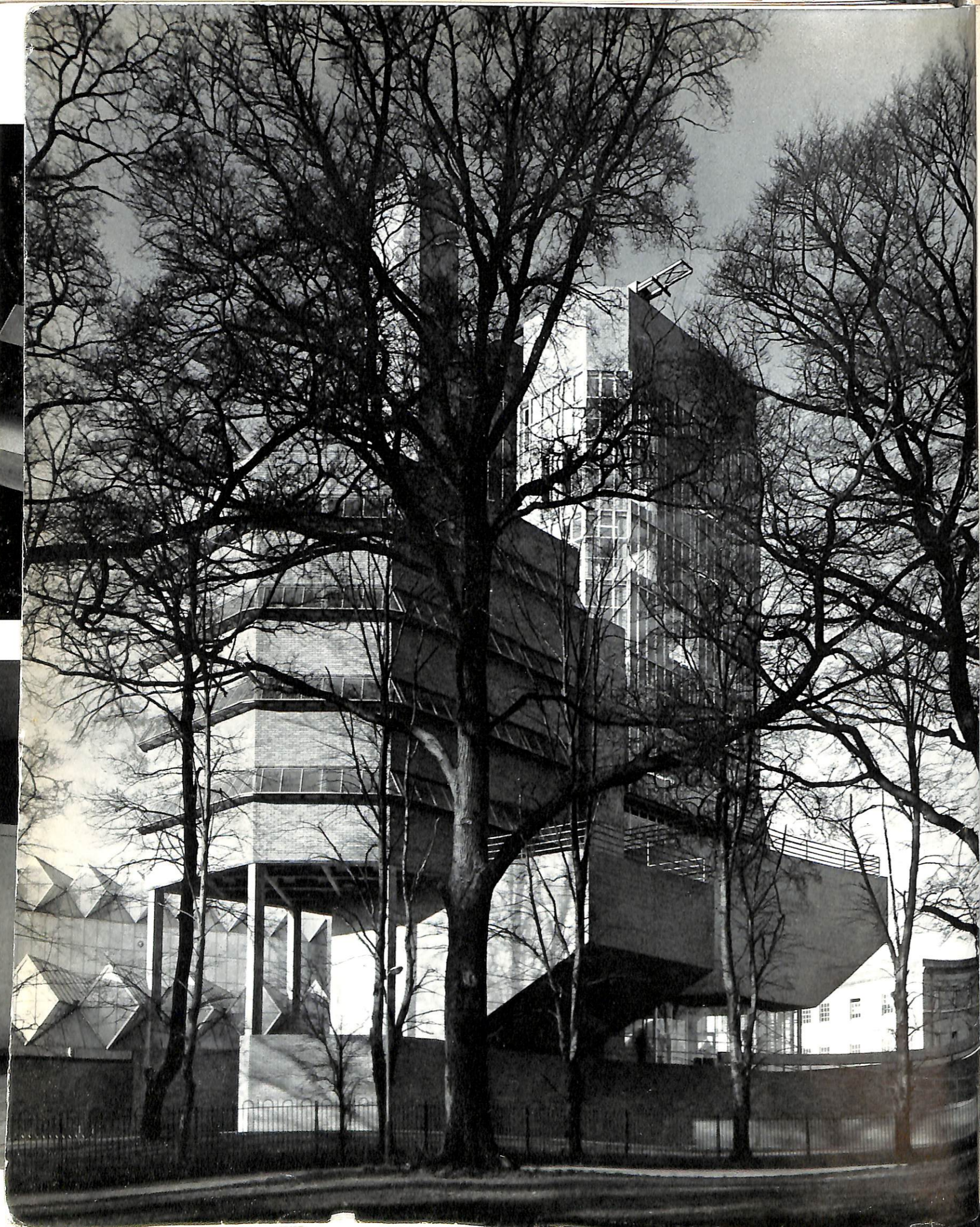
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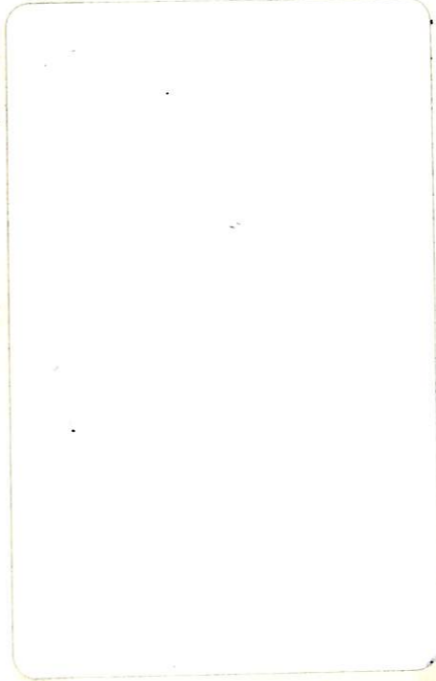
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