

# RAIC JOURNAL

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Ram Yantra at New Delhi  
Photograph by Ross Anderson

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## EDITORIAL

WE HAVE JUST RETURNED FROM BRITAIN with a renewed admiration for English rivers and trout, English manners and English pubs. The pubs are of greater significance to the readers of this *Journal* not so much for their architecture which, in London, is generally bad or "cute", or for the quality of the alcohol which they dispense, but for orderliness and the respectability of their interiors and the people who frequent them. Whether in village or city, we found the same treatment of the pub as a club, and the same nice people in various strata of society. It struck us as strange as our most recent experience with such institutions had been with beverage rooms in Canada where respectability is sometimes found, but seems to be less spontaneous than enforced by law; and with Plantation Street in Glasgow. We remember the pubs of Plantation Street in 1941 only with horror. Hogarth could hardly have seen anything worse. Perhaps all our readers are not aware that the English country pub has usually two rooms — one for ladies and gentlemen (and we know of no better way to describe them), and one for men. In the former, conversation, in June, is usually of crops and animals, or of the may fly hatch and the size of trout. In the latter, the same subjects may be discussed along with the health of missing members, but interest centres on the dart board. Some spirits may be drunk in one room, but beer, exclusively, in the other. It is a plan of rooms that works admirably, and without any intrusion of one group on the interests of the other.

Some pubs we visited in the country were built of flint and the roofs were thatched, and we defy the most sympathetic of modern architects to improve on them. If they succeeded, names like the 'Bear and Ragged Staff' would obviously have to be dropped in favour of the 'Poodle and Fluorescent Tube' without noticeable gain. It struck us as remarkable that in the pleasant Kensington square in which we stayed, a public house was located in the square itself. Far from bringing real estate values crashing by its presence, it was looked upon as a most desirable acquisition. For the housewife in her Georgian house, it was a boon because it served meals, and many a time we saw families enjoying themselves in the summer evening at tables on the side walks. Unfortunately, one cannot legislate that kind of thing, but someday, when our beverage rooms have grown up, we may demand it.

Readers of *The Architectural Review* will have seen that excellent June issue in which Mr J. M. Richards takes those architects to task who have been responsible for recent London building. The issue was prompted by criticism from no less a person than the Minister of Public Works, Sir David Eccles. He spoke at the Mansion House in January, and papers like the *London Times* added their condemnation of the buildings he referred to and their concern for the future of London. In part, the Minister said "I wish to be blunt about the disaster which threatens. I fear that unless swift and effective action is taken, we shall see fat and familiar, mediocre and characterless neo-Georgian architecture rising from Hitler's ruins . . . I am sure everyone here wants the new buildings in the City to suggest to the world at large that London is not living in the past but has something vigorous, constructive and beautiful to say about her future. You will not get such buildings if you ask for repetitions of pre-war commercial architecture". He went on to say that "you only get good architecture if the developer demands it and the architect is capable of producing it" and pleaded that developers should give the younger and more enterprising architects their chance in the City, where a proper regard for the value of tradition is too often confused with a refusal to move with the times or to accept the new ideas that changing times bring with them. To that statement *The Architectural Review* added "Though it is a mistake simply to equate younger architects with better architecture, it cannot be denied that the fresh thinking, starting with basic architectural principles, necessary for the successful solution of relatively new problems — of which the massive office block is one of the hardest to solve — tends to be the perquisite of the younger generation that grew up free of the restrictions of the academic strait-jacket". English architects, both young and old, have been through trying times, but the enlightened among them must be encouraged to think that a new day is dawning. The Minister's warning could not have been more admirably timed as it followed an announcement by the Prime Minister "of an increased flow of building licenses to the City". For the guilty, especially those who had reasonable hopes of government works, the Minister's reference to "fat and familiar, mediocre and characterless neo-Georgian" must sound like a portent of doom.

*The three years I have been away have been spent more or less as follows. After a brief flirtation with Paris, in the fall of 1950, I entered the office of Maxwell Fry and Jane Drew in London, working there for ten months chiefly on Festival of Britain design. In the summer of '51, I set out by car with two Canadian friends, on a tour of western Europe, visiting briefly Greece and Israel. On returning to London, I enjoyed a sojourn of several weeks of inactivity, finally entering the Housing Division of the London County Council, and remaining there until my final departure from the country, in July, 1953. Trips to Spain, Scotland, and, of course, Paris, were managed during this last period. My return across the Atlantic seemed very quick.*

*For having made all this possible, I am indebted to Pilkington Brothers of Canada and England, who showed me kindness and generosity whenever they had the opportunity. The satisfaction gained from my stay in Europe is well demonstrated by the fact that what started out as an eight month absence was extended into three years.*

SINCE MY RETURN from England several months ago, I have been able to review my past experiences with some perspective and objectivity. The readjustment to our different way of life here has, if anything, heightened by way of contrast these fond recollections. One conclusion stands out clearly, and that is, that history should be seen, and not heard in the classroom alone, for only then can its true values be recognized, not as academic exercises, but as living forces, which exert themselves in every aspect of contemporary life. Now that I am 'standing rootless in the present' once again, it is not difficult to see how much our lives on this side of the ocean are nourished more by the vague promises of an uncertain future, than by any of the splendid assurances of a full past. In truth, the idea of tomorrow being a better day seems to infuse everything we say and do, generally as a source of inspiration, but sometimes as an excuse. And yet, we are certainly fortunate in our youth.

That our way of life differs from that of the English is naturally to be expected, and to attempt to compare the two can be a fascinating, though sometimes fruitless, pastime. In our own field of architecture, however, I do believe a simple comparison is timely. For there exists in England, and for that matter in most European countries, something which I find lacking here; something which is intangible, difficult to cultivate, and impossible to import, and yet, as necessary to architecture as the very materials out of which it is made. I think I can best describe it as a climate of ideas.

This climate pervades all the arts in England, colouring in fact almost every aspect of intellectual endeavour. It is made manifest in many ways, largely through the media of the press and journals, exhibitions, discussions and lectures organized by various institutions, radio, television, and to no small extent, the local pub. Such a climate seems to be a natural outgrowth of any society which has reached the stage when its cultural activities are both prolific and unself-conscious, at the same time well defined within a system of high critical standards; when those involved in these activities maintain in their work an integrity and an intensity which reflect strong personal philosophies. These are communicated to others, and, human nature being what it is, controversy ensues. Then the battles begin, and the critics, who in London seem at times to outnumber the artists, bring these to the public eye, provoke, and stimulate. And ferment takes place.

During the many talks and discussions which I attended, the topics involved were generally on aesthetic, and philosophical levels – the principles of town planning as related to the human problems of housing in the city – the family tree of classical architecture, rooted in Vitruvius, Alberti and Palladio, and blossoming in Le Corbusier – the significance of the Golden Section Proportion in aesthetics, and also as it has been revealed in the growth processes of human, animal, and plant life – or the space-time concepts of Mies van der Rohe, as related to those of James Joyce. In almost every case, heated debates took place, in which the outcomes mattered a great deal to those concerned, no matter how abstruse the points of contention were. Idea per se was important, and was to be fought for.

In the Institute of Contemporary Arts, for example, one had an organization whose varied activities provided the public with a means of being exposed to the ideas and works of artists – the famous and the arriving – and for the artists, provided a common ground whereon they could meet, and rub temperamental shoulders. Devoted to all the arts, this Institution contributed a great deal towards revealing to many their common attributes – an evening of Baudelaire was only more stimulating when one was surrounded by Lautrec or Gauguin; the sight of a lonely, pointing figure of Giacommetti, about to walk onto a white floor, in a white room, was only more poignant when the room was filled with the strains of Marcello. Fre-

quently an evening there was spent in the presentation of some building or project by the architects responsible, during which slides were shown, intentions and philosophies stated, and general criticisms made from the audience.

And out of this, there was in the end, the immense satisfaction to the spirit, and further clarification of one's own direction. For, the clash of ideas is what originally brought men together in the great cities. The natural desire to meet on this level has existed since men were capable of expressing ideas.

It has been my observation, that such a climate has not yet shown itself here. In any discussions I have had with persons of similar interests, what has generally been of prime importance has been of a practical nature. It is not to be doubted that knowledge of bank loans, the economics of apartment building, the scales of fees, or the numerous ways of fixing bronze nudes to marble walls, is an important factor in creating sound buildings, and safe investments. But what of architecture? Although we are getting on with the job, in a most admirable way, with the past year's achievements truly astounding, one has to question the artistic development — who is examining it, who is evaluating; who is really interested?

I suspect that this state of affairs is closely tied to the fact that few Canadian architects identify themselves outspokenly with any of the known schools of thought in design, or, doing so, are made to feel somewhat guilty about it. From the start, this can result in little differences of opinions, if they exist so weakly to begin with. That an indigenous architecture will one day blossom out of the pure Canadian soil, without any ideologies being imposed on it, is maintained by many architects (and beware if these ideologies are those of distant foreigners, who cannot have any inkling of our way of life here.) And yet, history testifies again and again, that the great works of man have always sprung from strong beliefs — from ideas, from personal attitudes towards the cosmos. Whether these were of a religious nature, or whether they celebrated the power of an individual, the king, lord, or universal man, they were there, underlying every move of the architect, or native builder. (Unless I have not detected the real significance of the force of monetary accumulation, which seems to have overwhelmed a great deal of expended energies at the moment; a force which perhaps could be deemed as our spiritual common denominator.)

We are familiar with the makers of our revolution. Yet we hesitate to join them outright, to examine what they have said, to agree or disagree, and finally to assume the new vocabulary and carry the game onwards. These men have only started the revolution. What is often forgotten is that the forms are theirs, but the principles concern space and people, and belong to everyone. Until we can bear witness to our own battles of ideas, in which clarity and fanaticism are present in equal proportion, I cannot see how we can hope for those blessings which can only be fruits of battle. For, the absence of battle signifies the absence of differences of opinion; this implies no strong convictions, which must precede conception — and conception is the birth of any work of art.

Such an ideological vacuum can also have its indirect

effects on the public. With no open leadership from architects and planners on such important matters as housing, town planning, street architecture, and contemporary design in general, what else but apathy can we expect from the population at large. And it is only when they become actively interested in these matters, that further action can be taken, in the democratic procedure of voting and legislation.

### Housing in England

In England, as I have already implied, human and moral values are evident to a great degree in both the words and actions of the architects and planners. And in the field of housing, with which this country is chiefly occupied at the moment, these values emerge most clearly. Although in Europe, the fact of history, with the ingrained pattern of civilizations, customs and habits, makes the set of conditions influencing housing quite different from ours, the basic concept of housing in its universal human context is still the same. In devoting the rest of this paper to this subject, I am hoping to indicate some principles which might be applicable to our own scene here, which is happily just arriving at that ugly stage of uncontrollable expansion. We have little inherited misery, and there is ample opportunity for prevention, rather than cure — construction rather than reconstruction.

The history of housing accompanies the history of the common man. It begins in the early civilizations, and threads its way through the ages up to the present day. The house, as the *petit palais*, the chateau, or the *pallazzo* has of course been more widely analysed and appreciated, because of its abundance in artistic qualities, and no doubt because of the pleasant connotations of sumptuous living which such appreciation brings. The picture of the common house, on the other hand, has hardly varied in its shades of grey and black. The remains of such early houses are to be found universally, and these bear out what we have already gathered from the many vivid novels, that the common man has always lived more or less in the same wretched conditions.

The Industrial Revolution of the 19th century gave added impetus to the degenerating level of housing conditions, especially in the cities, where mass movements of population collected, in search of the better life, the work, and the excitement, while the horrible factory towns expanded into fantastic dimensions. It is interesting to see how the mobility of power in the Scandinavian countries was later to save them from these evil conditions — electricity could be brought to work; but in England, where all of industry collected about the coal mines, these miserable conditions were to be found at their worst. Even today, it is a shock to see these northern districts of Lancashire, where the gloom is just beginning to lift.

At the same time as this damage was being done, this same nation was one of the first to attempt to remedy the situation. Social reforms were introduced, health and housing acts put to use, in efforts to help the poor. After the first war, which had further aggravated the problem, housing was finally seen to be a social service, the responsibility of the state, and not of individuals. During the thirties, surveys and reports were made, specialists tra-

velled abroad, comparing methods and results, and recommendations were laid before the government. The Barlowe, Uthwatt, and Scott Reports were three important ones, which suggested courses of action to be taken regarding the shifts of industrial population, the expanding cities and their effects on agricultural economy, the welfare state, the ownership of land by the state, and so on. When the last war interrupted what starts had been made, further studies were undertaken, with the awareness that when the war ended, the situation would be the most serious yet. In 1943, London was already making its plans for redevelopment, which had to wait for peace to be fulfilled. When hostilities did cease, legislation was quickly brought into play, as the only means to the end. In 1946, the New Towns Act was passed, in 1947 the famous Town and Country Planning Act, and in 1949, the Parks Act.

Under the Planning Act of 1947, which was introduced by a Labourite, Lord Silkin, the use of land was clearly defined, and brought under controls. These applied to existing uses, as well as to any proposed changes of use. The comprehensiveness of the controls was achieved in one respect, by the general negative approach of the regulations, which, instead of listing in detail what one could do, covered in sweeping descriptions, what one could not do. Everything, down to the colour one can paint one's house is included. I believe that even the innocent act of digging a hole in the ground is covered somewhere.

The most important feature of this Act was its compulsory stipulation that every city and town in the country had to prepare a precise, and detailed development plan, which would govern its growth for the following twenty years. This plan was to be reviewed every five years, for checks on progress, and improvements. As a result of this act, and many other works of legislation, it can be seen that there now exists in England a great machine of uniform action, which literally covers the whole face of the country, taking into account all aspects of national life, and defining clearly the position of the individual with respect to the state, in matters such as education, welfare, housing and work.

#### Growth of London

The Development Plan for the County of London was passed in 1951, and is based on the plan that was brought out during the war, with subsequent changes. Its main object has been to reverse the trend towards over-population in the county, by attempting to create an overspill into the outlying areas. This is being done in several ways — by encouraging satellite towns, expanding the existing towns, creating New Towns, under the new Act, developing new out-county estates, and by trying to induce industry to leave the crowded core, attracting with it the large forces of labour. The ultimate density aimed at is 200 people per acre in the core, decreasing outwards to 136, 100, and 70, so that population in 1971 should theoretically be  $3\frac{1}{4}$  million, instead of the  $3\frac{1}{2}$  it is now.

If this decentralization can be achieved, it is felt that the other objectives of the plan will also be realizable — an increase in the proportion of open parks to population to 4 acres per thousand; the replacement of slum areas by new housing projects, with the ancillary amenities as shop-

ping centres, and market places; the rezoning of industry, and a more efficient system of roads and rail services to handle it; an increase in the number of sorely needed schools, as has been organized under the new London School Plan. All of this is now being carried out, while at the same time, careful consideration is being given to the existing character of the city, preserving what is best, and recognizing the community structure that has come into existence through the many years.

Whether one agrees with the methods adopted in carrying out this Plan, or not, the vastness of the undertaking is certainly to be admired. In the comprehensive way it embraces all aspects of the city's life, the aim is for the improvement of living conditions for *all* the population, and shows no preference for any influential minority group. It appears that the English have understood, what we have yet to realize here, that housing, as part of the overall growth of a city, must be brought under the strict controls of an overall development plan, and cannot be left to the whims of speculators and investors, who could only in their short term outlook, be producing more problems for the future.

#### The London County Council

The London Plan is being carried out under the jurisdiction of the London County Council, which is the largest housing authority in the world. What we know as London, is really greater London, with a population of over 8 million, and extending into several shires. The County of London is the central area of this larger one, containing about 117 square miles, and about  $3\frac{1}{2}$  million inhabitants. The county consists of 28 boroughs, just as our metropolitan city has several municipalities. Established since 1888, the Council has acquired great powers, controlling almost every part of the county's activities — finance, education, health and welfare, fire control, housing, parks, and town planning. Its staff amounts to the impressive figure of 60,000, and the centre of this huge organization is County Hall, Westminster. It is here that I had the pleasure of working for two years, along with 5,399 other souls. The members of the actual Council itself, are elected every three years, and the aldermen chosen every six. Today, labour has a strong majority. Housing, is under the authority of the Architect-to-the-Council, who is at present, Dr J. L. Martin, M.A., Ph.D, F.R.I.B.A. The qualifications are noteworthy.

Before the war, housing was planned by private firms of architects as well as by the Council. As times were relatively good, the best architects generally maintained their own practices, so that the work by the Council was done largely by engineers and surveyors, in the department of Housing and Valuation. Although this was of good standards, as far as sound building was concerned, a clumsy heavy-handedness seemed to dominate its appearance, and little grasp of the principles of contemporary town planning or architectural forms and space was evident. When the war ended, and the new task of rebuilding was begun, the Council soon was subject to criticisms, both of the efficiency of its output, and of the quality. Although several changes of departments were consequently affected, there still was resistance to, and dislike of the 'Geor-

gian barracks' with which the Council was becoming identified. Art critics continued to lead the attack in the press, and the public was provoked, until, and this is an interesting example of democracy at work, a new Architects Department was formed in 1950, divorced from the Valuers, and under the directorship of a youthful, and energetic architect named Whitfield Lewis.

Another factor which was to help the situation, was the entry into the Council's service, of architects of high qualifications. This was a new trend for the Council, due to prevailing conditions of employment in the country. When, in 1945, many architectural students came out of the services, they returned to school to complete their education, and did not graduate until the late forties. At this time, they found the possibilities of commencing private practice practically nil, for what work there was, chiefly housing and school building, was going to either the large firms, was offered for competition, or was done by the Council. Soon the private firms were saturated with staff, so that the Council, unlike in previous years, found itself in the position to choose the cream of the crop. With increases in its scale of wages, it obtained it. Since 1950 then, the quality of the work has improved considerably, but, as large housing projects take several years to fully realize, these new influences have not yet been widely appreciated. Only this spring, have excavations begun on one large project, which is the latest development in the Council's work, and which I am sure will draw considerable attention when it is completed.

#### Housing Based on Need

Recent surveys of the English housing shortage, are quite staggering. If one includes all aspects of the shortage, that is, the number of families living in overcrowded conditions, the number of dwellings which are totally unfit for human use, such as the slums, or which are rapidly falling into that condition, the number of dwellings which could be used but require added facilities, as hot water, and toilet, and relates these figures to estimates of birth rate, emigration, marriages, and many other factors of importance, the number of homes needed amounts to 6 million, and if these are to be provided by 1974, the number to be built each year must reach at least 400,000. The waiting list for the County of London is about 170,000 today, of which some 70,000 are crisis cases.

When post-war shortages of materials and labour hampered all building activities, it was found necessary to implement a rigid system of priorities. Although this was the only way building activities could be controlled, it meant that people of moderate means were also unable to obtain licences to build for their families, yet, because of their financial status, were hardly eligible for assistance under these priorities. To equalize the situation, the means

test was abolished, and selection for available accommodation was made on a point system alone, which took into account family size, age groups, conditions of existing quarters, and time of waiting, but which noted financial status only as a help in the placing of the applicants. Housing then, is based on need.

What happens when people of various income groups are mixed, in this levelling process is very interesting. Also, the effects of introducing low cost schemes into districts which have previously maintained a character of upper middle class respectability, are most useful to observe. In such a district as South Kensington, one or two steps removed from the social heights of Mayfair, a scheme was proposed for a bombed out area. The local residents were quick to complain, attesting bitterly that it would devalue their property, and in words unspoken, resenting the intrusion into their world of these kinds of people. Although their point of view was not entirely unjustified, the Minister of Housing nevertheless insisted on the fulfilment of the plans. For although he is aware of the homogeneous character of certain districts, he is also aware that some mixing of income groups is beneficial to a new housing scheme, for it helps such a scheme to survive longer, at a reasonable level. In cases where schemes are erected in totally depressed areas, the final level to which it settles is generally lower, assuming, as it is difficult to resist, some of the surrounding character. The results of mixing class levels by housing can often be seen in the election results, when, for example, a district of well to do population is suddenly injected with several thousand working class people. But in general, such incidents are not too common, as the cost of land in these better areas is high, and the worst conditions of need are mostly to be found in the depressed districts.

In 1953, the number of units built by the Council was 10,000. Before anyone can be evicted by the authorities, to make way for a new project, he must first be found other accommodation. Thus, the above figure really means only about 5,000 new additions of units to the overall total. There is a continual overlapping, as groups move from the old, to make way for the new, which is always one step behind them. For various reasons, most people resist change of districts. This has been a most delicate task in the provision of housing, especially when the aim in London is eventually to move a large part of the population out into the new towns. The process is, by its nature, a slow one.

In my next article, I will discuss the principles which guide some of the projects of the Council, the procedures which are followed in carrying these out, and some of the important characteristics which seem inherent in architecture of the state.

ONE OF THE MOST STRIKING THINGS about the historical architecture of India is the profusion of the remains in almost every part of the country. Some areas have been spasmodically occupied by advanced peoples for nearly five thousand years, while in nearly every habitable place there are sites of interest dating throughout the last millennium.

The valley of the Indus in Pakistan has disclosed the highly developed cities of a civilization which existed there in 2500 B.C.; close to them are other cities, like Taxila, which flourished contemporary with the Roman Empire in the west. Beside them again, and spreading across North India, are the extensive monuments of the Moghul empire which reached its peak in the sixteenth and seventeenth centuries. In the east of India, Calcutta side, are the excavations of a once world famous Bhuddist university of the fifth century and some of the finest Hindu temples. In south India, Hindu architecture with its sculpturesque temples has a continuous history for fifteen hundred years, while north of that and west, near Bombay, are the Bhuddist, Jain and Hindu caves carved out of the rock as monastic retreats between the first and seventh centuries. Scattered indiscriminately through all this are a few sites of interesting modern work.

The vast area which all this takes in makes it very difficult to devise an agenda which will cover it all in a limited time, and if you ever meet anyone who says he "saw" India in less than a year, do not believe him. Even though I planned my agenda, which lasted about three months, so I could travel continuously without retracing my steps, I was still only able to see the most important Bhuddist and Jain work around Bombay and Hyderabad State; some of the architecture of the Moghul empire in India and Pakistan, and the most representative of the prehistoric sites in Sind. I had to leave out entirely the fascinating Hindu work of the south and east.

Since I first landed at Bombay, one of the first types of ancient architecture I saw was that of the rock-cut temples and caves found in the rocky hills and ghats along the coast. These are a singular type of edifice almost unique to India. As far as is known, they were begun in the first or second century B.C., with a Bhuddist cave at Karle, and the prototype was continued at various locations through six or seven centuries.

The practice in building the caves was to choose a clear rock face and to sculpt the interior entirely from the

living stone. They were usually built in groups over a long period of time, often as many as twenty or thirty in one location, and they provided isolated sanctuary for monks who retired to the hills for devotion and meditation. A general plan was followed which provided for a stupa, or relic shrine, against the wall opposite the entrance; a series of columns which surrounded a central room, and side aisles like a hypostyle hall off which were small dark cubicles where the monks slept. The only light came from the entrance and an arch shaped clerestory above, or sometimes from light wells if the cave was close to the surface of the rock as at Elephanta, an eighth century Hindu cave on an island near Bombay, where two large side courts make it the only cave with more than one façade.

The carving in these caves achieves an extraordinary plastic quality from its complete integration with the structure, and the sculpture, which in many of the later ones stands almost free of its matrix, is among the finest work found in India. The extreme example of the refinement to which this monolithic work was carried is at Ellora, where an entire temple of several storeys height is carved from the bed of a rocky hillside. A closer attachment of a structure to its material could hardly be achieved but the result is sculpturesque rather than architectural. Some of these caves were also ornately decorated with frescoes which, due to their isolation and protected environment, have been exceptionally well preserved. The wall paintings at Ajanta are probably the most extensive examples of early painting in existence and are of extremely high artistic quality. The pigments used were most uniformly permanent and except for the damage caused by thirteen hundred years of insects and animals which have carried away some of the surface, and a few years of unrestrained archaeologists who have carried off considerably more, the paintings are in excellent condition. The delicacy and grace are well illustrated in the roof of a portico to one of the caves where a series of decorative lotus designs were framed in a continuous pattern with geometrical latticed borders. The other wall frescoes usually represent scenes from the life of Bhudda and are remarkable for fluidity of line and brilliance of complex composition.

Near the site of the Ellora caves is the deserted fort of Daulatabad, one of the most elaborate of the many forts which dotted central India after the tenth century. Its

citadel, high on an isolated ghat, is visible for miles across the plains and its outer fortifications enclose an area of nearly a square mile which included farm land and a market village. The buildings are in excellent condition since the fort was occupied until quite recently. The wood-work and timbers are mostly gone, victims of the ants or the cook-stoves of the local villagers, but since the walls and roads were of solid stone or brick they have remained as they were. It is rather an awesome experience to wander through the streets and buildings meeting only the peacocks or monkeys who have taken up their residence undisturbed, and finding the old but unruined cannon lying idly abandoned where they fell from their rotting cradles. As you climb the steep stairs to the citadel, carved out of the rock a dizzy height above the town, you half expect the portcullises to fall, the huge studded gates to swing closed and life to take up again where it left off somewhere in the sixteenth century.

The trip through Hyderabad State to the ancient caves and forts took me on a circular route and back to Bombay. From there I took the train north toward Delhi with the intention of stopping at each interesting centre on the way, giving each site as much time as I thought it deserved. In this I was greatly aided by the Indian system of providing waiting rooms at each station where you can stay a night or two without charge in relative comfort – at least there was usually some sort of a bench to keep you off the floor and a washroom with a bucket of water.

The first stop on this route was Sanchi, a small station off the main line where the most extensive structural remains of the early Bhuddist period are located. The site is on a large scrub-covered hill in rather brown and barren country. The buildings in the group, arranged in acropolis like fashion on the flattened top, are a series of stupas or relic shrines and temples dating from about the second century. The summit is reached by a wide stone path which circles the hill with an obvious eye for the religious and dramatic, and as you approach the central structures by this way the effect must be comparable to that of the Parthenon at Athens.

The day I arrived was a festival in a little town at the foot of the hill, and as I climbed the worn stone steps leading to the summit a one strain melody from a pipe and drum beats followed from below. It was easy to imagine myself in a train of yellow robed monks trailing devoutly

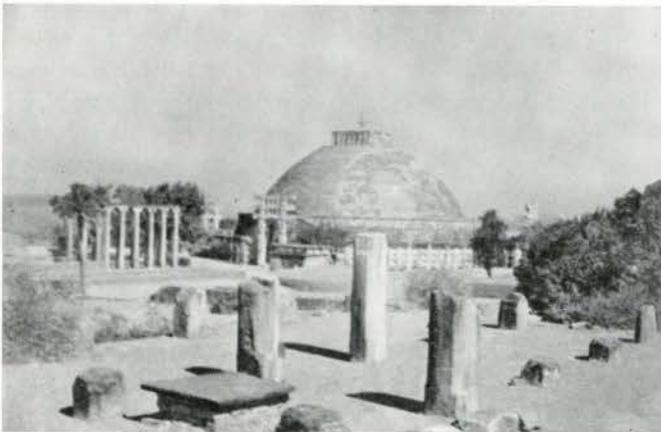
to the stupa two thousand years ago. The great stupa, a huge, simple mound of sandstone blocks surrounded by a stone railed fence and four ornately carved gates, is the focus of an informal series of temples and smaller stupas scattered over the gently terraced hilltop. Trees flourish here and there and flowering shrubs find root between the loose flags of the terraces; troupes of monkeys skip through the branches at the edge and the whole tope has the appearance of a tasteful asymmetrical garden. The site is well maintained and extensive restoration has been done so the arrangement of buildings must appear much as it did about 500 A.D.

Travelling north from Sanchi the next stop of major interest is the fifteenth century fort of Gwalior. Standing on a steep, isolated mass of sandstone nearly two miles long, the fort is one of the most impressive mediaeval strongholds in India. The entire top of the escarpment is walled and a narrow road running through six massive gateways leads to the summit and the entrance to a remarkable castle of Hindu design, one of the few secular buildings of Hindu origin to survive the ravages of the later Moghul conquests. This building is interesting particularly for the refinement of its design and ornament. The exterior, topped with delicate towers and latticed battlements, is covered with glazed tiles of brilliant colour and fascinating, nursery-rhyme patterns which lighten and enhance the red sandstone structure with the representation of elephants, peacocks and other birds and animals in green, blue and gold mosaic. It is one of the best examples of the applications of glazed tile to the exterior of a building, but it was not a form which was native to the area and it is said that the work was originally done by Italian designers.

From Gwalior to Agra is a couple of hours train ride and with Agra begins the vast area covered by the Moghul architecture of the sixteenth and seventeenth centuries. It includes Delhi and East and West Punjab and stretches up into the valleys of Kashmir where the gardens of Srinagar are among the most renowned in the world. The architecture of the Moghuls, although profuse, was, however, all built over a relatively short period and the styles and building types are similar throughout – the most important buildings in every centre being the fort, which also contains the royal palace and court; the tombs, which every emperor built for himself or his favourite wife; the mosques, and the gardens.

The buildings have many aspects in common. Great importance is given to a symmetrical setting of gardens, courts and terraces with their array of pools and fountains; open colonnades which provide protection from the sun while allowing the wind to blow freely through are widely used, and particular importance is given to fineness of materials and intricacy of craftsmanship. The structure is basically similar in nearly every type of building but little emphasis is given to it and is usually covered. Continuous brick vaults are used; the simple multifoil arch which is often no more than a delicate symbolic pattern like the Saracenic onion dome; and the post and beam. Beneath an applied skin of marble or fine red sandstone the basic structure is a red clay brick of excellent proportions laid in wide mortar beds, and some striking aspects of Moghul architecture appear where the fine surfacing materials

Overall view of Sanchi Tope



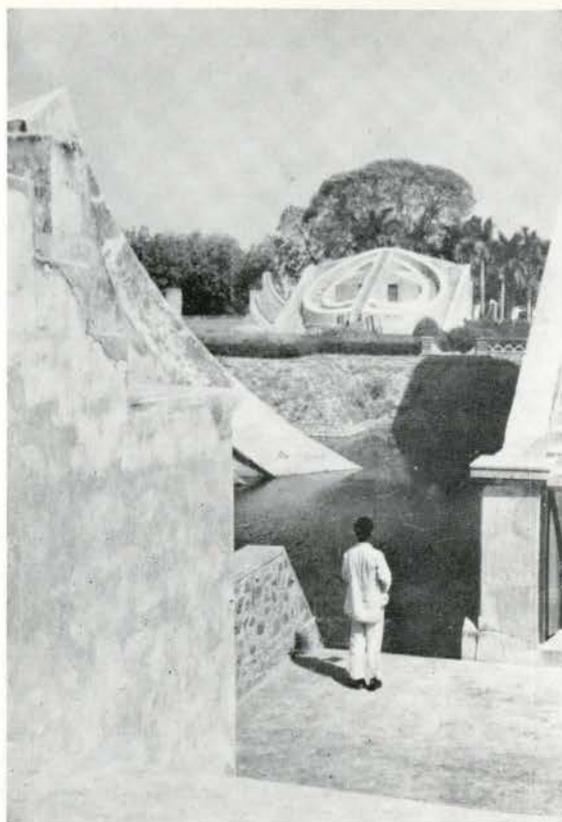
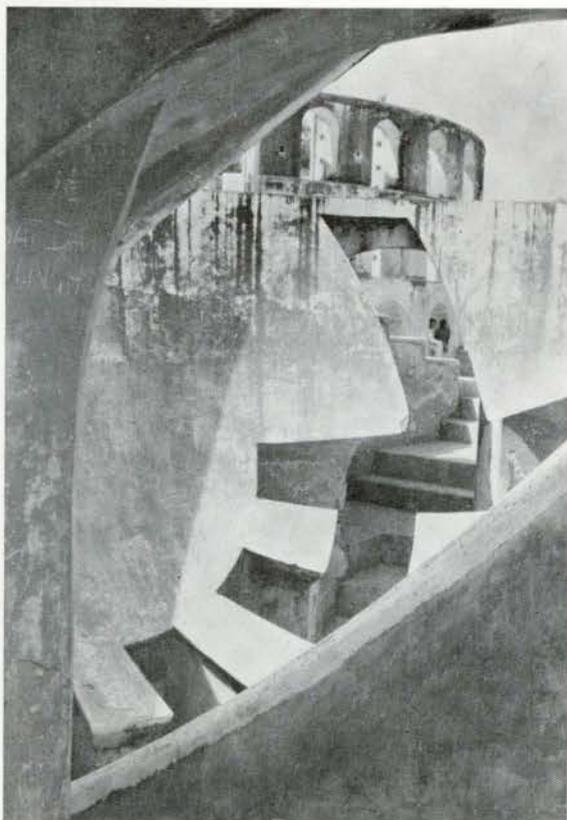
have been stripped away and the strong, simple lines of the substructure appear.

However, it is on its decorative rather than its constructive side that Moghul architecture is impressive, and buildings were often constructed more for a luxurious appearance than for utility. In spite of the ornate palaces it is said that when the emperor came to town he preferred to live in tents pitched on the plains or on the side of the river.

Of all the Moghul buildings the Taj Mahal, a tomb, is the most famous and with just cause. It is undoubtedly the finest example of proportioning and dramatic siting in the architecture of India. On approaching, after losing its gleaming dome among the trees lining the surrounding avenues, you come upon it again like a picture flashed upon a screen, framed by the arch and dark recesses of the entrance gate and supported by its reflection in the pools and the lush greenness of the simple gardens. The disappointment you expected to feel on finally seeing such a celebrated building is dispelled in a moment. In spite of its beauty the Taj Mahal is a building without scale, in fact it could exist at almost any size in appropriate surroundings. But the abstract correctness of its proportions, form, and decorations are well illustrated by a comparison with the many other tombs which have been built to rival it, using the same elements of domes and minarets and arches, but with markedly less success.

The Moghul forts, although they lack the virulence of the mediaeval strongholds are impressive in their refinement and in their beauty of workmanship. There is a fort at each large centre of Moghul culture. Delhi, Agra, and Lahore being the most notable. Similar in design, they contain court buildings of great extent and luxury as well

Another view of the observatory



Overall view past Samrat Yantra

as fortifications and seem to have been used more as a setting for royal occasions than for defence.

The palaces within the walls are formed in a vast complex of courts and colonnades which run one into another in a continuous pattern of balconies, terraces and fountains. Water was one of the favourite elements of these designs and is employed with great subtlety in cascades and spouts and geometrically arranged pools. These now have a particular beauty in their still, jade-like reflections, but originally they were alive with sparkling fountain sprays. No one has any water to spare in India now and nearly the only place where the fountains play is Shalimar Bagh in Kashmir on Sunday afternoons.

Space, its formation and flow through terraces and courts, and the interplay of light and shade on delicate eaves and graceful sculptured walls make up the overall picture of the Moghul architecture, but it is in the detail and in the delicate ornament that the Moghul builders excelled.

Decoration became, in fact, the art of the jeweller so fine was the carving and so delicate the inlay work. Fretted stone screens of "jalis", which effectively close a room without obstructing the wind or the view, are used in myriad patterns; marble surfaces are painstakingly carved and inlaid with designs of great intricacy. Some panels, thin enough for light to pass through, frame the patterns carved upon them against an aureole of translucent marble.

The inlay work is of an intricacy which extends to bits of mother of pearl no larger than the clipping from a finger nail, with shading and veining obtained by carefully selected tones and colours of semi-precious stones. Unfortunately, vandalism has destroyed much of the work

done in precious stones but enough remains to suggest the former splendour and a few places like the Taj Mahal have remained relatively untouched.

In New Delhi, on a large plot near the centre of the town are the exceptionally well preserved structures of one of the most interesting institutions of its type in the world. It is an astronomical observatory, the "Jantar Mantar", one of a series of observatories built in Northern India by Maharaja Jai Singh, an erudite Rajput ruler of the seventeenth century, who interested himself in everything from the hereditary Rajput occupation of fighting to advanced astronomy. The instruments that he built are in masonry plastered and glazed to a china-like finish, and of extremely large size. They present a most astonishing group entirely apart from their scientific aspect.

The "Samrat Yantra" is an equal hour sun dial which has a gnomon or vertical height of nearly ninety feet; the shadow from it registers on a quadrant of a circle suspended over a moat on either side of the axis like enormous sculptures by Hans Arp. The "Ram Yantra" is an instrument with a segmented cylindrical wall open at the top and having its centre a pillar. The floor and inside of the wall are graduated for altitude and azimuth observations. The floor is divided into sectors to facilitate reading and the abstract geometrical pattern of solids and voids and light and shade which the instrument provides is an example of the finest of art derived from functional forms.

From an archaeological point of view one of the most interesting sites in the sub-continent is that of Mohenjo-daro in the Sind Valley of Pakistan. It was apparently the central city of a civilization which peopled the plains around the Indus river nearly five thousand years ago, and although other sites have been uncovered since excavations were begun in the twenties, Mohenjo-daro has remained the most important and best preserved. It was a brick city, or rather series of cities, situated on the bank of the Indus and it was to the river that it owed its existence, its many destructions and finally its preservation. Excavations have shown that the city was rebuilt several times during its history, always on a similar rectangular pattern of wide straight streets and narrow alleys running parallel, but each time on a higher level until, finally, the vertical distance between the first town and the last is as much as fifty feet.

The city covered a very large area and although only the central portion has been excavated the remains of buildings apparently in the same group are found several miles away in the bed of the now distant river. The state of culture of the people who inhabited the city was evidently very advanced. The design of the streets and layout of the buildings was strictly controlled, the methods of building and provisions for drains and sanitation were similar, and, in some cases, superior to those of nearby cities today; merchant's weights and measures were uniform and probably carefully scrutinized; and the simple jewelry and pottery; and particularly the carved seals which are found in surprising abundance are of extreme simplicity and

beauty.

The brick used in Mohenjo-daro is surprisingly similar to the brick used in Pakistan today. There were apparently no buildings of a purely monumental nature and brick was used throughout for the most important buildings, but occasionally, as in the walls of the "great bath" which is a large tank surrounded by colonnades and probably used ceremonially, the bricks are sawn to very true surfaces and set in gypsum mortar with paper thin joints which gave the walls almost the permanence of stone. Although the streets of the city were unpaved the drains were carefully laid in brick and covered, the smaller ones with a single brick or slab of shale, and the larger ones with an interesting corbelled arch.

The fate of the great city and, in fact, of the whole civilization is something of a mystery. Mohenjo-daro apparently disappeared under the sword of an invader in the twinkling of an eye, but it is interesting to compare that with the references to forts destroyed by the god-like warriors in the epic poems of Hindu folklore, — until now considered mythological.

In addition to the vast fund of historical architecture which demands so much time for its thorough study, there is a small amount of recent work of merit in India. Two factories by A. B. Schwarz in Bombay, with strong simple forms dictated by problems such as intense sun heat, dust, and monsoon rains, are worthy of note; Chandigarh, the new capital of the Punjab, designed by Le Corbusier is one of the most extensive architectural projects now in progress anywhere; and India is building some of the largest dams and irrigation projects in the world. There is some work of merit being done by young Indian graduates of European and American schools, but mostly the interesting work is being done by foreign architects and engineers and indigenous modern architecture in India leaves a lot to be desired.

There has been no heritage of building carried through to the present day and in the great mass of buildings forms are borrowed from previously borrowed styles. Although considerable progress has occurred in other arts such as painting, sculpture and literature, very little thought has been given to a regeneration of Indian architecture. But in spite of the dearth of creative work within the past few decades, India still presents more buildings of architectural value per square mile than any other country I have seen. It concerns us in Canada a little less vitally than perhaps the architects of Europe from whose taproots our own culture has sprung, and whose basis has always been the solution of constructive and social problems which are closer to what we demand today than the predominantly decorative and religious problems of the past in India. Still, there is much to be gained from a comparison of the divergent development of architecture in the east and the west and in architecture, as in other fields of study whether it be poetry, religion, art or philosophy, there is a wealth to be had from a greater understanding of the achievements of India.

## International Calvert House Competition

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THIS UNUSUAL COMPETITION was open to architects and architectural students and attracted the attention of at least sixteen hundred persons who took the trouble to fill in the forms of entry. Actually, six hundred and fifty presented drawings. Professor John Bland acted as Professional Adviser, and the jury consisted of:

Eric Arthur, Toronto  
Humphrey Carver, Ottawa  
Gio Ponti, Milan

The jury was asked to find the winner of the International Award of \$5,000, the European Award winner who was to receive \$2,500, and the best entry from Canada, \$2,500. These eventually emerged as follows:

International Award—Knud Harboe, Charlottenlund,  
Denmark  
European Award — Gardner Ertman, Edinburgh,  
Scotland  
Canadian Award — Geoffrey E. Hacker, Winnipeg

Honourable Mentions with cash prizes were awarded to:  
Jean-Louis Lalonde Victor Prus  
Paris, France Brockville, Ontario

George Abram & James Craig John Cordwell (U.K.)  
Toronto, Ontario Chicago, Illinois

Hans Scasny Jelle Abma  
Vienna, Austria Amsterdam, Netherlands

Eric Defty (U.K.) Thomas Gourlay  
Cambridge, Massachusetts London, England

Richard Söderlind Geoffrey Fullman  
Gentofte, Denmark Bracknell, England

Press notices by Professor Ponti, the distinguished architect and editor of *Domus*, have been more than kind. As another member of the jury of award, I would say that the competition was valuable for two reasons. It introduced a standard of draftsmanship from Europe immeasurably higher than anything we know in this country or the

United States. It also gave us an opportunity to "see ourselves as others see us". One can appreciate the difficulty of visualizing the Canadian house of tomorrow as its author sits on the edge of a Norwegian fiord or on the shores of a Scottish loch. The difficulty is only slightly relieved by sitting on the shores of Lake Ontario or on a peak at Banff.

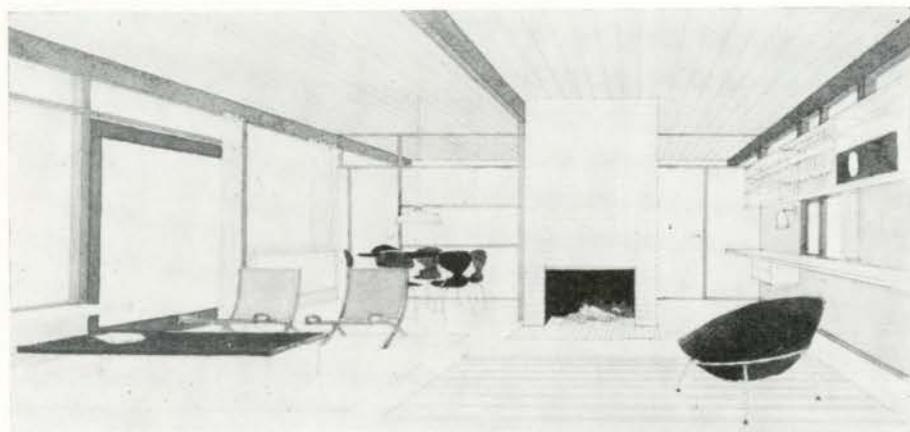
As a result, it was a competition in which the jury and competitors were delightfully free from the frustrating regulations of municipal by-laws, or even of consideration of materials that are customarily found in the suburban sections of Canadian metropolitan centres. Particularly interesting to this juror was the very prevalent view from abroad that we have indoor bathrooms and that the kitchen opens into the dining room, but not to the out-of-doors. The problems of garbage removal, and the arrival of goods by tradesmen were given less thought than play space for children which was frequently well handled. Some would say that that was all to the good, and I agree, but the casual treatment of very practical requirements by so many struck the jury as curious. Exhilarating for the jury was the appearance of some ten per cent that were fantastic — so fantastic that the strain of complete impartiality was relaxed in moments of laughter. Among such were the igloo type. It is likely that their prototype is in Florida, and there was not the remotest suggestion on the part of the competitor that the Eskimo had any effect on Canadian domestic architecture. Anyway, these were igloos that would not be recognized as such in Baffin Island.

The drawings will go on tour, and the architect would miss something who did not take advantage of their presence in his city. Among the winners, as among the best fifty, planning was ahead of interior and exterior design. Particularly to the schools of architecture will presentation techniques be looked at sometimes with awe, and, often, with envy.

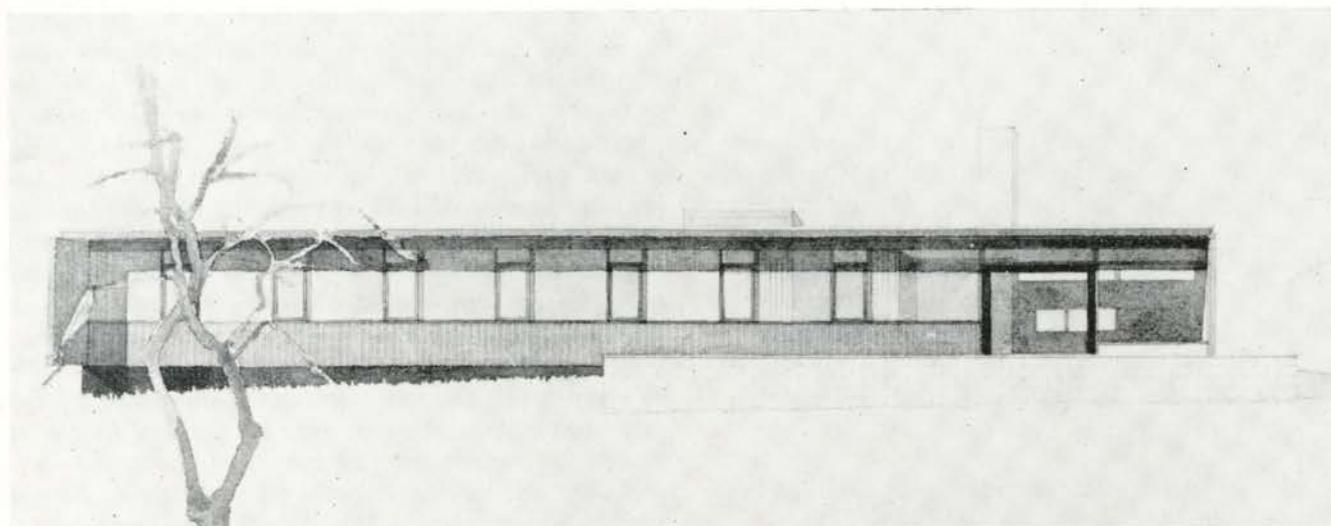
I know the jurors would like to join with me in congratulating Professor John Bland on the excellence of the arrangements which were his responsibility as Professional Adviser. We should also like to express our thanks to McGill University and the competition sponsors for their hospitality. A more ideal setting for the judging of a competition could hardly be found than the McGill School of Architecture library in which the committee did its work.

E.R.A.

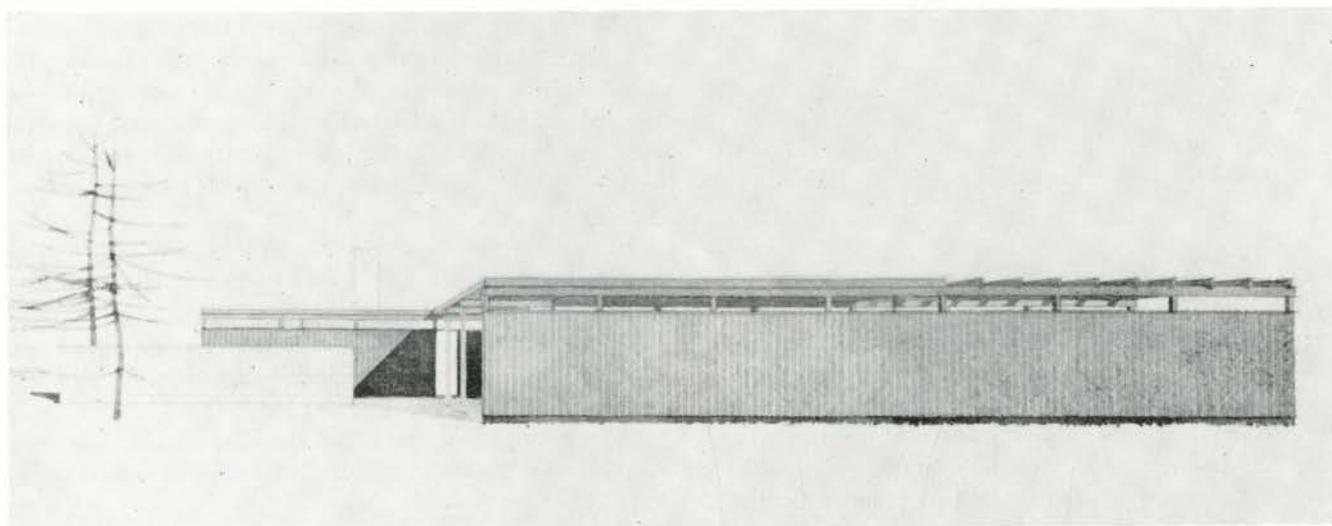
INTERNATIONAL AWARD



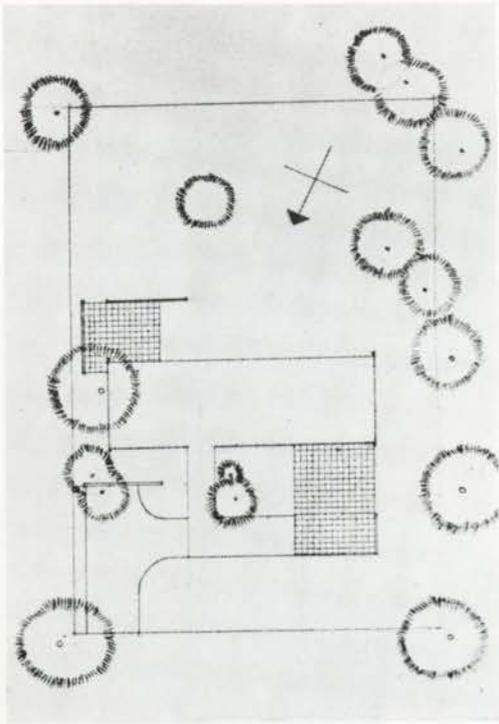
Knud Peter Harboe  
Charlottenlund, Denmark



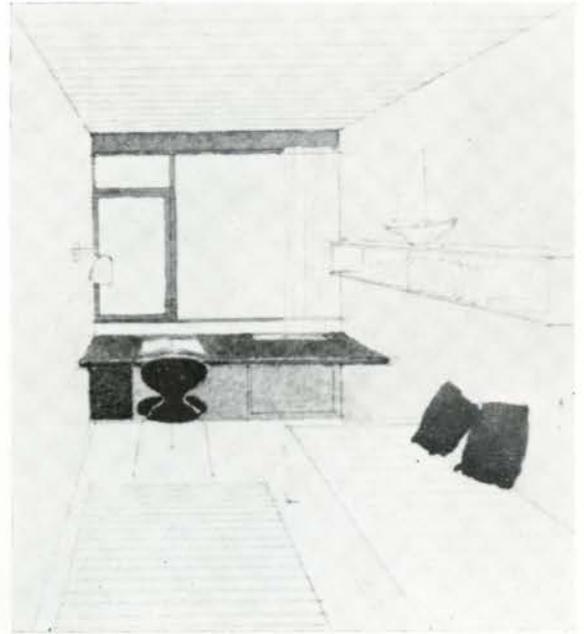
Elevation to garden



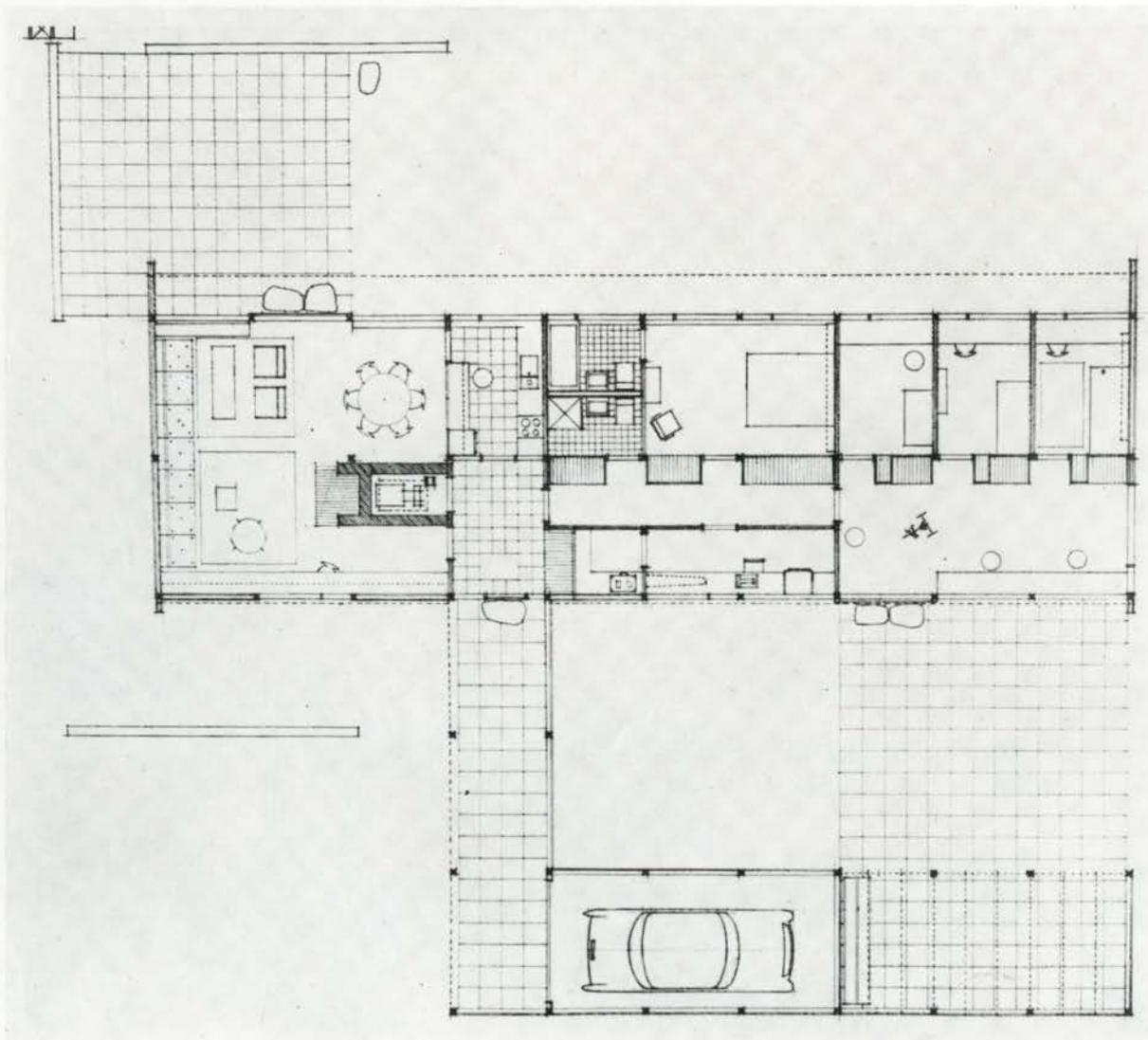
Elevation of wall at street



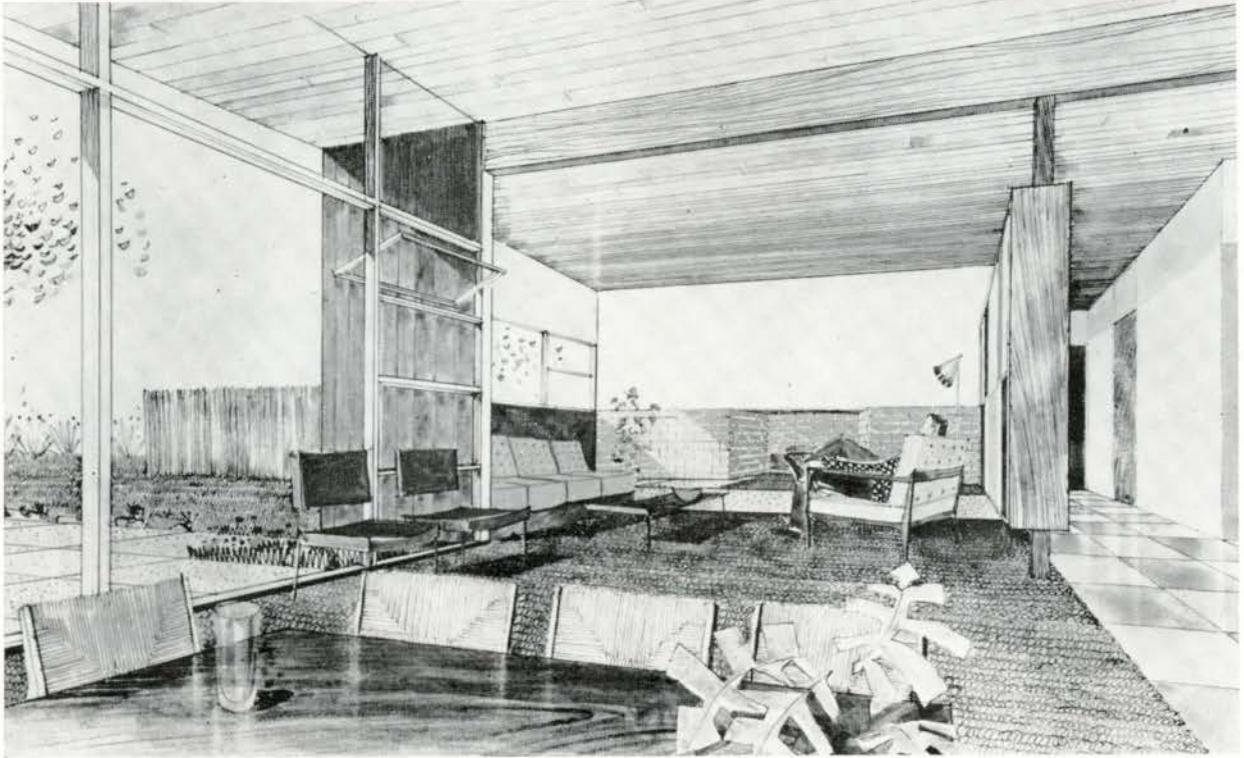
Plot plan



Interior of child's room

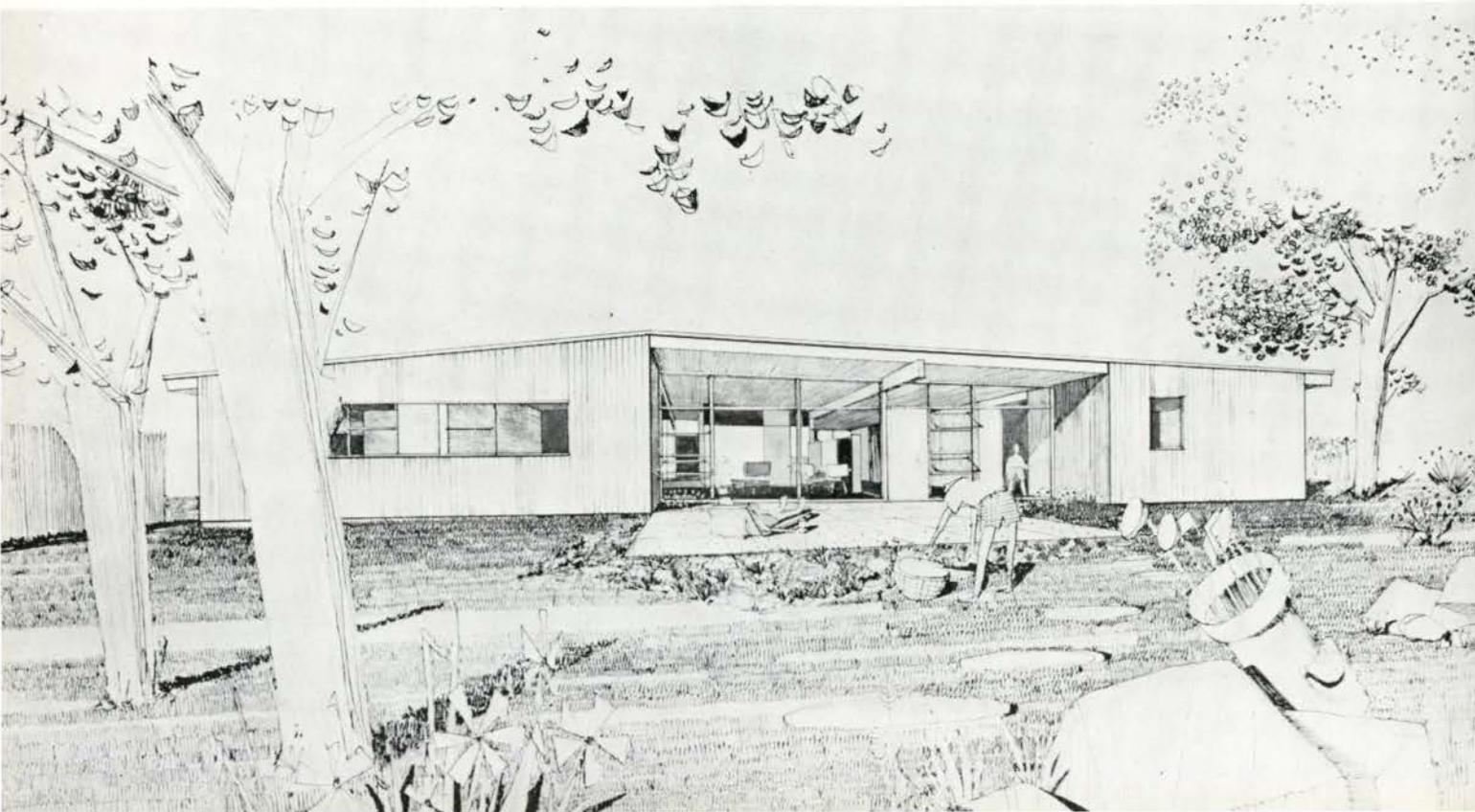


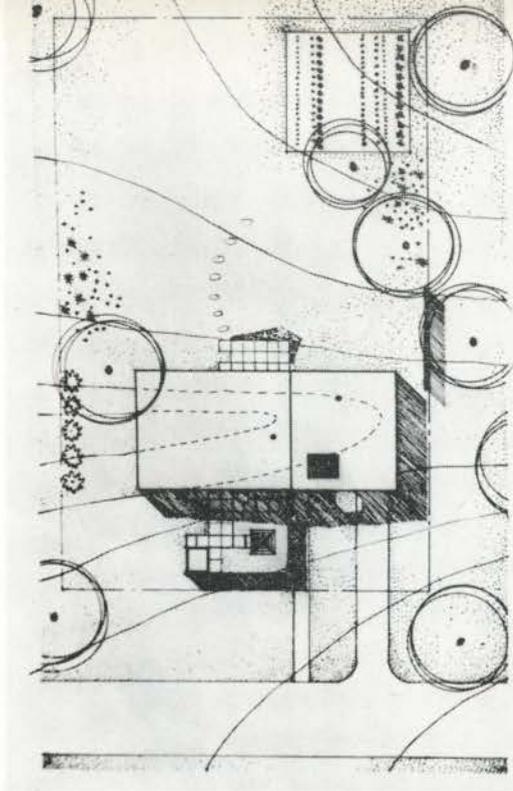
Floor plan



Interior of living room

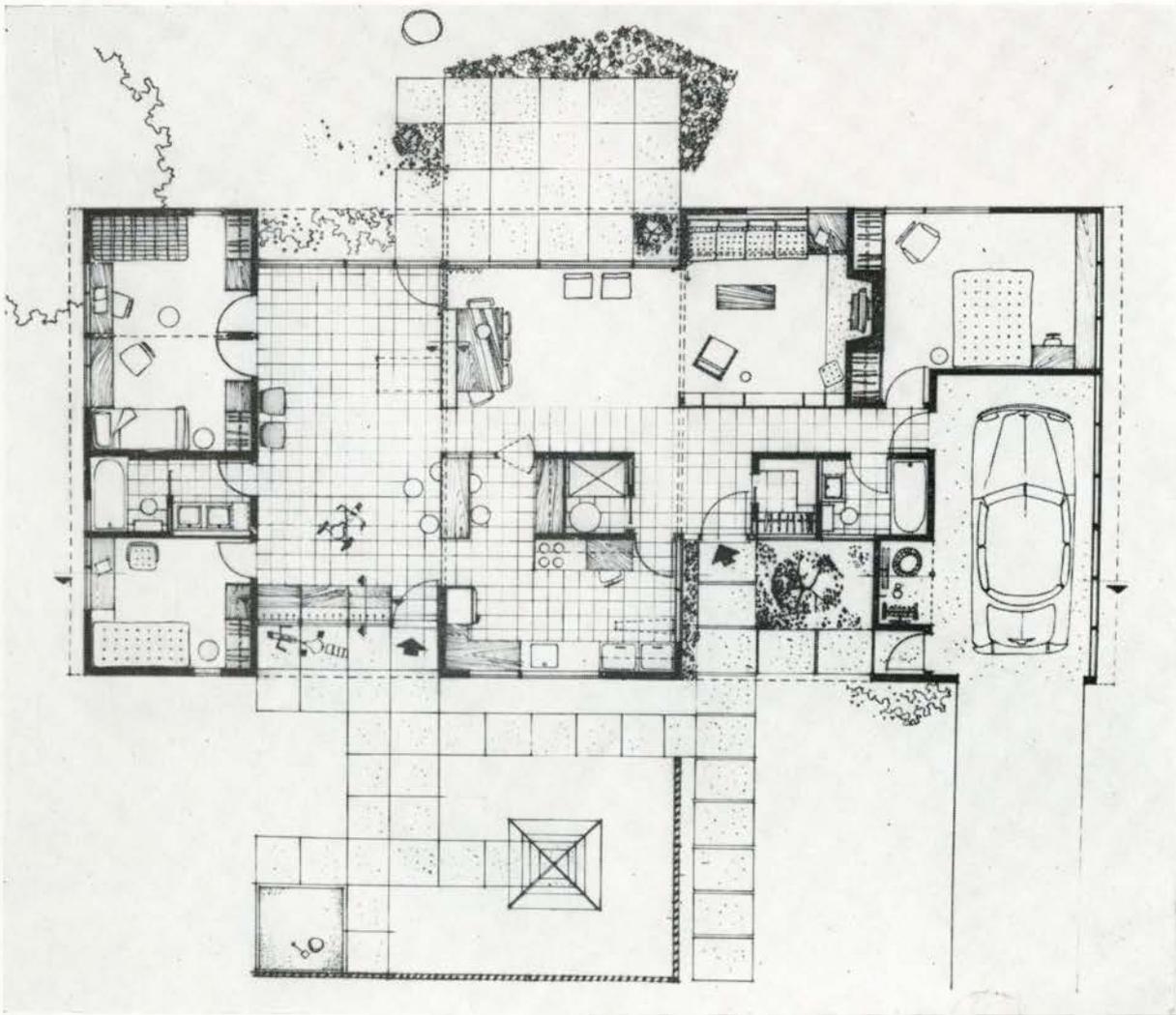
View of house from garden



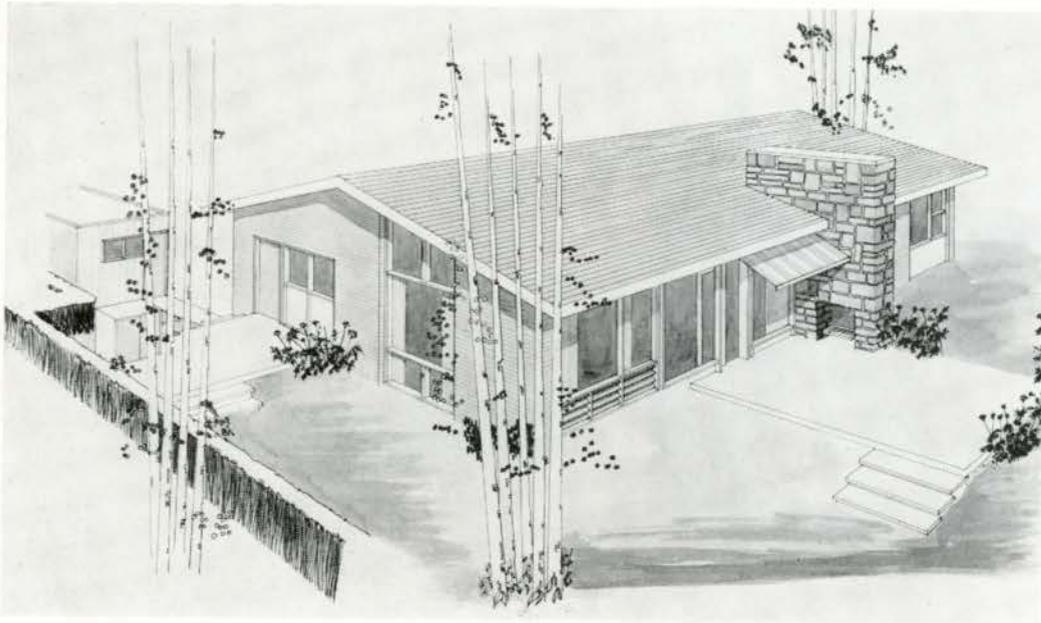


Gardner Ertman  
Edinburgh, Scotland

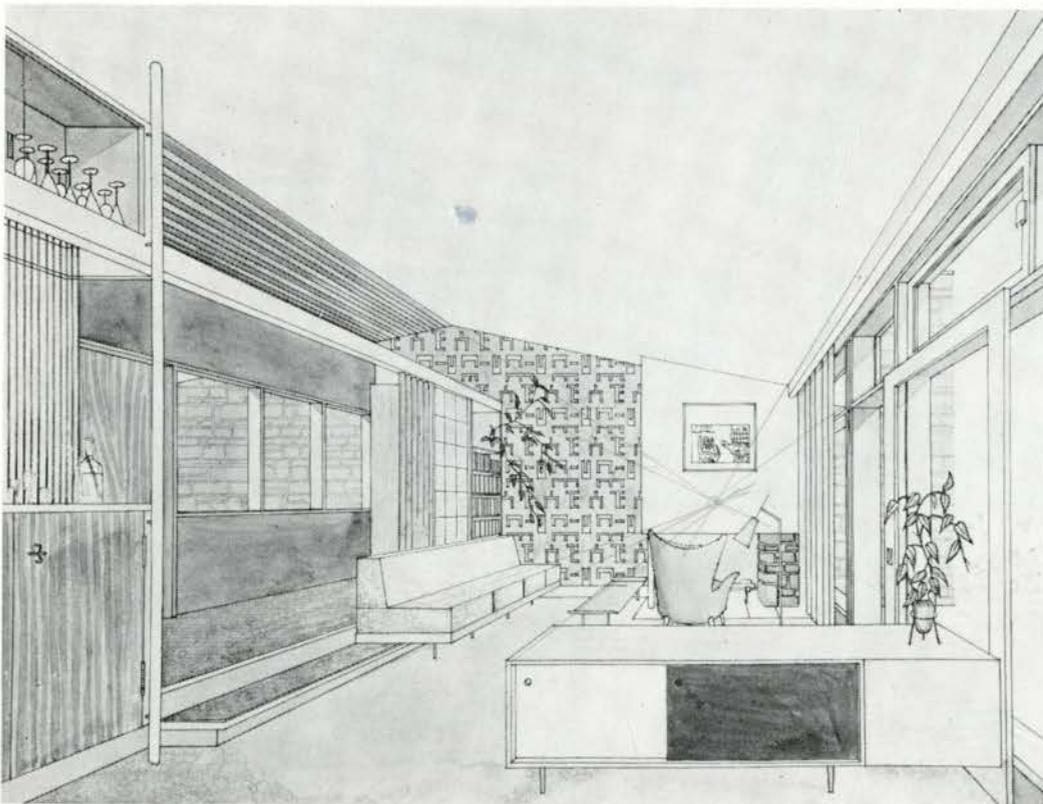
Plot plan



Floor plan

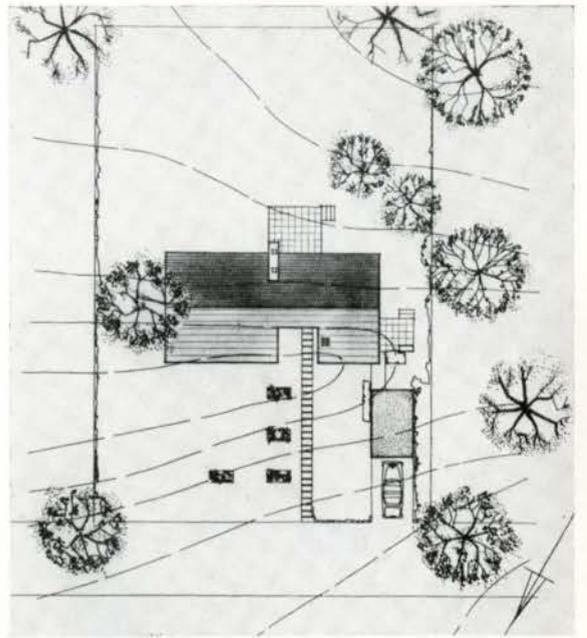


View of house from garden

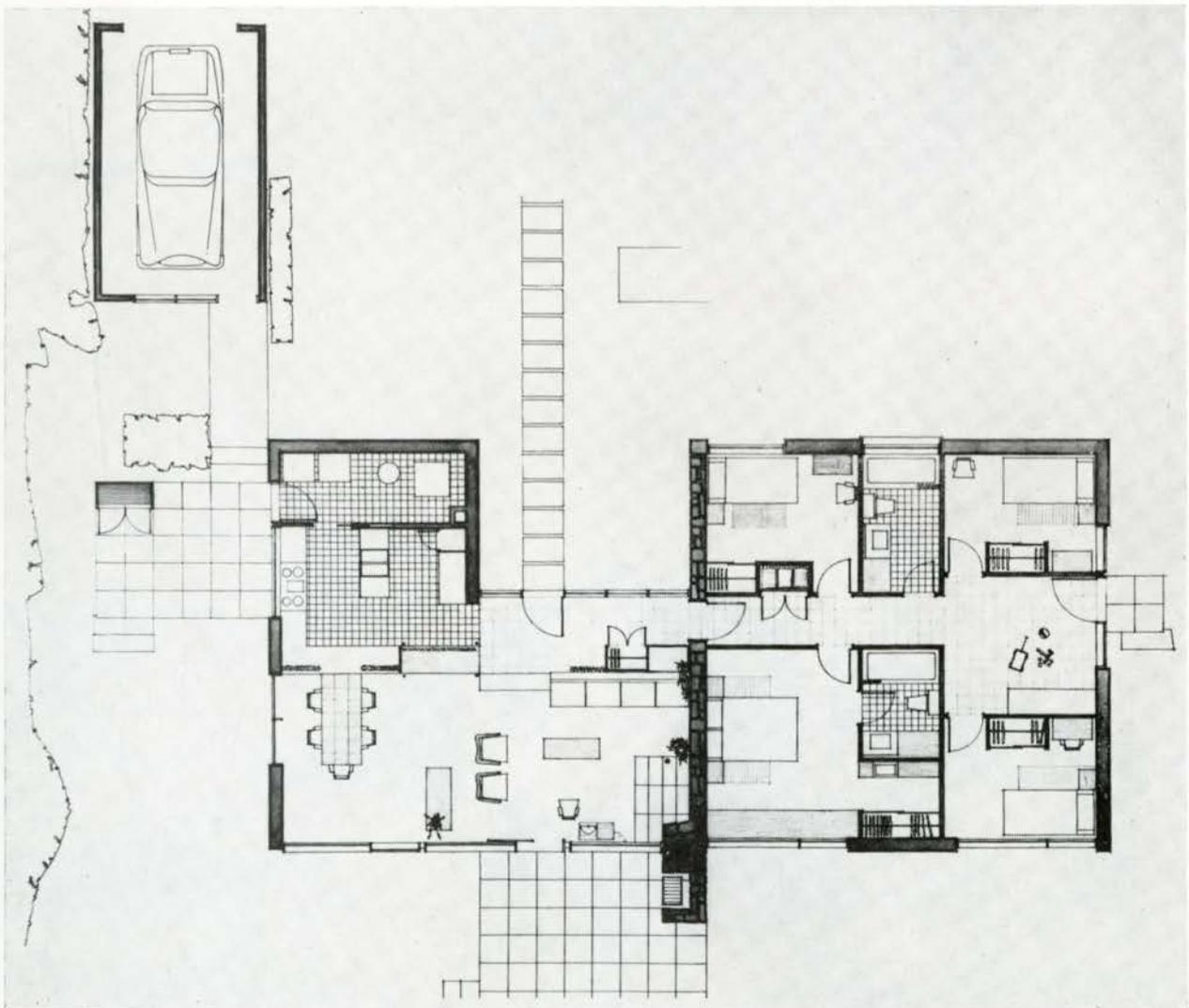


Interior of living room

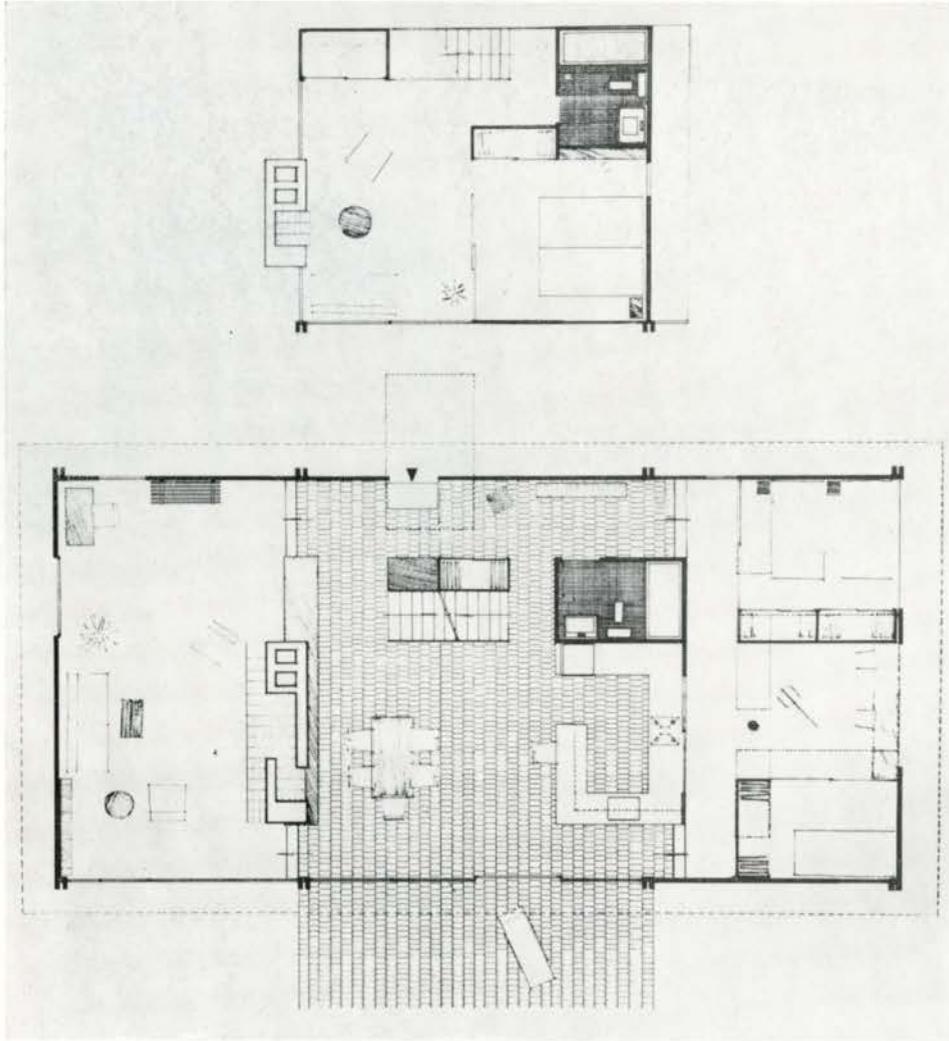
Geoffrey E. Hacker  
Winnipeg, Manitoba



Plot plan

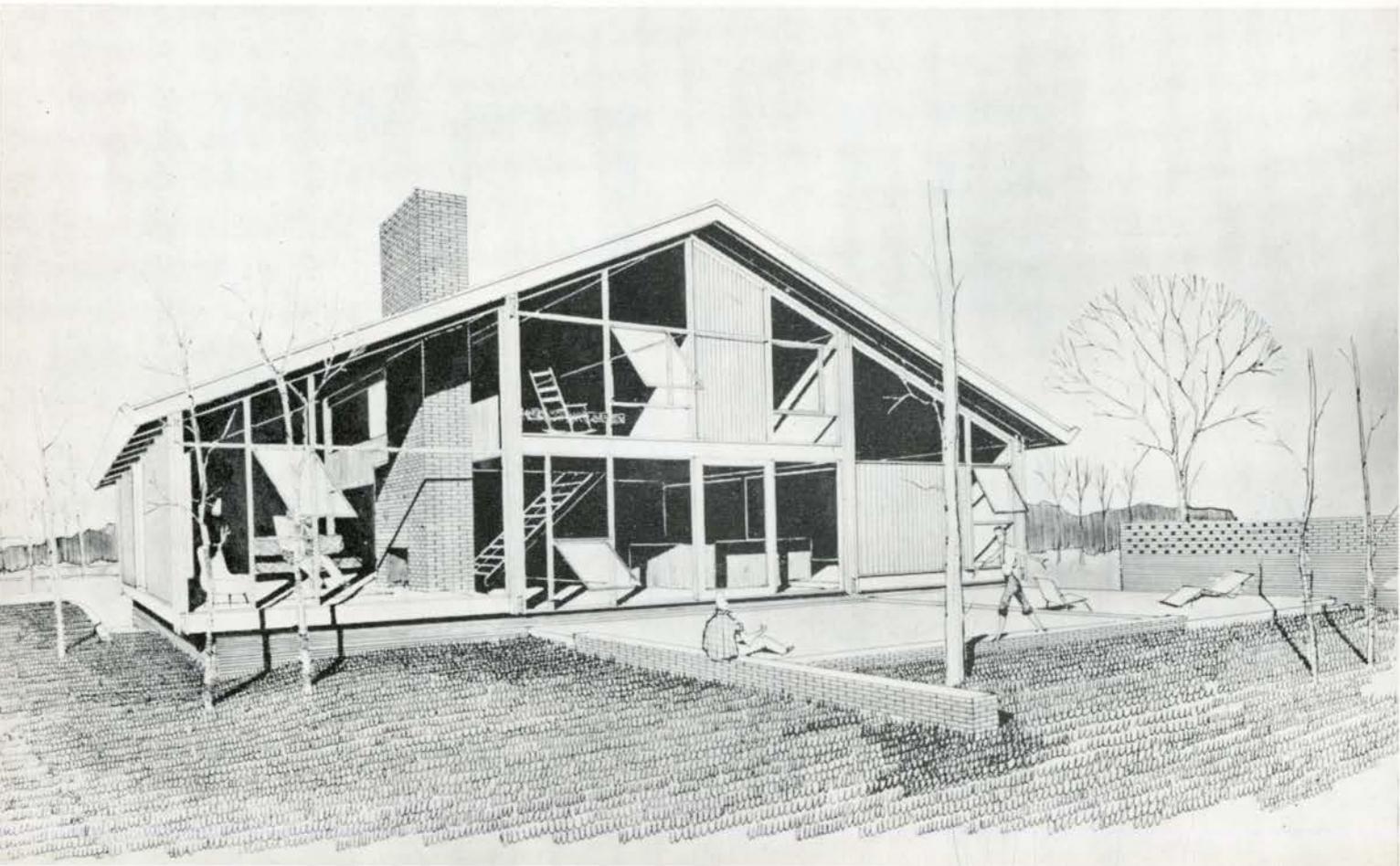


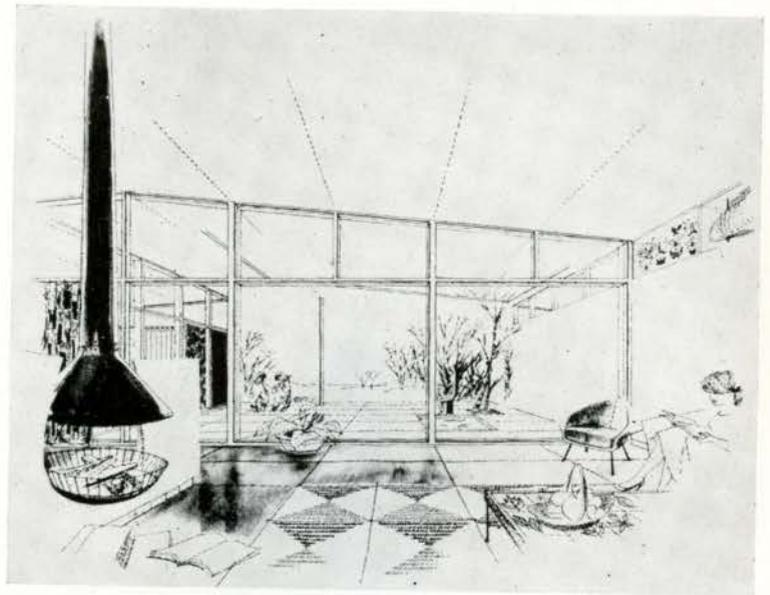
Floor plan



Eric Defty  
Cambridge, Massachusetts

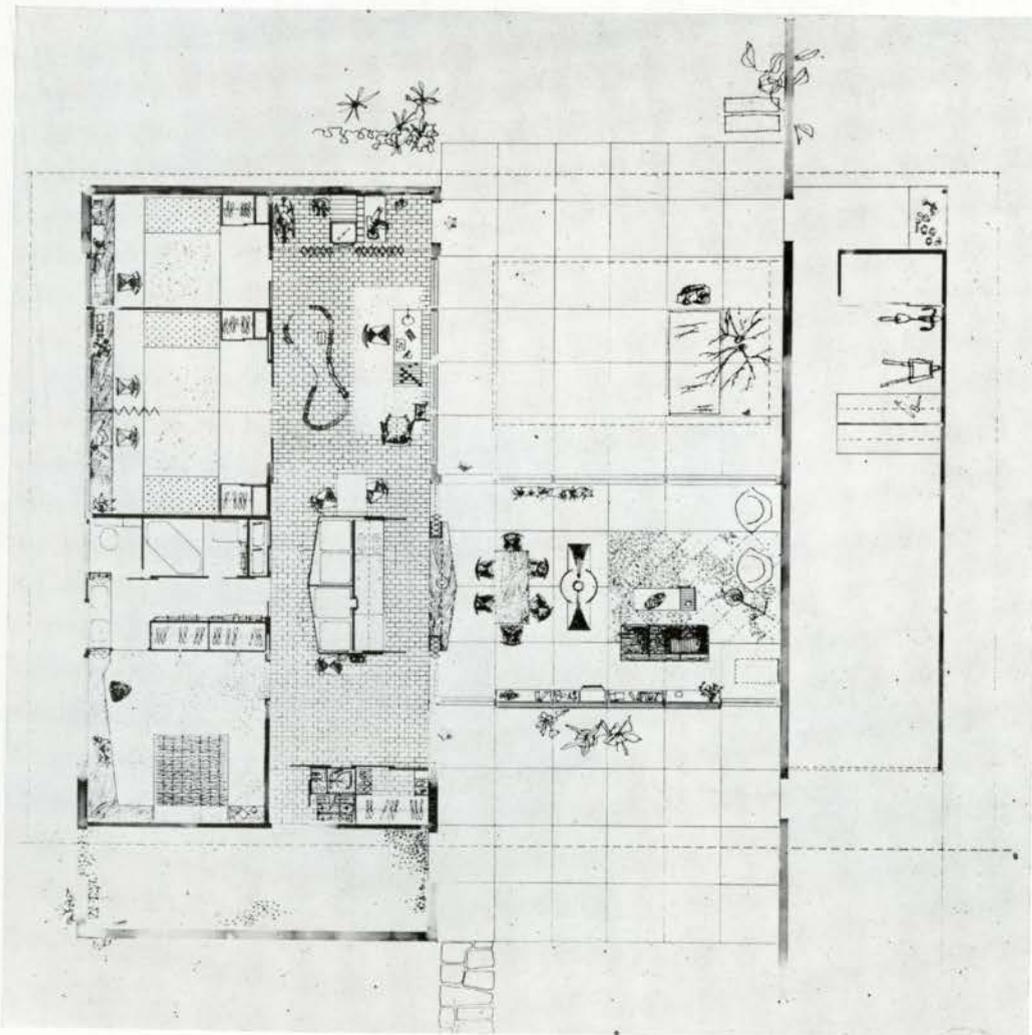
Plans of first and second floors



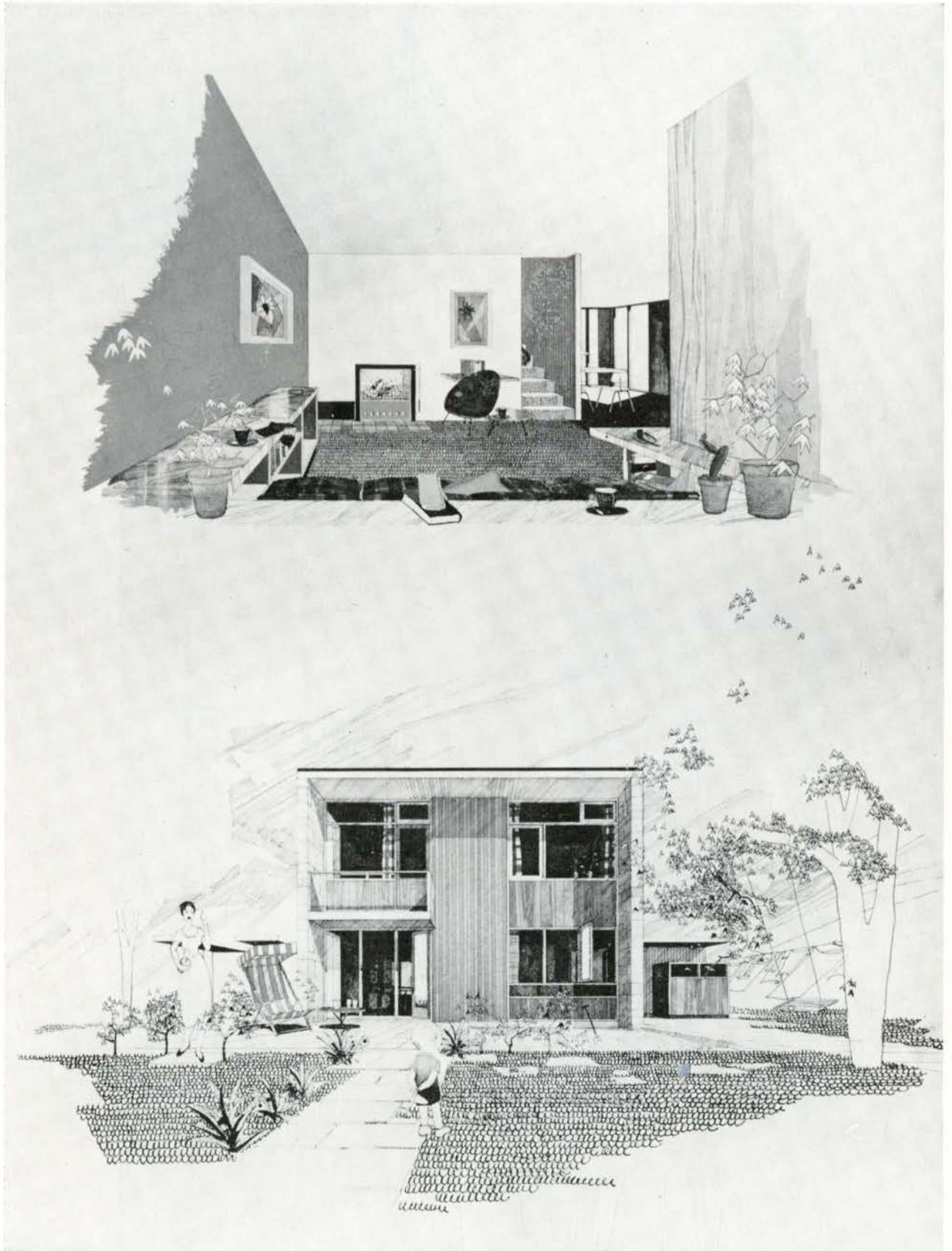


View of living space from dining area

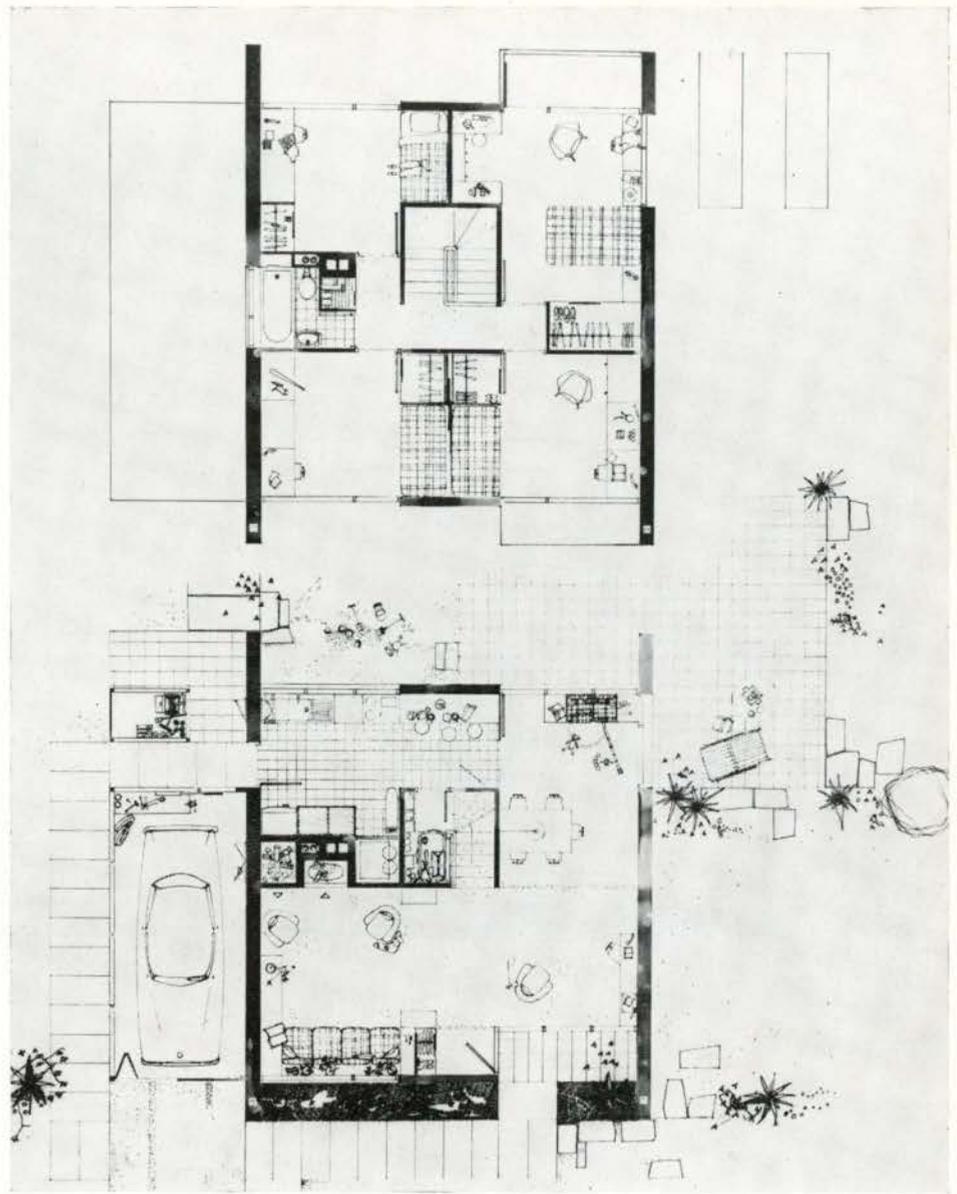
Victor Prus  
Brockville, Ontario



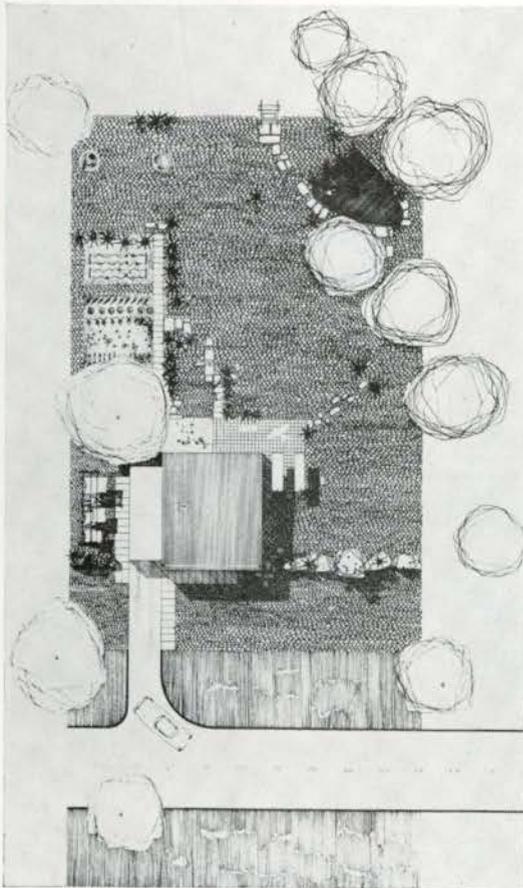
Floor plan



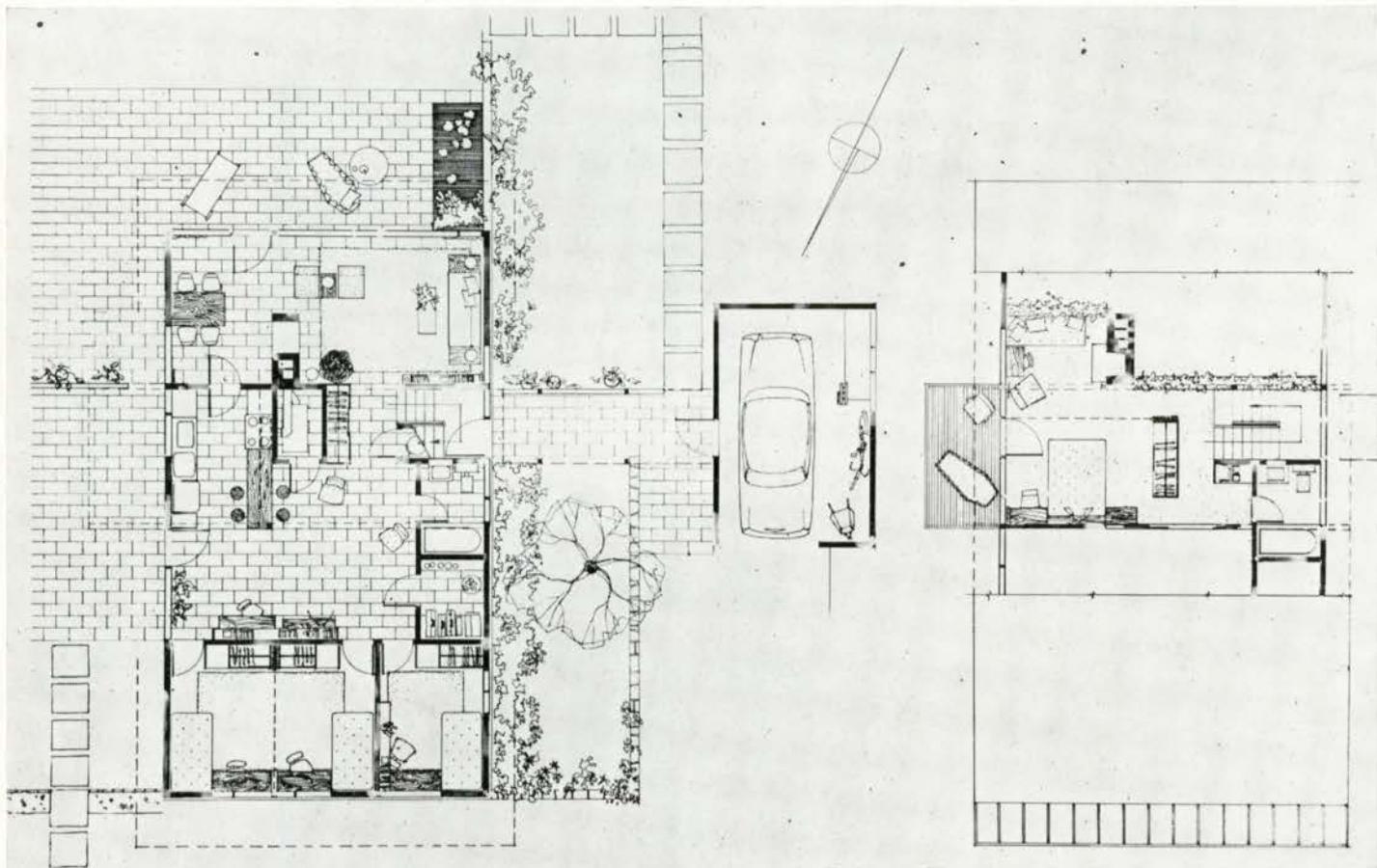
Plans of first and second floors



Plot plan



Thomas Barron Gourlay  
London, England



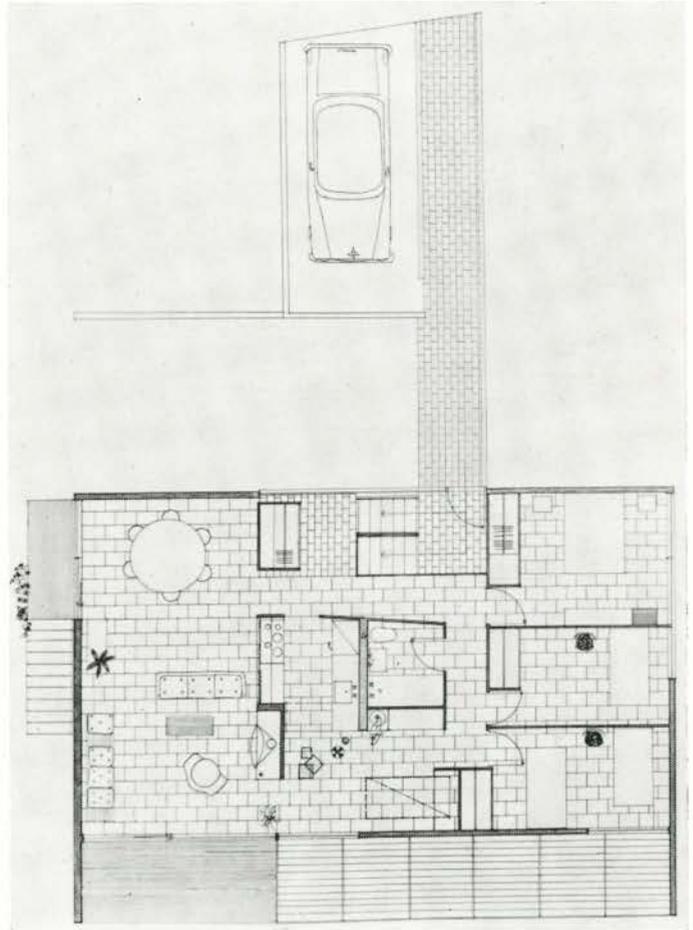
Plans of first and second floors



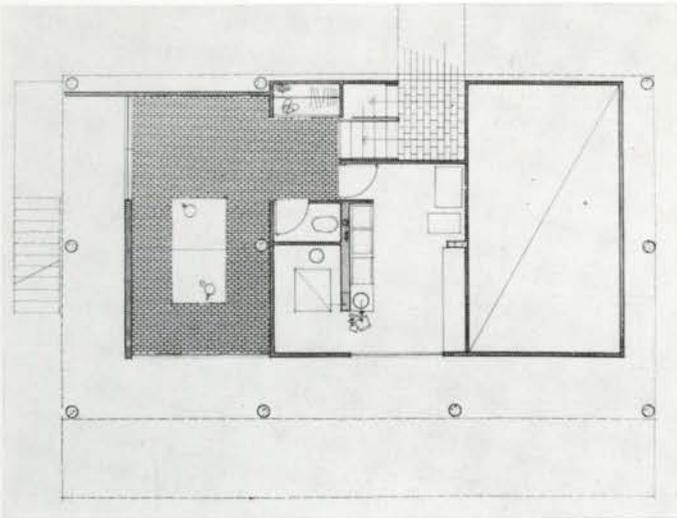
George Abram and  
James Craig  
Toronto, Ontario

View of house from garden

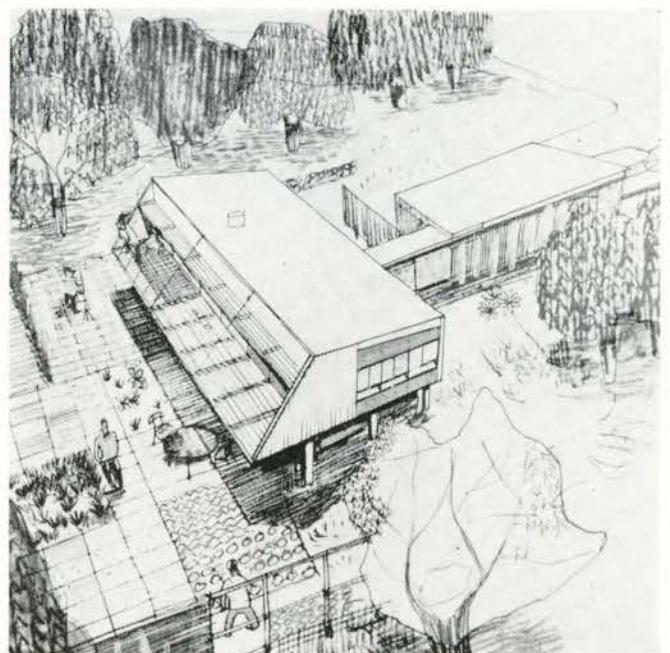
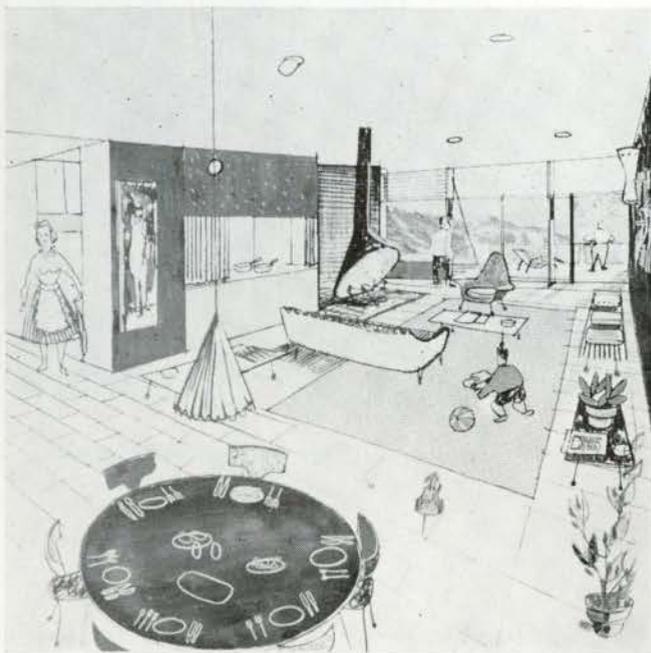
James Donald Cordwell  
Chicago, Illinois



First floor plan

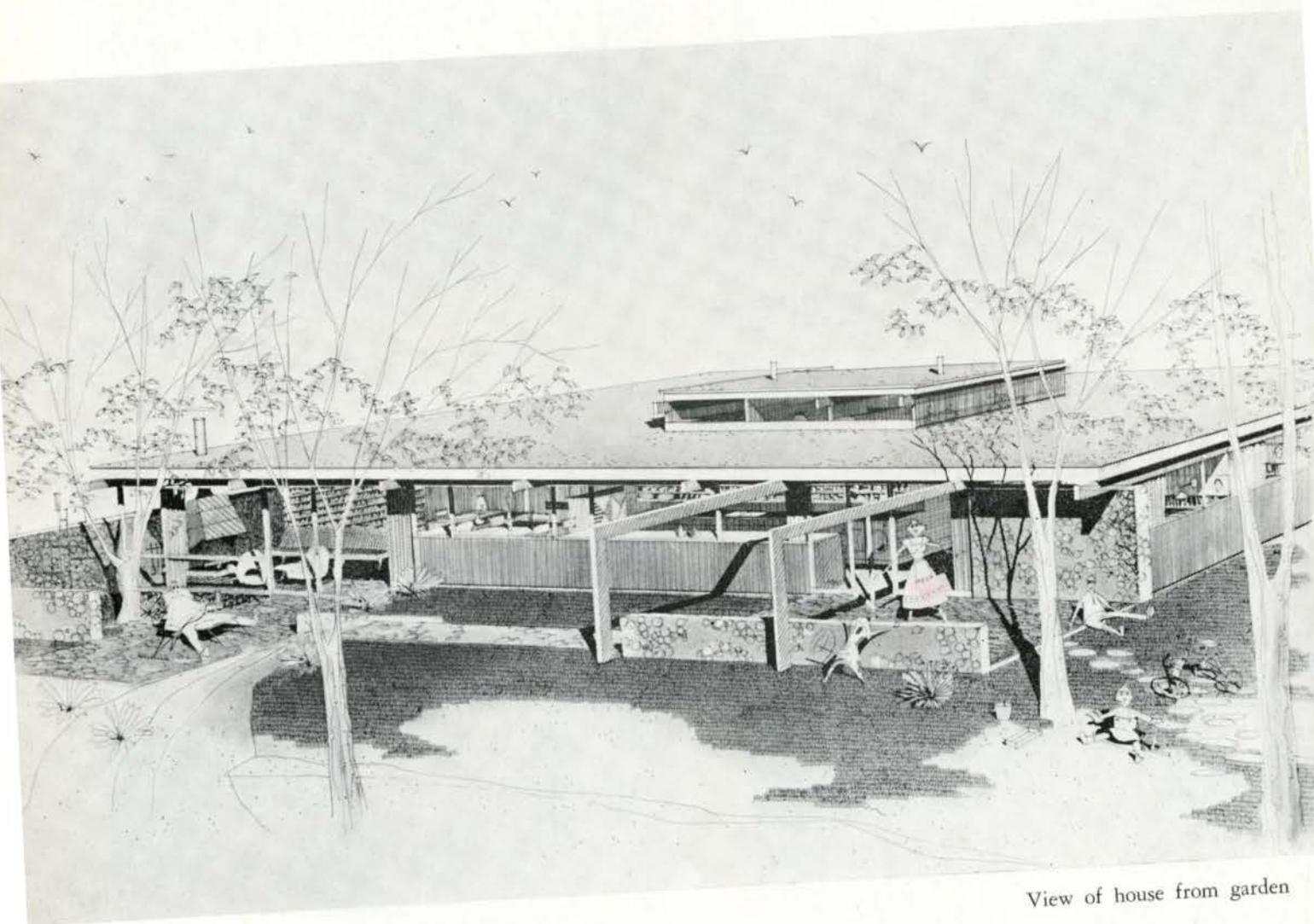


Second floor plan

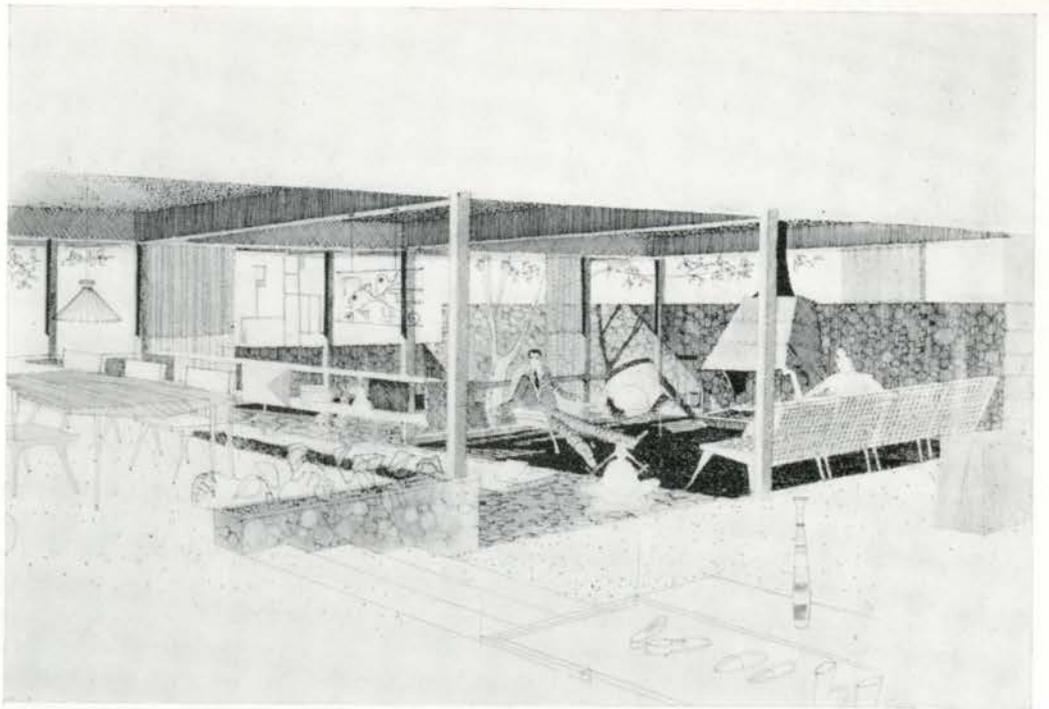


HONOURABLE MENTION

Richard R. Söderlind  
Gentofte, Denmark

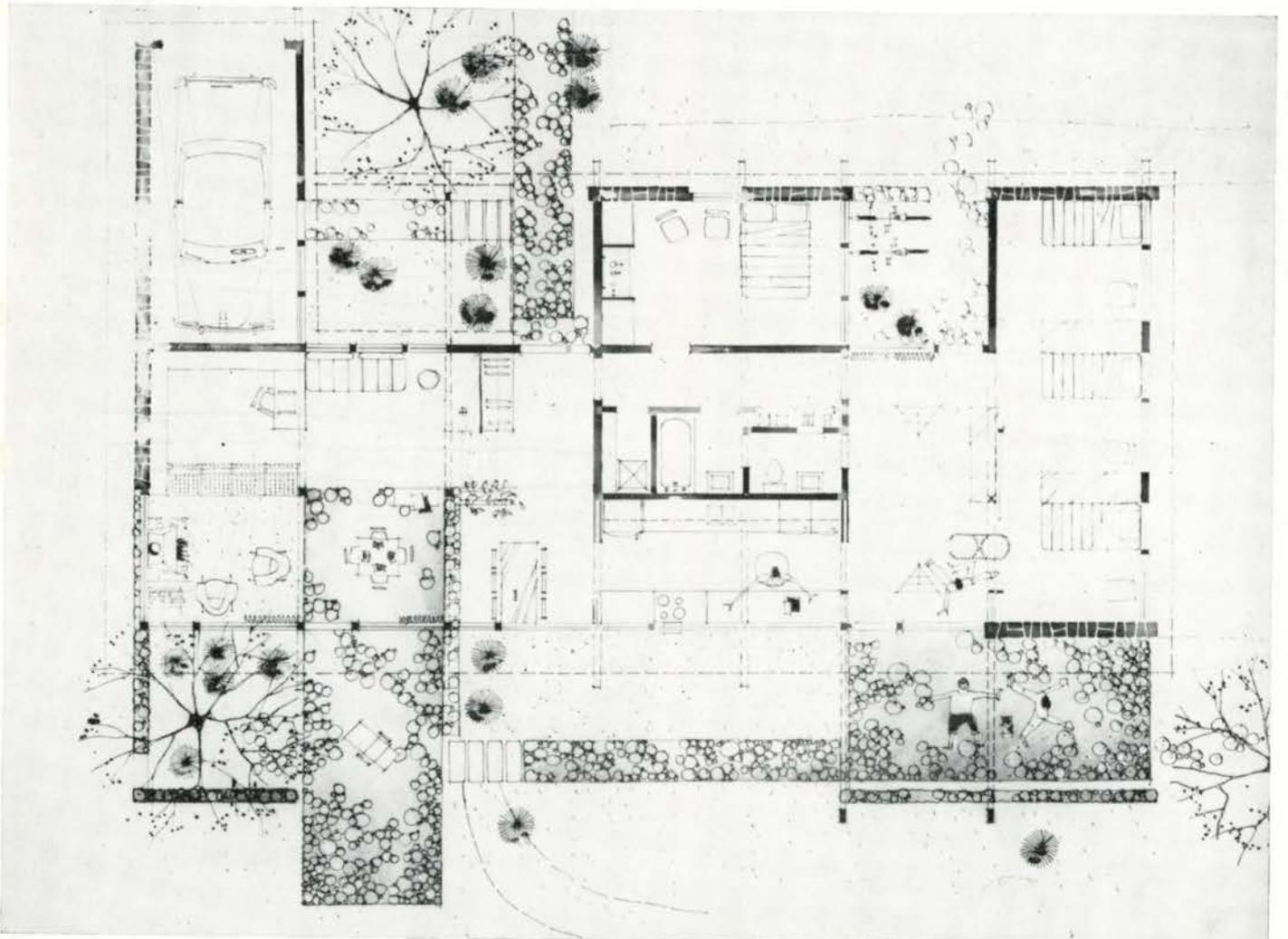


View of house from garden



View of dining and living areas

Floor plan



"PROGRESSIVE ARCHITECTURE" is one of the most insistent slogans of today. It is well, therefore, to consider what is meant by progress. The word is used with different meanings. Philosophers have even made the dreadful suggestion that the idea of progress is an illusion, that there is no such thing, that there is only continual change. This idea may get support from observing that there have existed, at various times and places, civilizations that have flourished for a time, reached a climax and then disappeared. The one seems to have destroyed the other and they do not appear to form a definite chain of progress. We may fondly imagine that we form the vanguard of all time. But if we take the architectural works of other times as measuring rods of their quality, some doubts may arise as to the truth of that judgment about our own. Can we conscientiously say that our own day is producing anything comparable in value as works of art to the temples of the Greeks, the forums of the Romans, the Byzantine churches, the cathedrals of the Middle Ages or the manor houses of England? The meaning that we attach to the word 'progress' does not seem to be applicable in a comparison of this kind. What, then, do we mean by progress? Probably we are for the most part thinking of the fresh opportunities for new forms, spaces, textures and colours that new materials, new methods of construction offer and of the new enjoyments of life that these afford. These bring into our daily life varieties of occupation and exercise for mind and body, so that even very humble persons can now find more joy in living and be more really alive than in any previous period. All this seems to us incontestable and yet our minds are clouded by a doubt. Were not people really happier and mentally more healthy when life was simpler, when they were not hedged in by the many regulations that are needed to meet the complexities of modern life, and were not buildings more satisfying to the eye when their requirements did not need to be met by such up-ended radiator-like structures as are typical of our progressive architecture and which are truly enough expressive of the monotonous strain and tension of our lives? We seem to have created more means for larger life and yet to have so tied ourselves up as to be able only to live less spacious lives.

Before we either congratulate ourselves on being in better circumstances than our forbears or envy them their apparent leisure and mental enjoyment, let us consider what the word 'progress' meant to some of them. It will

appear that rapid material progress does not foster refinement either in architecture or in life and that the finest work is produced under the restraining influence of some powerful over-ruling thought of the time, whether that controlling thought be of a broad or of a narrow type. This is obviously true of the great Greek period when material progress was relatively small and intellectual progress was of the highest quality. Architecture was then so conservative that the types of buildings did not change during three or four centuries. Yet they were the most refined and beautiful ever produced. The keen critical intelligence of the time permitted nothing mean or ignoble to disturb its serene beauty. Roman architecture, on the other hand, although some historians have described it as retrograde or even as a decadent version of Greek architecture, was the product of a highly progressive period in the sense in which that expression is now generally used. It was an era of tremendous enthusiasm for new materials, new methods of construction and of decoration. An enormous amount of building was carried on. Buildings were demanded for the needs of a great and ever-expanding city and empire, the teeming populations of which, relieved from internecine wars, were busied in worldwide commerce and industry and required food, shelter and entertainment on a great scale and of great variety. Old methods of construction could no longer meet the requirements. Extensive public services were needed including an immense highway system with many long and high bridges, some of which are still in use. Water supplies on a lavish scale were frequently brought in from many miles away and were carried across wide valleys on masonry arches. Sewerage had to be looked after and plumbing systems were installed in high apartment buildings. Large areas of cities were zoned for general business and laid out with forums for that use. These forums were paved open areas surrounded by columned porticoes of great magnificence, contrasting strongly with their modern counterpart of canyoned streets. Public entertainment was provided for as a matter of high public importance. People's palaces (thermae) were equipped with sports grounds, baths, lecture rooms, recreation gardens. Around special show grounds permanent bleachers were built for the viewing of contests, chariot races and parades. Imperial palaces, which were in a sense central seats of government, and country mansions of the wealthy were built on a scale of extent and luxury exceeding anything the pre-

sent day can show. Could an ancient Roman come alive amongst us he might be amused at the tiny scale of some of our operations, but he would feel quite familiar with the nature of our problems. Theirs were of the same general character as we are dealing with in Canada today. The architects must have been kept very busy and they had to be thoroughly modernist and progressive in the same sense as we are today. New ways of construction, new materials and new ideas followed one another rapidly. The qualities of limes and of concrete were explored and exploited for walls, for arches, for domes. Intersecting vaults were introduced and employed to provide vast halls, beautifully lighted. Concealed heating systems were installed in all great interiors. Various types of wall construction were experimented with. The properties and the methods of manipulating stucco were improved. Great skill was applied to its application and to its decoration both in relief work and in mural painting. Marble of many different colours and markings were imported from distant parts of Italy, Europe, Asia and Africa. Priceless porphyry was brought from Egypt. These were employed for pillars, floor slabs and wall veneer. An economic and highly decorative use was found for marble chips. From these and from small tiles, often faced with gold leaf, mosaics were made and used as surfacings, beautiful, permanent, easily cleaned and sanitary. Applied to walls and vaults they provided the most splendid decoration. The new methods of constructing walls and vaults provided the great advantage of wider open spaces and more extensive floor areas and also gave varied forms of buildings hitherto undreamed of. Great freedom was obtained in spatial design. Groups of larger and smaller halls opened one from another, lending surprise and interest. Rectangular halls of great width and height were given complexity and variety by large wings or by hemispherical apses with spherical vaults. The only rivals of these in modern times are the halls of railway stations, some of which have been directly modelled upon portions of them. The general type of progress was very similar to that of today. What then was the effect, at the time, of this strenuously progressive architecture? What permanent influence did it have upon after-time? What brought so great an effort to a close?

In regard to the effect that it produced at the time, the short answer is "The Grandeur that was Rome". The great forums that were the civic centres, opening out from one another, presenting scene after scene, each rivalling the other, were the wonder and admiration of the world. In no other city has every citizen had, at his disposal, such opportunities for healthy pleasure and instruction as were furnished by the many *thermae*. Shows and exhibitions of skill and courage furnished excitement for all who sought these. We strive for similar provisions but we do not produce them with any corresponding architectural effect.

As for the impact of Roman architecture upon that of the world in later times, some have suggested that the Romans merely took over the architecture of the Greeks and spoiled it in adopting it and that the Romans themselves had no soul for art and beauty. This was not the view of the great masters of the renaissance or of Inigo

Jones or Sir Christopher Wren who hailed "the good Roman manner" as exhibiting the creative power of a strong and intelligent people. The study of the ruined fragments of Rome, left from the pillage of medieval ignorance, awakened the world from the dream of the Middle Ages. It is false and stupid to say that the Romans "copied" from the Greeks although they did, indeed, somewhat clumsily, adopt some Greek trimmings. It is still more idle to say that the renaissance architects "copied" from the Romans. They simply hailed high genius across the centuries and applied a similar intelligence to their own very different problems.

But what brought an era of such strenuous and splendid progress to a close? About 300 A.D. the prosperity of Rome seemed permanently assured. In 410 A.D. the Goth was at her gates and, aided by fellow travellers within, they entered and looted the city. There was no courageous stand, no organized resistance. Volumes have been written to account for this. It may not be far from the mark to say that easy living had slackened the sinews of defence.

The architecture of the Middle Ages, too, was truly progressive, but in quite a different sense from that in which we commonly use the word. It was a steady development along a definite and limited course. Within its limits it may be claimed for it that it was the most progressive architecture in the history of the world. Throughout five centuries it exhibits a continuous development without any period of halt or retrogression. So true is this that experts who have studied the work carefully can, from internal evidence, determine the date of a building, or part of a building, to within about five years either way, over that half of a millennium. The type of progress exhibited is that of a natural development like that of a growing tree, always sending out fresh growth and increasing in stature from the same root and of the same character. In this way it was thoroughly conservative in the basic meaning of the word. It was, in fact, progressive conservative. It achieved an immense amount of work over a large area, producing scores of cathedrals and many thousands of churches great and small, town halls and guild halls, hundreds of castles from mere isolated towers to far-flung royal fortresses of great complexity and picturesque effect. Accessory to these, an immense amount of highly decorative work went into chapels, chantries, chancel screens, choir screens, choir stalls, carving and sculpture and the intricate stone lacework of great windows glorious with stained glass. Whatever the workman's hand was applied to was touched with beauty. This beauty is, in large part, due to the unity that pervades each structure, giving it that analogy to the works of nature so that it appears like a natural growth in its natural place. One may examine a single stone from a ruined building as an anatomist may examine a single bone, identifying to what creature it originally belonged. One can tell what place that stone occupied in the anatomy of the building and to what stage in the progress of architecture it belonged. Though not itself a living thing it is eloquent of human life and thought. Another important element that ensured the unity and beauty of the work is the fact that it was so entirely a matter of craftsmanship and therefore a "people's art" and further,

that the craftsmen worked under severe limitations of materials and of mechanical means. It was a progressive period not because of a sudden fresh influx of materials and methods, but, indeed, just because there was no such occurrence and the workers had to apply themselves with great earnestness to make the best of the little that they had. Chiefly, stone was used, — as fire insurance, — to a considerable extent wood, to a less extent, but with intense effect, stained glass, and to a minor extent, metal. So far as building was concerned these were the crafts immediately employed. But it was a period devoted to craftsmanship. Fine skill was universally admired and demanded in textiles, leatherwork, in the making of ornaments and of vessels of silver, gold or clay. Craftsmanship was the great preoccupation and interest of a large proportion of the population and it found its widest outlet and crowning glory in architecture.

The remarkable development in the science of stone vaulting appears to go beyond simple craftsmanship. It is engineering as we understand the word although modern engineers do not dare to vie with it. It was developed from the craftsman's empirical approach and with all the craftsman's joy in the work of his hands. Its progress was therefore slow, but it was sure and continuous from the first, true, if clumsily executed, invention of cross-rib structure at Durham, about 1100, to the marvellous canopied roofs of St. George's Chapel, Windsor, King's College Chapel, Cambridge, and Henry VII's Chapel, Westminster, all completed after 1500. A student today may, in an hour, trace and comprehend the whole course of development that it took four centuries to work out. Each step produced monuments of beauty and delight. The general lay-out of most of the buildings was relatively simple. There were no such complex problems as architects today wrestle with in fitting together a crowd of minor needs such as are involved in our multi-purpose buildings upon limited sites. There was a popular enthusiasm for building. Men had discovered a means of producing great works that gave them immense satisfaction, of raising in their midst, with their own hands, objects that gave them self-respect and were a delight to the minds and eyes of all. They were intensely building-minded. The many interests of our own day disperse and distract our attention. The relatively few interests of that time created a concentration of attention on building. The narrow life of the time offered little for the mind. More than anything else, it was the broadening out of interests that brought to an inevitable end this long period of progressive architecture. It was not a mere change of taste on the part of architects. It was an expansion of thought and of life.

During the Middle Ages the thought and the life of society were controlled by the feudal system. This was a rational and logically devised way of ensuring law and order. The theory was that social order should be managed

by a single authoritative head supported by chiefs in successive degrees, and, finally, by the general mass of the people, the lowest degree of whom were serfs. Such an arrangement is necessary in any organization whether of nations or of private business. But the sanction by which the operation of the feudal system was secured was punishment and the fear of punishment. From rank to rank obedience was exacted on peril of punishment. This was essentially impracticable. There is nothing so abhorrent to the spirit of man as enforced subservience to the will of another. The feudal system was a standing contradiction to this truth. The voice of freedom could never be silenced. It was always breaking out here and there. Personal loyalty and chivalry were born on the battle-fields of the Middle Ages. They had a stormy childhood, but they gradually penetrated society. The operation of modern society is ensured not by obedience for fear of punishment but by mutual loyalty for mutual service. This ideal was far from being formulated or completely realized in the sixteenth century and, indeed, we are today far from realizing it as a world-wide principle. But, at that time, the leaven became very active as intelligence grew, nourished by the spread of literature and goaded by the too frequent and flagrant enforcements of the feudal system. Lacking intelligence, emotion had hitherto been disproportionately dominant in the direction of private conduct. Now reason came in to give emotion better guidance. The various ranks of government now depend not on fear of those above but on mutual loyalty and service between the higher and the lower; so that the ruler becomes the servant of all. This is a total subversion of the feudal system. It implies that a higher value is given to the individual spirit and to individual judgment and enterprise. Architects shared the effect of this. Looking around with a widened vision they saw that antiquity had, with a greater mastery than they, handled problems of form and produced effects that delighted their minds and eyes. They saw methods of construction and uses of materials beyond the scope of medieval practice, challenging the new spirit of enterprise. They entered upon a broadened road of progress. The range of architecture was widened as an incident to the breaking of the bonds of feudalism.

The above is an endeavour to sketch the characters of two different types of progressive architecture and the ultimate fates of each. The Roman became too much devoted, as an ideal of life, to the service of luxury and free public entertainment which undermined the vital energy of the city and left it a prey to the crude vigour of surrounding barbarism. Medieval progress was nursed in the bondage of feudalism and gave way before maturing intelligence. To what ends are we tending; upwards or downwards, towards weakness or increasing strength, to discord or to wider brotherhood?

IT ALL BEGAN with an angry letter to *The Times* from Mr Peter Quennell. He had been visiting Venice, where Italian friends had confided to him their horror at the design that had been made by the American architect, Frank Lloyd Wright, for a new building on the Grand Canal. The site is on the outside of the first sharp bend in the canal, just where the cut leads off towards the railway station, between the Palazzo Foscari and the Palazzo Balbi. The building is to be a students' hostel with a small architectural library, in memory of a young Italian architect, a pupil of Wright's, who recently died. Mr Quennell, who was shown a sketch of the design, was horrified, too, and said in this letter that he had been asked to rouse English lovers of Venice in opposition to what he described as 'a piece of inexcusable vandalism . . . grossly out of harmony with the existing architectural pattern'.

This put the cat among the pigeons, and, Venice being Venice, among far more pigeons than those that fly up from the pavement of St. Mark's Square when the gun bangs at noon. The pigeons that roost on London ledges and flutter about innumerable pavements from Pall Mall to Portland Place were agitated and alarmed, for the English pigeon is notoriously nervous in the presence of this particular cat; in the presence, that is, of any threat to alter a well-loved scene.

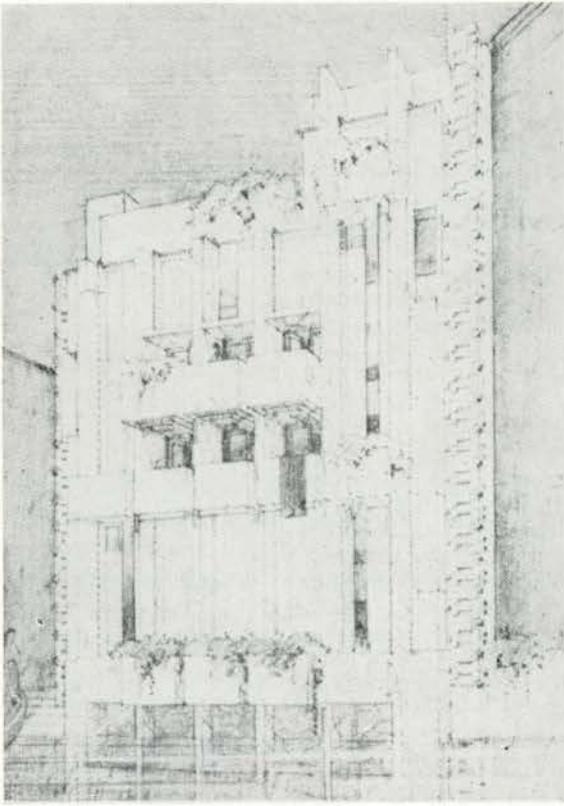
There are many reasons for this, and most of them emerged in the controversy that Mr Quennell's letter provoked. It is difficult to imagine a combination of circumstances better designed to arouse English passions. First, there is the Englishman's romantic attachment to the idea, as distinct from the fact, of Venice, which is partly a matter of literary associations — Mr Quennell inevitably brought Byron and Ruskin into his letter — and partly a matter of personal associations. Venice, to so many people, is the escape city, the one place where it is possible actually to inhabit an unreal world such as otherwise one can enter only vicariously by way of the films; and to many it is the honeymoon city: even people who did not actually spend their honeymoon there have dreamed at one time or another how they might have done—dreamed particularly of the delights of gliding silently along the Grand Canal in a gondola. Were they going to put up with the romantic lullaby of Italian voices being disturbed by the raucous shouts of a middle-western American?

That brings us to another factor that made this combination of circumstances so explosive: European sensitivity to

American push and power. Many people—English and Italian—must have felt, instinctively rather than consciously, that here was still another instance of America reaching out across the Atlantic, not to steal Europe's birth-right but to convert it into something alien in which unwelcome values predominated. Of a piece with the pollution of the local vernacular by slang expressions picked up from American films, and the threatened ruin of the French wine-trade by the high-pressure advertising of American soft drinks, was the prospect of the fabulous city of Venice, which has preserved intact everything that was good in European civilisation before America was invented, being invaded at last by an American brand of modernism. The realisation that Venice has largely been kept going by American tourist dollars tended to increase, not decrease, the resentment; so did the fact that the Frank Lloyd Wright design was exhibited in New York before being disclosed to the Venetians.

There were many other factors involved, but in England the chief concern was the one I started with: the fear of spoiling an architectural masterpiece by permitting the intrusion of anything new. We are sensitive about this in England because it is our problem, too. For many, many years we have been struggling to resolve the conflict between our desire to preserve the character of places we are fond of and our knowledge that by regarding them as untouchable we only turn them into museums of dead stones.

We have lacked confidence in our ability to create anything ourselves that will be as good of its kind as the old architecture was of its kind. Therefore we have temporised and sentimentalised and blown hot and cold about preserving this and safeguarding that, and meanwhile expediency—the sheer pressure of events—aided by inertia, has prevented us in practice from preserving anything more than bits and pieces here, and the outward form but not the spirit there; so that while we support the National Trust and the Historic Buildings Council we allow Oxford to become an industrial town, the cathedral close at Gloucester to be turned into a car-park, and the City of London to be rebuilt with monstrous unrelated blocks of offices, piece by brutal piece. What gives us a bad conscience, rightly, is not the fact of Oxford having factories and chainstores as well as colleges, or the City having to face the prospect of a skyline no longer dominated by the dome of St. Paul's and the spires of the Wren churches, but the fact that the process is taking place as though we



did not care about quality and civilised values.

We explain away what we are doing to our own cities by pretending to ourselves that it has all somehow been taken out of our hands, but we look on ancient Italian cities as places where the impact of the new on the old is far less destructive; where the machinery of modernisation has been made to work; or, in the case of Venice, where modernisation simply has not taken place. We go there on holiday to enjoy this very thing.

#### The Other Side of the Case

That is why the preservationist attitude, with its disbelief that the new can do anything but destroy the old, came out so strongly in the letters to *The Times*, and the comments in other places, that followed Mr Quennell's protest. But this was not the only view put forward. There were a number of able and intelligent statements of the other side of the case. We were reminded that in Venice the existing architectural pattern, to which Mr Quennell had referred, is as varied as it could possibly be; that Venice is the product of continuous growth over centuries: the romanesque super-imposed on the Byzantine, the gothic on the romanesque, the renaissance, the baroque, the neo-classical, the nineteenth century all having their turn. Why, it was argued, stop there? The twentieth century must be allowed to make its impact, too, and, what could be more suitable than that a city which had been enriched by the master designers of so many generations should be enriched now by the work of one of the greatest living architects?

Extreme opinion went further, and held that the trouble with Venice was that it had already allowed itself to be turned into a museum; what it needed was a revitalising breath from the present. In effect it was said that Venice is a sleeping beauty, patiently waiting for the happy event

that will awaken her from her dream world—waiting, as the saying goes, till Mr Right comes along.

The problems that arise when new buildings have to be juxtaposed to old have been thrashed out often enough. The odd thing about this case was that so violent a dislike of the Venetian project was expressed by people who had no clear idea of what Mr Wright's design really looked like. Mr Quennell had simply mentioned a building of glass and stone; and for the time being no drawing, for reasons it seemed of local politics, could be made public. Mr Wright himself was applied to in America but, offended by the attacks already made he refused to furnish a drawing either.

Nevertheless, the controversy continued, the opposition making wilder and wilder assumptions about what was really proposed, and it seemed with very little acquaintance with the principles of modern architecture or with the work of its leading exponents. The sequence of associations in people's minds seems to have been something like this: Frank Lloyd Wright—modern American architecture—enormous skyscrapers—modern building techniques—steel and concrete and glass façades. Some went so far as to ask whether, in the circumstances, even so revolutionary an architect as Mr Wright could not be persuaded to build with stone walls and pay regard to the *genius loci*, the makers of this plea not apparently being aware that Mr Wright was accustomed to build in stone, that his special contribution to modern architecture was his life-long insistence on the importance of the *genius loci*, and that his life-long *bête noire* was the international style of steel and glass architecture with which these critics were confusing his own.

Confusion was made worse by the loyal modernists who rallied to the defence of the supposed glass façade by pointing out that many ancient Venetian buildings had façades that virtually were all glass, and that no affront to tradition was therefore proposed. And then Mr Wright himself joined in, with a statement to *The Times* New York correspondent in which he described his design as a 'living expression of admiration and respect for the old Venetian culture', and declared that it hardly became Englishmen to grumble in view of England's record as a destroyer of ancient cultures herself.

After this the controversy lapsed, because even the enthusiasts could not indefinitely go on arguing about a design none of them had seen. But in due course *The Times* did obtain, and publish, a drawing showing the façade of Mr Wright's building. This produced surprise and consternation, for it revealed that the cause of all the excitement was an arty little building, very little taller than the dilapidated mansion it is to replace, and certainly not of a height to threaten, as many had assumed, the Palazzo Balbi next door. It has a blockily modelled façade with square marble balconies, projecting marble fins between the windows, and a strange vertical ribbon, or ornament, butting on to the gable wall of the building alongside; not particularly Venetian, and so old-fashioned in style that it might have been pulled out of a drawer of Mr Wright's unexecuted designs of around 1920.

Out of the heaving mountain thus emerged a small *art nouveau* mouse, hardly fierce enough to justify the storm

it had created. But if the laugh is on the critics for the rash assumptions they had made, is it unfair to feel irritation at Mr Wright for having, by the acceptance of this commission, put, as I said, the cat among the pigeons and then fobbing us off with a tame, though somewhat angular, pussy-cat with a ribbon round its neck, more ready to purr than to pounce?

It will be said, if we turn on Mr Wright for not being modern enough, that an architect can design only what he thinks is fitting, and is not concerned with other people's expectations. Yet we can reasonably regret that what had begun to look like a test case should end without the test in fact being made. It has been an instructive little comedy, illustrating many misconceptions about modern architecture on the part of the public; misconceptions about Frank

Lloyd Wright, also on the part of the public; and misconceptions about modern architecture on the part of Frank Lloyd Wright. But it is sad that it leaves the main question unanswered: when we of the mid-twentieth century build in a historic setting, have we the courage to speak with our own voice and the skill to do so with positive effect? A satisfactory answer in Venice would have pointed the moral nearer home, where the challenge is becoming daily more urgent: in Coventry and Bristol and Oxford and Exeter, and, above all, in the City of London. — *Third Programme*.

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## Coventry Cathedral

Basil Spence

MANY PEOPLE have asked me, "Why did you design a cathedral in a modernistic style, when in the old country there are so many beautiful cathedrals in the gothic style that could be copied?"

Let us look at these ancient cathedrals for a moment before answering.

One of the most beautiful perhaps is Durham Cathedral perched on a cliff overlooking the river beneath. A strong masculine building, built of stone eight hundred years ago, it must be realized this building was modern when it was done. It was not a copy of any past style but a clear strong expression of the faith that existed at the time. Was this style copied again? The answer is "yes," but only in the last century when it became the fashion to copy and a revolution set in copying old style incongruously. This was called "traditional architecture", when in all reality traditional architecture in the old country is one of inventiveness and enterprise *displaying faith in one's own time*. This is our real tradition, and when it came to the point of designing a cathedral now, I determined that it was wrong to copy an old building, but rather to build with 20th Century methods as an investment for the future.

The competition for the best design, launched by the Coventry Cathedral Reconstruction Committee, was open to all architects of the Commonwealth, many entering from Canada, Australia, New Zealand and, of course, a great many from Britain and Ireland. There was a record number of entries: six hundred from all over the world

applied for the conditions, but, as the problem was a difficult one, only two hundred and nineteen handed in their designs. We are told that, if all the architects' drawings were put end to end, they would make a line three-quarters of a mile long.

Let me tell you how my design evolved. Normally an architect digests the practical requirements, then sits down and draws plans. I did not do this. I read the conditions for the competition which were very stimulating, and without further delay I got into my car at Edinburgh to motor to Coventry to see what was left of this beautiful cathedral, which was destroyed by fire bombs on the night of November 14, 1940.

The conditions said that the architect could remove what remained of the cathedral with the exception of the tower and spire, which mercifully remained intact, as the bombs at this spot were not high explosive but incendiaries. When I walked into the ruins, however, I realized at once that I was walking on hallowed ground and, though this cathedral had no longer its beautiful medieval wooden roof but the skies as a vault, it was still a cathedral in every sense of the word.

Many Canadians who visit these ruins feel this, and it was not my place as an architect to destroy something that possessed such a strong spiritual atmosphere, and I determined to preserve it. This feeling was intensified as I walked up the central aisle of this very beautiful ruin toward the altar built of stones that fell from the walls,

behind which is set a charred cross, thirteen feet high, made of two oak beams from the original roof. These beams though not entirely burnt away still hold the marks of the great fire which destroyed the cathedral. It was very moving to read behind this cross the words engraved on the stone, "Father Forgive".

Going to the side and looking out from the windows over the site which was reserved for the new cathedral, I saw in a flash a new and beautiful one growing from the old. The new altar sparkled like a jewel but I did not see it clearly but rather through a great glass wall on which was engraved figures of the saints and martyrs. We all know the price of this new altar. It was twelve hundred men, women and children killed, many more seriously injured, five thousand homes completely obliterated and sixty thousand homes damaged, some very seriously. This was the high price of the new altar, so it is seen now through the bodies of the martyrs, which represents the great sacrifice.

I took back with me to Edinburgh this idea seed which continued to grow from that moment. Part of the new accommodation required is a *chapel of unity* where all church denominations could worship. This is a wonderful idea, worthy of strong architectural expression. I felt that this chapel could express unity and strength, and looking for a symbol to express it, I chose the star—a great star, which will form a pattern on the floor, as the Star of Bethlehem was the first sign of Christian unity.

Opposite this chapel inside the new cathedral is the font. Because the font represents birth and virility and the rebirth of this cathedral, it is a very important feature. The font has a cover, a tall spire-shaped form, which rises to eighty feet and behind it is a great window of one hundred and ninety-eight little windows. In each of these, I hope to have stained glass designs representing the saints in infancy and the window will be carried out in the clear pure colors of birth and innocence.

People entering the cathedral first will see no other windows apart from this one, but their eyes should be drawn toward the altar and beyond it to a great tapestry over eighty feet high and over forty feet across. On this, in brilliant colors, will be woven the figure of our Lord, seated in the glory of the Father with the four living creatures, exactly as Saint John the Divine describes in his vision of the fourth chapter, Book of the Revelation.

As you walk toward the altar you will realize that the windows reveal themselves as you reach them, because they are blotted from view by cliffs of stone and you will only see them as you pass them.

There are five pairs of windows seventy feet high on opposite sides of the nave, each pair representing an age of man. The first pair grow from our birth—and represent children. These are strong virile windows in stained glass, boldly patterned. The color is predominantly green and other colors allied to green, such as yellow and blue. These will present the young shoots growing out from the ground to the full height.

The next pair shows children growing into manhood and

womanhood, the age of passion and strength, and these windows are predominantly red.

The next are the middle life with the experiences of middle life represented by all the colors of the rainbow, some dark, some light, some brilliant and some dull.

Still going toward the altar, the next pair represent the richness and wisdom of old age and are deep blue and purple, flecked with gold.

You will notice that the windows are gradually becoming darker and richer as you move toward the altar and the last pair represent the after life. These are the altar windows of golden glass. The light from these windows shines directly on to the altar, so, as you approach the holy table there will always be this aura of golden light around it. But, when you reach the altar and turn around, for the first time you will see all the windows at once. I do not know of a church so far built that does this. As you know life, you express the present and can look back into the past but you cannot see the future. But, when you reach the altar, the whole pattern is revealed for the first time.

The two ranges of windows leading up to this climax represent on the right the perfect side which is God, and on the left "man" side, a reflection of the perfect side but imperfect in the reflection as man is always striving for perfection: rather like some trees reflected in a pool disturbed by the wind. One is the truth and the other is rather an uncertain reflection of the truth. But at the altar both are joined in a blaze of glory.

As an instance of this, the wisdom window on the man side represents a great and beautiful chalice as the most beautiful thing a man can make in his wisdom. This is a strikingly rich window showing this chalice studded with jewels and brilliant in purple, blue and gold. But on the God side, the window represents the lily of perfection as the miracle of planting a seed and something so perfect as a lily growing cannot be imitated and even under a microscope the lily is still perfect.

A cathedral in England has a greater purpose than a church in which to only hold services. The cathedral will be open every day and must speak all the time even when there is no sermon to be heard or an anthem to be listened to. It must speak itself. The object of this cathedral is to turn the visitor who may go into the cathedral alone for a half hour's peace—to turn him from a visitor into a worshipper.

Canadians have already given generously toward the rebuilding and I felt this should be permanently recorded in the body of the cathedral. In the floor, worked in stone paving, is a great cross, one member leading from the chapel of unity to the font, the other from the centre door at the entrance to the altar. This cross is composed of twenty-eight circles and in each we propose to set a maple leaf. As a true piece of Canada, Canadians, many years from now, will be reminded of Canada's part in the rebuilding and on their way to the altar will walk on a bit of their native land.

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## The Architect's Dilemma

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MORE ARCHITECTS are practising their profession than ever before in Britain, and the output of qualified young men and women was never higher. The profession is increasing at a rate of 6 per cent a year and nearly everybody—at the moment—is getting a job. The proportion of building work that is being planned or directed by architects is increasing encouragingly. It was only 5 per cent of all building operations before the war, and now it may be 15 or 20 per cent. Architects are working on types of building from which they were previously almost excluded, such as local authority housing and schools. Yet the profession senses an undertone of public criticism of its conduct; it is far from happy about its present fortunes and is uneasy about its future. Controversy invades architectural journals and conferences; a radical wing even questions whether the professional status, built up so laboriously by the Royal Institute of British Architects, makes any sense at all in the postwar world.

The social changes which have taken place since 1939 have overset the traditional order of things for the architectural as well as for the medical profession; moreover, architects are struggling to come to terms with the technological revolution that is slowly overtaking building, despite the opposition of builders. Before the war, architecture—the design of traditional kinds of building with traditional materials—was still mainly in the hands of the private practitioner (so far as it went to architects at all). He made anything from a just tolerable middle-class living to a fair-sized fortune out of it. Only those products of the schools or articed training who had neither capital nor talent for private practice took the salaried posts that local authorities had begun to offer in growing numbers. Since the war the balance has changed spectacularly. It is the salaried architect who is getting the interesting work, the private architect who is doing the chores.

The reasons are obvious, though few foresaw them. Before the war public bodies and private concerns put out their work to private architects; and so did the well-off and wealthy, who were still building houses, if no longer mansions. But, since the war, building controls and priorities for council housing and schools have put most building into the hands of local authorities, who have expanded their own architectural departments. So have nationalised industries; so have regional hospital boards; so have many large firms. The salaried architect, however

underpaid and frustrated, has handled most of this work—and has kept control of even that part of it which has been “put out.” The private architect has had to be content with this overflow from public offices, together with such priority factory or commercial building as has come his way, plus conversions, war damage repairs, exhibitions and suchlike, to fill the gaps.

Meanwhile, the costs of running a private office have soared along with the taxation levied on the profits, if any. To be able to handle a remunerative commission, offices must be reasonably staffed. To carry the overheads between remunerative commissions, all sorts of odd jobs must be accepted. Even so, a private office often proves undermanned to deal with a big job—and any consequent mistakes or delays will draw criticism upon the profession. Big commissions tend to be concentrated upon a minority of large and experienced firms. This is especially true of factories, generally the most remunerative work. It is said that two or three firms have handled all the sizeable factories put out to architects in Scotland since the war. It has become almost impossible to start a new practice, and survive.

Of the 18,000 registered architects in Britain over half are already in salaried employment. They have in many cases found themselves taking instruction from seniors who were hardly regarded as the cream of the profession when they first went into local government service. Their prospects rarely exceed a top salary of £1,800 and a pension. But they have done most of the worthwhile architecture since 1946. Their efforts, not surprisingly, have encountered a lot of criticism—not least from builders, some of whom have the hardihood to declare that whether or not postwar houses are better designed than their forerunners, they are not designed to minimise cost or site delays. Nor has extravagance been confined to houses, as anyone who visits a new power station soon realises.

But the disgruntled private architect is in no position to point the finger of scorn. In his small office he often lacks the resources to tackle large programmes of work or to experiment with new techniques and materials: so much so that group practice has been proposed. He must face the fact that the most remarkable postwar architectural achievement has come from salaried architects. Thus the Hertfordshire County Council first showed in its school building what could be done by pre-planning,

modern technology and cost-planning; and from its pioneer work has sprung the schools building programme now organised by a team of architects, engineers and administrators in the Ministry of Education. They have not only reduced the cost per school place by 45 per cent since 1949, despite a continuous rise in building costs, but have demonstrated a variety of non-traditional methods and materials—and even invented some—within a genre of architectural comeliness which has brought foreign architects flocking to these shores. A bitter pill this for the old school, whose efforts in the interwar years hardly raised a flicker of interest among their questing overseas colleagues, who turned rather to America or Sweden for work of note.

It is clear to almost all architects that the prewar market for their services has disappeared with the last remnants of Galsworthy's England. Even the system of competitive tenders and contracts which the architect supervises is becoming obsolete. Tendering becomes too costly when three-quarters of the bill of quantities is for specialised materials at fixed prices; it imposes a rigidity of design which keeps costs high. The idea of the architect as standing between the owner and the builder is of doubtful relevance to the needs of a new age—which are for economical, standardised, efficiently-designed shelters for families, staff, production-lines or what else. This may be vulgar; it may not leave much scope for what the old school calls architecture; but it does leave scope for a tremendous technological development which the younger school views with undoubted relish.

Circumscribed by the RIBA code of professional practice—a development of little more than sixty or seventy years—the private architect has tended to hold aloof, concerned at least as much with art as technology, sometimes taking refuge from technology in art; all too often disinterested in close costing and good administration. In theory the leader and grand co-ordinator of the building team (which includes the quantity surveyor, the structural engineer, the contractor, the builder and other specialists), the architect has, in the opinion of the radical school, all too often been lost in the ensuing babel; and the specialists sometimes have to rescue him from the consequences of his own ignorance. To reassert his leadership, it is held, the architect must again become the master-builder, a man with technical training adequate to make him practical and at home in modern technical developments.

Immediately after the war, indeed, the RIBA set up a special committee to advise upon the overhaul of architectural education, and a second—the Architectural Educational Joint Committee—is now working over the problem again. For there is little agreement on how the architect is to be trained for his commanding position. Over a third of young architects still receive their training outside the schools—usually by training in private offices where they make insufficient contact with modern building conditions. Even in the schools, the teachers are often men who were trained in prewar conditions and have not adjusted their teaching to modern needs, though some schools are radically overhauling their methods. There is a growing feeling that architecture must be integrated

with technology in general; it is even suggested that properly remodelled courses in architecture and in engineering—civil, mechanical or electrical—would share the same first-year syllabus. Students themselves seem to demand more technology and less art.

Educational reconstruction, however, would not alone solve the professional dilemma. It might provide better technicians for the public offices, where their talents would be used or abused, according to the quality of the senior architect. It should improve every architect's power to deal with builders and specialists. But it would leave the future of undercapitalised and underequipped private practices still in doubt. Many architects hope that easier times and the private client will return, that local authorities and regional boards will disgorge commissions, and that the architect will be restored to his proper place—that of the specialist consultant who in a fiduciary capacity stands between his client and the builder, earning his fees because of his disinterested professional status.

Others see a different future for the private architect. The way in which he can become again the master-builder is, according to this school of thought, to be a part of a firm of contractors or builders—an honest and knowledgeable business man in the best modern professional sense. He should be neither employee nor consultant, but preferably a director. Again, he ought to be fully involved in the many firms who are making building components or developing prefabricated systems. If, it is argued, the architect is not the designer of new materials and methods, he will miss the crucial development in modern building. He will risk becoming the prisoner of other men's design and architecture.

To accept such an argument means, in terms of the RIBA code, that the architect would change sides. He would become a salesman rather than the guardian of his client's interest. The Institute sticks to the view that if the architect is to lead the building team, and even effectively to influence design "at the production end," he must hold fast to his fiduciary status *vis-à-vis* the client—even if the "client" is a committee of architects and technologists. The radical school thinks this argument unreal. It foresees that more and more work will be done by departments of qualified salaried officials, or by tough "business architects," while private practice shrinks to the hard core of big consulting firms, which, in numbers and organization, will approximate to the firms of consulting engineers, who form so important, but numerically so small, a part of the engineering profession.

It is not, for those who appreciate the aesthetic values in architecture, a very comforting prospect; and, indeed, the radicals probably underestimate the strength of the small provincial practice matching the small provincial builder. But if private practice is to be kept alive as a vital, independent and experimental force—and art—amid an increasingly official architecture, the profession must certainly adapt itself, and quickly, for its survival in a changed world.

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### CALENDAR OF EVENTS

His Excellency, the Governor-General, has graciously consented to open the new headquarters building of the Ontario Association of Architects on October 9th. Details of the event will be published later. The new building is at 50 Park Road, Toronto 5, Ontario.

### ONTARIO

This very column was headed by Hugh P. Sheppard some two years ago with a reference to the rich and satisfyingly useful life that awaits the young architect who settles in a smaller city. Writing as one who has done just that I dare to accept the kind invitation of our editor who assures me that affairs of even local flavour might be read with interest here.

Foxiness is a word used by wine tasters to describe a sour and unpleasant flavour to be avoided in the making of good wine. I shall try to avoid anything of the sort in my news from the Niagara Peninsula for it is here that the fruits of the vine and tree are big business. It is also here that the mighty power development at Queenston where we see a great pipeline snaking its way through our midst, and where the beauty of our famous Niagara Falls is subject to the recent whims of nature and man. It is a restless industrious neck of land where it is predicted that Hamilton might someday surpass Toronto in port facilities, that future seaway traffic through the Welland Canal may isolate eastern dwellers from those in the west, and that our precious fruitland will be gobbled up by the invasion of industry and commerce to the area.

These may be dramatic and exaggerated predictions but there is little doubt that, here, too, we are witnessing and contributing to the growth of Canada. We enjoy the growing-pains associated with problems of expansion, the preservation of beauty and the parking of cars. I am convinced that the impact of motor vehicles on our daily life continues to be grossly underestimated. A passing glance at the monstrous plant near Oakville with its daily fleet of cars, poised and eager to flood our highways, brings me nothing but apprehension. Can it be that the peace and tranquil beauty enjoyed in Perth only a week ago shall eventually sink beneath the cancerous veneer of neon, parking meters, carbon monoxide and related junk that offends the eye from Montreal to Windsor! Can this happen to Niagara-on-the-Lake?

So long as we continue to race through the yellow light in pursuit of the green, I am sure that it can and will happen. I am just as certain that it need not. It would be comforting to think that the architect has respect for the caution signal albeit no patience with the red for what is true with automobiles can be said for some of our buildings. I am a little tired of the headlong plunge in the race for quantity, excitement and the unreal goal of increased

production.

The architect is part and parcel of progress and development even if located in Greater Effingham. He can surely make the best contribution during the short span allotted him by a thoughtful and active participation in the very heart of his community affairs; the problem of public relations will be no greater for him than for his neighbours amongst whom he finds contentment in work and at play.

Too many of us perhaps adopt the transient approach of failing to unpack our bags completely and stay put for a time. How else can we hold every talent in readiness for the demands that will be surely made upon us wherever we may be? I for one have taken such a step: it is a good feeling and I intend to fight for my little plot of grapes and the opportunity to make a gallon or two of good red wine some October.

*Wilson A. Salter, St. Catharines*

### OBITUARY

The architectural profession suffered a great loss in the passing of **James Henry Craig** on June 4th, 1954. Due to his energy and enthusiasm, many responsibilities were entrusted to him. He was elected a member of the Council of the Ontario Association of Architects, and was its President in 1931 and in 1932. For many years he was a member of the Council and the Executive Committee of the Royal Architectural Institute of Canada, of which he was a Fellow. Probably, his most important contribution, for which he will be remembered by his brother architects, was the part he played as chairman of the Legislation Committee which was successful in obtaining the passing of the Architects' Act of 1931. This act established the Registration Board of which he was a member and, later, its chairman.

Born in Owen Sound in 1888, Mr Craig graduated in architecture from the University of Toronto in 1910, and spent the following year on the staff. In 1912, he received the degree of B.A.Sc. with honours following which he entered practice as a partner in the firm of Craig & Madill. With the exception of a break of four years during each of the two world wars, when both partners were in the army, this firm continued in practice until his death. The work of the firm has included the design of many public and high school buildings throughout Ontario, and the Massey Medal for Educational Buildings was awarded to the firm in 1952. Other examples are RCAF buildings for the Federal Government, Hospital and Laboratory buildings for the Ontario Government, Police Department buildings and Fire Department buildings for the City of Toronto, Home for the Aged, Belleville, for the County of Hastings, Thomas Foster Memorial, Uxbridge, as well as industrial work, apartment buildings and residences.

Major Craig served overseas with the 127th Battalion and the 2nd Battalion Canadian Railway Troops during World War I, and with the 3rd Canadian Armouries Corps Reinforcement Unit during World War II.

There were many activities, outside those connected with his profession, to which Mr Craig devoted unselfishly of his time and energy. He was secretary of the committee which founded the Canadian Legion in 1921, and took a prominent part in the amalgamation of the several veterans' organizations in Canada at that time.

During the years of the depression, he spent much time studying economic conditions and led a deputation to Ottawa to urge the Government to start a building program to revise the building trades and, indirectly, business generally. He wrote several articles which were published in *Saturday Night* and other periodicals and addressed many organizations on the subject.

Master of Grey Lodge Masonic Order, elder of Eaton Memorial Church, member of the Canadian Construction Council, and member of the provincial Committee on the Design and Construction of School Buildings in Ontario, were positions of importance which Mr Craig was called upon to fill.

I am sure it would be a great satisfaction to my esteemed partner if he knew that his son, James Basil Craig, is now a partner in the firm and is carrying on the work so well established by his father.

H. H. Madill

#### PILKINGTON GLASS SCHOLARSHIP AND AWARDS



Mr Claude Leclerc

The *Journal* takes pleasure in announcing that the Pilkington Glass Travelling Scholarship has been awarded this year to Mr Claude Leclerc of the Ecole des Beaux-Arts, Montreal. Mr Leclerc receives a scholarship of \$1,500 along with his return passage to Great Britain.

Prior to taking up his architectural education at the Ecole des Beaux-Arts, he received his B.A. at the Petit Seminaire de Quebec.

Second prize was awarded to Mr Maurice Archambault of McGill University and third prize to Mr Lucien Delean of the University of Toronto.

The jury consisted of R. T. Affleck, J. C. Parkin, M. K. Payette and G. K. Pokorny. The Professional Adviser was Alvin R. Prack.

#### PRIZES AND AWARDS

The School of Architecture, University of Toronto, announces the following awards made at the end of the session, 1954.

##### Fifth Year

RAIC Medal to L. P. Delean

Toronto Architectural Guild Bronze Medal to R. Moriyama

George T. Goulstone Fellowship of \$450 to S. F. Heinen

Anaconda American Brass Limited Scholarship of \$300 to L. P. Delean

Indiana Limestone Institute Scholarship of \$150 to L. P. Delean

##### Fourth Year

Argo Block Company Limited Scholarship of \$200 to Y. Y. Jung

Canadian Pittsburgh Industries Limited Scholarship, First Award of \$150 to Y. Y. Jung

Canadian Pittsburgh Industries Limited Scholarship, Second Award of \$100 to L. W. Combe

##### Third Year

Ontario Association of Architects Prize of \$100 to A. P. Banelis

Toronto Brick Company Limited First Prize of \$75 to C. E. Meek

Toronto Brick Company Limited Second Prize of \$25 to J. W. Ridpath

##### Second Year

Ontario Association of Architects Scholarship of \$200 to C. S. Corneil

##### First Year

Turnbull Elevator Company Limited Scholarship of \$250 to A. G. Grant

#### COMPETITION

The Corporation of the City of Ottawa will hold an architectural competition, open to all architects in Canada, for a new Police Building which will contain the Magistrate's Court and Magistrate's Court offices in addition to police offices. The proposed location is the southwest corner of Daly Avenue and Waller Streets, with a frontage on Waller Street of 133 feet and a frontage of 115 feet on Daly Avenue. The proposed building will be immediately adjacent to the existing County and City Court House, a gray stone Victorian building, with which the new building should reasonably harmonize. Photos of Court House and property available on request.

The Magistrate's Court and Magistrate's Court offices require 8,060 square feet, exclusive of walls, columns, hallways, stairways and elevator shafts and the police requirements are 48,247 square feet, exclusive of walls, columns, hallways, stairways, elevator shafts, etc.

For the guidance of all competitors, the building must not exceed a cost of \$900,000.00, exclusive of furnishings

and architectural fees.

The winner of the competition will be awarded the commission to design the building and superintend its construction, and shall be paid for his services a fee not less than provided in the official "Schedule of Minimum Charges of the Association of Architects" of the Province of Ontario. There will be three additional awards of \$500.00, \$300.00 and \$200.00 to the three competitors ranking next in order of merit after the award.

The Board of Assessors will be Magistrate Glenn E. Strike, Q.C., Chairman of the Board of Commissioners of Police for the City of Ottawa: Mr Watson Balharrie, MRAIC, Architect, of the firm of Abra & Balharrie, Ottawa, and the Professional Adviser, Mr C. Maxwell Taylor, B.Arch., MRAIC, Building Inspector and Supervising Architect for the City of Ottawa.

All entries in the competition must be received in Ottawa not later than October 15, 1954.

Anyone wishing to enter the competition should write Mr C. Maxwell Taylor, Professional Adviser, Room 508, City Hall, Ottawa, Ontario, who will then mail the general conditions and requirements for the competition. The owner requires that the winner of the competition will be in a position to commence architectural and structural drawings so that tenders may be called and work started on the Police Building not later than March 15th, 1955.

This architectural competition meets the requirements of the "Code for the Conduct of Architectural Competitions" of the Royal Architectural Institute of Canada (RAIC Document No. 4).

#### THE TOWN PLANNING INSTITUTE OF CANADA

The following are the officers of The Town Planning Institute of Canada, 1954: President E. G. Faludi, Toronto; First Vice-President P. Alan Deacon, Toronto; Second Vice-President T. D. leMay, Toronto; Secretary-Treasurer R. Norman Dryden, Kitchener.

Councillors A. P. C. Adamson, Toronto; C. E. Campeau, Montreal; A. Cousineau, Montreal; P. Dumaresq, Halifax; E. Fiset, Quebec; W. F. Irvin, Toronto; H. S. M. Carver, Ottawa; B. Pelletier, Quebec; D. F. Taylor, Toronto; E. W. Thrift, Winnipeg; Murray Zides, Regina.

#### POSITION WANTED

Architect, 36, MRAIC, ARIBA, seeks association with progressive firm. Contemporary outlook with broad experience over eighteen years in Canada, England and the United States. West coast location preferred but not essential. Replies to the *Journal* office.

#### CONTRIBUTORS TO THIS ISSUE

**Ross Anderson** See April, 1954, *Journal*, page 128.

**Irving Grossman** graduated from the University of Toronto after having worked for a period with Rudolph Schindler in California. Spent a year in the office of Maxwell Fry in London, and two in the London County Council, where his interest in housing was developed. Returned to Toronto in 1953 and established his own practice. Has been on the design staff of the School of Architecture, University of Toronto.

**J. M. Richards**

See April, 1953, *Journal*, page 117.

**Basil Urwin Spence**, O.B.E., F.R.I.B.A., A.R.S.A., was educated at George Watson's College, Edinburgh, and Schools of Architecture at London and Edinburgh Universities. He has offices in Edinburgh and London and his practice included country houses and housing estates, theatres, schools, university buildings, churches and factories. The Sea and Ships Pavilion of the Festival of Britain was designed by Mr Spence. Mr Spence is both an Associate of the Royal Academy and the Royal Scottish Academy. He is not only an able architect but an excellent delineator as his own drawings for the Coventry Cathedral Competition clearly demonstrate. Those who heard him in Canada will remember him as a good companion and a brilliant lecturer. Mr Spence was the 1933 Pugin Student, and, like Pugin, Mr Spence has a boat which he lists among his chief recreations.

Many, who have not subscribed, would wish to feel that they played even a small part in the rebuilding of Coventry Cathedral. Money orders or bank drafts may be sent to Coventry Cathedral Reconstruction

The Reconstruction Fund

Captain N. T. Thurston, M.C., Secretary  
Coventry, England

E.R.A.

#### FUTURE ISSUES

September Schools

October Houses

November Hospitals

#### BOOK REVIEWS

**CHARLES RENNIE MACKINTOSH AND THE MODERN MOVEMENT** by Thomas Howarth. Published by George Wittenborn, Inc., New York. Price \$10.00.

This monograph, which has recently been honored by the American Society of Architectural Historians' 1954 Award, is an objective study of the life, work, and influence of the extraordinary Scottish architect, Charles Rennie Mackintosh. Until the writing of this notable book, the outcome of more than seven years' research by Dr Thomas Howarth, Charles Mackintosh (1868-1928) remained one of the most enigmatic of the personalities contributing to the rise of modern architecture and the particular phases called *art nouveau* and the secession. Now, thanks to Dr Howarth, lecturer in architecture at The University of Manchester, we are at last able to read a stimulating, rational, and fully documented appraisal of one of the creative minds of the modern movement.

The book is presented in two parts. Following a brief Introduction on the historical background, Part One is devoted to Mackintosh and his Scottish contemporaries. In Part Two, Dr Howarth broadens the field to include a comprehensive study of the English and European phases of the new movement and also brings Mackintosh's contribution clearly into perspective.

The illustrations show almost every known aspect of Mackintosh's work, such as his masterpiece, the Glasgow School of Art, his imaginative line drawings and vital water colors. Likewise included are numerous views of

buildings and interiors by architects of the English Arts and Crafts Movement, such as Philip Webb, C. F. A. Voysey, Baillie Scott, and by the European Secessionists such as van de Velde, J. M. Olbrich, Joseph Hoffman, and Adolf Loos. Here is a book that will delight any architect who has ever looked for source-roots in our not so distant past, and that will broaden the interests of every student. As the author proceeds to show, Mackintosh's precise position is not easy to define. But we do find a living picture of the man and an excellent analysis of what he has to offer.

"The second stage of the School of Art (1907-09) is contemporary with Behren's Turbine Factory, and, with its thrilling cascades of metal and glass and boldly cantilevered conservatory, seems at first glance to belong unmistakably to the Gropius faction . . . Its designer did not refrain from combining traditional and modern architectural forms, nor did he hesitate to employ at one and the same time, old building methods and new structural techniques . . . Mackintosh thus had a foot in both camps — but he walked alone, treading a solitary path somewhere between the uncompromising materialism of the German school and the pleasant romanticism of the Secessionists, subscribing to both, indebted to neither." (pp. 286-287).

Mackintosh's domestic architecture stems from the traditional Scottish vernacular, yet belongs unmistakably to the twentieth century. His "Houses on Hills" grew naturally out of the landscape and fitted the requirements of a particular family with an almost inexhaustible fertility of design through all details of interiors and furnishings, at times even cutlery, napery and china. Likewise in the Glasgow tea-room series his interior spacial compositions had a fine creative unity — from the handicrafts, often done in collaboration with his wife, to the larger aspects of inner form and space. It would not perhaps be too much to say that Mackintosh achieved a mastery of form comparable to that of Louis Sullivan in ornament, or as the author may imply, to that of Frank Lloyd Wright in his prairie houses and furniture.

In the Epilogue there is an account of interesting events relating to the preservation of Mackintosh's work. There is also a chronological table of much value to the reader, showing the events of Mackintosh's life in the context of contemporary events in art and architecture. This reviewer acknowledges a more than ordinary interest in the production of the book after having become acquainted, however briefly, with both Mackintosh's work and author Howarth during a visit to Glasgow in 1945. But he would feel that anyone browsing through the several parts, would find himself eventually reading all of it. It is a monograph that holds much in store for the casual as well as the biographical reader in the profession and in the schools everywhere.

H. A. Elarth

FORCES IN FRAMED STRUCTURES by T. Lyle Morgan. Published by E. & F. N. Spon Ltd., London, England; British Book Service (Canada) Ltd., Toronto. Price \$5.00.

As stated in the preface, this book was written for various groups of students including: "Engineering and Architectural students preparing for the examinations of the Institution of Civil Engineers, the Institution of Structural Engineers, and the Royal Institute of British Architects.

It is also hoped that the book will be of material assistance to students in the early stages of a University Degree course in Engineering".

The theory on which the material in this book is based is the same as for the course in statics which is taken by students in the undergraduate courses in architecture and engineering at Canadian universities.

Problems are worked out dealing with one particular field of statics: the determination of the forces induced in the different members of a framed structure under various assumed loading conditions. The many excellent examples include trusses for buildings, bridges, and towers.

There are some features of the book which deserve and require special mention:

(a) Indicating the sense of the force in a member by an arrowhead at each end of the member is effective and worthwhile for elementary instruction. However, it is a cumbersome method to use and surely the author should have included also the method of designating algebraically the sense of the force in a member. The convention is an arbitrary one and there are two possibilities. The one more usually used is: plus (+) indicates tension; minus (−) indicates compression.

(b) While the discussion on complementary shear stresses is correct the writer considers it to be irrelevant in this book. Resorting to an analogy may be necessary in dealing with certain concepts but it is neither necessary nor desirable in this case.

(c) The omission of the Index Stress Method is a serious deficiency.

(d) The demonstration of how to determine the force in the sub-tie or in the sub-strut of a truss with a secondary web system is the best that the writer has seen.

Carson F. Morrison

HISTORICAL ARCHITECTURE by Hugh Braun. Published by Faber and Faber Ltd., London, England; British Book Service (Canada) Ltd., Toronto. Price \$12.75.

There are too many errors of fact in this book to warrant by recommending it to anyone, — errors as slight as that New York is built upon a peninsula (284), as unimportant as the statement that originally all American colonial wooden buildings were painted white (275), as preposterous as the notion that the Moslem mihrab contains the imaginary presence of Mohammed (132). This false documentation supports a very controversial thesis "that the mighty empires of Byzantium and Islam between them forged the architecture of Europe," an extreme position taken by Mr Braun apparently out of suspicion and dislike of things Roman and Renaissance. The survey, nevertheless, would have been acceptable if he had restricted himself to secular architecture where he does bring forward interesting suggestions of the role of Islamic house plans in Medieval and Renaissance Europe. Yet even the value of this portion of the text is undermined by the author's conviction that plans are the refuge of the amateur architectural historian, that the real design is the one revealed in elevations. The book has as fine a set of plates, over a hundred in number, as can be found in any history of architecture, many of them the more interesting as being unusual views of often-photographed monuments.

Stephen Vickers