

RAIC JOURNAL

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EDITORIAL

ON ONE OF THE FEW occasions when anyone had the temerity to put a certain Canadian magazine in front of us (it was the editor, and, out of politeness, we were defenceless) we read of a "service" by which readers were informed of current architectural literature. No doubt such a list was well received, but we must admit to ourselves that books on architecture rarely make pleasant or profitable reading. Excellent illustrated books abound where the text is in the nature of an ample introduction with informative captions to illustrations, but those that can be classed as English literature can be numbered, in our opinion, on the fingers of two slightly mutilated hands. High on the list, we would put such old timers as Geoffrey Scott's "Architecture of Humanism" and Sir Kenneth Clarke's "Gothic Revival", and nothing gives this writer greater satisfaction than to be told by senior students how greatly they had enjoyed both of them. Perhaps, it is true, they were enjoyed in retrospect, but that makes the compliment all the greater and despite the elderly architect in the epilogue to Humanism who said that, after fourteen readings, he had come to the conclusion that he had never read a duller book. At the bottom of our list, we should put, among others, "A History of Architecture on the Comparative Method" by Banister Fletcher Kt P.P.R.I.B.A., Tite Medallist and Knight-Commander of the Order of Ta-Shou Chia-Ho. Ours is the 10th edition (it must have long since gone into its 20th) in which, in the section on Canada, we are credited with a "notable number of buildings of the skyscraper class of an extremely graceful type, with vertical lines all forming original compositions". Old copies like this at \$12.00 exist in all schools, and we hazard the guess that all English speaking architects have, at some time or another, had to study them as history. We can imagine nothing more frustrating or more likely to chill the vital enthusiasm of the young. We take off our hat to a fellow student of Mr. Anthony Adamson's at Cambridge who, perhaps as an antidote to Banister Fletcher (at that time the extremely rare 1st edition) wrote and published an equally large volume of architectural history through the ages — but in rhyming verse.

Our own reading this summer we offer humbly as a service. We are an avid reader of Blackwoods, than which there can be few finer magazines in the English language, but one or two glorious summer days dispose of the monthly copy. In our more serious hours we read the biography of Sydney Smith by Pearson. No, it wasn't as good as that! This was the 19th century English wit and canon of St. Paul's. The Smith of Smiths makes excellent reading with several anecdotes of peculiar interest to architects. At one time, he decided to build a house, and was full of excitement for the project until the plans arrived. They were returned to the architect with a cheque for £25 and the note "You, sir, build for glory, I, for use".

This we followed with "Voltaire in Love" by Nancy Mitford. In that far from ordinary tale, one fact stands out as quite extraordinary. When Voltaire and his love, the Marquise du Châtelet, decided to return to Paris from Belgium, they bought the Palais Lambert. The *hôtel* or palace was no ordinary house — it cost a million livres to build, and its new owners would attract the aristocracy of Europe, as well as the brightest intellects of the day in art and letters.

To prepare this unfurnished house for their arrival, one can picture the fashionable architect giving his orders to an army of decorators and furniture makers, but, in this case, it was not so, and seemingly unnecessary. A priest and a midwife were thought quite adequate to do everything! One is bound to ask by what miracle did the 18th century in England and France produce such impeccable taste in architecture and in most of the objects of daily use. Few of us would like to live today in a cottage — let alone a palace — that had been decorated and furnished by a priest and a midwife, and it is not part of this service to recommend such a procedure to our readers.

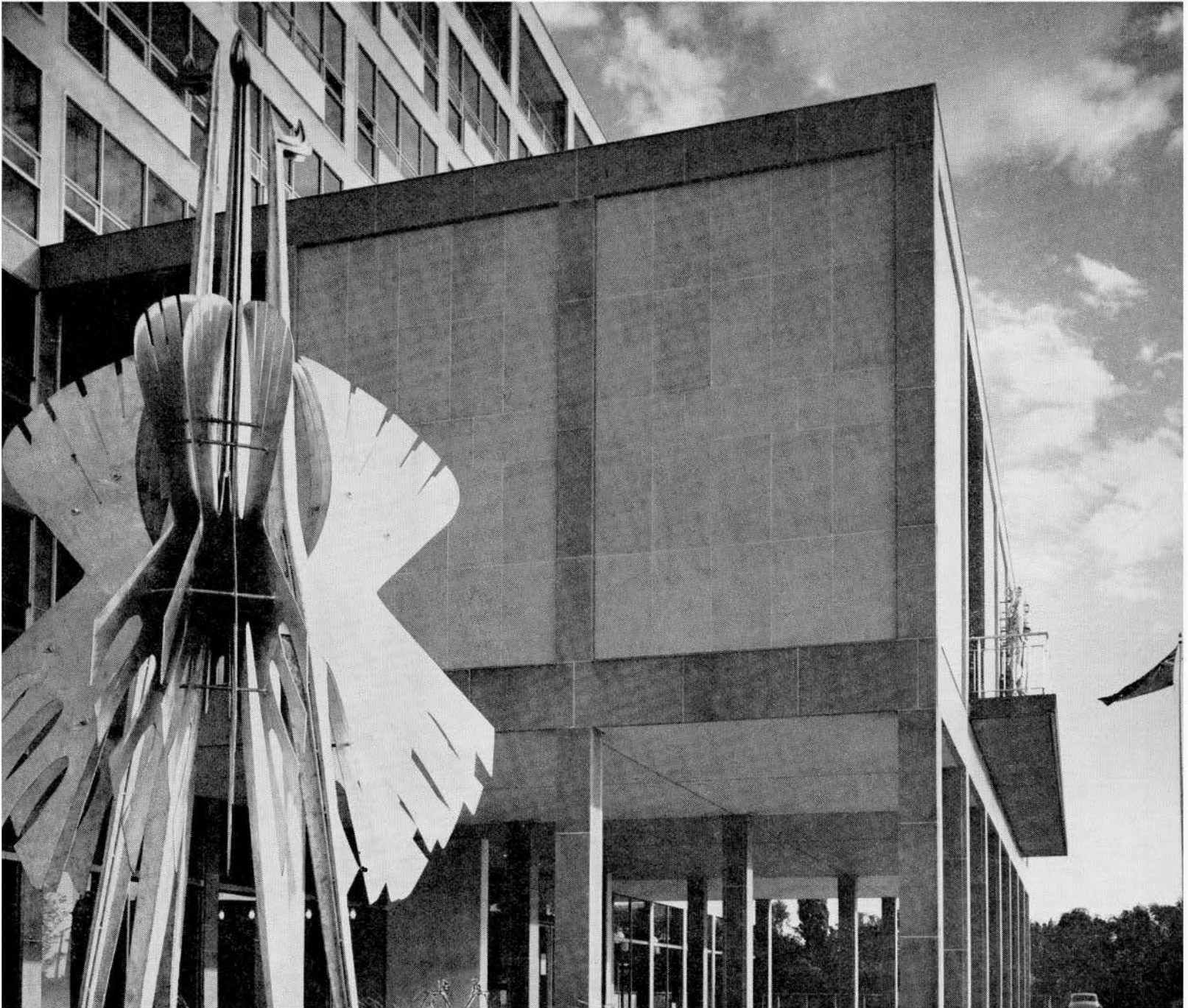
DANS UN DES RARES cas où quelqu'un ait eu la témérité de nous placer sous les yeux un certain périodique canadien (c'était le rédacteur: la politesse nous rendait sans défense), nous y avons appris l'existence d'un "service" ayant pour objet de signaler aux lecteurs les publications courantes dans le domaine de l'architecture. Il fait sans doute plaisir de consulter une liste de ces publications, mais nous devons admettre que les livres consacrés à l'architecture sont rarement d'une lecture agréable ou profitable. Il y a quantité d'excellents ouvrages illustrés où le texte est une longue introduction à des illustrations accompagnées de légendes instructives, mais le nombre de ceux qui sont dignes de figurer dans la littérature anglaise n'atteindrait pas la dizaine. S'il nous fallait dresser une liste d'ouvrages, nous y inscririons parmi les premiers des livres de "l'ancien temps" tels *Architecture of Humanism* de Geoffrey Scott et *Gothic Revival* de Sir Kenneth Clarke; rien ne fait plus plaisir à l'auteur de ces lignes que d'entendre des finissants lui déclarer quel plaisir ils ont éprouvé à lire ces deux oeuvres. Leur plaisir, il est vrai, est peut-être rétrospectif, mais cela ne fait qu'ajouter à leur compliment, en dépit de la boutade rapportée dans l'épilogue de la première des oeuvres susdites: un vieil architecte aurait déclaré qu'après avoir lu ce livre quatorze fois il était convaincu n'avoir jamais lu un livre plus ennuyeux. A la fin de la liste nous inscririons, entre autres, *A History of Architecture on the Comparative Method* de Banister Fletcher, Kt P.P.R.I.B.A., titulaire de la médaille Tite et Commandeur de l'Orde de Ta-Shou Chia-Ho. Notre exemplaire est de la 10e édition (l'oeuvre a dû atteindre depuis longtemps sa 20e); au chapitre consacré au Canada, on nous reconnaît un "bon nombre d'édifices de la catégorie des gratte-ciel d'un genre très gracieux dont les lignes verticales forment toutes des compositions originales". De vieux exemplaires comme celui-là, à 12 dollars, existent dans toutes les écoles et nous soupçonnons que tous les architectes de langue anglaise ont dû, à quelque moment, les étudier dans leurs cours d'histoire. Nous ne pouvons rien imaginer de plus frustrant ni de plus apte à refroidir l'enthousiasme indispensable aux jeunes. Nous rendons hommage à un confrère de M. Anthony Adamson, à Cambridge, qui, peut-être comme antidote contre Banister Fletcher (à cette époque en sa très rare 1re édition), a écrit et publié un tome non moins considérable d'histoire de l'architecture à travers les âges — en vers!

Ce que nous avons nous-même lu cet été, nous le présentons humblement à titre de service. Nous sommes un lecteur avide de Blackwoods; peu de revues de langue anglaise peuvent surpasser celle-là! Un ou deux beaux jours d'été et, malheureusement, on en a épuisé le numéro mensuel. Dans nos moments d'étude plus sérieuse nous avons lu la biographie de Sydney Smith par Pearson. Non, ce n'était pas si bien que cela! Il était l'homme d'esprit du 19e siècle en Angleterre, et chanoine de St-Paul. Le Smith authentique est de lecture fort agréable et contient plusieurs anecdotes d'un intérêt particulier pour les architectes. Il décida un jour de se faire construire une maison; le projet le remplit d'émoi jusqu'au jour de l'arrivée des plans. Ils furent retournés à l'architecte avec un chèque de vingt-cinq livres et un mot: "Vous, monsieur, construisez pour la gloire, moi, pour l'utilité."

Nous avons ensuite lu *Voltaire in Love* de Nancy Mitford. Dans cette histoire peu ordinaire, un fait nous a paru fort extraordinaire. Lorsque Voltaire et l'objet de son amour, la marquise du Châtelet, décidèrent de rentrer de Belgique à Paris, ils achetèrent le Palais Lambert. Cet hôtel ou palais n'était pas une simple maison: sa construction avait coûté un million de livres et ses nouveaux propriétaires allaient y attirer l'aristocratie de toute l'Europe ainsi que les plus illustres représentants des arts et des lettres de l'époque.

On s'imagine que pour l'arrivée des nouveaux propriétaires dans cette maison non meublée, l'architecte et la mode est venu y commander à une armée de décorateurs et d'ébénistes. Il n'en fut rien; et il semble même que la chose eût été inutile. On estima qu'un prêtre et une sage-femme pourraient s'acquitter de tous ces travaux de façon satisfaisante. On se demande par quel miracle le 18e siècle a produit, en Angleterre et en France, un goût aussi impeccable en architecture et dans la plupart des objets d'usage quotidien. Peu d'entre nous aimeraient vivre aujourd'hui dans une chaumière — encore moins dans un palais — qui aurait été décoré et meublé par un prêtre et une sage-femme; nous ne saurions, dans le cadre de ce "service" que nous offrons à nos lecteurs, leur recommander d'avoir recours à de tels moyens.

OTTAWA CITY HALL



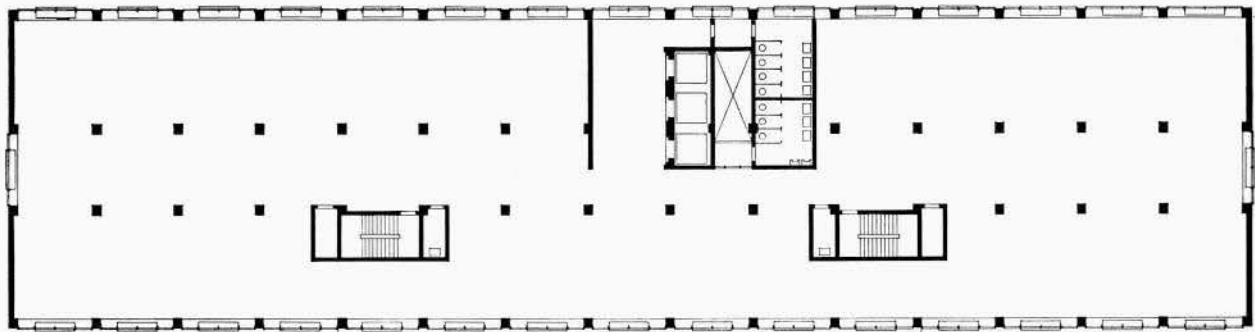
The fountain sculptures of welded aluminum plate

Architects: Rother, Bland, Trudeau

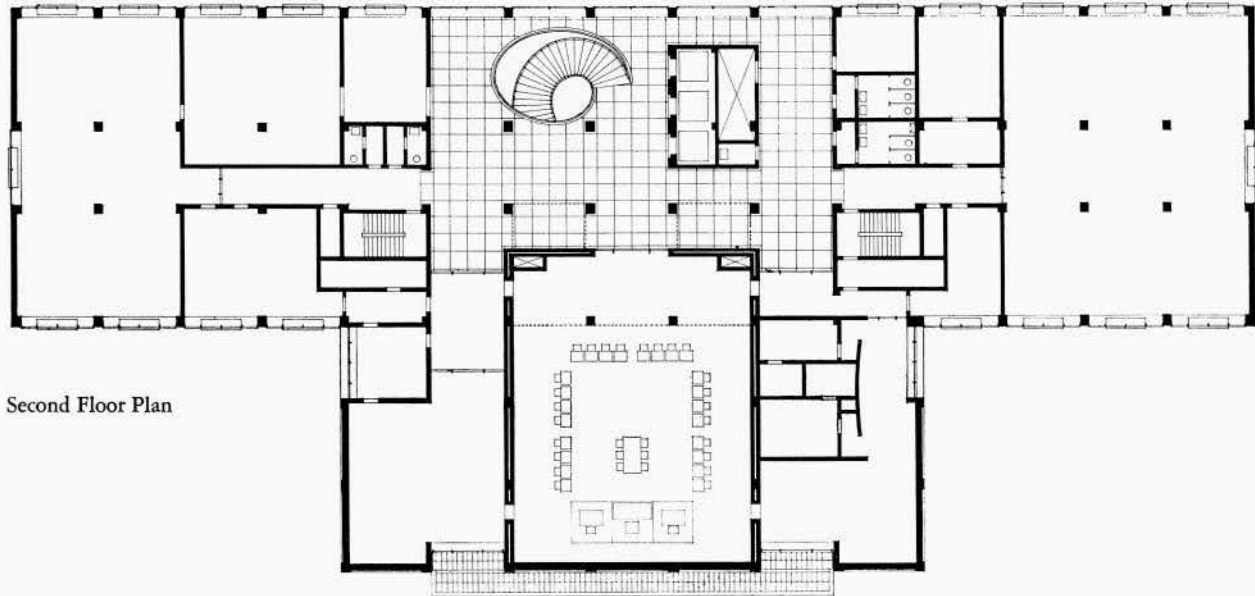
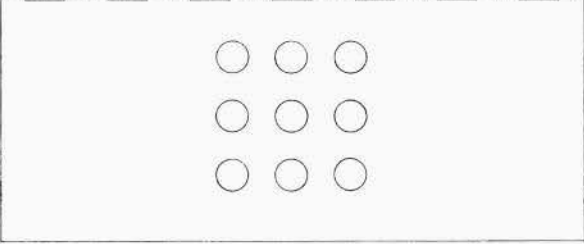
*Structural Engineers:
DeStein & McCutcheon*

*Mechanical and Electrical Engineers:
Wiggs, Walford, Frost & Lindsay*

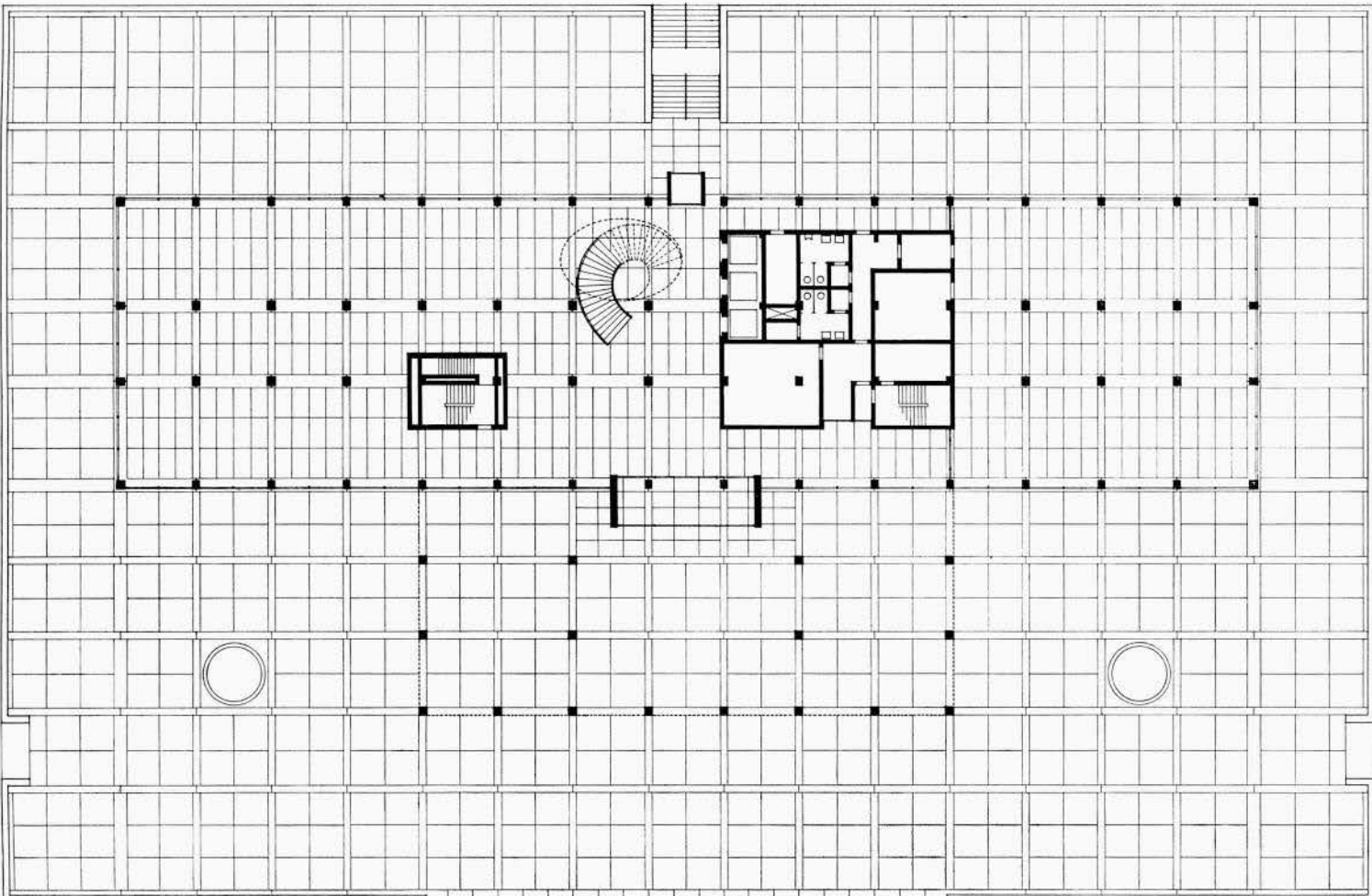
*General Contractors:
Perini Limited, Ottawa.*



Typical Floor Plan



Second Floor Plan



Ground Floor Plan

PANDA



The executive wing and main approach

View from Sussex Drive



PANDA



The Council Chamber

The site of the Ottawa City Hall is Green Island, Sussex Drive, between the National Research Council and the French Embassy. The island itself lies in the Rideau River just above the falls and is crossed by Sussex Drive as well as the Minto Bridge Road. The site is between the two roads. Until very recently this part of the island was obscured by old industrial buildings at one time housing National Research Council Laboratories and by a government temporary building.

The City Hall is set upon a broad platform that lifts the ground floor above the street level and provides a parking garage below. The composition consists of an eight-storey administrative block accommodating the city departments and a three-storey executive block in which the council chamber and the mayor's and aldermen's suites are located.

The building is symmetrical and monumental. It depends strictly upon proportion of elements and fine detail for its effect. The stone walled council block and the large projecting stones in each window which are also framed in stone give solemnity to an otherwise largely glass facade. The railings and aluminum sculptures dress the facade and relieve its stern official character. The design idea was the creation of a building modern in every sense, yet emblematic of government.

The main approach is by an open paved plaza below the council chamber block which is supported by stone faced columns. Two fountains cut from heavy aluminum sheet by the Canadian sculptor, Louis Archambault are on either side. Six nine-foot entrance doors of aluminum and glass between free standing marble walls have the coat of arms of the city carved into their glass panels.

A town hall balcony with an aluminum rail extends across the facade of the council block. Above the balcony on the blank exterior wall of the council room, the coat-of-arms of the city has been placed in full relief. This is in aluminum and manganese bronze cast in sand moulds and is the work of the Canadian designer and graphic artist, Art Price. He was also responsible for the designs based upon the city arms used elsewhere in the building.

The council chamber is a large square room designed to enhance the dignity of democratic civic government. The walls panelled in walnut incorporate the acoustic treatment of the room in the form of absorptive recesses which make a rhythmic pattern. The furniture in walnut and oak has been designed specifically for the room. A public gallery, accessible from the third floor provides accommodation for sixty-seven spectators.

On the ground and second floors occur the important reception and meeting spaces necessary to civic purposes. A restaurant and lounge for the city staff are provided on the eighth floor where there is an observation gallery for visitors offering splendid views of the Ottawa River and the Gatineau Hills.

An unusual reinforced concrete stair, finished in white marble with an aluminum railing rises from the ground floor in a single unsupported flight to the second floor and is the main approach to the council room.

Simple white marble walls of the ground floor interior provide a contrast to the rich foliage of the island seen through the exterior glass walls. On the ground and second floors the columns are encased in polished Queenston limestone which contrasts nicely with the white marble and link the interior finish to the exterior.

The windows which comprise most of the facade are fabricated from a specially designed extruded aluminum box section, fully assembled and sealed in the shop and installed on the site as a complete unit 9' high by 15' long. Each unit floats in the space between columns and floors to allow for expansion and contraction of the metal and for the movement of the structural frame.

All the mechanical equipment for heating and air conditioning is provided on the eighth floor and in the penthouse above it. The building is fully air conditioned. Power and communication are provided throughout by underfloor ducts. Three high speed completely automatic elevators serve all floors. The building is a steel frame structure on a reinforced concrete base and is clad in limestone, aluminum and grey glass.

The Mayor's Office



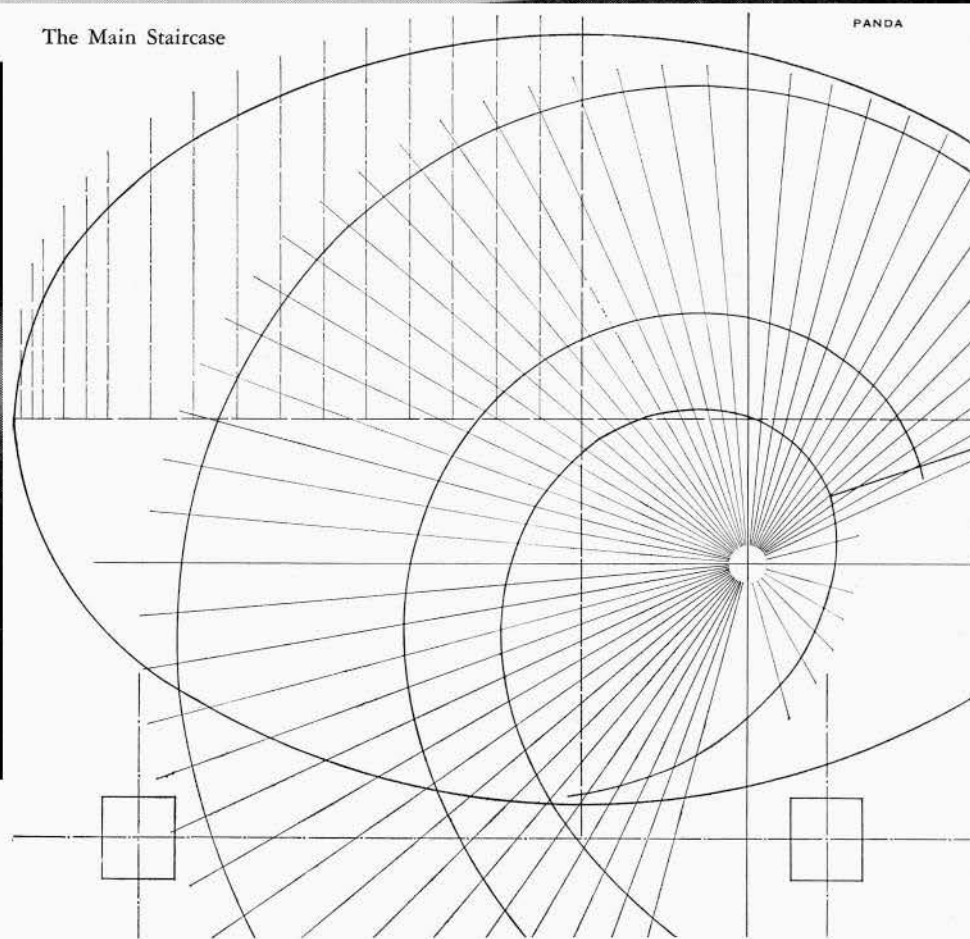


The Main Staircase

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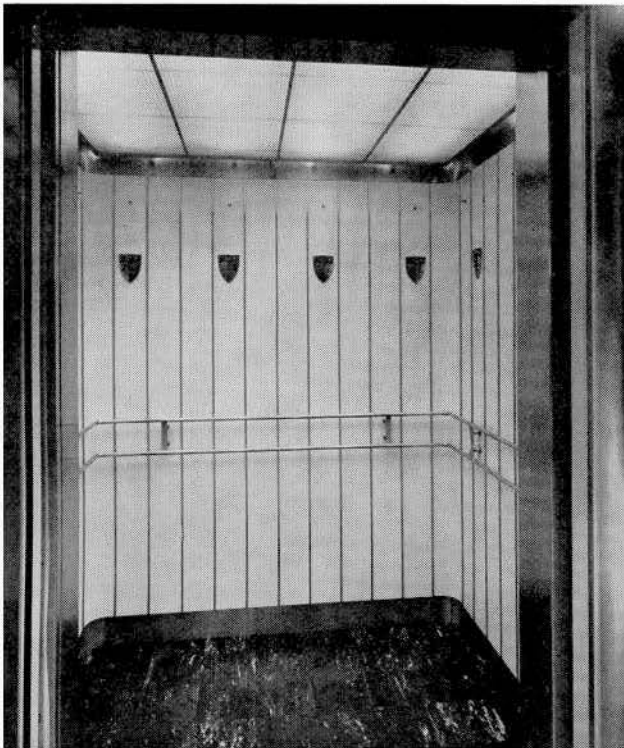
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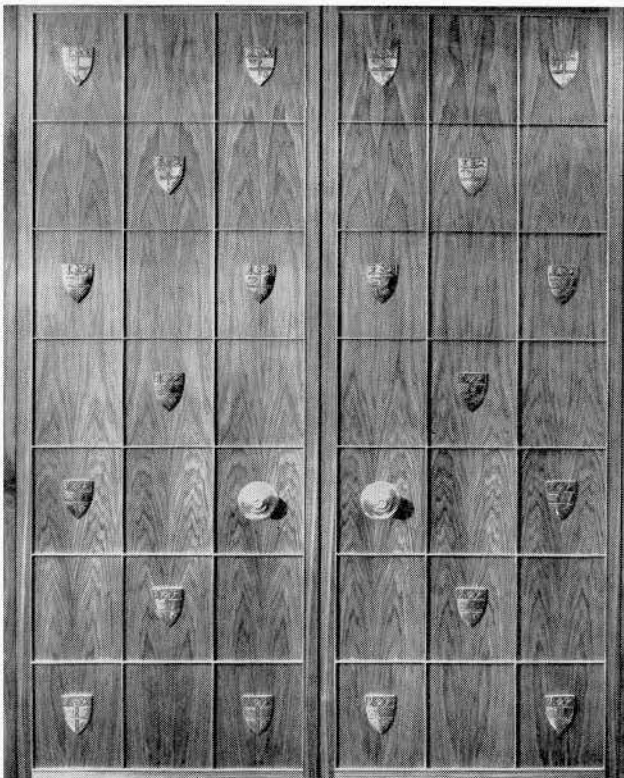
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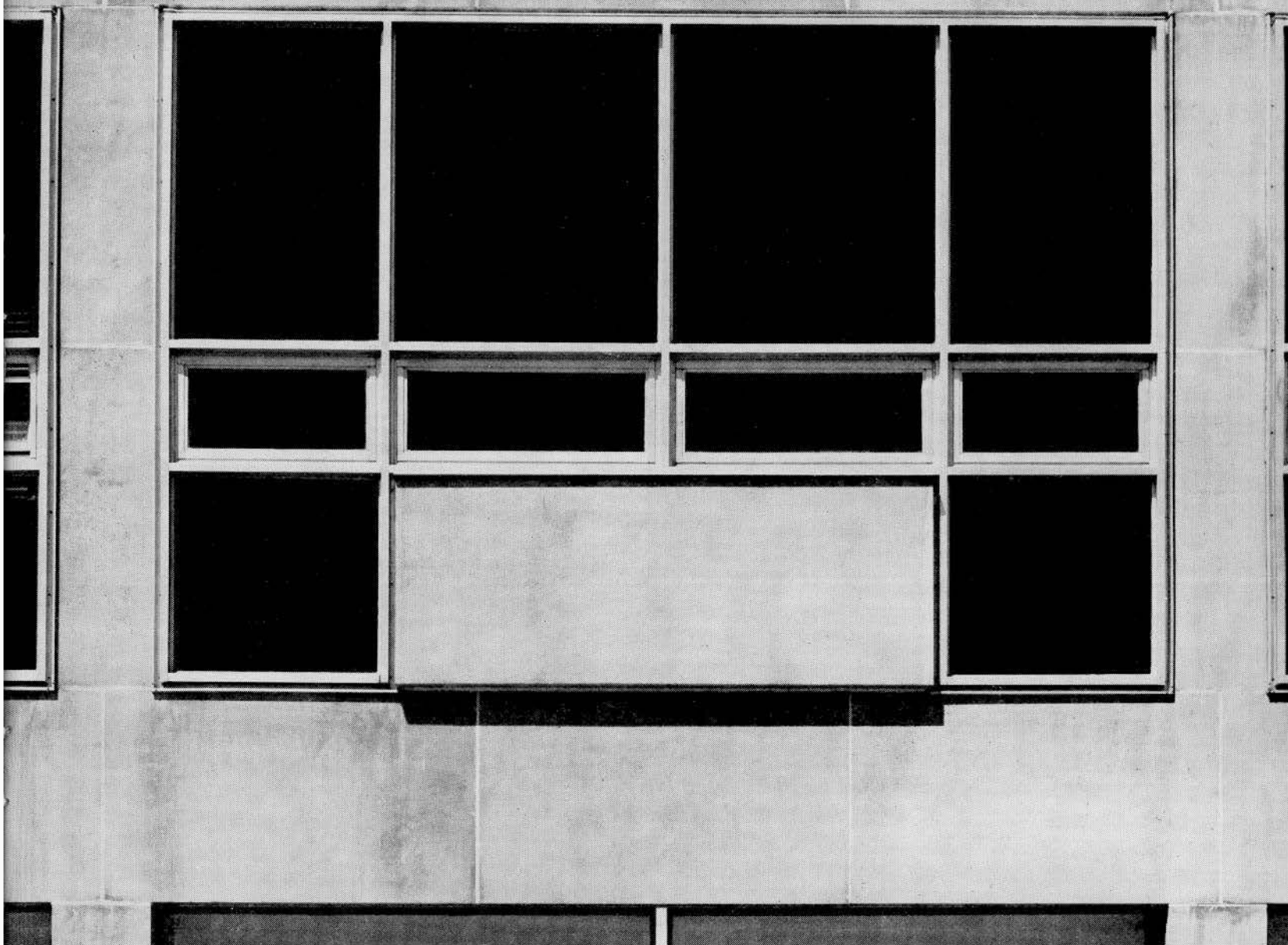
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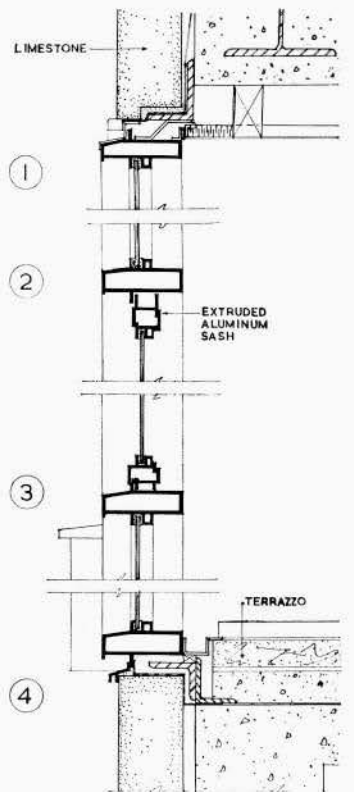
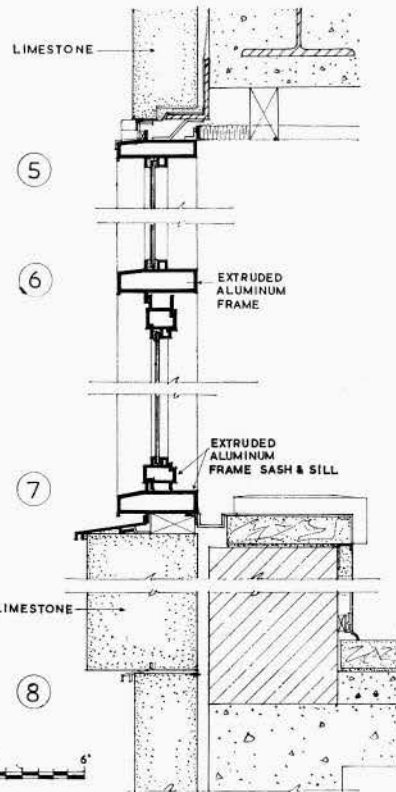
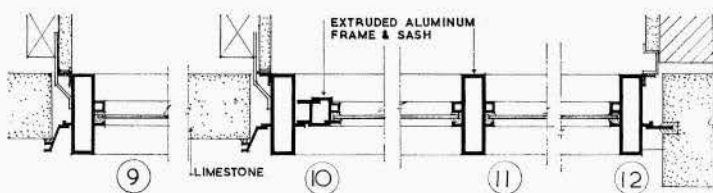
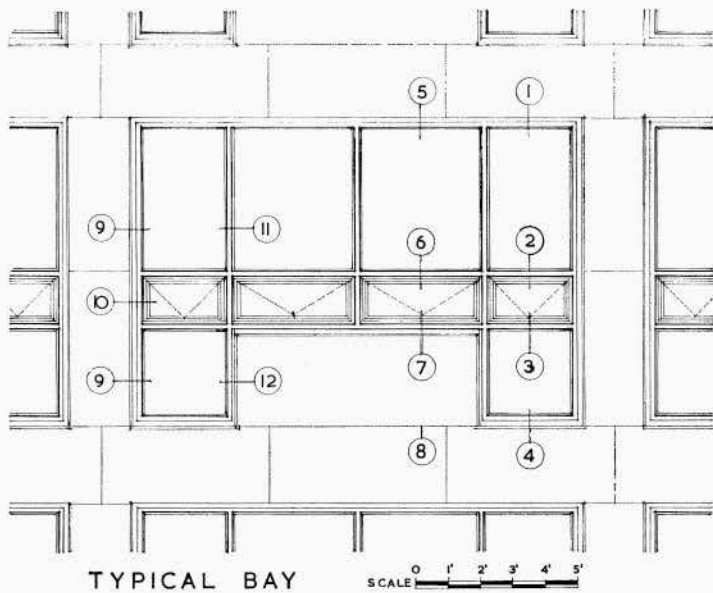
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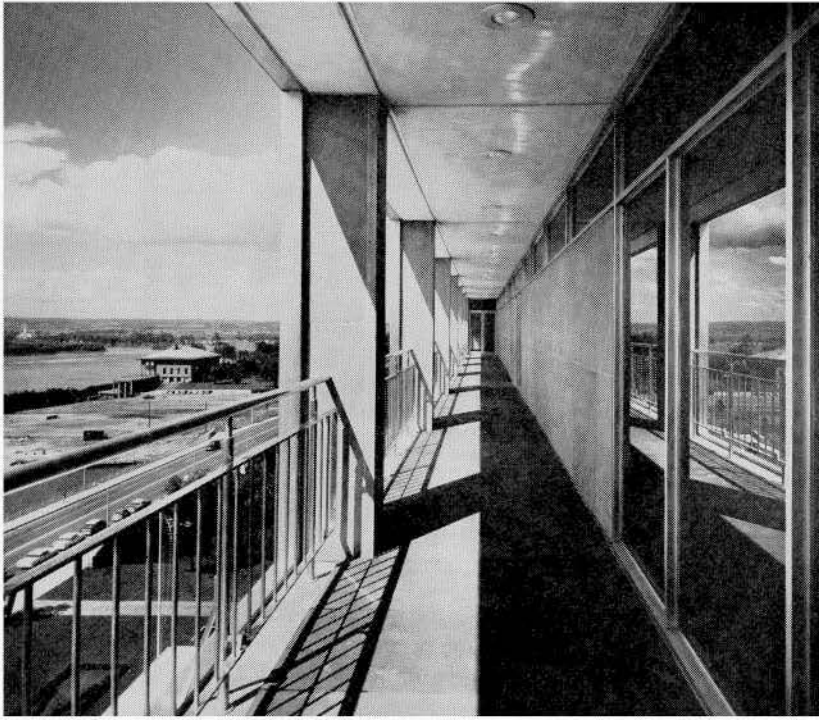


Top: Cast aluminum coat-of-arms
Centre: An elevator cab
Bottom: The council chamber doors
Opposite page: Typical bay and window detail



PANDA





View from the observation gallery on the eighth floor

View across the Rideau River



PANDA

LANDSCAPE AND PLANTSCAPE

by W. S. GOULDING

IN SPACE, TIME AND ARCHITECTURE, Sigfried Giedion uses the rather cosmic heading, "The organization of outer space", to describe the developing interest of the Baroque designers of France and Italy in opening up the sites adjacent to their buildings and in making these extensive sites an essential part of their designs. His point is to show how the tightly enclosed buildings of the tightly enclosed medieval towns were freed to become independent sculptural creations. A highly organized series of sight lines and perspectives, controlled by balustrades and trees and water, set the building in its site. Not the building alone, but the building and the space around it, or conversely, the square and the buildings around it, together determined the scale and character of the design.

Architect, landscaper and client were all remarkably relaxed about the completion of these great Baroque exercises. The great French designer Le Notre used to tell his clients not to pass a hasty judgment on one of his gardens, but to come back in a hundred years. The joke was a serious one, because to allow for the proper amount of tree growth and pruning and clipping, a hundred years would have to pass. He was quite happy to design such gardens, and his clients were quite happy to let their grandchildren enjoy his work.

One of Le Notre's most satisfying designs, the water garden at Sceaux, is illustrated here. It was originally commissioned by the Duc de Maine, a seventeenth century patron of music and a natural son of Louis Quatorze. It now finds itself to be one of the most popular Sunday outing spots for the Parisian public who come out to it by the Metro. Good design is timeless. The cascading fountains and the controlled views of wood and water will continue to attract, to delight and to bemuse the Parisian commuters and their families. Of course they can see Le Notre's design in its completion, which was not possible for him nor for his client, the Duc de Maine.

We still have the problem to solve, the organization of outer space, the space around and between buildings, the problem which the Baroque designers identified. But it now presents itself in a variety of ways quite unknown to them.

The scale and speed and complexity of modern industrial society which have made so many new demands on architects, have made almost as many new demands on landscape designers. The present-day designer of a large park, for example, will usually have for his client, not a landed proprietor with an interest solely in the development of pleasant walks and views, but a department of government acting on behalf of the public. The eventual users of the park, will in some few cases be content to stroll through it, but generally, they will arrive by car in great numbers, and the cars must be parked

with the greatest convenience; they will want to picnic; they will want to swim; they will often have brought a small boat with them; many will want to play baseball or football. The design of this park must enable all this variety of activity to go on in specific areas adapted to it, but it must also look and feel like a park.

Then take the designer of playgrounds. The village child of long ago may have been content to wander o'er the fields, picking daisies. The modern urban child with street, sidewalk and at the most, small back lot to play in, has to have some space in the city designed for him and his fellows or he becomes a public hazard and a public nuisance. Apart from the planning problem of where should such a playground be, there are the design questions, what age group should it be designed for and what should it look like? We are now just beginning to get some charming alternatives to the usual collection of swings, slides and sand box, which seem to be even more interesting to the children, and which offer pleasant sculptural forms and a good design focus in an open space.

The private client is making new demands on the landscape designer. Despite the short season prevailing over most of this country and the insects, more and more people seem to want to move outdoors onto living terraces, dining terraces, and shelters with barbecue pits. Suitable plant material and its location is quite different in relation to these areas than it is when seen only from behind the curtained window of the house. Then there is that successor to the Baroque water garden, the suburban swimming pool. It is usually the dominant element in any garden where it is to be found, and apart from the mere efficiency of its design, it can create tremendous visual problems. What should be its shape, its finish, the treatment of the heavily used surfaces immediately around it; what will it look like in winter?

In the more densely built up areas of cities and towns, trees and plants have come to be used as foils to architecture. An individual tree or planting bed may set the key to a building's design. It is not so much landscape, in the traditional sense, as what might, for want of a better word be called plantscape. Properly handled, this use of growing material can provide a great deal of cheer among the glass and masonry walls. The shopping centre, the apartment house, the office building are all using plants as an essential part of their architectural design.

The space outside the building, with which the landscape designer is concerned, Giedion's "outer space", may be considered as the frame of architecture, or as part of the spatial volume which contains both the viewer and the building viewed. In either case, it can condition the character of the building, and the mood of the viewer. A building seen across an open paved terrace or square may seem quite different from a similar building seen through trees across a lawn. Depending on the basic character of the building, one of these types of outer space would enhance its character, the other would confuse it. A modest street of shops or houses, passed on a hot summer day, may seem delightful and of a pleasant vernacular style, if the street trees are grown and shady; without the trees, the buildings can look straggly and mean. It often seems, in fact, that some of the best architectural effects in many of our older cities and towns are created by the patterned rhythm of the street trees of elm and maple and locust and chestnut, planted before the turn of the century.

The problem of organizing this outer space has also become more complicated for the modern landscaper. Traditionally there has been the building on its particular site, or there has been the street, or there has been the square. Now we are finding spaces which are determined by the strategic placing of one building in a symmetrical counterpoise to another building. The great American public housing projects, and the redeveloped areas of central business districts, are providing new spacial relations between buildings for which there is no precedent.

The other new problem for the landscaper is to provide the proper planting detail, which is really part of the architectural



Plantscape in a modern shopping centre. Heavily travelled pedestrian ways are paved with concrete squares. Open space between is paved in brick and planted areas are contained within raised brick curbs. The pool in the illustration above is shown with fountain playing and water reflecting shapes of rocks and planting. At right the pool is empty, as it must be in winter, and the rock shapes still give it visual interest. Ground cover is a combination of broad-leaved evergreens and bright-coloured annuals. Trees are thornless locust which are not meant to give deep shade, but to provide an interesting shape in contrast to the rigid lines of canopies. *Project Planning Associates Limited.*



PANDA

design of the building itself. There have been plenty of examples in the past of planting embellishing a building, giving the design a quality of opulence, but now, a carefully calculated scheme of severe planes and volumes, may end by focusing the attention on a tree in a court, a mass of bedding plants by an entrance. The richness of the natural form is not used to embellish the building, but by its form and character, to provide a dramatic contrast.

Granted the importance of the space-between, of the non-building, in modern building design, and of the critical nature of the architectural detail which is a plant form, there comes the question of technique. How can the proper effect be best achieved? By calling in someone who knows about plants.

An eminent landscape authority in one of our northern cities recently said that no architect should be allowed three feet outside his building. The landscaper had had plenty of experience on which to base his remark. He was thinking, of course, of the cases where the architect had tried to do his own landscape design. There is the equally serious case, where the landscape has not been thought of at all during the design of the building, and is handled as an entirely separate operation afterwards. The only successful solution would be to call in the landscaper who knows the characteristics and growth habits of various plant materials as soon as the first sketches

have been made and while the character of the building is being developed. Such a consultation at the start will ensure that an appropriate type of plant can be used in a situation that is appropriate to the needs of the plant as well as to the needs of the architectural design. It will also ensure some recognition of the growth habits of possible plants under consideration. We are all familiar with the evergreen base planting around suburban houses, which twenty years later has blanked out the living room windows and is starting to crowd the eaves. It is growing quite normally, but in a disastrous location. Certain types of growth are very fast; others are very slow. Annuals may be set out to bloom almost at once; certain types of trees, such as those used in the great European parks, may take generations to reach maturity. It would seem only reasonable that all the possibilities should be discussed as early as possible in the development of the project.

In our continental climate, one of the finest things about a good landscape design without our buildings, is its ability to reflect the change of the seasons. Yet while it offers this contrast of change to the unchanging building, this open space without the building may be even more permanent than the building itself.

Traditionally, the private garden was planted and cared for to produce a peak season, when one went out into it and

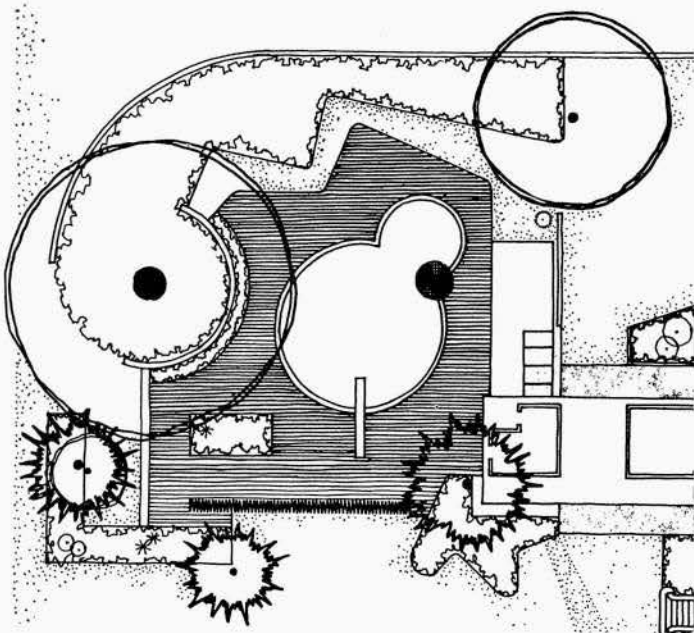
The seventeenth century water garden at Sceaux, near Paris. Ashlar retaining walls and cobbled terrace lead down to gravelled paths which are defined by clipped box hedges. The inside face of plane trees is also clipped to maintain the strict geometrical line from terrace above to circular lake below.



W. S. GOULDING



PANDA



This pool is a welcome relief from the usual outdoor, outside bathtub. The two intersecting circles provide a large deep pool with diving board, and a shallow wading pool, which can be roped off as a separate section. The pool is surrounded by a hard-surfaced terrace of paving brick within which is a rectangular planting bed. A board and batten fence at the back defines the general space, and a low dry-stone retaining wall maintains the level of the terrace against a fall in the land to the left. *Project Planning Associates Limited.*

Opposite page

The high face of an urban apartment house rises behind a treed lawn. Shade is emphasized by ground planting at base of trees. Below, terrace over parking garage at rear is gravelled and planted with hedging and ground cover; planted to contrast with the strong straight face of the building. In both cases the designers were careful to allow for what could be seen from high up in the building, as well as what could be seen from close by. *Project Planning Associates Limited.*

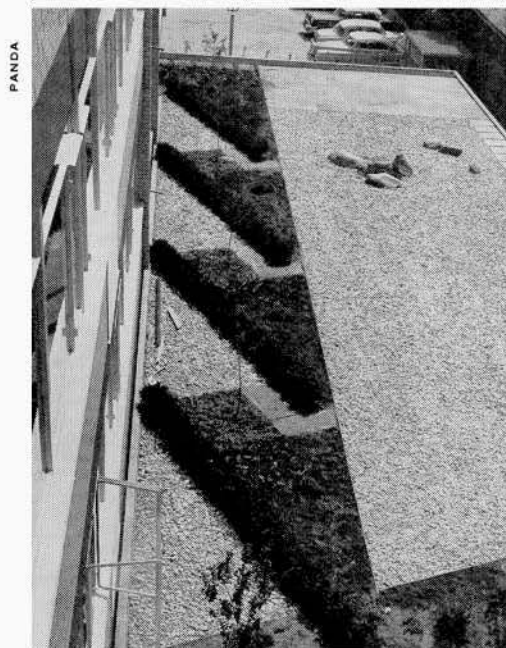
appreciated its tremendous abundance and colour. Now, through the glass-walled room one is aware of it in all seasons. Traditionally also, people have thought of the luxuriant early growth in spring and the brilliant colours of Indian summer which characterized the countryside. Now we consider the spaces around buildings in the cities and towns, which people pass every day of the year. We are becoming more aware of the outline of a well-trimmed sturdy hedge in mid-winter, and aware too of the value of changing plants to fit the season, so that some planted area which is well in the public view has a positive statement to make at all times of year. Just as we are becoming used to daytime architecture and night time architecture, as the use of floodlighting increases, so the proper use of plant materials can express winter as well as summer. Plantscape can be good for twelve months in the year, and in Regina as well as in Victoria.

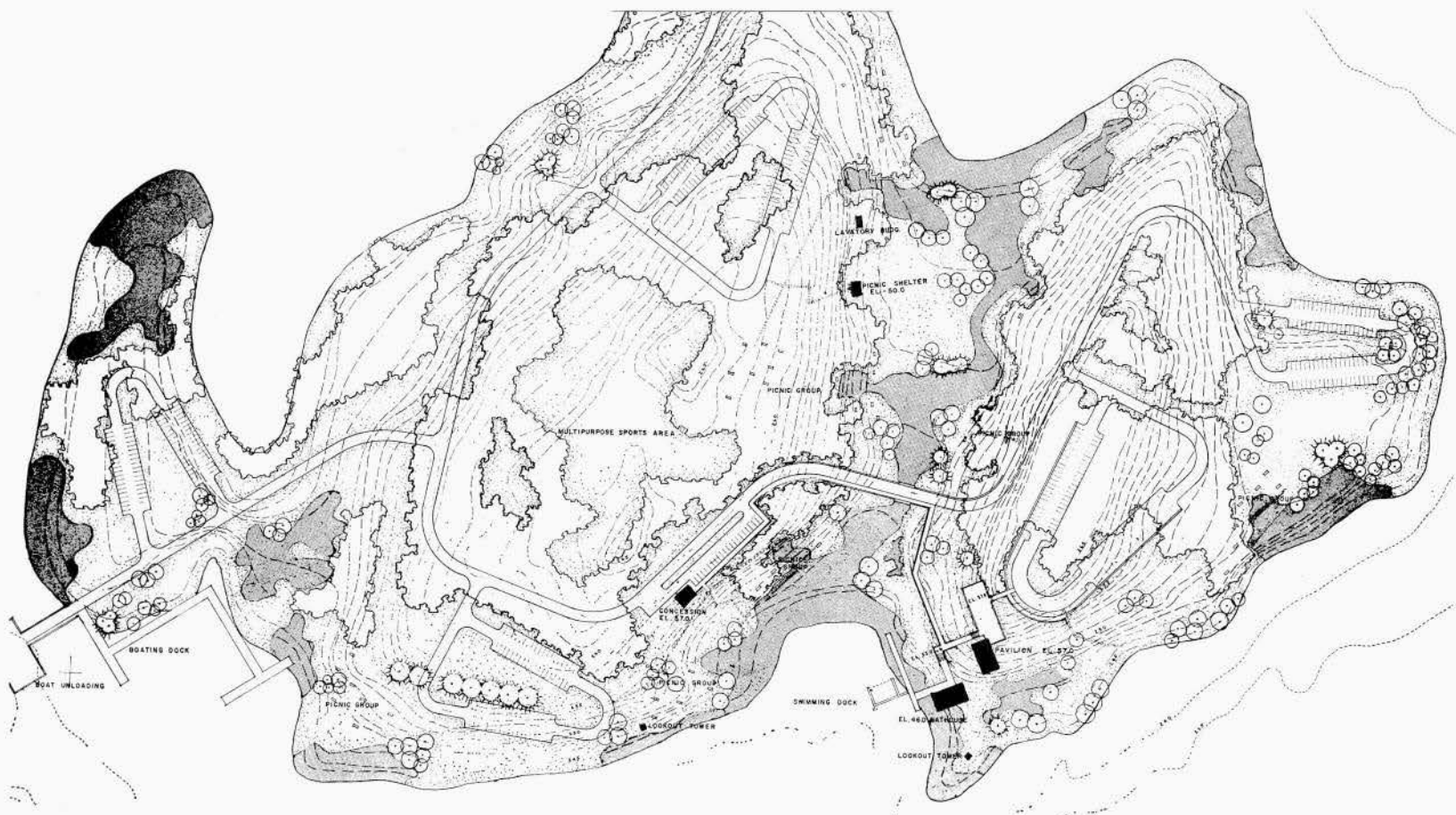
The permanence of open space in our urban centres is now being recognized. In spite of the loss of many old market squares and court house and church sites, the new interest in zoning and planning control would suggest that what open public spaces our cities and towns now have, will be preserved and maintained as necessary public amenities. Old buildings abutting on them may be torn down and replaced, but the open space will remain as an anchor in the design of that section or neighbourhood. Many new materials and forms are being introduced into just such in-town open spaces that have remained from a previous era. What was once lawn and trees surrounded by single family houses, may find itself the lunch-time recreation spot of office workers. In some cases the parks authorities fight a rear-guard action with signs saying, "please", while the grass gets thinner and thinner, while others recognize that in such locations, grass can be looked at but not left as a surface material. They gravel or dry-pave the pedestrian ways, and put the grass behind a hedge or above a curb, just as the Baroque designers used to do.

Another old-fashioned style of gardening is now being revived for intensively used open spaces such as small downtown parks, and that is the popular Victorian ornamental planting bed, with coloured leaved material along with such things as begonias, cannas and hardy annuals. It is a matter of focusing people's interest. If a small park, say, has only trees, paths and ground cover, people will walk through it and not stop nor spend time. But if there is a concentration of colour and interest, on a fine day, this will catch the interest of the passerby, and he will likely stop and wander more slowly through the park. Such an accent of interest and colour may also draw people to simply go and have a look. In terms of design, what has happened to that particular spot is that it has changed its character from being a generalized landscape, with no particular focus, to a particularized plantscape with a particular element in focus, the colours and forms of the bedding plants.

The well designed open space can convey the sense of seasonal change along with a sense of permanence as an element in the town plan. It can also convey a sense of place and of region.

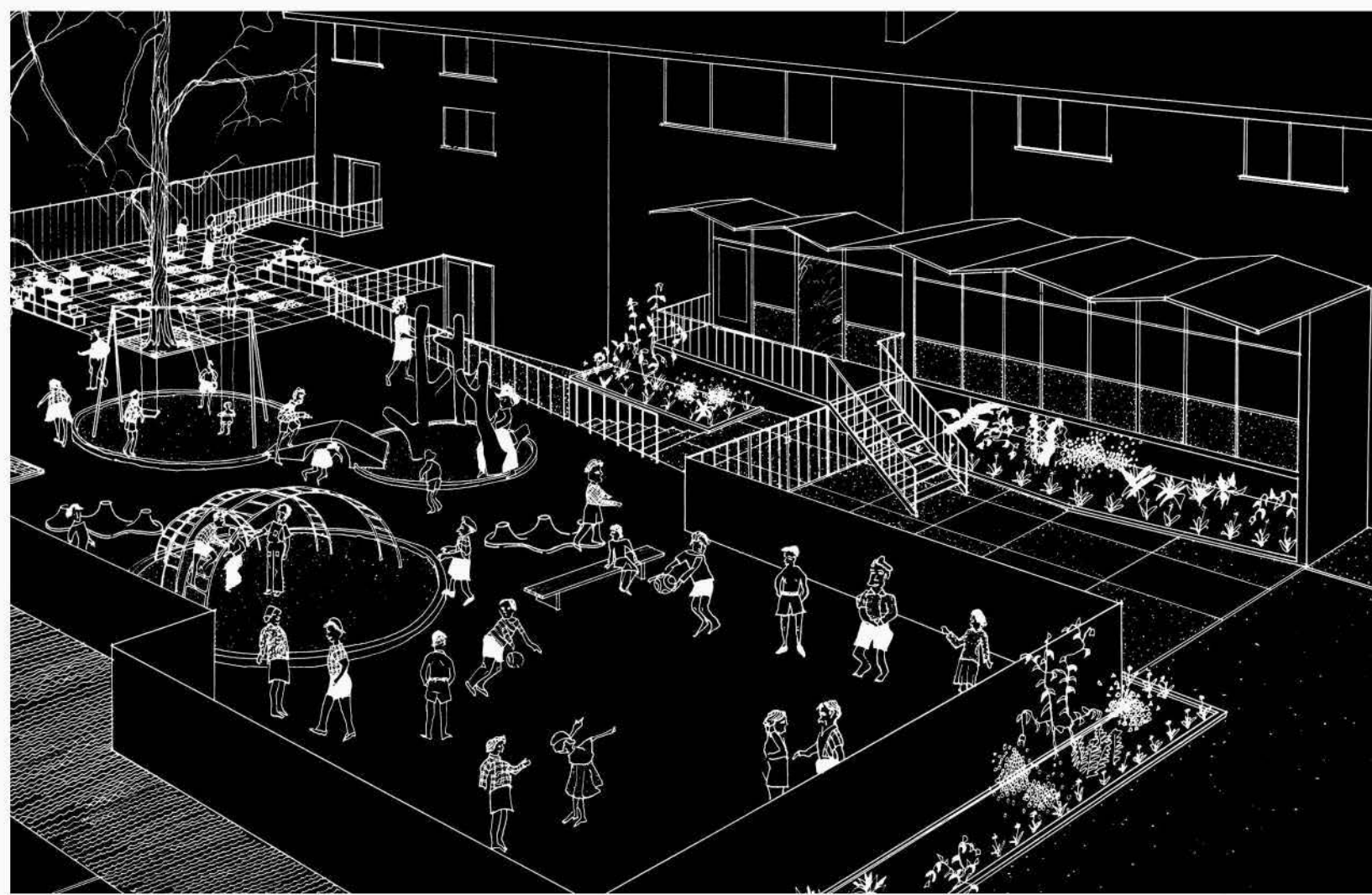
The apostles of regionalism are having a harder and harder time these days, trying to find or to establish regional characteristics in our architecture, but one regional characteristic which should remain fairly constant is the plant material which will grow in a particular place in a particular climate. Our building techniques and the efficiency of new machinery are such that one can, if one wants to, live behind a wall of glass almost anywhere; but outside the wall of glass, Yarmouth will never look like Port Arthur and Quebec will never look like Vancouver. Temperature and sunshine and rainfall will determine that certain plants and trees must grow well here and not there. In the end it may work out that as architecture influences landscape design, and landscape design influences architecture, the basis for a proper regionalism will be found not so much in the building as in the planting. The real denominator will be the azalea or the Iceland poppy, the maple or the fir, in front of the Wallspan.





Above, master plan for a new park on the Seaway.
 Farran's Point Park of the Ontario-St. Lawrence
 Development Commission.
 The Honorable George H. Challies, Chairman.
Project Planning Associates Limited

Below, Playground for a children's home
Cornelia Habn Oberlander



W. S. GOULDING



W. S. GOULDING



Two separate childrens' playground laid out in different sections of a park in central Stockholm. Above, plenty of benches for mothers with carriages surrounding a sanded and lightly gravelled open play space. In the centre, a group of tree trunks, cut to varying heights are sunk into a concrete mat, and offer an interesting sculptural shape and an excellent challenge to young climbers. In the foreground another section of gnarled tree trunk is set horizontally to allow for hiding and more moderate climbing efforts. Digging is encouraged. At right, a paved well-drained area for football. Beyond the paving is a verge of large boulders laid dry, whose irregular surface compels the players to stay on the paved space. Beyond the boulders is a simple board and post rail for spectators and exhausted or spare players. Both these designs enhance the character of the park, and can allow within their composition for large groups of active youngsters.

PLANTS IN BOXES

by LOIS LISTER

A CHARACTERISTIC of much contemporary architecture is the importance of plants and trees, not only as pleasing incidentals, but as an integral part of the design. This is true both inside and outside the building. There can have been few periods in the past when it would not be possible to imagine the architect's design as virtually independent of planting, even if that design would be enhanced by it.

At present, the relation of planting to building cannot be treated casually. It is of major importance. Planting areas inside a building, or so closely associated with it outside that they are, practically part of the architecture, involve major decisions of design and organization. They are found in all types of buildings, from small houses to large public institutions. In some urban sites where land is restricted, this is the only sort of planting possible. But just as frequently, in suburban sites where there is ample land, the architect's concept demands the same relation of intimate planting areas within and near the buildings, while the remainder of the site is treated in a broad, uncomplicated design.

The great advantage of small planting areas, seen in relation to a building, is that we are able to appreciate the beauty of form of individual plants and shrubs, whereas this is often lost in more luxuriant garden settings. Few plants, if they are healthy and not mutilated by unskilled maintenance, are without charm and grace when they are displayed to advantage. The outline of a tree silhouetted against a wall, its shadows on the surrounding paving, its motion in the wind, all add to its decorative value. A dozen crocuses appearing at the entrance to a large office building in early spring are more appreciated than hundreds further afield. These small areas present technical difficulties, but when they are achieved successfully, they are most rewarding. Because they are growing and changing with the seasons, they can, literally, bring architecture to life.

It is my experience that architects tend to undertake at once too much, and too little, in regard to the planting areas associated with the building. Frequently, the location and size of the planting areas, their depth, facilities for drainage and watering, are specified by the architect, who could have been greatly helped by professional advice concerning these matters. Paving, curbs, wall surfaces, overhead details such as trellis and canopies, are part of the total scheme involving the planting areas, and cannot be considered independently. For example, the paving may be formal or not, free-draining or impervious, and consist of large or small units. All considerations of this kind have a direct bearing, aesthetically and practically, on the choice of plant material. You cannot treat the planting area separately. Landscape consultant and architect need to work together while the building is still on the drawing board.

On the other hand, while it is proper and sensible that the choice of the varieties of plants used should not be the architect's concern, he is certainly concerned with questions of scale, style, and general effect. Often planting is seen which is as surprising and incongruous as if a braided habitant rug had turned up in the main entrance to a modern public building: it is utterly inappropriate, and seriously detracts from the building. This is not something to leave to chance. The plants themselves, besides being practicable from a horticultural point of view, must also be fitting. Perhaps an effect of apparent informality is appropriate, expressed through a carefully selected group of different plants. Possibly a strongly so-called "architectural" use of plant material, familiar to everybody in common examples like hedges and grass lawns, much less familiar in many other effective ways of handling plants, would be more in keeping.

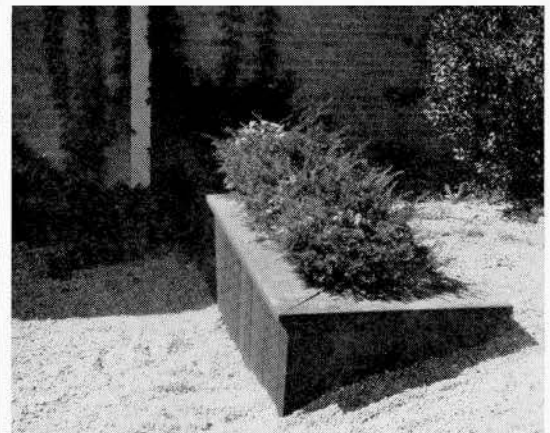
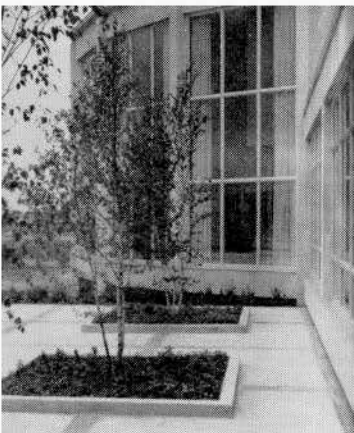
The scale of the planting is a complicated subject, involving many subtle aspects. The height and proportions of units in the planting, of groups of plants and large individual plants such as trees, and the actual scale and character of the foliage, must all be considered in relation to the building as a whole and, in the immediate environ, to construction units, such as windows, paving and masonry. Neglect of these factors leads to planting which is incongruous, and would be better simply eliminated. Successful consideration of them can produce results, which achieve the goal we aim towards, a feeling that the building and its planting are together parts of a completely realised design.

Not long ago, I was asked, after drawings were complete and approved, to suggest the plant material for a continuous planting bed, six feet above ground level, all along the facade of a large, important building. On the site were several large trees, located so that part of the planting box would be almost completely shaded in summer, while other parts would have full sunlight. An elaborate box had been specified, lined with copper, and with drain pipes protruding at intervals through the masonry front. Now how could plants be either planted or maintained in this situation? Tons of soil would have to be hauled to fill the box, and removed and replaced possibly annually. If watered by hose, walls and windows would be splashed. Staining drainage water would trickle out of the drains. Quantities of fragile plants would have to be hauled up the six feet. Since the plant box was continuous, even if the client did not mind having the operations undertaken through the windows behind the box, it would require very agile gardeners. The additional factor of a marked variation in the amount of sun and shade meant that no uniformity of

Left: Birch trees and ground cover in a courtyard. Planting in scale with building, and with paving pattern. Sheltered promenade with visual interest. *Austin Floyd.*

Centre: The vernacular flower box. Planting complements and does not compete with the style of the building. Summer bedding plants thriving in large well drained boxes, once established they require little maintenance.

Right: Evergreen Japanese yew in resin-treated cedar container. Low cost retaining wall on filled ground defines a gravelled slope in a sitting-out area beside a supermarket. *Lois Lister.*

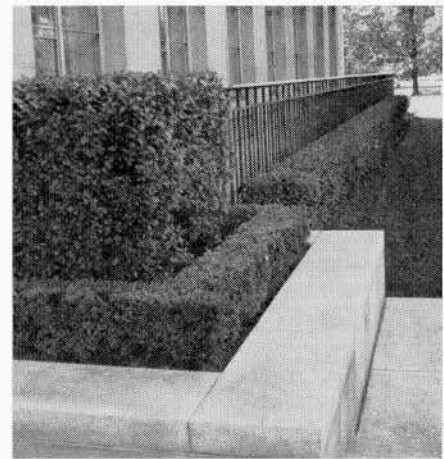


growth could be achieved, without which the whole idea lost its point. There was also no indication that the institution for whom the building was designed had ever, or would ever in the near future, expect to spend anything but the most modest sum on planting or maintenance. The answer? If the architect felt that a decorative frieze was an essential part of the design, it must be achieved by some other means, such as ornamental iron, a masonry balustrade, anything, in fact, but not plants. If he wanted the effect of plants related to the building, it could be achieved in some more practical, and, I may say, very much less expensive way. This is not at all a far-fetched example. It happens all the time, even more spectacularly with indoor planting.

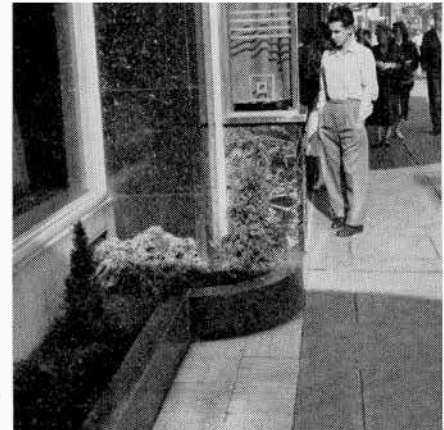
In this discussion, I am concerned with plants grown in contained areas of soil. These may be raised beds, beds constructed within paving areas, window boxes or larger plant boxes on the face of the building, or large individual containers. It includes quite large areas where proximity of buildings, sidewalks, and often underground masonry involve horticultural limitations not always obvious. Since plants are usually growing here in difficult circumstances even at the best, and since they must appear healthy and tidy, otherwise there is no point in having them, these planting areas must be very carefully designed so that there are minimum handicaps for both growth and for maintenance. To succeed, they must be considered as a functional part of the overall design, not as an incidental decorative adjunct, or as a hopeful afterthought.

We are faced with many technical difficulties, as the plants must contend with circumstances which are horticulturally exacting. In the first place, the amount of soil is limited in relation to the quantity of growth that is desired. In an open garden, the growth is supported by root systems extending a long way under the soil, a great deal further of course than the actual extent of the roots that can be measured if the plant is pulled out of the ground. The soil surrounding the plant also moderates the effect of heat and cold, and drought and moisture. In contrast, in a limited planting bed, the soil must supply all the necessary nourishment. It will dry out fast. Unless it is carefully drained, it will flood easily. It is liable to quickly changing extremes of heat and cold. The plants may have to withstand excesses of reflected light and heat from nearby walls and paving. Strong currents of air, much resented by many plants, often occur. Sunlight and rain may be restricted or non-existent. There is often considerable general atmospheric pollution, plus the poisonous fumes from automobiles. Snow may be piled on the plants in winter. In addition there are considerations of maintenance. Soil management and plant maintenance, including such routine items as watering, are going to require not only more knowledge and skill and care, but also physically more time and trouble than they would for equivalent areas of planting in an ordinary garden.

The sort of planting areas under discussion are much more expensive both to plant and to maintain than comparable areas in a garden. In compensation, the effect and pleasure they produce is also much greater. In the first place, it is necessary to move in mostly mature plants and trees, complete with root-balls. It will be fortunate if most of them survive at all, and they should not be expected to increase in size and vigour as they would in easier growing circumstances. So besides mature plants, you must also plant more closely than in a garden. Depending on the conditions and the effect you hope to achieve, there may be some plants you hope will be fairly permanent, with other plants changed and replaced from time to time. Only rarely, in specially favourable circumstances, is



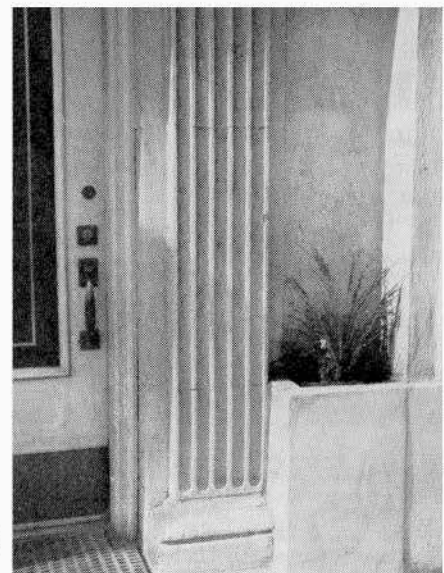
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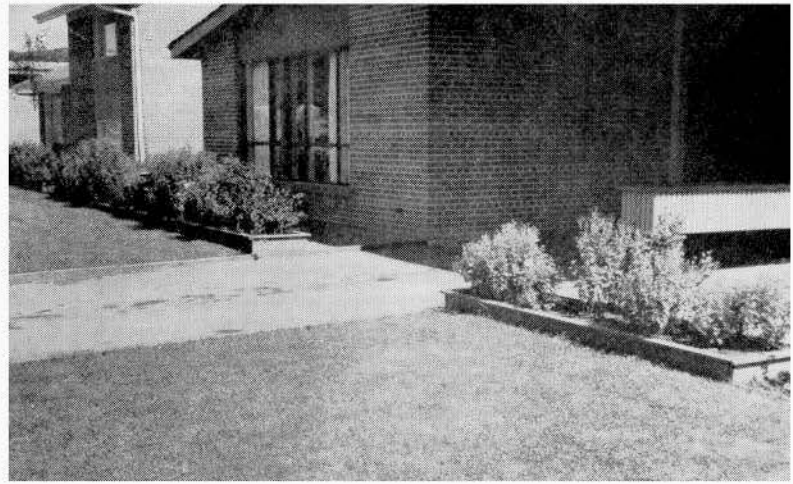
1. Architectural use of hedging plants, compact, well maintained, in good proportion to building and to retaining wall in foreground. Even in winter the plant form gives a trim and suitable base.
2. What not to do — An expensive installation which would add nothing to the beauty of the building even if it were well planted and well maintained. Assorted shaped evergreens have no relation to the building form.
3. Attractive planter in suitable scale to shop front. Well cared for and thriving. Such summer plants can be replaced for another season.
4. What not to do; unfortunately a not uncommon sight.

it safe to consider that the plants will be permanent. And the cost of the plants themselves should not be underrated, because any larger trees and shrubs will have to be carefully selected specimens, not standard nursery stock.

Maintenance is an item to be looked at squarely. Plants living in restricted areas, particularly in full public view, usually need daily care during the growing season. Besides careful watering, they will need to be groomed. Faded leaves, spent flowers, are as unattractive in these situations as are dead flowers on the dining room table. Even with the utmost care, in well designed areas, some mud and leaves will also need to be brushed off the surrounding paving. If this routine work is allocated to a janitor, do not underestimate the time it will take. The services of a professional gardener will still be needed to fertilize, prune, spray and change and replace plants. Incidentally, while adequate water outlets are essential, do not put too much confidence in elaborate mechanical watering schemes as an answer. They are nearly always far more trouble than they are worth. The carefully planned automatic watering system in Mellon Square in Pittsburgh, for example, has been abandoned in favour of hand watering.

All the points concerning out-door planting apply with special force indoors. Restricted light, low humidity and draughts are all inimical to plant growth. Fortunately there is a great range of plants on the market now. Unfortunately, the prevailing fashion is to use plants, such as the larger philodendrons, whose natural habitat is a steamy rain forest, and small wonder they find life in an office corridor so hard.

Again, good maintenance is basic, and an acceptance of the fact that some replacements will be necessary from time to time. If the planting is at all extensive, it is useless to expect



Raised planting beds located out from the building wall, related to grass and paved drive, anticipate the building form and leave free the floor level windows. They can use either bright coloured annuals or evergreens, but remain trim and manageable at all seasons.

Lois Lister.

either the janitor or someone's secretary to cope with it. It requires time, skill, and often strength, when plants have to be moved in and out of sunshine, or off the floor to be washed. I have often thought that few architects would expect that if they put a box of mosaic pieces, some cement and a pattern, they could expect the office staff to execute a large mural in their spare moments, but that this is simple compared with expecting them to keep up a sizeable batch of indoor plants. Whenever possible, arrangements should be made with a good supplier to send a gardener in frequently, and to make replacements when necessary. If circumstances are not suitable for growing plants, it is much better to buy large bunches of foliage from a florist, than to allow half-dead plants to be seen around.

My remarks on maintenance may sound obvious, or overwhelming, depending on your experience. It is really simply a logical item in building maintenance, and can be only neglected at the price of a drab, run-down appearance. One well designed, well planted and well maintained area is far better than several less prosperous ones.

It is fortunate that recent developments in the nursery industry are particularly helpful to the sort of planting we are discussing. In the past few years, a number of exceptionally useful hardy plants have become available in quantity. The newer euonymus hybrids, handsome broad-leaved evergreens tolerant of quite difficult growing conditions, are an example. Then until recently, most hardy plants were grown in the fields, and required careful and skilled handling in transplanting. Even with the greatest care and at the most favourable season, some transplanting shock was inevitable, and shrubs and trees usually had to be pruned and reduced to compensate for this. Progress in the new methods of container-growing, where stock is grown in a container from the beginning, and is never in the open field, greatly lessens the complications of transplanting. Well grown, well shaped standard nursery stock is available throughout the season. It is easier now to plant architectural planting areas with the degree of precision and immediate effect they demand.

An excellent place to appreciate some of the possibilities of limited, orderly planting is a good nursery sales station. There is great charm in the feeling of pattern and discipline from the neatly edged beds, the close blocks of similar types of plants, and the flickering light and shadow from the over-head shade trellis. It is also a clear example of how a small space laid out in this manner can accommodate a large number of people without seeming crowded, a principle just as applicable to the courtyard of a down-town office building or apartment house as to a nursery sales station.

The design of planting associated with building is an aspect of architecture deserving most careful attention. Besides improving the appearance of the buildings themselves, it gives grace and elegance to a city, and great pleasure to both passers-by and people living and working in the buildings.



1. *Pachysandra Terminalis*, an evergreen ground cover which when established has glossy leaves and sturdy growth.
2. *Euonymus Corliss*, a new broad-leaved evergreen hybrid, resistant to city conditions, a low growing shrub, tolerant of a good deal of shade. Other types of this kind can be used as wall climbers or as ground cover.

The Education of Architects

MICHAEL PATTRICK

Reprinted through the courtesy of THE LISTENER, October 3, 1957

ABOUT THIS TIME each year over 1,000 people in the United Kingdom start their training as architects. It is an astonishing thought that we now have almost as many trained architects as the whole of the United States of America and probably more architects per head of the population than any other country in the world. Before the war the answer to those who thought our buildings ugly was to point out that 80 per cent. of them were not designed by architects anyway. Could the same excuse be valid today; and, what is more important, when looking around us can we see any real improvement in our standards of design?

The answer to the last question is yes, but it is a qualified yes, and progress has been appallingly slow. Of course if the vast amount of post-war building had been carried out in the pre-war haphazard manner, the results would have been too awful to contemplate. But this is hardly a comparison worth making. Surely the question which must be worrying many an observant person as he returns from Italy, Scandinavia, or Germany is: why does so much of our own post-war architecture appear so pathetic when compared with other countries whose economic position is certainly no better than our own?

Higher Status on the Continent

There are several short answers to this question which have nothing to do with the training of the architect. First of all, the continental architect enjoys a much higher status in the public estimation than he does in this country. With us, he is all too frequently used, whatever his ability, as little more than a mere building agent, almost grudgingly employed to give technical assistance in drawing up plans and coping with the builder. He is, in fact, the tame architect who in all probability has been tamed to the extent where any initiative and creative ability have been completely squashed. Second, there is that defect in our national character which has persisted since 1914 and makes us prepared to put up with second best. A whole generation has now reached maturity to whom the words 'quality in craftsmanship' can have little meaning. Third, although the laws concerning the appearance of buildings are in theory adequate, they contain so many loopholes and are applied with such timidity that they are often valueless.

All these reasons account for the slowness of our progress towards better building; but there are other factors and it is my belief that the root of the matter still lies in the quality of our designers. This in turn is inseparable from problems of training. In about six or seven years from today the 1,000 first-year students, or most of them, will be qualified architects, ready and eager to leave their mark on the countryside. Their success will derive only in part from their own innate ability. Much will depend upon the circumstances of their training. So it is not surprising that at this time of year there should be a certain amount of heart-searching on the part of those responsible for architectural education.

In the face of economic instability and rapid changes in the building industry, it can be imagined that there are any number of problems which we have to solve. However, amongst these there are three salient issues. The first is relatively simple and it concerns the selection of students at the beginning of their training. I should explain that by training I mean organised courses at schools and not the old-fashioned pupilage system which at the present time accounts for only a few of those entering the profession. At the moment there is no recognised aptitude test for architecture, and experience has shown that the traditional method of trying to discover whether the candidate had any proficiency at drawing is far from being a reliable guide, particularly as the amount of tuition now given in drawing at public and secondary schools can vary from twelve periods a week to practically nothing at all. It is true that an untutored and obvious artistic ability is

The Journal hopes that its readers will find the following two articles, reprinted from English publications, interesting and timely. Our schools of architecture are opening up for another academic year, and many of the issues discussed in the following articles, are similar to problems which will have to be faced by the schools in Canada.

an indication of an understanding of form, but it is certainly not an infallible test for architecture, and the most perfect graphic artist may be hopeless when it comes to planning or handling space in three dimensions. There is also a popular misconception about mathematics. An ability at mathematics certainly does not imply an understanding of structure.

The qualities which do go to make a good architect seem to have little connection with proficiency at ordinary school subjects. They can usually be recognised by those concerned with architectural training, but only when there has been an opportunity to watch the student's development over at least a year. I believe that the only reliable way to test aptitude is to let each student have a year's trial, and if during this time he shows no likelihood of developing he had better give up at once and go in for something else. This may sound simple enough, but it is not so easy to put it into practice. I would say that there are probably 20 per cent. of those trained and in training who should really be doing something else.

The possibility of changing one's mind should be part of every educational system and this was an aspect of teaching that I noticed most forcibly when I visited some of the American architectural schools this spring. With them, the first years of study are accepted more or less as an educational discipline rather than as a professional training, and a student whose interest develops along other lines can change his course of study without any of the fuss and commotion which is the general rule over here. I was told by the dean of one college, using their own vernacular: 'We flush them out early and retreat them into mortgage banking'. To us, this attitude might seem carefree to the point of flippancy, but it is in fact a great improvement on the British approach which suggests that once started you have to go on. Of course most American schools have the advantage of being part of a university, and credits gained in one subject may be transferred towards a degree in another. But the real virtue in their system lies in that adventurous spirit which seems to be so much part of the American character.

Need for Specialist Consultants

Even if improved methods of selection were to cut the numbers of those in training by 20 per cent., our own inflexible system still expects all entrants to train to one level and one qualification, despite the fact that there are several vitally important jobs allied to architecture which need specialised study but require only moderate ability as a designer. The profession is badly under-staffed with consultants, particularly in the field of building services. There is a need for many more people with an all-round knowledge of building who are able to give expert advice on heating and ventilating, artificial lighting, acoustics, and so on. Matters would be greatly improved if some of those now in training were to direct their efforts along these lines. It is necessary to have a basic grounding in architecture because only then can the specialist consultant see his particular problem in the more general context of building.

In addition to those who might be diverted in this way there are also a number who are reasonably proficient as designers and draughtsmen but who do not wish, nor are they really suited, to take on the full responsibilities of the architect. I see no reason why there should not be some half-way stage which would let them train as architectural assistants or draughtsmen. This is normal in other countries and should be acceptable here.

If we were able to take into account the segregations and channellings I have suggested, the numbers of those left in the field would reduce the architectural population of this country, concentrate training only on those likely to benefit from it,

and supply us with a much-needed body of trained people complementary to the architect.

This problem of selection may be capable of solution, but the next issue, though no less important, is far less easy to define. It is unfortunate, but inevitable, that the architect's training must be based on imaginary projects. A student's designs can never go beyond the drawing board and it is therefore more important for him than for those studying for other professions to have the impetus of an underlying fervour, something which is vital to the development of creative ability. In the past this has often been kept alive by enthusiasms distantly related to architecture but really unconnected with school work. They have frequently appeared in the form of a revolt against conditions prevalent at the time. But by 1957 so much that the architect has fought for over the last thirty years has come to fruition that, paradoxically, the student today may be in a less favourable position than those of a previous generation.

When Novelty Wears Thin

If one looks back to the late 'twenties or early 'thirties, when what were known as modern designs began to appear in England, the impulse was undoubtedly one of novelty. All young architects were eager to take part in the battle for the modern movement. Following on this, in about 1936, one or two other factors began to play their part. Much of the new work, for example, related to housing. Architecture was on the move but so also was sociology, and if anything sociology was slightly in the lead. The important thing was that both were travelling the same road and this road seemed to lead to a brighter and better world; so if the earlier appeal of novelty had worn thin, the student's efforts were now goaded on by the much more compelling spur of social conscience.

It is sometimes not understood how greatly these youthful and sincere feelings have affected the growth of the modern movement. Throughout the whole of the pre-war decade the architectural student was helped in his work by these added interests. When the studio projects carry with them a sort of profession of faith the student feels that his statement in design has become something more than old remarks made in a new vernacular. It has gone beyond a mere commentary on the shape of building and in this form it is exciting and immensely stimulating.

For the architect, the war years were a dead period, but in the wider field of town planning the bombing soon brought about the legislation which a few years before had seemed almost utopian. The idea of taking part in the rebuilding of our towns was in itself a first-rate stimulus for training. No longer would the demand for buildings depend on the private client; the welfare state had a vast building programme and here at last was a great opportunity for the young architect. In fact the best of our schools and much of the new housing has been designed by young architects who finished their training soon after the war. But by 1953 rebuilding was well under way and there were signs of flagging enthusiasm amongst those still in training; and this still persists in varying degrees.

In some ways it is understandable. The welfare state is now taken for granted. Much of the exciting and initial development work in housing and schools has been done. The new towns are three-parts built and much current work appears to the student as repetitive and uninviting. Modern design, whether good, bad, or indifferent, seems to be accepted by the public. Last year, for example, the Mars Group, which had for twenty years been the rallying ground for all who put their faith in modern architecture, was dissolved, because there seemed nothing more for it to do. There is no escaping the fact that the present situation has done something more than just take the edge off the students' enthusiasm. Undoubtedly, there is as much need now as there ever was for a group of young and vigorous people to interest themselves in the development of modern architecture, even though the present issues are certainly not so clear-cut as they were fifteen years ago. This is a real problem: it is not easy to make students believe that although an earlier generation may have had the excitement of introducing something new into the English scene it is the period of development and refinement which is

likely to produce work of real quality.

The third problem, though less obscure, is equally pressing and hardly less easy to solve. It revolves round the question of exactly what is meant by the term 'qualified architect'. In this country, unlike many others, full qualification is granted after five years of study plus only one year of practice. Generally speaking, the services which the public expects from the architect have not changed much over the last fifty years. But his field of study has now become so enlarged that the conditions in which he has to provide those services have changed out of recognition. Today most classes of structure have been analysed and space and amenity standards established on every aspect of building.

Thus the architect is now faced with whole libraries of information, most of it pertinent, some of it vital, and unfortunately a great deal of it unclassified and difficult to discover. Planning has become more scientific and methods of construction more numerous. Gone long ago are the five basic trades and, incidentally, the one basic text-book which explained them. Gone also are the craftsmen with their inherited knowledge which worked so well in its limited context but could never be expected to cope with present-day problems. New methods and new materials arrive because they promise some improvement on those which already exist. Naturally any client expects the architect to be conversant with all the latest possibilities. Naturally the architect knows he would not be serving his client if he were not. But it is impossible for a student to acquire all this knowledge during five years of school training followed by one year of practice.

The newly fledged architect at present—or the experienced architect, for that matter—can deal with any type of building up to a point. But up to a point is not good enough. If the functions of the building or its services are at all complex, as for instance in a modern factory or laboratory, the ultimate success depends on the quality of specialised advice. That is one reason why some of our modern buildings are on the whole so disappointing. The profession is flooded with general practitioners, many of whom would lead more useful lives doing something else, whether related to architecture or not. At the moment the architect, as general practitioner, must either be his own consultant or else be guided by firms with a direct financial interest in selling him their technical equipment. These firms may be honest and competent, but they are not aware of problems outside their own field.

Problems for Teachers

What are we to do about this at the teaching end? I would certainly not press for a lengthening of the school course, and in any case the exact duration of school training is not really important. The vital thing is the attitude and method, not the completeness or length of syllabus. We must, first, achieve a better balance between school and the practical side of the students' training; and, second, we must put some real effort into providing facilities for post-graduate and specialised study. At present the only post-graduate courses an architect may enter are town planning, tropical design, and landscape architecture, and when you consider the variety and complexity of modern building needs, this situation is surely absurd.

Architecture is an art, but what I am discussing here is in no sense art, it is technology and not very advanced technology at that. Unfortunately there is now this vast amount of it and it is inherent in the practice of architecture that any one part of it may impinge upon a problem of building. There would seem to be evidence in much of the recent building in London that architects, in trying to cope with all of these added complexities, allow the main purpose of their design to suffer.

This country was the first to develop improved methods of training after the break-away from the traditions of the Beaux Arts. Whether we can retain this position and, indeed, achieve better architecture, depends largely on the vigour with which an overworked profession can turn its attention to putting its own house in order. Most architectural schools are aware of the need to do so, and the questions which I have outlined will undoubtedly occupy an important place in the conference on architectural education which is to take place in Oxford next spring.

Conference on Architectural Education held at Magdalen College, Oxford

Report by PROFESSOR SIR LESLIE MARTIN

Reprinted through the courtesy of THE JOURNAL R.I.B.A., June, 1958

THE PROPOSAL to hold a Conference on Architectural Education had its origin in the Council of the R.I.B.A. During discussions of particular reports from the Board of Architectural Education it became clear that there existed a general feeling that all the related aspects of the subject should be fully explored. This, it was suggested, might be done at a conference and it was considered that it would be an advantage to the Council to have any views or ideas which such a conference might produce. Consequently, a recommendation was made in 1956 that a Conference on Architectural Education should be held not later than the spring of 1957. To allow time for adequate preparation, April 1958 was finally agreed.

A Conference Organising Committee was set up by the Board of Architectural Education. This committee had several objectives. First, it was considered that any conference should draw together as much relevant factual information as possible. Second, that the discussion should bring out as much informed opinion as possible from people interested in widely different aspects of architectural education. Third, that the discussion should be frank, and, finally, that if possible some line of action should emerge.

In order to achieve these objectives the committee decided to circulate preparatory papers giving a general background both of fact and opinion. In order to concentrate the discussion which was bound to be extensive it was felt that invitations to the Conference would have to be limited. Invitations were therefore sent to people inside and outside the profession who were known to have views to express. The Conference Committee was aware that in taking this selective action valuable contributions might be excluded. It hoped, however, that it had achieved in its selection an effective cross-section of opinion and interest. The range of subjects to be discussed formed another difficulty. These could certainly not be covered in any single session. But a limited number of people could perhaps spend longer periods together. It was therefore decided to hold a week-end conference at Magdalen College, Oxford, on 11, 12 and 13 April.

An outline programme was drawn up in order to give some form to the debate. After an introductory session to discuss the programme, the Conference was divided into three main sessions. These covered broadly:

- (1) the needs of the profession and the community and the desirable standards;
- (2) the means of education, the routes of entry into the profession and the standards that are being and could be achieved;
- (3) developments of advanced training and research.

The Conference was attended by 50 members. They made their contributions as members of the profession with interests in public or private offices of various kinds. They represented industry and local authorities, the teaching institutions, building and the associated professions. Several visitors from abroad and from the Commonwealth also attended. Their discussion forms the basis of the following notes.

The last Congress on Architectural Education was held in 1924. At that Congress, Professor Budden gave an outline of the system and policy of architectural education in this country. 'The real qualifying work', he said, 'is to be done by the schools which can offer a full-time course extending over a period of five years. Into this category come the principal university schools, one independent school and a school of art. Though the pupilage system has practically passed in most of the larger centres of population it still lingers in certain localities. To

meet the needs of these districts complementary courses are available.' These courses are given in schools of art and technical colleges and consist of part-time and evening training. Students taking these courses qualify by external examination.

The 1924 Congress clearly places the emphasis on full-time training in 'recognised schools'. Training elsewhere exists to meet the needs of a dwindling minority. It can be carried out as and when the need arises in institutions which differ from each other in origin and intention.

This general conception was reiterated in 1943, when the Special Committee on Architectural Education, in referring to the decline of pupilage and apprenticeship, said: 'In the meantime the R.I.B.A. must maintain its own system of qualifying examinations for the benefit of those who, for one reason or another, have not passed through a "recognised school".'

What these statements recognise is that two main types of training have been set up—one inside a full-time school leading to exemption, the other outside these schools and designed to assist students to take the R.I.B.A. examinations externally. But what these statements fail to recognise is that although pupilage may decline, the numbers of students taking the external examinations may, for various reasons, continue to increase.

In fact, in 1957, 486 students qualified at recognised schools and as many as 417 took the R.I.B.A. External Examination. In the same year 3,764 students were attending final and intermediate schools and 3,342 were taking courses in listed and facility schools. This latter figure does not include those who prepared themselves for examination independently (for example, by correspondence courses).

Students of architecture can, in fact, prepare for qualification in a number of different ways and in increasing numbers of institutions. There are now in the United Kingdom 21 recognised schools, 5 intermediate schools, 9 listed schools, 32 facility schools and a considerable number of institutions offering courses in architecture. Numbers of students range from 500 in the larger schools to 7 at the other end of the scale. The aims of training and the standards reached in these schools differ widely. So do the standards of entry and the quality of instruction.

But all students taking these widely different courses have one object—to qualify and to become Registered Architects. Numbers have risen sharply since the war. Corporate membership of the R.I.B.A. stood at 8,218 in 1938. It had risen to 10,706 in 1948, and it now stands at 18,175. Over half the profession has probably qualified since the war. This increase may continue irregularly but on average at a rate of about 500 a year, which might lead to an ultimate total of something approaching 30,000 architects.

Factual evidence of this kind, supported by a considerable amount of information on the structure of the profession, formed the background to discussion. This dealt with the development of architecture as a public service and what the public expects of the architect. It touched the changing nature of architectural practice and the technical standards that are now required. These demands and standards were in turn related to the standards of entry and training and to the ultimate and desirable level of performance in the profession.

The ultimate purpose was repeatedly stressed. It was that the profession should attempt to improve its standards of competence at all levels. Any move in this direction must start with the standard of entry. Although the level of entry to a course in a university school can be high, the normal minimum standard elsewhere (five passes at 'O' level) is far too low. Plenty of evidence to illustrate the depressing effect of this low standard was forthcoming. In one county, for example, 'a student at a grammar school who wishes to become an architect is advised to leave as soon as the five basic subjects at "O" level have been obtained'. The reason given for this is that he would be wasting his time and public money to stay on in the sixth form. Representatives of secondary and higher education pointed out that there are now plenty of competitors for the best boys from grammar and public schools. At present the entry standard for architects is well below that required by other professions; for example, doctors, dentists, pharmacists, veterinary surgeons, metallurgists, not to mention under-

graduate entry to a university and the entry standard for the Higher National Diploma in Building.

As one speaker quoted, 'The question that arises is how far can a great profession, statutorily responsible for its own education, afford to have an entry standard below that which a good mind may nowadays be expected to attain. It is an issue which the profession may prefer to face sooner than later, for in the next few years (with an increase in the number of 18-year-olds available) it could seize the opportunity to select candidates rather than to accept what material presents itself.' The architectural profession will need every artifice to catch anything like a fair share of this increase.

A sharp improvement in the standard of entry is urgent. This, in turn, would rapidly have repercussions throughout training and ultimately throughout the profession. The difference between an 'O' level pass at 16 and an 'A' level at 18 is not just a difference of educational standard. In the second case, as one speaker said, 'the mind is two years older and more developed'. 'I cannot believe', he said, 'that in one case a course of five years is long enough or in the other that five years is required.'

Among the conditions that flow from a uniform and higher standard of entry are the following:

First, it makes possible at once a much higher standard of training in all practical and theoretical subjects.

Second, the higher standard and range of study replaces training for a common level by the possibility of developing diversified interests as the student moves through his course. If architects are to hold their own in a developing field of technology this is, in itself, highly important.

Third, the development of a higher standard in undergraduate study leads naturally to the important field of post-graduate study.

Fourth, experience confirms that a good mind absorbs knowledge extremely rapidly. This fact would have repercussions on the length of theoretical training that is necessary and might open the way to new developments in training.

One issue, however, cannot be avoided. The raising of the standard of entry for all students who intend to qualify as architects is likely to lead to a consideration of the desirability of other and complementary forms of training – not leading to Registration – but equipping the student to take his place as a valuable member of the building team.

In the discussion on this matter the following points emerged. The fact is that there exists in the profession a demand for highly competent technical assistants. If we are to reach a higher standard of training for the architect and, at the same time, provide competent technicians, then we should recognise this distinction in our training. If the entry level for the architect is to be an 'A' level at the age of 18, there is a case for an entry level at 16 for those who will train as supporting technicians.

The precise form of this training of the technicians will need careful study. The possibility of basic courses and combined forms of training with other building technicians may be considered. There is, in fact, interesting precedent: speakers from Denmark and Sweden gave comparisons, and reference was made to similar developments in other professions (engineering, for example). Although the 'A' level standard of entry for all intending architects was insistently pressed, several speakers mentioned the desirability of providing the opportunity for outstanding students who have started their training as technicians to move into an architect's course providing always that the required standard has been reached.

The Conference followed this discussion by a consideration of the means of education. This consideration centred on the types of school and the main objectives of training. Although the content and the curriculum was discussed it was obvious that the Conference could not give this detailed consideration.

Three types of school were discussed: the independent school, the university school and the local authority school of various kinds. These were considered from a number of points of view including standards of entry, facilities for training, opportunities for the development of training and post-graduate work, staffing and the development of links with actual practice.

For the large independent and university schools it was stated that the qualification requirement at entry (judged either by examination standard or combined examination and probationary period) was high. A student taking a degree course, for instance, must reach 'A' level in two or more subjects. A student who fails to show promise in the early stages of his course can be excluded. (The probationary period should mean what it says. Consideration of exclusion from a course at Intermediate level is far too late.) Schools of this type are free to develop their courses well beyond the range of the R.I.B.A. syllabus, and within the universities the opportunities for collaboration with other faculties can lift the content of the course to a very high level. This opportunity for the interchange of ideas between men of different interests and experience is of the greatest importance to both students and staff. This interchange can occur at undergraduate and post-graduate level. The background of the university influences the school: the school of architecture, in turn, can influence the understanding of architecture in the university itself and in the minds of undergraduates who may well be its future patrons.

A strong case can be made for the development of schools of architecture in universities and for the transfer to universities of schools in other institutions. The characteristic feature of architectural education is that it involves widely different types of knowledge. From the point of view of the university this raises two considerations. If architecture is to take its proper place in the university and if the knowledge which it entails is to be taught at the highest standard, it will be necessary to establish a bridge between faculties; between the arts and the sciences, the engineering science, sociology and economics. Furthermore, the universities will require something more than a study of techniques and parcels of this or that form of knowledge. They will expect and have a right to expect that knowledge will be guided and developed by principles: that is, by theory. 'Theory', as one speaker said, 'is the body of principles that explains and interrelates all the facts of a subject.' Research is the tool by which theory is advanced. Without it, teaching can have no direction and thought no cutting edge.

In spite of the strong arguments for university schools it was clearly recognized that several institutions outside the universities were capable of developing their training to a university level. Experimental developments in schools of advanced technology would give these institutions the opportunity of advancing those aspects of architectural education which are proper to their framework and of adding to the variety of skills that are required of the architect.

In contrast with the standard that such courses can achieve there is the picture of training in a great many institutions offering tuition in architecture. There are, of course, good 'recognised schools' and bad 'recognised schools'. There are equally good 'unrecognised' schools and bad ones. The difference between the good schools in each category is, however, also a difference of opportunity. One is free to develop its courses, the other is restricted by the requirements of training for an external examination, and the whole concept of part-time and evening training.

The difficulty in the 'unrecognised' facility schools starts at the outset. The facility school can develop in any institution at which a reasonable number of candidates present themselves for part-time and evening training. This number is generally recognised as ten but can be lower. There is an initial difficulty where students already engaged in offices arrive for training without even the necessary 'O' level standard. Training takes the form of preparation of testimonies of study: 32 drawings have to be approved by R.I.B.A. examiners. If they are not approved the reason is not clear to the student. There is no time to develop courses beyond the level of the R.I.B.A. External Examination requirements. Immediately before the examination the students concentrate exclusively on revision. Although only 40 per cent may pass, eventually after repeated attempts 90 per cent may finally succeed. This, said one speaker, 'is not education it is cramming'.

The very multiplicity of 'unrecognised' schools with different standards militates against the raising of the level of archi-

tectural education in these institutions. To this is added the confusion that comes from a lack of any clear indication of what is required by the profession. The raising of the standard of entry to a high level would be a welcome indication that the profession wishes to raise its standards of training for architects. The profession must decide whether anything approaching the desirable standard of architectural education can be achieved by part-time and evening tuition. [The 'sandwich' course which is developing in some schools is deliberately excluded and is discussed below.] If not, then the profession should say so.

The freedom from the restrictions of training by testimonies would allow some schools to advance their training to the level required for architects. Where this is impossible or inappropriate a parallel policy of training in building technology would give some institutions the possibility of building up new and useful courses for this purpose. The ultimate object should be that all schools worthy of providing the improved standard of training required by the architect should be recognised schools. The unrecognised school is an anachronism.

A clear lead must come from the profession. It must not only give a lead. It must play its part in architectural education. It can do this in several ways:

First, staffing. The difficulties of staffing schools are of two kinds. On the one hand there is the danger that the promising student may find himself promoted to teacher without any really adequate period of practical or research experience or even any understanding of teaching. On the other hand schools have also relied on young people who are starting practice and who may use a teaching salary as a basic income. These people may bring enthusiasm; but when their practice is established they go. What is necessary is an arrangement which brings into teaching architects with creative ability and extensive practical or research experience so that they may add to the fund of knowledge that is available in a school. This can be assisted by the link with post-graduate research. But it also requires a readiness on the part of able practitioners and specialists to take their place from time to time as teachers. It is simply no good for the profession to complain about the standard of education when those who have become skilled practitioners feel unable to collaborate.

Second. If the student's complete course of training is to have any realism this means that at some stage he must be brought into the closest possible touch with all the requirements of practical building. The best way to achieve this is for him to be associated with a building project and the profession must recognise this as a necessary step in architectural education.

This can be done in two ways. It can be achieved by the development of the 'live project' as a school subject. This has already been pioneered in one school and is in operation in others.

The other possible arrangement is through the operation of combined or 'sandwich' courses. These are being developed in several schools and are proposed in others. The sandwich course is *not* part-time training. (One conclusion on which the Conference was emphatic was that the part-time course must go.) The sandwich course which is proposed in schools which carry out full-time training is a means of breaking down the barrier between training and practice. This is done by alternating periods of training in a school with periods of *training* in an office. The collaboration in training by the office itself is essential to the success of any scheme of this kind.

In its consideration of the question of advanced training the Conference had before it a paper which stated in its preface 'Knowledge is the raw material for design'. 'It is not a substitute for architectural imagination: but it is necessary for the effective exercise of imagination and skill in design. Inadequate knowledge handicaps and trammels the architect, limits the achievements of even the most creative and depresses the general level of design.'

The advancement of knowledge is not merely an ornament to a profession—it is its duty. This is the means by which the competence of the profession as a whole can be advanced. It is essential to improvement in both teaching and practice that a limited number of people should at some time devote them-

selves to advanced post-graduate study and research.

Work of this kind is steadily increasing in volume. In addition to the main centres where it has developed, the B.R.S., the Ministry of Education and the Nuffield Foundation, important developments are now taking place in universities in which this type of work may become progressively more established. The pioneering work of these centres of research has indicated the range of study that is required. In addition to the study of the space and functional requirements of building types, studies of building design in relation to daylighting and town planning, the prefabrication and industrialisation of building and the special problems of tropical building are now being followed up.

Work of this kind can be conducted as pure research but is more likely to take the form of investigations which involve interrelated studies: for example, the inter-relation between architecture and social needs, the physics of environment, etc. Studies at present being conducted in this country already involve extensive contact with other disciplines: on the side of the means of production architects are at work with structural engineers, mechanical engineers, production engineers, management and time study experts: on the side of the needs of buildings they co-operate with clients, sociologists, psychologists, physicists, physiologists.

The very nature of this pattern of co-operation makes post-graduate work in architecture a suitable subject for development in the universities where, so far, the main developments of post-graduate study have largely concentrated on historical research which, indeed, they have carried out with distinction.

The evolution of post-graduate studies of this kind is a natural extension of higher standards of training within the schools. These studies are the means by which students of diversified interests extend their own minds and the boundaries of knowledge. They also build up the specialised knowledge which is always replacing and reinforcing the generalised knowledge of practice.

By the development of post-graduate study, the profession can provide itself with the higher technical ability and knowledge that it requires. Above all, it can advance and reinvigorate its teaching.

Conclusions.

These discussions clearly led to a series of important considerations. Many of the matters discussed are issues which can only be effectively studied over a period of time, but there were certain issues which the Conference considered to be urgent, critical and essential safeguards to the future of architectural education. These matters arose from many aspects of the discussion and eventually crystallized into the following recommendations for action:

1. The Conference unanimously agreed that the present minimum standard of entry into training (five passes at 'O' level) is far too low and urged that this level should be raised to a minimum of two passes at 'A' level.
2. The Conference agreed that courses based on Testimonies of Study and the R.I.B.A. External Examinations are restricting to the development of a full training for the architect and that these courses should be progressively abolished.
3. Ultimately, all schools capable of providing the high standard of training envisaged for the architect should be 'recognised' and situated in universities or institutions where courses of comparable standard can be conducted.
4. Courses followed by students intending to qualify as architects should be either full-time or, on an experimental basis, combined or sandwich courses in which periods of training in a school alternate with periods of training in an office.
5. It may be that these raised standards of education for the architect will make desirable other forms of training not leading to an architectural qualification, but which will provide an opportunity for transfer if the necessary educational standard is obtained.
6. The Conference regards post-graduate work as an essential part of architectural education. It endorses the policy of developing post-graduate courses which will enlarge the range of specialised knowledge, and will advance the standards of teaching and practice.



WENTWORTH COUNTY COURT HOUSE

HAMILTON, ONTARIO

Architects: Prack and Prack

*General Contractor: Pigott Construction Company Limited
Mechanical Contractor: Canadian Comstock Company Limited
Electrical Contractor: Bennie Electric Limited*



Top: View of Court House from Princes' Square

At left: United Empire Loyalist monument relocated in entrance court

Opposite Page

Upper: Granite pilasters on wing walls flanking entrance court

Lower: Main entry and canopy from entrance court

Site; on Prince's Square in central Hamilton. The square was named to commemorate the visit of Prince of Wales in 1864. Incorporated into the design of the entrance court is the historic monument to United Empire Loyalist families who first settled in the district.

Planning; offices serving the general public are located on the ground floor as is the county registry office, and the county council chamber. Above are the county court rooms and auxiliary offices and lounges. There is a basement garage for 40 cars. The central block is designed to allow for three additional floors.

Exterior Facing; Queenston limestone with porcelain-faced panels set in an aluminum frame. Surrounding the entrance court, the aluminum framing is divided by granite pilasters.

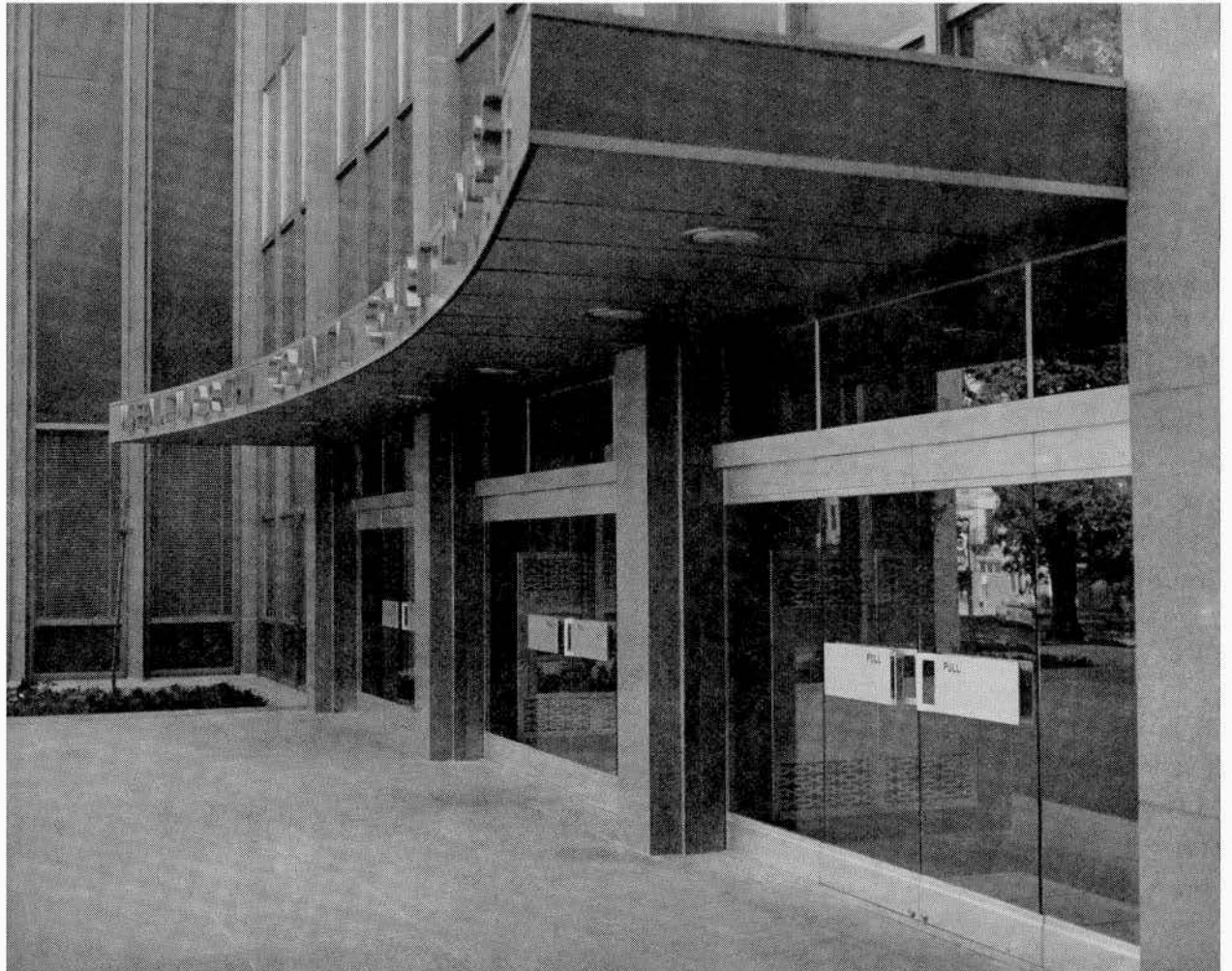
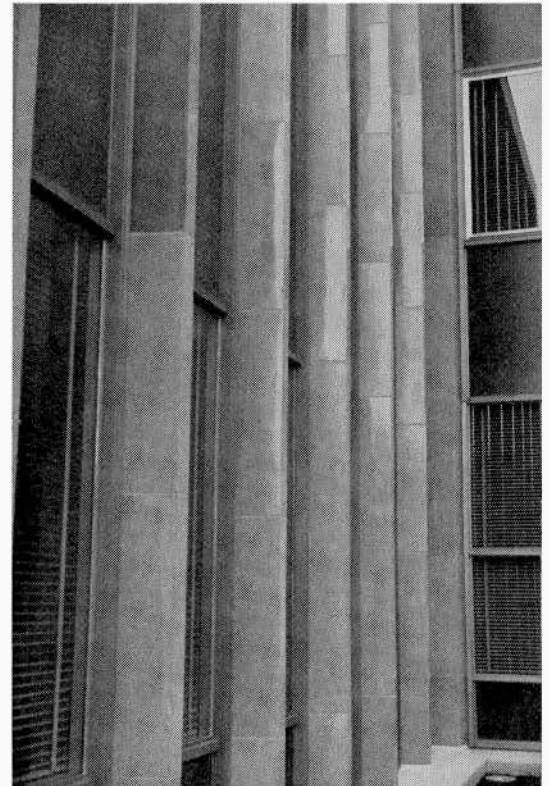
Flooring; marble in main and elevator lobbies; council chamber is carpeted as are court rooms and offices of officials; linoleum has been used in general office areas and cork tile in public sections; stairs and landings are terrazzo.

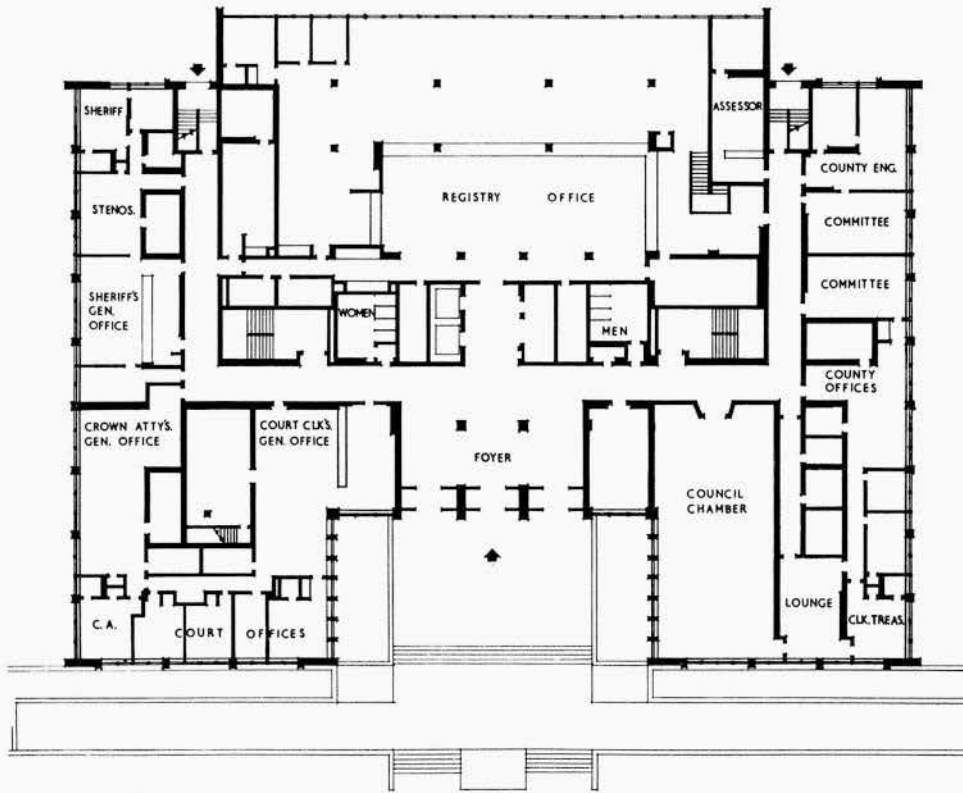
Windows; double glazed and sealed with vertically opening sash. This allows for window washing from the inside.

Mechanical; heating is by a combination of steam convectors recessed under windows, and through the air-conditioning system which is high-velocity, double-duct. Rooms have individual thermostat control. A precipitron on the building's roof collects air-borne dust.

Maintenance; each floor will be served by a vacuum cleaning arrangement that will dispose of dirt and refuse through floor-level openings. Cleaning staff will sweep dirt to the ducts where it will be sucked into a storage hopper. The same system will take care of boiler cleaning refuse.

Cost; construction cost was \$2,950,000 for 110,000 sq. ft. of floor space. Size was calculated to take care of a county population of up to 500,000.





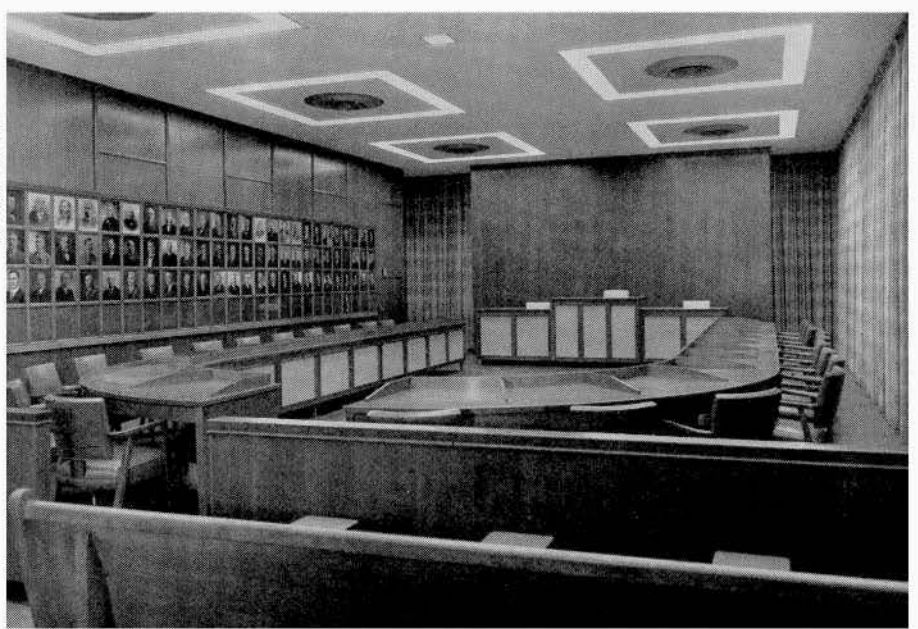
Ground floor plan

Main foyer and elevator lobby



TOM BOCHSLER

FRANK P. ADAMS

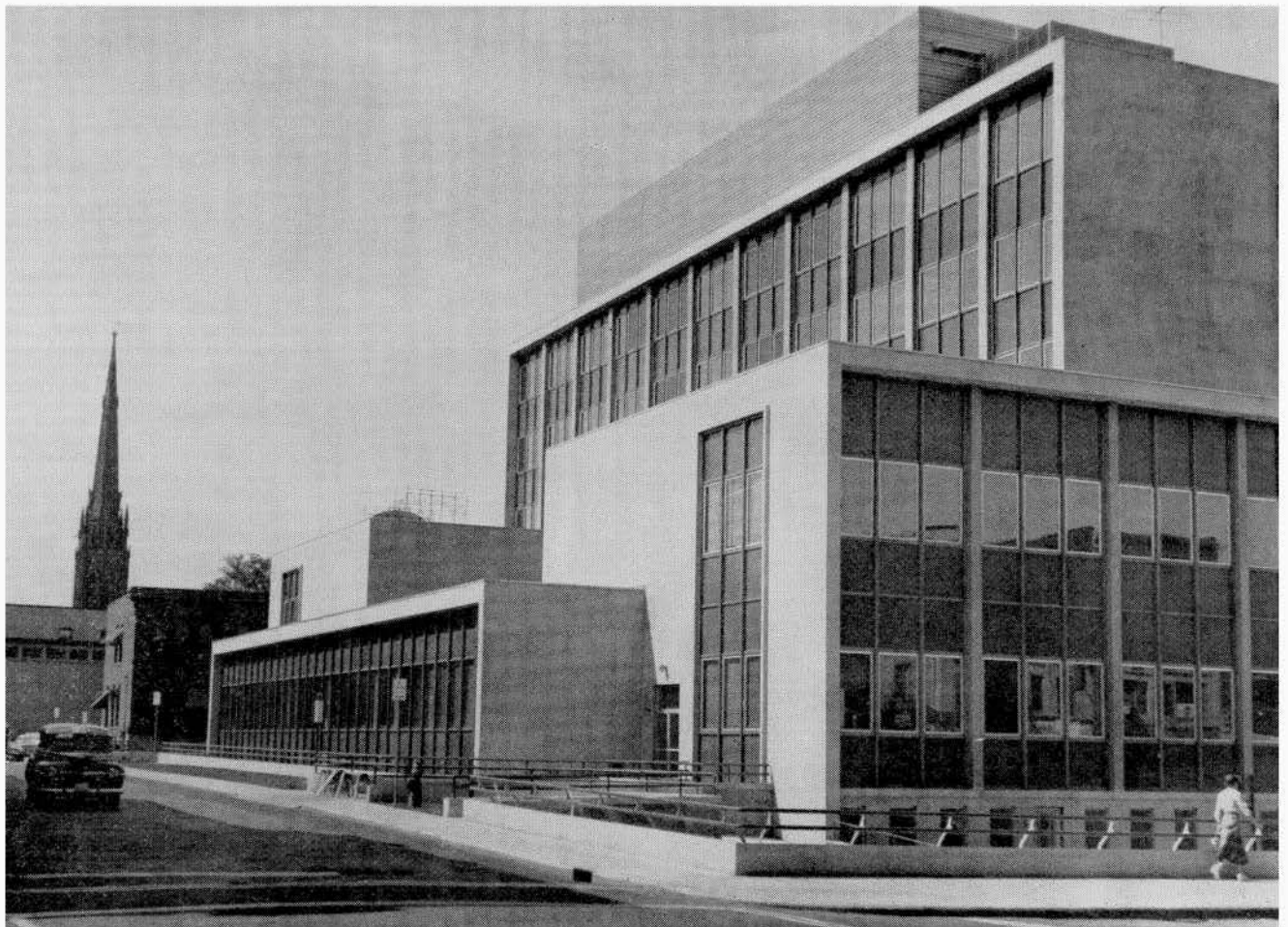


Top: Council chamber

Centre: Jurors' lounge

Below: Rear elevation with aluminum framed air-conditioning unit on roof. St. Paul's Church at left.

FRANK P. ADAMS



PUBLIC RELATIONS IN SASKATCHEWAN

In connexion with its last annual meeting, the Association's Public Relations Committee prepared and produced an exhibition of the work of the Association's members which was shown to the public in Saskatoon and Regina. It was on display for one week in the Saskatoon city hall; was shown for another week across the river in Convocation Hall at the university and then was moved to Regina to the Saskatchewan Hotel where it stayed during the Association's annual convention.

The Public Relations Committee circularized members of the profession in the province well ahead and received material from ten different architectural firms as well as from the city planning office of the city of Saskatoon. In all, eighteen models as well as a representative selection of drawings and photographs were shown. It should be noted that this association, one of the smaller ones in the Institute, has only forty six members in all.

The Chairman of the Public Relations Committee, Mr George Kerr, arranged with Mr W. E. Graham, the city planning officer of Saskatoon, for the space in the city hall, and members of the committee helped to set up the exhibition both in the city hall and again when it was moved to the university. The Committee spent about \$340 on the show, most of the expense going into the transport of the material from Saskatoon to Regina. There was also the cost of paid advertisements in the daily press to attract public interest at the start of the show. Once opened in the city hall, Mr Graham and the Committee were able to stimulate a lot of free publicity in the press, on the radio and on TV. A copy of the leaflet illustrated on this page was posted to each member of the Saskatoon Art Centre and to a selected mailing list. Copies were also made available at the university, the technical collegiate, the art centre, the public library.

The Public Relations Committee found that the models of buildings were of particular interest to the general public and that the exhibition as a whole had been a great success in arousing an interest in architecture among people in the province's two largest cities. The Committee is hoping that it may be possible to make such an exhibition an annual event.

EXHIBITION

MODELS
DRAWINGS
PHOTOGRAPHS

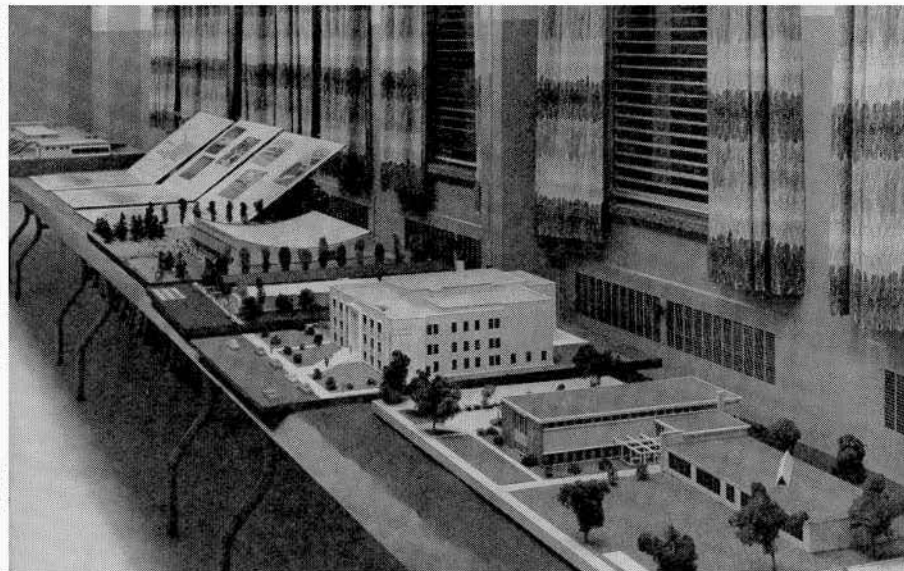
AN EXHIBITION OF ARCHITECTURAL MODELS, PRESENTATION DRAWINGS AND PHOTOGRAPHS OF BUILDINGS, DESIGNED BY SASKATCHEWAN ARCHITECTS, WILL BE ON SHOW IN THE FILM ROOM OF THE SASKATOON CITY HALL, NOVEMBER 11TH TO 15TH, AND IN CONVOCATION HALL AT THE UNIVERSITY OF SASKATCHEWAN, NOVEMBER 18TH TO 22ND. THIS EXHIBITION IS SPONSORED BY THE SASKATCHEWAN ASSOCIATION OF ARCHITECTS.

Above, leaflet seven and a half by eight and a half inches used to advertise the show.

Below, two views of the drawings and models on display.



SASKATOON STAR PHOENIX



LEN HILLYARD

PROJECT



Model of project located in Central Montreal

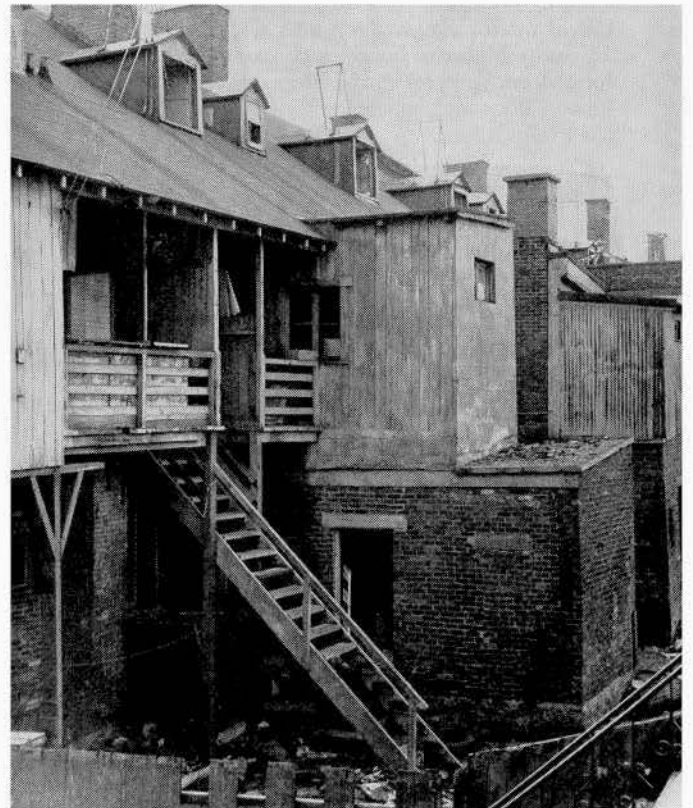
JEANNE MANCE PROJECT, MONTREAL

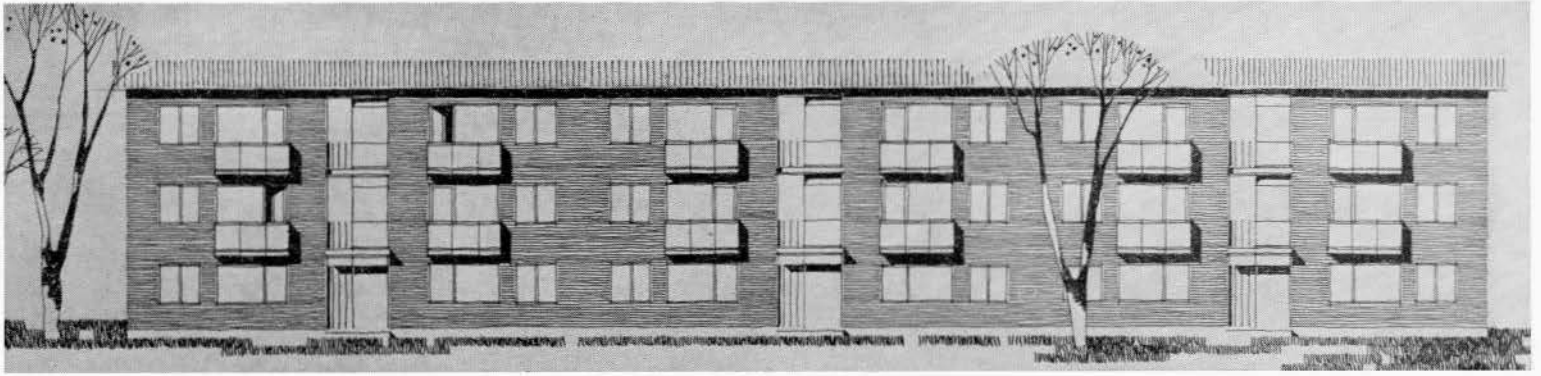
*Architects, Greenspoon, Freedlander and Dunne,
and Jacques Morin*

*Architectural and Town Planning Consultants,
Rother, Bland, Trudeau*

*Central Mortgage and Housing Corporation, Archi-
tectural and Planning Division, Ian MacLennan,
Chief Architect.*

Typical housing which was demolished on the site





Typical three storey walk-up type

The actual form of the project was conceived by the architectural and planning consultants and the buildings were designed by the project architects, both teams working closely with architects and planners of the Corporation.

Jeanne Mance is an urban renewal project, the first in the Province of Quebec, located on approximately twenty acres in a blighted area of central Montreal. Acquisition and clearance of the area is being undertaken by the City of Montreal, with financial assistance from the Federal Government under Section 23 of the National Housing Act.

The design objective was to produce a new and handsome section of the city, well integrated with the surroundings and as far as possible having the variety of pattern normally associated with lively urban areas in Montreal and which would provide opportunities for the continuation and extension of the cultural activities of people inhabiting the area. The cold military feeling of barracks or other institutional groups would have to be avoided. To achieve this objective the buildings are grouped in different ways to produce a positive variety of spaces. The whole area is too large to be a single unit and it was considered that a solution would be found in making possibly four or five definite groups of buildings, separated by continuous stretches of green area that would contain play lots and a central playground and community centre.

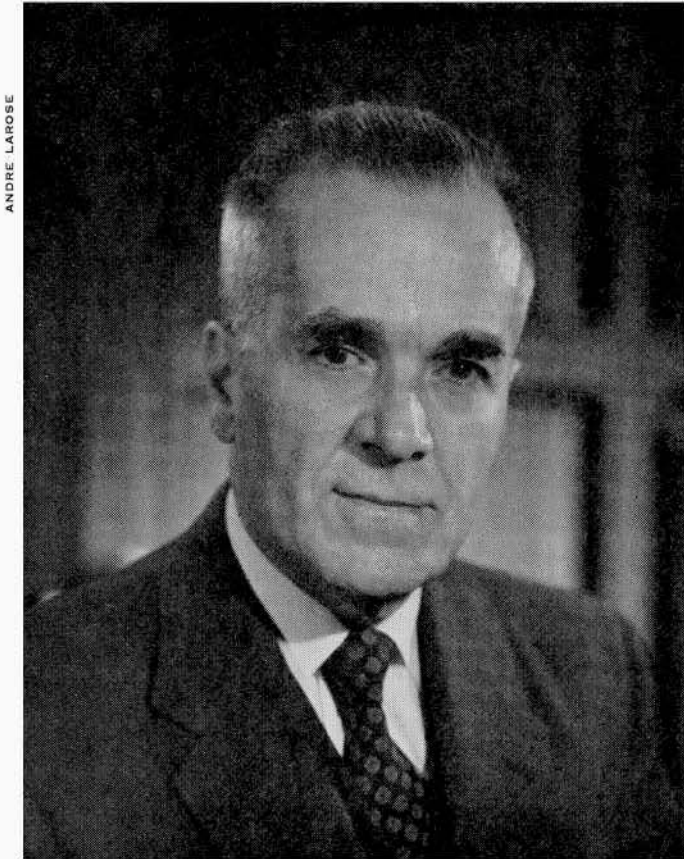
Actual final design comprises 536 one and two bedroom units in four 12-storey high-rise buildings and one 14-storey high-rise building, with 210 two and three bedroom units in 3-storey walk-ups and 50 four and five bedroom units contained in row housing for a total of 796 dwelling units. The 14-storey high-rise building contains the central heating plant for the entire project; the Housing Authority office is on the second floor and space for shops and storage is provided on the ground floor.

JEANNE MANCE PROJECT

Typical twelve storey elevator type

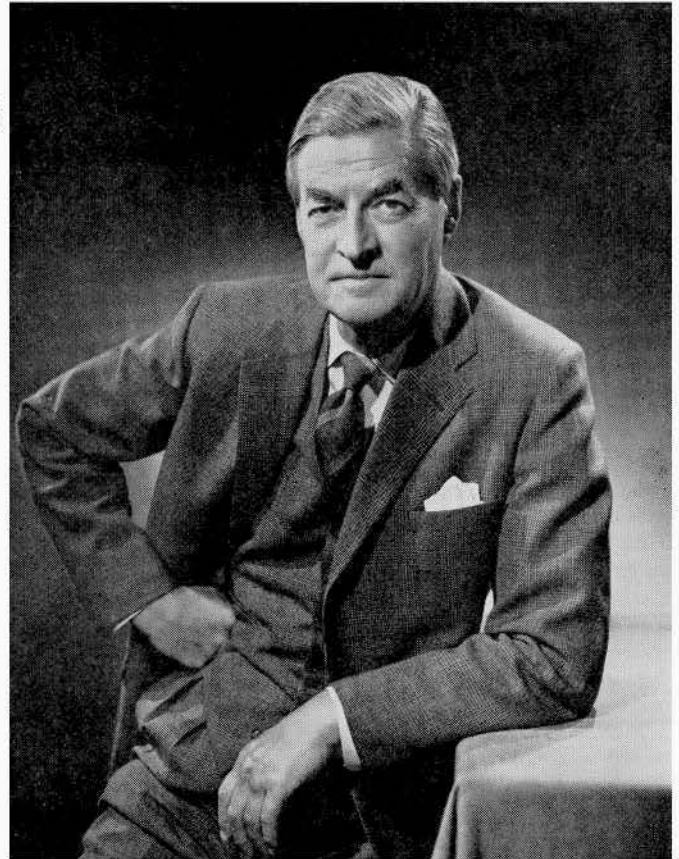


NEWS FROM THE INSTITUTE



ANDRE LAROSE

Mr. Maurice Payette, President of the RAIC



GABY

Mr. A. T. Galt Durnford, Chancellor of the College of Fellows

Mr Payette, the new President of the RAIC, is a native Montrealer, who still lives there and has his practice there.

He became a member of the Province of Quebec Association of Architects in 1929, was elected a member of the Association's Council in 1932, its honorary secretary in 1934, honorary treasurer in 1951 and president in 1952.

He became a member of the Council of the RAIC in 1956, two years before being chosen president. He has also been a member of the College of Fellows since 1945.

Mr. Payette was educated at L'Ecole Polytechnique, L'Ecole des Beaux Arts and New York City College.

For recreation he always spends a month each summer on the beach at Atlantic City. He used to be a keen golfer but claims that he has no time for it any more. His main hobby now is architectural photography.

In addition to the great amount of time and interest which Mr Payette has given to his profession, both through the PQAA and through the RAIC, he has also been a member of Civic Committees in Montreal. He has served on its Planning Committee, its Wartime Housing Committee and its Building Codes Committee.

Mr Durnford received his schooling in Montreal and in Switzerland and graduated from McGill University in 1922. He went to New York and worked first in the office of George B. Post and Sons and then spent two years with Delano and Aldrich. It was here that he developed his skill and aptitude for design and detail in Georgian and French idiom which has given a subtle flavour to all his subsequent work.

Returning to Montreal in 1924 he practised under his own name until 1934 when he entered into partnership with H. L. Fetherstonhaugh. After the war Fetherstonhaugh and Durnford added new partners so that today he is the senior partner of the firm Durnford, Bolton, Chadwick and Ellwood.

During World War II he was Boom Defence Design Officer, Directorate of Harbour Defence of the Royal Canadian Navy, with the rank of Lieutenant Commander.

His hobby is yachting and each year the Durnfords leave the Royal St. Lawrence Yacht Club and spend several weeks cruising the waters of Ontario, Quebec or New York State.

Mr Durnford is active in community affairs, serving on many welfare committees and occasionally writing articles dealing with architecture and the crafts. He is a member of the Royal Canadian Academy and president of the Canadian Handicrafts Guild, a member of the Montreal Board of Trade and is on the Committee of the Canadian Arts Council, recently renamed the Canadian Conference of the Arts. Last year he was a member of the Advisory Committee of Fine Arts of the National Gallery for the Brussels Exhibition.

MANITOBA

During the months when the competition for the Winnipeg City Hall was being discussed and prepared, a great deal of attention was paid to the prospective grouping of both the Manitoba Provincial Government Buildings and the Winnipeg Civic Centre. While the Provincial Government is currently starting new construction in the area, both the Federal Government and a private Insurance Company also have sizable buildings under construction in the area.

Now that the City Hall competition is under way, it would seem unwise to make any further comment about the nature of prospective development in this area.

One type of architecture that is getting more publicity than almost anything else in Winnipeg, currently consists of the new supermarkets being opened by the big grocery chains. A&P, Loblaw's and Dominion Stores have all come to Winnipeg in recent months. The new supermarkets surrounded by acres of parking, have been opened with all the hoopla of a three-ring circus. There is a warning that this is only the beginning, because there are others to be built in different parts of Greater Winnipeg by the same, and other companies, to the tune of many millions of dollars.

Not long ago, the new Winnipeg Post Office was opened. This building is really a combination of two elements, one a major postal sorting building and the other a Federal Government Office building. Many of the offices in the office tower had been in use for some time before the Post Office section was opened officially. During the summer there was a good deal of complaint about the Federal Government's policy, under which air conditioning is not provided in its buildings. The office portion of this building is a multi-storey glazed tower which, without the air conditioning, caused some appreciable distress among the employees.

After some delay, due to difficulties in the money market, the extension of Winnipeg's central downtown hotel, the Marlborough, is now under way again and it looks as though it will be closed in for interior work during the coming winter. This new construction will double its size and provide central convention facilities.

The foundations are now in for the new school of Architecture Building at the University of Manitoba. This will be the next new building to appear on the skyline of the University Campus where a major construction program has been under way for some time. Prof. John A. Russell and his staff of the School are looking forward to the day in 1959 when they will be able to move into their new building.

At the Montreal meeting of the RAIC, the Manitoba Alumni met at lunch on Saturday, June 14, when the architects for the new building provided an extremely competent exposition of the first building in Canada to be designed and built as a School of Architecture, both verbally and visually through the use of slides.

While the School of Architecture building may appear to be of greatest current interest to architects, it is part of a continuing program of construction and development which is taking place on the University of Manitoba Campus. Both St. John's and St. Paul's Colleges completed new buildings recently. New buildings are planned for the faculty of Science and it appears that these are part of the construction program that is likely to continue on into the future for some years to come, to meet the ever-growing numbers of people seeking and needing University training in a rapidly growing population.

Eric W. Thrift, Winnipeg

ONTARIO

A recent Ontario letter urged the members of the Association to acquaint the man on the street with the benefits of good design, but what is "good design"? The term itself is a composite one spanning a number of activities.

A good architect aims at a perfect fusion of the various considerations which enter into the design of his building. He consciously or subconsciously adheres to or modifies the requirements of the problem he has to solve until the elements fall together simply and naturally. The process is intuitive and beauty which results is established because of the harmony between usefulness and appearance.

Good design is not a luxury, but its elusive quality is often difficult to explain to a layman. If the layman happens to be a client, the architect may find it necessary to employ words with manifold meanings which satisfy both him and his client. Hence an element which is necessary to the design for aesthetic reasons will find acceptance with the client for more practical considerations.

Good design is not applied after the practical considerations of a building are satisfied. It develops with these considerations until they are a unified whole.

The architect must set his own standard of design and be dedicated to the rightness of it before he can convince his client of the necessity for it or the man on the street of its benefits.

G. S. Abram, Willowdale

LETTER TO THE EDITOR

Dear Sir:

The writer attended this year's annual Assembly and although it is long past I feel that my thoughts on this Assembly should be transmitted to the *Journal*.

It was undoubtedly an enjoyable affair and it was a great delight to meet old friends again in the gay and social atmosphere of Montreal. It is unfortunate then that so many of us came away from the Assembly with a feeling of frustration and disappointment. These feelings, in my case, were brought about by the apparent indifference of our Assembly when it comes to taking action on the many very serious problems which are facing independent practitioners today.

Our profession exists in an era where many developments have altered the architect's position in the fields of business and the construction industry. A private practitioner finds himself restricted by the great inroads of the package dealer into the field of design, by the progress being made by various pre-fabrication concerns and by the growth of various governmental design agencies. He is somewhat bewildered by the energy of the various impressarios of finance and real estate and concerned as to what should be his correct and ethical collaboration with them. The field of small house design has slipped away from the architect almost entirely and yet he feels a responsibility of somehow contributing his knowledge towards the betterment of this large and important segment of Canadian life. Public relations is yet another problem largely unsolved as is evidenced by the public's continued bewilderment concerning the services of an architect.

No better forum exists than the Assembly for serious discussion and resultant action on all these pressing matters. Is it not time that we met these problems head-on in a forthright manner and subsequently brought ourselves up-to-date as a more vital body contributing to Canada's development?

It is my impression that the ordinary self-appointed delegate to the RAIC Assembly is forced into an absolutely ineffectual position during his attendance. I do not mean to take well earned credit away from the many hard working committee members but rather suggest that all delegates be given the opportunity to contribute more of their intellect and energy. Receptions, field visits and seminars concerned with related fields of endeavour are satisfactory if placed in their proper perspective but they take up valuable time which could better be applied to immediate, important problems which are literally threatening the future of our profession as it presently is constituted.

There are undoubtedly many ways in which the Assembly could be made more effective. One suggestion is that, prior to our next Assembly, the President appoint a travelling representative. The task of this person would be to meet with the Provincial bodies to find out which problems are of the most serious concern to their membership. A compilation of this information could then be sent back to the Provincial Councils for further discussion and suggestions. Chairmen of discussion groups could be appointed by the RAIC so that at the next Assembly they would be prepared to form discussion groups from those attending with the thought that action by the Assembly could follow their recommendations. If necessary the duration of the Assembly could be increased to accommodate a much larger agenda.

Another suggestion is that, instead of the Assembly being held in the heart of a city that it be removed to locations where the atmosphere is more relaxed and more conducive to discussion and serious thought. Every Province has such locations and the vitality of the sessions at the Banff School of Fine Arts has amply proved the merit of this idea.

I am proud to be a member of this profession but do not relish the idea of becoming one of the last members of a dying species. Rather I would like to feel a part of a profession which is in tune with our economy and which occupies a vital, energetic and respected position in the Canadian scene.

Yours very truly,

W. G. Leithead, *British Columbia*

CONTRIBUTOR TO THIS ISSUE

Mrs Lister is a Landscape Consultant in Toronto. She graduated in Economics at the University of Cambridge, and was awarded a fellowship for post-graduate study at Radcliffe College, where she worked with members of the Industrial Research staff of the Harvard Graduate School of Business Administration. After some years in this field, including a period on the staff of the Organization Branch of the Civil Service Commission in Ottawa, Mrs Lister decided to combine her experience in organization work with her interest in landscape design and horticulture. She now has her own practice as a Landscape Consultant, and undertakes work for both private and institutional clients.

ANNOUNCEMENT

Mr Raymond Moriyama and Mr Fraser Watts have formed a partnership at 106 Yorkville Avenue, Toronto 5, Ontario, under the title of Moriyama and Watts, Architects and Town Planners. They will be pleased to receive catalogues and samples.

PRIZES AND AWARDS

In its July issue, the *Journal* published a listing of prizes and awards from the other five schools of architecture in Canada. It has now received the following list from the University of Manitoba:

UNDERGRADUATE PRIZES AND AWARDS, 1957-58

Fourth Year

Manitoba Association of Architects Scholarship to M. Malkin.
Canadian Pittsburgh Industries Scholarship to R. Stevenson.
Canadian Pittsburgh Industries Prize to M. Malkin.
W. Allan McKay Memorial Scholarship to M. Kubrak.
Mayor Findlay Prizes to F. Sigurdson and J. Farrugia.
Manitoba Association of Architects Book Prizes to J. Song;
R. Boudreault; P. St. Jacques; R. Stevenson; and J. Wong.
Alpha Delta Pi Prize to J. Farrugia.

Third Year

Manitoba Association of Architects Scholarship to J. Izen.
Atlas Asbestos Company Competition to O. Simonsen and J. Izen.
Green, Blankstein, Russell Scholarship to J. Turner.
Manitoba Association of Architects Book Prizes to K. Kangas;
D. McFecters; and R. Takashiba.
Neil K. Brown Memorial Scholarship to E. Sashegy; and
A. Tiefenbeck.
Sidney Alexander Adams Memorial Bursary to H. Smedley.
J. G. Fraser Ltd. Summer Sketch Prizes to J. Izen; J. Turner; and
O. Simonsen.

Second Year

Isbister Scholarship to R. Dies.
W. G. McMahon Ltd. Scholarship to R. Dies.
Lakawanna Leather Company Prize to D. Folstad.
Manitoba Association of Architects Book Prizes to R. Dies;
M. Epstein; G. Filyk; B. Padolsky; Q. Wood-Hahn; and
L. Thomson.
W. J. Dick & Company Bursary to B. Padolsky.
Victor Boyd Memorial Bursary to G. Filyk.
David Lacey Cowan Memorial Bursary to L. Thomson.
J. G. Fraser Ltd. Summer Sketch Prizes to E. Kolomaya;
J. Patsula.

First Year

Isbister Scholarship to D. Li; and E. J. Darch.
T. Eaton Co. Ltd. Scholarship to C. Maurice.
Donald Spurgeon MacLean Memorial Bursary to D. Li.
Super-Lite Bursary to J. Bogdan.

POSITION WANTED

Designer and senior architectural draftsman with seven years experience in Holland in his own architectural practice and seven years Canadian office experience seeks permanent position in office of private architect, city or governmental department of architecture in Canada. Have T-square, will travel. Reply care of the *Journal* RAIC, 57 Queen St. West, Toronto.

ERRATUM

The Editor was not aware, when he received the article *Khyber Pass to Canada*, from Miss Imrie, that it was written by a travelling companion, Miss Jean Wallbridge. The Editor takes this opportunity to apologise to Miss Wallbridge, but at the same time, thanking her for her contribution to the series which has been so much enjoyed by readers of the *Journal*.

BOOK REVIEW

REPORT OF THE COMMITTEE ON BUILDING LEGISLATION IN SCOTLAND. Her Majesty's Stationery Office, Castle Street, Edinburgh. Price 5s.6d.

Building Codes are now well recognized as an essential part of the practice of building but so little has been written and published about philosophy underlying them that any new publication dealing with the principles of building regulations is to be welcomed. A report has recently been published in Scotland which can be highly commended, not only as one of the rare contributions in this field, but also as an outstanding commentary upon the entire field of building legislation. Normally one would not expect a "blue book", published by Her Majesty's Stationery Office in Edinburgh on behalf of the Department of Health for Scotland, to have any special interest in Canada. This particular report, however, deals so lucidly with exactly the same basic problems as have been under continual review by the Associate Committee on the National Building Code of the National Research Council of Canada, that many of its conclusions are directly relevant to the Canadian scene.

The history of building legislation in Scotland is naturally the starting point of the report. Although this is not generally relevant to the Canadian scene, it is of some interest to note that the passage of the Burgh Police (Scotland) Act in 1892 was the real beginning of building regulations in Scotland as they are known today. Since that time there has been a steady development in the building regulations used north of the border, model building bylaws for cities and rural areas being produced by the Scottish Department of Health for example, in 1932. The most recent document to be issued is that which led to the appointment of the committee whose report is now under review, this being the "Model Building Bylaws for Burghs" issued by H.M. Stationery Office in Edinburgh in 1954, on behalf of the Department of Health for Scotland. It was the public review of this document and the questions which it raised that led to the study now being summarized.

The Committee makes very clear the purpose for which building regulations must be enacted. "It seems to us that the object of building control is — and should be — to ensure that the public (and this must be taken to include the occupants of buildings) do not suffer as a result of the way a building is designed and constructed: that is to say the basic purpose of building control should be the protection of the public interest as regards health and safety. Underlying these basic objectives, however, we have discerned a qualifying condition — that of having regard to the economic use of the nation's resources. It is essential in our view for the national economy — the public interest in one of its widest senses — to be a qualifying consideration when setting mandatory requirements for buildings. The building standards which prevail at any time must of necessity be the result of some compromise between what would be perfect and what is practicable, and must take into account the state of development of building and design techniques and what the nation can afford. Since today's new building is tomorrow's existing building, it will in some instances be desirable for planning control to lay down conditions for a new building with a view to creating or preserving the circumstances necessary to enable its own daylighting to be protected in the event of expected future development."

The Committee was asked to consider the possibility of making special regulations for buildings that are designed and supervised by 'qualified persons'. They found that "it is noteworthy that the body which might have been expected to be most predisposed in favour of some scheme of professional exemption — the Royal Incorporation of Architects in Scotland — were in fact against it." After a careful review the Committee concluded that they would not "make any recommendation that the machinery of building control should be modified according to the qualifications of the person or persons designing or supervising the erection of a building."

The amenity of buildings was considered, by the Committee, to be one aspect of building that could not appropriately be governed by regulations. On this difficult matter they have an interesting comment. "Some might argue that in this respect above all others are buildings in need of control, since nowadays a greater proportion seems to be more technically sound than aesthetically satisfactory. Recent discussions of and public interest in the topic of 'subtopia' have suggested that public opinion is becoming increasingly sensitive to the eyesore, very much as in the last century it became sensitive to the stench of open sewers and uncollected garbage. Good aesthetic standards must clearly be encouraged, but any control would undoubtedly be difficult and controversial to exercise and related to standards which would be largely subjective." It is the Scottish Committee's opinion that planning control, as neces-

sarily exercised by local planning authorities, should pay more attention to this aspect of building.

Somewhat naturally the Committee had to face the difficult problem of defining a building since, as they say "it may be desirable to lay down at least some requirement for almost any sort of structure — even a flag-pole should be structurally sound." The Committee therefore recommend "that (a) building code should no longer include any provisions relating to streets, apart from a basic requirement that there should be some means of access to buildings. (They) also take the view that, so far as public highways are concerned, it is unnecessary for building control to treat roads and streets as 'buildings', and (they) mean this to include any bridges or other works forming part of the public highway; structural specifications and standards for them are laid down by the Secretary of State for Scotland and by the highway authorities themselves." They go on to say that they recommend "that the general building code should contain the basic structural requirements for new buildings (and, to a limited degree, for converted and altered buildings) relating, among other things, to strength and stability, structural fire precautions and means of escape from fire."

It is not surprising that the difficult problem of what to do with existing buildings in relation to a newly promulgated code received the careful attention of the Committee. Their considered opinion was that "all classes of buildings are not covered by special legislation and it seems to us that in order to fill the gap, power should be given in the Building Act to apply certain basic requirements of the building code, e.g., as to strength, stability, fire precautions, drainage and sanitary facilities, to existing buildings so far as reasonably practicable. The regulation-making powers in the Building Act should be grouped into those relating to functions applicable only to new buildings and those in respect of functions applicable both to new buildings and, so far as is reasonably practicable, to existing buildings."

The contents of a good building code are naturally considered by the Scottish Committee in broad and general terms only. The Committee say first that "essentially it should be possible by regulation to lay down requirements covering every aspect of building that might have a bearing on the health and safety of the public, including of course, the occupants of buildings." They go on to emphasize this by saying that "an adaptable and comprehensive form of building code can only be achieved by having regard to the functions which the building and its various parts are required to perform (e.g. to carry specified loads, to resist the effects of weather and fire and to resist the transmission of heat and sound, etc.) rather than, as in the past, by dealing with the elements of a building separately — its walls, roofs, and floors, etc. — and laying down inflexible specifications for them."

Having considered the problem of existing buildings, the Committee naturally found themselves faced with one of the most difficult of all problems encountered by the building inspector in the ordinary course of his duty in administering the building regulations of a municipality, this being the requirements that must be met in connection with changes in the occupancy of buildings. Once again the Committee has a useful comment, stating that "the Building Act should therefore provide that where the new use would bring the building within a category to which building requirements of a higher standard were appropriate, then those requirements should in fact apply. The Act should also require the building owner to apply to the building control body for permission for such changes of use; but the building control body would be obliged to grant permission for the change if the requirements appropriate to the new use were met."

It is when the Committee turn to the problems which arise in connection with the enforcement of regulations that their words are again just as if they had been written for Canadian use. They say, for example, that "it is obvious that whatever form of building control may be devised, it will have failed in its object if it does not in practice secure the erection of buildings which do not endanger public health, and safety, in any way. (They) recommend, therefore, that the building control bodies should ensure that their inspectors are sufficiently qualified and that there are enough of them to check the normal volume of building within their district. Inspectors should, of course, have sufficient power to enable them to carry out their duties adequately." Showing the grasp that the Committee had of the practical aspects of housing codes, they comment further that "there may be scope for the better deployment of the existing inspectorate, who, we suggest, might serve the aims of building control better by tending to concentrate on a selected sample of the buildings under construction which they should thoroughly inspect at least twice during construction. The remainder of buildings would be dealt with perhaps in rather less detail but we would expect an inspection to be necessary before a certificate of completion could be given."

In Canada, the Associate Committee on the National Building Code has been considering during the last year or two the exact

NEW MATERIAL

place which regulations for house construction should occupy in the National Building Code of Canada. It was recently announced that when the National Building Code is next revised, in 1960, it will contain a new Part containing a complete set of minimum regulations for house construction. It is therefore of special interest to find that this problem was also considered by the Scottish Committee and that they came to exactly the same conclusions as the Canadian Committee, expressed in these words: "Living conditions in houses have, if anything, a more direct bearing on the health and safety of families than other buildings have on their occupants. Houses, moreover, comprise the only class of new buildings of which large numbers are erected for clients who do not possess (and frequently would not have the opportunity of applying) any technical knowledge of the essential requirements. We recommend, therefore, that what we term 'housing standards' should continue to be laid down along with the more general requirements for building as a whole."

In some parts of Canada real problems have already developed regarding the use of trailers or mobile homes as permanent living quarters. The Scottish Committee was surprised to find that one person in every 145 in Great Britain now lives permanently in a trailer ('caravan' in the report). This statement will perplex readers who know Great Britain well, but this is stated as a fact with supporting reference on page 31 of the Scottish report. The Committee knows that these moveable dwellings are at present exempt from building bylaws both in Scotland and in England and Wales. The Committee were "unable to discover any logical basis for the marked difference in standards which the law is prepared to tolerate between dwellings fixed to the ground and those — in many cases no less permanent — that are (perhaps only nominally) mobile. If it is safe and healthy to live permanently in a caravan complying with the Tents, Vans and Sheds Byelaws, it is difficult to see the justification for imposing a very much higher code of requirements merely because the dwelling is fixed to the ground; if it is not, there cannot be any justification for permitting a dwelling to be sub-standard merely because it is mobile."

Despite this conclusion the Committee went on to say that "the problem is a difficult one to solve. With some reluctance we are forced to the conclusion that building control as such cannot readily be adapted to moveable buildings. In the first place, the way it operates, by initially requiring an application for permission to build, followed by a scrutiny of the finished building, is inappropriate for moveable buildings. Again, several of the normal aspects of building control, such as drainage, sound insulation and fire precautions based on the position of the building in relation to roads, services and other buildings, are equally inappropriate. We recommend, therefore, that there should be a provision in the Building Act exempting from building control such moveable buildings as may be specified in the regulations."

Turning now to the way in which a code should be prepared the Scottish Committee, in just the same way as the Canadian Committee has done, stress the attention that must be paid to the guiding principles of *uniformity* and *flexibility*. A discussion of uniformity occupies several pages of the report, special attention being paid to the climatic differences which are to be found even in different parts of Scotland. It is in this connection that the Committee makes the first of their references to the National Building Code of Canada (on page 54) through an appreciative note on the Climate Part of the NBC and upon its use of maps to indicate climatic differences. The Committee reaches the conclusion that "there can in (their) opinion, be no justification under building control for requiring a person to build a higher standard in one town than another. There may in one sense be an argument for 'higher standards' in one place than in another, but these are not building standards but are standards of amenity which, in (their) view, should be taken care of by planning control."

What is most encouraging, however, is to find almost every major policy decision of the Associate Committee on the National Building Code of Canada confirmed to such a surprising degree by this distinguished Committee working across the seas, against an entirely different legal background, in a country with centuries-old traditions and with building methods so markedly different from those to be found in Canada. Publication of the Scottish report at this time augers well, therefore, for the next great task of the Canadian Committee which is the preparation of a revision of the National Building Code of Canada, which, all being well, will appear in 1960. It will act as a spur to those responsible for the National Building Code of Canada to record appropriately their considered opinions of what a building code should be, and can be, as can now be done against the background of the nation-wide acceptance of the Canadian document.

Robert F. Legget,
Director, Division of Building Research,
National Research Council

METAL WALL PANELS FOR INDUSTRIAL BUILDINGS

THE TREND to functional, flexible and economical materials has created a demand for metal wall panel products from Canadian steel fabricators. The prefabricated or field assembled wall panel is currently finding more favour with architects and builders on the basis of modern appearance, ease of handling, and adaptability when construction is under way.

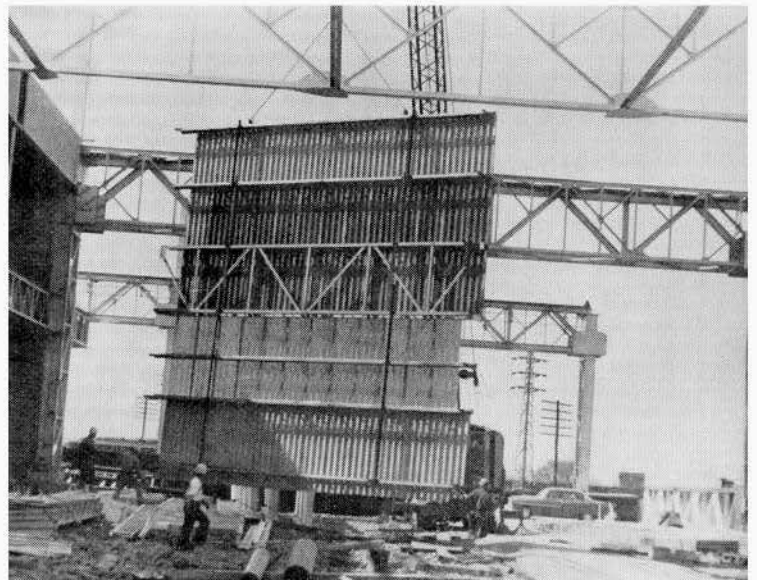
Further favourable aspects of metal wall panels include corrosion and fire resistance, lighter weight and less maintenance. The qualities of greater strength combined with reduced weight and convenient size result in more efficient handling. Another definite advantage of metal wall panel, is its ability to be moved from an existing steel building and again utilized immediately to form the wall of the new extension to the plant or warehouse.

Such a move, to accommodate plant expansion, was undertaken with marked success recently at the Montreal plant of Dominion Structural Steel Limited. A former side wall consisting of 30' x 30' Taymar metal wall panels was readily moved by crane to form the new side wall of the extended plant.

These wall panels of 20 gauge uninsulated metal proved a boon to increasing the size of the plant, as each 30' x 30' unit was moved a distance of 80 feet in a mere 57 seconds. The whole moving operation was less difficult and took less time than the removal and application of a new side of wall covering. Before the move, a vertical section of wall covering at each column was removed and the remaining steel panels were braced for handling by tack welding angles on the back face of the purlins to form a solid unit. Next the bolted girts were disconnected from the steel columns of the original wall. The panels were lifted by means of a crane and swung to the new steel framework of the enlarged building.

The moving of one 30' bay, a distance of eighty feet from its original location was completed in 88 minutes, including unbolting and rebolting. The record time was carefully clocked by Mr. V. N. Bartlett, who is in charge of the Taymar Roof Deck and Wall Panel division of Dominion Structural Steel Limited. These metal wall panels, one of the products of the Company, lived up to their reputation of versatility and adaptability. This was the first time that the product, already in service, had received such extensive testing right at the plant. The move turned out to be very satisfactory, and an ideal time-saver, according to Mr. W. C. M. Luscombe, Manager of Research and Development at Dominion Structural Steel Limited.

A fast moving operation, the transfer of metal wall panels to the new outer walls of an enlarged plant nears completion at Dominion Structural Steel, Limited, Montreal division.



F A C T S A B O U T G L A S S

Vol. 7 No. 3

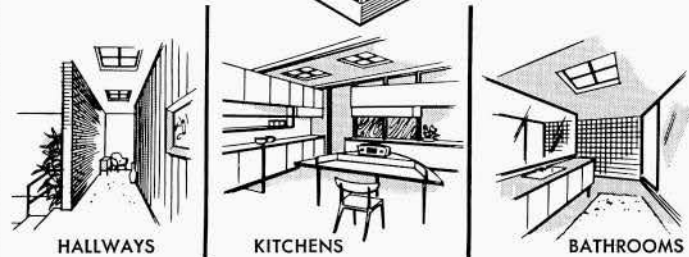
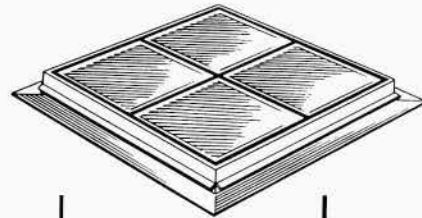


Prismatic Skylights

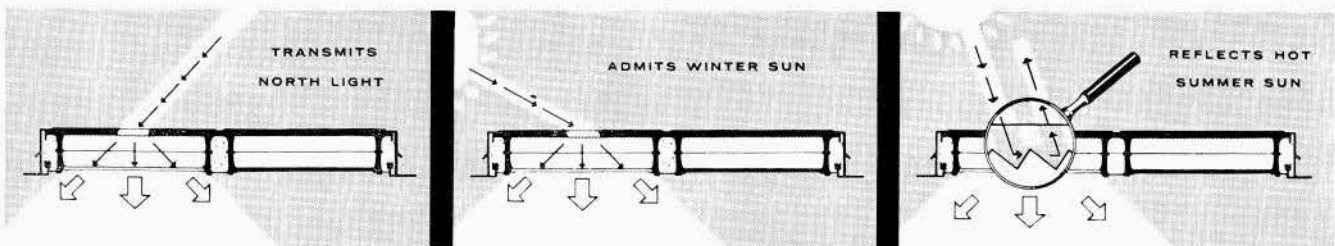
By controlling daylight and solar heat with the new Toplite "Two-by-Two", the architect is given a wider scope in home design. A unique prismatic principle is utilized to transmit cool winter sun and to reject light and heat from the summer sun, while giving an even distribution of room light the year round.

Toplite's insulation qualities reduce winter heat loss and condensation, while transmission of summer solar heat is approximately one third that of ordinary skylights.

The Toplite "Two-by-Two" lies flat on the roof and requires no curb. Pre-fabricated for economy it opens a new area for interior 'core' room and hall design.



As shown below, Toplite uses a prismatic principle to admit cool north light and low winter sun, and to reject hot summer sun.



P I L K I N G T O N G L A S S L I M I T E D

HEAD OFFICE 165 BLOOR ST. EAST, TORONTO

BRANCHES COAST TO COAST