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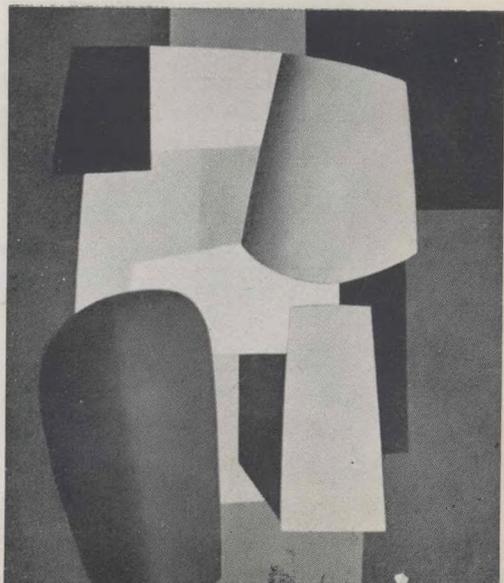
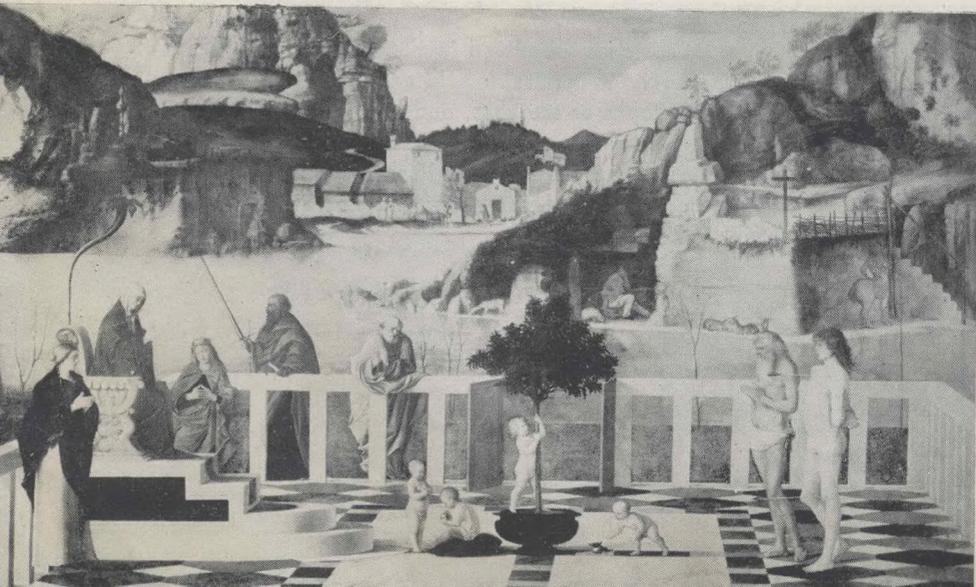
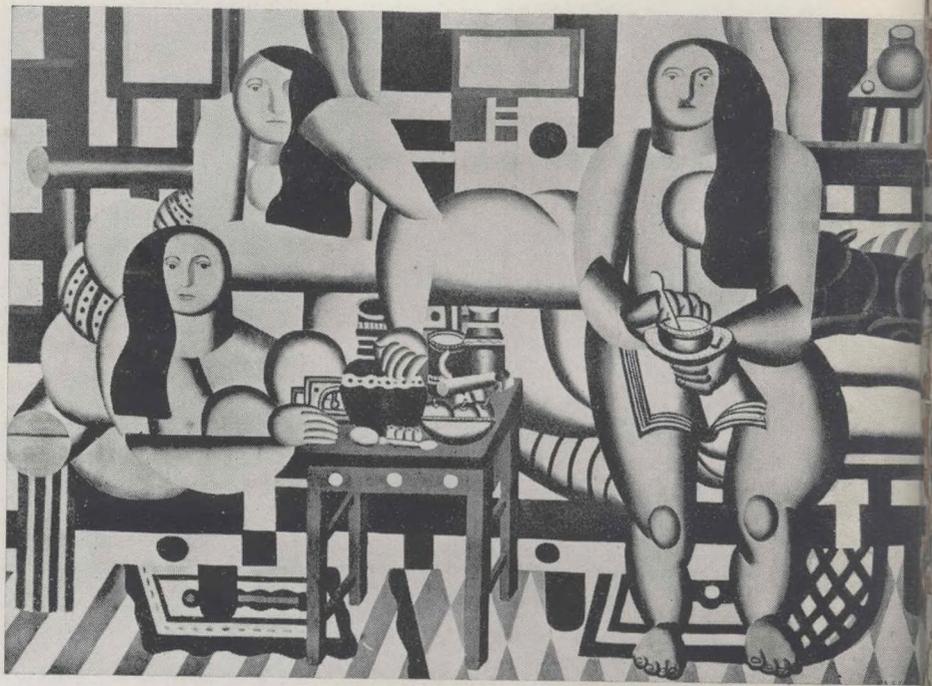
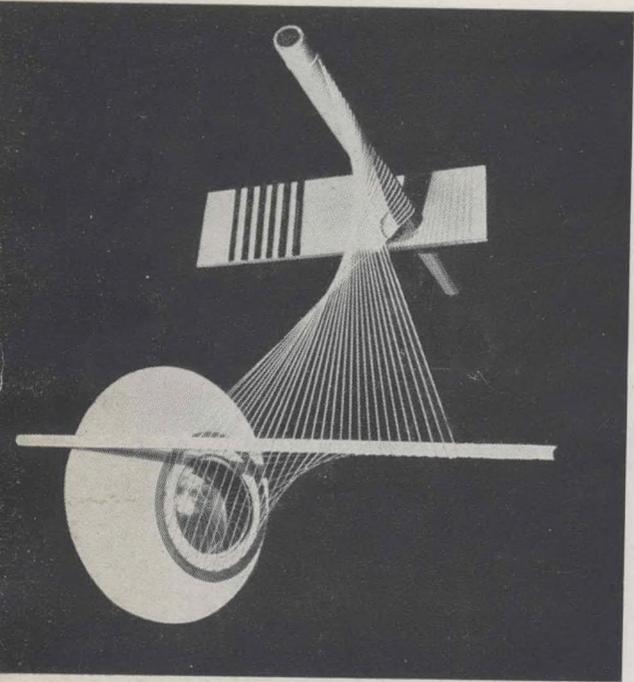
SOUTH AFRICAN ARCHITECTURAL RECORD

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Honorary Editors: G. E. Pearse, R. D. Martienssen



EVOLUTION OF AN ARCHITECT'S HOUSE 1940

by R. D. Martienssen, D.Litt.

Member of the Congrès Internationaux d'Architecture Moderne

"We are all biologically equipped to experience space just as we are equipped to experience colours or tones. This capacity can be developed through practice and suitable exercises. It will, of course, differ in degree in different people, as other capacities do, but in principle space can be experienced by everyone even in its rich and complex forms.

MOHOLY-NAGY

"The supreme wonder of Chinese architecture lies in its use of space. It is not only in the curved pillared roofs, built to imitate the pole-propped tents of their ancestors, that the architects of the Forbidden City betray their nomadic origin. By a strange skill in proportions, by isolating great pavilions in immense stretches of flagged paving, they have succeeded in bringing into their palace courts the endless spaces of the Gobi desert The world holds nothing to match this, knows nothing on such a scale. Not even Ang-Kor can approach those areas of granite pavement, those miles of scarlet wall."

From "The Ginger Griffin," by ANN BRIDGE

THE ARCHITECT AS CLIENT

It is news, we are told, when man bites dog. And news it would be if a layman designed a house for an architect, for the mere process of designing by architects for laymen holds no novelty, though unfortunately at times dissatisfaction for both parties. Strictly speaking, then, it is not news when an architect designs a house for himself, but it is half-news, for the dual role does modify the equation, does suggest a relationship that is different in kind from that implied by the usual rendering of professional services.

Architects' houses tend to be interesting not because they inevitably exceed either on practical or aesthetic grounds the work done in the normal way, but because they are in a sense snatches of autobiography. The autobiographical note can, of course, creep into a house designed for a client just as it does in the work of a novelist like André Gide when he purports to be writing a novel. But it still remains a general proposition that the artistic or technical stock-in-trade of the architect—that which enables him to solve a specific problem in terms of possessed equipment—is something a little external to his own core, his own centre of self expression. The very definition of architecture, the aspect which distinguishes it so sharply from the personal arts, poetry music sculpture and

painting, necessitates this aloofness, this method which is the exploitation of an elaborate technique rather than the direct and simple outpouring of a creative spirit.

Even if the autobiographical note does appear, it is sharply checked by the multiple conditions that shape a work of architecture, conditions that lie outside the architect's control or volition. But in the architect's own house the only conflicting circumstances that have to be contended with are economic or material—there are no external problems of taste (the factor that has been defined as a poignant sense of the appropriate) or of personality. In this freedom lies the possibility of greatness or of weakness. For mere freedom from stated conditions does not automatically result in a noble or uplifting work—the significant architecture of to-day is grounded on a clear statement of the problems involved, an adequate theoretical technique, and material resources commensurate with these generating factors. The approach to perfection lies along a path of just balance within the three terms—problem, technique, material resource.

Now the formulation of one's own problems has little similarity to the recording and digesting of externally generated conditions or problems. There is a tendency towards blurring and confusion since the statement of the problem (specifically in the design of an architect's own house) and the available

 For Notes on the Montage opposite see page 50

theoretical technique are offshoots of the same personality. A rigid discipline would, it is true, enable the architect to make a dispassionate statement of his own building problem and then apply the technique; but there is a strong and easily understood temptation to relax the important and defining function of "the statement of the problem," to bask in the release from client-worry and exacting restrictions, and to drift into a solution that reflects little balance between the three terms. The design process becomes a sort of plastic self-indulgence, a rummaging in the attics of the reminiscent mind.

Where then lies the possibility of greatness—or at a less superlative level—significance? There is a chance, contingent upon a vast number of imponderables, that the architect in designing for himself will achieve something interesting not merely because he is relieved of responsibility or of a valid set of restrictions, but because he is freed of the untidy pattern of prejudices and fears that normally enshroud his work. It is in the nature of things that the "ordinary" man does not see himself as the instrument of research, and it follows that he is, for the most part, unwilling to allow his own house to become a vehicle for experiment, to break new ground, or to demonstrate the possibilities of a new type of framework for existence. In-rooted traditional values condition his mind no less than the opinions of his neighbours, or the fear that a reasonable re-sale figure will not be reached if he has at some future time to sell his house. The question of the familiarity factor need not occupy us now. Roof and chimney, the cottage window—each is an instantaneously recognisable symbol reflecting the traditional core of family life. It matters little to the householder seeking sentimental satisfaction what tricks are resorted to in the fulfilment of these prejudices. The opinions of the neighbours are nurtured in the same school of thought, and even though our characteristic suburbs have sprung from these half-understandings we can find no legitimate ingredient in them that leads to architecture. This side of the problem has more to do with high school curricula than with the problems of architecture. (I may add that I reached the final year of my high school studies before I had heard of Christopher Wren, but by a queer prank of the syllabus system I read Ruskin's *Sesame and Lilies* while still at school, and this in turn made it possible for me to discover and read *The Stones of Venice*.)

The economic side of the problem is naturally a valid one from the owner's point of view, but here I think we can draw a distinction between the type of house which has a low resale value owing to the sheer wastefulness of its planning or of its clumsiness as a frame for living, and the type of house that awakens resentment because it violates the arbitrary (snob

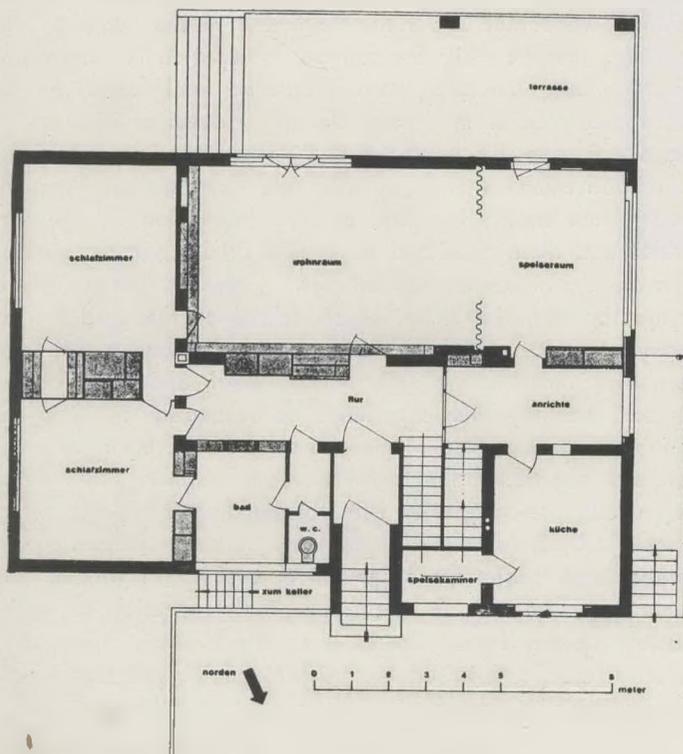
or sentimental) standards of average taste. If the architect designs for himself a house that falls into the former class, it is quite possible that he will derive a wilful satisfaction in his own ineptitude, but the work at root is indefensible and irresponsible.

But the violation of accepted standards may be fruitful—in fact it is within the bounds of possibility that an architect working resourcefully and unfettered by current snobberies may in this very violation mark a new stage in the search for more adequate living standards. In this respect then his freedom is a valuable thing; his house can become a "thesis," he can plot a course over new territory, and, who knows, he may clarify one corner, one fragment of the untidy pattern that defines our lives.

These ideas, briefly strewn on paper, suggest some of the reasons why an architect's own house can contribute to the general body of architectural achievement—but all this takes no account of the autobiographical note—it assumes only steadfast purpose and integrity of attitude. On the score of personal expression, that strange questing curiosity that is so often satisfied, for example, by anecdotes of personal idiosyncrasy, on this basis the architect's own house offers, if not a self-portrait, then at least a projection of his creative mind. It is at once an exposé and a demonstration—there is no "alibi," no retreat. Although a house does not represent an attempt at self-justification, a mute appeal for sympathy and understanding (which are the reasons a South African novelist has offered for the autobiographies written by novelists) it is a parallel. The novels written for gain, applause, with a "message" or to amuse; the autobiography to show the novelist's other self, the part that has not reached the novel. In architecture, the commissioned work for gain, applause, etc., the architect's own house not only for the simple function of dwelling but to express the complex fabric of wishes, theories, ideals, that have not survived the process of designing for others.

These projections of the architect's personality do not necessarily establish a constant, though we might reasonably expect to find common factors in the work of men holding common ideals and sharing to a great extent a joint heritage. But it is risky to assume that attitudes and definitions are widely shared to-day simply because a superficial survey of architectural effort discloses an apparently common aim with methods of design and construction crystallising in a "contemporary" idiom. The architect's own house, however, offers an indicator in this respect, and it is possible to search for basic attitudes to any given problem arising out of house design by studying the solutions that have come from architects in the attempt to meet their own requirements.

THE HOUSE OF WALTER GROPIUS AT DESSAU 1925



The house illustrated on this page was built in 1925 by Professor Walter Gropius for his own occupation. The ground floor plan shows a straightforward disposition of elements. The combined living and dining space opens on to a broad terrace which is partly covered by the over-hanging upper storey. In general the treatment reflects an emphasis on simple volumes and broad wall surfaces, while the north (entrance) elevation shows a bold patterning of solid and void. The general effect tends towards abstract values arising from the predominant cuboid forms employed, the white walls and flat roofs. This house is a significant piece of work for the date of its construction, and marks a point in the developing scientific attitude to the problem of domestic design. The built-in equipment and furniture are indicative of the Bauhaus attitude to the house as a background for a full life.

SOUTH ELEVATION



ARCHITECTS' HOUSES

For many years this specialised branch of architectural appreciation has interested me, and although I cannot claim to have attempted systematic analysis or evaluation concerning architects' houses I have given considerable time to studying and pondering the factors that have given rise to these personal expressions. Historical examples have an important place in the study of past architecture, but there is, for the practising architect, greater moment in the dwellings that have been shaped to present conditions. Even in the "present" developments are so rapid that one can speak only relatively. A house built by Walter Gropius in the middle twenties at Dessau for his own occupation strongly reflects its designer's outlook at the time; his American house (about 1937) shows the influence of new impacts, of a changed environment and a still developing architectural philosophy. Indeed there is nothing final about an architect's own house. Site and material may, if subjected to radical change (and to the change of mood that might accompany such a variation), produce in themselves a design vitally different from the one initially contemplated, and this within a short interval of time. I have not seen in actuality either of the houses Gropius built for himself, but at the time of those splendid pioneering monographs the *Bauhaus Bücher*—about 1927 to 1930, I found satisfaction in the almost stark sobriety of his architecture, and in the clear relationship between the interior surfaces of the dwelling and the forms of the furniture. By the end of 1929 I had seen his work at the Weisenhofsiedlung in Stuttgart, and the minimal dwelling which he built there, though constructed in the lightest material and fulfilling the bare minimum of plan requirements, sustained the impression of plastic clarity that I had gained from photographs of his own house. The plan of the Dessau house was a direct statement of the needs, resulting in a foursquare building with vigorously disposed but traditionally proportioned windows; the whole entity with its clean surfaces and flat roof being set among bare, tall, pines.

Lecturing in architectural design during 1932 and 1933 I seldom showed students photographs of building (preferring the class designs to be developed from first principles and stated problems) but Gropius's Dessau house was often in my thoughts as a reminder of new methods in a changing world. One cannot say that there has ever been a Bauhaus "tradition" in South Africa, but architects from Germany

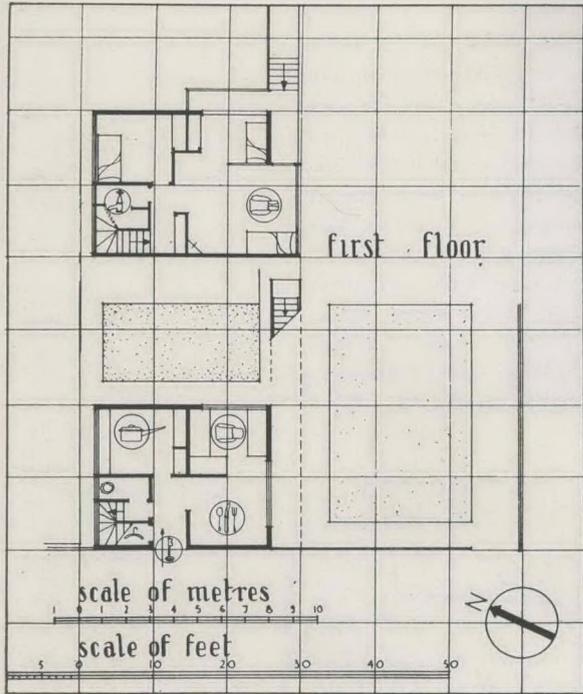
who saw work done by students in the Johannesburg school of architecture compared our work favourably with that done under Gropius's direction in Weimar and Dessau.

An incident of an earlier stage and of a different order was my knowledge of an essay in folk-building which Sydney Gimson undertook about the beginning of the century. The cottage that he built for summer occupation in Charnwood Forest, near Leicester, was illustrated and described by Lawrence Weaver in "Small Country Houses of To-Day." I have not seen this house on its "attractive site, rough with scattered boulders and gay with wild flowers," but Weaver's illustrations made, in 1925, a deep impression on my mind which had been nourished on special Studio numbers and on the work of men like Baillie-Scott. I am not instinctively in sympathy with the Philip Webb school of thought, but the bony structure of rude traditional work appeals to some primitive facet in my architectural mind, and it is for this reason that my first experience of vernacular in Kent and Sussex remains a vivid memory in spite of the layers of architectural experience that have covered it since. In view of my strong pre-occupation with folk-building (I hope to return to the subject later in the year) my curiosity concerning the shapes and treatments of primitive dwellings, I wonder now where my interest in the conceptual approach to architecture sprang from. For it is on the classical concepts of architecture (so detested by Frank Lloyd Wright) that I have framed my own outlook.

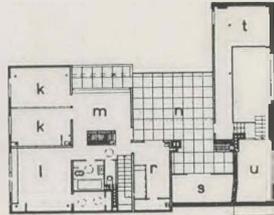
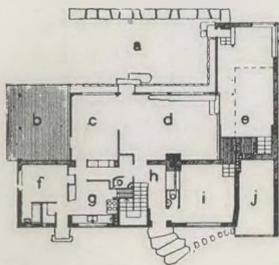
My first experience of "modern" architecture was brought about by a visit to Holland in 1926. I saw in Amsterdam and Rotterdam the work of Kramer and de Klerk, in Utrecht the new Post Office, and in the same town the new Railway Headquarters. The architect explained the treatment and arrangement of this building; it was an impressive experience this revelation of rational design, and it provided a starting point for an expanding architectural philosophy.

About 1930 one became conscious of Mies van der Rohe's work, and the publication of his house at the Berlin Building Exhibition placed him, in local discussions, as an important exponent of the "new" attitude to space and material in architecture. I have attempted some evaluation of his work in the section called "Space Organisation" which formed part of the paper on Constructivism and Architecture. (*S.A. Architectural Record*, July, 1941.) I do not know if Mies van der Rohe has ever built for himself, but he tells us that he lived for some time in the Haus Tugendhat built at Brunn. This house is too well known to warrant description in the present context, but it will always be remembered as a landmark of the thirties.

THE HOUSE OF COLIN LUCAS
KENT 1933



An interesting example of the minimum single house built for the occupation of an architect. The accommodation is disposed on two floors with absolute directness and simplicity of planning. In spite of the small number of elements a strong unity between house and surroundings is achieved. The screen walls and open stairway from upper floor to garden are effective elements in the geometry of the scheme. The entrance side is an excellent demonstration of controlled shape, and of the deliberate creation of effective surface. Lucas, together with his partners, A. D. Connell and B. M. Ward, has been responsible for much outstanding domestic work in recent years; some of his views on architecture are given on another page in this issue.



- a Courtyard terrace
- b Covered al fresco dining room
- c Dining room
- d Sitting room
- e Studio
- f Servant's room
- g Kitchen
- h Entrance hall
- i Office
- j Garage

- k Nurseries
- l Bedroom
- m Upstairs hall
- n Open terrace
- r Guest room
- s Drawing room
- t Studio balcony
- u Architect's room

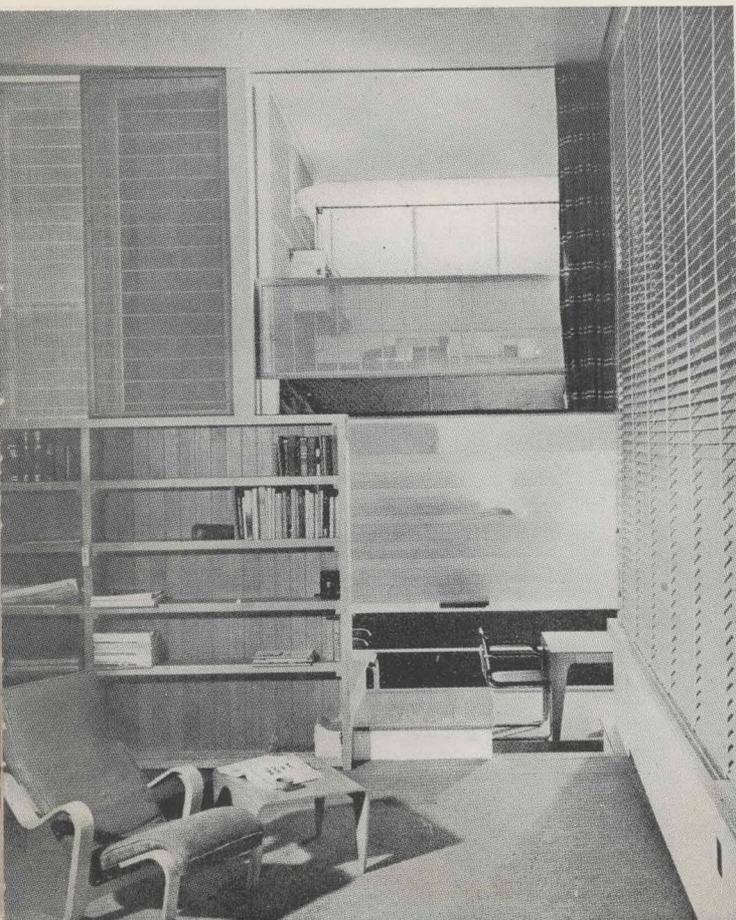
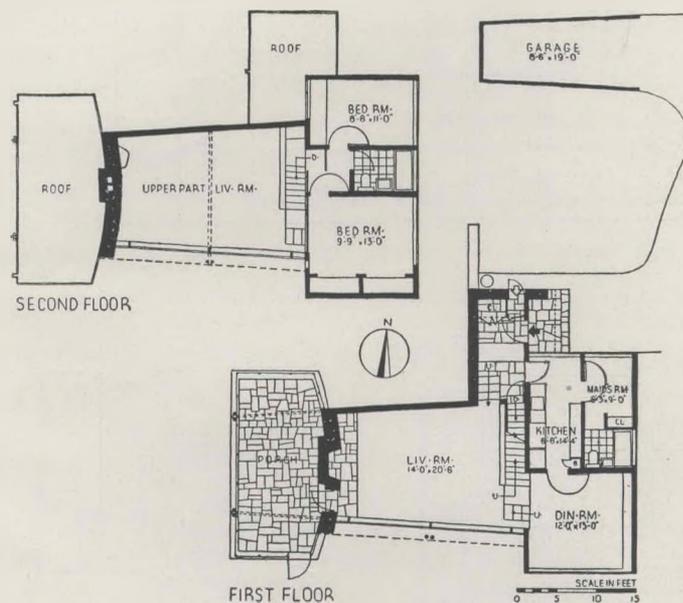
Aalto's house shows an informal treatment within the restriction of a relatively compact plan. The disposition of the elements is shown on the plan, and the view of the house from the garden indicates the play of form and variety of material that characterise his work. Apart from his world-famous designs for furniture, his best-known works are the Sanatorium at Paimio, the Library at Viipuri, the Turun-Sanomatt Building at Turku, and the Finnish Pavilion, Paris, 1937.



THE HOUSE OF ALVAR AALTO
AT HELSINGFORS 1936

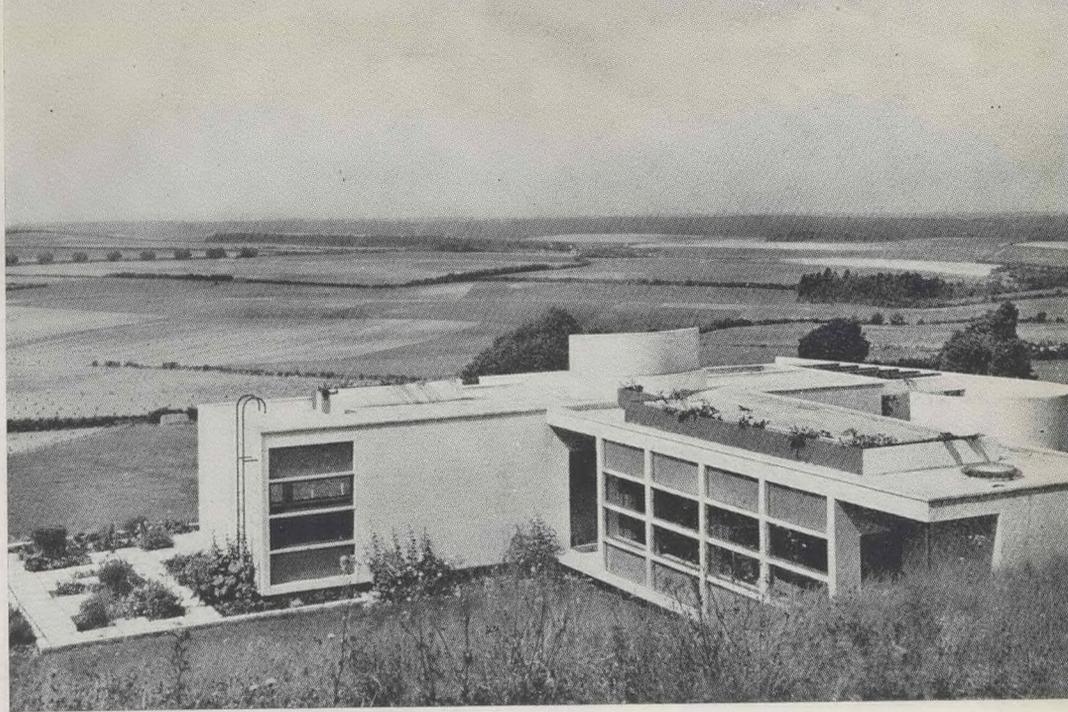
The house which Marcel Breuer built for his own occupation at Lincoln shows a vigorous use of building materials and meticulous care in the detailing of equipment. In view of his pioneering work in tubular metal furniture, and the stark purity of his projects and completed work before his arrival in the United States, the richness of surface and the complex interplay of form which he achieves in this example are worthy of note. Apart from any general architectural considerations the extremely livable character of the best American domestic work to-day is something which appears to have developed, independently of, or rather only with basic reference to, European prototypes. A recognizable American idiom which owes little to traditional precedent is emerging from the conflict of period and "modernistic" types. The work of Carl Koch, John Dinwiddie, Harwell Hamilton Harris, Edward Stone, Gardner Daily and others abundantly shows the high standard reached by designers of domestic architecture in the United States to-day. Breuer and Gropius now hold a significant place in the American world of architecture, and it is therefore of special interest to see what they have built for themselves in the new scene of their efforts. The latest published work by these two architects consists of a group of 250 defence houses grouped in series on a hillside site at New Kensington Pa.

THE HOUSE OF MARCEL BREUER
AT LINCOLN MASS

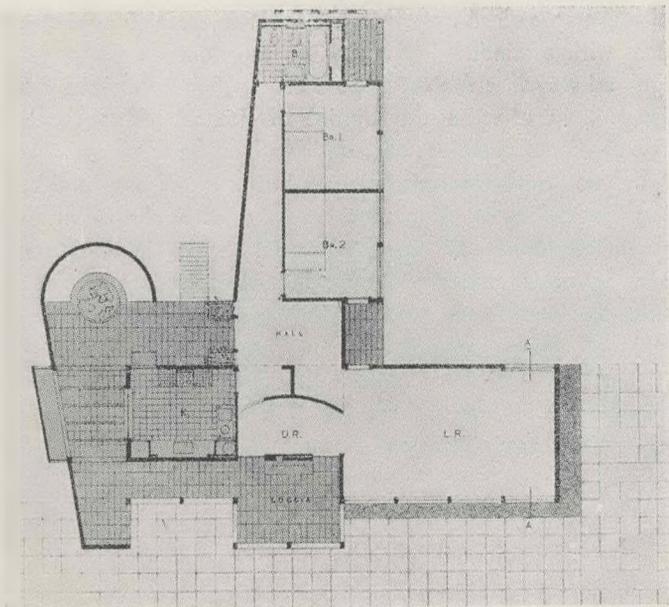


1939

1935



THE HOUSE OF LUBETKIN AT
WHIPSNAD



The week-end house of Lubetkin at Whipsnade is only one of the many brilliant products of the group practising in London as Tecton and Lubetkin. This little house, with its use of a magnificent site and sparkling freshness of treatment, is an object lesson in architectural technique and form. It indicates the growing freedom from formulae in England just before the outbreak of war, and in the poise and harmony of its elements it achieves a notable standard of formal design. "Planned A.R.P.," by Tecton (1939) showed the immense capabilities of this group of architects when they turned their attention to the vital question of civilian protection from enemy bombing. Once again the systematic breaking down of a problem by architects has shown the futility and wastefulness of the old "inspirational" methods with their tacit dependence on precedent rather than current resources.

The architect builds for himself. I cannot attempt to comment upon all the schemes for living that contemporary architects have formulated for themselves, but I can record those flats and houses that have been of special interest; Colin Lucas's house in Kent, the week-end house at Whippsnade for Lubetkin, the house of Marcel Breuer at Lincoln Mass., the house of Alvar Aalto at Helsingfors, le Corbusier's flat in the Rue Nungesser et Coli in Paris. I reproduce these in a pictorial anthology that may interest other architects, though in fact the only example I have visited is le Corbusier's flat. In these illustrations we get a glimpse of the inner self, that is not visible in the architect's routine work.

SCALE FOR LIVING

What did one bring to the designing of a house? Apart from the choice of site, the perennial shortage of money, the limitations of local material and technique—what equipment and what convictions did one possess at the point of departure for this journey of commitment? Crudely stated, my aim in designing my own house was to obtain an effect of greatest possible space within the economic possibilities of the scheme. This was no idle postulate since it meant the careful computation of the relative needs of each activity in ordinary day-to-day life. "Greatest possible space" does not imply large dimensions; it would be more accurate to say that I wished to make the most effective use possible of the space within a pre-determined cube limit for my dwelling according to predominant needs as far as it was possible to foretell them in a new framework. Too many years had been spent in a crowded medley of books and furniture, with windows that were too small; in traversing wasteful corridors . . .

I find it significant that the term "effective" does not bear a direct relationship with the meaning of sheer size. Claustrophobia can be as easily generated by faulty surroundings (by a plastic disorder) as by actual closeness or inadequacy of lateral or vertical dimensions. I have had many opportunities of observing this phenomenon.

Once, in visiting Greece, I had to spend considerable time in a compartment of the Simplon Express. At no point in the journey from Paris to Athens did I suffer from the ennui that is supposed to afflict long-distance travellers. My space was small but it was well arranged. The surfaces of partition, floor, and ceiling were sympathetically treated, there was a

magnificent window. The panorama unfolded hour after hour, at intervals I turned to my books. Again on a voyage through the Gulf of Corinth to Brindisi I experienced keen satisfaction in a small compass. In the brilliant architecture that the motor ship Calitea provided one led an existence that bore no comparison with the miserable confinement of other voyages, with the appalling nausea of Tudor smoking rooms and swaying near-classical saloons. In the Calitea the imaginative exploitation of colour and surface, the delight of well designed furniture and equipment negated the actual dimensions, for this is not a large ship. Train and ship, these were valuable lessons in the meaning of architecture.

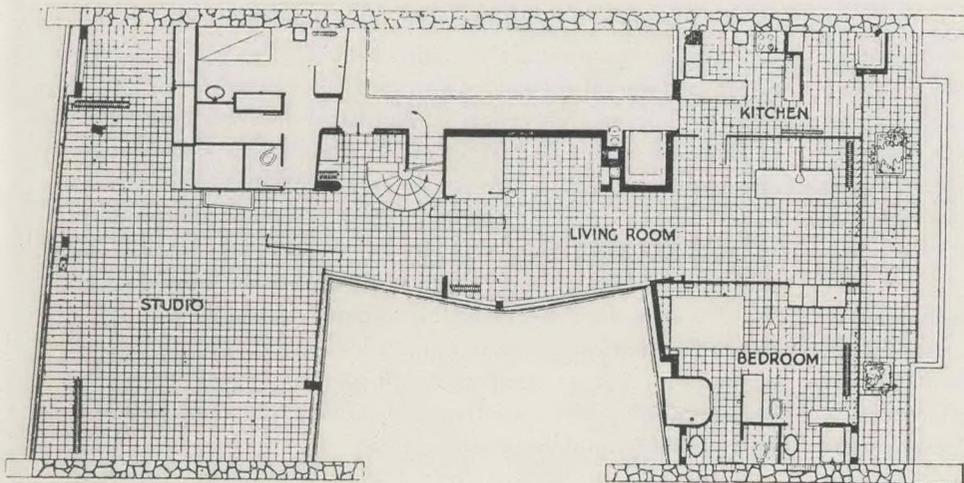
At other times the grandeur of sheer size has offered a sensuous temptation. An afternoon in the library of the Palazzo Piccolomini, overlooking the small square of Pienza; a succession of indolent days in a vast room in the venerable Hotel Nettuno at Pisa; another period in a room of surprising loftiness with a window looking on to the Pont du Gard; an unexpected stay in a fantastic room in "Le Bon Laboureur" at St. Pierre-le-Moutier in the depths of France. One recalls the rooms of a Florentine villa, untidily furnished but gracious in a rural way and generous; a room in the Hotel des Temples at Agrigento, overlooking the nearby acropolis with its crumbled reminders of Greece; hotel rooms in Cosenza, Alassio, Syracuse, Salerno, Capri; in endless succession (and between the indifferent and disgusting rooms) the memory of pleasant rooms spreads out. In the end one's research into living, into the mere nature of day-to-day surroundings, has been done in hotels. For the flats and houses of one's experience have been too small, too untidy.

FORMAL OR POPULAR VALUES?

The effective volume of the house was fixed at 15,000 cubic feet. Out of this the predominant element was to be a living space of the maximum dimensions possible after allowing for service, study and sleeping. The arrangement arrived at gave approximately the following proportions: Living, 6,000 cu. ft.; Service (hall, kitchen, bath room), 3,000 cu. ft.; Study, 2,100 cu. ft.; Bed Rooms, 2,500 cu. ft. For two people writing and reading a considerable part of evenings and week-ends, this arrangement has worked out quite well. The study could well have been larger had funds not been limited, but relatively it meets its purpose quite satisfactorily.



LIVING ROOM LOOKING TOWARDS DINING SPACE



Le Corbusier's flat was completed early in 1934. It offers to the architect who is interested in the work of this great initiator a compact demonstration of his beliefs and attitudes in the complex processes of architecture to-day. For this is not only the work of le Corbusier, architect—it is also the intimate setting of a man who has uttered the most profound generalisations concerning art and architecture in the twentieth century. The scheme contains a large studio in which painting, architectural work and writing are done, and a living room which merges with the dining space and thence overlooks Paris. The dimensions are small but the effect of significant space is a revelation. Tiled floors, tinted wall surfaces, and uninterrupted screens of glass provide the basis of the scheme. Large canvases by Fernand Léger and by le Corbusier, some sculpture and primitive pottery give accent and emphasis to the architectural arrangement. Photographs do not convey the sense of space or the special lyricism which is an inseparable ingredient in le Corbusier's architecture.

Le Corbusier's Flat Paris 1934

Paintings by Fernand Léger and le Corbusier

THE DINING SPACE



The site, with its narrow frontage (75 ft. 0 in.) and clear view over an undeveloped park offered no opportunity for a spreading plan, even if such a solution were desirable. The house as it was conceived thus falls into the town house category. It fronts the street boldly, is compact, cuboid in general "feeling," and composed in unity with a garden of extreme simplicity. The ground, sloping to the street at about 1 in 15, has been levelled to form a single terrace which terminates in a brick retaining wall about 4 ft. 0 in. high. A broad flight of steps from the pavement is connected to the double front doors by means of a brick pathway. The elements of the scheme, regarded plastically are thus the "cube" of the house with its forward-looking main facade, the level square of lawn accented with poplars, the front wall and flight of steps. These closely interlocked components—few in number and primary in form—enable the scheme to be read as a whole, as a formal arrangement. It aims at definition and "classical" completeness.

The plans and photographs show to what extent this general theme has been satisfied. The plans are basically simple; extension or accent to the volumes of the interior has been induced by deliberately shaping minor forms within the disciplining enclosure of the main volume. It would be tedious to mention each aspect of this "play" of form in turn but there are one or two contributory arguments that may be of interest to the reader.

I have previously attempted an exposition of Constructivism, and although I would not claim that a state of constructivism has been achieved in the present example it undoubtedly bears (with due allowance for material and technical differences) a family likeness to much of the work embodying the concepts of this movement. Just before the outbreak of war there was evidence that, in England and Italy in particular, the experimental findings and practical interpretations of a fresh and vital attitude to the problem of space-arrangement in architecture was giving a new impetus to plastic creation. In the work of the young architects responsible for this phase (now suspended) we find the bold imprint of the conceptual approach to the solution of architectural problems. In the mastery of space (to use Max Bill's phrase) they have achieved results of extraordinary significance. Isolated demonstrations only have been possible, it is true, but these are nonetheless valid for this reason. Space is the raw material of architecture, and living in constructed surroundings implies a constant visual exploration that may lead to nothing where there is plastic poverty, but which may have rich rewards when the architect has designed the pattern of our material existence.

And this is the point where the clung-to tradition of good, common-sense building is violated. For, let us face it, there

is an enormous breach between the conglomerate construction that merely fulfils the material needs of existence (on the Babbitt pattern) and construction which is to satisfy the needs of the eye and mind, as well as of the body. The idea of common-sense building is largely mythical in origin; the growth of suburban building that spreads around the large town to-day is a hybrid product—the offspring of sentimentality and the shreds of taste. Suburban building at its best is a degeneration of types inspired by folk-building methods and forms; at its worst it shares no common terms with architecture.

Giving to Constructivism no more subtle definition than to say that it represents an aspect of the search for formal space technique in architecture, we find that this formal ingredient, this prearranged and deliberate shaping of the elements of building, is the core of resentment. This is an interesting fact, though a not unduly alarming or surprising one in view of the nature of human reactions to unfamiliar things. One can cite many examples of naive reactions to serious works of art in different media. Quite recently a professor of music told the story of the arrival in Durban of the first recordings of Stravinsky's *Fire Bird* ballet music. The records were played again and again as a joke for amused audiences—the hilarity factor operates most tolerantly in music, although I must admit to hearing laughs from students at the alleged "faults" in draughtsmanship of van Gogh and Cézanne. Nevertheless the "man-in-the-street" has a greater capacity for light-heartedly dismissing incomprehensible music (i.e., classical or modern music as compared with popular "tunes") than he has for passing over painting and architecture that does not fit in with his own scheme of existence.

In the case of painting the "I know what I like" criterion is the common basis for evaluation, but in architecture, alas, the whole question is a more complex one. For though not one in a million would attempt to compose music, nor one in a thousand attempt to paint seriously, it is hard to conceive that a single adult (product of the high school system) has not at some time or another "designed a house."

Designing a house appears to be a simple matter; from the back-of-an-envelope-cum-fountain-pen technique of scratching a few crude rectangles (with door-swings), to the more elaborate and more grisly efforts resulting in scale drawings with details culled from fireside magazines, the potential home builder lodges his claim to producing common-sense designs. It is unfortunate that with scribbles of the memories of lived-in houses the would be architect deludes himself that architecture is a straightforward business, and that his own ability entitles him to give to his architect (if he bothers with one) sound, directing advice.

When there were no architects available, the fishermen of the Mediterranean created beautiful and simple dwellings for themselves. The yeomen of rural England built appropriately and sturdily. But the layman who would be his own architect to-day cannot flatter himself that his case rests on a similar justification. Ancient vernacular springs from a direct and fundamental grappling with the problems of living and shelter. Our "civilised" layman with his luxurious car, his electric lights, stoves, refrigerators and what not—with only the dimmest comprehension of the part science has played in these adjuncts to his life, feels himself capable of designing a house!

The house at Greenside illustrated in these pages has offended many such arbiters of architectural "taste."

It would seem that the emphasis on abstract values in a context that has come to be identified with, and symbolised by, a crystallised vocabulary of elements gives rise to a sort of domestic violation. For example, the pitched roof, quite apart from its function, connotes the security, isolation, and sheer homeliness of a house. Even more than that, it positively separates the image of the home from types of building that may have, for the home builder, less pleasant or less appropriate significations. The multi-storied office building, the factory, the shop or public building—each of these has a recognisable vocabulary of architectural elements, such as the flat roof, regular system of windows, etc. The scale of such

non-domestic building, and the rigidity of defined boundary lines tend to produce a certain formality that is alien to the popular conception of domestic architecture. Even in London where the town house is a familiar constituent of the street scene, the recent building of a formal house with a fresh grouping of the facade elements broke sufficient new ground to justify discussion and analysis in the *Architectural Review*. And this suggests the next stage of our inquiry.

T O W N H O U S E S

The formality offered by the 18th and 19th century domestic facades of London has many factors in common with that achieved in the house recently built by Denys Lasdun in a road off Westbourne Grove. The formality that I envisaged for my own house has no parallel in suburban Johannesburg. Lasdun's house has the one-facade appearance of the typical London town house; it departs from its neighbours in being four stories high, and in having a bold and "freely" disposed arrangement of window openings and surfaces.

A House in California, by John Dinwiddie

An interesting solution of a formal design by means of the "standard" American timber technique. The resulting effect is of great lightness and charm. "The house has a wood frame faced with redwood siding and lined with an insulation board. The roof is finished with a tar and gravel mixture. The walls in the interior are flush panelled with plywood downstairs with a Philippine mahogany veneer, and are papered upstairs. All ceilings are V-jointed insulation board."



A TOWN HOUSE BY DENYS LASDUN



1941

Lasdun has aimed at a more literal surface unity than that expressed by le Corbusier's design for a house in the Rue Denfert Rochereau, Paris. In the London example there are clear indications of a frame motif. A house that possesses "the essential characteristics of street architecture and has consciously been designed with these in mind."

The principal difficulty that appears to have been encountered by the architect was not, as might have been expected, because he violated the neighbourhood amenities (as it was in those causes célèbres, the Ruislip houses by Connell Ward and Lucas, and the Sussex house of Chermayeff) but merely on the unsensational question of the degree of set-back of the building line from the pavement. A compromise was reached, however, and this unit "thesis" was permitted to settle down among its early 19th century neighbours. This house was not, according to the description in *The Architectural Review* of March, 1939, "part of a street in the sense of being a unit that is repeated to form a street—it was built, in accordance with present practice, on an isolated site for a private client—but it does possess the essential characteristics of street architecture and has consciously been designed with these in mind." In brief it has the facade effect as distinct from that of the freestanding house "that is composed to build up in three dimensions," and the compact plan repeated on several stories. Although it is an isolated unit, however, it "sets a precedent for the future development of a modern street according to a consistent formula." A vigorous design for such an extension is illustrated in the *Review*, but an "individualistic" development is more likely to eventuate than this ideal unity, "variety" being the common desire.

Contemplation of this recent four-storied "artist's" house recalls the progenitor of the type in Paris. The famous *Maison Cook* in the *Rue Denfert Rochereau*, built in 1926, shows *le Corbusier* in a mood of unsurpassed equilibrium. For the elegant, demure facade (so completely in "good taste") combines with interiors of the most generous and plastically satisfying kind. Externally we have the "two-dimensional" screen of the town house, a composition that is in itself so lightly drawn, so brilliantly and delicately assembled that it possesses an abstract quality of its own. In this aspect we have *le Corbusier's* reply to the demands of the street—his statement of the responsibility of the unit to the external world.

The main volume of the scheme is expressed in elevation by the surface screening the first and second floor living rooms. Beneath this the relatively small volume of entrance hall stair and garage gives the characteristic hollowed out ground floor. The top floor treatment also results in a "hollow"—in this case a terrace open to the sky. This interplay of useful and visual volume is given an effortless unity by means of implied continuity of surface rather than by a literal framing in of elements. Thus on the ground floor

the wing walls and central column suggest the completion of the overall volume; on the top floor the ship-like railing, light support and canopy-flavoured slab, likewise continue the main lines of envelopment without unduly underlining the process.

Lasdun has aimed at a more literal surface unity. Again the central column, but for the rest there is virtually one surface, penetrated at the top floor by a bold opening it is true, but this is flanked by large areas of white wall. The ground floor volume is recessed, but not penetrated as in *le Corbusier's* design; and where the Paris example has only the suggestion of an enclosing frame, the London house has clearer indications of a frame motif. This tendency is heightened by the panelling of the first and second floor elevations with matt tiles. The frame, thus articulated for part of its extent, dies out at top floor into the two large panels of white wall.

Now in both these examples the living accommodation is on first, second and third floor levels; the small garden provides only an approach, a set back and a breathing space. There is no intimacy, practical or implied, between house and garden; one feels that the "living" takes place entirely within the house.

The question arises, is it possible to aim at town house formality (emphasis on one facade, etc.) and provide for outdoor living in front of the facade at one and the same time? I have made an attempt to do this in the case of my own house, and it is possible that the foregoing notes may help to direct attention towards the problem of reconciling the formal and domestic attributes of small house design. The practical and economic conditions of my choice of arrangement have been stated earlier. Individual volumes related to function and based on usefulness and relative time of occupation; overall volume computed at the limit of cost. These propositions are so obvious that mention of them may appear naive, but my experience in architecture does not entitle me to assume that they are universally applied. The extension of these primary considerations into the fabric of a formal design called for conscious shaping to bring about unity in the whole conception of house and site, at the same time maintaining the identity of the component parts in relation both to their purpose and to their situation. The position of the house, approaches, aspects, etc., grew directly out of the site, which facing north-east with a fine view but with a narrow frontage, had all the restrictions and advantages associated with this type of property.

A TOWN HOUSE BY LE
CORBUSIER AND P. JEANNERET



The "classical" example of contemporary domestic architecture having a formal street facade. This scheme as a whole is well worthy of study, and the student of architecture is referred to the folio published by Morancé, Paris, entitled "L'Architecture Vivante; le Corbusier et P. Jeanneret, Première Série (1927)" for plans and illustrations.

1926

RUSKIN AND KANDINSKY

In *The Seven Lamps of Architecture* Ruskin makes a profound generalisation concerning architectural effect. A building, he says "in order to show its magnitude, must be seen all at once;—it would, perhaps, be better to say, must be bounded as much as possible by continuous lines, and that its extreme points should be seen all at once; or we may state, in simpler terms still, that it must have one visible bounding line from top to bottom, and from end to end." He suggests also that "if the bounding line be violently broken . . . majesty will be lost; not because the building cannot be seen all at once . . . but because the continuity of its terminal line is broken and the length of that line, therefore cannot be estimated." He adds that the error is more fatal when much of the building is concealed by its own structure as in the case of St. Peter's.

It is this "seen all at once" quality that characterises the two facades we have just discussed, and without crossing the fragile bridge between architectural formality and architectural magnitude it is clear that formality is a quality that arises out of the deliberate arrangement of elements. If the lines of definition of such an arrangement on an architectural scale are, as Ruskin postulates, comprehensible to the spectator in broad, uninterrupted stretches there is more than defined magnitude—there is a powerful contribution to visual cohesion arising out of the disciplinary function of these "bounding lines."

In the case of my own experiment this discipline is further fortified by the control and measure that are exercised by the most fundamental of all bounding lines, the rectangular frame. Once again the essence of this design is that the facade is seen all at once, but unlike the examples of London and Paris discussed above, the facade is bounded by a boldly projecting and virtually uninterrupted frame. Within this frame takes place the modulation of form necessitated by the search for unity in the house as a practical and plastic entity, and between the house and the site.

The geometrical appearance of the house has, as a result of these shaping processes, an unusual range of effect. The scale in one respect is unrelated to ordinary values, and the lack of familiar elements of measure gives it an abstract, or in more everyday terms, a model-like appearance. On the other hand closer experience of the building from the terrace tends to bring into operation the principle of magnitude suggested by Ruskin. The size of the facade regarded simply as size is impressive.

The impersonal quality of this distant model-like appearance when seen from the street probably reaches further towards

plastic abstraction than either of the town houses illustrated earlier, though casual scrutiny must reveal to the spectator the double-storied arrangement, the scale of the entrance doors, etc., and thus restore in a measure the humanistic content. This "dynamic" or variable scale is a characteristic product of more than one manifestation of contemporary art. Though I have not been unduly conscious of it in architecture I have been strongly aware of the inherent flexibility of scale in the painting of the modern objectivists, particularly in the work of Léger and Héliou.

In a given composition of Léger's the strength (magnitude or "majesty" in the Ruskinian sense) of the arrangement increases appreciably with an increase of dimension. Conversely though there may be a loss of vitality with diminution, there is no change in the essential relationship between colour and colour, shape and shape, or between these and the total canvas. Thus it is common for Léger to initiate a work by means of a quite small study, expand this (with slight modifications) into a medium-sized canvas, and finally express the composition in an area of great size. This process is possible because of the inherent scale and lack of minutiae in the work at whatever size it is drawn. Sheer size is important not merely because it allows of greater detail, but because it increases the majesty of the conception.

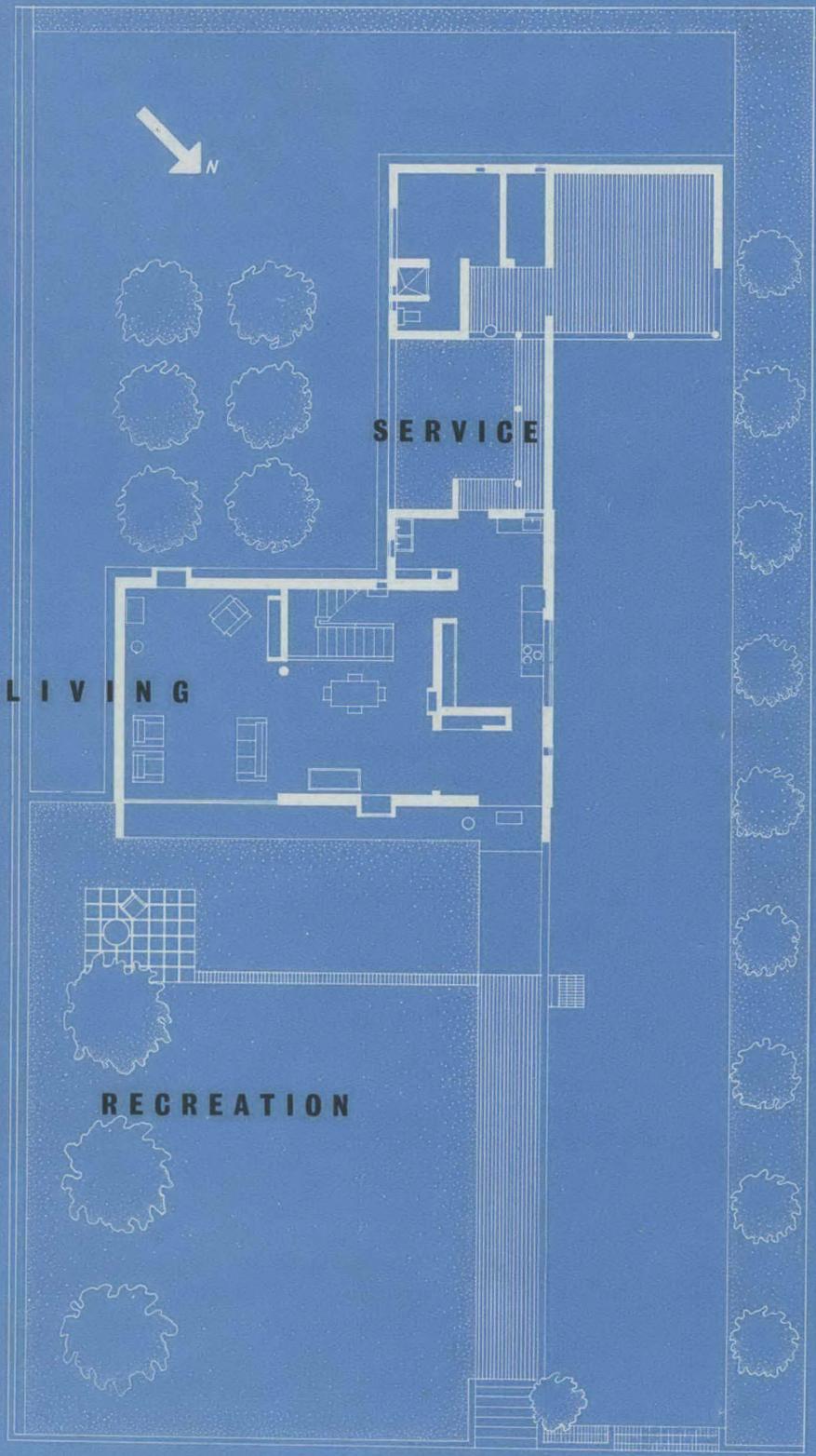
The representational schools of painting which aim to please through verisimilitude are forced to establish a practical "scale" in which to aim at naturalism or "reality." Painting larger than life may result in grotesquerie; smaller, in an enforced impressionism. Response to colour and arrangement cannot be estimated in other than visual or sensuous terms, and when Léger says that he wishes his paintings could be converted into large mosaics, tapestries or wall paintings, he echoes the saying attributed to Gauguin—"If I wish to express greenness, a metre of green is more green than a centimetre."

Returning to architecture, and to the Johannesburg house in particular, we find that the inherent or basic scale shows a similar lack of minutiae. The elements themselves are stepped up in size in relation to the whole composition. The multiplicity of small repeated elements so familiar in past domestic work, the small panes of glass with countless intersecting bars, the subdivision of every surface and salient projection into yet more surfaces and projections (door panels, for instance, and moulded fascias) no longer have a place in the scheme. The internal scale of the architectural composition parallels that of an architectonic painting. The surface and position of component parts are significant in relation to the whole, and these components do not undergo a further breaking up into secondary surfaces. The maintenance of



STREET ELEVATION

H O U S E A T G R E E N S I D E 1 9 4 0



A R C H I T E C T R . D . M A R T I E N S S E N

"pure" surface is an important factor in the production of unity, and it is by the use of colour that accent and articulation are given to the surfaces of these component parts.

Mr. Frank Lloyd Wright, in a recent lecture in London, quoted the Chinese philosopher Lao Tze. It was this philosopher, he tells us, who first declared that the reality of the building consisted not in the four walls and the roof but inhered in the space within, the space to be lived in. But a little later in his discourse Mr. Wright suggests that the young architects to-day achieve something that "is no better than before except for novelty and a certain superficial simplicity making plain surfaces and flat roofs an aesthetic." Mr. Wright flogs many dead horses in his lectures, but this is one of his live issues, and one must ask the question, who comes nearer to the attainment of Lao Tze's ideal, the "new" school with its plain surfaces or the school that Mr. Wright represents with its wilful complexity, and its overpoweringly weighty and self-conscious aesthetic. One does not hesitate to grant Mr. Wright his "resolute independence of any academic aesthetic" but it can be argued and maintained that the "aesthetic" (to use his own term) of the post-Wright school has as much validity, and is as organically derived as that which springs from the "nature-principle" from a point "a little nearer to the ground." One may venture further and say that it is the post-Wright school that has found the key to Lao Tze's theorem, for has not the very personal and restricted nature of the work of the prophet

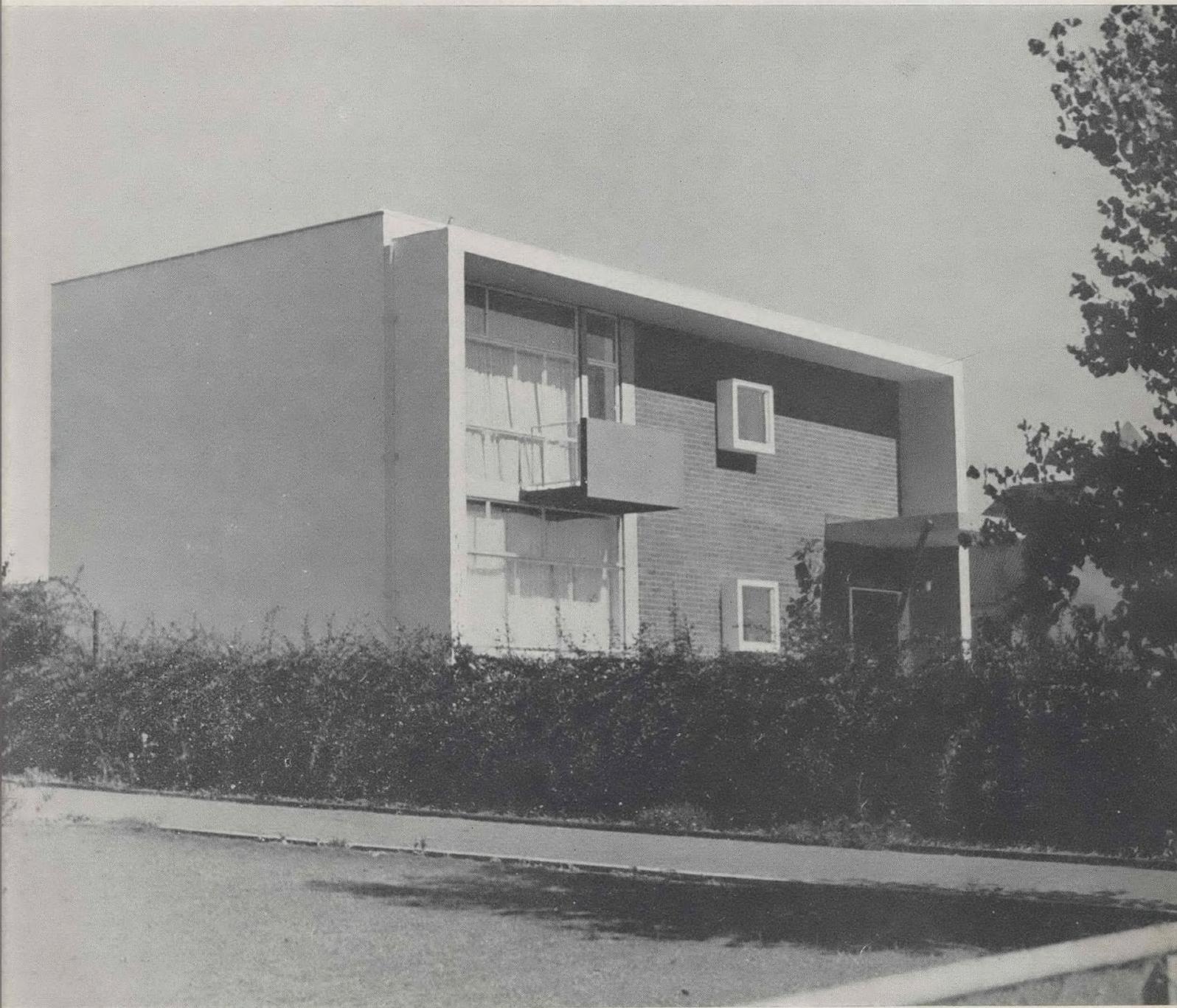
of organic architecture stifled the development and application of its cloudy ideals? Is it not the preoccupation with the structural richness, the cloying formulae of his work that makes Mr. Wright see in "modern" architecture only an uncritical eclecticism? By "selection and election" according to Wright the young architects have merely given us another brand of architecture. Would it not be more exact to say that the process that has produced the new school of thought reflects an infinitely wider and deeper contact with the nerves of life to-day, that out of this despised eclecticism has sprung, perhaps for the first time in history, a charter of universal values that clears a vast new canvas for fresh endeavour? What Mr. Wright regards as merely superficial (perhaps a superficial judgment on his part) may well stand for the enfranchisement of architectural form and hence of architecture; it may well mark the beginnings of a new purification, a farewell to the era of the amateur, the virtuoso, the "born architect."



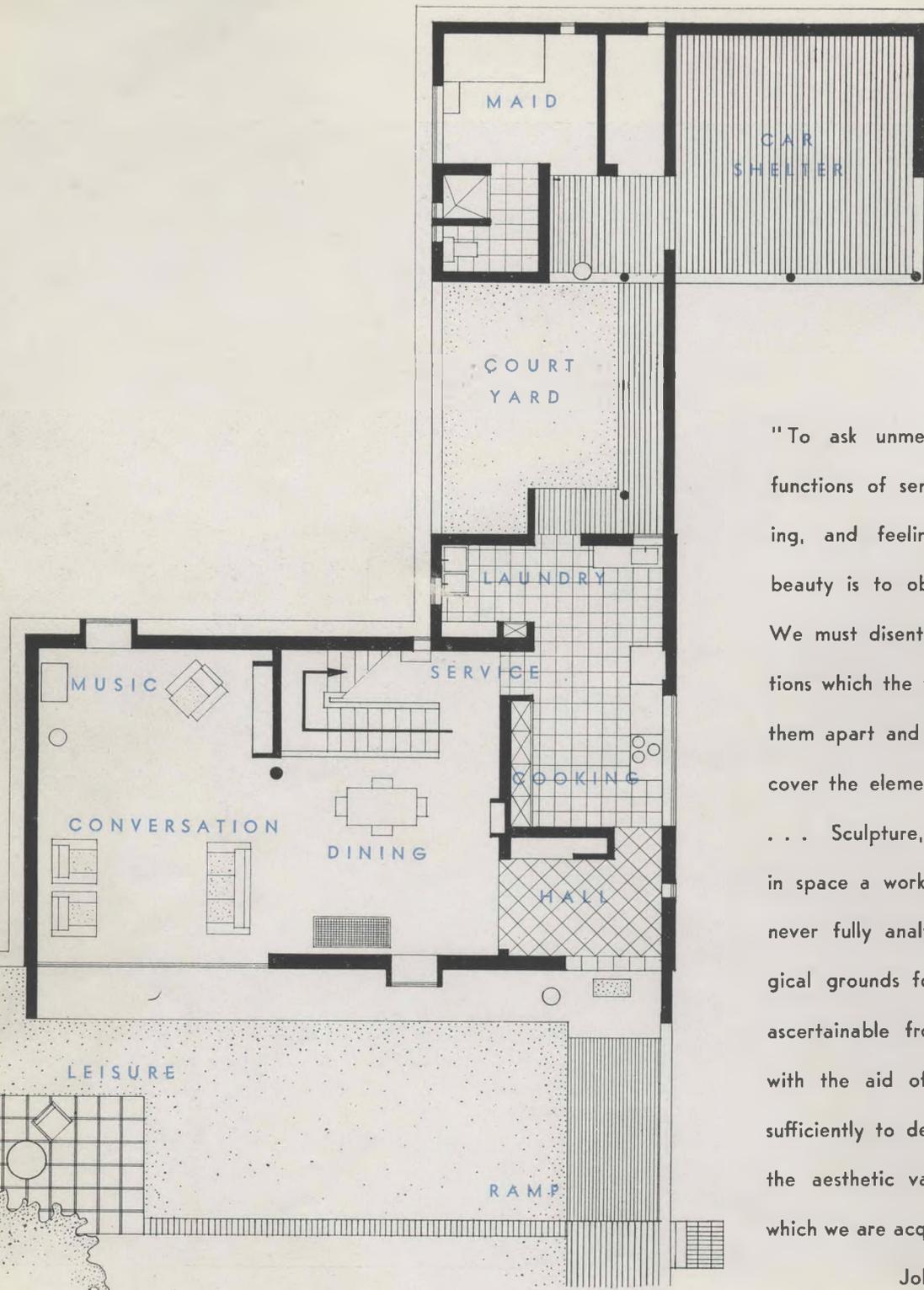
Seen from the terrace, the framed facade of the house affords an essay in the principles I have attempted to sketch. The facade, as it has been conceived, has an important transitional role—it is the mechanism that provides, among other things, the unity between house and site. It has a palpable depth that encloses and draws into its embrace the space which enfolds the house. The arrangement of the elements of the facade is not a free one. It is primarily disciplined by the interior ordinance of the house, but the technique of expression is one of abstraction. I cannot embark here on a full analysis of the possible interplay of forms in such an arrangement, but one or two generalisations may be made.

The analogy of painting again suggests itself, and a statement made recently by Kandinsky offers an apt commentary on the "optical" aspects of arrangement. "I cannot omit some mention of the importance of the place occupied on the canvas by a form," writes Kandinsky, ". . . I have attempted to give an analysis of the 'tensions' of the empty canvas, that is of the latent forces inherent in it, and I think I have arrived at several just definitions of the essentially different tensions of the top and the bottom, of the right and the left. A blue circle set at the top left hand corner of the canvas is not at all the same as one set at the bottom to the right—the weight, the size, the intensity, the expression are different . . . The canvas is divided into large and small parts. The dimensions of these parts produce the proportion. The proportion determines the value of the work, the harmony of forms of the design." The practical restrictions of archi-





HOUSE AT GREENSIDE



"To ask unmeaning questions about the functions of sense, imagination, understanding, and feeling in the apprehension of beauty is to obscure the truth with fables. We must disentangle the pattern of perceptions which the work of art has woven, study them apart and in combination, until we discover the elements and conditions of beauty . . . Sculpture, simple as it seems, extends in space a work of art which geometry can never fully analyse . . . Yet the psychological grounds for spatial beauty should be ascertainable from the mechanics of mind, with the aid of geometry and psychology, sufficiently to determine so far as necessary the aesthetic value of those contours with which we are acquainted."

Johann Friedrich Herbart (1831)

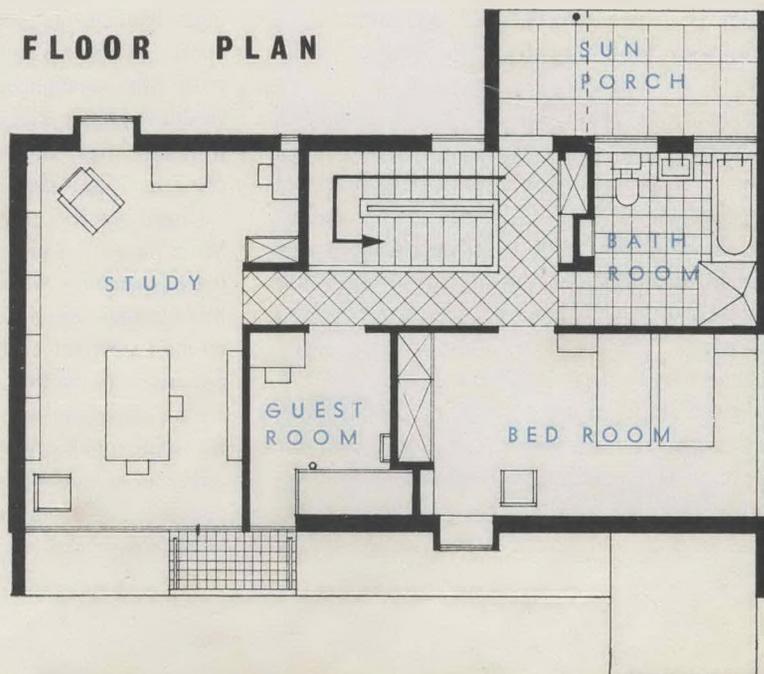
HOUSE AT GREENSIDE GROUND FLOOR PLAN

"The 'topsy-turveydom' which sends ornament to the bottom of the scale, brings other, forgotten, values to the top. The exciting part of the designer's work is now the actual spatial arrangement of the building, which is susceptible of infinite finesse. And it is no accident that this exclusive concern with spaces, proportions and mass dovetails exactly with the aims of modern 'abstract' or 'constructivist' painting. Ornament, then, is swept away like autumn leaves. Architecture becomes diagrammatic. The artistic conception, the emotional zest, is in the very bones of the building . . ."

John Summerson in the World Review,
October, 1941.



FIRST FLOOR PLAN





ecture do not permit a parallel freedom in the disposition of elements equivalent to "blue circles," but his findings are largely valid when applied to the abstract content of architecture.

There is in the present example a frame that encloses, and projects 3 ft. 6 in. beyond the main face of glass and brick. The underside of this frame is cut back so that the house stands clear above the lawn. The doorway is approached by a gradual ramp whose form tends to maintain the free-standing character of the main frame. Jutting forward beyond the confines suggested by this frame, a hood protects the doorway, and marks the first floor level of which it is a direct extension. Within the frame there is a broad subdivision—15 ft. 0 in. width of glass for living room and for study above, and 25 ft. 0 in. width of brick screening the remainder of the living room, and above it the main bed room. The glass area has one accent, the solid-fronted balcony whose forward plane lines exactly with that of the main frame. The panel of dark

brickwork (weighty and durable) is pierced by two square openings, framed in white and projecting 12 in. beyond the brick face. A raking metal column and a tall clay coloured vase mark the entrance. The "details" are few; the "box" windows have ribbed glass and are curtainless, the main windows have staggered vertical divisions, the opening sections are 3 ft. 9 in. wide.

These are the contributory forms; the colours are as follows: Main frame, white edge with grey return inside; pilaster, grey; balcony wall and soffit, red-brown, mesh sides white; brick panel, grey-black; doors, olive green in white projecting frame; soffit of entrance hood, pale blue; column, red-brown; glazing bars, white.

The practical attributes are obvious. The frame provides essential protection from direct sunlight and weather; the balcony provides a psychological extension to the study—it suggests freedom to a first floor room; the jutting windows have deep shelves internally for flowers or pottery. It is

intended to fit the large windows with Venetian blinds for which the metal supports are built-in, these will provide almost complete control of natural sunlight. The aspect of the house is such that in summer the lawn is in shadow during the afternoon, and a "stoep" is suggested by a brick-paved area directly in front of the living room. The only perishable elements are three poplars forward of the living room. The living room itself is sufficiently large and cool for all normal recreation, and no need is felt by the present occupants for a partly enclosed verandah or loggia.

Bernard Cooke has written some thoughtful (and very kind) notes on the interior effect of the house, and for this aspect I refer the reader to his paper which follows the present evolutionary analysis. I am grateful for the sympathy and interest he has shown in the outcome of this experiment in domestic design, and for recording his reactions to the finished fabric. The last stage of this discursive history has been reached, and now we may set down a few concluding fragments in the rough pattern of our thesis. Let us probe a little the nature of existence when it is enacted within the setting provided by architecture.

STAGE WITH ACTORS

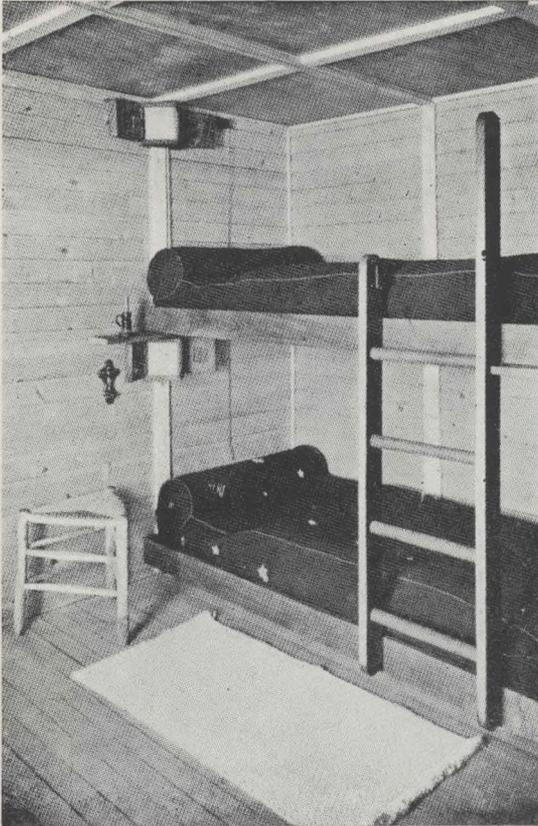
I asked the question some way back: Is it possible to aim at town house formality and provide for outdoor living in front of the house at one and the same time? I have lived for some time "with" the house under discussion, and whether inside it or outside, I have been satisfied with what it has to offer. Though basically generated from practical requirements (and therefore from the inside towards the outside) the house of to-day can offer a fuller plastic experience than such a deliberately functional genesis would seem to suggest. "Architecture will be understood" wrote Moholy-Nagy in 1925, "not as a complex of inner spaces, not merely as a shelter from cold and from danger, nor as a fixed enclosure, as an unalterable arrangement of rooms, but as an organic component in living, as a governable creation for mastery of life."

If the house is to be architecture, is actually to be an organic component of living it must satisfy the demands, and enrich the pattern, of day to day existence. This is not a question of aesthetics as an isolated or applied quality, and it is significant that the men who have experimented so widely in the problems of the "new" architecture, and who have

On the opposite page: The Living Room seen from the entrance doors. Walls, grey; Reinforced concrete stairs, Lemon colour; Ceiling, White; Beam and "Casier," Red Ochre; Floor, Czechoslovakian Beech.

Below: The Staircase looking towards the landing: Treads of 6 in. x 6 in. quarry tiles.





questioned the nature of architecture so searchingly, do not use the term aesthetic. It is, however, not easy to outline the complex processes that go to make up the creation of architecture. Colin Lucas, writing in 1934, was distressed that "all our buildings are regarded from the two viewpoints of structure-economy-efficiency on the one side, and appearance-style- 'art' on the other," for he can see no division in what is essentially a reflection of the "unit human being." But it must be realised that it is this fact that architecture is a reflection of all that is implied by the unit human being that leads to its being split up into two broad components.

Any attempt to simplify the explanation of the phenomenon of architectural building will not clarify the position, for the two viewpoints that Lucas disavows are really only the poles about which the whole creative process revolves; in a sense these "opposing" conditions produce a tension out of which the ultimate result is compounded. If there were no division, if there were the unity of reflection that Lucas urges, how would he account for the form of the brilliant little house he built at Wortham? For under no stretch of imagination can

this supremely "abstract" solution to the problem of the small individual house, with its transparent intellectualism, be termed an ordinary or direct reflection of a single, indivisible, postulate.

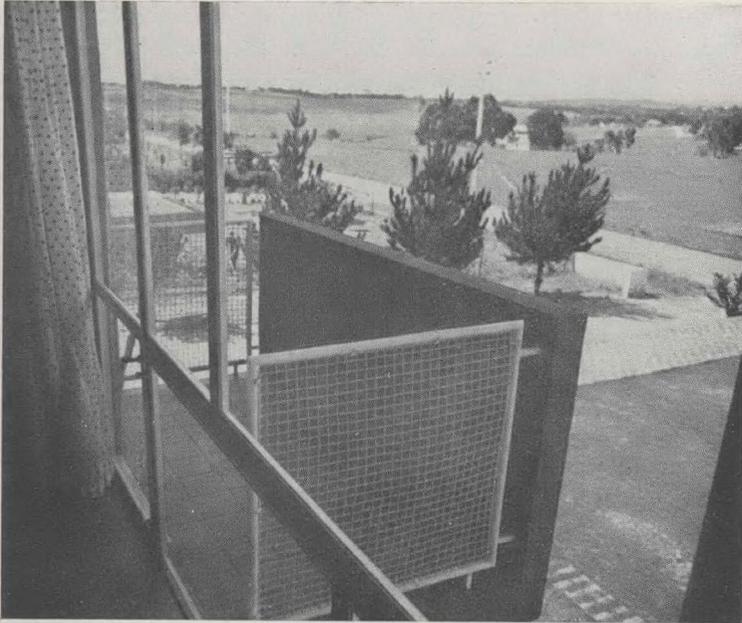
Appearance in Lucas's house achieves a notable level on the sensuous scale. It is primarily conditioned by the economy-efficiency factor, and its formal idiom is a function of the underlying structure, but as an emergent product it has an undeniable validity of its own. One has only to picture the uses to which the equivalent amount of material could be put, the shapes that would result, and the disposition of elements that would arise, if like accommodation were given practical expression by one who denied the appearance factor, or who built without a formal structural technique. Alas, we have daily evidence of such approaches in domestic building.

The house is not merely a shelter, and why should it be? In the East Mr. Wells Coates reminds us, a man prides himself on being "an artist of living; one who has been trained sensually to the aesthetic apprehension, who inherits a culture perpetually resurrected in his own eyes, voice, hands, and movements." In the West, we too can make the experiment of deeper apprehension, for the house can become a positive instrument of living, it can form the integral background of sensate activity.

It seems to me an arbitrary division of experience that makes for the unquestioning acceptance of a minimum "spectacle" value in home surroundings, while the necessity for visual experience will draw individuals to see (at great cost of time and movement) exhibitions of pictures, the ballet, the theatre, and countless derived forms of visual entertainment. Theatre and ballet are not wholly visual in content, but it is the visual index that differentiates these forms from literature and music. I shall not go so far as to say that a formally conceived house can offer a plastic substitute for the arts enumerated above, but it can contain a sufficient number of common elements to provide a parallel or equivalent sensory experience.

If the elements of universal experience are to be found in art galleries and in performances of the ballet, they are to be found also in the deliberately constructed background of ordinary life. Is it too difficult to imagine "artists of living" for whom the house will assume the multiple role of stage, auditorium, picture and sculpture?

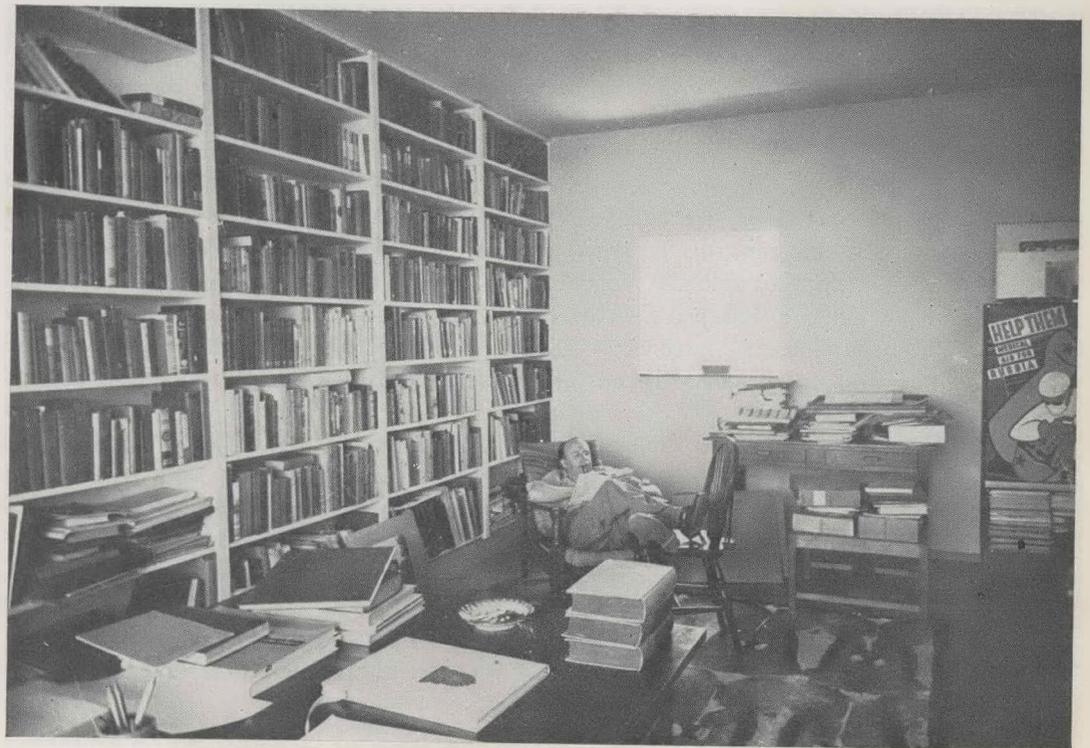
Among the numerous experiments conducted by the Bauhaus at Weimar and at Dessau not the least interesting were those undertaken by Oskar Schlemmer in stage technique. Some of his remarks made as long ago as 1927 are peculiarly apposite to the present discussion. "We are interested," he said, "in interior space treated as part of the whole com-



On the opposite page: Treatment of a small bedroom in a mountain chalet, with built-in bunks, designed by Rene Fauble. It is proposed to equip the guest room in the Green-side house similarly, but not in a timber idiom.

Above: VIEW THROUGH THE GLASS WALL OF THE STUDY

Below: VIEW TOWARDS THE BACK WALL OF THE STUDY



position of the building. Stagecraft is an art concerned with space and will become more so in the future. A theatre (including both stage and auditorium) demands above all an architectonic handling of space; everything that happens in it is conditioned by space and related to it. Form (two-dimensional and three-dimensional) is an element of space; colour and light are elements of form. Light is of great importance. We are predominantly visual beings and therefore purely visual experience can give us considerable satisfaction."

Everything that happens in the theatre is conditioned by space. The attributes of everyday living can be given a new vitality if the house is as consciously predetermined as the stage that Schlemmer envisages. I see the closest connection between the desire to attend a performance of the ballet, and the compulsion to design my own surroundings with a visually satisfying framework. Just as the ballet is the product of an expert and formal technique arising out of the demand for visual spectacle on special occasions, and performed by expert participants, so can we become experts in the domain of domestic life—with training and cultivation we may well achieve the status of "artists in living."

I do not think we need fear that this pre-requisite for domestic surroundings—this stepped-up function—will lead to satiety in visual appearance. It is true that Stravinsky has deplored the ease with which music is disseminated through radio and gramophone to-day, and the fact that "oversaturated with sounds, blasé even before combinations of the utmost variety, listeners fall into a kind of torpor which deprives them of all power of discrimination and makes them indifferent to the quality of the pieces presented." But this only partly holds good, for the availability does not wholly determine the response, and the atrophying process may well be outweighed by the valuable function of introducing to an unlimited range of listeners the masterpieces of musical composition. The "ersatz" nature of recorded music may outrage Stravinsky, but it cannot lessen the potential field of serious listeners.

In our own country it is hardly necessary to stress the value of reproduction whether of music or painting where geographical and economic limitations place us beyond the reach of actual performances or original paintings. I see

no merit in the exclusiveness that tends to be regarded as a positive attribute of art. The fact that Bach had to walk ten miles to hear Buxtehude play his works does not increase the intrinsic value of the music, however commendable the action of the listener or however fortunate that he was within reach of the performance.

The excellent prints of modern paintings that are now available are as ersatz as the recordings of Stravinsky's own compositions, but they are of inestimable value in bringing refreshment and enlightenment to persons who are (economically or materially) not ten miles away from the originals but ten thousand. Records and prints do not dull the understanding, on the contrary they keep alive something that would otherwise die of inanition.

So, if it be argued that "great architecture" must be preserved for public buildings and vast enterprises lest we lose the taste for the meaning of architecture, and fail to make the effort of understanding since familiarity will dull our perceptions, I must reply that I prefer the ersatz greatness that is obtainable in the single dwelling, without the snobbish cachet of exclusiveness, without the attribute of inaccessibility.

A Swedish engine-driver's flat was illustrated in a recent issue of the Studio Year Book of Decorative Art, a flat with cool-looking and spacious rooms, with graceful furniture; flowers, pictures, and colourful rugs. This example reminds us that sensibility is not the prerogative of Bloomsbury, nor gracious living the divine right of collectors and county families. It shows also that the content of modern architecture can be brought into focus with the practical working man and his mode of living. There is a tendency to brand all propositions that are not concerned with the "practical" aspects of domestic architecture as the products of minds steeped in an "art for art's sake" philosophy that has little application in a world striving for social equilibrium. But a survey of the "new" architecture will show that the underlying philosophy of form cannot be dismissed lightly. The new architecture does not reflect an "isolation" policy, it stands between the slag-heap of out-worn values of the past and the dimly perceived utopias of the future. It is coloured by both, for it grows out of the past, rejecting; and it indicates the future, a new scene, felt but not yet fully understood—an architectural scene that is the goal of the architect, its fulfilment his major task in a damaged world.

IMPRESSIONS OF THE GREENSIDE HOUSE



*quality
frame emphasized
by perspective &
differentiation
for sides &
bottom*

by **Bernard Cooke, B. Arch.**

A work of art, and of architecture in particular, may be said to be the product of the conflict of emotion and intellect in the mind of the artist during its creation. For although these two elements of reason and mysticism together form an integral and actually indivisible part of human consciousness, the fact that they express themselves by combining in varying proportions one to the other is, I think, evident. Thus in various periods and in various individuals these two elements act and react to produce from this conflict work expressing the outlook of a particular period or individual. Sometimes there is an emotional—mystical bias and sometimes an intellectual one. Either the spirit or the mind may dominate, in the greatest work these two function together in a nice relationship one to the other.

In the period just previous to the introduction of the "New Architecture" the approach to architecture was not so much an intellectual one as an emotional romanticism—a lethargic

sensuousness which degenerated into a sentimental application of arbitrary fal-de-lals screening the shortcomings of intellects that had forgotten to think sanely about first principles and bilked at the gigantic task of formulating a new aesthetic compatible with new constructional techniques and often a changing mode of life.

At the beginning of the architectural revolution the pendulum swung from this false emotional approach to a true intellectual one—"logic" and "functionalism" became the cries of the "avante garde" and criticism became a mass of dialectics, the criterion of works of architecture was that they should lack anything which was illogical. Emotion though ever present was held in check by an overweening new born consciousness, new thought rushing forward with great conviction. After the first experimental flush, a rather self conscious puritanism began to set in, a horror of any form that was not entirely based on logic, of all that was not the



THE LIVING ROOM OF THE GREENSIDE HOUSE
Painting by Fernand Léger

product of this age and of everything that was not produced in a factory. Architecture took on a somewhat artificial "over-civilised" character.

However, human sensibility could not long tolerate an aesthetic so narrowed by the limits of dialectics; perhaps something primitive earthy, of nature, in man strove for expression and more recent work begins to show a broadening of outlook—a leavening and enriching of the purely intellectual creation of a few years previously. Emotion now begins to show itself in an architecture which had undergone intellectual regeneration. We begin to see a widening of the modern view point to embrace a greater range of materials and techniques. Materials such as rubble stone and rough hewn wood are vital in the twentieth century as well as chromium and glass, and their use in a new context enlarges the scope of texture effect and general character of the new architecture, as also does the use of colour and of some products of other ages, now that the basic essentials of their structure and

aesthetics have been rediscovered. The first phase of the intellectual struggle is over, now that the basic logic of our architecture has been postulated, and there is room for emotion—emotion, which by its very nature is illogical.

It was with these thoughts that I contemplated this small house, as I think it illustrates most clearly this new progression in the architectural scene. My first impression was of a strong little facade, in the contemplation of which I felt great pleasure, and undoubtedly it was the joy of the architect who had created it—that delight in the formal attributes of solid and void, of form and modelling, texture and colour, scale and proportion.

I felt with what enthusiasm the square box windows had been set, with such nicety in that rich surface of black brick, the stimulating contrast of this plane with the airy void of the glass walls adjoining, the strong projecting forms of the entrance canopy and box windows against the flatness of the brick surface, the play and interplay of texture and colour,

FACADE

and the vigorous completion of the whole in the bold concrete frame—indeed a joyous composition, sensitive and full of feeling, and carried out with great verve and discerning finesse. I was reminded of the broad wall surfaces so beloved of the Italians—I thought of the Palazzo Piccolomini at Pienza, its brusque walls so exquisitely pierced with beautifully proportioned little openings, and the vague affinity of it to this little building seemed apt under a similarly relentless sun.

My first enthusiasm over, I found myself analysing the facade from the point of view of logic. I felt that from this point of view one would be apt to argue thus—the roof slab and the ground floor slab are very strongly expressed; the glass wall runs top to bottom, as do the black bricks; no intermediate slab is visible. Does this not express a room or rooms running the entire height? Again, does this sheer wall express living rooms behind it which do in effect face towards us, and can one logically place a glass wall and a blank wall punctuated by small windows next to each other in front of similar rooms facing the same direction? Can a sheer glass wall and small boldly projecting box windows both be logical lighting for similar purposes?

It is pretty evident that the disposition of these elements of wall and window were not determined by practical or technical considerations, but rather by aesthetic ones, and certainly as far as the exterior is concerned, it is these very elements and their composition which form such an interesting and vivid facade. It thus remains to be seen from the interior of the house whether this arrangement fulfils practical requirements and is architecturally satisfying. If it does, then surely this criticism becomes mere cavil.

I said also that the facade does not express the construction and form of the interior, there is no demonstration of a definite constructional technique. Clearly the architect was not concerned with making an essay in elegant construction; in fact, the construction as we have seen is even obscured. But here again as the construction of the building (brick walls with concrete floor slabs and concrete piers at salient points), is sound and the elevations are not a false expression of it, one might argue that one does not look at a building to see its construction any more than one is anxious to see its plumbing.

An interesting point is the fact that the building has been designed with the emphasis on the facade. The side elevations have been designed with care, but the forte of the design is essentially the facade, and the other elevations, for example the east, which is a completely unbroken wall, actually in their simplicity set off the main facade. One might be inclined to criticise this fact until one realised that it had been done deliberately. The building is flanked so closely on either

INTERIOR

side by adjoining houses that it becomes almost one in a row. Large windows facing either way would rob the house of privacy, and so it is treated almost like a town house, which being one of a block would naturally have only one facade. The exterior of this building has thus been designed almost entirely in one plane, as a screen—a backcloth to the garden in front of it, a function it fulfils magnificently.

The interior of the house is full of delights and subtleties, one of which is the use of colour. Colour throughout the house has been used lavishly, but with careful discrimination; it is architecturally significant colour as it always expresses and emphasises the forms of which it is an integral part, having been designed simultaneously with the actual forms of the interior. The colour is in a quiet key, harmonious, serene and very liveable; the psychological effect is to stimulate but not to excite.

The use of colour here has I think some of that indefinable quality which is an outstanding characteristic of le Corbusier's use of colour. I think some people have a mistaken idea that his colour is crude and strident. I found that my first impression was of the great serenity of it, the lack of any disturbing note. But after further observation I was amazed to find how very pure and strong each individual colour was and how vital and powerful was the combination and inter-reaction of them. It seemed to me that in the same way that he was able to control the most powerful and ruthless forms and bring them into a state of dynamic balance, so he was able to bring a composition of equally powerful colours into a similar state of balance and resulting serenity.

The theme colour of the whole house is a very delicate powder grey, a neutral tint, a foil for the stronger colours and against which white becomes a very significant colour.

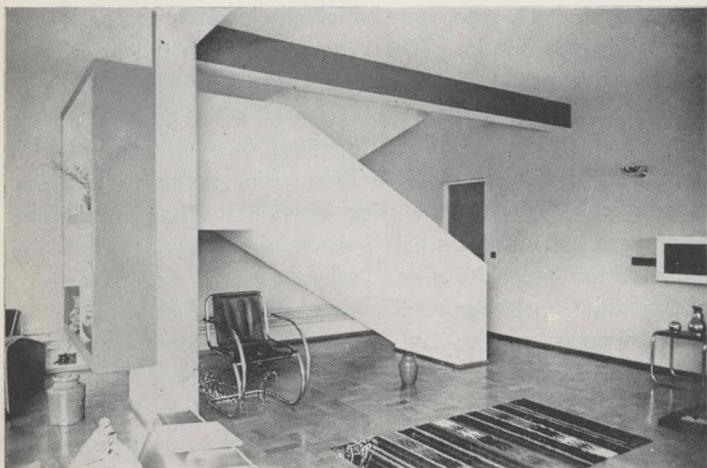
The planning of the ground floor is subtle and unexpected; here we find that the sheer facade wall, which might terrify one at first, is the very note which subtly gives character and interest to the interior. The progression from the exterior of the house into the living area is stimulating in its diversity of interest. The approach is generous—a gently sloping ramp and wide flung doors opening into a hall which is practically a perfect cube, a form which seems to turn one automatically towards the wide doors into the living room. From here we feel the whole volume of the house. The large plane of the malachite green wall to our left, pierced only by one of the small box windows, gently subdues this portion of the room and makes it strangely contemplative and detached; it is a quiet pause before one proceeds into the living area proper. This effect is heightened by the obscure glass in the box window, emphasising an almost introspective detachment. The room then opens out into the light and

spacious lounge and this movement terminates on a triumphant note—a joyous Léger picture, its gay primary colours and fascinating forms singing out from its white frame on the neutral grey tint of the wall.

From this point we turn and survey the room: opposite the Léger is a sensitively handled casier, constructed in concrete, the frame red ochre in colour and the inside faces white. This casier acts as a display for a few carefully chosen pieces of pottery and perhaps flowers. It is a delightful idea, reminiscent of the Japanese custom of having a small recess in their living rooms, in which one concentrated the only decorative objects in the room, a picture, a piece of sculpture; sometimes their elegant restraint allows only a single prayer scroll or sprig of flowers, and even then it may be screened with a light blind as if to detach it from the more banal aspects of life.

What a lesson for us—a nation so afflicted with the desire to collect, a desire of which the chief expression has probably been the hideous conglomeration of bric-a-brac in Victorian houses. Does not this casier with its frame sufficiently strong architecturally to prevent its contents from disturbing the serene simplicity of the room, offer a good solution?

Actually this casier fitting in an integral part in the interior design of the house; it defines subtly the main lounge from the narrower dining area, it forms the support for the staircase and by virtue of the fact that it itself is supported on one corner only, allowing the floor to run under it, gives buoyancy to the stair which might otherwise have been ponderous, with its solid balustrade. Also the back surface of the casier, coloured red ochre, runs up unbroken to the upper floor ceiling, strongly linking the two floors.



On the opposite page: A view of the "Casier" in the living room, the prototype of which was designed by Le Corbusier in his exhibition house at Stuttgart. Lithograph by Fernand Léger.

Below: Another view of the living room towards the service door. The small concrete "box" is for glass

The lemon-coloured balustrade walls run direct into the red ochre wall surface—a rich colour scheme which is echoed in the main bedroom where two adjacent walls are lemon, the other two white, and the ceiling red ochre.

The study is entirely in pale grey with white bookshelves, completing a colour scheme which is strong and confident, but very liveable.

The controversial sheer brick facade wall which I found to be of such aesthetic value to the ground floor interior is, I think, somewhat less successful on the upper floor, where the fenestration is somewhat dictated by it.

In summing up my impressions of this house I find that certain general aspects of it stand out very strongly. The most outstanding of these is the fact that this house is an individuality, a personality—it is not a type house, a "norm for living," or a house which lends itself to being reproduced or adapted: it has no element of universality. The architect has not desired to produce a piece of architectural propaganda to show that modern architecture is desirable from say a point of view of logic, construction, economics or any scientific or technical consideration. It is in no sense a demonstration, unless it be to demonstrate that now that a new architectural philosophy has been postulated, building should show delight in the pure contemporary aesthetic.

The architect obviously accepts the modern architectural spirit with all its implications as an axiom, he takes it for granted, and from this starting point sets out to produce a setting for his own personal existence, which besides providing physical and mental ease and comfort will have an aesthetic significance of great depth and richness,



NOTES ON THE MONTAGE — FRONTISPIECE

TOP LEFT: Tatiana Riabouchinska in "Les Sylphides." The human body as an instrument of art. Choreography—the written notation of dancing—is the generator of successive and interpenetrating space patterns. Ballet is a spectacle employing a space technique, and is enhanced by music.

TOP RIGHT: Part of the Czecho-Slovakian Pavilion at the Paris Exhibition. An example of finite structural pattern, background for human movement and human visual "exercise." Simultaneous interpenetration of space by means of related frames, grids, etc.

MIDDLE LEFT: Abstract space-model by a student of the Bauhaus. An exploration into the realms of perceived space, and a demonstration of formal mathematical relationships given plastic expression. According to Moholy-Nagy "a photographed kinetic sculpture."

MIDDLE RIGHT: "Le Déjeuner" by Fernand Léger (1921). A painting having a rich, sombre, colour pattern. The geometrisation of human figures in a complex pattern of complementary forms. Partial abstraction by a great master of contemporary painting.

BOTTOM LEFT: "Religious Allegory—Souls in Paradise" by Giovanni Bellini (c. 1500). An ambitious essay in spatial harmonies. The human figures are set in a rigidly geometrical framework which has an extending and contrasting distance through the medium of natural forms. The relationship between figure and enclosure may be compared with that in "le Déjeuner."

BOTTOM RIGHT: A Composition by Jean Hélion. A spatial pattern of abstract forms with no humanistic content. Strong colours in a bold pattern, the whole arrangement being in a single "key." A free pattern compared with the algebraically inspired construction of the Bauhaus space-model.

Within the range of these examples we have: (1) the exploitation of space by means of figures moving according to a predetermined pattern; (2) a static framework having a spatial validity of its own, and providing a potential direction for human movement; (3) a demonstration of space constructed according to known quantitative relationships, abstract, and not specifically allied to human participation; (4) a combination of abstract pattern and human figures; (5) a combination of figures and formal space, and finally (6) a space pattern on the illusory plane of abstract painting.

It must be borne in mind that photographic reproduction lends a misleading uniformity to these space manifestations; their nature and scale in actuality must be envisaged for a true idea of the technique in each case. The selection is not exhaustive, but it is sufficiently wide to indicate the phenomenon of perceived space in a variety of contexts, scales and media.

"Evolution of a House—1940" had already been set in type when two interesting papers by Ernő Goldfinger in the *Architectural Review* (November, December, 1941) reached me. The first, entitled "The Sensation of Space" breaks new ground (as far as I know) in the English press and is a welcome statement on the architecture-space equation. The second "Urbanism and Spatial Order" carries the discussion into the realms of space-planning on a civic scale. Read in conjunction with Moholy-Nagy's "The New Vision" these papers offer a fresh and necessary standpoint for architectural judgment which has tended to become warped by sterile arguments on secondary issues. I am interested to see that Mr. Goldfinger illustrates an air-view of a mosque in Baghdad, rigidly defined in the "tangle of streets and bazaars," as an example of space apprehension in a town-planning context. I wonder if he has considered what Greece has to offer in this field? I hope to publish in a forthcoming issue of the "Record" a paper on the spatial attributes of Greek sanctuary planning which attempts amongst other things to dispel the prevalent idea of the opacity and inflexibility of Greek architectural arrangement.

R. D. M.

ACKNOWLEDGMENTS

Ballet photo, Merlyn Severn; Czecho-Slovakian Pavilion, *L'Architecture d'Aujourd'hui*; Space construction, Moholy-Nagy; Léger painting, *Cahiers d'Art*; Hélion painting, *Axis*; Gropius House, *Bauhaus Bücher*; Lucas House, Raymond McGrath *Twentieth Century Houses*, and *Unit One* publication; Aalto House, *Museum of Modern Art*, New York; Breuer House, *Architectural Forum*; Lubetkin House, *Architectural Review*; Le Corbusier's Flat, *Architectural Review*; Dinwiddie House, *Architectural Forum*; Lasdun House, *Architectural Review*; Le Corbusier House, Morancé, Paris; Chalet Bed Room, *Studio Year Book of Decorative Art*, 1940; all other photographs by Heather Martienssen.

PRETORIA ARCHITECTURAL SOCIETY

For a year or two a small number of Pretoria Architects have been in the habit of meeting fairly regularly for informal discussion on matters of interest to their profession. Towards the end of last year a feeling grew among them that there was urgent need of some sort of strong, co-operate body of professional opinion whose force could be brought to bear upon the growing complex of architectural problems both inside the present constricted limits of the purely architectural profession and outside in the wider social field.

For this purpose it was decided to establish a sort of "Discussion Forum" under the name of the Pretoria Architectural Society where the opinions of all kindred professions and others whose energy and interest centred in the building industry could be gathered and co-ordinated; and the following circular was sent out:—

Dear Colleague,

We, of a small group of Pretoria Architects who have started the Pretoria Architectural Society, are very anxious to have your active support and co-operation.

The object of this Society is to gather together for regular free discussion, all who are keenly interested in the welfare of the Building Industry in its widest, social sense and who recognise the pressing need for improvement and co-ordination in all branches and aspects of this Industry if it is to keep pace with the great and growing demands being made upon it and if it is, in future, to be of real, positive service to Society as a whole.

Of the great mass of material demanding discussion, it is hoped that such relevant detail matter as "improved organisation of professional offices," "improved methods in professional practice," "relations with clients and builders" and so on, will form a part. That, in the wider fields, a keen interest will be taken in Local and National Governmental activities where these, in our opinion, affect the architectural welfare of our communities and that active steps will be taken whenever necessary to bring our corporate view to the notice of the Authorities concerned.

Meetings will be of the "round table" type, free of all formality, and will be held fortnightly.

Membership is free and small expenses for such things as typing, stationery and so on, will be met by the voluntary contributions of members at meetings from time to time.

The University of Pretoria has been generous in allowing us

the use of a lecture room adjoining the Drawing Hall of its Architectural School on the 2nd floor (back end) of the Extra Mural Building in Vermeulen Street for meetings and as an address for correspondence. We are glad in this way to be able to keep in contact with the growing student body of this School whose members will always be welcomed at our meetings.

To commence with, this letter is being circularised among the Architects, Quantity Surveyors and Engineers of our town, including those in the Public Works and Provincial Departments, and students of the University and in all cases, members of their staffs are invited to come along too.

But this is not intended to limit the sources from which it is hoped to draw active interest and support in the future. We feel that anyone who is willing to bring positive, creative ideas to our discussion should be encouraged to do so.

The first full meeting you are earnestly invited to attend will be held at the Extra Mural Building, on Wednesday the 21st of January, 1942, at 8 p.m., and we greatly look forward to seeing you there.

The introductory meeting attracted about forty people. All three professions mentioned were represented in each of the "practising," salaried, government, provincial, municipal and student categories. Discussion centered mainly on the aims and objects of the Society and how it would function in the future. Suggestions were mainly exploratory and will be acted upon experimentally from time to time at future meetings.

Advice has been received from the Secretary of the Institution of Structural Engineers, London, that Mr. Ernest S. Powers (Jnr.), A.R.I.B.A., M.I.A., has passed the qualifying examination for Associate Membership of the Institution. Mr. E. S. Powers is a partner in the firm of Powers & Powers, Chartered Architects, Durban, and is serving in the South African Forces as a Staff-Sergeant on the staff of the Directorate of Works and Fortifications at Pretoria.

Wanted: Employment in an architect's office (Johannesburg) by a Matriculated student attending diploma classes in architecture. Edmund de Beer, P.O. Eikenhof, Transvaal.

**ARCHITECTURAL SOCIETY, UNIVERSITY OF
THE WITWATERSRAND, JOHANNESBURG
PROGRAMME FOR FIRST TERM 1942**

MARCH 19

The Native Dwelling and Culture in South Africa (with colour films) : Mr. H. E. Bock.

APRIL 1

Decoration and Architecture : Mrs. R. D. Martienssen.

APRIL 29

Contemporary Russian Architecture : Mr. R. Kantorowich.

MAY 12 to MAY 15

ANNUAL ARCHITECTURAL EXHIBITION (21ST YEAR)

MAY 12

The History of the School : Professor G. E. Pearse.

MAY 15

The Exhibition and Modern South African Architecture : Dr. R. D. Martienssen.

JUNE 17

Chinese Architecture and Culture : Mr. J. A. Konya.

All lectures will be given in the Department of Architecture Lecture Hall ; dates are subject to alteration.
Members of the profession are cordially invited to attend the above lectures, and to visit the exhibition
which will be held in the Exhibition Hall above the Great Hall, Central Block, Milner Park.

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