

EDITORIAL

UP TO NOW, of all humans, the architect is the most universally educated. His analytical judgement is of the highest order of intelligence, and he stands, as in the past, on the very pinnacle of civilization.

One speaks of the mature architect in this sense: the man of long and fruitful experience in many spheres; the architect who is artist, teacher, traveller, engineer, planner, writer, inventor, sear, prophet, reader of other men's minds, astute in law and expert in business. Moreover, this brilliant man is, by some curious custom of our land, legally responsible for the proper performance of all materials, devices and equipment shown and/or specified by him, and this to the fullest extent of his personal estate. We see proof at once that any accredited architect of thirty years experience in practice, who is still at large today, is a man of quite incredible powers.

While we continue to stand a trifle less steadily on the pinnacle of civilization, we find that the apex has flattened out substantially, giving room for a goodly number of newcomers. The newcomers are engaged in a growing field of activities related to architecture, and to the shaping of environment.

On the purely technical side, innovation and product development becomes more exclusively a function of industry. Material performance is predicted in the testing laboratory. Thus, the design of a building can be rationalized to the choosing and assembly of components, and becomes a mere act of accountancy. As craftsmanship declines, we look more to industry for excellence in construction, and so deserve less credit ourselves for technical results. This is not to suggest that the technical features of buildings are beyond the scope and function of architectural practice. In fact, the architect is still master of the total design, and his unique position can be more significant as specialism is extended. It is possible however, that the profession can lose identity by too great an involvement in technical matters, when less attention is inevitably given to considering the whole conception.

Then too, we have the deadly inheritance of the functional school; a sort of creeping pragmatism. The worst symptom of this widespread disease is mainly seen in the popular acceptance of architecture on the grounds that it serves practical ends, or, that the full meaning of architectural work is expressed in practical consequences. It is natural logic to say that this building worked here and therefore its replica may be built there, as the two structures are to serve an identical purpose. This exercise in reasoning has apparently impressed a number of our important national institutions, resulting in the growing collection of type buildings. A cousin of the type building, is the trade-mark building which is explained as a necessary means of increasing sales of gasoline, groceries and various other commodities.

The architecture of pragmatism, however reasonable its aims, is humourless, self-conscious and deadly dull. It is sobering to reflect that this kind of building might be a quite legitimate cultural expression. If this be so, then no greater challenge could be offered to our profession. Now is a time to close ranks, and a time for drawing out the very best in our profession.

This Journal is the one publication in Canada devoted to the work of recording architectural opinion throughout the country. Through the Journal it is possible to collect the ideas and impressions of architects practising in all provinces, to the great benefit of the profession as a whole. While it is most necessary to publish plans and photographs of completed work, as well as illustrations of projects on paper, it is equally important that the Journal should continue to record the views of Canadian architects on subjects of vital interest to us all.

DEPUIS TOUJOURS, l'architecte est, de tous les hommes, celui qui possède les connaissances les plus universelles. Son jugement analytique se situe au plus haut degré de l'intelligence et, au temple de la civilisation, aujourd'hui comme dans le passé, l'architecte se tient au pinacle.

On ne parle en ces termes que de l'architecte qui a atteint sa maturité: l'homme qui possède une fructueuse expérience en plusieurs domaines; l'architecte qui est à la fois artiste, professeur, voyageur, ingénieur, auteur, écrivain, inventeur, prophète, devin, avisé en loi et expert en affaires. De plus, cet homme brillant, selon une curieuse coutume de notre pays, est légalement responsable du bon fonctionnement de tous les matériaux et appareils et de l'outillage qu'il a montrés et/ou spécifiés, et ceci jusqu'à concurrence de tous les biens qu'il possède. C'est dire que tout architecte reconnu qui compte trente ans d'expérience dans la pratique et qui exerce encore aujourd'hui est un homme d'une capacité intellectuelle presque incroyable.

De nos jours, tout en nous maintenant au pinacle, bien qu'avec un peu moins d'aplomb, nous constatons que le sommet s'est aplani considérablement ce qui permet à un bon nombre de nouveaux venus d'y trouver place. Ces nouveaux venus se livrent à une variété croissante d'activités se rattachant à l'architecture et au façonnement du milieu.

Du côté purement technique, l'innovation et la mise au point des produits relèvent de plus en plus exclusivement de l'industrie. Le rendement des matériaux est prédit dans le laboratoire d'essai. De cette façon, dresser les plans d'un édifice peut être réduit au choix et à l'assemblage des pièces composantes, et devient alors une simple fonction de la comptabilité. A mesure que diminue la dextérité des ouvriers, c'est à l'industrie que nous demandons la qualité dans la construction et ainsi nous avons moins de mérite dans les résultats techniques obtenus. Nous ne voulons pas dire que l'aspect technique des bâtiments soit hors du domaine et des fonctions de l'architecte. De fait, l'architecte est encore maître de la totalité de la conception et sa position unique pourra avoir une importance encore plus grande avec la croissance de la spécialisation. Il y a danger toutefois que la profession n'amointrisse son rôle propre en s'occupant trop de l'aspect technique des problèmes alors qu'inévitablement la conception d'ensemble est négligée.

Il y a aussi la tradition stérilisante de l'école fonctionnelle, cette sorte de pragmatisme envahissant. Le pire symptôme de cette maladie répandue se révèle dans le fait que le public n'admet l'existence de l'architecture que parce qu'elle a une fin utile, ou croit que toute la portée du travail de l'architecte se trouve exprimée dans des résultats pratiques. Il semble naturel et logique de dire que si tel immeuble a été utile en tel endroit, un immeuble identique le sera en tel autre endroit puisque les deux doivent servir aux mêmes fins. Ce genre de raisonnement semble frapper plusieurs de nos institutions nationales importantes, ce qui a pour résultat la multiplication des immeubles-types. Un parent de l'immeuble-type est l'immeuble à marque de commerce dont on explique l'existence en disant qu'il accroît la vente de l'essence, des produits alimentaires et de divers autres produits.

L'architecture pragmatique, quelque raisonnables que soient ses objets, est dépourvue d'humour, contournée et mortellement ennuyeuse. Et dire que ces immeubles pourraient constituer un genre d'expression culturelle tout à fait admissible, et qu'il pourrait offrir à notre profession une occasion sans pareille de se faire valoir! Voilà une occasion de resserrer nos rangs et de permettre aux meilleurs représentants de notre profession d'exercer leurs talents.

Ce Journal est la seule publication consacrée à reproduire l'opinion des architectes de tout le Canada. Il est possible, par l'entremise du Journal, de recueillir des idées et les impressions des architectes de toutes les provinces pour le profit de toute la profession. Bien qu'il soit nécessaire de publier des plans et photographies d'ouvrages achevés de même que des reproductions de projets, il est aussi important que le Journal continue d'exprimer l'opinion des architectes canadiens sur des sujets d'importance primordiale pour nous tous.

*Robert Fairfield,
Chairman of the Editorial Board of the Journal*

EXPO '58

The *Journal* is happy to present something about the Brussels Fair Expo '58. Architecturally there seems to be a magnificent, confusing, challenging hodge-podge. Genius, mediocrity and failure are all well represented. Nobody really likes the Brussels Fair, but everybody feels compelled to go on about it at some length. It is a challenging show, dominated by the equivocal symbol of the atom.

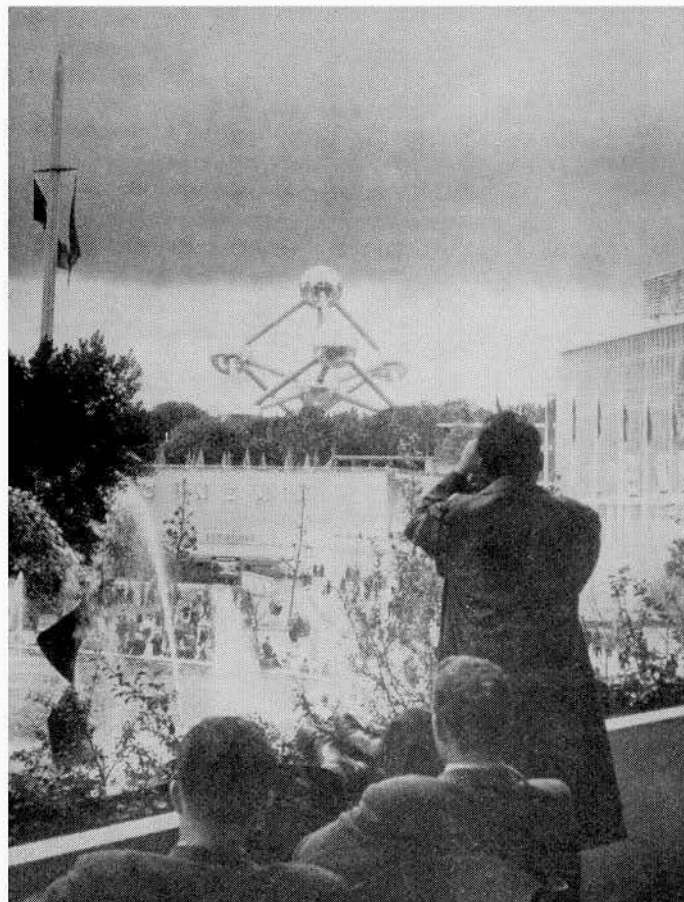
We offer you opinions by George Pokorny, a member of the Institute, by Donald Buchanan, an associate director of the National Gallery, by Jaques de Bary, an objective European critic. From Tom Wood, the designer of the Canadian display, the reader can get some idea of the approach involved in suggesting Canada to the world of 1958, and from Charles Greenberg we have an account, not of his building, but of the previous and rather halting attempts to make Canada known in world fairs of the past.

Apart from these opinions and dissertations, we concentrate for some pages on the Canadian pavilion. It is extremely good. It is open and inviting. The design is sound and simple and demountable, in accordance with the rules and regulations of Expo. The use of a simple bay system of structure and a concentration on colour and light is good exhibition technique. Sculptors and mural painters are given a splendid chance to establish their works in a free but rhythmically disciplined building.

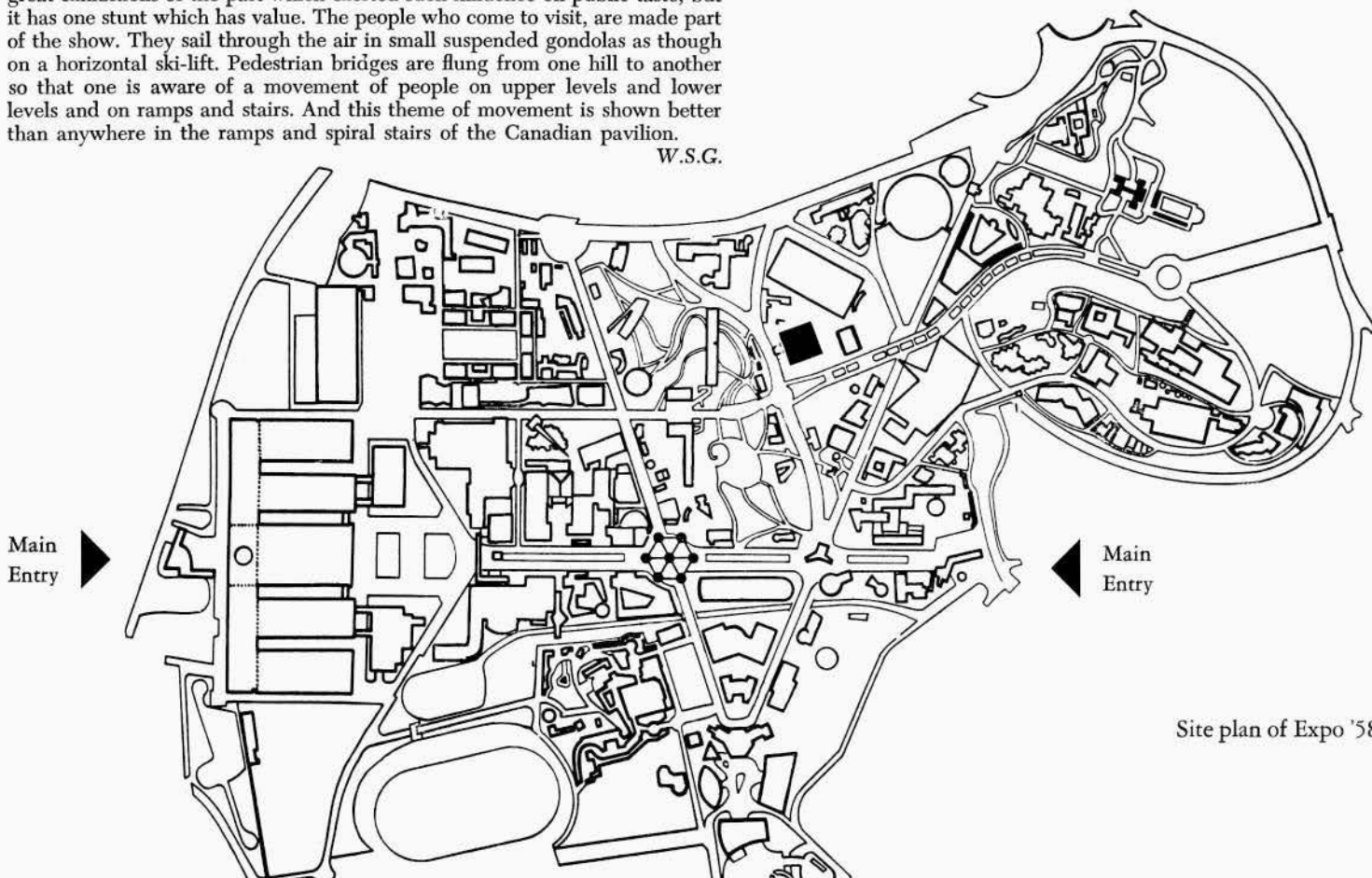
But it must be admitted that Expo '58 as a whole has had an enormously difficult job. The costs were terrific, and as much commercial space as possible was sold to everyone who would buy, from the Coca-Cola Export Corporation to something called merely, Pfaff. There were also tremendous difficulties with the site. On the site plan below you will see a main axis travelling from left to right, and dominated at the centre by the Atomium. The large buildings at the left were all built for the Brussels Fair of 1935 and have been in use ever since. They have been slightly jazzed up for this occasion. There has been an attempt to deny the vestigial axial plan by creating a vertical accent, the atomium, on a scale so huge, that it could deny the axes. It is only partly successful. Then the international section, the only one that has any real excitement, is stuck over in the top right hand corner. The Canadian pavilion we have shown in solid black, and it is relatively central. Most of the other nations veer off into the appendix.

There are some wonderful stunts at the Brussels Fair, stunts of engineering, of display and of architecture; what M. Andre Siegfried has described as "Naissance d'un monde fantastique." There are many encounters with practical science. The Dutch drain a polder, the Germans melt a block of metal, the Russians explain a sputnik. Expo may have no style to compare with the great exhibitions of the past which exerted such influence on public taste, but it has one stunt which has value. The people who come to visit, are made part of the show. They sail through the air in small suspended gondolas as though on a horizontal ski-lift. Pedestrian bridges are flung from one hill to another so that one is aware of a movement of people on upper levels and lower levels and on ramps and stairs. And this theme of movement is shown better than anywhere in the ramps and spiral stairs of the Canadian pavilion.

W.S.G.



Atomium from the balcony of the United States pavilion



Site plan of Expo '58

CANADIAN PAVILIONS
BY CHARLES GREENBERG

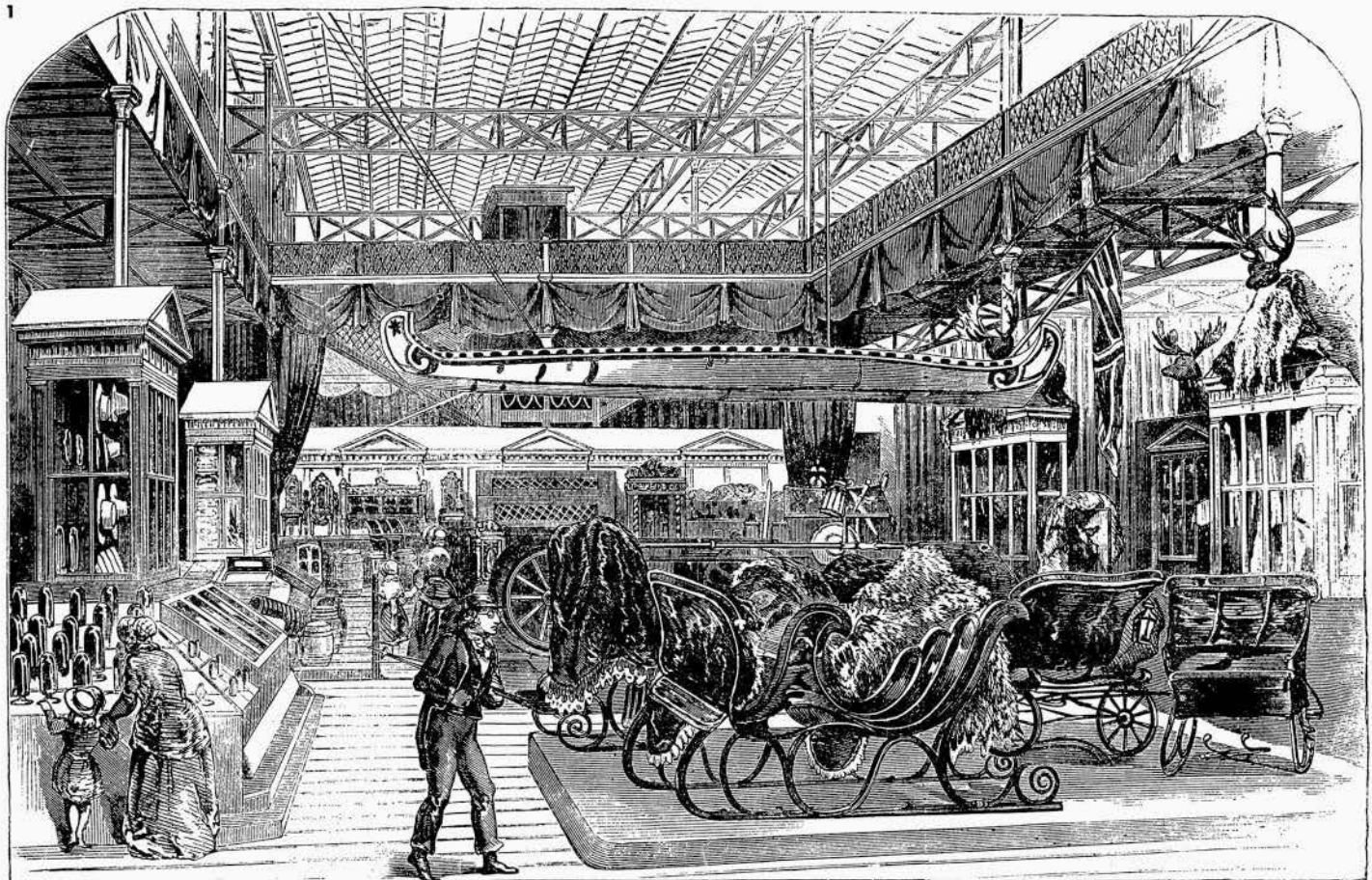
ALTHOUGH FEW CANADIANS REALIZE IT, this country has a long history of participation in overseas exhibitions, particularly in relation to our short history as an integrated nation. It will perhaps come as a surprise to learn that along with the latest thing in sleighs and modish hats, a fine Indian canoe was exhibited at the "Canadian Court" in the Crystal Palace at the Great Exhibition of 1851 in London, England. (No. 1).

During the twentieth century, exhibition buildings have been erected on numerous occasions in many cities scattered about the globe. In the early part of the century it was not unusual to commission a firm of contractors both to design and erect a pavilion for Canada in Milan, Dublin or Rome. Although such a practice is inconceivable today, one must not forget how remote these cities were in 1906, when this pavilion (No. 2) was built in Milan. In addition, the lack of architectural maturity of this country is manifest everywhere in this early period. Nothing can betray more a poverty of idea than the erection of an almost full size replica (three-quarter size to be exact) of the Canadian Parliament buildings at the Empire Exhibition in 1911 (No. 3). Vast quantities of misdirected craftsmanship were utilized in order to execute the work in such temporary materials as papier mâché and fibrous plaster. As late as 1937, in Paris, years after the founding of the Bauhaus, we erected an exhibition building, at the base of the Eiffel Tower, which simulated a grain elevator (No. 4). This was the first time we admitted a national identification wholly through the medium of architecture. It is, of course, fortunate that the grain elevator as a work of architecture has a power and a dignity of its own derived through form alone. But a grain elevator is not an exhibition building and can never be one. Apart from this lack of architectural integrity, national identification with a grain elevator was hardly admissible even in 1937.

By 1938 a competition for the New York World's Fair yielded a building which, although not of a high order, attempted nevertheless to enter the field as an anonymous example of the international movement (No. 5). When viewed against the previous imitation and indecision, the 1938 building at last recognized the need for a work of architecture based on specific principles and designed to fulfil a particular need. Its value was not in its architectural achievement but in its recognition of these principles.

In the intervening 20 years since the New York exhibition, contemporary architecture has moved further from national identification and closer to a unity of expression common to industrialized countries. Still, within the idiom it is possible at times to detect national characteristics. If it can be assumed that a national architecture develops through the skilful and sensitive synthesis by the architect of the traditions, technologies and geographical peculiarities of his country, then in Canada a national architecture will be particularly difficult to realize. There is the problem of cultural overflow from the United States. In addition, and probably more important, is the reality of bi-cultural Canada. Each sector has its own traditions and its own historically derived architecture. A further complication develops on the West Coast, where tradition, climate, and mountain and sea barriers create conditions more favourable to north-south influence than elsewhere in Canada. Therefore, the solutions to the problem of a national architecture will probably be resolved into a series of regional developments exhibiting some similarities but many marked differences.

The problem, then, of presenting a building at Brussels truly representative of Canada was a complicated one. It could have been skirted entirely by the very tempting "exotic" solution, fully licentious architecturally, which produces a result beyond all national identification. A controlled solution more consonant with the Canadian temperament, integrating a diversification of skills, art forms and symbols, and employing

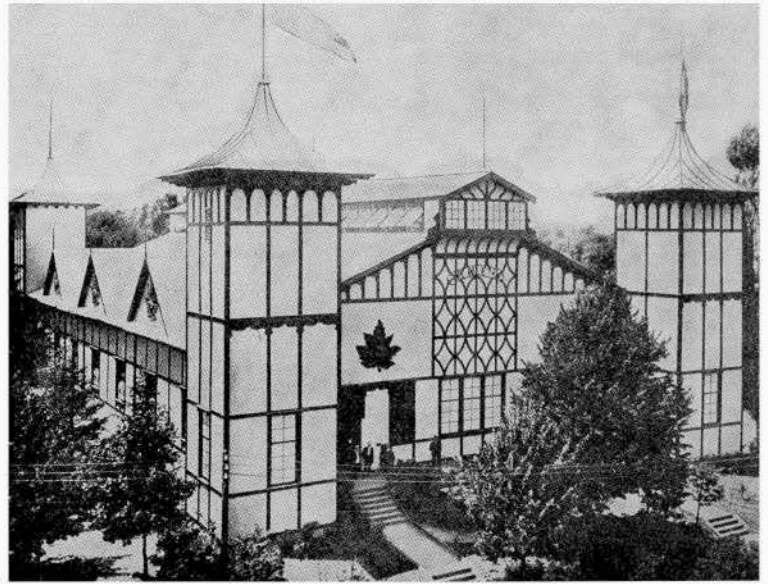


a representative technology for a building of this size, was selected as being more likely to yield a nationally identifiable result. Architecturally the statement is made that this is where we are and this, we think, is our valid direction.

Through the refinement of known techniques such as high-precision welding, it is possible to impart an elegance normally not associated with a steel building, provided, of course, the architecture is fundamentally well designed. The experimental aspects of the building are to be found in the use of high-tensile steel suspension cables which support all ramps and stairs.

If technology forms the corpus of a building, then proportion, spaces and volumes, and symbolism are its *spiritus*. It is through proportion that we arrive at a visually comprehensible architecture, and through the use of symbols that images may be evoked which connote time and place. Louis Archambault's sculptured mural of Canadian life directs the visitor to the ramp system which provides access to the building. The slow, controlled movement upward takes place over a water court through Norman Slater's vertical garden of suspended metal petals, symbolic of Canada's mineral wealth and into a vast promenade area separated from the outdoors only by means of an eight-foot high screen of alternating amber and grey glass. Illumination has been carefully balanced in order that the various volumes may become clearly articulated at night, with "planes" of light set against "blocks" of light and "spots" of light accentuating such elements as the rotating metal petals.

It is through this controlled exposure to symbols of varying volume that we attempted to impart a sense of Canada.

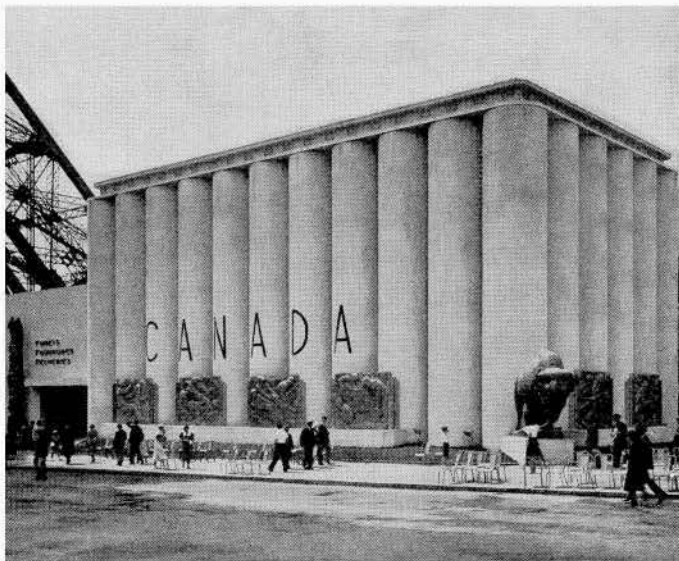


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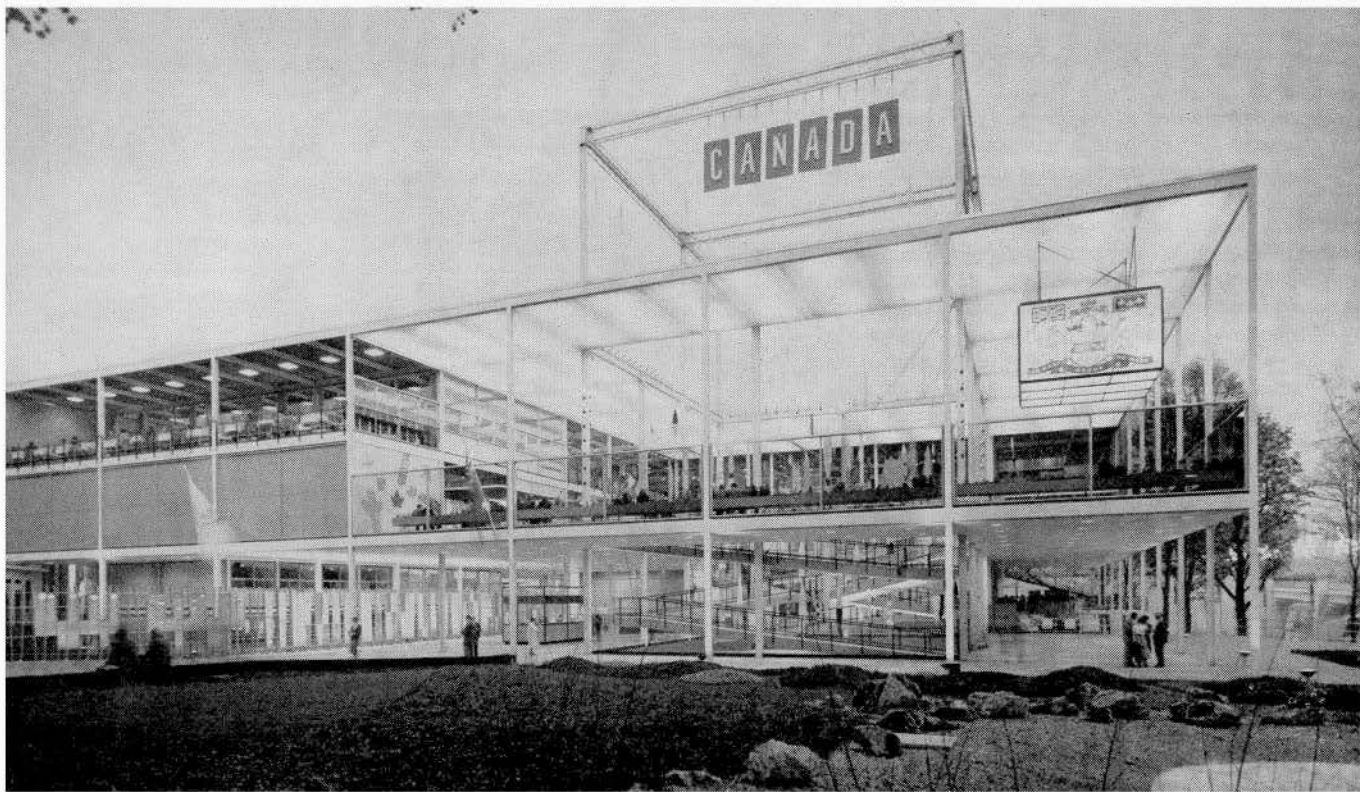
1. Canada in the Crystal Palace, 1851
2. Canada in Milan, 1908
3. Canada in London, 1911
4. Canada at Paris Exhibition, 1937
5. Canada at New York's World Fair, 1938



4



5



GRAHAM WARRINGTON

Main entrance point to pavilion with restaurant at upper left

CANADIAN PAVILION AT EXPO 58

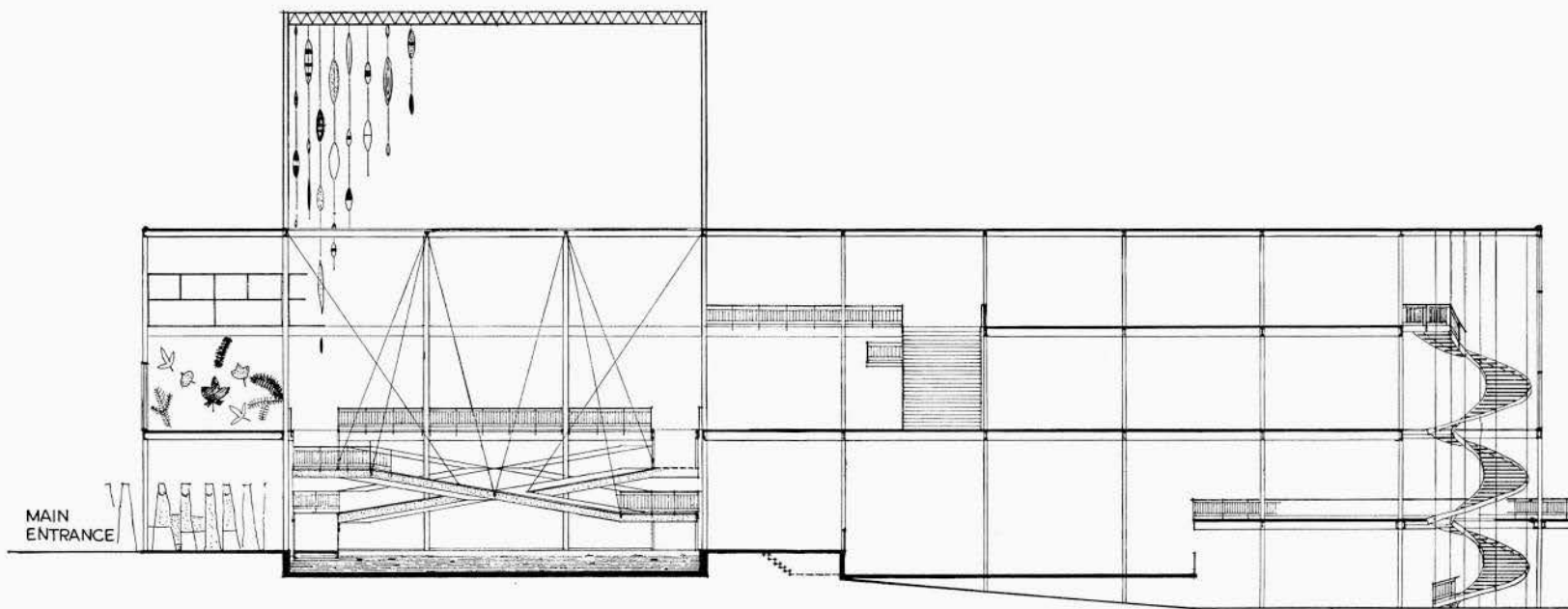
Architect, Charles Greenberg

Consulting engineer, W. Sefton

Entry to exhibition space from first floor terrace

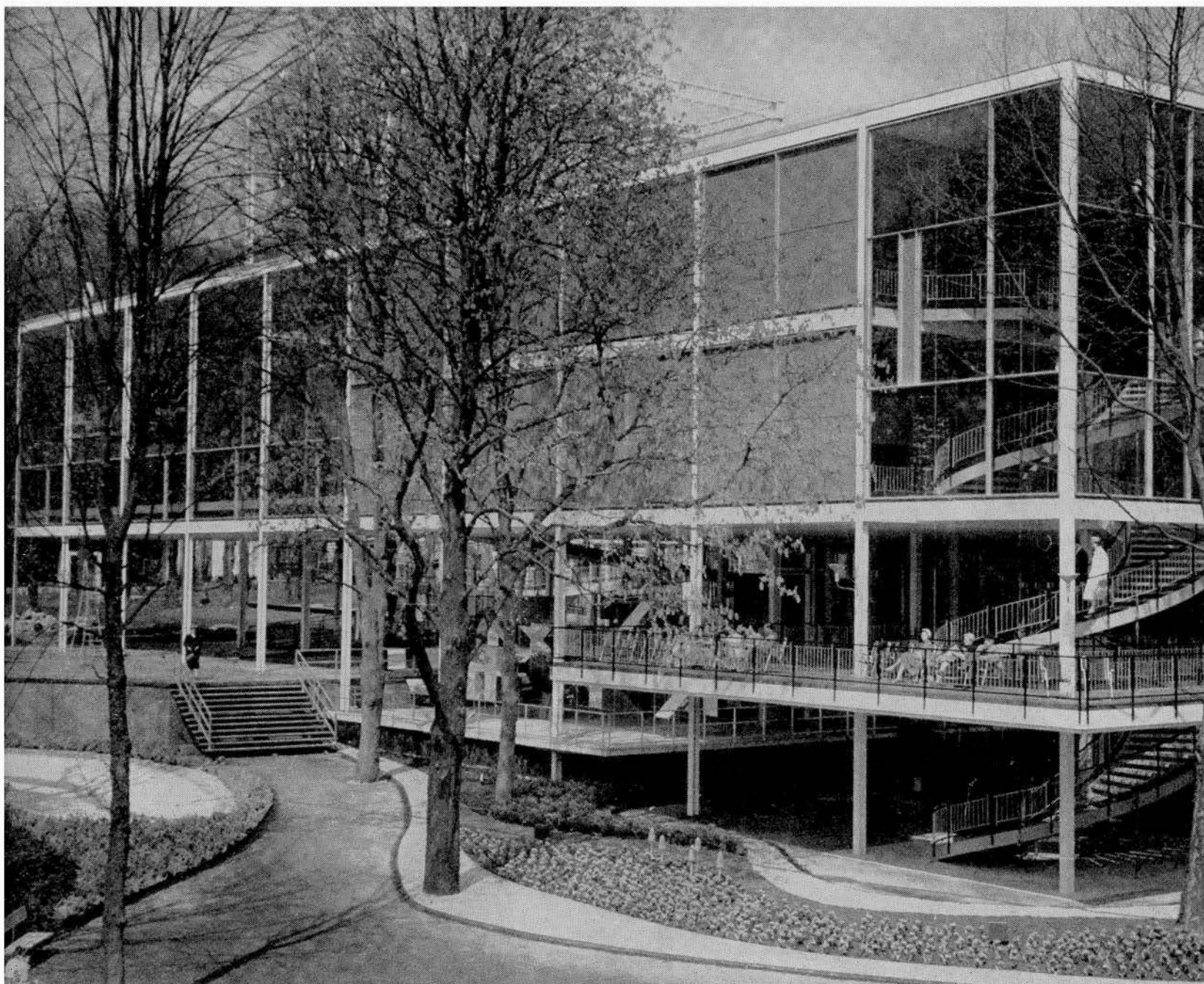
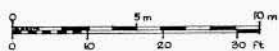


GRAHAM WARRINGTON

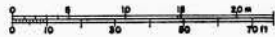
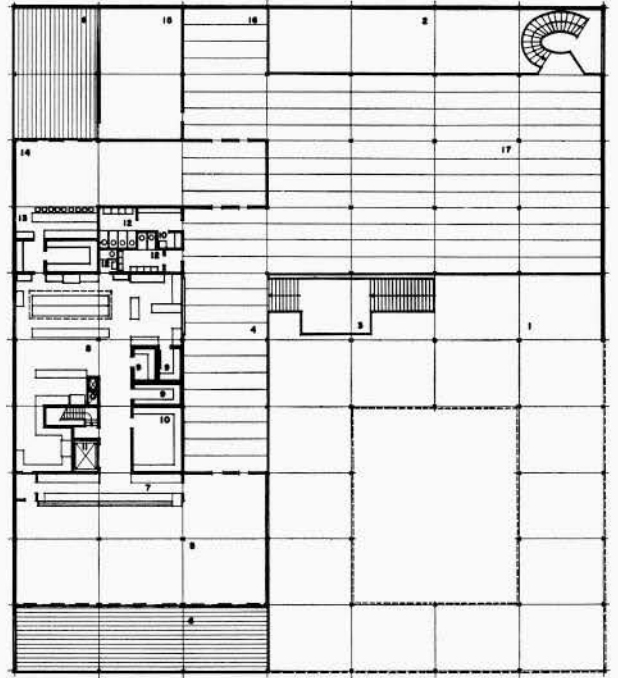
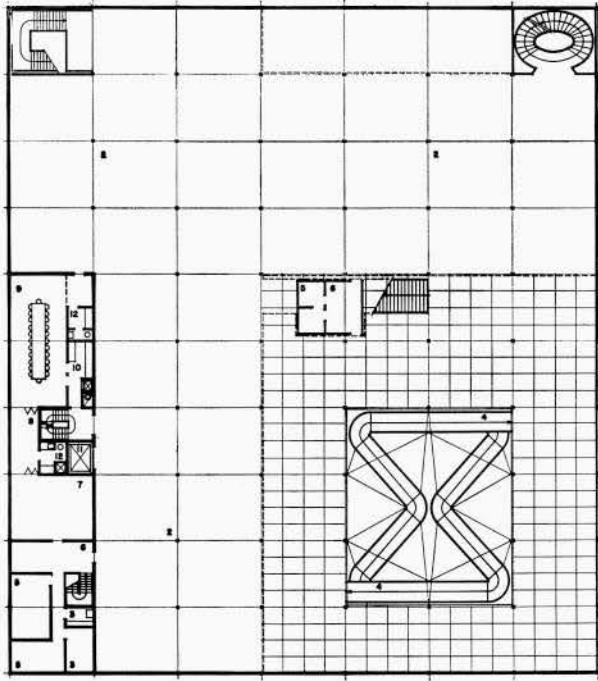


Above, north-south section through pavilion

Below, west elevation



CANADIAN ART



Upper left, First Floor Plan

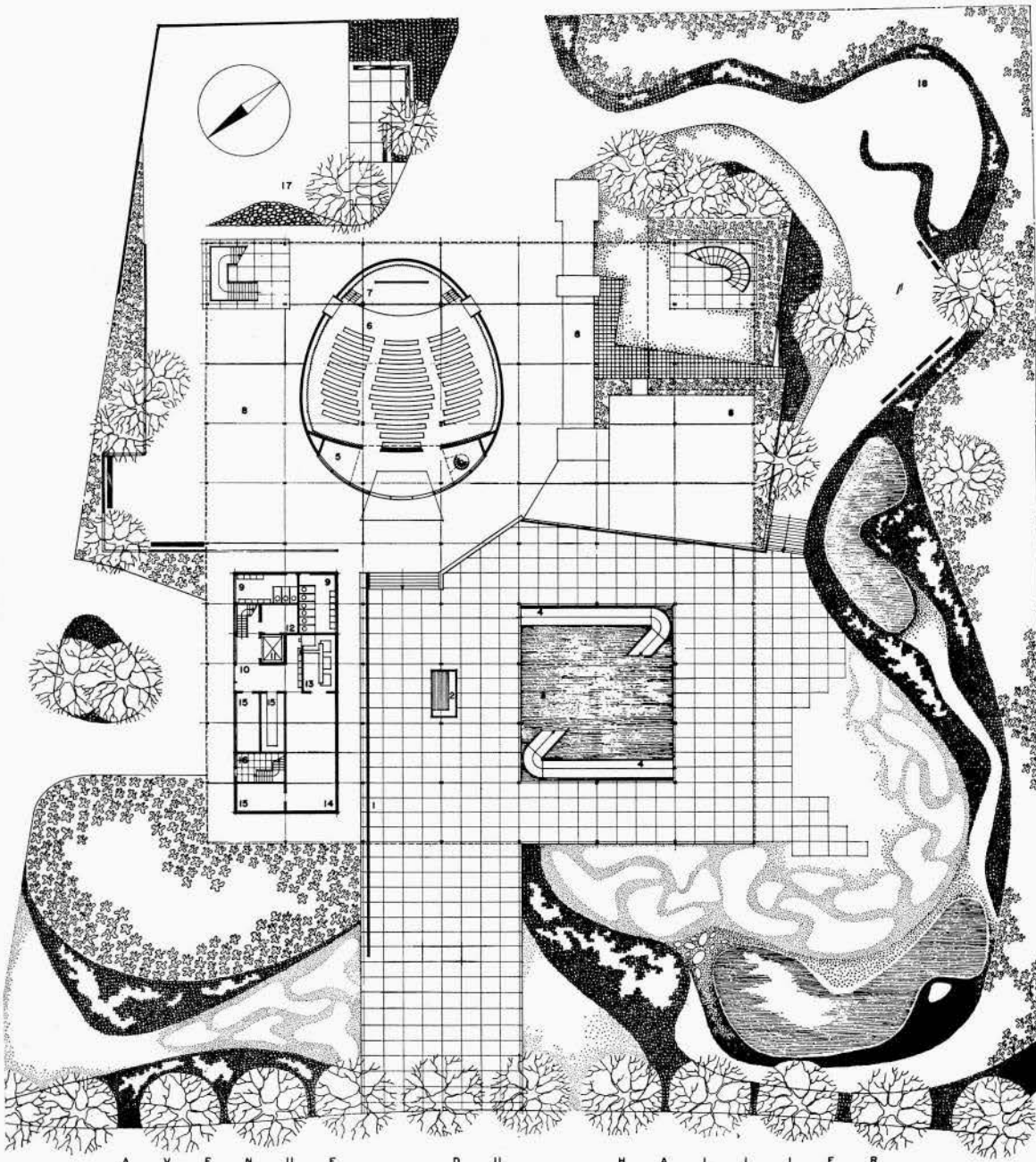
- 1) Promenade
- 2) Exhibition space
- 3) Storage
- 4) Ramp
- 5) Office
- 6) Waiting room
- 7) Commissioner's office
- 8) Ante room
- 9) Dining room
- 10) Servery
- 11) Elevator
- 12) Wash rooms

Above, Second Floor Plan

- 1) Upper part of promenade
- 2) Upper part of exhibition space
- 3) Observation landing
- 4) Circulation area
- 5) Cafeteria
- 6) Terrace
- 7) Cafeteria servery
- 8) Kitchen
- 9) Cold storage
- 10) Storage
- 11) Elevator
- 12) Wash rooms
- 13) Bar
- 14) Cocktail lounge
- 15) Library
- 16) Art gallery
- 17) Exhibition space

Left, Ground Floor Plan

- 1) Mural wall
- 2) Information kiosk
- 3) Water court
- 4) Ramp
- 5) Foyer
- 6) Cinema
- 7) Stage
- 8) Exhibition space
- 9) Wash rooms
- 10) Goods receiving room
- 11) Elevator
- 12) Machine room
- 13) Transformer vault
- 14) Workshop
- 15) Storage
- 16) Office entrance
- 17) Playground
- 18) Rest area

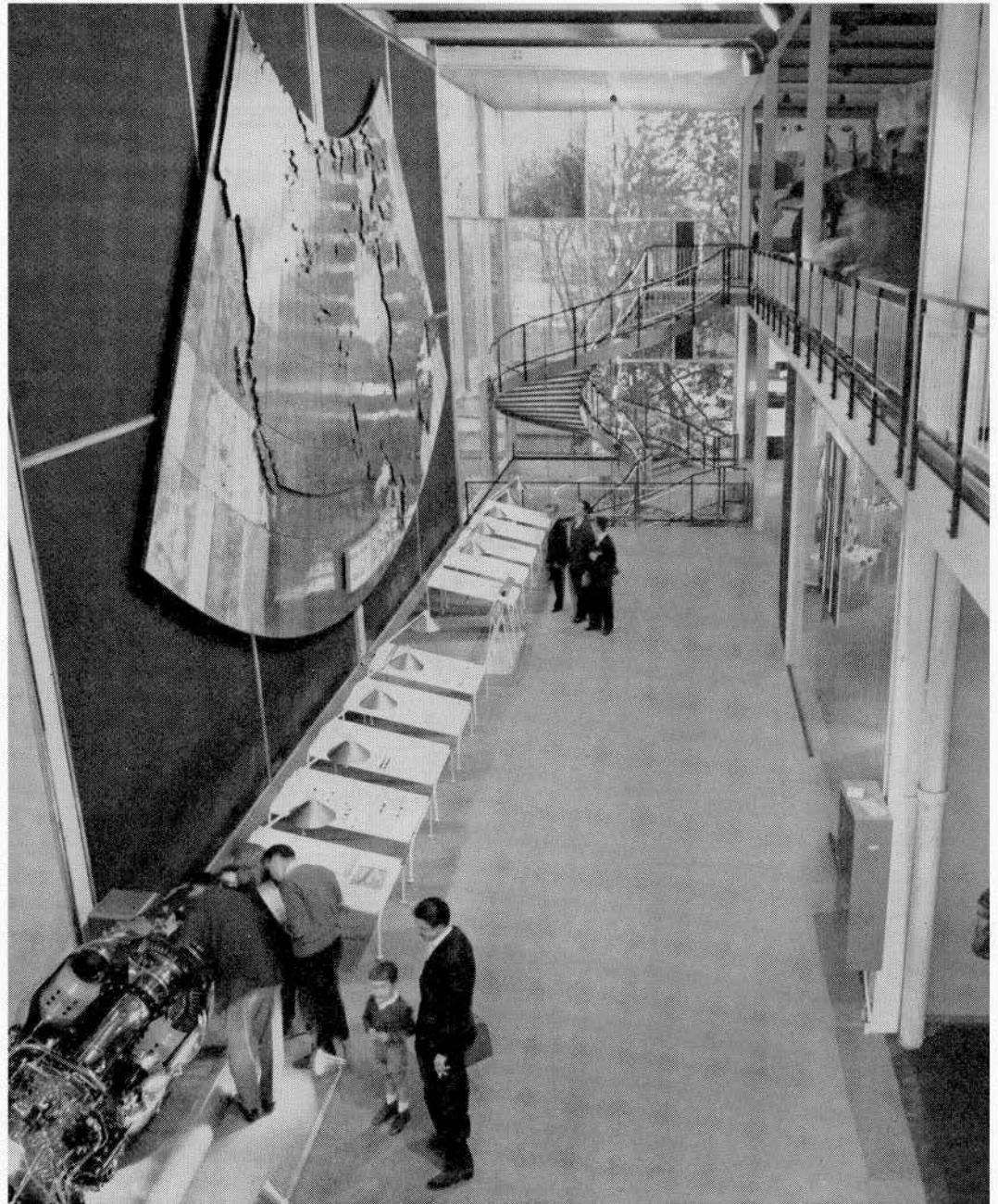


A V E N U E D U H A L L I E R

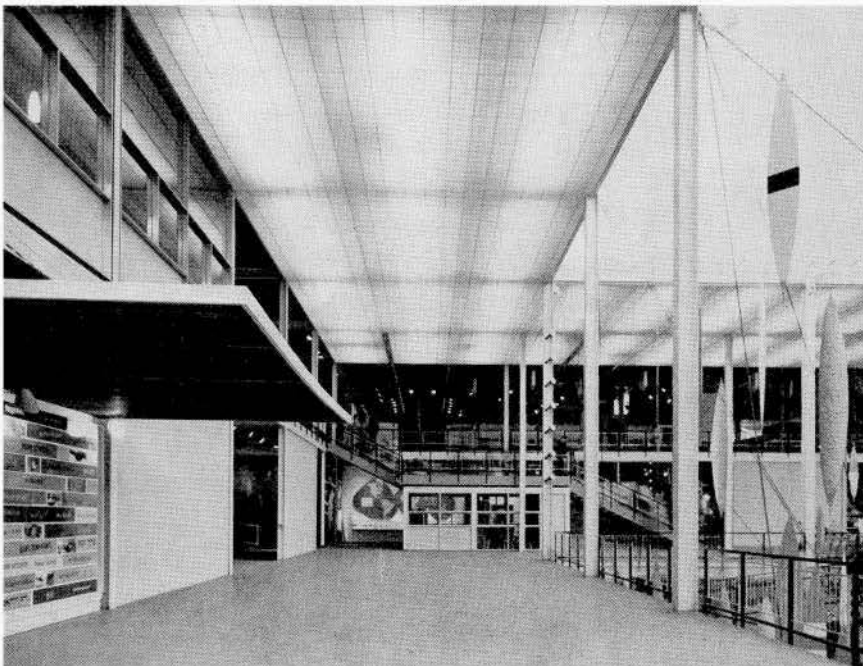
Right, first floor exhibition space, shown as 2 on facing page

Below, first floor terrace with open ramp well at right

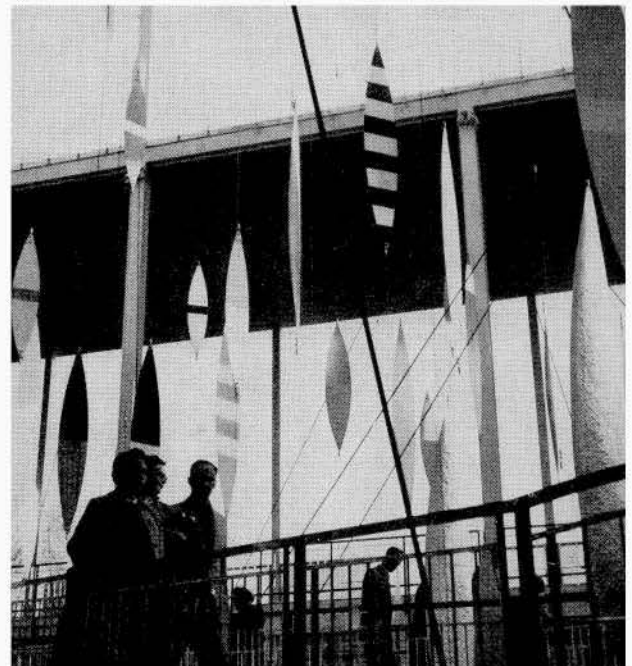
Below right, open ramp well with hanging aluminum petals by Norman Slater, plated and anodised to simulate Canadian metals



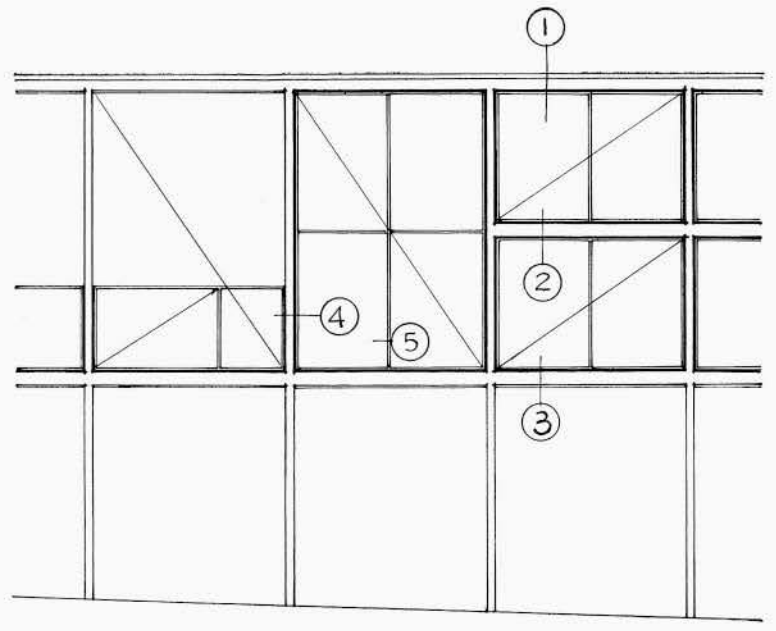
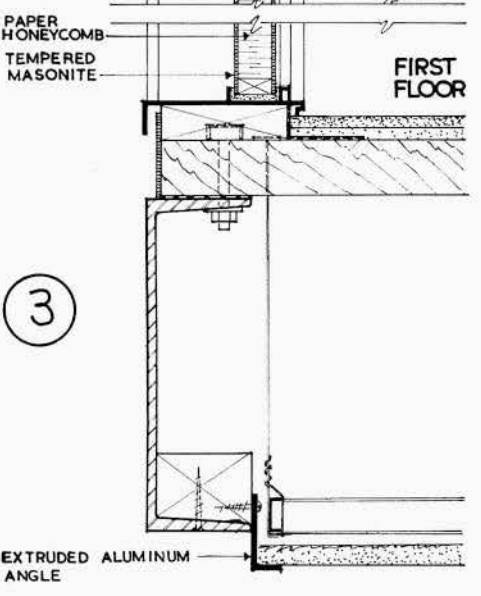
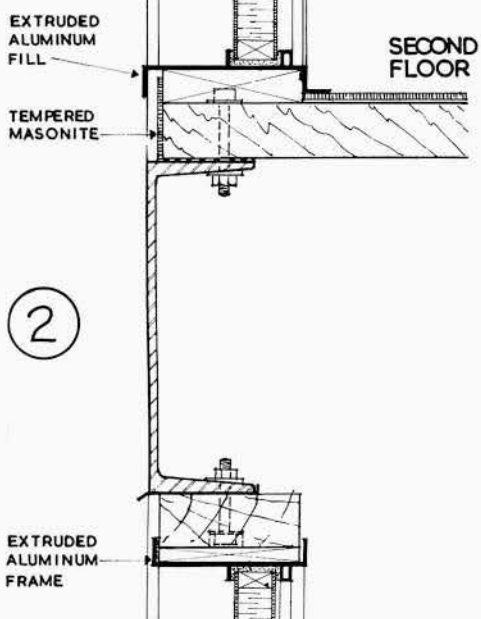
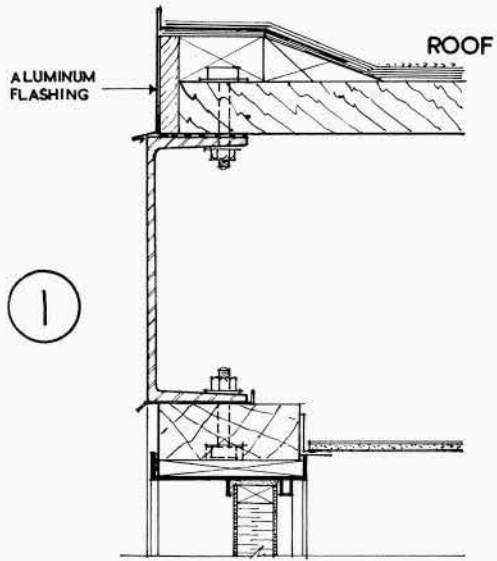
GRAHAM WARRINGTON



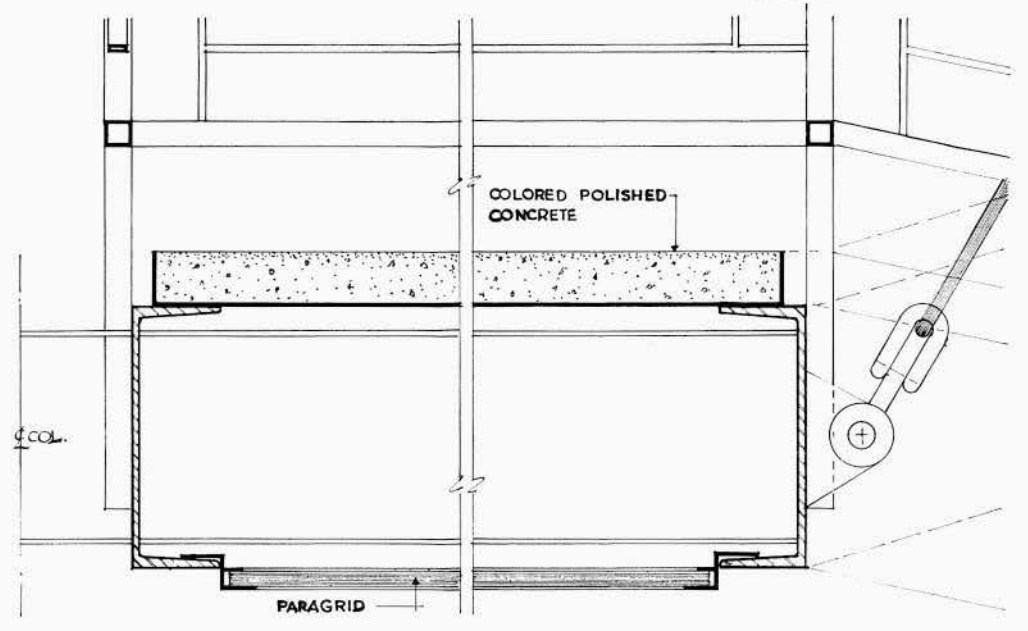
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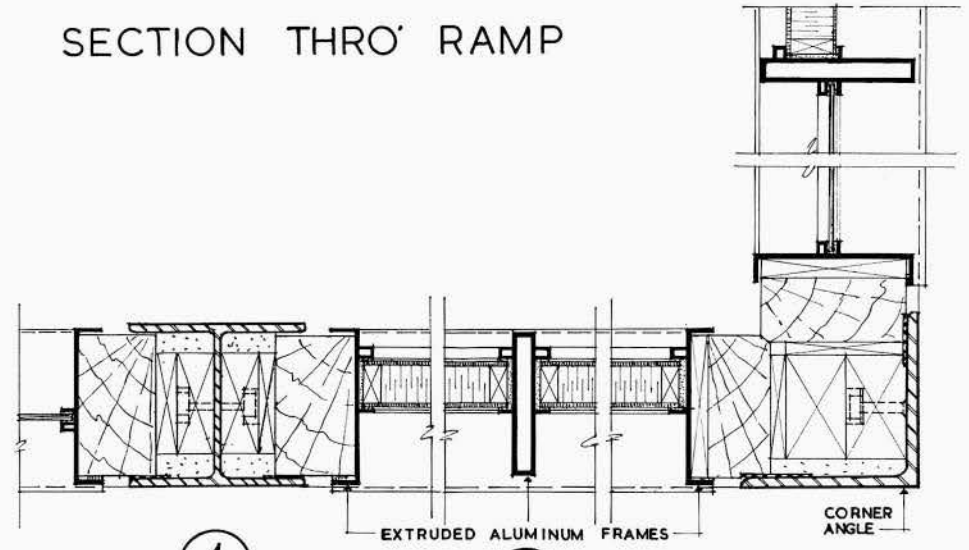
D. W. BUCHANAN



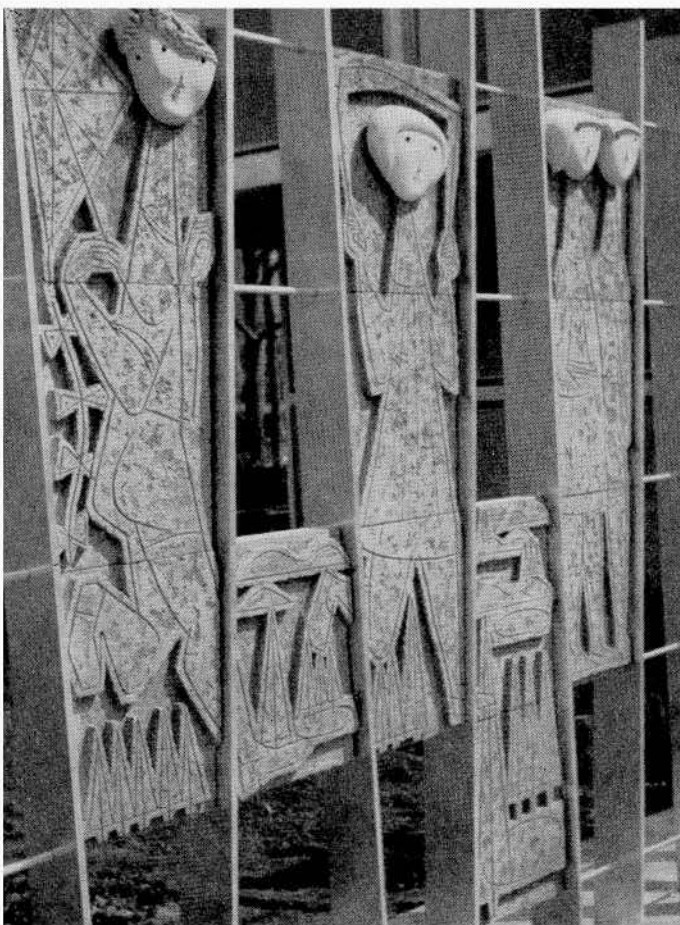
TYPICAL BAY SEQUENCE SCALE 0 5 10 15 FT



SECTION THRO' RAMP



SCALE 0 12"



MALAK

CONDITIONS OF PARTICIPATION : All buildings must be removed including foundations and the whole of the site restored six months after the closing of the Fair.

STRUCTURE : Frame — a bolted steel frame with the outer perimeter connections welded on site for precision in detailing. Floors — Two by three inch laminated balsam and B.C. fir.

CLADDING : 2" thick panel consisting of honeycomb fibreboard with tempered masonite interior and exterior finish. The panel is set into standard curtain wall members, one by seven inch. These members are fixed to blocking which is bolted to the webs of columns and to flanges of beams.

FINISHES : Floors, battleship linoleum; ceilings, plaster painted; exposed timber stained.

COLOUR : Steel, bone white; wall cladding, cobalt blue; cinema wall, plaster painted black with incised line mural reading white. Glass — coloured transparent plate glass is used extensively throughout the building. Colours — amber, smoke grey, steel grey, blue and opaque vermilion.

STAIRS AND RAMPS : All major vertical circulation elements are suspended on approximately one half inch diameter high tensile steel cables. Stairs and ramps are of steel construction with coloured polished concrete tread and landing infill.

HANDRAILS : Black anodised aluminum railings with glass or metal rods as infill.

LIGHTING : Luminous ceiling for the promenade area and under the ramps and observation landing.



GRAHAM WARRINGTON

Above, entrance mural of terra cotta panels by Louis Archambault, supported on Norman Slater's anodised aluminum frame.

Upper right, second floor cocktail lounge. Mural by Mario Merola.

Lower right, exhibition of Canada's forest products.



GRAHAM WARRINGTON

DESIGNING THE EXHIBITS

BY T. C. WOOD

Tom Wood is Chief of the Design Section of the Canadian Government Exhibition Commission; he was an official war artist with the Royal Canadian Navy during the last war.

GREAT WORLD FAIRS such as the one held this year in Brussels are instruments of propaganda by which the participating nations endeavour to express their achievements and beliefs. Baron Moens de Fernig, Commissioner General of the fair, expressed this objective in these words: "We want it to be possible for any one nation to be able to explain to all other nations how it lives, what are its religious and philosophical conceptions, its economic and social achievements. If to govern means an attempt to give a people happiness, then let the nations tell each other just how they visualize that happiness and how they would assure the required material and moral conditions. Nations invited to Brussels in 1958 will be asked to underline the human aspect of their contribution to the economic, social, cultural and spiritual order."

Work began on the Canadian participation in 1955, three years before the fair was to open. The organization directly responsible for its planning and execution was the Canadian Government Exhibition Commission of the Department of Trade and Commerce in Ottawa. A special interdepartmental committee of senior civil servants was set up to guide and review all aspects of the work in progress. The Canadian story was divided into three sections: subjects related to physical resources and industry, those dealing with social and economic aspects and finally cultural activities. Under these headings were grouped 23 separate exhibits; to each was assigned an advisory committee to establish its theme and content. These committees included representatives from private organizations, industry and government, chosen from across Canada.

Many aspects of the general plan were dealt with before the formation of the advisory committees and were independent of them. Basic aims had to be defined, and aesthetic principles worked out. Budget allocation was also an important

first step, since this would ultimately define the relative importance of each part of the whole. Gradually, from broad and necessarily vague beginnings, planning became more concrete and positive.

The Pavilion itself began to take shape on paper, with known characteristics around which the exhibits could be planned. It had evolved logically out of a combination of aesthetic and economic factors which resulted in a crisp, open and exposed steel-frame structure which presented both advantages and disciplines for the exhibition designer: both building and exhibits had to live in harmony with each other; they could not conflict.

Before detailed designing could begin on the individual exhibits, broad planning had to be done in order to arrange the areas in their proper "story" sequence, and to establish their sizes according to their importance. Traffic flow also had to be worked out at this time. With an estimated audience of forty million visitors, one-tenth of whom according to normal exhibition averages could be expected to walk through the Canadian pavilion, it was essential that no bottle-necks occur and that visitors should see first things first, but without being aware of any imposed control. A maze-type plan was agreed on, which had diversion points at frequent intervals. Traffic was encouraged to follow a logical route. But if individuals were tired or had seen enough, they could either sit and relax or leave easily.

The staff designers of the Exhibition Commission as well as designers from private firms developed the initial concepts of the displays, with individual designers given particular areas or subjects to work out. This had the advantage of providing a change of pace and flavour from exhibit to exhibit, yet it also held the danger of creating disunity, particularly between designs worked out in different cities. Unity was achieved through the standardization of colours and lettering styles and, most essentially, through the working drawings which were all done by the Exhibition Commission. These fulfilled a further purpose: the production of most of the exhibits was carried out by firms who were awarded contracts for particular exhibits on a competitive three-bid basis, following the normal procedure for government contracts. Thus, in order to achieve consistent quality, fully detailed working drawings had to be provided.

Exhibition design involves many skills which, in some respects, are similar to those required by documentary film-making. The scholarly papers submitted by the advisory committees had to be transformed into scripts which took into account the limitations of the medium. It was the designers' job to bring the scripts to life, to develop the general mood required and to determine which methods, such as models, animation, dioramas, film strips, graphic panels, and so forth would best convey the message. With the general design of an area established, the script writer then wrote final texts and selected photographs from which graphic designers made layouts. Models and renderings were made to show how the completed exhibits would look. Finally, draughtsmen made the working drawings. With the exhibits in production, other skills came into play; carpenters, machinists, electricians, painters, typographers and artists all contributed to the final effect. Aside from the exhibits themselves there were offices, a restaurant and buffet, a cinema, rest areas and a playground to be planned, equipped and furnished; grounds to be landscaped, guides' uniforms and badges to be designed; a comprehensive souvenir book and a simplified spectators' guide to be designed and produced. As displays were completed in Canada they were coded and shipped abroad in large containers and the job of assembly began on the site. Three years after the first planning began, and a year after construction began on the site, the Canadian contribution to the Brussels World's Fair approached completion. Canadian artists and technicians worked alongside Belgian workmen in the race against time and weather to be finished on opening day. April 17 dawned cool and clear with the Canadian Pavilion ready to welcome its international guests.

Canadian pottery and handicraft display

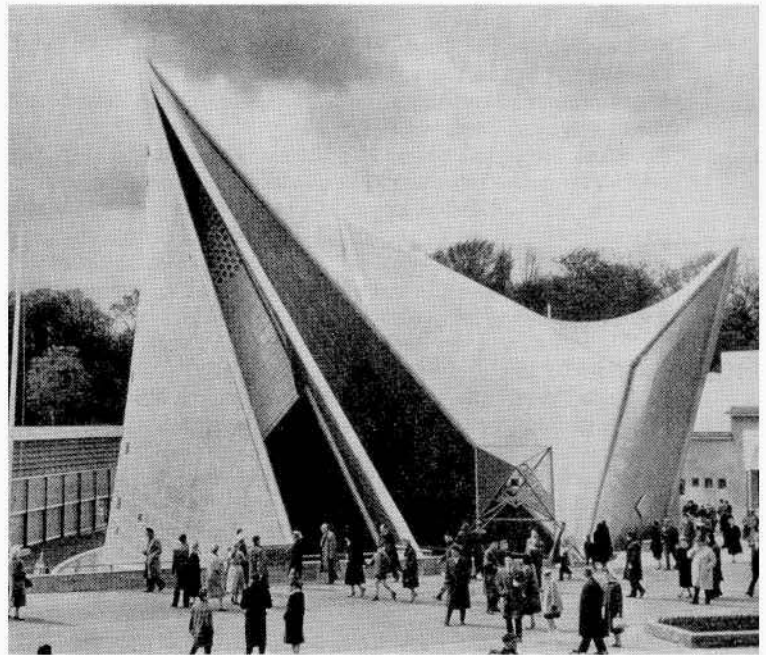


GRAHAM WARRINGTON

THE BEST ARMOUR against the shock caused by immediate impressions of the Exposition is an early visit to any departmental store in Brussels, l'Innovation, for instance. There one finds oneself amidst a planned confusion of narrow aisles and a motley array of suspended merchandize, price announcements and sales drives; it required two trips to the store before we succeeded in finding an information desk hidden modestly in the corner behind a clutter of revenue-producing goods.

One is thus prepared for a fairly similar confusion of the exhibition grounds. Except for two grand avenues, l'Esplanade and Avenue de Belgique, both converging into the Governmental centre, much the greater part of the Exposition has been arranged, it seems with the sole regard of getting the maximum possible exploitation out of an available space. Sign-posting is meagre and unreadable, information difficult to get and the guide books incomplete. The apparent absence of a Grand Plan is all the more regrettable to anyone who tries to enjoy or evaluate the architectural quality of individual buildings. The Vatican pavilion, one of the many surprises of the grounds, does not gain by being wedged in between the American pavilion and the elevated Avenue du Belvédère. The full effect of the masterpiece of Guillaume Gillet's French pavilion becomes seriously impaired by the same Avenue which cuts obliquely into the dynamic outline of the structure. The axial solution of the foreground of the American pavilion appears cramped and lopsided. And yet, the Exposition site, the richly timbered, undulating ground of the Park Heysel could not be improved upon; it offers cool vast areas and green oases to breathe and to rest in; gives buildings a beautiful backdrop and isolates pavilions from their neighbours. Unfortunately, by the sad trick of fate, the benefit of the isolation which would be highly welcome for the crowded sector of Belgian industries, was mostly reserved for the international group, for buildings possessing the greatest coherence in form as well as in concept: Germany, Portugal, Yugoslavia, to mention only a few out of many.

It soon becomes an interesting exercise for the visitor to follow the plan of the Exposition, which in its diagrammatical form does show a high sense of good planning and deep respect for the topography of the site, and see how the clarity of the plan is mutilated by three-dimensional structures superimposed over it. It is inherent and inevitable in all major expositions that the unity of the whole tends to be destroyed by the sheer exuberance each designer reserves for his own creation. Yet, given the same idiom of architectural language, reinforced with at least a minimum of co-ordinating guidance, the regrettable clutter of, say, Porte Mondiale, could have been avoided. The shrill dissonance produced by four buildings, related to each other in oblique manner and each possessing its own distinctively characteristic outline in direct opposition to its neighbour, resulted only in creating an effect of a chaotic group almost destroying the fairly generous plaza they all shared. Standing in the middle of the plaza we ruefully remember a lesson offered by a square we left only a few hours ago — la Grand-Place. There are many similarities between these two squares. They both are of identical size; they have the same number of streets or lanes converging into their centres in almost identical manner; they both have been filled with structures conceived by men of various schools each trying to impress his own idea of a personal style on his creation; like the Exposition square, the roof outline of the town square undulates without any apparent logic; la Grand-Place possesses an additional handicap of having the weight of five hundred totally dissimilar years in building, destruction and re-construction. With it all, this heart of Brussels is a wonder, a miracle of organic unity, a rich theatre and, at night, an Ode To The Vision Of Man; the square Porte Mondiale on the other hand stands barren, a stump of a dead tree, a hollow space.



LeCorbusier's "Poème Electronique" for Philips

However, if the Exposition lacks unity of form it unquestionably does not lack unity of spirit. It is the Exposition of our time, both in form and in the content of the buildings. The motto and the purpose of the EXPO '58 (unity of mankind based on respect for human personality) has been well presented and successfully expressed, though two pavilions have to be excluded with some reservation: the Russian pavilion (the only thing it conveys, despite the rich nature of its display, is the oppressive idea of being shut in) and the industrial pavilion of the British sector (John Bull getting twenty-two shillings worth out of every pound spent on rentals. But, Britannia in the nave of the neighbouring Temple hung her head in shame.)

The spiritual unity of style may be taken as the best feature of the grounds. Some regret may perhaps be felt about the complete absence of a shock (in the architectural sense) one is prepared to meet before entering any major exposition. Much of it has been done before. Paul Cret's building and its variants of the Chicago exposition have been replanted into the Government and the industrial sector, Place and Avenue de Belgique. Finland, Norway, Czechoslovakia brought nothing new from New York's exposition. Brazil repeated herself. Domes and inverted parabolic roofs have become today's vernacular. The second most dynamic building of the grounds, the Civil Engineering building, does not add anything new to our knowledge of the balanced concrete cantilever principle. The stunt of the Expo, LeCorbusier's Phillips pavilion, was cursed with bad luck from the start and soon became a joke even for the French who, quite naturally, were biased in their evaluation of the national participation. Long before the gates opened LeCorbusier, with his accustomed modesty, declared publicly his intention of creating "an electronic poem of movement, colour, light, and sound, all integrated into one pavilion-poem." Unfortunately, the resulting masterpiece, the shape of a tent in state of deflation, remained a total mystery to all visitors, despite the almost daily-repeated announcements of the formal opening. Even as late as twenty-six days after the gates of the Exposition opened le Figaro felt the need to write a mildly sarcastic article asking wistfully whether the public will ever be able to enjoy the creation of the genial inventor who essayed to write "a poem which cannot be read set to a tune which cannot be heard."

It has been said already that an allowance must be made for disorder, an inescapable essence of all major expositions.

However, it is still possible through affinities of various groups to classify the buildings of the Exposition into four broad categories:

1. Monumental or semi-monumental buildings; mostly the contribution of domestic sources.
2. Glass boxes; e.g., roof and floor slabs connected by glass wall; largely the international contribution, though the official Transportation Pavilion has gone a step further and eliminated the wall altogether. In nearly all cases they became the most adaptable and the happiest solutions of the exhibition design problem. Yugoslavia, Germany and Japan taking the lead with Austria following very closely. Israel offered a slight variation to this group and produced, in the interior, one of the most unified solutions of a State display.
3. Free Form; almost endless variety of experimental shapes. Butterfly roofs over trapezoid plans; hyperbolic paraboloids; domes with four or five point anchorage; trapezoid steel frames carrying low slung flat roof with steel wires; inverted umbrellas; diamond-walled cylinders. The interior of the American pavilion should be included in this category; whereas the exterior presents a rigid semi-classical front, the interior solution transforms the mood into one of happy merriment. The roof, all in tension, with unseen structural wires carrying a huge drum opened to the sky, and below it a complete freedom of spatial solution of the ground and mezzanine floor's display was a genuine surprise as well as a lesson. The astonishing ease with which the difficult problem of staging square exhibits in a circular enclosure has been solved, represents a distinct advance over the Dome of the London Festival.
4. Stunts; LeCorbusier previously mentioned. Atomium, a structure which cannot be judged by any architectural criteria (huge metal tubes converging to and streaming from aluminum globes which contain a few meagre exhibits, a beer parlour and, atop, a restaurant where a single meal will take twenty dollars out of the visitor's pocket); Civil Engineering building, impressive not because of the principle applied but by its sheer size; and the French pavilion which will be the subject of many heated debates for many months to come. The airy lightness of the early model and as seen from a distance of not less than 200 ft. changes into an awkward, heavy clumsiness once one stands directly at the gates. Entering the pavilion one becomes aware once again of the gap, the tragic struggle between a concept of an idea and its ultimate execution. Twenty-odd feet from the entry the structural supporting core dominates everything else; a huge mass of concrete and metal anchorage, steel tubes, girders, beams, guys and wires succeed in overpowering the rest of the interior. And yet, it is exactly this element, the appealing tie-up between the exposed brutal machinery of the structure and the graceful interplay of display spaces which brings out the power and the charm of the pavilion. We tend to sympathize with the sorrow of the creator who, in a later stage, had to abandon the daring idea of a one-point prop for the whole building and seek more conventional means; the already finished core thus remained mostly a symbol of his intentions.

Canada is well represented on the whole. The pavilion registers very well from the elevated Avenue du Belvédère. Suspended, freely rotating fins in the courtyard give life and sparkle to the ramped approach though they are wont at times to emit an eerie sound as they strike the metal railing and though they are the cause of occasional closing of one of the ramps to protect the public from injury. It is a pity though that parts of the galleries must have shunned the natural daylight; the gloom of the interior and the static, angular character of display materials suffer badly by comparison with the neighbouring Czechoslovakian pavilion, where the abundance of natural daylight provided by two huge glazed walls further enriches the cleverly conceived free flow of delightfully inventive displays.

The Vatican brought to the grounds two chapels, the Grand Chapel of light and colour, and the small catacomb-like chapel, a veritable gem with a magnificently sculpted stuccoed ceiling.

The most vividly remembered items of the Exposition are: the richness of landscaping; lane of dwarf beech trees magically illuminated at night; the deeply sunken pool within a stone's throw from the Canadian pavilion; the coolness of woods; the Dutch garden; interiors of Swiss hexagons; suspended sheltered walks connecting German pavilions; the moving sea of the Dutch pavilion. It is to the credit of Germans and Austrians that they were the only ones to offer the public open-air seating isles without forcing the public to spend a penny for the privilege.

The wealth of the information contained in every pavilion deserves special commendation. One exhibit alone is worth the trans-Atlantic trip: the "Fifty Years of Modern Art" in the Beaux-Arts building is the most complete presentation of successive trends in our century. I cannot remember a better or more convincing demonstration of abstract art unless it is the Guggenheim collection at present in Paris.

It is a great and useful lesson that comes out of the EXPO '58. The searing questions about the merit of international architecture; about the quality and ethics of design were given a public airing. In all hundred-odd buildings on the grounds there are a hundred-odd architectural solutions. It is good to have these solutions side by side and meditate upon the prospective life value of each design.

The idiom is rich but we are not sure of ourselves nor of our ability to use the idiom in the right manner. We change our styles with supersonic speed, rarely at ease and never completely satisfied with our creations. "What heart can be so sure of itself" asks Eugene Fromentin, "as to guarantee that no feeling of regret will slip between resignation, which depends upon ourselves, and forgetfulness, which can come only with time." The battle for the expression-of-our-time rages on and we who are in the midst of it are likely to identify resignation with treason and join others in writing ponderous paragraphs for or against the dead-end trap of the curtain wall . . . "The truth is," writes J. Robert Oppenheimer, "that this is indeed an eclectic world. We live too variously to live as one. Our histories and traditions are both bonds and barriers among us. Our knowledge separates as well as unites; our orders disintegrate as well as bind." Strolling through the grounds we incessantly reassess our past practices and re-assert the far more important ethical-aesthetic problem of neighbourliness, i.e. the self-imposed discipline in adapting any structure to its environment. The most glaring and frightening example of architectural myopia has unfortunately been perpetrated in the very heart of Brussels where the official information centre of the Exposition was erected in the Place de Brouckère. A two point anchorage, stretched skin inverted parabolic barrel roof, soaring over a diamond plan, sprawls in the second-most cherished square of the city, defying arrogantly all the surrounding buildings, completely unfunctional and wasteful for the purpose, and capping the injury further with the insult of preventing the populace and the tourists from enjoying the sight of the milling crowd as they sit in the café-terrace.

IMPRESSIONS OF THE FAIR

BY DONALD W. BUCHANAN

Reprinted through the courtesy of CANADIAN ART.

IF ONE IS WILLING to grant any basic reality to such an essentially ephemeral *tour de force* in architecture as a world's fair must by its very nature be, then the Universal and International Exposition of Brussels deserves some profound study by those who profess to be able to trace a relationship between architecture and the social culture of nations. Considered as a whole, the architectural expression in this exhibition is most eclectic; for no one style or purpose is dominant. There are bits and pieces of everything; some strictly engineering feats, as the French pavilion, others gems of pure architecture, as the Yugoslav pavilion; some impressive for their vulgarity, as the Belgian industrial pavilions, others suffering a little from over-refinement, as the Austrian pavilion.

There is variety enough. There are the sharply defined blank walls of the chapel of the Vatican State, which, in their thin whiteness, look like gigantic paper cut-outs. There are the preciously conceived triangles and quarter-sliced cubes of the United Kingdom pavilion. The United States has tried, by means of a slightly domed canopy and curved concrete grille-work, for circular spaciousness. However, having achieved this, it then wastefully devotes the vast inner area of its pavilion to a beach pool, down to which there sweeps a prodigious ramp employed solely for "hour-on-the-hour" parades of mannequins in Vogue fashions and bathing suits! Russia, inside an all-glazed, factory-like sheathing, provides elbow room for a monumental approach to replicas of Sputnik I and II beneath a colossus of Lenin. The best part of the American exhibits are their side alcoves full of imaginatively conceived displays about life in the United States. As for the Russians, they have crowded their mezzanine floor with ill-assorted goods of what we in the west used to call "bourgeois" style.

Canada, as befits a middle power, is neither scientifically ostentatious as are the Russians nor open-handed in design as are the Americans. The Canadian pavilion stands firmly overt in rectilinear righteousness enlivened by strong colours. Its large upper floors are furnished with a multitude of seriously presented factual displays, each of sound design and character; but there are too many of them, with too many explanatory texts. The appearance is gay but the content too chaste. Its imposing and pleasantly presented entrance court and ramp, with its hanging metal forms by Norman Slater, looks lively and dramatic when crowded with visitors on a sunny day. To sum up, our pavilion was almost a success, but not quite. And the profusion of signs in and about the pavilion describing its "Petite Alouette" restaurant, which was really not Canadian at all but a continental venture run under contract by a local Belgian *entrepreneur*, made one sometimes wonder if the pavilion merely existed to advertise the restaurant.

There is something about bigness that does not seem to go with beauty. The larger the space appropriated, the larger the budget, the larger the country, the less aesthetically satisfying the result. At least, that seems to be true here in Brussels. The smaller pavilions tried to say less in less space, and they were thus more often able to achieve a happy unity of expression between displays and architecture. A good example is the interior of the Norwegian pavilion. Here the architect himself had been placed in full control not only of building construction but also of the design and content of the exhibits. He has created groupings devoted to nature, industry and art which, while independently spaced, are yet harmoniously linked in open areas against backgrounds of sharp northern whiteness. The Yugoslav pavilion, the work of a young Zagreb architect, is graceful and open in design. Its almost classical balance of

terraces, stairways, inner pools of water and parterres of turf and flowers is enhanced by the contrasting textures of various stone surfaces, metals and woods. Original sculpture is liberally displayed. The social and economic life of Yugoslavia is left to tell its own story in a few, far from blatantly contrived, photomontages. West Germany presents a perhaps too perfect geometrical purism of expression in the connecting rectangles of glass and steel which form its building. This is modern design in its coldest, almost aristocratic essence. One admires but is not attracted. Glass and steel is used with less genius, perhaps, but with more amiable leniency in the Turkish pavilion. Here all is space and light, with unity achieved by a gay oriental mosaic wall running through the two separate structures of the pavilion and joining them. Spain opened late with an austere structure based on a combination of octagonal forms, applied everywhere. Switzerland is best for exhibition techniques. Each room in its rambling pavilion has one statement only to make and this is always made by clear, unfettered, visual means.

The only really large pavilion that had a close-knit integrity was that of the Netherlands. It was on several levels round a courtyard in which a machine in a great pool produced real waves which beat with sound and fury on a massive dike. The whole theme was one of the struggle to preserve the land from the sea. Into this theme, the story of the life, culture and industry of the people was woven. The Japanese did equally well in a smaller space, by taking the Japanese hand as a symbol and by linking the skill of the hand to objects of grace and precision.

The materials employed in construction varied greatly. Steel and glass and aluminium were the norm, of course, but there were also several ingenious efforts in reinforced concrete of which the most interesting is a small theatre designed by Le Corbusier. Wood was used less freely, except in the all-wood Finnish pavilion. But wood textures are frequent in some displays, especially the Italian, where there is much iron and wood combined in strong patterns with a sturdy masculine feeling for textures, especially against brick backgrounds.

From the outside the architecture of the Mexican and Brazilian pavilions is of little interest, but the interiors are superb. The Mexican presents arts and crafts, ancient or modern, in ingenious ways. The Brazilian, on a sloping site, offers a great curving ramp sweeping downwards to an enclosed tropical garden. The walls alongside the ramp have photo murals that are at times memorable in their pictorial splendour.

Noted artists of each country had been used, sometimes in special commissions, as Steinberg for a mural in the United States pavilion, Appel for a curved ceiling in the Netherlands section and Archambault for a long terra-cotta wall in the

Yugoslavian Pavilion. *Architect, V. Richter*





CANADIAN ART

United Kingdom Pavilion, Architects H. Lobb and Partners and John Ratcliff.

Canadian building. More often existing art has simply been borrowed for appropriate display, as with the Pre-Columbian sculpture, brought here with great difficulty from distant areas of Mexico. The United Kingdom shows outside its pavilion sculpture by Henry Moore. The French display their art not too effectively, almost carelessly, except in the building of the City of Paris, which has true elegance. Of the commissioned mural paintings the best are perhaps in the Israel pavilion, which has two, which are powerfully delineated on the related but separate themes of tribulation and work. But the one by Mario Marola in the lounge of the Canadian pavilion comes high on the list. A Texas millionaire has already asked if he can buy it, dismantle it and take it to Dallas. As for the Belgian artists, their talents were freely used for murals and sculpture in the large areas devoted to private and public exhibits presented by that sponsoring nation. If the Belgian buildings themselves had been in less commonplace taste, their artists might have showed up better. But on the whole, the less said about the display and building efforts of Belgian architects the better. Some of their experiments prove, at least, that any kind of eccentricity is possible if you want to use modern materials and construction for startling but ephemeral purposes.

**L'ARCHITECTURE A L'EXPOSITION UNIVERSELLE
BY JACQUES DE BARY**

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UNE PART DE l'attrait d'une exposition vient de son incohérence. Pas d'ordre, pas d'Urbanisme; chaque pays, chaque ministère, chaque entreprise a pris son terrain et l'a rempli de son mieux, se moquant du voisin, du cadre, de la perspective et même de l'échelle. D'ailleurs, le meilleur de ces bâtiments ne sert à rien. Du prétexte d'une halle ou d'un abri naît un objet inutile et chargé de signification, un symbole. Et l'exposition devient une confrontation géante de sculpture à l'échelle des foules.

Confrontation d'autant plus intéressante à Bruxelles que l'esprit général y est "vingtième siècle". Presque pas de "palais" hérités de l'avant-guerre officielle; très peu de folklore — la plupart des pays l'ont senti comme une facilité. Chacun a voulu donner de lui une image optimiste, techniquement audacieuse et tournée vers l'avenir.

L'Exposition de Bruxelles est la première dans le monde depuis celle de San Francisco (1939), la première en Europe

depuis celle de Paris (1937). Elle se retrouve sur le même terrain que celle de 1935, au parc du Heysel, à sept kilomètres de la capitale. Elle est desservie par l'autoroute de Liège, de larges avenues et un immense système de parkings. La capitale belge a, pour l'occasion, refait l'ensemble de ses circulations intérieures (avenues se croisant à double niveau, rampes d'accès, ponts), profitant du réseau de promenades qui en faisait la ville la plus aérée d'Europe. Elle a transformé ses tramways, créé de nouvelles lignes d'autobus, remis à neuf ses gares qui sont des modèles du genre. Une organisation matérielle fantastique a été mise sur pied au service du visiteur, que des hôtesse vont accueillir dès leur arrivée en Belgique. Un système électronique réserve les chambres d'hôtel. Une armée d'interprètes bénévoles circule. Des autobus sont même prévus pour transporter les visiteurs de leurs voitures jusqu'aux portes d'entrée; et à l'intérieur, un télésiège permet de circuler sans fatigue.

L'exposition proprement dite est consacrée pour moitié à la gloire de la Belgique. Quatre grands halls rénovés et transformés, complétés par un cinquième et reliés par un vaste bâtiment au nord, en forment l'élément massif d'entrée. Un immense volume d'accueil, avec toutes sortes de services, est flanqué d'ensembles consacrés au tourisme, à la presse, aux sciences, aux arts, à la santé, aux sports, à l'éducation, au commerce, à l'économie. Au sud, un auditorium et un musée des Beaux-Arts délimitent une place officielle et l'esplanade des grandes manifestations publiques, axées sur la tribune royale.

Cet ensemble massif autour des bâtiments qui servent chaque année aux foires-expositions est grandiose, médiocre et pompeux. Les camouflages "modernes" qui déguisent les halls d'avant-guerre s'accordent dans la prétention aux palais neufs et au portique royal — peint en rouge pompéien. Le comble est apporté par l'aménagement "au goût du jour" du grand hall d'accueil. A l'extérieur, une parabole maladroitement dessinée semble pencher du côté d'où on la regarde. A l'intérieur, l'immense serre vitrée de 80 mètres de portée a été fermée d'une voûte parabolique entièrement sombre. On ne peut imaginer plus belle affirmation de l'esprit de réaction.

Le reste de l'exposition est heureusement d'un esprit tout différent. A l'est, une sorte d'aile d'avion de 190 mètres de longueur suspendue à 25 mètres de hauteur sur deux lignes de supports métalliques cruciformes espacés de 70 mètres et contreventés par des câbles biais équilibrés par des tenseurs, abrite une exposition des transports, terrestres, maritimes et aériens. Le bâtiment est à la mesure de ce qu'il présente: formes tendues des avions supersoniques et des carènes, mécaniques raffinées et efficaces. A côté, sur des voies ferrées en plein air, sont présentés les locomotives, les wagons, les trains légers les plus intéressants d'Europe.

Tout près, le pavillon des postes et télécommunications est une rotonde de 2000 mètres carrés suspendue par des filins à une tour d'émission de 56 mètres surmontée d'une sphère en résine synthétique. A l'ouest, l'héliport desservi directement par les lignes de toutes les capitales européennes. A côté, la place des attractions, le grand stade du Heysel, respecté par l'exposition.

Plus au sud, on entre dans la forêt des "pavillons". A vrai dire, le terme est injuste: ces halls immenses, ces monuments sans commune mesure avec la vie quotidienne mériteraient un autre nom que je ne trouve pas. Ils sont répartis sur les 200 hectares du parc en quatre secteurs, une section belge, une section coloniale très importante, une zone des organisations internationales et une section étrangère.

Deux jardins les dominent; celui du centre enserme un lac pittoresque et contient un théâtre de verdure et un grand centre commercial très heureux de conception et de couleur. Celui du sud-est entoure le "Belvédère", petit bâtiment palladien dépendant du parc de Laeken. Une immense passerelle de béton précontraint les relie.

Les sections étrangères constituent certainement la partie la plus intéressante de l'exposition. Trois "grands" ont construit des monuments immenses, les Etats-Unis, avec un pavillon rond de 115 mètres de diamètre. L'URSS avec un palais rectan-

gulaire de 80 mètres sur 190, la France avec un volume en selle tendue de 85 mètres sur 150.

Le palais rond des Etats-Unis d'Amérique se profile derrière une esplanade et un bassin ovale. C'est une sorte de bonbonnière dorée, décorée, et dont on n'arrive pas à se persuader qu'elle est immense. Sa couverture, posée sur deux rangs de colonnettes distantes de six mètres, est une roue de bicyclette dont les rayons (camouflés par un filet d'acier mat et doré, constellé deçoit, Peut-être, s'il avait 100 mètres de hauteur au lieu de 20, paraîtrait-il moins illogique. Mais la structure en est intéressante. Des plaques de béton armé sont accrochées sur une forme faite de filins tendus (c'est la solution la plus facile lorsqu'on veut monter exactement des surfaces mathématiques gauches). L'intérieur semble avoir de curieuses propriétés acoustiques.

Non loin, après la grande passerelle du Belvédère et après la Thaïlande, le pavillon suisse mérite les plus grands éloges. C'est une ruche de petites alvéoles hexagonales, dans laquelle un lac artificiel coupe une saignée pittoresque. De tout petits volumes heureux, très vitrés, couverts à deux pentes, revêtus d'aluminium et reliés par un auvent et des mâts, font un paysage toujours varié et agréable d'échelle, reposant et plein d'esprit. C'est une réussite plastique tout à fait neuve.

Détournons les yeux de la maison officielle du Royaume-Uni aux volumes abracadabrants et vilainement colorés, pour regarder le grand hall classique consacré à l'industrie de la Grande-Bretagne. Voyons surtout à droite une autre ruche hexagonale beaucoup plus serrée — moins adroite aussi — que celle de la Suisse: celle de l'Espagne. Chacun des éléments est une sorte de parapluie sur un poteau central. Les sols sont décalés d'alvéole en alvéole, rappelant l'échafaudage d'un orchestre de jazz. L'effet est curieux et intéressant.

Passons sur Monaco et la Turquie. Arrêtons-nous devant les pavillons du Vénézuéla, du Mexique et du Brésil, trois volumes légers, inégalement réussis et en tous cas très loin de nos conceptions et de nos désirs d'Européens.

Au contraire le groupe de l'Allemagne nous donne l'impression rafraîchissante d'avoir été construit pour qu'on y demeure et non pour qu'on y passe: on aimerait habiter ces maisons à deux ou trois niveaux sur pilotis, ordonnées autour d'une masse de beaux arbres dans un jardin tranquille, trouver, au hasard des vacances, des hôtels, des musées, des groupes d'habitations qui leur ressemblent. Les pavillons réunis par des portiques sont entièrement métalliques, fermés en retrait par des glaces épaisses indépendantes des plafonds. Une passerelle s'accroche à la colline voisine, soutenue par des câbles à un mât de béton en forme de boomerang. C'est excellent.

Le long du parc du Belvédère se trouve la maison du Portugal, d'une architecture élégante sous sa toiture en champignon. A côté d'elle, celle de la Yougoslavie découpe son beau volume d'acier et de verre sur les masses d'arbres de la colline proche. Sa sobriété brillante est rendue plus chaude par les revêtements de bois clair du plafond du rez-de-chaussée en porte-à-faux. A l'intérieur, au fur et à mesure que l'on monte, l'opposition entre les vitrages et les plafonds de bois souligne les demivoûtes successives de la toiture. Ce pavillon est réellement très plaisant. De l'autre côté de la grande passerelle de béton précontraint se trouve l'ensemble de pavillons du Saint-Siège. Des halls d'exposition assez tristes conduisent à l'église, dont l'ossature en bois a la forme courbe d'un hamac sur un plan en trapèze. Cette forme — un peu trop molle — s'accroche au plan le plus haut, au-dessus de l'autel, à un clocher recouvert de bois sur une ossature de béton armé.

La participation italienne est décevante. Des maisons décalées sur la pente veulent donner l'impression d'une ville italienne classique, avec sa place et ses ruelles. Mais les bâtiments eux-mêmes ne sont ni définitifs, ni provisoires, ni d'avant-garde, ni même actuels, encore moins folkloriques. Ce sont des cubes de maçonnerie économique simplement enduits au ciment. Peut-être les couleurs qui les couvriront et la qualité des objets exposés — les Italiens sont généralement très adroits — sauveront-ils cet ensemble sans grâce.

A droite de la "porte des Nations", il faut s'arrêter à la mai-

son du Japon. Ce très beau pavillon est fait d'une aile métallique en V posée sur deux bipodes en V, eux aussi, mais de béton armé. Les vitrages sont encadrés de bois simplement équarri, le plafond revêtu d'un damier de bois clair. Deux annexes ont des toitures à deux pentes très faibles posées sur une charpente robuste et jolie, couverte d'une étanchéité verte. Un ravissant jardin avec un petit lac, de grosses pierres polies, du gravier trié et un vieil arbre complètent cette maison.

Les palais des organisations internationales occupent une place d'honneur à l'ouest de l'ensemble. Devant une des entrées, baptisée porte mondiale, celui de la coordination internationale déguise une forme gauche sous une toiture en voile. A sa droite, le pavillon de la CECA est un rectangle légèrement courbé en plan, dont la toiture est suspendue à six portiques d'acier de 55 mètres de portée et 29 mètres de hauteur. A sa gauche, celui du Conseil de l'Europe et de l'OECE est une surface fusiforme soutenue entre deux tripodes d'acier espacés de 72 mètres comme un hamac qui aurait 40 mètres de largeur. La couverture est en Cocoon (sorte de plastique nouveau aux propriétés particulièrement intéressantes) caché par un vélum. Tout contre, celui du Benelux, sur plan triangulaire. En face, le monument des Nations Unies, coupole bleue de 48 mètres de diamètre, en béton armé de huit centimètres d'épaisseur recouvert de latex, se prolonge par deux ailes revêtues de bois baké-lisé.

Dominés par l'atomium, énorme image d'une molécule, avec ses sphères d'aluminium de 18 mètres de diamètre consacrées au progrès atomique, ses liaisons assez grosses pour contenir des escaliers roulants, son restaurant dans la plus haute sphère à 105 mètres de hauteurs, les sections belges se pressent autour du grand axe. Halls du gaz, de l'énergie électrique et hydraulique (grand volume aux coins arrondis revêtu de bandes verticales d'aluminium strié et plié), des banques et des assurances, des industries chimiques, du papier et des arts graphiques, du tabac, du bois, de l'aluminium, des grandes entreprises de distribution, des fabrications métalliques — intéressant complexe de volumes légers fermés de plastique armé bleu (ce matériau nouveau a l'aspect d'un gâteau de miel et la transparence d'un vitrail). Tout près, le pavillon du pétrole présente sur une passerelle un derrick et un réservoir sphérique qui semblent minuscules. C'est qu'autour d'eux tout est hors d'échelle, énorme.

Plus à l'est, le hall des industries alimentaires, celui de l'habitation, celui du verre et de la céramique, enfin l'intéressant groupe de l'urbanisme, fait de simples et agréables constructions en bois et armatures légères métalliques que surmonte une tour d'amiante-ciment.

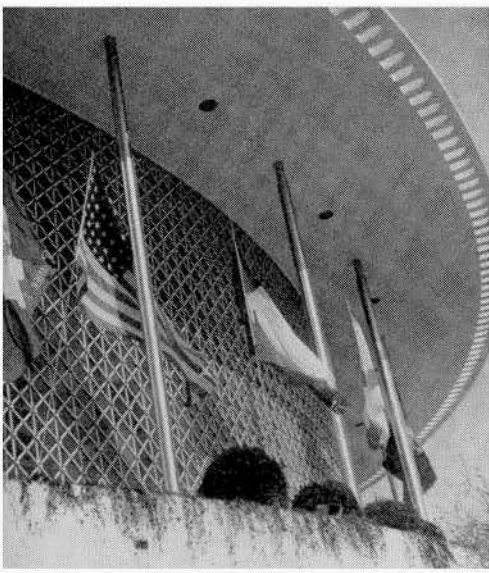
Au milieu d'eux, le monument du génie civil belge est un étrange jeu d'ingénieurs fait d'une coupole gauche dont on aurait tranché inégalement trois faces, et d'un énorme nez pointu de 80 mètres de long à 30 mètres de hauteur. Cet objet curieux, sans forme, ni échelle, est visiblement un tour de force technique. Il sera probablement très coûteux à démolir. La section coloniale (Congo belge et Ruanda-Urundi) occupe sept hectares. On n'y rencontre aucune réussite plastique.

Que restera-t-il de tout cela?

Matériellement quelques halles supplémentaires pour les foires-expositions bruxelloises et quelques pavillons reconstruits ailleurs après démontage.

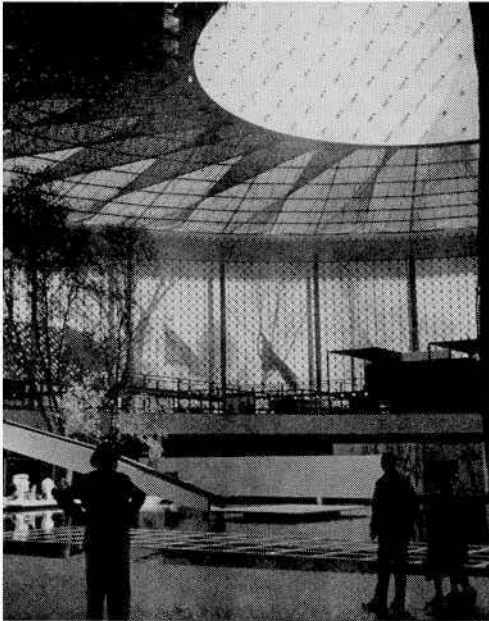
Dans les souvenirs des visiteurs, un certain mépris pour la technique qui permet tout et n'impressionne plus: mais aussi une familiarité avec les formes neuves et libres, les volumes gauches, l'aspect léger et aérien des bâtiments; et un goût nouveau pour les matériaux lisses, gais, brillants et colorés (le verre, l'acier, l'aluminium) ou translucides (toute la gamme des plastiques). Et ceci est un apport positif.

Enfin, pour les techniciens, architectes, ingénieurs, décorateurs, l'envie de mieux jouer encore avec les volumes et les couleurs; une meilleure connaissance des moyens mis à leur disposition et une exigence accrue à l'égard des fabricants de matériaux; surtout, le souvenir d'une somme d'expériences plastiques dont peu sont finalement des réussites, mais dont chacune apporte une idée, une méthode, un prétexte.



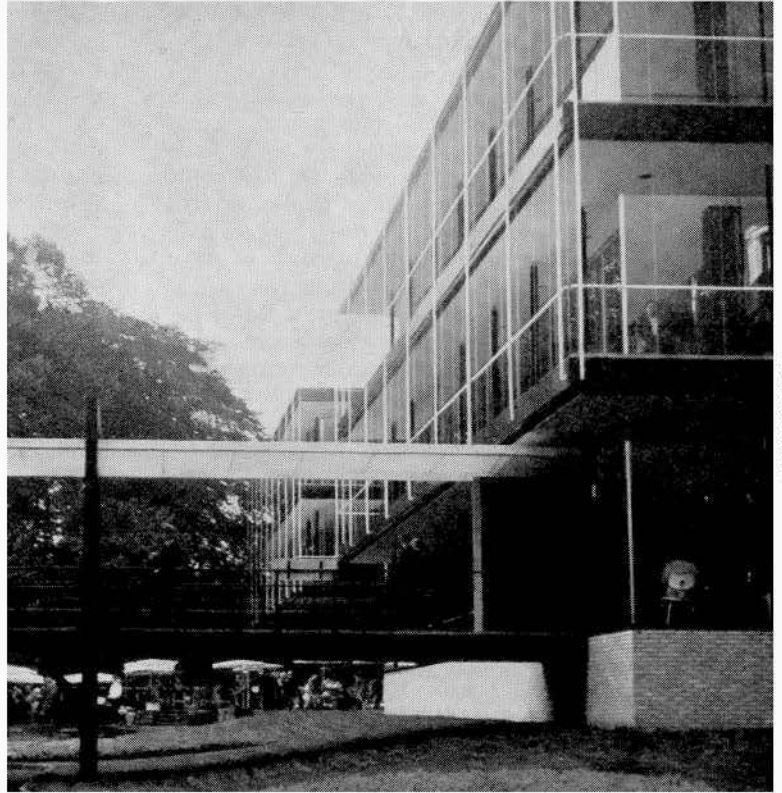
CANADIAN ART

Left, United States Pavilion. Above, exterior of screen wall. Below, interior.
Architect, Edward D. Stone.



G. K. POKORNY

Below, two views of Pavilion of the Federal Republic of Germany.
Architects, E. Eiermann and W. Rossow.



W. S. GOULDING



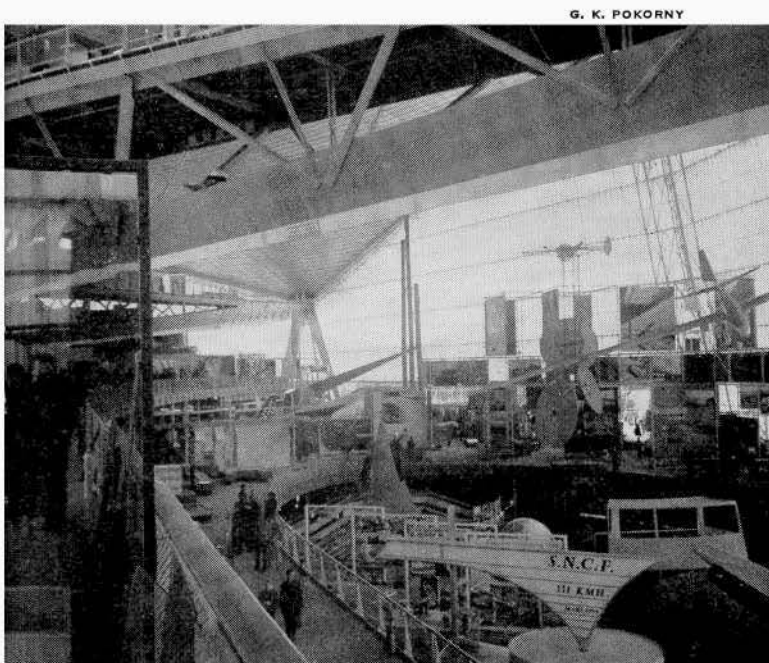
W. S. GOULDING

Right, Atomium.
 Inventor, A. Waterkeyn.
 Architects, A. and J. Polak.
 Consulting Engineers, A. Beckers, A. Joukoff, Daniel.

Below, Civil Engineering Pavilion.
 Architect, J. Van Doosselaere.
 Consulting Engineer, A. Paduart.



Below, French Pavilion. Left, interior of main hall. Right, exterior.
 Architect, G. Gillet.



Water Reduction Versus Air Entrainment in Architectural and Structural Concrete

BY PETER K. KELLER, M.S.E., M.ASCE.

This discussion is based upon an original report by the author following a statement to the effect that air entraining agents are frequently used too freely by architects and structural engineers. The original report was prepared against a series of specific instances; the following discussion is, however, a more general version of the report and is applicable to the great majority of architectural and structural concrete.

Experience has shown that, of recent years, the specifications of both architects and structural engineers have lost sight of the all-important difference between water reduction and air entrainment. It is hoped that this discussion will facilitate the choice of the correct admixture for use in this class of concrete.

IN 1953, THE BUREAU OF PUBLIC ROADS (USA) conducted extensive tests on twenty-seven different air entraining agents. A full report of the results appeared in "Public Roads" Vol. 27, No. 12, February, 1954, the contents of which have since been widely publicized by the various manufacturers of air entraining agents. It is felt a large number of architects and structural engineers have been unintentionally misled by the overall success of these tests, for although the twenty-seven admixtures were divided into seven groups, no attempt was made to differentiate between air entraining agents and water reducing agents. There is, however, a great deal of difference between their respective effects upon a given mix of concrete, as will become apparent later in this discussion.

It has been contended, and rightly so, by designers that the majority of air entraining agents adversely affect the ultimate strength of concrete. This is borne out by the results of the tests mentioned in the preceding paragraph. Most of the admixtures did, in fact, reduce the compressive strength of concrete test specimens by 2% to 10%, and their flexural strength by similar amounts. On the other hand, four admixtures produced considerable gains in both strengths at all ages. It should be noted, however, that these four admixtures are not true air entraining agents; rather, they are water reducing agents, and this is the fine distinction which the architect and structural engineer should bear in mind when preparing specifications. This class of admixture is of the calcium lignosulphonate type, derived from the digestion of wood chips, under pressure, in a solution of sulphuric acid and calcium acid sulphite.

It is interesting to note that while the majority of the twenty-seven admixtures tested did, in fact, increase the durability of the concrete to meet the freezing and thawing requirements, those of the calcium lignosulphonate type produced the highest increases of the entire series of tests. It must be remembered that the purpose for which the Bureau of Public Roads design their concrete is usually very different from the purposes for which the architect or structural engineer designs his, wherein design strengths may in no way be jeopardized.

The general types of concrete construction of particular interest to architects and structural engineers, and hence this discussion, are such types as exposed foundation walls (either plain or reinforced), exposed buttresses in hangar walls, exposed retaining walls and any other architectural or structural concrete exposed to repeated freezing and thawing. All these instances require the use of a suitable admixture to increase the durability of the concrete to combat the ravages of repeated freezing and thawing cycles.

However, as a great deal of this type of concrete construction is reinforced, the effect of the admixture upon the concrete-to-steel bond also assumes important proportions. In addition to the need to maintain the basic design strength in the class of work under discussion, an almost equally important consideration therefore is that of concrete-to-steel bond strength. An important factor in bond strength is the "bleeding" of concrete, a process in which the mix water tends to rise towards the surface after placement; much of such water accumulating under reinforcement thus appreciably reducing the bond strength. It has been generally accepted for many years that this "bleeding" can be materially reduced by a suitable water reducing agent, which keeps the grains of cement separate in the solid-liquid system, instead of allowing them to agglomerate as they would if the system were left untreated.

The type of admixture chosen to increase the durability of architectural and structural concrete must be capable of at least maintaining the design strength, both as regards to concrete-to-steel bond strength and also as regards to ultimate compressive strength and flexural strength. It has been proved that the calcium lignosulphonate type of admixture not only meets these requirements, but far exceeds them. Results of the tests conducted by the Bureau of Public Roads show increases of 17-25% in compressive strengths, and 1-7% increases in flexural strengths at 28 days. This type of admixture is also a first quality water reducing agent, and produces a concrete of greater water retentivity thus considerably reducing "bleeding" and also shrinkage. Tests made in accordance with A.S.T.M. Designation C234 — "Comparing Concretes On the Basis of Bond Developed with Reinforcing Steel" — show that this type of admixture (water reducing agent) actually increases the concrete-to-steel bond strength by some 15-20%.

It should be borne in mind that an air entraining agent is not necessarily a water reducing agent (often erroneously referred to as a cement dispersing agent), vide "Manual of Concrete Inspection," page 80, published by the American Concrete Institute, and it is felt that perhaps the use of the expressions "air entrainment" and "air entraining agent" have of recent years become somewhat over-emphasized and therefore abused. The fact that a good water reducing agent of the calcium lignosulphonate type does, in fact, entrain a certain amount of air must not lead the user to assume that it belongs in the same category as admixtures that are purely and simply air entraining agents.

Summarizing, it can safely be said that the primary object of using an admixture in the type of work under discussion is to increase its resistance to freezing and thawing while at the same time leaving the design characteristics unimpaired. The majority of admixtures that are purely and simply air entraining agents, such as those based on salts of wood resins, synthetic detergents, salts of petroleum acids and fatty and resinous acids, etc., while they do, in general, meet the requirements of increased durability, have the unfortunate quality of adversely affecting essential design characteristics.

The only admixture which completely meets all the requirements previously discussed is that of the calcium lignosulphonate type of water reducing agent. This type of admixture produces concrete with the following characteristics:

- (a) materially increased resistance to freezing and thawing to a degree equal to that obtained by using the best air entraining agents;
- (b) increased ultimate strength for a given mix;
- (c) increased concrete-to-steel bond strength; and
- (d) increased workability and reduced shrinkage after placement.

It has frequently been said that too much responsibility devolves upon field inspectors when admixtures are used. The calcium lignosulphonate type of admixture referred to is delivered in a powdered form readily soluble in water and the recommended dosage is quoted by the manufacturer as so many ounces per sack of cement. There appears to be no more difficulty in controlling this than there is in controlling the basic mix; as a matter of fact, many Ready-Mix plants are today equipped with mechanical metering devices for dispensing this type of admixture in solution form. If the concrete mix for a given job is properly designed in the first place, with the use of the water-reducing agent in mind, there is no

apparent reason for uneconomic operation; if anything, the reverse should be the case, as advantage should be taken, by the designer, of the increased ultimate strengths, and bond strength, available when "water reduced" designs are used.

While detailed cost/design comparisons and the design of concrete mixes are outside the scope of this discussion, it may be of interest to give a simple example of the economics of good water reduction with a typical 3000 P.S.I. Concrete Mix Design:

Ingredient	Weight	Solid Volume
cement	490 lbs.	2.49 cu. ft.
sand	1300 lbs.	7.85 cu. ft.
stone	1950 lbs.	11.59 cu. ft.
water	300 lbs.	4.80 cu. ft.
air	1%	0.27 cu. ft. (air usually entrapped in any mix)
		27.00 cu. ft.

If a lignosulphonate type of water reducing agent were added, in the proper quantity, to the above mix, the resulting concrete would produce a compressive strength of approximately 3600 # psi at 28 days — hence the mix would be over-designed and must be revised as follows:

Ingredient	Weight	Solid Volume
cement	415 lbs.	2.11 cu. ft.
sand	1260 lbs.	7.63 cu. ft.
stone	2030 lbs.	12.10 cu. ft.
water	255 lbs.	4.08 cu. ft.
air	4%	1.08 cu. ft.
water reducing agent	1 lb. 3 oz.	—
		27.00 cu. ft.

Thus, in addition to obtaining a more durable concrete, an increased concrete-to-steel bond strength and increased workability, etc., the architect or structural engineer also effects a saving of 75 pounds of cement, to say nothing of a 15% reduction in water content — all at the cost of less than 1¼ pounds of water reducing admixture. Had, however, an air entraining agent derived from salts of wood resins, synthetic detergents or sales of petroleum acids, etc., been used to obtain increased durability, then the cement content of the mix would have had to be increased in order to offset the adverse effect of these admixtures on the ultimate strength of the concrete.

It is hoped that the foregoing discussion will assist all those interested in the specification of architectural or structural concrete to appreciate the fine distinction between water reduction and air entrainment so that the desirable characteristics of the former may be used to full advantage whenever increased durability, workability or minimum shrinkage of concrete is required.

Mr. Keller is a Professional Specification Writer and a member of the American Concrete Institute's Technical Committee—"Specifications for Structural Concrete" and Chairman of Sub-Committee—"Special Concretes". He is also a Corporate Member of the Society of Civil Engineers of France and the Royal Belgian Society of Engineers.

La Construction De Maisons Et Le Gouvernement

PAR M. STEWART BATES

Discours prononcé au RAIC, par le président de la Société centrale d'hypothèques et de logement.

JE DÉSIRES vous remercier de m'avoir invité pour la seconde fois à adresser la parole à la réunion annuelle de votre Institut. Vos délibérations portent cette année sur la rénovation urbaine, un sujet très pressant. Le fait que vous m'avez invité à vous parler de nouveau semble indiquer votre intérêt croissant dans la construction de maisons.

Vous vous souvenez peut-être que l'an dernier j'ai dit que nous, à la Société centrale d'hypothèques et de logement, et vous, les membres du Royal Architectural Institute of Canada avons beaucoup de choses en commun.

Bien entendu, nos rôles particuliers ne sont pas les mêmes. Vous êtes les architectes professionnels tandis que nous sommes les fonctionnaires publics, les administrateurs. Vous laissez votre empreinte sur la cité dans les bâtiments dont vous faites les plans. En fait, votre travail d'aujourd'hui constitue votre témoignage pour l'avenir.

Notre activité prend des formes plus diverses, notre influence sous certains rapports est moins manifeste. Il est reconnu, nous ne nous occupons pas de tracer la politique à suivre mais plutôt à l'exécuter. En tant que compagnie de la couronne, inévitablement, nos buts sont les buts du gouvernement.

Toutefois, malgré toutes ces différences, nous avons un objectif général commun. Vous vous occupez aussi bien que nous à construire des cités. Nous prenons part à la même grande aventure, nous fraternisons dans la lutte sans fin pour améliorer la construction de maisons et les conditions de vie dans ce pays. Nous voulons tous voir la cité devenir un meilleur milieu pour y vivre, un milieu plus efficace et même plus intéressant, un endroit de résidence aussi bien qu'une place d'affaires. Chacun de nous s'intéresse profondément aux maisons, aux bâtiments qui constituent la cité, parce que ce sont les pièces qui composent le paysage, les parties constituantes du grand tout.

Il existe donc entre nous un lien réel, presque une association. Nous devons par la nature même des choses travailler ensemble en rapport très étroit. Puisque nous devons être des partenaires, nous devons nous comprendre totalement. A cause de cela, j'ai l'intention de vous parler franchement des problèmes relatifs à la construction de maisons. Je sais que vous n'attendez rien moins de moi.

D'abord, permettez que je vous donne une idée de l'ampleur du problème et de son urgence. Nous envisageons un domaine très considérable. Les localités de demain sont en voie de se constituer.

Deuxièmement, je me propose de vous dire ce que nous faisons pour résoudre ce problème — quelles mesures le gouvernement fédéral prend; et, à la Société, ce que nous faisons à titre d'organisme du Gouvernement en matière d'habitation.

Troisièmement, je voudrais vous démontrer que votre profession a un rôle de premier plan et d'importance primordiale à jouer dans ce développement. De fait, non seulement nous accueillons avec plaisir mais nous recherchons votre aide et votre collaboration.

LE BESOIN DE LOGEMENTS

Le Canada n'a jamais pu se vanter d'avoir établi un record en construction de maisons, en construction de cités. Le développement de nos villes et de nos cités a été inégal. Souvent, il s'est effectué avec précipitation et sans aucun plan. Il y a eu tant à faire que d'une façon ou d'une autre la construction de maisons a dû occuper le second rang. L'effort principal a été dirigé vers le développement des ressources de notre pays, vers le recul des frontières, le prolongement des artères de transport du pays.

Il existe aujourd'hui environ quatre millions de logements au pays. Ces logements sont de toutes les formes, de toutes les dimensions; quelques-uns sont neufs, quelques-uns sont vieux. Un petit nombre sont exceptionnellement bons, la majorité sont de qualité suffisante; un grand nombre sont de qualité inférieure.

La dernière fois que le Canada a fait un recensement de son stock de logements — en 1951 — environ un logement urbain sur dix avait besoin de réparations importantes, et un logement sur seize n'avait pas d'eau courante à l'intérieur. Dans les régions rurales

évidemment le tableau était encore plus triste. Dans la plupart des villes et des cités, il y avait énormément de surpeuplement.

Voilà quelle était la situation du stock de logements, il y a sept ans. Quelle est cette situation aujourd'hui? Après tout, le stock de logements n'est pas immuable. Les éléments qui le constituent changent constamment. Les vieilles maisons sont construites, démolies ou abandonnées. On construit de nouvelles maisons. Il s'est construit un grand nombre de nouvelles maisons au cours des quelques dernières années et quelques réserves que vous puissiez faire au sujet de la qualité du modèle de certaines nouvelles maisons, elles constituent dans bien des cas une amélioration sur ce qui existait auparavant. Donc, relativement parlant, la qualité du stock actuel est probablement un peu supérieure à ce qu'elle était il y a sept ou huit ans. Depuis la fin de la deuxième guerre mondiale, plus d'un million de nouvelles maisons ont été construites.

Pour ce qui est du surpeuplement, la situation ne s'est guère améliorée — malgré toute la construction qui s'est faite. Le nombre de familles et le nombre de personnes par famille ont fortement augmenté et l'industrie de la construction de maisons a dû concentrer tous ses efforts à satisfaire la demande que ces deux formes d'augmentation ont créée. Le fait que les Canadiens aujourd'hui se rendent bien compte du problème, constitue le plus grand progrès que nous ayons accompli. On tente *réellement* de faire quelque chose pour améliorer la qualité de l'habitation, pour s'occuper des problèmes de logement de ceux qui ne peuvent se permettre de construire leur propre maison et pour construire des voisinages qui soient plus qu'une collection de boîtes en bois. C'est donc dire qu'un nouveau courant d'opinions fait son apparition dans le public.

Toutefois, devant la perspective de l'augmentation de la population au cours des 20 à 25 prochaines années, un nouvel état d'urgence se dessine. Vous avez tous pris connaissance des prévisions faites par la Commission Gordon — ou la Commission royale sur les perspectives économiques au Canada, pour lui donner son titre plus formel. La Commission a estimé qu'en 1980, nous aurions besoin d'au moins 3½ millions de nouvelles maisons pour répondre au besoin de logement d'une population qui aura augmenté, pour faire face au besoin créé par le remplissage de nos cités, pour remplacer les maisons détruites ou démolies.

AUGMENTATION DE LA QUANTITÉ

Cela m'amène au second point — le rôle que joue le gouvernement fédéral dans la construction de maisons.

Toute la politique de la Société est résumée comme vous le savez dans la Loi nationale sur l'habitation. Cette loi est à la base de toute, elle sert à proclamer les grandes lignes des objectifs que le Parlement s'est fixé et elle précise le mécanisme qui doit servir à réaliser ces fins.

D'une façon générale, la Société s'est vu attribuer deux rôles — celui d'augmenter la quantité de logements et celui d'en améliorer la qualité. Ces deux choses ne sont pas tout à fait distinctes. Jusqu'à un certain point, la qualité dépend de la quantité. La nouvelle construction, à un certain moment, fait varier la qualité du stock de logements.

Pour parler de quantité, notre principale contribution a été de placer de nouvelles maisons à la portée d'un plus grand nombre de Canadiens. Plus d'un tiers des maisons construites au Canada depuis la deuxième guerre mondiale, a reçu, sous une forme ou sous une autre, une aide du gouvernement fédéral.

Le gouvernement fédéral contribue grandement à la construction de nouvelles maisons en accordant des prêts hypothécaires à même les deniers publics, par l'entremise de la Société centrale d'hypothèques et de logement, qui est son organisme officiel en matière d'habitation. N'oubliez pas toutefois, que la Société agit toujours comme prêteur supplémentaire ou dernier prêteur.

En réalité, nous faisons deux genres de prêts. Dans un cas, nous accordons simplement le même genre de prêt qu'un prêteur particulier aurait normalement fait. Dans l'autre cas, nous nous efforçons d'encourager la construction de certains genres de maisons qui autrement ne seraient pas construites en quantité suffisante.

Les prêts que nous faisons aux propriétaires-occupants qui, pour une raison ou pour une autre, ne peuvent pas obtenir un prêt hypothécaire assuré d'un prêteur particulier, sont un exemple du premier genre de prêts que nous faisons. Naturellement, l'emprunteur doit répondre à certaines exigences. Son crédit doit être bien établi. Jusqu'à tout récemment, nous n'avons accordé ce genre de prêt que dans les centres plus petits où les prêteurs particuliers ne sont pas disposés à prêter de grosses sommes d'argent. Toutefois, à cause de la pénurie générale de fonds hypothécaires, nous avons accordé des prêts depuis septembre dernier à des bâtisseurs et à des propriétaires-occupants dans toutes les parties du pays. Ces prêts ne sont accordés que pour construire des maisons de dimensions modiques, étant donné que le gouvernement croit que la rareté de fonds hypothécaires a rendu particulièrement difficile pour les

familles à revenu modique l'obtention de prêts de sources particulières.

Des prêts de l'autre genre sont accordés parce qu'il existe certains genres de maisons que l'on ne peut construire en grande quantité sans une aide financière du gouvernement.

Par exemple, le problème de trouver des logements suffisants et convenables pour les personnes âgées devient de plus en plus sérieux. Nous nous sommes efforcés d'encourager la construction d'un plus grand nombre de logements de ce genre en faisant des prêts spéciaux à des clubs sociaux et à des organismes non lucratifs qui sont disposés à construire des logements de ce genre et à les louer à des conditions raisonnables. Ces prêts sont aussi disponibles pour les associations non lucratives et autres qui entreprennent de construire des logements loyer pour les familles à bas revenu. Ces associations s'engagent à limiter leurs dividendes et à régler le montant des loyers qu'ils vont exiger, mais d'autre part, ils obtiennent des fonds à des taux d'intérêt beaucoup plus attrayants qu'ils pourraient le faire ordinairement. Au cours des dix dernières années, environ 12,000 logements à bas loyer, — soit pour près de 100 millions de dollars — ont été construits en vertu de ces programmes.

Il existe un troisième moyen dont le gouvernement fédéral contribue au volume de construction de maisons au Canada et c'est en vertu des dispositions de la Loi relative aux logements publics à bas loyer. Aux termes de la Loi nationale sur l'habitation, le gouvernement coopère avec les provinces pour construire des logements à bas loyer. En vertu d'une entente d'association, le gouvernement fédéral fournit 75 p. 100 du coût et partage les gains ou les pertes dans la proportion de 75 p. 100. La province, ou ses agences, fournit l'autre 25 p. 100. Ces projets sont administrés par une commission locale de logement. Dans certains de ces projets, les loyers sont subventionnés; dans d'autres, les associés visent à recouvrer tous les deniers qu'ils ont investis sur une période d'années. Environ 8,000 logements, représentant une valeur de 80 à 100 millions de dollars ont été parachevés, sont présentement en voie de construction ou sont encore à l'état de plan.

Le gouvernement fédéral contribue donc de trois façons à la construction de maisons. Il assure les prêts, il consent lui-même des prêts et il investit des fonds, conjointement avec les provinces, dans la construction de maisons nouvelles. Je pourrais ajouter que la Société dirige aussi la construction de logements pour certains ministères et organismes du gouvernement.

AMÉLIORATION DE LA QUALITÉ

Voilà pour la quantité. Que dire de la qualité?

La Société s'efforce d'élever le niveau de la qualité des maisons nouvelles et d'améliorer la qualité des maisons existantes.

Je crois que nous avons apporté une réelle contribution en ce qui concerne l'amélioration de la qualité des maisons nouvelles. Nous avons exercé une influence décisive sur la qualité des logements financés au moyen de prêts assurés. Mais ce n'est pas suffisant. Il est possible de faire encore bien davantage. Nous insistons pour que dans toutes les maisons construites aux termes de la Loi nationale sur l'habitation, on observe certaines normes qui assurent que la construction est faite suivant toutes les règles de l'art, et nous faisons des inspections au cours de la période de construction pour nous assurer qu'on s'est conformé à ces normes. Nous examinons les plans d'ensemble de tous les plus grands projets financés aux termes de la Loi ainsi que les plans et les cahiers des charges des maisons particulières. Au cours de 1957, nous avons examiné des plans d'ensemble pour la construction de maisons qui représentaient plus de 40,000 terrains résidentiels. L'influence de cette contribution dépasse évidemment la Loi nationale sur l'habitation. Elle a eu son effet sur la qualité des modèles de maisons, sur la qualité de la construction et sur les plans de groupement des maisons en général.

Notre Société a aussi un service de Modèles de petites maisons, grâce auquel le public peut obtenir des épreuves de bons modèles de maisons canadiennes à un prix très bas. Des architectes de toutes les parties du pays ont contribué au succès de ce service. Je pourrais mentionner aussi le travail que nous faisons en collaboration avec le Conseil canadien de l'habitation-type et l'Association canadienne d'urbanisme, où nous nous trouvons étroitement associés aux architectes. La Société centrale d'hypothèques et de logement a beaucoup contribué à la fondation de ces deux organismes qui font présentement du travail très précieux. Comme vous le savez, le Conseil canadien de l'habitation-type a soulevé l'intérêt des bâtisseurs dans toutes les parties du pays par ses prix annuels du bon modèle de maison. L'Association canadienne d'urbanisme a contribué à rendre le public plus conscient du besoin de construire de meilleurs voisinages et de faire un bon travail d'urbanisme. Notre Société accorde également des octrois et des subventions à des étudiants et à des universités pour améliorer la connaissance en matière d'urbanisme.

Notre rôle dans l'amélioration du présent stock de logements porte sur trois aspects — conservation, réhabilitation et réaménagement.

En plus de susciter un intérêt plus grand dans les problèmes du logement, de rendre le public plus conscient du besoin d'un bon aménagement communautaire, nous insistons pour conserver et réhabiliter le stock de logements en aidant au propriétaire particulier à emprunter de l'argent pour réparer et moderniser sa propriété. Les fonds que les banques et les institutions prêteuses sont disposées à investir dans de tels prêts ont été augmentés parce que le Gouvernement a consenti à garantir les prêts pour l'amélioration de maisons. L'an dernier, nous avons garanti des prêts pour un total de plus 30 millions de dollars.

RÉAMÉNAGEMENT

Dans certains cas, évidemment, la seule solution est de réaménager tout un district. Le chancre de la détérioration s'est propagé si loin qu'il n'est plus question de réparer ni de moderniser quelques logements particuliers. Il faut démolir ce qui existe et recommencer à neuf. Parce que justement vous recommencez à neuf, parce que vous avez un emplacement libre de tout bâtiment, vous pouvez considérer les besoins actuels de la cité et projeter l'emploi du terrain en conséquence.

C'est probablement l'aspect le plus intéressant du réaménagement urbain — particulièrement pour l'urbaniste ou l'architecte. Lorsque vous songez à la qualité inférieure d'un si grand nombre de nos maisons, lorsque vous vous rappelez qu'il y a plus de 350,000 maisons au Canada aujourd'hui, qui comptent plus de 75 ans d'existence, que nos cités ont été construites à une autre époque et qu'on n'y a rien prévu pour faire face à la circulation de nos temps modernes, le besoin de ce genre de rénovation devient apparent. Nos villes et nos cités doivent se rénover elles-mêmes constamment pour faire face aux demandes sans cesse grandissante de la vie moderne.

Il se fait, évidemment, un réaménagement constant. Les vieux bâtiments sont remplacés par des neufs. Mais dans la plupart des cas, le réaménagement financé par des particuliers constitue des cas isolés; il se limite à un ou deux bâtiments, et ne tient nullement compte de l'ensemble des besoins de la communauté. Le réaménagement urbain au plein sens du mot, exige presque toujours la participation du gouvernement.

Le gouvernement fédéral a déjà indiqué son intention d'aider dans ce sens. En effet, dans le discours du Trône, à l'ouverture du Parlement actuel, le Gouverneur général, a de nouveau souligné que le gouvernement est disposé à collaborer dans d'autres projets d'élimination des taudis et de réaménagement urbain.

Le gouvernement, par l'entremise de la S.C.H.L., accorde des subventions pour faire faire des études sur les conditions de logement dans les villes. Le résultat de ces études fournit une idée assez précise de la situation dans une localité donnée et aide la municipalité à élaborer des plans pour l'avenir. Des études de ce genre ont déjà été faites ou sont présentement en cours dans 13 cités canadiennes.

Le gouvernement fédéral fournit aussi une aide financière pour les entreprises d'élimination des taudis. Le gouvernement paie 50 p. 100 du coût de l'acquisition et du déblaiement du terrain. Le reste est fourni par la municipalité. Les deux gouvernements se partagent également les revenus.

Le premier projet important de réaménagement à Regent Park South, à Toronto, est presque terminé, et l'emplacement est maintenant occupé par un projet fédéral-provincial de logements à bas loyer. Notre propre personnel s'est occupé de la planification de l'emplacement et a travaillé en collaboration étroite avec Page and Steel qui ont fait le plan des bâtiments multifamiliaux de plus de trois étages, et avec le bureau J. E. Hoare, fils, qui a fait le plan des maisons de rangée. Ici à Montréal, le travail de démolition se poursuit dans le grand projet "Les Habitations Jeanne-Mance" qui, une fois réalisé, fournira des logements pour 800 familles. Nous collaborons avec des architectes et des urbanistes particuliers pour l'aménagement de l'emplacement et le plan des bâtiments. Rother, Bland and Trudeau sont les architectes et urbanistes-conseils et le plan des bâtiments est tracé par la maison Greenspoon, Freedlander and Dunne et par Jacques Morin. Les plans et les cahiers des charges sont terminés et nous sommes prêts à commencer la construction dès que les autorités locales auront donné leur approbation.

D'autres projets ont été parachevés ou sont en voie d'exécution à St. Johns et à Halifax. L'aire totale que ces projets représentent jusqu'à maintenant est petite en comparaison de ce qui est requis, mais le volume de réaménagement augmente sans cesse. Evidemment, c'est toujours la municipalité qui doit prendre l'initiative de ces projets. Le gouvernement fédéral ne peut intervenir que lorsque la province a approuvé les plans de la municipalité.

Il n'est pas essentiel que le terrain soit employé pour la construc-

tion de maisons à bas loyer, bien que c'est ce qui se fait présentement à Regent Park et pour "Les Habitations Jeanne-Mance". La seule restriction contenue dans la Loi c'est que le district doit être en grande partie résidentiel, soit avant ou après le réaménagement, et qu'on offre aux familles dépossédées des logements convenables à des loyers justes et raisonnables. L'intention est d'employer le terrain à sa meilleure destination. A Halifax, l'emplacement sera employé à des fins commerciales. Toutefois, on y a tracé le plan d'un projet fédéral-provincial de logements à bas loyer pour une autre partie de la cité.

Pour l'exécution d'un plan de réaménagement, il faut faire preuve d'un esprit entreprenant et d'imagination. Imagination et esprit entreprenant de la part des entrepreneurs particuliers aussi bien que de la part des autorités publiques, particulièrement lorsque le terrain doit être employé à des fins commerciales ou industrielles. Les deux groupes doivent travailler de concert. Une coopération de ce genre est absolument essentielle si le réaménagement doit se faire sur une grande échelle.

Dans les régions où le réaménagement se fait en vue de fournir des logements, la Société a essayé des combinaisons de bâtiments multifamiliaux de trois étages ou moins sans ascenseur et de maisons de rangée. Nous nous sommes efforcés d'accomplir quelque chose de neuf, quelque chose d'original, quelque chose de palpitant dans le projet de Regent Park South à Toronto. Nous nous efforçons de faire la même chose dans le projet "Les Habitations Jeanne-Mance" ici, à Montréal, et c'est ce que nous espérons pouvoir réaliser à Halifax.

Vous vous rendez compte, par conséquent, que notre Société occupe une place plutôt stratégique dans le marché de l'habitation, que son activité exerce une influence non seulement sur la quantité de maisons nouvelles mais sur la qualité des logements qui existent dans notre pays.

Toutefois, notre activité se trouve inévitablement limitée sous un rapport très important, — le plan des maisons. Bien qu'on ait considérablement amélioré les modèles de maisons au cours des dernières années, une grande partie des maisons qu'on trouve au Canada sont construites d'après un plan très médiocre. Voici un domaine sur lequel nous avons très peu d'autorité. Ce n'est pas notre rôle d'être les arbitres des goûts du public. Nous pouvons encourager un intérêt plus grand dans de bons modèles de maisons, nous pouvons présenter nos vues au public, mais nous ne pouvons pas, et nous ne devons pas, comme fonctionnaires publics, tenter de dicter nos volontés au public en matière de goût.

LES ARCHITECTES

Voici le troisième point dont je veux vous entretenir — le rôle des architectes dans le domaine de l'habitation.

Nous aimerions vous voir jouer un rôle encore plus actif dans le domaine du logement. Actuellement, une grande partie de votre temps est consacré à tracer les plans de bâtiments plus grand — comme des écoles, des manufactures, des magasins, et autres bâtiments industriels et commerciaux. Quelles que soient vos préférences personnelles, un bien petit nombre d'entre vous tirez la plus grande partie de votre revenu de plans de maisons. Ceci est malheureux pour nous parce que nous avons besoin de votre aide et de votre coopération.

Nous croyons que la construction de maisons est un domaine intéressant et rempli de défis. Nous reconnaissons que ce domaine représente plus que le traçage de plans de maisons particulières. Que c'est la création de l'habitat humain dans son sens le plus complet — l'agencement des rues et des maisons, des endroits de travail, des lieux de prière, des parcs, des théâtres et des centres d'achat. Mais l'essence de cet agencement se trouve dans le plan des maisons elles-mêmes.

Notre Société privée est constituée de maisons d'affaires et de ménages. Si vous ne vous intéressez qu'aux maisons d'affaires — manufactures, magasins, institutions — votre influence ne s'exerce alors que sur la moitié de la société. L'autre moitié qui comprend les foyers et leur entourage, peut croire d'une façon désordonnée, parce qu'elle est privée de votre influence. Les maisons d'affaires et leur aspect physique sont nécessaires à une bonne vie, mais les foyers ne le sont pas moins. Votre influence doit s'exercer sur les deux.

Dans notre immense et rigoureux pays, qui a besoin de se développer, qui a besoin de capital humain et de ressources humaines, les Canadiens ont toujours eu à faire des choix difficiles. La plupart des fermiers ont connu le problème de réparer leur grange ou la maison. Dans ce pays, une gestion spécialisée des ressources a été nécessaire aux fermiers, aux maisons d'affaires, aux institutions et aux gouvernements, et je crains bien que nous ayons à faire ces choix difficiles pendant assez longtemps encore. Dans votre profession, vous avez sans doute eu à partager votre compétence professionnelle pour répondre aux diverses demandes,

et vos clients ont été plutôt des institutions et des maisons d'affaires que des chefs de foyer.

En vous parlant de faire bénéficier de votre compétence, toute la communauté, tout le voisinage, la banlieue aussi bien que les institutions, le foyer comme le lieu de travail, nous, à la S.C.H.L., reconnaissons que nous sommes des témoins prévenus. Nous sommes au courant de la latence de la croissance et de ses ramifications, des fluctuations des cités, des nouveaux quartiers, du prolongement, et des conséquences sociales de ce qui s'accomplit présentement. Le million de maisons récemment construites exerceront une influence sur la vie de leurs occupants pendant les années à venir. La construction de maisons est l'affaire de la S.C.H.L., et si nous vous en parlons, c'est parce que nous croyons que nos cités sont pauvres de plusieurs façons, pauvres en biens et en services sociaux, pauvres dans une grande partie de leur nouvel entourage, mais mûres pour la croissance et prêtes à bénéficier de toute votre influence.

Je me rends compte qu'aucun groupe social ne peut faire des demandes excessives de toutes nos ressources; mais nous sommes en faveur de la construction de maisons de préférence à toutes les autres demandes de capitaux, d'initiative et de compétence professionnelle. Nous demandons qu'on se préoccupe davantage de l'aspect social dans les plans de maisons. Nous croyons qu'il est plus important de construire de bonnes maisons que de construire de bonnes voitures, qu'il est plus urgent de créer un meilleur voisinage dans nos banlieues que de créer des facilités de stationnement avancées pour nos manufactures; et qu'il est plus essentiel que nos enfants circulent sans danger entre la maison et l'école que d'assurer un progrès efficace du travail sur la ligne d'assemblage d'une manufacture. Je ne veux pas dire que ces autres choses sont d'une valeur insignifiante, mais plutôt qu'à notre époque, nous avons besoin de souligner davantage le caractère social du foyer et des agréments qu'il procure aux jeunes et aux vieux.

Les Canadiens consacrent une très grande partie de leurs ressources au logement. Les déboursés pour le logement et tout ce qui s'y rapporte s'évaluent en milliards de dollars chaque année. Nous avons besoin de directives professionnelles, nous avons besoin de tout ce que peuvent fournir les esprits créateurs pour aider à diriger cette croissance dans la bonne direction. Et voilà pourquoi nous vous demandons de jouer un rôle plus dynamique, afin d'aider à donner une forme à cette croissance et à prendre part à la transformation de la cité aussi bien dans ses districts résidentiels que dans les autres districts.

Evidemment, si vous avez l'intention de contribuer à cette transformation, si vous voulez surmonter la réticence de certains bâtisseurs à retenir vos services, si vous voulez tracer de meilleurs plans de maisons et travailler de concert avec les urbanistes pour produire de meilleurs voisinages, de meilleures communautés pour l'avenir, vous devez acquérir une connaissance complète de ce domaine.

Certains d'entre vous avez déjà accompli un travail considérable dans le domaine des logements à loyer. Vous avez appris à fond le genre d'affaires d'un entrepreneur en construction de logements à loyer. Vous connaissez les facteurs qui ont une influence sur le modèle — les coûts, les problèmes de taxes, les modes de transport, la structure de l'industrie.

Quelques-uns d'entre vous, — un très petit nombre — avez travaillé dans le domaine des maisons pour propriétaires-occupants. Dans ce domaine, les problèmes sont plus variés et, à première vue, peut-être plus difficiles. La compétence en architecture seule n'est pas suffisante. Vous devez connaître énormément de choses au sujet du marché, des lois et règlements locaux, de la structure des taxes municipales, de l'industrie de la construction de maisons elle-même. Il y a aussi la difficulté supplémentaire de convenir avec le bâtisseur marchand d'un système approprié pour la fixation de vos honoraires et rémunérations, et d'un mode équitable de paiement pour ce qui est essentiellement une opération à répétition.

Je crois que c'est un point qui mérite d'être étudié soigneusement par votre profession. Il est certainement difficile de critiquer ce qui se fait à moins d'être complètement au courant de ce genre d'activité, — des obstacles qu'on y rencontre — à moins que vous puissiez découvrir les influences cachées qui s'exercent sur le modèle d'une maison. Les membres de la profession doivent eux aussi être prêts à rendre service et à envisager les problèmes d'une façon constructive aussi bien que critique.

Ce que je suggère, c'est que les architectes, en tant que groupe, devraient examiner toute la structure de la croissance en banlieue, découvrir de quelle façon l'architecte peut jouer un rôle plus efficace en faisant des plans de maisons suburbaines, examiner la structure législative et financière dans laquelle ces maisons sont construites, et s'efforcer de découvrir ce qui exerce une influence néfaste sur le modèle d'une maison.

Vous trouverez peut-être que les bâtisseurs ne sont pas totalement

à blâmer pour les mauvais modèles de maisons; qu'une partie de la responsabilité du développement peu satisfaisant de nos banlieues est attribuable à d'autres. Que le système de taxation ne favorise pas la construction de bons modèles de maisons; que les restrictions relatives au zonage dans plusieurs cas exercent une influence négative plutôt que créatrice; que le problème des limites municipales, des responsabilités municipales constitue un obstacle au sain développement des banlieues; que ces choses contribuent à la médiocrité des modèles des maisons; que la balance penche toujours du côté des logements simples à un seul étage.

Ce n'est pas à moi de faire la distinction entre ceux qui s'intéressent aux plans des cités à titre d'urbanistes et ceux qui s'y intéressent parce qu'ils tracent les plans des bâtiments eux-mêmes. Il est évident que les deux rôles sont très étroitement liés. Dans toute enquête de ce genre, l'architecte foulera inévitablement le même terrain que l'urbaniste, même si c'est pour des raisons légèrement différentes.

Je crois que vous trouverez vous-mêmes dans les limites des cadres actuels de ces communautés, qu'il y a encore moyen d'y effectuer un développement plus compact et plus varié, d'y construire de meilleurs modèles de maisons, d'y grouper les maisons avec plus d'imagination et que l'architecte apporte une importante contribution dans ce domaine.

Une telle étude constitue un travail trop considérable pour qu'elle soit faite par un seul architecte ou par un groupe d'architectes. C'est une tâche que votre Institut pourrait considérer d'assumer. D'autres corps professionnels ont fait ce genre de travail auparavant. Je songe, en particulier, au travail accompli au sujet des plans d'écoles dans les années d'après-guerre. Il existe déjà sans doute, un comité conjoint de votre Institut et de la Société centrale d'hypothèques et de logement, qui a été établi pour étudier les problèmes du logement. Et je suis assuré que le travail de ce comité deviendra encore plus précieux au cours des quelques prochains mois. Mais je voudrais proposer autre chose, aller beaucoup plus loin — ce serait presque l'équivalent d'une commission royale sur les modèles de maisons résidentielles dans les districts en banlieue — sauf qu'un tel organisme serait patronné, non par le gouvernement, mais par la profession d'architecte. Je crois qu'il y a beaucoup de mérite à avoir un groupe indépendant s'occuper du problème, et vu qu'il s'agit en grande partie d'un problème d'architecture, il semblerait que votre Institut soit le groupe tout désigné pour assumer la responsabilité d'une telle étude.

Bien entendu, cela coûterait une très forte somme d'argent. Mais ce serait pitoyable si seul le coût devait empêcher la mise à exécution d'une telle étude.

Je suis certain que nous pourrions vous aider de plusieurs façons. Vous trouverez peut-être en effet, que nos propres pratiques hypothécaires ou des dispositions particulières de la Loi nationale sur l'habitation ont empêché la création de bons modèles de maisons. S'il en est ainsi, nous aimerions que vous nous le disiez. D'autres groupes — comme les prêteurs, les bâtisseurs, les autorités locales — n'hésitent jamais à nous faire savoir quand ils croient que nous faisons quelque chose qu'ils n'approuvent pas. Jusqu'à maintenant, nous n'avons reçu que très peu de commentaires des architectes. Nous aimerions que vous vous sentiez libres de nous présenter, quand vous le voulez, vos suggestions ou vos plaintes.

Je ne suis pas en mesure de vous promettre une aide financière du gouvernement fédéral pour une telle enquête, bien que, comme vous le savez, aux termes de la partie 5 de la Loi nationale sur l'habitation, nous avons la responsabilité de faire faire des enquêtes sur les conditions du logement et la suffisance des facilités de logements au Canada. Dans le passé, nous avons accordé de subventions à des cités et à des universités pour faire des études sur le logement urbain ou pour enquêter sur des problèmes particuliers relatifs au logement. Je suis certain toutefois, que toute demande d'aide pour une entreprise réalisable recevra du gouvernement fédéral une attention très soignée.

Messieurs, je crois qu'il est généralement reconnu que nous traversons une des périodes les plus critiques de développement dans l'histoire du Canada, une période de croissance soudaine, de changement rapide. Je vous ai décrit brièvement ce que nous faisons, à la Société, pour augmenter la quantité et améliorer la qualité du logement au Canada. Nous sommes d'avis que nous n'obtiendrons de meilleurs résultats que si nous travaillons en collaboration étroite avec les architectes. Nous croyons que si l'architecte relève le défi de notre époque, il doit être prêt à participer à la construction de logements dans une plus grande mesure que dans le passé. Telles sont les responsabilités qui sont inhérentes au rôle de chef, à l'état de professionnel. Si votre profession tournait le dos à la construction de maisons, on continuerait au Canada de construire des cités mais par accident plutôt que suivant un plan conscient. Je suis persuadé, — vu que je connais vos sentiments à cet égard, — que vous ne permettez pas que cela se produise.

OTTAWA POLICE BUILDING

Architect: Peter Dickinson of the firm of Page & Steele

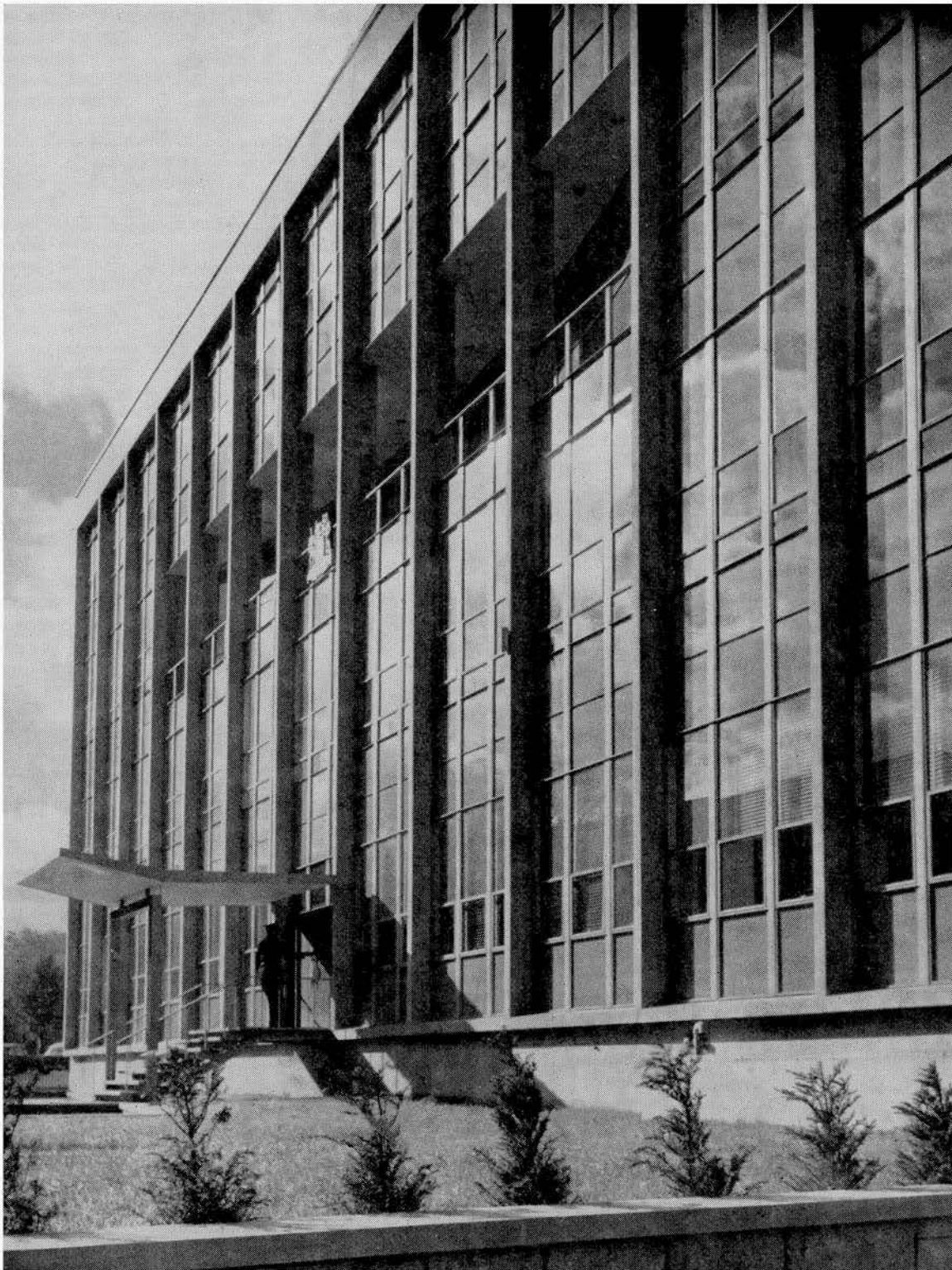
Structural Engineers: Hooper & Yolles

Mechanical Engineers: N. Fodor & Associates

General Contractor: Ross-Meagher Limited



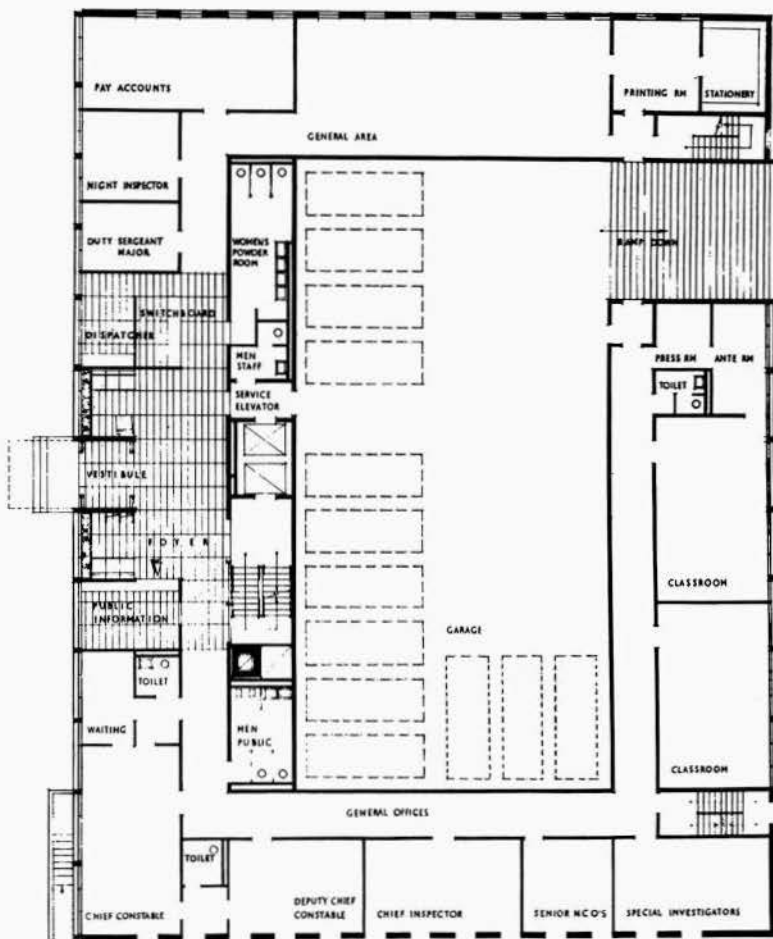
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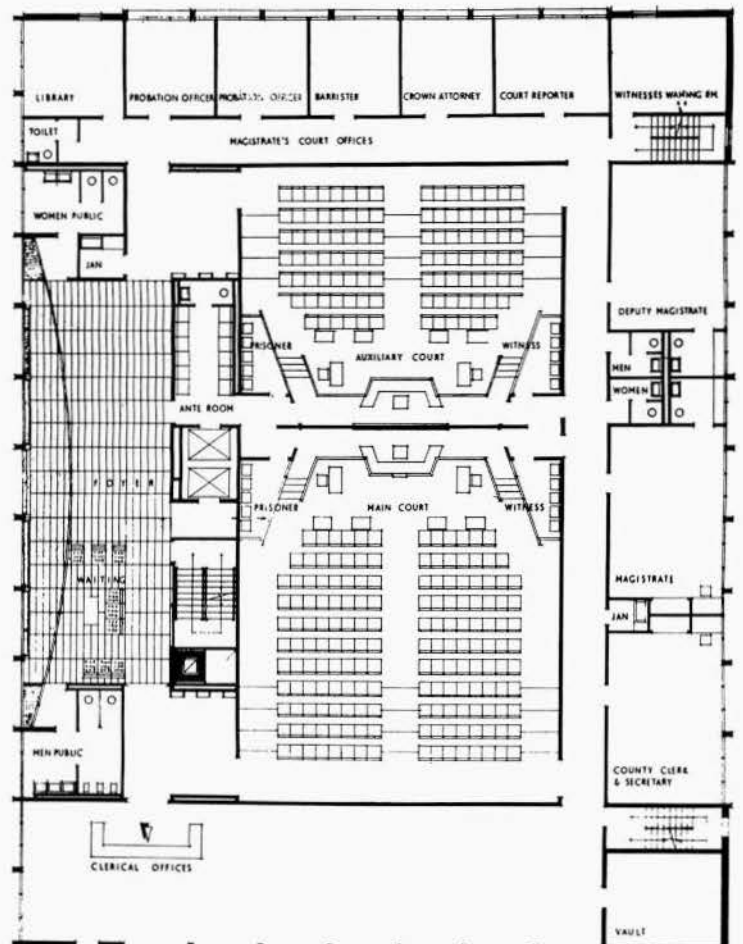
Entrance facade

The Ottawa Police Building, the winning design of a national competition held in 1954, was completed in May, 1957, to provide a new headquarters for the Police Commission and two provincial court rooms. The building, measuring 132 ft. by 105 ft. on plan, was designed around a central core with clear spans of 90 ft. by 54 ft., and this core contains the basement and first floor service and parking garages, stores on the second floor, the court rooms on the third, locker rooms on the fourth and a gymnasium on the fifth which rises above the general roof level in the form of a penthouse. Cell accommodation is provided in the basement and on the fourth floor, and these and the smaller units of the building such as offices, interrogation rooms, canteens, etc., are grouped around the central core to give a very economical plan. Separate vertical circulation for the police and the general public has been provided.

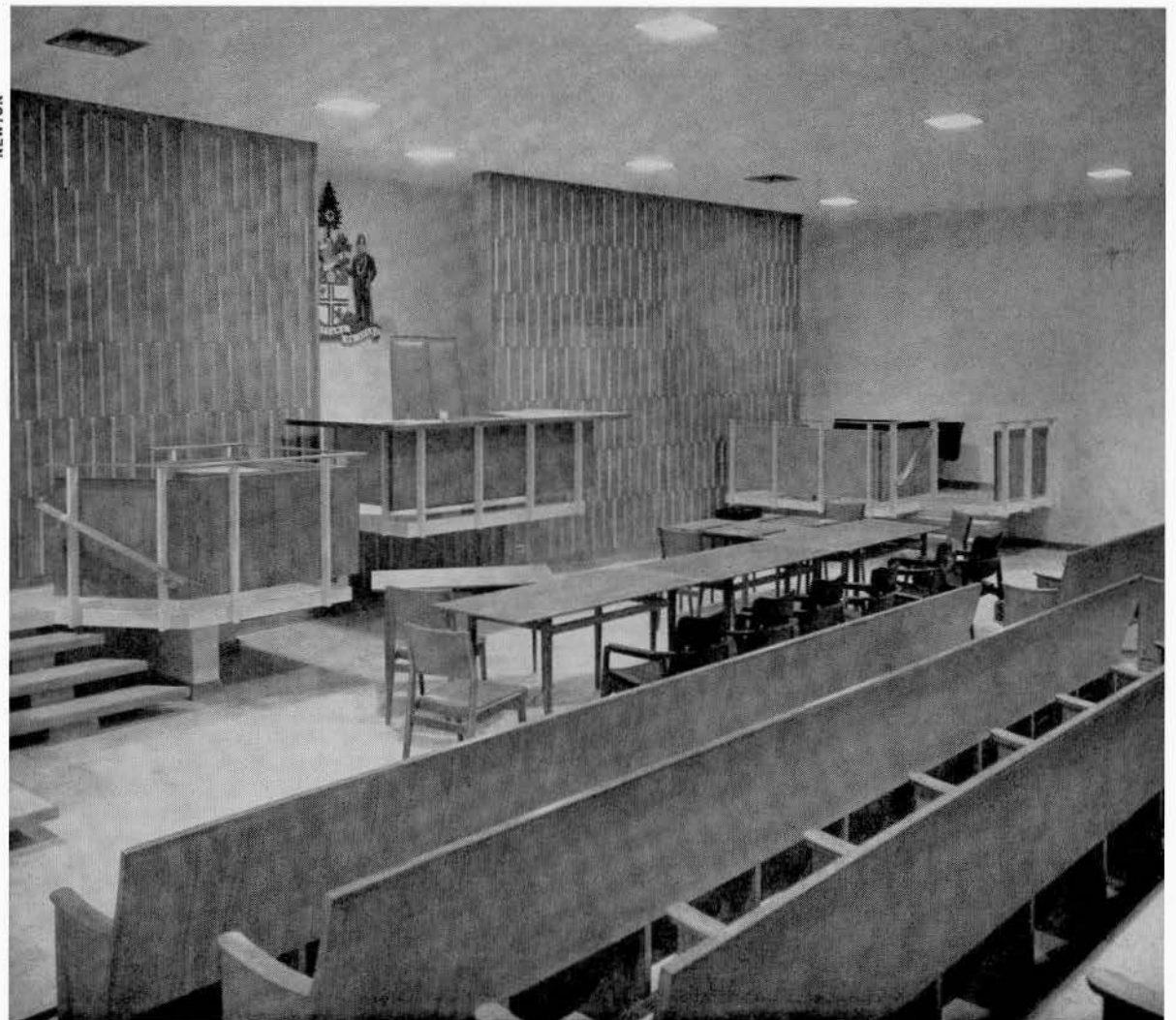
The building is steel framed with bar joists over the short spans and long span joists over the central core. The glazing on the east and west elevations is standard medium universal steel sash fixed to steel channel mullions, and steel angles at each floor level. The masonry walls are faced with silver grey granite up to first floor level and limestone above. The penthouse is faced with painted cement brick. The contract price of \$1,038,000 was within the budget allowed and gives a unit price of \$13.55 per sq. ft. or 97¢ per cu. ft.



1ST FLOOR



3RD FLOOR



Above, plan of main entrance floor.

Above right, plan of third or courtroom floor.

Right, Main courtroom.

Committee on Professional Usage

Report to 1958 RAIC Convention

By Douglas E. Kertland, President RAIC and Chairman of this Committee.

IT HAS BEEN the practice for the Chairman of the Standing Committee on Professional Usage to read his report and the Provincial Reports to the members of the Institute at the Annual Meeting. As you know, the Professional Usage Committee is composed of the President of the Provincial Associations, with the President of the Institute as Chairman. This Committee, by virtue of its composition at presidential level, forms a liaison and a bond between the Institute and the Provincial Associations. Due to the widespread membership of this Committee, it must necessarily operate through the medium of correspondence and through infrequent personal contacts. During my term as President, I have received full co-operation from all members of my Committee and gratefully acknowledge the reports that I have received from every Province.

The function of the Committee is to confer and report to the Institute on matters of interest to the Profession which are beyond the scope and jurisdiction of the individual component Associations and which they consider as being of broad and general interest. It is with this function in mind that each Provincial President is asked for a written report on the important activities and problems which have developed during the year, problems and activities which they consider to be of general interest to the Profession.

These reports you will find interesting because they provide a comprehensive picture of the state of the profession and, in addition, report on what the provinces are doing in matters of education ethics, public relations, the employment situation, volume of work and matters of a confidential nature which are not included in the Standing Committees' Reports.

There has been an increase in the membership of the RAIC of 92 members or approximately 5% over the preceding year. The greatest increase has been in Quebec, where the membership has jumped almost 6%, 32 members. Next in line is Ontario with an increase of 3½% — 24 members. New Brunswick and Newfoundland increased 1 each, with Nova Scotia no change. The total membership of the Institute now stands at 1919, against 1827 in 1957. Broken down, the two Central Provinces total — 1,340, British Columbia — 211, Three Prairie Provinces — 296, Three Atlantic Provinces — 73. These figures are based on actual members and do not include duplicates — that is members registered in more than one Province. As a matter of interest, there are 913 architectural firms practicing in Canada.

The following are the Provincial Reports —

THE ALBERTA ASSOCIATION OF ARCHITECTS

by H. L. Bouey, President

The Code of Ethics of our Association has been under review for the past year. A committee was set up to study this matter and bring in recommendations. Among this committee's recommendations were; that all applicants for registration be personally interviewed by Council before registration was granted; that all applicants for registration, regardless of experience or qualification, be asked to write an examination on professional practice. This has not been done in the past and it is hoped that the university authorities will co-operate in having this feature installed.

We are attempting to have the RAIC syllabus for entrance into the profession by apprenticeship established through negotiations with the university and we are also planning to submit a brief to the Department of Education of the Province.

Architectural work in Alberta is maintaining a very healthy volume and 1958 looks to be as good as 1957. Most architects are reasonably well staffed both for draftsmen and graduates.

We feel that the public in Alberta is gradually gaining a better conception of the value and worth of architects, even though our public relations program has been relatively a nonentity. The activity of this committee is centred chiefly around our annual meetings, our guest speakers, sessions, and periodical displays.

We have carried out two organized sessions in Banff which have drawn the eyes of architects and the public to our Province. From all reports they have a great deal of significance to the Profession.

Professor John Russell, Director of the School of Architecture at the University of Manitoba, when appealing on our behalf in the Canada Council, has termed these sessions "the most significant architectural development in Canada." They have an impact on the public, as they are devoted to the principle of serving the public to a finer and better degree. From them we have enjoyed excellent publicity. That these sessions should be continued, is my unqualified recommendation.

ONTARIO ASSOCIATION OF ARCHITECTS

by E. C. S. Cox, President

The year 1957 was an active and progressive one in spite of the fact that the volume of construction in Canada was two hundred and fifty million dollars less than the all-time high for 1956.

Architect-Engineer Relations: In the Report on Professional Usage a year ago, it was pointed out that a Joint Committee had been established consisting of senior representatives of the Ontario Association of Architects and the Association of Professional Engineers of Ontario.

The objective of the Joint Committee is the settlement in an amiable manner of all contentions that may arise between the associations or between a member of one association and a member of the other. Representatives of both associations have expressed the view that closer ties between the two groups were not only desirable, but essential to their future well-being. It is important to record that members representing the Engineers' Association are most co-operative.

Public Relations: The work of the Committee on Public Relations has been most effective. In spite of the very limited budget, twelve cents per member per week, the Committee has formulated a program of considerable scope and new ideas are being brought forward in profusion. It is difficult to measure the results, but the fact that architects are receiving more favourable and more frequent attention in the press is one indication of the success of our endeavours. The job sign to assure proper and dignified credit to the Architect on his projects has been accepted by a large number of members. A permanent display is maintained by the OAA at the Toronto Building Materials Display Centre. The Committee also had a display at the Toronto Home Show and for the first time the Ottawa Chapter will this year sponsor an architectural exhibit at the Ottawa Home Show.

During 1957, assistance was given to the Committee on Church Architecture of the United Church of Canada in preparing a brochure entitled, "The Church and the Architect". A section of this publication deals with the proper manner for a Church Building Committee to select an architect. Another such pamphlet is contemplated which will deal with the selection of an architect by School Boards.

Bulletins have been prepared and distributed to the members on the procedure for ceremonies in connection with "Sod Turning", and "Laying Corner Stones", and the role of the architect in these ceremonies. A proposal to produce a colour film featuring the architect and his services is currently receiving close attention. It is hoped that this film will be produced before the end of the year.

The value of the OAA Headquarters Building from the point of view of Public Relations cannot be over-estimated. It is a fitting background for a dignified profession and for meetings with various officials in local and provincial government. It is felt that the building has returned substantial dividends by raising the prestige of the profession in the public view.

Professional Ethics: Considerable emphasis has been placed during the past few years by the Council and Registration Board on the need for a high standard of professional conduct by members of the profession. The OAA this year completed a Code of Professional Conduct. It will be an Official Document of the OAA.

The Registration Board now requires that all new members admitted to the Association must attend an induction ceremony. Following each meeting of the Registration Board, the Chairman of the Board and the Chairman of the Committee on Professional Ethics meet the new members. They are given guidance in the best principles of professional practice and an attempt is made to impress upon them the importance of a high standard of professional conduct.

Legal Matters: Concern has been expressed by many members of the Association with regard to the increasing number of problems which architects are facing that involve legal consideration. During 1957, a Committee was appointed to study and make recommendations regarding these problems. The Committee and the Association's solicitor review problems reported by the members. It is proposed to issue a series of legal bulletins on certain problems with suggested solutions.

Architectural Education: During the past few years the Registration Board of Ontario Association of Architects and its Committee

of Examiners have been concerned with the fact that the Board's course of study does not provide an education in the humanities comparable to that of recognized schools of architecture. It was felt that this problem could be overcome by providing a higher standard of education for enrolment. The objective of the Board is that ultimately all those admitted to membership will be graduates of recognized schools of architecture. The first step in this direction was to amend the Regulations to provide that the educational requirement for enrolment in the Board's course of study would be the successful completion of three years of a full time course in a school of architecture approved by the Board, or the equivalent thereof.

ARCHITECTS' ASSOCIATION OF NEW BRUNSWICK

by R. Duschenes, President

The Minimum RAIC Syllabus for Studies has been adopted by the Association, and is now in force. Details will be worked out for taking examinations through one of the Canadian universities. We have no Post Graduate Study Course for students after graduation.

The general state of the Profession in New Brunswick is healthy. The growth in members has never been spectacular, but on the whole is on the increase. Volume of work has decreased as to the size of the projects. This decrease, however, is considered temporary. We may report that architects are being consulted more and more on projects of all kinds.

There is still a demand for skilled draftsmen. In the larger offices the percentage of architects amongst the draftsmen is between 20% and 30%. In the smaller offices it ranges all the way from 0% to 100%.

In the field of public relations, Architects have performed certain community obligations, made addresses at clubs, one has won a Regional Award of the Canadian Housing Design Council.

News coverage of the last Annual Meeting has been good.

THE NEWFOUNDLAND ASSOCIATION OF ARCHITECTS

by Frederick A. Colbourne, President

Education: No specialized courses in architecture are available in Newfoundland. Memorial University offers pre-engineering which is accepted at some Canadian universities in lieu of first two-years' work.

General State of Profession: During the past year there seems to have been a slight levelling off, but it appears now as though work will increase, due to work on buildings for health services and education which is to be given new impetus.

There is no unemployment among draftsmen; there is in fact a potential shortage. This means that while several offices are adequately staffed for normal working conditions, all could from time to time use an additional man or two.

Public Relations: This Association has no Public Relations Consultant and has done little in this regard. A program is being considered at this time and as it would be invaluable to the Association, I wish to suggest that some method of exchanging ideas and results be considered.

THE SASKATCHEWAN ASSOCIATION OF ARCHITECTS

by John C. Webster, President

The past year has been an active one for this Association in the field of public relations. As our membership and income is small, we are limited in the field of publicity.

We arranged to show the "Display of Swiss Architecture" through the RAIC in both Saskatoon and Regina. The Saskatoon showing was for a week in the T. Eaton Store and then for one week in Regina Museum. Good press publicity was received in both cities and a television talk was arranged in Regina.

Our members put on a display of models of their recent work. This was shown for a week in the Saskatoon City Hall, a week at the University of Saskatchewan, Saskatoon, and then for a week in Regina at the time of our Annual Meeting. This show was well received by the public and drew much favourable comment.

Our members gave several talks during the year to various organizations and service clubs. This Association is having a small pamphlet published entitled, "The Architect and His Work" for issuing to the public at the architectural displays or talks.

THE PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS

by H. A. I. Valentine, President

Rules Regarding the Conduct of Architectural Competitions: This matter has been the subject of study by a special Committee. Important principles have been challenged,

- (a) Certain rules should be amended to permit a professional advisor to become associated with a successful competitor should the promoter deem it advisable in the best interests to engage the professional advisor to direct the building project.
- (b) The scale of fees recommended as payable to the professional advisor are considered to be too high.
- (c) Certain rules of procedure are not precisely stated. Notwith-

standing the fact that the Special Committee noted that many competitions are national in scope and any deviation from the RAIC Code would cause serious difficulties, the matter was referred back to Council for further study.

RAIC Policy and the Journal: Consideration should be given to ensuring monthly editorials in both English and French languages, various articles originating in the French language, as well as captions to all illustrations in both languages. This would lead to a more pronounced feeling of "belonging" to the Royal Institute.

It is essential that apathy should be overcome in every part of this broad Dominion. The Journal as an instrument of RAIC policy must constantly endeavour to maintain its hold of the architectural magazine market in Canada in order that the Journal may remain the quality architectural magazine of Canada.

NOVA SCOTIA ASSOCIATION OF ARCHITECTS

by C. A. E. Fowler, President

Architectural Education: The recommended Syllabus of the RAIC was adopted and initial discussions have been held with the New Brunswick Association towards group action in this matter.

The Nova Scotia Association has increased their fees from \$25.00 to \$50.00, and has engaged a part-time secretary, the better to enable them to carry on their work, since it has been found in an association of this size that the routine work has left little time for the proper policy actions of the Council.

THE MANITOBA ASSOCIATION OF ARCHITECTS

by Norman C. H. Russell, President

The most significant trend in this Association is the realization that the most urgent need in Canada is to have the component societies think alike and act alike. With this thought in our minds, we are endeavouring to parallel our Schedule of Fees, our Architectural Requirements and our By-laws with the best of the other component societies.

The volume of work in Manitoba shows no tendency to decrease. Capable draftsmen are always in demand. Of the draftsmen employed they are almost entirely graduates of the School of Architecture of the University of Manitoba.

With regard to keeping in contact with the graduates, the Director of the School of Architecture keeps a record of all graduates, with an up-to-date list of names, addresses and by whom each graduate is employed. Such a record requires the co-operation of all graduates.

The number of applications for the College of Fellows Scholarship from Manitoba indicates that the School is keenly interested in its graduates applying for this scholarship. A few thoughts with respect to this scholarship—

- (1) The scholarship might prove more interesting if its value was for \$3,000.00 instead of \$2,000.00 as is at present.
- (2) Members of the College of Fellows, resident in the cities where Schools of Architecture are located, could form a committee and work with the head of the architectural department in encouraging graduates to apply.

There are no post-graduate courses organized. The general state of the profession has been "spotty", but it would appear that there will be an appreciable increase for 1958. There does not seem to be any appreciable unemployment and possibly a slight shortage of draftsmen.

Our public relations programme has been rather spotty, but steps are now being taken to improve it.

RAIC: We feel that the RAIC is operating in a manner satisfactory to the provinces in general, particularly in view of the representation of members from the east and west on the Executive Committee.

Our most gratifying piece of public relations is our donation to the Lectureship Fund of the Department of Architecture at the University of Manitoba of \$1,000.00 each year, which is used to bring lecturers to Winnipeg. These lectures are open to the public.

There may be many ways in which the RAIC might be improved. We must realize that the annual assemblies are the sounding board for those attending. Consideration might be given to holding informal discussions with groups assembled in various rooms, with an Executive Committee member in attendance, thus giving members an opportunity to exchange ideas and express opinions.

The Winnipeg City Hall Competition recommended by our Association in a brief to City Council has been established, with Professor John A. Russell, Head of the School of Architecture, as professional advisor.

Fellowship amongst the members of our Association has been a major project the past few years and as a result of holding monthly luncheons, we feel we are doing a good job towards friendliness and fellowship.

THE ARCHITECTURAL INSTITUTE OF BRITISH COLUMBIA

by Clive D. Campbell, President

Architectural Education: There have been no marked changes in this respect.

General State of the Profession: Volume of work has decreased

somewhat, particularly in smaller work, due largely to the present financial situation. It is our understanding that the majority of architects have enough to keep them reasonably busy. There is no particular shortage of architectural assistants, the majority of whom are graduate architects. The trained architectural draftsmen is still a rarity and will no doubt continue to be as younger men who have the ability and interest prefer to continue with their studies and eventually register into the Profession.

Scholarships: We believe that the average young architect upon graduation from school is interested in continuing with his studies and gaining experience. Many of them indicate a desire to travel before settling down and as a result we think that scholarships such as the College of Fellows Scholarship is a valuable impetus to this particular group.

Public Relations: The Institute has had the matter of public relations under study for a long time; it is our opinion that public relations consultants are not the answer and as a result of very careful investigation on the part of our Public Relations Committee, it was recommended that an entirely new procedure be adopted. The procedure recommended and enthusiastically supported by the membership was that an executive director be appointed who would carry out all the necessary duties that might directly or indirectly have to do with the matters of the Institute and its public relations.

In addition to this, new premises were to be obtained as headquarters and the promotion of a Building Material Display in Vancouver was undertaken. At the last annual meeting in December, Mr Warnett Kennedy, MRAIC, ARIBA, was appointed to the position of Executive Director. It is too early to say that there are any definite improvements resulting from this decision, but we do say that a tremendous lot is being done and there is a far more optimistic feeling about things in general. We have already moved into new premises and the basic arrangements for the Building Display Centre are being finalized.

In order to implement the foregoing it was necessary to increase annual dues to the membership. These have been increased from \$50.00 to \$100.00. It is felt that we are now headed in the right direction.

RAIC: The British Columbia Association all agree that the formation and operation of the Executive Committee of the RAIC with the representatives from the provinces, is a big improvement from the standpoint of the AIBC.

Government Work: The Provincial Government maintains a Department of Public Works which is responsible for design, construction, maintenance and operation of buildings, but this has always been government policy in the Province and the scope of work done does not extend into fields of endeavour which could have formerly been considered as belonging to the private architectural firm.

During the last few years, quite a number of individual architects and firms have set up practice in some of the smaller towns which heretofore lacked architectural services.

It has been noted that a steady increase in enrolment of new members continues. Last year the list of registered members amounted to 192; at this time it is 211. There has been a marked increase in the number of articulated student enrolments, plus a continuous flow of graduate architects from U.B.C. and others from the U.K. and European countries.

The reports indicate that in practically every province Joint Committees of the architectural and engineering professions have been established in an endeavour to settle contentious matters arising between the two associations, or their members. While considerable time will be required to reach complete understanding, nevertheless both associations agree that closer ties between the groups are not only desirable, but essential.

Education: Most provinces are adopting or are in the process of adopting the RAIC Minimum Syllabus of Study, establishing minimum educational requirements for candidates wishing to qualify as architects, other than by qualifying in a recognized Canadian School of Architecture. Arrangements have now been made by the Institute for its operation and on request examination papers and the names of examiners will be provided. The Institute is of the opinion that the adoption of this Syllabus by the provinces who wish to use it will go far to raise the standard of education necessary to enter the profession.

Further to the question of education, I am sure you agree that the most serious part of our education commences after graduation, as you have heard, not one province or university provides any type of organized education for their students from the time they graduate until they are accepted into the profession. As far as I can learn from the reports no post graduate courses have been initiated

for architects after they enter the profession. Every young architect on leaving school needs many years of training before he reaches a stage of proficiency in the science of his profession, and while the Institute has no control over education in the provinces, it should do all in its power to assist the universities to organize such courses.

What might come to you as a surprise, is the fact that with the exception of Manitoba, no university keeps an adequate record of its graduates. In Manitoba, news letters are sent to graduates periodically, with an up-to-date list of the names and addresses of their graduates and where they are employed. The lack of such records among other things seriously affects the number of applications when scholarships are announced.

While on the subject of scholarships, it might be of interest for you to know that the only Canadian Architect to be placed in the Toronto City Hall Competition was Mr. David Horne, our last College of Fellows Scholarship winner.

Public Relations: In the field of public relations, there has been a decided increase in interest and activity. Most provinces report progress. Ontario is the only province with a paid public relations consultant. This has proved most effective. British Columbia however feels that having a public relations consultant is not the answer and as a result of careful investigation, an entirely new procedure has been adopted. An executive director has been appointed, who in addition to his regular duties, is capable of carrying out duties that might directly or indirectly have to do with Institute matters and its public relations.

The RAIC Journal should make a serious effort to obtain and publish articles and information on the theory and practice of public relations for Architects that would be helpful to the provinces and individuals in formulating their programme. I further believe that every effort should be made to circulate what is being done in the various provinces. It seems to me that the provinces who have the finances to carry out extensive Public Relations Programs, should feel it their duty to help those provinces who are not so fortunate, by an interchange of ideas, possibly relayed through the office of the Institute or through the medium of the Journal.

I am pleased to report that material we have supplied to the Dominion Bureau of Statistics will be used in the Canada Handbook and Year Book for 1958.

All Provinces report a reduced volume of construction, but despite this fact, there appears to be little or no unemployment among the trained draftsmen. Although there is still a considerable amount of important work in progress and in the design state, there has, however, been a marked decline in the smaller work, which is having direct effect, especially in the smaller offices. It should not be forgotten, however, that the current recession or period of adjustment, call it what you will, starts in Canada from record levels of prosperity. If our faith in the future of this country remains unshaken, then we can face the future with confidence.

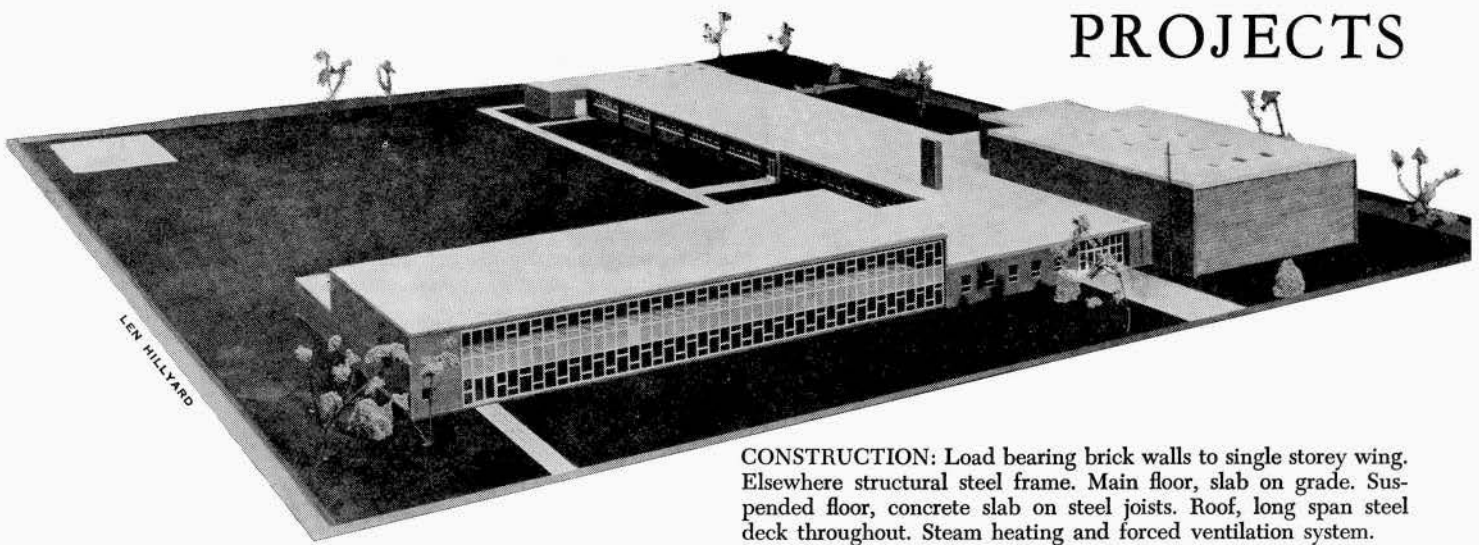
The Professional Usage Committee made recommendations to the Executive Committee dealing with the distribution of information about the status of a member in one province who applied for registration in another. It is the opinion of your Executive Committee that the Institute should not be involved in this problem. It is their opinion, however, that each component association should adopt the policy of including the following questionnaire in each application for membership.

- (a) Have you ever made application (other than this application) for membership or a license from any governing body of the architectural profession or any architectural association?
- (b) If the answer to the foregoing question is Yes, was the application withdrawn or refused?
- (c) Has disciplinary action ever been taken against you by a governing body of the architectural profession or any architectural association?
- (d) If the answer to the foregoing is Yes, what was the nature of that action and the result of it?

It is doubtful if any person would sign a registration form which included these clauses if he had ever made application in another province or association, or had been guilty of any offence on which disciplinary action had been taken.

I would like to again thank all of those who have so generously given their time and thought in conducting the affairs of the Institute, the Members of the Executive Committee, the Chairman and Members of the Standing and other Committees, and especially those conducting the affairs of the Journal. They have all done good work and our whole-hearted thanks and appreciation go out to them.

And finally, I want to say how much I appreciated the co-operation of all members of the Professional Usage Committee. I have communicated with them time and again throughout the year and have received, with very few exceptions, prompt and helpful suggestions and assistance.



BOWMAN COLLEGIATE, Saskatoon, Sask.

Architects: Kerr & Cullingworth

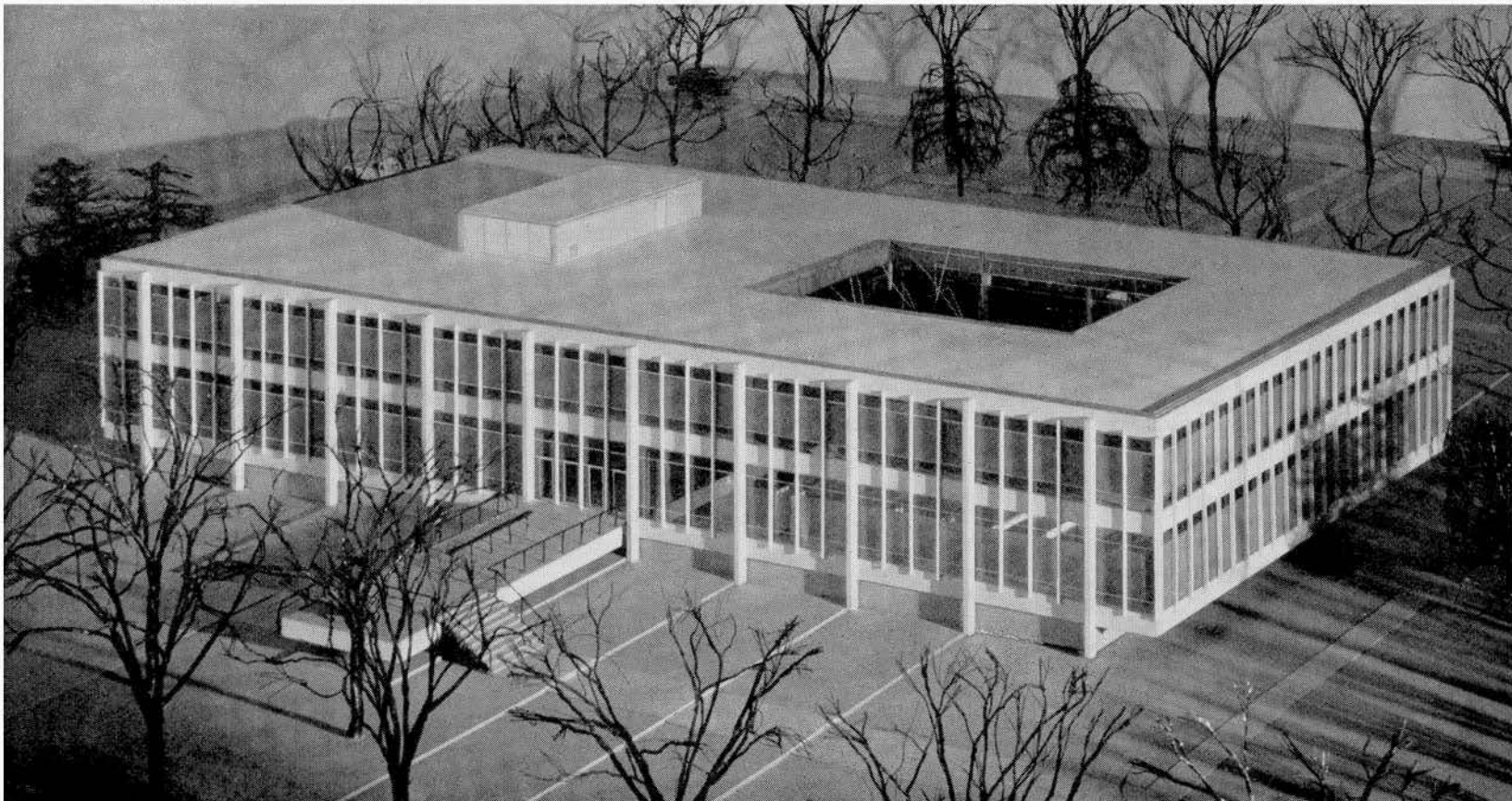
CONSTRUCTION: Load bearing brick walls to single storey wing. Elsewhere structural steel frame. Main floor, slab on grade. Suspended floor, concrete slab on steel joists. Roof, long span steel deck throughout. Steam heating and forced ventilation system.

DAYLIGHTING: Aluminum curtain wall to all classrooms, with heat reducing, glare resisting thermal glazing and coloured cast glass spandrel panels. Plastic skydomes to library, auditorium and manual training shop.

FINISHES: Exposed face brick inside and outside. Stone feature panel to auditorium front. Sprayed acoustic plaster ceiling to all rooms. Suspended acoustic tile ceiling to all corridors. Floors generally asphalt and vinyl tile, with terrazzo to stairs and washrooms, and Granwood blocks to auditorium and manual training shop.

ACCOMMODATION: 600 students. Auditorium seats 1000. Provision has been made structurally for the two storey wing to be extended. Plumbing, heating, ventilation and electrical services in the present scheme are all designed to be sufficient to serve the proposed future extension.

KALEN



SCHOOL OF ARCHITECTURE, UNIVERSITY OF MANITOBA

Architects: Smith, Carter, Katelnikoff Associates

The building, conceived as a simple rectangular form penetrated by an interior court, will be approached by means of raised bridges which dominate or punctuate the entrance location. It will have facilities to accommodate 300 students of the Architecture and Interior Design faculties, and will contain a library, staff offices, lecture and seminar rooms, assembly and exhibition spaces on the first floor. The second floor will accommodate student drafting areas, storage and washroom facilities and a student lounge. A large basement will contain area for sculpture, free-hand drawing, photography, workshop, studios and necessary mechanical and storage areas. The exterior will be covered with pre-cast panels and curtain walls of transparent and opaque glass.

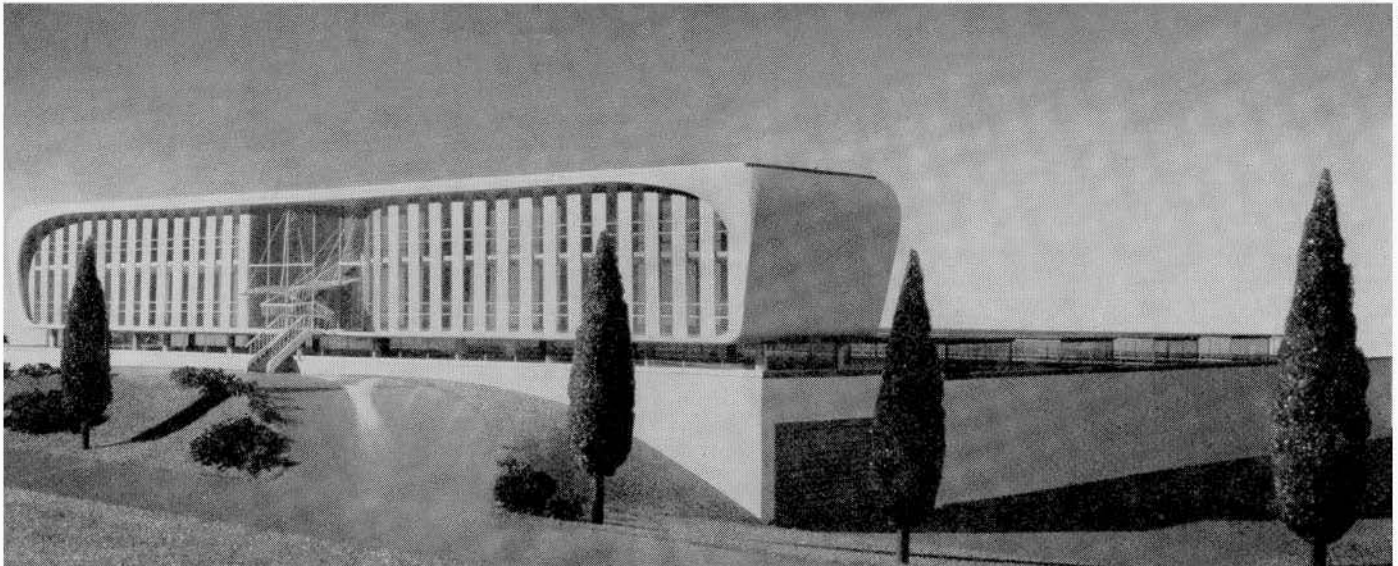
**CANADIAN POLLARD BEARINGS
CO. LTD., Oakville, Ontario**

Architect: A. Bruce Etherington

CONSTRUCTION: Office Building — reinforced concrete shell with aluminum panels and glass walls. Factory — steel columns, open web steel joists, wood deck and block walls.

DESIGN: The office building is placed on top of the factory to provide direct access to plant. Maximum walking to furthest point of plant from office is one and a half minutes. Production control offices are hung from bottom of office structure and provide visual control of entire plant. The owner required prominent visibility of plant from highway. By placing office building atop of plant and by partly burying plant in ground, emphasis is given to the sculptural shape of the office building.

COLOURS & FINISHES: Exterior white concrete, aluminum and glass. Canopy is black trim and brown stain. Interior of office building white terrazzo floors, sky blue partitions, white ceiling.



PANDA

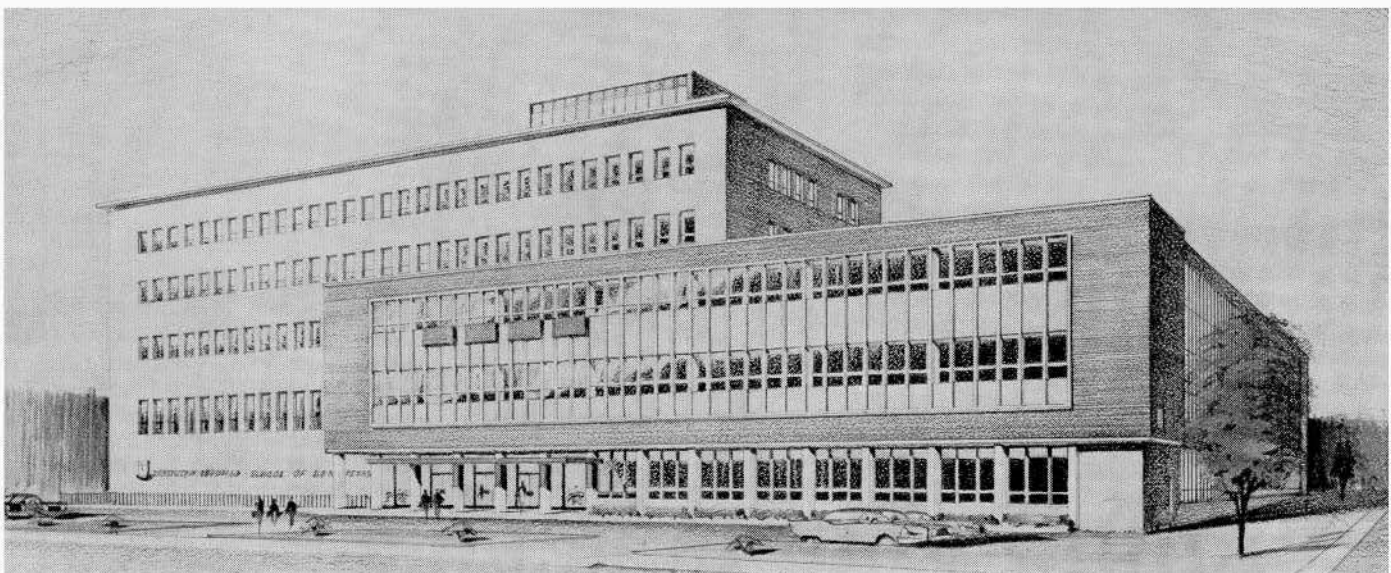
**DENTAL BUILDING FOR THE
UNIVERSITY OF TORONTO**

Architects: Allward and Gouinlock

Facilities will provide for an ultimate undergraduate enrolment of 725, compared with 417 this year, and the number of graduate students will be increased.

Floor space of 103,300 square feet will be available for teaching and research in the new building. Plans include one large and two smaller lecture rooms, clinical teaching facilities, biological science laboratories, combined lecture room and laboratory for dental hygienists, seminar rooms, graduate clinics, pre-clinical technique laboratories, student common room and library, museum, visual aid department, administrative and departmental offices and accommodation for animals and research laboratories on fourth and fifth floors.

There will be facilities for closed circuit telecasting; this medium will be used for demonstrations, but not for lectures. With the use of television, one demonstration shown on a 21-inch screen can instruct a large class. Faculty clinics now treat 5,000 adults and children annually. Patients will proceed from the lobby by ramps down to one of the three clinics or the surgery, or up to the main clinic.



NEWS FROM THE INSTITUTE

CALENDAR OF EVENTS

Session '58 the third Annual Conference in architecture by the Alberta Association of Architects will be held Oct. 6th to 11th, 1958 in Banff, Alberta at the Banff School of Fine Arts.

The special guest this year is Paul Rudolph, noted American architect and recently appointed chairman of the Department of Architecture, Yale University. In addition, a group of distinguished panel members is being arranged.

Applications and requests for information should be directed to:

Mr. Duncan McCulloch, Chairman,
Session '58 Committee,
The Alberta Association of Architects,
312 Northern Hardware Bldg.,
Edmonton, Alberta.

Mr R. Schofield Morris, 1958 Royal Gold Medalist, addressed the Toronto Chapter of the OAA on May 22nd, 1958 as follows,

YOUR CHAIRMAN has asked me to speak to you on account of the great honour which has befallen me in the award of this year's Royal Gold Medal, and he has asked me to say something about the actual ceremony of presentation.

I have just returned from London where I went to receive the Royal Gold Medal presented by Her Majesty the Queen through the President of the R.I.B.A. I was anxious, of course, as to what form the ceremony would take and fearful that I might not be up to my part in it. My wife and I flew over two or three days before the event, in time to lunch with the President at the Athenaeum Club, (which he was careful to point out to me was designed by Decimus Burton). He explained to me that in view of the standing of the R.I.B.A. and of the established importance of the Award, they felt that the ceremony itself could be extremely simple and devoid of any sign of pomposity. A special meeting is held for the purpose at 6 o'clock in the evening. Four or five people speak as nicely as possible about the recipient and these usually include the Ambassador of the country concerned. In this case, the High Commissioner, His Excellency, George Drew, was in Geneva, and he was represented by Mr Pierce, the Deputy High Commissioner. Following these orations, the candidate is conducted to the platform by two former Gold Medalists. In this case, Sir Percy Thomas, who is, I think, one of only two members who have been twice President of the Royal Institute, and Sir Howard Robertson, who was President of the Royal Institute at the time of the Coronation which I attended. After the Medal is placed around his neck by the President, the recipient is asked for a few words, and that ends the ceremony.

A very delightful dinner followed attended by some twenty-five people, which was given in the R.I.B.A. Headquarters, where the meeting was held. The dinner was gay

and entertaining and, mercifully, there were no speeches. The names of Past Presidents are carved in the stone wall on one side of the entrance lobby of the R.I.B.A. Headquarters, and those of the Gold Medalists on the other side.

I, personally, have been the recipient not only of the Medal but also of a great many kindnesses from my colleagues, from my friends, and from the public both in this continent and in Britain, but the honour is too much for one person and must be considered as awarded in recognition of the place which Canadian architecture has taken in the world today.

It has been remarked that the receiving of the Medal is very much like attending one's own funeral with the exception that instead of carrying out the corpse, they stand him up on his feet and ask him to say a few words, and something apparently happens on these occasions which puts the deceased in an exceedingly retrospective and introspective frame of mind. This lingering mood leads me to speak of myself and of my opinions, as, in addition, I believe you have a right to know what I think about Architects, about Architecture and about the practice of Architecture, because you have given me an unusual opportunity of forming such opinions whether they be right or wrong.

Fundamentally, I believe that the architect has a duty to produce beautiful buildings, and buildings whose design is exclusively dictated by the interests of his client and of the community. This immediately rules out anything which might be even remotely connected with self-advertising. It also rules out anything which is entirely experimental, and which is done without the knowledge and approval of the client. This does not mean the end of everything new or original. But it does limit the architect to those things which he conscientiously believes will be successful, and does eliminate irresponsible "trial and error".

I believe that the design of each building should be determined on its merits as an individual project. I believe that in developing his design, the architect should use any appropriate means of expression which his talent dictates. I cannot be opposed to the window wall as such, or the masonry wall with punched windows, or the curtain wall, or to big windows or small windows, or to open planning, or to glass or metal. We will all agree that it is ridiculous to be in favour or against these things; it is their use which matters. One must be in favour if they are appropriate, and one must be opposed to their mis-use when they are not appropriate, or when they are uneconomic or simply borrowed from some other design or some other country and climate.

I believe that we as a profession have been too quick to follow the leadership of a few men of international reputation who are not practising architects as we understand the term; who, if they practice at all, do so under very different conditions than those which apply to us, who are

foreign to this country, and who for these and other reasons must inevitably have a different attitude towards the Profession than we have. At the same time we should be careful to keep in touch with architects and architectural thought in other countries and particularly the Commonwealth, because good as well as evil flows more readily over international borders now than ever before. Every architect can't be a genius, but every architect can be a man of talent and taste, an artist in his ability to design buildings, an expert in his knowledge of how they are put together and wise in the spending of other people's money.

I believe that the relationship between the owner and the architect whereby the architect is responsible for the complete design and also the administration of the contract and the expenditure of the owner's money must be preserved above all else. This relationship is based solely on the confidence of the public in the ability of the architect to perform *all* these functions. Nothing we do must undermine this confidence.

If we sacrifice our practical position in favour of uninhibited inspirational brilliance in design and leave it at that, we, with the exception of the few geniuses who can always take care of themselves, will eventually wind up by losing much of our position as architects and end by working for the promoter or package dealer, not as architects but as architectural designers.

I believe that those responsible for architectural education are beginning to realise this and are returning to a more rounded and better balanced curriculum, and I hope that the tendency persists. That we should have in fact got off the rails is due to the practising architects having taken too little interest in architectural education.

It has been said "ask a Scotsman to say a few words and he delivers a sermon", and I will venture one more observation only, which I address more to those who are not here than to you who are, and it is this — support your architectural organisation at all levels. You won't do it for what you get out of it but you will find it a very rewarding experience just the same.

MANITOBA

There are two happenings this year in Manitoba which are of especial interest to architects — the Winnipeg City Hall Competition, and the new building for the School of Architecture at the University of Manitoba.

The City Hall Competition has been well publicized and Prof. John A. Russell, the Professional Advisor, tells us that applications are being received in suitable numbers. It is not so well known that a competition for a City Hall for Winnipeg was held just prior to the 1914-1918 World War. The winner on that occasion was F. H. Portnall (F) who is still practicing in Regina.

With the outbreak of war the project was postponed. Mr. Portnall's building was never proceeded with and the ancient structure which it was to replace is still with us. Age has not improved the latter's infinite variety nor made more stable the uncertainties of its structure. Two engineers sent to inspect its tower are reported to have muttered, "Let's get out of here", and to have hurried out the door.

Be that as it may, the old building has long since outlived its purpose and architects entering the present competition need have little fear the project will not be proceeded with this time.

Alumni of the School of Architecture, of whom there are now a goodly number, are indeed pleased that at long last the School is to have its own new building. The architects are, of

course, graduates of the School and we can expect a distinguished building.

The School has had a variety of quarters in its nearly fifty years of existence, and no doubt the inadequacies of these have at times been a trial to succeeding members of the staff.

However, the truths of Architecture have been taught in these places. The tradition of a good school has been established, and the new building should provide the environment for even greater things to come.

G. Leslie Russell (F), Winnipeg

ONTARIO

After serving for several years as representative of the O.A.A. on the Board of Directors of the Specification Writers Association, I resigned this Spring upon being elected Vice-President. Many Architects practicing in southern Ontario have joined the Association and are making use of the specifications being prepared jointly by Suppliers, Sub-contractors, Contractors and Architects or Engineers. So far 5 specifications have been published, of these "Structural Steel" and "Open Web Steel Joists" in conjunction with the Canadian Institute of Steel Construction and 2000 copies of these were distributed to offices from coast to coast by the C.I.S.C. Further specifications are in various stages of completion and will be published during the coming winter.

A Federal Government charter has been granted and Chapters are forming in Montreal, Toronto and Ottawa in readiness to begin operation in October. It is expected that more Chapters will be formed, ultimately stretching across the Dominion as the Association becomes known and its value realised.

Five of the Directors attended the annual Convention of the Construction Specifications Institute in Cleveland this month, immediately prior to the A.I.A. Convention in the same city. The C.S.I. has been in existence for ten years, has 3000 members in 29 Chapters, but has not produced one nationally accepted specification for any trade.

Our organisation started out as a small local effort nearly 5 years ago and now counts a membership of 350 spanning the Continent and representing all the skills of the construction team. Undoubtedly it cannot but help to improve the standard of the Architect's stepchild, the specification, and assist in overcoming the pitfalls so commonly experienced.

A great job of work is being done and the advantages offered by this Association can only be realised through actual participation.

C. S. Jarrett, Toronto

CONTRIBUTORS

Charles B. Greenberg graduated from the University of Manitoba in 1946, and was employed in various architectural offices in Montreal and Vancouver from 1946 to 1949. He was in England from 1949 to 1952, during which time he taught at the Kingston School of Art, School of Architecture, in Surrey. During 1950-1952 he also taught at the Royal College of Art, School of Sculpture, in London, dealing with sculpture in relation to architecture. In 1953, after his return to Canada, he prepared schemes for the Department of Transport in Ottawa for air terminals at Dorval and Malton. These did not reach final execution. He has been in practice in Ottawa since 1954, and has designed the Brussels Pavilion, and Canadian Government Travel Bureaux in Chicago and New York, as well as commercial and residential work.

George K. Pokorny, partner in the firm of Gibson and Pokorny since 1946, was born and educated in Prague, Czechoslovakia. He came to Canada in 1928 and worked with Chapman and Oxley for eleven years and then joined the Canadian forces at the outbreak of war. Mr Pokorny writes that, "as Brussels became the H.Q. of sappers of 21 Army Group his French Canadian unit adopted this great city and was in turn adopted by the immensely hospitable natives. The long desired return of this "ex-Bruxellois" took a near macabre turn this year when he found what destructive power can be held by the mobile decade over the quaint old cities of the Continent".

BOOK REVIEWS

L'ARREDAMENTO MODERNO (Modern Interior Decoration) Selected by Roberto Aloi; Published by Ulrico Hoepli Milano 1955. Four Hundred and Seventy pages.

This is a lavishly presented collection of black and white and coloured photographs of house furnishings. It is produced in Italy with Italian, English and French captions. It includes works from the Scandinavian countries, Italy and America.

The following are a few of the items illustrated:

"Bent and bevelled" glass knick-knacks, Sculpture by Harry Bertioia, examples of "Moderne" book-binding, French poodle dogs in glazed ceramic, and other weird, wonderful and useless ceramic, silver and glass objects. There are many coloured plates of all kinds of printed fabric, none of which seems to be of any interest to an Architect, fantastic lamps, all types of house furniture, including most of the familiar modern examples as well as such items as a six-foot high backed chair upholstered in glazed chintz and trimmed with a one-foot silk fringe.

There are also plant racks, umbrella racks and painted screens, clever book shelves, rolling Hi-Fi cabinets, dining tables with bases whittled from contorted tree stumps, mauve coloured liquor cabinets, an Italian Cocktail Lounge with red satin upholstered chairs. Then there is a photo of Frank Lloyd Wright's study at Taliesin, and a whole section on fireplaces, triangular and oval, fireplaces on legs and fireplaces that look like television sets. A whole range of beds, from Knoll Associates to a satin flounced job with a leatherette headboard is included along with many very ordinary and some extraordinary kitchens and bathrooms.

The last section of the book is devoted to abstracted garden planters, sculptured garden furniture and bird feeding stations.

This book makes painfully clear the artistic chaos in the world today. It seems we have a long way to go to achieve that beautiful and consistent expression which has been evident in previous and more tranquil societies.

William G. Grierson

"NEIGHBOURHOOD PLANNING" by Professor V. Joseph Kostka. Published by the author and obtainable at the University of Manitoba, Community Planning, Winnipeg 9. Price: \$4.00.

May I draw the attention of the Journal readers to the recent publication of a book on planning by our distinguished colleague, Professor V. Joseph Kostka of the University of Manitoba.

It is entitled "Neighbourhood Planning" and is his second book relating to this subject. The first one: "Planning of Neighbourhood Subdivisions" had already been well received in Canada and across the border and this one will undoubtedly be equally praised by planners and administrators. It is accompanied by many plans made to illustrate the right and wrong approach to planning. The thoroughness, and may I say, the candid courage of the author who does not back up in showing the "good" and the "bad" are to be commended. All aspects have been well covered and appraised and the approach to the problem is positive and constructive. This attitude will be fully appreciated, particularly by members of our profession who have often to extract from the maze of contradicting theories, the essence that will be translated into physical realization.

Edouard Fiset

THE CANADIAN CONSTRUCTION INDUSTRY; by staff of the Royal Bank of Canada; a Special Study prepared for the Royal Commission on Canada's Economic Prospects; 232 pages + xiv; The Queen's Printer, Ottawa; October 1956 (released March 1958); \$3.00 (\$1.50 paper bound).

Not only is this the book upon the contents of which were based the glowing newspaper headlines of early March regarding the future of construction in this country, but it is also — and much more importantly — the first comprehensive

review of Canada's major industry ever to be published, certainly to the writer's knowledge. For the first time, it is possible for architects and engineers to find within two covers an up-to-date summary of the construction industry of Canada, which translates their designs into reality, supported by necessary statistics most conveniently summarized and presented. Only in the final chapter do the anonymous authors attempt to predict the future course of construction activity in this country. Their sober analysis and singularly conservative estimates are answer indeed to those wits who dubbed the work of the Royal Commission "the national guessing game", certainly with regard to the official conclusions as to the future of building in Canada. If the other studies made for this Commission have been as carefully carried out as this one and as well reported, then the final conclusions of the national survey are well founded indeed.

The study was broken down into six major divisions, reports upon which make up the first six of the seven chapters. Construction activity in Canada is a natural starting point. It is salutary to be reminded that, over the past thirty years, expenditure on new construction has represented between fifty and seventy per cent (each year) of total national capital investment, with federal government work making up only about ten per cent of this, contrary to popular belief. New construction sponsored by provincial and municipal governments is responsible for almost twenty-five per cent of the total. That building construction represents sixty-one per cent of all construction will be a surprise to some. That almost one half of the value of construction in the institutional field, from 1951 to 1955, went to meet the growing demand for schools and other educational buildings is a good indicator of immediate future trends in this sphere; expenditures on churches and hospitals are similarly impressive.

An analysis of the nature and structure of the industry comes next. The authors acknowledge at the outset of this chapter the special place occupied by architects and engineers in the over-all picture of the construction industry but, for the purpose of their study, explain that "the construction industry proper will be narrowly defined to include only those groups actually engaged in construction activity on a full-time and independent basis." The function and operations of general contractors, trade contractors, road builders, speculative builders and other "operators" are well described. An attempt is made, and it seems to be a reasonably good one, to determine the number of firms in the industry in 1951 — a figure of such general interest and apparent importance that it is surprising that no accurate estimate of it has been made before. The authors do not discuss the difficult problem of definition — what is a contractor? It has been pointed out that if one included all the "contractors" listed in the "yellow pages" of telephone directories the total reached would be very great. This volume does, however, present a well reasoned first attempt at this important figure.

Architects and engineers are mentioned again at the beginning of the third chapter which describes how the industry actually functions. An analysis of the 1271 architects currently practicing in Canada is presented, possibly the most interesting figures here being those which show that only two-thirds are engaged in private consulting firms, the other third being engaged in governmental and other institutional offices. This chapter presents little that is new to those engaged in the industry but it provides a singularly useful outline of the process by which buildings get built, for those unfamiliar with construction. It is revealing to know, incidentally, that "house builders generally agreed that their (cost) estimates were accurate within 5% or less", according to information given to those who made the survey.

"General Technological Factors and the Construction Industry" is the rather forbidding title of the next chapter. When it is remembered that the authors of the report were (presumably) economists on the staff of a great bank, with no personal knowledge of the industry they were studying, it might be thought that this chapter would be a disappointment. On the

contrary, it is yet another example of the value of the "fresh look" at a broad technical problem, which can alone be given by those who come to it with no preconceived ideas, reminding one again of the famous story of Henry Ford and the making of continuous plate glass. The authors conclude that in the foreseeable future there will be no revolutionary developments in building technology but a greater use of materials which are fabricated off the site to a higher degree than at present, that there will be a wider acceptance of lightweight materials, and a growing realization of the advantage of building to more accurate standards of stress. For all of these conclusions, they give reasoned arguments.

Employment conditions in the industry necessarily call for the longest chapter in the book, one of great interest from the social point of view. It is disturbing to find, with adequate proof cited, that seasonal unemployment, rather than diminishing, is growing in absolute size with the growth of the industry. This revelation should be a spur to the continued good work of the National Joint Committee on Wintertime Construction, upon which the R.A.I.C. and the E.I.C. are represented.

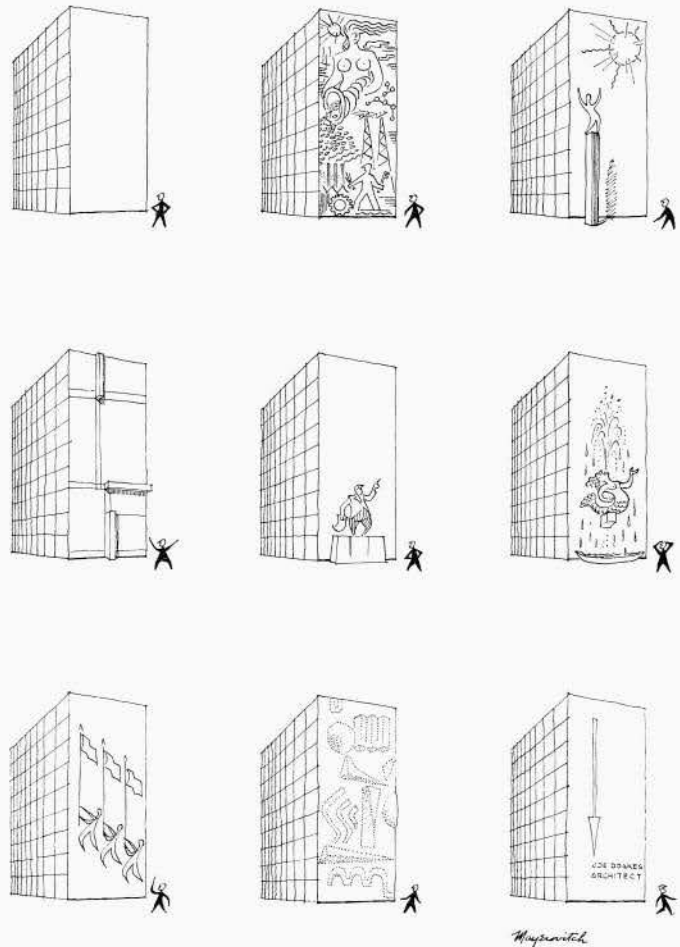
"Costs and Productivity" is the title of the short sixth chapter. This must have been one of the most difficult to prepare, in view of the lack of accurate records, even though it is probably that of most interest to those concerned with construction in general, and particularly so to architects and engineers. The statistical material which accompanies this chapter should find frequent use in professional offices for some years to come, information such as the comparisons of Canadian and American construction component costs, and relative construction costs for different cities in Canada. Even though the tabular comparison of costs for Canada and the U.S.A. might be shown to be of questionable accuracy, it is an interesting indication of trends. The estimates given for productivity per man-hour in the industry, shown to have increased greatly in recent years, might also be questioned but even such questioning would be a compliment to the authors, and a stimulus to further and more concentrated attention to this vital factor in construction economics.

The Outlook and Conclusions of the final chapter are modestly and carefully presented. The newspaper headlines about "Ten billion dollars worth of construction in 1980" can be viewed in proper perspective only by a careful study of this chapter. It is true that the authors think that a construction volume of \$9.6 billion will be reached by 1980, with \$3.2 billion to be spent in the same period on repairs and maintenance but these are conservative figures in the light of other estimates and seem to be well justified from the analysis presented. It is significant to note that the estimates allow for "a much higher increase in the quality of housing", a suggestion that will be difficult to reconcile with the continued pressure for lower housing costs in Canada until it is realized that this has been the pattern of housing development in recent years. Increased productivity in construction is expected "as construction firms in this country become increasingly mechanized, better organized and more efficient." To the problems of the industry "there are no quick or final solutions but, on the whole, positive measures are being taken to reduce their seriousness."

That the Canadian Construction Industry is in a reasonably healthy state the report makes clear but it gives no grounds for complacency on the part of any segment of the industry, using the term now in its broadest sense. To labour, the challenge of increased productivity is made clear; to contractors, the need for increased mechanization and even better planning of site operations; to architects and engineers, an increased awareness of the value of standardization in design dimensions (the report including a good review of "modular co-ordination"), and of the need for proper economic studies in design; and to building research workers, a challenge to continue their efforts in all fields, to take a new look at pre-fabrication (which clearly caught the imagination of the authors), and to see how research can be carried out still more "on the job".

It is easy to forget that the volume under review contains a study carried out on behalf of a Royal Commission studying the future economic prospects of this country. One is reminded of its official status, however, by the understandable disclaimer on the title page that the Commissioners accept no responsibility for its contents. One turns the page and finds, in the letter of submission from the Chairman and President of the Royal Bank of Canada, that the Bank also disclaims any responsibility for what the report contains. Such statements are inevitable but they invite attention to the fact that nowhere is any indication whatever given of the identity of the authors, beyond the fact that they were members of the head office staff of the Royal Bank. Since all responsibility for what they say is so squarely placed upon their shoulders, one might have expected them to be identified. This review will have shown that, useful as the study may have been to the Royal Commissioners, it will for some long time be a reference work of unusual value to all who are concerned with the great industry with which it deals. May the final words of this review, therefore, be an expression of appreciation from the writer, and those with whom he works in the field of building research — appreciation that he feels sure will be widely shared throughout the industry — for a good job, well done, even under the cloak of such complete anonymity.

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



Art and Architecture, by Harry Mayerovitch