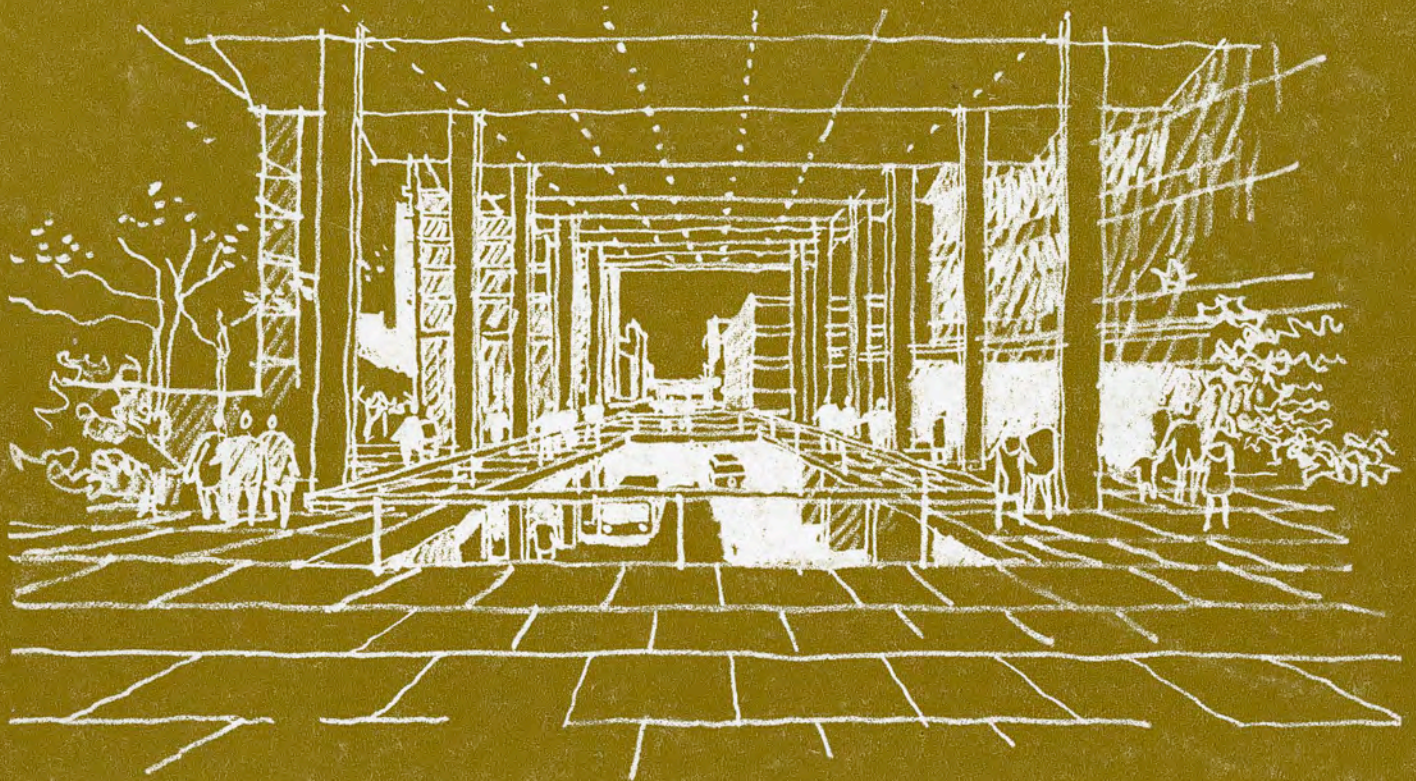
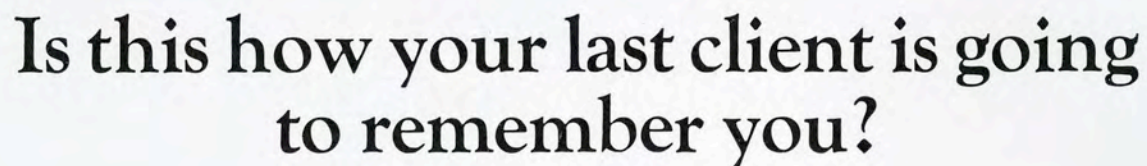


Architecture Canada

Journal RAIC/Revue de l'IRAC : August/Août 1966



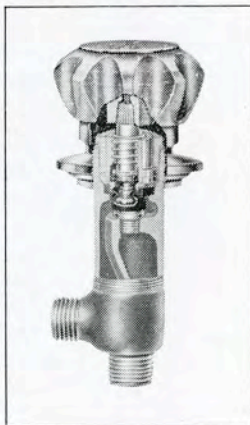


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New Council for the Alberta Association of Architects. Seated from left to right are G. D. Menzies, Second Vice-President George W. Lord, and Mrs Freda O'Connor, Edmonton; President Kenneth L. Bond, Calgary. Standing from left to right are: Jack Long, and E. Raines, Calgary; Honorary Secretary John McIntosh and Honorary Treasurer Bernard Wood, Edmonton; First Vice-President Donald L. Sinclair, and Past President R. F. Bouey, Edmonton.



RAIC President Gérard Venne (F) and 1965-66 AAA President R. F. Bouey

School of Architecture for Alberta Discussed at AAA Annual Meeting

Possible establishment of a school of architecture in Alberta was discussed at the Annual Meeting of the Alberta Association of Architects at Jasper on June 1st. The Association has submitted a brief to the Alberta Government on the need for a school and the method of implementing the proposal, but no reply has yet been received. The new Council, headed by K. L. Bond of Calgary as president, is to pursue the proposal. The Albertans were afterwards host association to the RAIC 59th Annual Assembly at Jasper, which saw one of the largest attendances in some years.

It was announced that architectural education is the theme of Session 67, to be held at Banff School of Fine Arts, March 19-23, 1967, under the auspices of the AAA.

Gérard Venne, (F) President of the RAIC was luncheon guest speaker. On behalf

of the RAIC he presented a scroll commemorating the 60th Anniversary of The Alberta Association of Architects.

Who will Cast the First Stone?

Clifford Fowke, editor of *Canadian Builder*, in his July issue editorial, offers some candid but constructive comment on the Report of the RAIC, Survey of the Profession.

"It would seem that at this late stage in the construction game, the power has at last been given the architects to see themselves as others have seen them for a long time. In one of the most honest and, at the same time damning, documents ever published by the Royal Architectural Institute of Canada, the architects have finally admitted that through the ivory tower approach of some and the incompetence of a few others, the architectural profession is falling on evil days where builders, engineers and contractors are stealing their rightful work and leadership away from them, and leaving

them with the hollow shell of professional status and little else.

"The document is called 'Survey of the Profession' and, in admiration of a hitherto relatively untouchable profession, one can only say that if this is the spirit which motivates the rank and file of architects, then with this reawakening, there are no worlds which they cannot conquer.

"But the shock in this document comes from the facts which the architects - 2,431 RAIC members interviewed - themselves reveal, not what the others - engineers and contractors - say about them. . . .

"One could go on quoting for much longer on the self-castigation which is here revealed. One can mention the restrictions under which architects suffer and which are offered in mild excuse of a situation that everybody in the construction industry, bar the architects, has agreed was extant for years. But, it is a situation which architects, officially, would not admit. We know they were up against the problems of not being permitted to submit a sketch when an engineer was. But the wise architects

1

Forest Valley Day Camp, Country Club and Ski Club in North York; Mandel Sprachman

2

Michael's Inn, Niagara Falls; Bregman and Hamann

3

Rockwood Pavilion in the Rockwood Conservation Area; Mark, Musselman, McIntyre

4

Holiday Lodge at Delawana Inn, Honey Harbour; Cox and Moffet



1



2



3



4

incorporated engineers into their organization and so, not only offered the public a better and wider service, but were enabled to get round the artificial and quite feasible restrictions with which architects had surrounded themselves in their efforts to become the legislative Brahmins of the construction industry.

"And then comes the real bone of contention between the practical men of construction – the owners, engineers and contractors – and the architect. Says the report on estimates of cost:

'This exceptionally tender area of architect-client relationships is strongly confirmed in both interviews and questionnaires. Not only have architects on many occasions been shown to be unable to furnish the reasonably correct information required, but there is in some quarters a feeling that they are indifferent to this important element of practice. . . .

"How true! But let us not further punish the construction professional who has voluntarily bared his back to the lash, and his career to jeopardy.

Rather let us pay tribute to the architectural profession which, by this act, has shown its true spirit of nobility and dedication to the industry. Let me say that, after reading that 'Survey of the Profession', I have never felt prouder to be associated with the construction industry. Who among us will cast the first stone? Who among us would have the courage of conviction that the Canadian architects have this day shown?"

OAA Awards for Tourist Building Design

Four awards for excellence in the design of tourist buildings have been made by the Ontario Association of Architects. There were thirteen entries in the second of the annual awards program. Winners were Mandel Sprachman, Toronto, for the Forest Valley Day Camp, Country Club and Ski Club in North York; Bregman and Hamann, Toronto, for Michael's Inn, Niagara Falls; Mark, Musselman, McIntyre, Brantford,

for Rockwood Pavilion in the Rockwood Conservation Area and Cox and Moffet Toronto, for Holiday Lodge at Delawana Inn, Honey Harbour. Judges were W. E. Carruthers (chairman), Alexander B. Leman, E. H. Zeidler and F. A. Venn, Ontario Department of Tourism and Information, Toronto; James E. Secord, St. Catharines.

"How to Control Urban Environment" Address by John C. Parkin

Ten urban precepts as the basis for a new kind of city environment were offered by John C. Parkin (*F*), Toronto, in an address "The Crisis in Canadian Cities" to the Canadian Club of Vancouver in June.

They included:

- Democratic representation of the urban voter in all legislative assemblies –
- Establishment of a federal department of urban affairs for an integrated, co-ordinated program of attack on urban problems –
- A reordering of provincial governments to deal more effectively with urban problems including clarification of the purposes and duties of local government in an urban age –
- Recognition by all instruments of government, crown corporations, government agencies and boards, etc., that they have leadership responsibilities in the man-made environment –
- Increased legislative inducements to encourage better planning performance. New concepts of assessments are required to encourage rather than discourage good architecture –
- An intensive program of research on urban problems centered on the social sciences –
- Intensified program of resource control, anti-pollution and conservation legislation –
- Recognition by federal and provincial governments that integrated urban transportation systems are a shared responsibility –
- Establishment of new standards of evaluation (and education) for the non-material aspects of urban living; contemporary art should be as respected as any other minority right and as entitled to public financial support. A National Trust should be created to maintain historic buildings and landmarks –

Lastly, recognition by the design profession that their ultimate responsibility is to the betterment of the human condition.

"Most planners in the public service are frustrated by the often arbitrary action of councils and developers. Most are unduly burdened with administrative and interpretative detail with little time for creative initiative. The authority of the planner is often undermined through a lack of generally agreed-upon postulates and the lack of fundamental research already mentioned," said Mr Parkin.

"Most engineers have little or no training in the making of aesthetic value judgments or in determining subjective goals, yet engineers control a greater share of the appearance of our cities than do architects. The education of engineers, technologists and technicians must be drastically adjusted if we are to enjoy beauty in their otherwise significant contribution.

"Similarly the training of architects needs radical 'up-dating'. . . . Most architects appear to work more for the approbation of their colleagues rather than for a higher social purpose. In the alarming confusion of present architecture there is much both mandarin and exhibitionistic.

"Surely a correct assessment of environmental problems requires a multi-disciplinary design team, whose restraints might well be 'anathema to the architectural couturiers'. We architects have relied too much on intuition and too little on the sciences, behavioral or natural. Our theory has been frail.

"We, as architects, must cease our obsessions with individual buildings for a much greater understanding and identification of the factors which help to create the total environment. In addressing myself to architects, I have often suggested that: To accomplish so encompassing and dedicated an obligation (will) demand re-definition of professional practice as a prelude to any further redefinition of the form of the environment itself."

Design for Earthquake Loadings

A symposium on "Design for Earthquake Loadings" will be held at McGill University, Montreal, on 12 and 13 September 1966, sponsored jointly by McGill University and the Division of Building Research of the NRC. Registration fee is \$30. Make cheques payable to Department of Civil Engineering and Applied Mechanics, McGill University, and send to Dr R. N. Yong, McGill University, Montreal 2, P.Q.

Centennial Year Massey Medals Awards

Conditions for the 1967 Massey Medals for

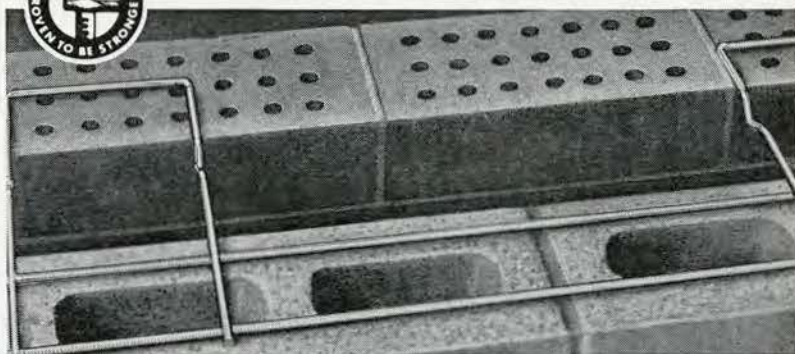
Architecture will be distributed by RAIC Headquarters in August. Up to 25 silver medals will be awarded. Final date for receipt of entry forms and registration fees (\$10.00 per building entered) is December 1st. The awards will be presented at the opening of the 60th RAIC Annual Assembly in Ottawa on May 24, 1967. Professional adviser for the 1967 competition is Dr Thomas Howarth (F) and the judges (with the name of one more yet to be announced) are Ian MacLennan (F) Ottawa; James A. Murray (F) Toronto; Etienne Gaboury, Winnipeg; and Gerhard Kallman, Boston.

Erratum

Mr Richard Hamilton, author of the article "The Role of the Entrepreneur in Urban Renewal" on page 52 of the June issue, was mistakenly listed as Larry Hamilton. A graduate of Yale in Sociology and Economics, Mr Hamilton had extensive experience in house building, real estate and land development in Calgary, Kamloops and Seattle. He moved to Toronto in 1963, and is now vice-president of Canadian Urban Economics Ltd, a division of Larry Smith & Company of Seattle.

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Architects: Greenspoon, Freedlander, Plachta and Kryton, Montreal. Consultant Architect: Ludwig Mies van der Rohe

From Institute Headquarters

Support for the Community Improvement and Beautification Program is being promoted in various ways by the Institute and the Provincial Associations of Architects. RAIC Headquarters would welcome reports on the participation of Association and Chapter representatives in this program, which was initiated by the Centennial Commission.

Architect Alan Crossley, of Cooksville, Ontario, is leading an urban renewal study of the central area of Wallaceburg. With the aid of a CMHC grant, the study proposes to identify blighted areas, provide information and recommendations for an urban renewal program, and recommend measures to prevent deterioration of sound areas.

Under provisions of the National Housing Act for federal aid to technical research and investigations into housing conditions, a CMHC grant has been made to the Ontario Research Foundation for the development of a new manufacturing process to produce structural clay products such as brick, tile and sewer pipe. Purpose is to make greater use of local materials and reduce reliance on imported raw materials.

Professor Gerald Hodge of the University of Toronto School of Architecture, aided by the CMHC Advisory Group, is engaged in a study of *Demand and Supply of Urban and Regional Planners in Canada*. It will examine trends in the demand for personnel, in relation to their effect on university and other training programs, and on the future of Canadian urban development.

Three architects were among the winners of CMHC Fellowships for 1966-67, valued at \$3,000 each, to post-graduate students in community planning: Marvin R. Borgfjord, of the Manitoba class of '63; Didier Poirier, of the Université de Montréal class of '66; and Frank H. Shimwell, graduate of the Nottingham School of Architecture and now branch architect and planner at CMHC Vancouver office.

Each of the Schools of Architecture in

Canada is represented in the group selected by CMHC for travelling scholarships this Summer, to students planning to enter their final year of architectural studies. They include William Lydon, Nova Scotia Technical College; Michel Gallienne, Laval; Margaret Stovel, McGill; Martin Fiset, Université de Montréal; Ivor Vinters, Toronto; Wallace Wight, Manitoba; Jack Mayell, UBC.

Professor Anthony Jackson of the School of Architecture, Nova Scotia Technical College, is the leader of the tour – to see examples of environmental architecture in some major cities of North America, followed by work at CMHC Head Office.

The bi-monthly *UIA Review* is creating a good deal of interest among our members, and subscriptions may be made through this Headquarters at \$5.00 annually.

The July 1966 issue reported on the recent Athens Seminar on Public Health. The September issue will include extracts from papers given at the Seminar on Industrial Architecture, at Montreux in May of this year.

Other coming issues: Colloquium on Housing, Colloquium on the Industrialization of Building.

The Canadian Museums Association is making plans, with RAIC assistance, for an International Seminar on Museum Design in September 1967. The main sessions will be held in the Montreal Museum of Fine Arts, and many special events are planned. Details will follow.

Advance registration is now open for the International Congress on Religion, Architecture and the Visual Arts, to be held in New York City, August 30 to September 2, 1967. Its purpose is to re-examine the relationship of these three vital factors in the light of contemporary revolutions – both political and technological – and shifting human values. Details from RAIC or from the Congress Office, at 287 Park Avenue South, New York, N.Y. 10010.

Fred W. Price
Executive Director

Du siège social de l'Institut

L'Institut et les associations provinciales d'architectes travaillent de diverses façons à stimuler l'appui des Canadiens au programme d'embellissement des villes et des campagnes. Nous serions heureux de recevoir au siège de l'Institut des rapports sur la participation des membres des associations et des sections locales à ce programme lancé par la Commission du Centenaire.

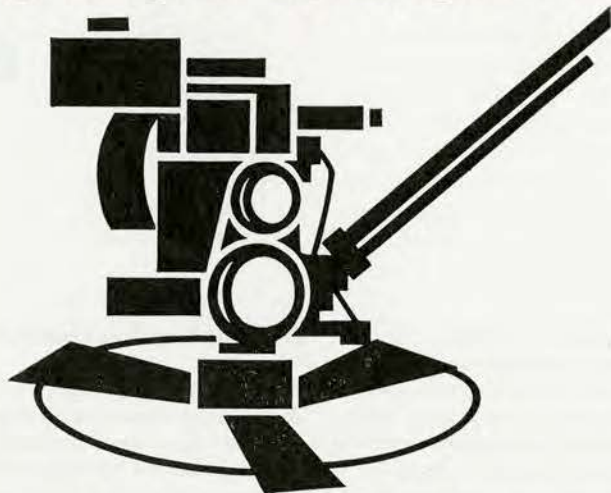
L'architecte Alan Crossley, de Cooksville (Ontario) dirige une étude sur le renouvellement du centre de Wallaceburg. Cette étude, faite grâce à une subvention de la SCHL, a pour objet de désigner les régions délabrées, de fournir des renseignements et des recommandations au sujet d'un programme de renouvellement et de recommander des mesures afin de prévenir la détérioration des secteurs en bon état.

En vertu des dispositions de la Loi nationale sur l'habitation prévoyant de l'aide fédérale à la recherche technique et aux études sur les conditions d'habitation, la Société centrale d'hypothèques et de logement a accordé à l'Ontario Research Foundation une subvention pour la mise au point de matériaux de construction dérivés de l'argile, comme la brique, les tuiles et les canalisations d'égouts. L'objet de ces recherches est de favoriser l'utilisation des matériaux locaux et de réduire la nécessité de recourir aux importations.

Le professeur Gerald Hodge, de l'École d'architecture de l'Université de Toronto, travaille de concert avec le Groupe consultatif de la SCHL à une étude de *La demande et l'offre de planificateurs urbains et régionaux au Canada*. L'étude portera sur les tendances de la demande de personnel et leurs répercussions sur les programmes de formation universitaire et autre ainsi que sur l'évolution future du développement urbain au Canada.

Trois architectes sont parmi les gagnants des bourses d'études de \$3,000 chacune offertes pour 1966-1967 aux élèves poursuivant des études supérieures en

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urbanisme. Ce sont MM. Marvin R. Borgfjord, finissant en 1963 de l'Université du Manitoba, Didier Poirier, diplômé en 1966 de l'Université de Montréal, et Frank H. Shimwell, diplômé du Nottingham School of Architecture et actuellement architecte régional et planificateur au bureau de Vancouver de la SCHL.

Toutes les écoles canadiennes d'architecture sont représentées dans le groupe de titulaires des bourses de voyage offertes par la SCHL aux étudiants qui entreront en dernière année l'an prochain. Ce sont William Lydon (Nova Scotia Technical College), Michel Gallienne (Laval), Margaret Stovel (McGill), Martin Fiset (Université de Montréal), Ivor Vinters (Toronto), Wallace Wight (Manitoba) et Jack Mayell (U C-B).

Le professeur Anthony Jackson, de l'École d'architecture du Nova Scotia Technical College, est chargé de diriger ce groupe dans une tournée d'examen de certains exemples d'aménagement architectural du milieu dans quelques-unes des grandes villes de l'Amérique du Nord. Cette tournée sera suivie de travaux au siège de la SCHL.

La revue bimestrielle de l'UIA est l'objet de beaucoup d'intérêt parmi nos membres. On peut s'y abonner par l'entremise de notre bureau au prix de \$5 par année.

Le numéro de juillet présentait un compte rendu du récent séminaire tenu à Athènes sur l'hygiène publique. Le numéro de septembre présentera des extraits des documents soumis au séminaire sur l'architecture industrielle tenu à Montreux en mai de cette année.

D'autres numéros porteront sur le colloque sur l'habitation et le colloque sur l'industrialisation du bâtiment.

Avec le concours de l'Institut, la Canadian Museums Association prépare un séminaire international sur les modèles de musées qui aura lieu en septembre 1967. Les principales séances se tiendront au Musée des Beaux-Arts de Montréal. Il y aura aussi diverses autres activités. Des détails vous seront communiqués plus tard.

Les pré-inscriptions sont maintenant acceptées pour le Congrès international sur la religion, l'architecture et les arts visuels qui aura lieu à New York du 30 août au 2 septembre 1967. L'objet de cette réunion est de réexaminer les rapports entre ces trois facteurs vitaux à la lumière des révolutions, politiques et technologiques, contemporaines et le déplacement des valeurs humaines. On peut obtenir des détails de l'IRAC ou du secrétariat du congrès, 287 Park Avenue South, New York (NY), 10010.

*Le directeur général,
Fred W. Price*

Principles Underlying the Bestowal of Fellowships



Four years ago the College of Fellows instituted a study of possible improvements to the procedures for the nomination and election of new Fellows. The Officers of the College, along with a group of senior Fellows under the Chairmanship of Mr Earle Morgan, Dean of the College, put forward certain recommendations for improvements and these recommendations were accepted at the Business Meeting of the College held in Hamilton, May 18, 1963.

For the information of all members of the Royal Architectural Institute of Canada we herewith publish the two chief documents which implement these new procedures. One document outlines the procedures for nomination and election and the other document sets forth the Principles Underlying the Bestowal of Fellowships. New Nomination Forms are in use and may be obtained on application to Mr Maurice Holdham, Executive Secretary of the Institute. *Harland Steele, Chancellor, College of Fellows.*

Fellowship is the highest honour the Royal Architectural Institute of Canada can bestow upon a member. To guard and further the prestige of the College, to observe the pledge of high professional conduct and service, and to assume full responsibility in maintaining the highest standard of the profession is the duty and obligation of every member of the College of Fellows.

The constant goal of improvement in the architectural profession in Canada is the principal objective of the RAIC College of Fellows. By recognizing the good works of our members who contribute most to the profession, we stimulate others to improve and so deserve equal awards. Recognition must be truly deserved or the objective of the College is destroyed.

A member of the RAIC who is over thirty-five years of age and has achieved professional eminence or rendered distinctive service to the profession is eligible for nomination to Fellowship. He must have proper qualifications under one, or more, of the following categories: design; science of construction; service to the Institute; public service; education or literature. The total membership of the College must never be over eight per cent of the total Institute membership and proper qualifications, regardless of locality or other influences, are the only criteria for election to the College.

To guard and improve the prestige of the College, the procedure for nominations has been enlarged and revised. The work of the Nominating Committees and the Screening Committee is to ensure that unworthy candidates are not elected and worthy candidates are not overlooked. Proposers should feel quite certain that nominees' achievements have sufficient distinction to make them notable contributors to the advancement of the profession and of architecture and should remember that the personality and popularity of a member does not of itself constitute a notable contribution; nor is Fellowship necessarily an award for the nominee's industry and success.

Letters attesting to intimate knowledge of the good works and character of nominees are required from each of the five proposers.

Procedure for the Nomination and Election of Fellows

"A member of the RAIC who is over thirty-five years of age and who has achieved professional eminence, or rendered distinctive service to the profession shall be eligible for nomination to Fellowship."

Any five Fellows may nominate, using the prescribed printed form which may be obtained on application to the RAIC Executive Secretary, and each nominator must write a letter addressed to the Chairman of the Screening Committee, attesting to the qualifications of the nominee. All letters by nominators must be sealed. The nominating form and sealed letters are to be submitted, through the RAIC Executive Secretary, to the Chairman of the local committee where nominee resides before October 15th of each year.

The Chancellor shall appoint a Chairman of a local committee for each provincial association who shall choose a committee of one to six members to initiate and/or receive nominations for Fellowship in that association. Nominators for any nominee may reside in any province in Canada. Members of the Screening Committee may not nominate or be members of a local committee.

Each Committee Chairman shall forward all documents, including the required sealed letters of nominators, to the RAIC Executive Secretary before November 1st and shall also forward a complete report of his Committee deliberations for submission to the Screening Committee. The report must include a list of all candidates initiated and considered by the Committee, with reasons why those considered but not nominated were omitted. Where nominations have been received and not initiated by a local committee the report is to recommend approval or give reasons for not recommending approval of received nominations.

Not later than February 1st, a list of all proposed nominees shall be sent to all Fellows with notice that if any Fellow objects to any name he must write a confidential letter, stating the reasons for his objections, to the Screening Committee before February 15th. The Screening Committee shall act on any such letters entirely at their discretion.

The Screening Committee will consist of the RAIC President, the Vice-President, the Chancellor, and the Dean of the College of Fellows. It shall consider all nominations submitted, and have the power to accept, reject, or postpone them; thus advising the Chancellor. The Screening Committee shall also recommend Honorary Fellowships and Corresponding Members. They shall meet for this purpose sometime between November 1st and February 1st and confer again between February 15th and March 1st to confirm final recommendations.

The Chancellor shall receive the final list of recommended nominees from the Screening Committee, not later than March 1st, for his presentation to the Council.

Only Council members who are Fellows shall meet with the Chancellor to consider the list of nominations and elect new Fellows, accepting or rejecting the Chancellor's recommendations but having no power to add new names or replace rejected nominees. Election will take place at the first meeting of the Council after March 1st.

The Registrar will send letters to Fellows-elect, advising them of their election, asking them to fill out a "form of consent", and inviting them to attend the convocation ceremony at the next RAIC Assembly.

The Chancellor will write congratulatory letters to Fellows-elect after they have returned the "form of consent".

The Registrar will compose a notice for the *Journal*, naming the newly elected Fellows with reasons for their election, to be published in the first issue following convocation. This notice will be approved by the Chancellor before submission to the *Journal*.

Principes Régissant l'Admission des Fellows



Il y a quatre ans, le Collège des Fellows étudiait divers moyens d'améliorer les modalités visant la mise en candidature et l'admission de nouveaux membres. Les dirigeants, ainsi qu'un certain nombre de membres en vue du Collège, sous la présidence du doyen, M. Earle Morgan, ont recommandé, en ce sens, certaines règles de procédure qui ont été acceptées par le Collège à sa réunion d'affaires à Hamilton, le 18 mai 1963.

Pour la gouverne de tous les membres de l'Institut royal d'architecture du Canada, nous publions, avec la présente, les deux documents principaux mettant en oeuvre les nouvelles modalités. Le premier de ces documents expose la méthode à suivre pour la mise en candidature et l'acceptation des nouveaux membres et le second, les principes qui régissent l'admission des nouveaux membres du Collège. On peut se procurer la nouvelle formule de mise en candidature, en faisant la demande à M. Maurice Holdham, secrétaire administratif de l'Institut. *Le chancelier du Collège des Fellows, Harland Steele.*

Le titre de Fellow est le plus grand honneur que l'Institut royal d'architecture du Canada peut conférer à l'un de ses membres. Chaque membre du Collège des Fellows a pour devoir et obligation de sauvegarder le prestige du Collège et de travailler à augmenter son rayonnement, de respecter son engagement quant à la haute qualité professionnelle de sa conduite et de ses services et d'assumer pleine et entière responsabilité en ce qui a trait au maintien des plus hautes normes de la profession.

L'objectif du Collège des Fellows de l'IRAC est l'amélioration constante de la profession d'architecte au Canada. En reconnaissant le bon travail de nos membres qui contribuent le plus à la profession, nous encourageons les autres à s'améliorer et à mériter ainsi le même honneur. Toutefois, cet honneur doit être véritablement mérité, sans quoi le Collège manque son but. Tout membre de l'IRAC âgé de plus de 35 ans, qui s'est distingué dans l'exercice de sa profession ou a rendu à celle-ci des services signalés, peut être proposé comme membre du Collège des Fellows. Il doit posséder les qualités requises sous l'un ou plusieurs des chefs suivants : composition, science de la construction, services à l'Institut, civisme, enseignement et littérature. Le nombre des membres du Collège ne doit jamais dépasser 8% de l'effectif global de l'Institut et le mérite est, à l'exclusion de l'endroit de résidence et de toutes autres influences, le seul critère d'admission.

Afin de sauvegarder et de rehausser le prestige du Collège, on a révisé et élargi le processus de présentation des candidats. Les fonctions des Comités locaux et du Comité de sélection consistent à empêcher que des candidats non méritants soient acceptés et que des candidats méritants soient oubliés.

Les proposeurs doivent s'assurer que leurs candidats se sont suffisamment distingués pour constituer une contribution notoire à l'avancement de la profession et de l'architecture, et, se rappeler qu'en soi la personnalité et la popularité ne sont pas des contributions notoires ; en outre, le titre de Fellows ne constitue pas nécessairement une récompense pour le travail ou les succès d'un membre.

Chaque candidature doit être appuyée par une lettre de chacun des cinq proposeurs, attestant qu'il connaît personnellement le bon travail et la bonne réputation du candidat en cause.

Règles Visant la Mise en Candidature et l'Admission de Membres

“Tout membre de l'IRAC âgé de plus de 35 ans, qui s'est distingué dans l'exercice de sa profession ou lui a rendu des services signalés, peut être proposé comme membre du Collège des Fellows.”

Cinq membres du Collège peuvent proposer un candidat, au moyen de la formule imprimée réglementaire, qu'on peut obtenir en faisant la demande au secrétaire administratif de l'IRAC. Chacun des cinq proposeurs doit adresser une lettre au président du comité de sélection, attestant les qualités du candidat. Toutes les lettres des proposeurs doivent parvenir à destination, bien scellées. La formule de proposition et les lettres scellées doivent être soumises par l'entremise du secrétaire administratif de l'IRAC, au président du comité local où le candidat a son domicile, avant le 15 octobre de chaque année.

Le Chancelier nomme le président d'un comité local pour chaque Association provinciale. Ce président choisit de 1 à 6 membres pour former son comité dont les fonctions consistent à recevoir et (ou) proposer de son propre chef des candidatures au titre de Fellow parmi les membres de cette Association. Les proposeurs d'un candidat peuvent être résidents de n'importe quelle province du Canada. Les membres du comité de sélection ne peuvent agir comme proposeurs, n'y être membres du comité local.

Chaque président de comité local doit faire parvenir tous les documents, y compris les enveloppes scellées des proposeurs, au secrétaire administratif de l'IRAC, avant le 1er novembre. Il devra, aussi faire parvenir un procès verbal complet des délibérations du comité. Le tout sera ensuite transmis au Comité de sélection. Le procès verbal devra comprendre une liste de tous les membres dont la candidature a été proposée et considérée par le comité, en y ajoutant les motifs qui ont incité le refus de ceux dont les noms ont été proposés mais non recommandés; Il devra inclure, de plus, les recommandations motivées, faites au Comité de sélection, favorables ou défavorables, à l'égard des candidatures qui n'auront pas été proposées par le comité local.

Le Comité de sélection se compose du président et du vice-président de l'IRAC ainsi que du chancelier et du doyen du Collège des Fellows. Il étudie toutes les candidatures soumises et il a le pouvoir de les accepter, de les rejeter ou de les différer et d'aviser en conséquence le chancelier. C'est lui aussi, qui recommande les candidats aux titres de Fellows Honoraires et de membres correspondants. Il se réunit à cette fin à une date quelconque entre le 1er novembre et le 1er février et, de nouveau, entre le 15 février et le 1er mars, cette fois pour confirmer les recommandations définitives.

Au plus tard le 1er février, la liste des candidats proposés est envoyée à tous les Fellows avec une note leur demandant de bien vouloir aviser le Comité de Sélection, avant le 15 février, au moyen d'une lettre confidentielle de leur opposition à tout candidat recommandé, en donnant les motifs qui justifient cette opposition. Le Comité de sélection a entière discrétion quant à la suite à donner à toute lettre de ce genre.

Au plus tard le 1er mars, le Comité de sélection fait parvenir la liste définitive des candidats recommandés au chancelier afin que celui-ci la présente au Conseil.

Seuls les membres du Conseil qui sont également membres du Collège des Fellows ont le droit de siéger avec le chancelier pour l'étude des candidatures et l'acceptation de nouveaux Fellows. Ils peuvent confirmer ou rejeter les recommandations du chancelier mais ils n'ont pas le pouvoir d'ajouter de nouveaux noms ni de rétablir des noms rayés. (Première réunion du Conseil après le 1er mars.)

Le secrétaire-archiviste envoie aux candidats choisis une lettre les avisant de leur candidature et leur demandant de bien vouloir remplir la “formule d'acceptation” et les invitant à assister à la cérémonie d'investiture à la prochaine assemblée.

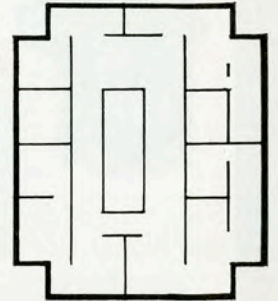
Le chancelier adresse une lettre de félicitations aux futurs membres dès qu'il a reçu d'eux leur “formule d'acceptation”.

Le secrétaire-archiviste composera, pour publication dans le premier numéro du *Journal* suivant l'investiture, un avis contenant la liste des membres choisis et les raisons qui ont motivé ce choix. Cet avis doit être approuvé par le chancelier avant d'être envoyé au *Journal*.

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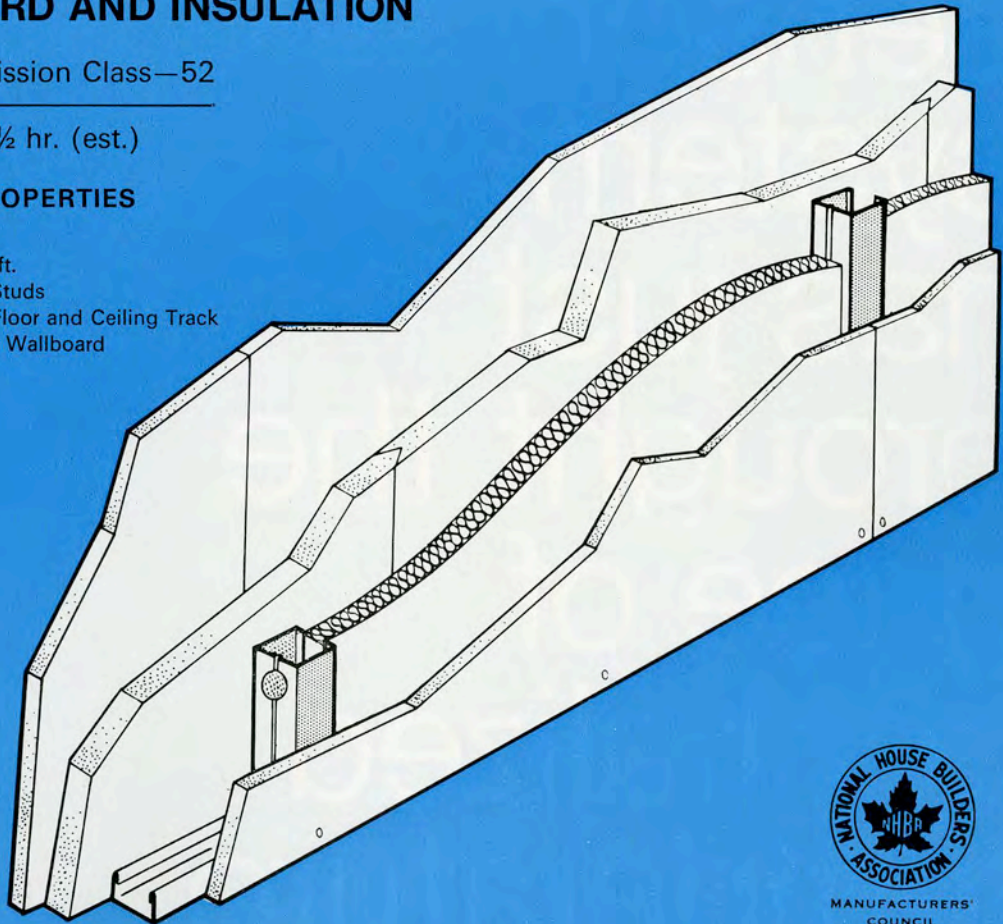
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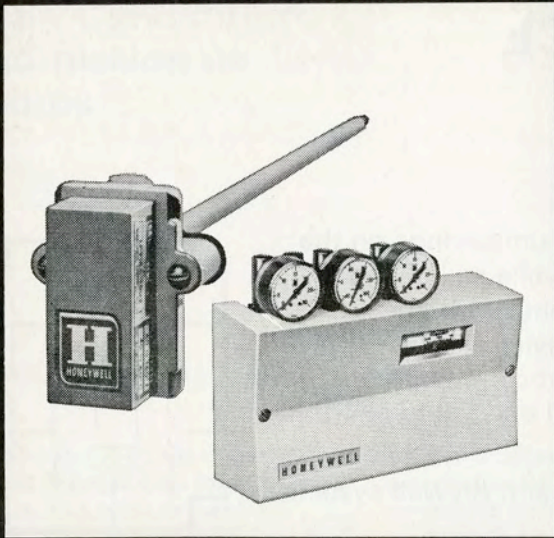
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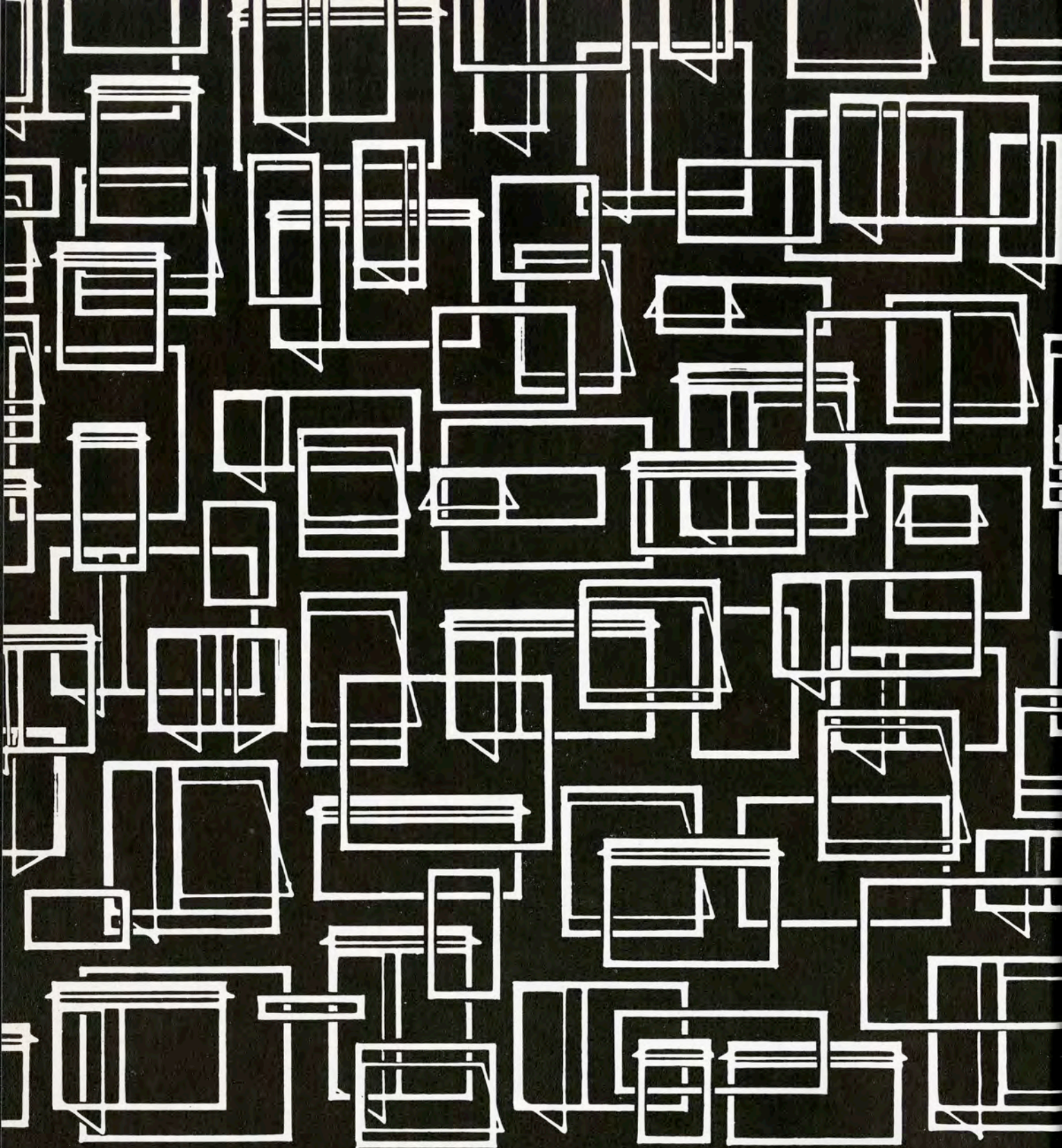
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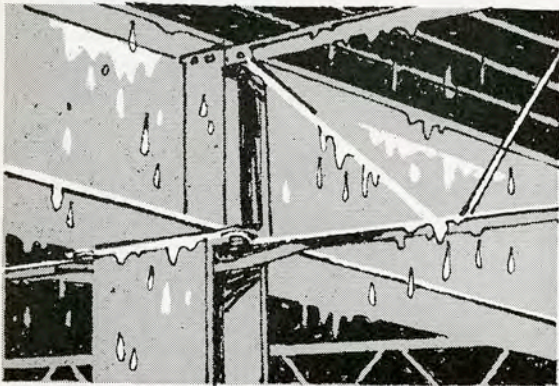
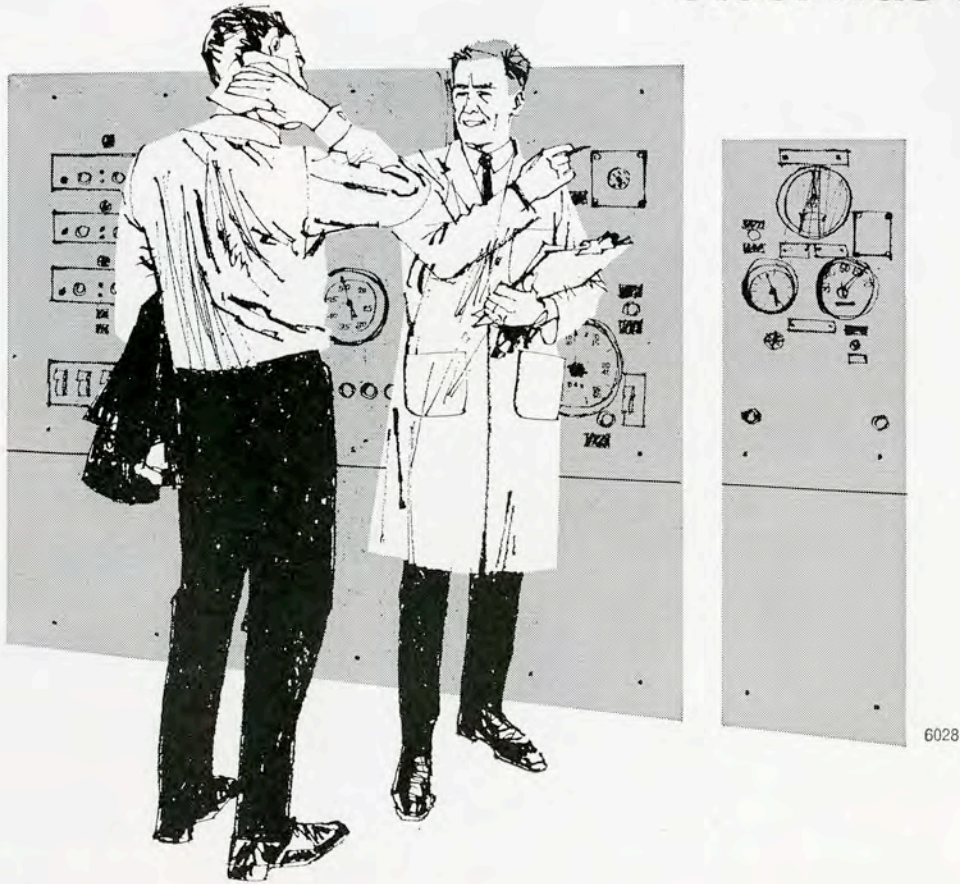


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1

Contemporary transportation trends send man underground like a mole to emerge as bewildered as a groundhog seeking evidence of spring. He is trapped in anonymous subterranean mazes of his own making. Surface travel is no better. Identical concrete highways are no more than endless concrete ribbons crossing and recrossing each other over a vistaless plateau. So featureless, to quote Edith Sitwell on in her California travel "there is no There there".

Disturbed to the point of alarm above or below ground, man has lost his sense of destination. He sees no familiar landscape as he is guided only by unsympathetic directives – stop, go, north, south, right, left.

If criticism is to be constructive it would be as well to examine the role of the artist and how his ideas might have palliative treatment to what has become an abominable bore to most of us – the environment of public transportation.

Art is not a therapy for man's "sickness" but is an exciting and dignified profession whose practitioners are well able to contribute useful means to brighten man's environment when its natural beauty is despoiled. Art has many aspects of application both grave and gay. Transport and big cities are inevitable despoilers of natural beauty. We cannot replace nature or hold back the clock. We can, as creative men, contribute much aesthetic excitement and pleasure to compensate for this loss. This is the artist's special role. Stuffing the subways with works of art of a serious nature to soothe the outraged sense of security at anonymous environment of the traveller will not work. The alternative is realistically to analyze the psychology of the environment upsetting the traveller and, by wit and humor restore his

lost sense of destination and pleasurable interest in daily travel. Engineers and architects ought to be heartily ashamed of the present decorative treatment of structural elements. The best alternative they offer to an indifference to grimy concrete façades are clinical lavatory wall tiles, cold, unimaginative lighting, and exits and entrances mass produced. What imagination! Orifice after orifice swallows us poor termites and spews us back from an intestinal horror of anonymity. These, however, are structural problems for the architect and decorator. The business of art is of deeper significance, born of man's tribal need for signs and signals of totemic meaning. These problems are not solved by orderly graphic designs, mass produced at a low cost. What we need is the designing of individual visual signposts as reassuring human reminders that we are "funny folk" peopling a "funny world".

It would be pious and incorrect to think that the distressed traveller, especially at rush hour or in the confused state of old age, would be reassured by a collection of beautiful, disturbing, or cryptic images of conceptual artists. Nor would his queries be satisfied by complicated historical murals depicting the growth and development of transport. On the other hand will his various dilemmas be soothed by pretty beguilements changing subway terminal atmosphere to an extension of home or castle? God forbid that calendar cottage or log cabin be the western substitute in imitation of the Russian Subway with all its upper class pretensions, statues and all. Nor have we the "heroes" to sustain their dignity immobilized upon plinths in the face of roaring traffic. A "Diefenbaker" or "Sevigny" would not survive the sophisticated eye reducing them to objects of high camp fun parlors.

Portals and crypts today might be all the better for light hearted (not light minded) mural treatments, individually created for each terminal – photographic or figurative symbols, clearly understood, establishing identity of terrain. Maybe illuminated maps humorously peopled with tiny folk, rather than yellow and red dots, to reassure and point to "where" or "there" or "what".

While waiting for delayed transport, could not the traveller muse upon the wall "sgraffiti" on which is declared where he is, with commentary on the place, its features, grave and gay, and better still its relationship with routes and places on the way to his inevitable destination.

Could he but find at hand some gaily illustrated map, giving the same delight as Paris maps from the Eiffel Tower, giving quick identity to Notre Dame and its environmental cousins, or even one's hotel. What pleasure in London's underground to purchase post cards for which the sender need have no shame and, when in the crowded tube, to be beguiled and seduced to read the capricious posters of the London Transport's own advertising campaign.

Apart from all the rest, our tickets, maps, papers and identification symbols are barren, sterile, factual products of graphic design whose only aim is spatial arrangement.

Would that the transport departments gave leave to present a blueprint to generally enliven the environment with ideas and

1
"No There there". Subways shown are: "Toronto the Clean", "Moscow the Magnificent", "London the Drab". Voici quelques échantillons de métro: Toronto le propre, Moscou le magnifique, Londres le terre.

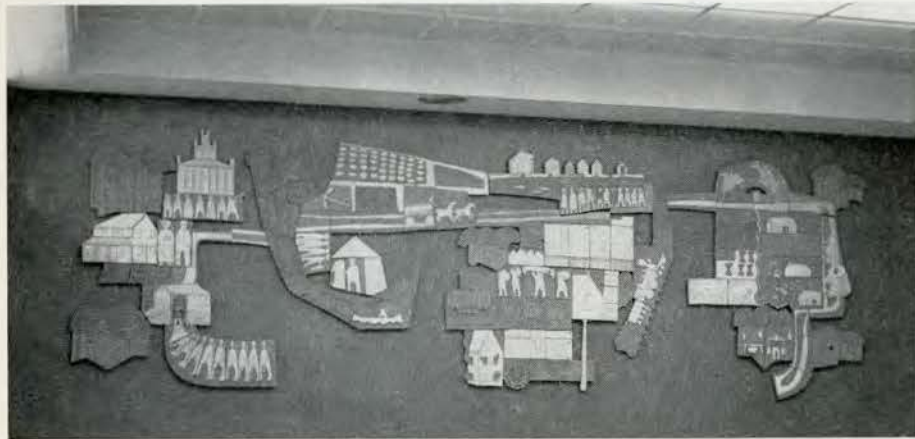
2
Michael Snow's "Walking Women" from a photograph by John Reeves (Permission, Ontario Pavilion Expo '67)

3
De Niverville mural, Malton Airport

4
Chamber's Pictorial Images of Historic North York. Architects, Somerville, McMurrich & Oxley

5
Sgraffito Wall, University of Victoria, by Herbert Siebner

6
Detail of Sgraffito



ingenuity contrived by the best artistic wit of this country. I am reminded that the Canadian ability to laugh is not one of its most exploited commodities. The works of De Niverville, Dallegret, Town and Merton Chambers are resources hardly tapped.

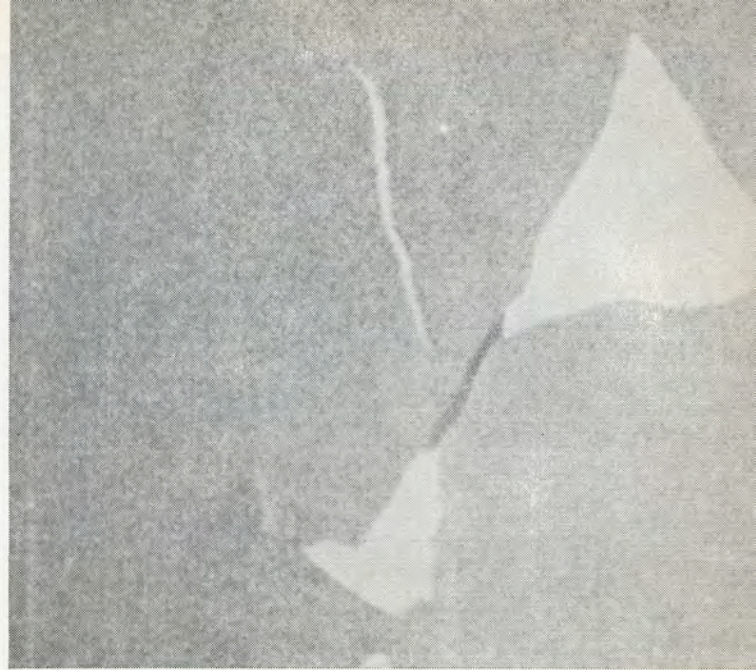
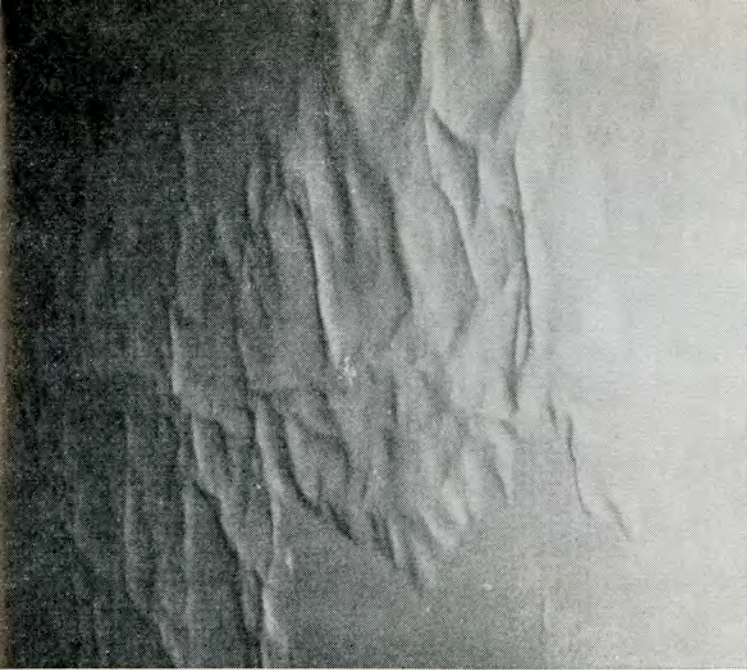
The vestibule of York County Hospital, Newmarket, soothes the anxious relative or waiting visitor to cogitate upon the history of the Place with mural meanderings of ceramic delight by Chambers (see photograph). It tells of family names and solid farms now just familiar names to street and square. It tells of people and their happenings, grave and gay, indignant riots when Yonge Street could be marched with pick and

shovel as weapons to protest. We want no trite depictive re-enactment, but rather, flights of fancy like the dreams of boys who stand upon a sacred spot where heroes trod before. What purchasable pleasure there would be if De Niverville's imaginative mind was handed the task to fashion pictorially a route map with alternate means of how to proceed from Toronto to Montreal. If only one had the choice of perusing a cynical Town "chart" rather than straining one's eyes and intelligence with a cartographer's map. In subways, how easily faltering footsteps might be persuaded to follow Michael Snow's "Walking Girl" artlessly proceeding along walls and corridors to escalate past news stands, candy store and confusing

avenue, to the happier, identifiable clime above. We must not and cannot attempt to replace the natural visual landscape with imitation and nostalgic reminder. But we can and must recreate iconography as reassuring and as vital as surface interest when man travelled by foot and horse from familiar landmark to landmark.

With intelligence, the artist can be persuaded to leaven the sour dough of either clinical asepticism or "good taste" and to provide a better alternative than sleazy sordid indifference. Art here is no luxury but a dire necessity for tired, bored and uncertain man.

Anita Aarons



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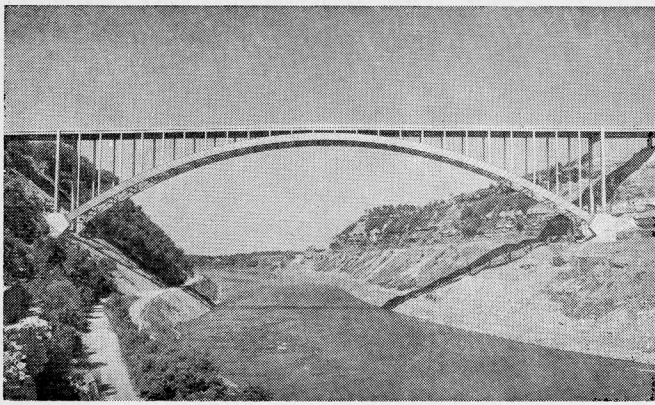
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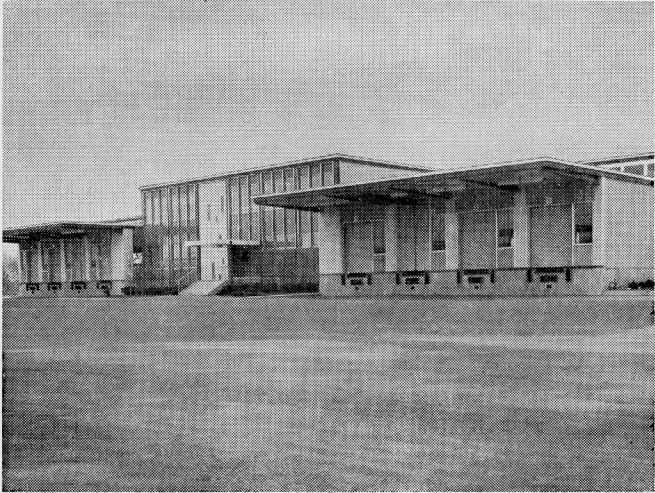
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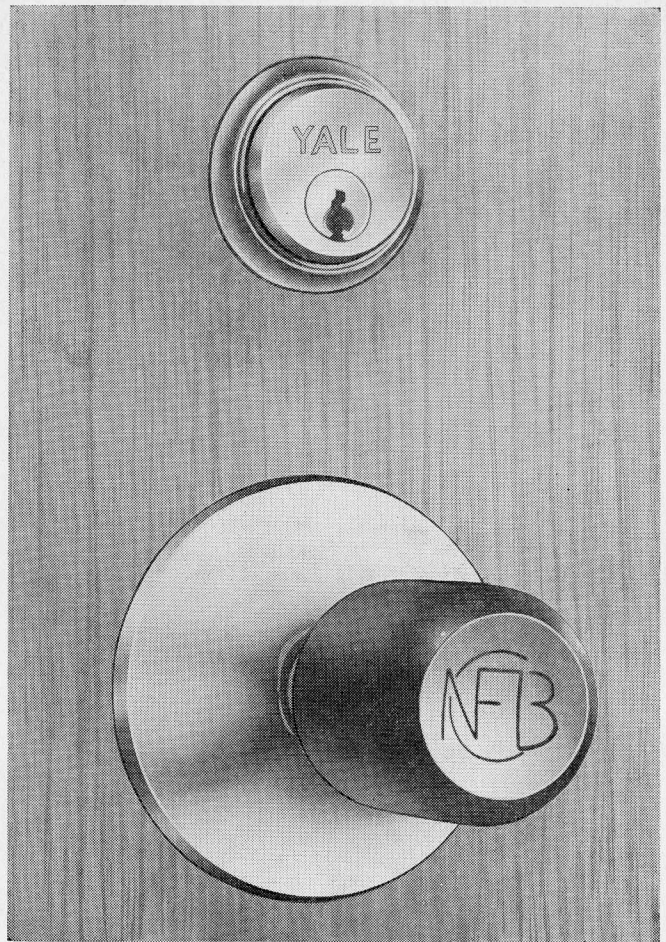
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(1)



(2)



(3)

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- (1) The New Lewiston-Queenston Bridge crossing the Niagara River links the New York State Thruway with the Queen Elizabeth Way in Ontario.
- (2) Niagara Falls Bridge Commission's Customs Examining Warehouse on the Canadian side of the Bridge. Architects: Salter & Fleming, St. Catharines.
- (3) One of the Custom designed Yale Locksets used throughout the complex of buildings servicing both the Canadian and American sides of the Lewiston-Queenston Bridge.

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BOX 667 ST. CATHARINES, ONTARIO

The simplicity and versatility of electric heating



Fonthill Municipal Building, Fonthill, Ontario • Architects — Fraser & Macie, Welland.
Consulting Engineers — Howard C. L. Joe & Associates, St. Catharines.

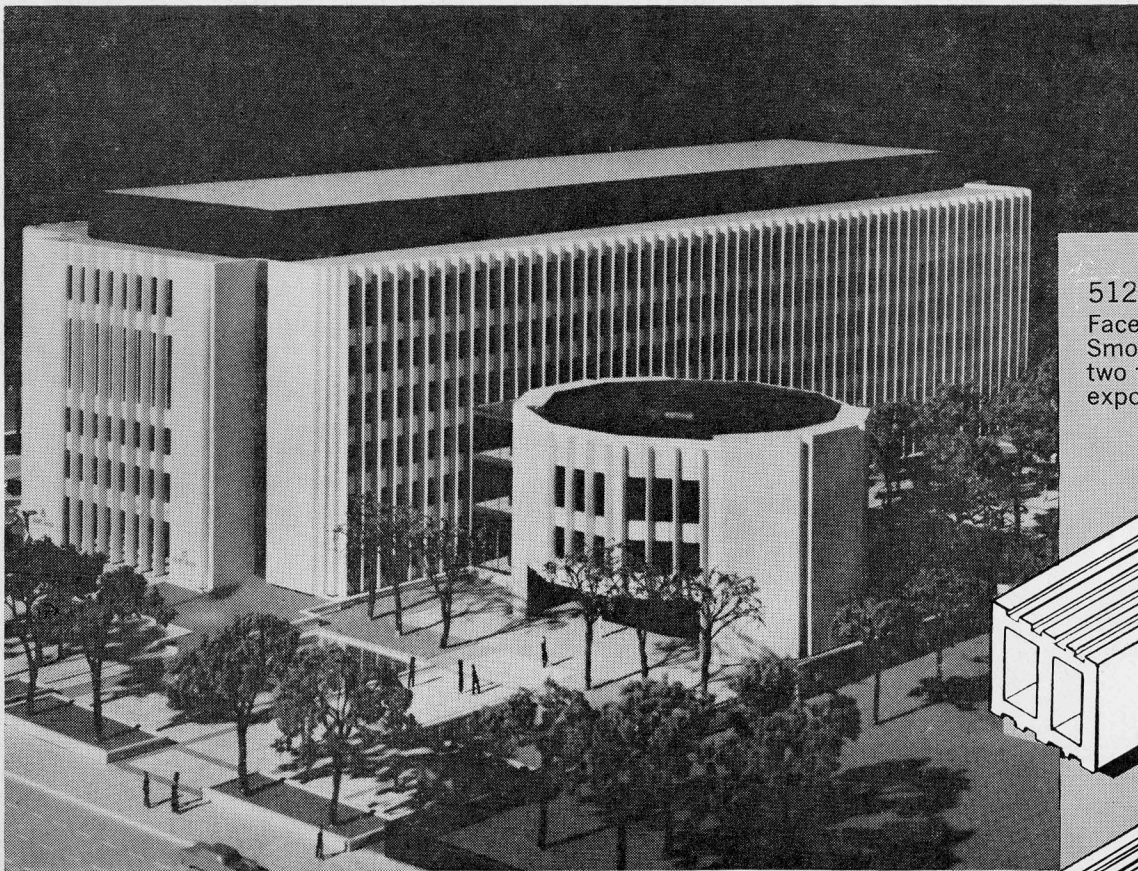
In that simplicity is the essence of good design, electric heating has contributed considerably to both the functional and aesthetic qualities of the new Fonthill Municipal Building.

The multi-purpose nature of the building . . . offices, council chamber, library, police headquarters . . . put electric heating's claims of simplicity and versatility to the test. Success took the form of a warm welcome at the two much-used entrances, made possible by strategically-positioned, wall insert, fan-forced heating units. It took the form of neat, unobtrusive baseboard units that quietly convect a gentle, even, wall-to-wall warmth wherever there are people at work. Success showed up with the compact unit-ventilators in the library where the books require an extra special environment control.

Versatility was emphasized by the comfort and economy of precise zone control. The council chamber, used but twice a week, is heated but twice a week. The police headquarters is kept comfortably warm all night long, while other parts of the building are "turned down."

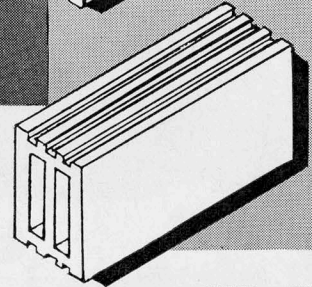
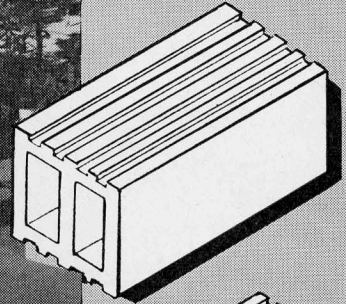
All this, from a clean, maintenance-free nerve centre tucked neatly under a staircase. Yet this is only part of electric heating's success story. It has a lot more to offer your clients. Ask your Hydro.





Architects: Marani, Rounthwaite & Dick, Toronto
 Owner: Municipality of Metropolitan Toronto
 Structural Engineers: C. D. Carruthers & Wallace Consultants Ltd., Toronto
 General Contractor: Pigott Construction Co. Ltd., Toronto

512 SERIES
 Face size, 5 1/4" x 12"
 Smooth one or
 two face units for
 exposed finish



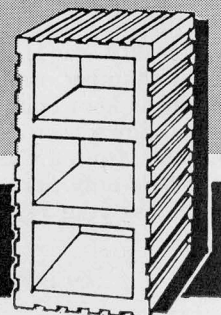
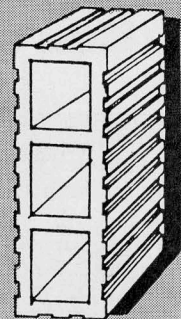
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1212 SERIES
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 Scored two face units
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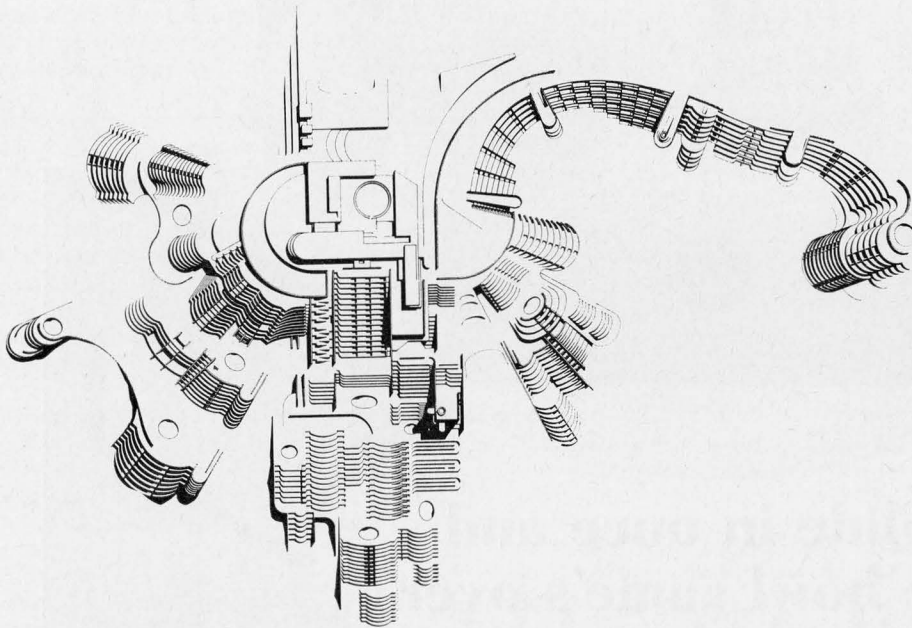


THE COMPLETE LINE OF STRUCTURAL CLAY TILE

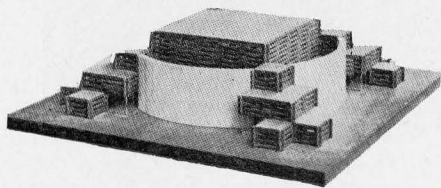
NATCO·CLAY·PRODUCTS·LIMITED

Plant: Aldershot Sub. P.O. Burlington, Ontario

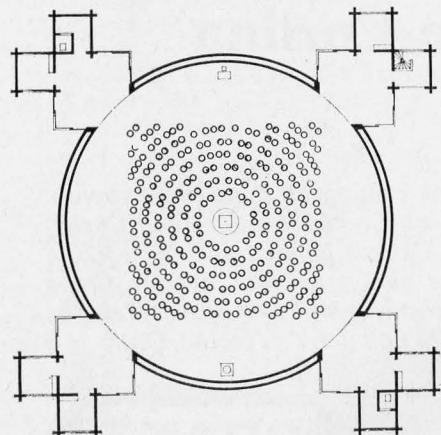
Head Office: 55 Eglinton Ave. East, Toronto 12, Ontario



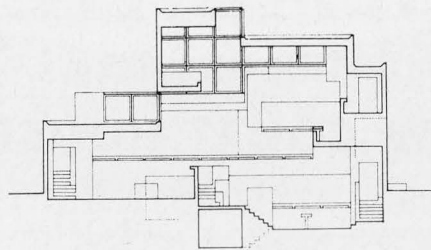
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Werk, June 1966, has published a number of examples of terrace housing. (1) These are graphic examples of alternatives to the overworked theme of point blocks as an answer to high density planning. Besides the banal scale that point blocks often create, there is a growing awareness of the sociological problems they raise. The physical results of simple topological studies can often prove surprising. By a different amalgamation and distribution of building volume it is conceivable that the population of Manhattan could be doubled, the amount of amenity in the form of light, air and appropriate open space considerably increased, and the building heights severely reduced. One of the most interesting examples published in this series that has examples from many countries, is Sunset Mountain Park, Los Angeles. Architects Daniel, Mann, Johnson & Mendenhall.

Architecture d'aujourd'hui, May 1966, is devoted to Church Architecture. Two of the most interesting examples illustrated are projects which in different ways make a world within a world. Both have a sense of sanctuary and of place. (2,3,4)

John B. Parkin Associates have won an honorable distinction for their design for the Imperial Oil Building, Toronto. (5) The press release says that an eminent jury of architects adjudicated the Sao Paulo Biennial Competition, one of the largest in the world. This was true of the Chicago Tribune Competition – and look what that produced. If neatness is the sole criterion of good architecture, then this building deserves credit. If attention to orientation, to circumstance, both natural and man-made, to say nothing of structural clarity, entrance, and variations in volumetric content is important, then it is hard to see why this neat exterior design warranted merit as architecture.

A.J.D.



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CRANE

Résumé de l'introduction de Hans Blumenfeld au sujet des moyens de transport (Page 31).

Les villes et le transport en commun sont inséparables. Les villes sont soit des "Terminus" de transport entourant un port ou une gare, soit des "centres" régionaux entourés de gares et de ports. Les artères desservant les terminus sont les éléments essentiels d'un système de circulation. L'image d'une ville est tracée dans la mémoire d'abord par les voies de circulation et ensuite par certains points de repère.

Le développement urbain des zones métropolitaines pose de nouveaux problèmes de communication d'un mode de circulation à un autre, et un besoin d'intégrer et d'articuler les moyens de déplacement des piétons et des machines.

Le véhicule de transport a provoqué des études techniques d'avions, de bateaux et d'automobiles mais très peu de progrès a été réalisé sur voie ferrée. Les trains du "Rapido", du Métro de Montréal et de l'Expo reflètent le dernier-cri des chemins de fer. L'article de Guy Legault sur le Métro de Montréal insiste surtout sur le rapport du Métro à la structure urbaine, l'influence des gares non seulement comme points de convergence en plein air mais aussi comme correspondance d'une ligne à l'autre, du système métropolitain au système d'autobus et de voies de circulation des piétons en plein air et par passage souterrain vers les immeubles importants et les lignes d'autobus. Le Métro de Montréal s'efforce de garder un rapport visuel avec le monde en plein air et de présenter à l'utilisateur une vue compréhensible du réseau souterrain dès son entrée.

Dans la ville de New York l'identité des systèmes de transport est établie nettement par les stations à 4 niveaux reliés par escaliers mécaniques mais ces stations n'offrent aucun point de repère visible dans la structure urbaine.

Le problème de rapport visuel est différent pour les aéroports puisque, forcément, ces derniers sont éloignées des centre-villes et

doivent y être reliés par automobile. L'aéroport de Toronto a très bien résolu le problème en faisant pénétrer la voiture jusqu'au centre de l'aérogare.

Malheureusement nous ne sommes qu'au point de départ dans l'étude de la séparation des circulations véhiculaires et de piétons dans le centre de nos villes. L'article de Blanche van Ginkel traite de l'échelle des expériences visuelles compatibles avec la vitesse de chaque système de transport, leurs rapports l'un à l'autre et leur valeur dans l'ensemble.

L'article de M. Staples expose les besoins contradictoires que l'utilisateur a de voir la route en ayant des expériences visuelles de la ville tout en ne gênant pas les activités des citoyens par la voie sur laquelle il doit rouler. Rarement a-t-on réussi aussi bien qu'à l'Expo de définir les limites d'une structure urbaine par la superposition de systèmes de transport, chacun adapté au besoin réel de l'utilisateur et lui offrant en même temps une image significative du secteur.

Au moyen Age, les rues traversaient les maisons et les boutiques longeaient les ponts. La création d'une oeuvre fonctionnelle en soi en dépit de toute flexibilité est aussi difficile à rationaliser en transport commun qu'en bâtiment. L'architecte de la Renaissance a reconnu le besoin de s'ouvrir aux imprévus de l'avenir lorsqu'il a développé l'idéal de séparer clairement les volumes des rues et des places de ceux des structures adjacentes. Le moment est-il arrivé où nous devons considérer à nouveau et sur un plan plus élevé l'intégration des voies de déplacement avec les structures architecturales en utilisant de nouvelles techniques et sur une plus grande échelle? Les articles et les projets dans ce numéro tentent de répondre à cette question.

Résumé de l'article de S. M. Staples sur la page 33, Le Réseau de Transport à l'Expo '67

Le problème posé aux planificateurs d'Expo '67 était de trouver un système de transport

reliant les 4 secteurs. Tout en étant fonctionnel, le système devient un élément important dans la structure de l'Exposition exprimant la continuité des 4 secteurs.

Le plan obtient une cohérence en situant les structures thématiques à un point dominant dans chaque secteur et faisant coïncider les gares principales avec ces points. Le résultat est un système organique dont le réseau de transport est la structure squelettique, les Expositions thématiques sont les organes vitales et les autres pavillons, la chair.

Il a fallu trouver un système pouvant desservir efficacement de 145,000 à 350,000 personnes par jour sur un terrain de 3 milles de long, par 3 voies, soit: le Quai MacKay, le Métro Ste-Hélène et l'accès à la Ronde. Un réseau primaire a été conçu ayant une capacité de 30,000 personnes par heure et des réseaux secondaires de capacités de 500 à 6,000. Expo Express, le système primaire, relie les entrées extrêmes et effectue le circuit complet en 25 minutes à 25 mph sur rail surélevé ne s'arrêtant qu'à 4 gares. Les places sont gratuites. On espère que le rail surélevé avec son éclairage et ses gares illuminées donnera une continuité au plan et incitera les visiteurs à commencer leur tour d'Expo en Expo Express.

Lorsqu'il y a plus d'un réseau secondaire dans un secteur, ils suivent des voies différentes et à hauteurs diverses afin de présenter chacun un nouvel aspect des expositions.

En plus, il y a 3 minirails d'une longueur totale de 5 milles. Celui de l'Île Notre-Dame a une capacité de 6,000 personnes, ceux de la Ronde et Ste-Hélène, 2,400. Ils roulent à 10 mph, sont ouverts et traversent certains pavillons. Les stations sont de 3 types: à un point d'entrée, à proximité d'une gare de l'Express et à l'extrémité d'un circuit.

Sur l'Île Notre-Dame, les canaux transportent 1,000 personnes par heure. L'expérience est différente même si parfois un canal longe un chemin de piétons ou un minirail.

Un petit tracteur avec 4 remorques sur

pneus dessert le quai MacKay. Il part de la Gare principale de l'Expo Express et s'arrête près du Pavillon thématique.

Enfin, le Skyride, donnant une vue dramatique à 120 pieds d'hauteur sur la Ronde, transporte 2,400 personnes par heure.

Le réseau de transport joue un rôle important dans le développement du plan directeur de l'Expo. Les projecteurs ont eus un contrôle extraordinaire du développement. Si les résultats de l'opération du système de transport peuvent être enregistrés pendant les six mois de son existence, peut-être que les urbanistes pourront tous en bénéficier.

Résumé de l'article de Blanche Lemco van Ginkel sur Le Piéton de Centre Ville (Page 36)

Projeter une ville pour le piéton serait de la projeter pour tout le monde. Les réseaux de circulation d'une ville sont plus que des moyens de résoudre "un problème de trafic". La circulation est la vie même d'une ville et les moyens d'y circuler demandent une attitude positive de dessin dont la voie publique devra constituer une partie essentielle.

Bien qu'on critique les villes nord-américaines pour leur manque de facilités pour l'automobile, elles sont pas plus satisfaisantes pour le piéton. Donc, il faudra considérer les exigences essentielles des personnes qui se déplacent à diverses vitesses et pour des raisons diverses.

La classification de méthodes de circulation pourrait être en termes de leurs fonctions et vitesses plutôt qu'en termes de l'automobile contre le piéton. Une telle classification résulte en deux catégories, l'une pour l'auto, l'autre pour le piéton — mais les deux se chevauchent. Les catégories de vitesse en ordre ascendant pourraient être :

- 1 Une voie pour piétons où l'automobile n'est pas tolérée.
- 2 Une voie pour piétons où l'automobile est tolérée.
- 3 Une voie où le piéton et l'automobile ont des droits égaux.
- 4 Une route pour automobiles où le piéton est toléré.
- 5 Une route pour automobiles où le piéton n'est pas toléré.

L'image visuelle est le produit du mouvement ; l'oeil est en mouvement constant en se déplaçant dans la ville et des images s'y imposent ; ce qu'on voit à un moment donné est conditionné par les images précédentes, par ce qu'on s'attend à voir par la suite, et par les expériences précédentes. Mais nos idées de l'espace ont changées. D'une

part, nous avons toujours besoin d'un environnement à l'échelle humaine et d'autre part, nous sommes animés par l'espace telle que révélée par la technologie. Donc, le piéton n'est plus un piéton dans le sens familier. Il aime toujours la solitude mais il aime aussi les sensations spatiales du vingtième siècle. Un but de l'aménagement urbain devra être de réunir ces deux éléments dans une totalité qui nous changera d'idée conventionnelle de la voie à piétons en deux dimensions. Les éléments de tranquillité inhérents dans ces systèmes devront faire partie d'un système plus riche et leur séparation ne devra pas dire l'isolation de tout autre activité. Avant tout, ils devront être intégrés dans la ville plutôt qu'y être encastres gratuitement.

Résumé of Guy Legault's article on the Montreal Métro (Page 44)

In October '66, the Montreal Metro will operate a nine mile network. The primary system, Lines 1 and 2, will be completed by the secondary system, originally Lines 3 and 4. The existing CN railway from Central Station to Cartierville has taken over the functions of the original Line 3. Line 1 crosses the northern downtown area from east to west ; Line 2 goes north-south through a dense residential area then turns east-west to cross the south downtown area (Fig. 1) and Line 4 crosses the river to Expo and the south bank. Integration of the bus and metro systems will create a transportation network capable of carrying downtown some 900,000 people from a 30 square mile area in 30 minutes. Outside the downtown area, metro stations will be 2,000 feet apart with bus lines converging at these points. Downtown stations will be 1,600 feet apart and so placed that one is always just a 3-minute walk from a metro station (Fig. 2). At Berri-de-Montigny, one of the 26 stations, the three lines overlap and form a central transfer point.

Each line is near but not under a principal artery, thus cutting interference with the commercial life of the city to a minimum both during and after construction. Stations are between and not in the narrow streets of Montreal, thus creating greater space around the stations, permitting freer access and room for escalators and presenting interesting challenges to the urban developer. During construction, such areas were used for storing equipment and some as work shafts. Wherever possible a road circles the site, thus allowing buses to loop away from city traffic. Victor Prus' project for the development of the access and surface of Mount-Royal station (Fig. 3, 4) is given as an example of what could be done. So far, only one of these sites has been rented and

is near completion (SW corner of Guy and Burnside, Fig. 5).

Right from the start architects, both in private practice and government service, were asked to collaborate. Their active participation has produced stations of more than strictly functional design as shown in Fig. 6, the walkway to Mount-Royal station and the south entrance to Laurier station. Although a certain amount of standardization was necessary, there is such a diversity in volumes, colours and lighting that each station is identified by its general aspect rather than by its name. In certain cases, natural rather than artificial light has been used — Laurier and Beaubien stations—and in all stations, advertising space has been incorporated in the walls.

Industrial designers played an important role ; Jacques Guillon's subway car follows the Paris prototype rather than the American. Cars are 8'-3" by 57' with four doors each side (Fig. 7 and 8) as opposed to the standard American car (10'-8" by 74'-78"). Although they have been criticized for their lack of seats and space, their smaller size made possible the construction of more economical single-span tunnels 23 feet wide, stations 44 feet wide without columns and lateral platforms 12 feet wide and a shorter turning radius. Each train is the same length, 500 feet, as the American train but has 9 rather than 6 cars in three sections of three cars, two motorized, one trailer. The rubber tire was adopted rather than the metal wheel because of its quietness, better suspension and deceleration (6 mph) which reduces time between trains and permits a 6% grade. Theoretically, the Metro will be able to carry 60,000 passengers an hour in one direction, since each train takes 1,500 people and there is a 90-second interval between trains.

Montreal's Metro will cost about \$15,000,000 per mile. The original estimate was \$14,700,000 per mile. Since Montreal will have a subway integrated completely into the city fabric with one line crossing the river and two stations per mile, this can be considered money well spent.

Transportation Introduction

by Hans Blumenfeld, MTPIC

Cities and transportation are inseparable. Cities have developed and grown for one of two reasons; either as "terminals" or "break-of-bulk" points for transportation, or as "central places" of a region, as focal points at which all roads converge. Most cities combine both functions, but the predominance of one or the other profoundly influences their form and structure. Most of our Canadian cities have developed as terminals of water transportation, with the harbour determining the location of its centre from which the city spreads outward. Later central railroad stations have sometimes played a similar role, as gateways and focal points.

In the "central place" city the gateways are no less important, but here they are not in the centre, but on the periphery. The streets lead not so much out from the gateway into the city and its hinterland, as into the city from the surrounding hinterland. But it is always the gateways and the channels of movement which are the most permanent elements in the city and which determine its basic structure. Only in moving through this network of channels can the city as a whole be experienced and understood. Only in the relation to the ways in which people move and to the places where they stop or turn, only in the interaction of mass with the voids can structures in the city be perceived and integrated into the memory image of the city. In his studies of the "image of the city" Kevin Lynch found that most people organize their impressions of their environment in terms of the "paths" which they travel. It is in relation to the paths and to their nodes that the other elements of the "image", the focal points and landmarks, the different districts and their edges are perceived. One of the greatest achievements of urban design, the replanning of Rome by Domenico Fontana, consisted essentially in giving visible form and emphasis to the paths from the city's gates to the sanctuaries and from one sanctuary to the other, which the pilgrims had followed since the early Middle Ages.

With the enormous spatial expansion of our metropolitan areas and with the development

Mr Blumenfeld, guest editor of this section, is a lecturer at the School of Town and Regional Planning, University of Toronto, consultant to the Metropolitan Toronto Planning Board and the Montreal Transport Commission. He has a wide consulting practice throughout Canada, the US and other countries.

of various means and modes of transportation, moving at radically different speeds, challenging new problems have arisen of separating and co-ordinating the channels of movement and of creating a meaningful form for the terminals where changes from one mode to another occur. Movement between buildings and movement within buildings, horizontal and vertical movement, movement of the human body and movement of mechanical means require increasing integration and articulation.

In addition to channels and terminals, every movement system also requires a third element, the vehicle. Considerable attention – not always of the right kind – has been given to the design of airplanes, ships, and automobiles, but few changes have been made in the design of rail vehicles. Some interesting new departures have been made in the design of the CN's "Rapido", in the vehicles for the Montreal subway and for Expo '67. The main emphasis in Guy Legault's article on the Montreal subway, however, is on its relation to the city structure and on the function of the terminals both as new nodes and focal points for the renewal of their surroundings and, in particular, as complex transfer points, from the subway to pedestrian underground passages linking the stations directly to important buildings and, at the transfer points, from one line to another, but primarily to two types of movement on the surface, on foot and by bus. The most interesting aspect of the Montreal subway stations is the attempt to give the passenger leaving the subterranean world of the subway a visual connection with, and clear orientation to the world under the open sky, and similarly to the person entering the station visual access to the platforms and tracks underground.

An equally complex transfer problem has been tackled by the New York Port Authority's Bus Terminal; here transfer between the long-distance buses which enter the terminal on separate, grade-separated rights-of-way, and local buses, subways, and pedestrian movement on the sidewalks is mediated by escalators, con-

Features Projects

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necting the four levels. The technically ingenious solution works well. Unfortunately, the necessity of fitting the structure into the gridiron street pattern has prevented it from playing its role as a focal point and node in the urban structure.

This role – the direct visual relation to the city – is probably always precluded for airports which must be located in isolation from the city, inevitably the connection must be mediated by vehicles, mainly private automobiles.

In terminals for rail and air vehicles and in suburban shopping centres we have long practised the separation, horizontally or vertically, of fast moving mechanical vehicles and slow moving, or standing, pedestrians. We are only beginning to seek solutions for the area of most intense concentration and interaction of people, functions and movements: the city's centre. The projects for downtown Vancouver and for Market Street East in Philadelphia are interesting attempts not only to separate the movements of vehicles and pedestrians, but at the same time to integrate them and to relate them to each other, as well as with and to the buildings. The article by Blanche Lemco Van Ginkel develops this point and emphasizes that we are dealing with an entire scale of different speeds, each adding new elements to our total perception of the environment.

To a greater degree than has been possible in any existing city, the planning of the transportation system has been integrated with the planning of the entire complex of structures in the plans for Expo '67, presented in the article by Mr S. M. Staples. The major transportation system connects the focal points of the four sections of Expo, while four different systems of lower speed and capacity distribute the visitors to main points within each exploration on foot. Daytime and night time visitors are equally considered.

Mr Staples' article touches on two important points, both inherently containing contradictions. The view *from* the road versus the view *to* (and of) the road; and the integration of the transportation structure with the

buildings which they serve versus the flexibility required to change the one without changing the other.

Where in our cities the roads and the vehicles travelling on them are visible, in the form of elevated railroads or of elevated highways, they are usually a disturbing and disrupting element. We try to eliminate this disruption by putting them underground into tunnels, cuts, or depressions; but we thereby deprive their riders totally or in part of any possibility of orientation and perception of the structure of the city through which they are moving. Only rarely have we succeeded, or even attempted, as the Expo planners have done, to use roads as positive elements to emphasize a line or an edge in the city structure, and to reveal a meaningful image of the city to their riders.

The difficult choice between designing a structure as a tailor-made close fit for one specific function or as a looser – and less characteristic – cover in which various, often unforeseen, functions may unfold, is familiar to architects. It is equally present in the design of transportation facilities and, in particular, their integration with other structures. In the medieval city this integration was close, streets went under, over, and through buildings, and bridges were lined with houses and shops. It was a proud achievement of the Renaissance, when the Pont Neuf for the first time enabled Parisians to cross the Seine with a full and unobstructed view of the river, and to see the piers and arches of the bridge as an elevated road, different and distinct from the densely built-up quarters on the river's banks. Similarly, it was the basic ideal of the Renaissance consistently pursued through several centuries, to clearly separate the volume of streets and squares from that of the adjacent structures by strictly enforced building lines. Has the rising spiral of historical development now reached a point where this direction is again reversed and where integration of channels of movement with architectural structures can again be achieved on a higher level, with new techniques and on a larger scale? The articles and projects promoted in this issue are attempts to answer that question. □



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Site of the 1967 World Exhibition in Montreal. At the top and centre of the river is Ile Sainte-Hélène and to the right, Ile Notre-Dame. Mackay Pier, now called Cité du Havre, on the left is the third exhibit area for Expo '67.
Les trois secteurs de l'emplacement de l'Expo 67 : la jetée Mackay (Cité du Havre) et les îles Sainte-Hélène et Notre-Dame.
 2
Expo Express
 3
Model of Minirail
Modèle du Minirail

Transportation Network at EXPO 67

by S. M. Staples

Mr Staples joined the CCWE in July 1963 and presently is Assistant Chief Architect-Planner.

The modern international exhibition is so large in scope and size that the average visitor is hardpressed to cover even a fraction of it in the time available to him. If he is not to come away with aching feet and a confused mind, the exhibition site must be given a clearly comprehensible structure and efficient movement system. It would be better still if an exhibit system and the service functions could be integrated to form a comprehensive plan. This was the objective in planning the World Exhibition to be held in Montreal in 1967.

Because the Exhibition is sited on four distinct areas which are widely separated by the St Lawrence River and an existing park, a complex transportation system had to be developed simply to overcome the distances involved.

In addition to its functional necessity the transportation network became a major element in structuring the Exhibition by expressing the continuity between the four areas and the location of focal elements.

Concept

A key factor in planning the Exhibition was uncertainty: uncertainty as to the number of exhibitors and the size and architectural character of their pavilions; uncertainty as to their locational preferences and to what

extent they would try to compete with their neighbours or integrate with them.

In this context a strong system is essential if each exhibitor's participation is not substantially to affect the coherence of the plan. If the classical approach is followed of placing buildings in some more or less interesting way in space, then the omission of one building or its poor design may ruin the whole plan.

Given the site and a generous budget for the development of the Theme, the basic approach was to place the Theme Structures centrally within the three main Exhibit areas so that they could act as visual landmarks for the visitors and as design reference points for the architects and designers of the many other surrounding elements.

The stations of the primary transportation system were to be closely linked with the Theme structures so that not only was the Theme exhibit the first thing a visitor was exposed to as he came onto each area, but he could also capture the essence of the Exhibition by riding the primary system and stopping only at the Theme exhibits. The plan was to be analogous to the human body with the transportation network as the skeletal structure, the subdivisions of the Theme as the vital organs and the other pavilions as the fleshing out of the body.

The Transportation Plan

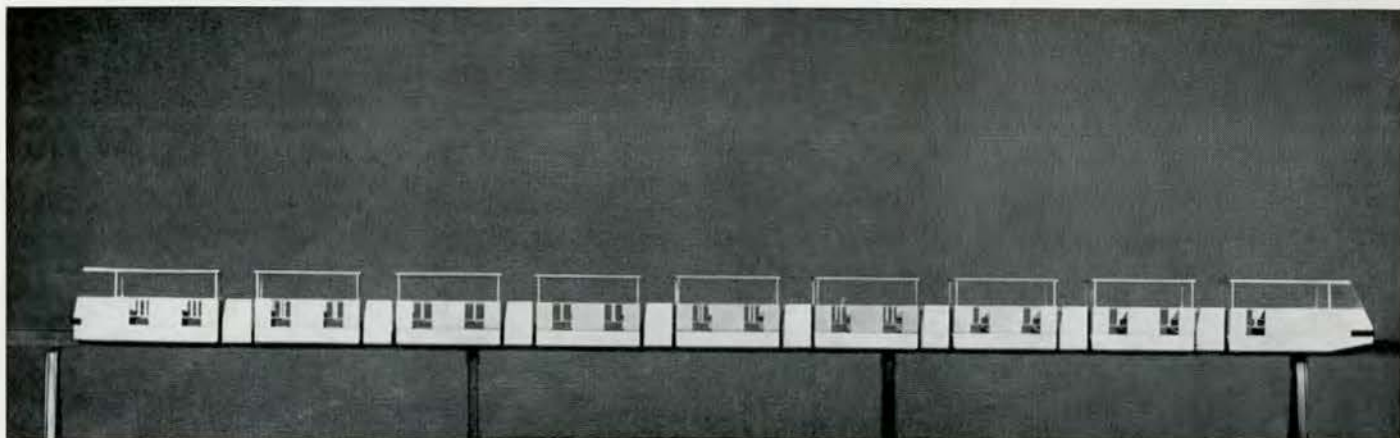
The site is large and more spread out than all previous Exhibitions except perhaps Paris '37. It is more than three miles from end to end and separated by two channels of the St Lawrence River which are 2,100 ft and 700 ft wide respectively and a 140 acre existing park, St Helen's Island.

Only three access points could be provided to the site, one on MacKay Pier for cars, taxis and buses, one on St Helen's Island which is a station on the Montreal subway system, and one on La Ronde primarily for buses.

The average daily number of visitors will be 145,000 with a peak of 350,000 and the average visitor will spend 15 hours on the site spread over 2½ days.

With this basic information a transportation network was developed with two main components: a primary system with a capacity of 30,000 persons an hour whose main function is inter-area transportation; and various secondary systems with capacities between 500 and 6,000 persons an hour to serve each area.

Each part of the network has a different and complementary part to play in the transportation and site structuring function and each also gives the visitor a different



ride experience so that by riding all parts the visitor will be able to build up a complete image of the Exhibition.

The Primary System

The primary system, called the Expo Express, links the two extreme entrances to the site on MacKay Pier and La Ronde. Its route passes through or next to the centers of the three main exhibit areas. The three stations in these areas are in close proximity to the Theme exhibits. Travelling along the mostly elevated track at an average speed of 25 mph a train will take about 25 minutes to do the round trip. Because of its importance in distributing visitors to each of the four areas there is no charge for riding it. This is specially important for the amusement area on La Ronde which otherwise would have been isolated and certainly a financial failure.

The Expo Express tracks, carried extensively on elevated structures, are grade separated as far as possible from other transportation systems and pedestrian paths. Because they are elevated they provide visual continuity and linkage between the four areas. This continuity is also carried through at night by means of coloured lights placed at 15 ft intervals along the track. The stations, which have translucent roofing materials are brightly lit so that these important focal points are clearly visible.

If the first thing a visitor does is to take a round trip on the Expo Express, as it is believed he will, the speed and height at which he travels will give him an immediate appreciation of the relationship between the parts of the Exhibition. If he retains an image of these relationships, he will be able to organize his visit effectively, with more enjoyment and less fatigue.

Secondary Systems

If the Expo Express is the backbone of the whole plan, then the secondary systems complete the skeletal structure. Their transportation function is not as important

as the exposure they give to all parts of the areas they serve. When there is more than one system in an area, as on Ile Notre-Dame, their alignments are offset from each other and they are at different levels. Thus, different views of the same exhibit build up a more complete picture of it. Their tracks are always kept separate from the pedestrian paths.

The Minirails

There are three minirail loops located in three of the areas, with a total length of over 5 miles.

The capacity of the larger system on Ile Notre-Dame is 6,000 persons an hour and the smaller systems on La Ronde and St Helen's Island each are capable of carrying 2,400 persons an hour at an average speed of about 10 mph. In contrast to the Expo Express the trains are open in order to allow the visitor the greatest possible contact with his environment. This close contact is reinforced by the slow speed of the trains and their ability to pass through pavilions, as they do in the case of the United States pavilion.

The minirail stations are placed in three types of location: the first type is at an entry point as is the case on St Helen's Island and La Ronde with the purpose of distributing visitors quickly away from these potential congestion points; the second type is in close proximity to Expo Express stations to form a transportation node; and the third type is at the extremities of the area served so that visitors may easily reach all parts of the site.

Canal Boats

On Ile Notre-Dame, the largest of the areas, the canals have been used to supplement the minirail. With a capacity of 1,000 persons an hour it will provide a unique experience for the visitor even though the canals are paralleled by pedestrian paths and partially by the minirail track. The boat landings are placed within areas providing services to the visitor. These service areas are sub-focal points within the areas they

serve so that the association of the boat landings with them reinforces their function.

Trackless Trailer Train

This small gasoline powered tractor drawing four trailers and running on rubber wheels on its own pathway on MacKay Pier serves the same basic purpose as the minirail loops. However, the lower capacity requirements in this area did not allow the use of the visually more exciting minirail. The trailer train starts near the entry to the site and the first Expo Express station and terminates near the area's Theme pavilion and the second Expo Express station.

Skyride

The Skyride has a dramatic alignment rising to 120 ft over the lake in the La Ronde amusement area. With a capacity of 2,400 persons an hour it can transport visitors between the entry to the area and its most extreme sector. Since the Skyride has proved to be an attraction in itself, it will help to ensure the financial success of this sector.

Conclusion

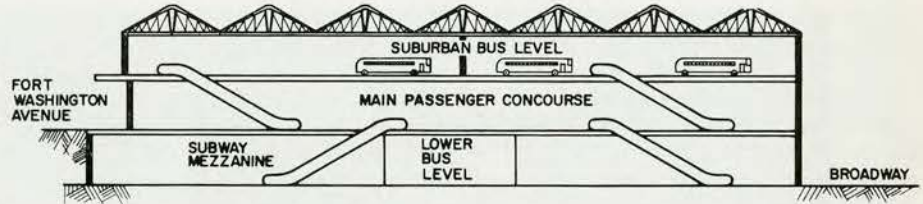
The transportation network at Expo 67 was designed to play an important role in structuring the Master Plan and aiding the visitor to get the most out of the exhibits. The planners of the Exhibition have had a greater than usual control over the development of the plan. If a record can be made of the operation of the transportation network during the six months that the Exhibition is open, then perhaps lessons may be learned which would be applicable to the planning of cities. □

George Washington Bridge Bus Station

1
Cross section view
Coupe

2
Aerial view of George Washington Bridge Bus Station with George Washington Bridge in background. View looking west.
Vue aérienne de la station d'autobus George Washington Bridge, dans le fond le pont George Washington. Vue d'ouest.

The George Washington Bridge Bus Station, New York City, designed by Pier Luigi Nervi, is a facility which provides an exchange of transit mode. It acts as a long distance bus terminal, and a suburban bus station for local passenger collection and distribution, as well as a functional portal to the city. Shops and stores are additional passenger facilities that are provided, as a natural result of the pedestrian and waiting activity generated by a modal movement change.



The Centre City Pedestrian

by Blanche Lemco Van Ginkel, MRAIC

Mrs Van Ginkel is with Van Ginkel Associates who have done varied planning and design projects including the Montreal central area circulation study, rehabilitation of the Old City, and planning and layout of Expo '67.

Designing for the pedestrian in the city means designing for everyone. It is only the very few who are not at some time a pedestrian in the city – those who have indoor access to a car or a subway from their home and have as their destination a building which has subterranean access directly to its elevators. At the other end of the scale is the child who customarily walks to school each day or those few who walk to work. And between are the great mass of people who walk a few blocks after travelling in a vehicle. But whatever the customary daily pattern of the individual, it is the same man with the same eyes who sees the city, moving at 60 mph or at 3 mph. Circulation systems in the city are more than the means of solving a "traffic problem".

Circulation is the very life of a city. Without movement the city cannot exist. The circulation ways of the city – the streets, squares and cross-roads – demand a positive design approach. They are not merely the residual space resulting from the requirement of light and air in the buildings. Nor are they the land left free of encumbrances to provide passage from one building to another. Much less should they be channels brutally cut through the city only to improve access from one sector to another. The street is an essential part of the total fabric of the city. The masses and the voids are of equal importance and together create the fabric. Where changes are made they should be with due respect for the totality so that the end product is whole cloth and not patchwork.

North American cities frequently are criticized for their inadequacy for automobile circulation. But in fact they seldom are satisfactory for the pedestrian either. Perhaps one should cease to consider the problem as one of designing for the automobile and for the pedestrian. Instead the essential requirements are for people moving at a variety of speeds – from 60 mph to 3 mph – and for different purposes. As Buckminster Fuller has said, the automobile is an extracorporeal extension.

The classification of circulation ways might be considered in terms of varying function

and speeds, rather than as automobile versus pedestrian. The physical and visual requirements are completely different in a roadway intended for long distance travel at 60 mph and one serving as access to buildings. Similarly, a pedestrian way which connects a commuter terminus with office buildings is essentially different to a shopping promenade or to a footpath through a park. Space and time are inextricable. A classification of circulation ways based on speed produces a series associated with the automobile and another for the pedestrian – but there is some overlapping between the two. One might broadly categorize in ascending order of speed:

- 1 A pedestrian way in which the automobile is not tolerated – a footpath, arcade or shopping promenade.
- 2 A pedestrian way in which the automobile is tolerated – the market street in many European cities, or the residential lanes and *cul de sacs* of a Radburn plan.
- 3 A street in which pedestrian and automobile have equal status – as occurs in an intense shopping street such as Montreal's St Catherine or Boston's Washington St.
- 4 An automobile route in which the pedestrian is tolerated – as in many of the city's through streets.
- 5 An automobile route in which the pedestrian is not tolerated – expressway, turnpike, etc.

Designing for the use of the automobile is generally in terms of relatively high speeds and commensurate scale, but it is interesting to consider that on Montreal's St Catherine St, for instance, the average speed in the area of intense shopping is approximately 6 mph. At this speed the scale of visual imagery is similar to that of the pedestrian walking at 3 mph.

The visual image is a product of motion. This is the essential difference between the human eye and the camera eye. Even the movie camera and three-dimensional

projection do not reproduce the effect of actuality. The eye itself is in constant motion, looking from side to side, up and down – so that the image actually has greater breadth than the 60° cone of vision. Added to this is the effect of peripheral vision – that which the eye is not focussed upon, but vaguely aware of. Even with the eye static, changes of focus – from close to distant – produce different images. Superimposed in the brain, all these images produce the total image of one view. Furthermore, the brain is a file of information and consequently it interprets and embellishes the image. Moving through the city there is further superimposition of images. What one sees at a given moment is conditioned by the previous images and by what one expects to see next. And again it is conditioned by previous experiences. The recent experiments in multi-screen projection with an audience free to move within the projection space is a cinematographic attempt to create this kind of multiple imagery. Here it is the invoking of other images by the actual picture, and sensing rather than seeing a multiplicity of images, which imparts the total image via a composite of many visual incidents.

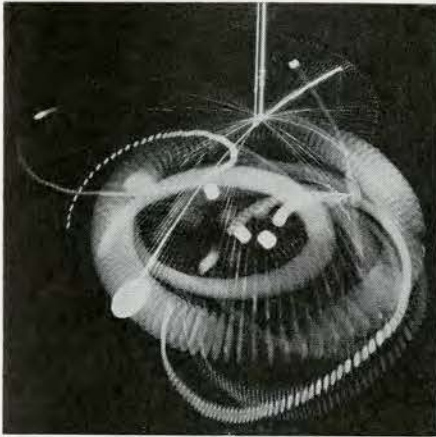
Contemporary man has the same fundamental characteristics as his forebears. Certain environmental requirements are enduring: the desire for protection and for freedom; privacy and crowds; natural forms and man-made geometry. But our sense of space has changed in some respects. Whereas Leonardo only had a clue to the mystery of flight, we now accept a voyage to the moon as imminently possible. On the one hand we still need the stabilizing small scale environment of an earth-bound creature, and on the other hand we are exhilarated by the spaces revealed by technological extension. The world has not looked the same since we started to move through it in an automobile. For the first time one could experience a direct sensation of the form and breadth of a valley, by moving through it at a speed commensurate with its scale. From the air one gains an impression of the entire mountain range, which then conditions one's view of it from the ground.

1
A Translation of Movement (Alexander Calder) "Mobile 1939"
Mouvement de translation (Alexander Calder) "Mobile 1939"

2
Elements of the Pedestrian Ways (Sparks Street Mall, Ottawa)
Les éléments de passages à piétons (Rue Sparks, Ottawa)

3
(Pedestrian ramp, Dusseldorf, eng. F. Schrier)
(Passerelle pour piétons, Dusseldorf, ing. F. Schrier)

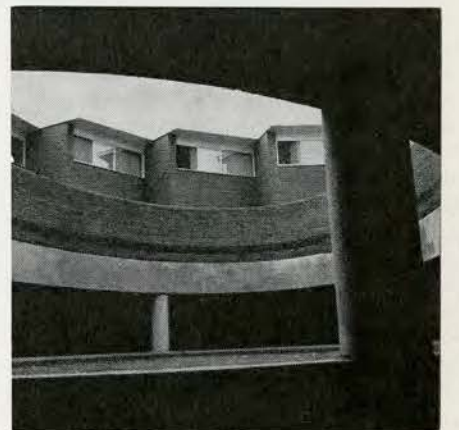
4
(Flemingdon Park, Toronto, architect: Irving Grossman)
(Flemingdon Park, Toronto, architecte Irving Grossman)
 5
(Place Ville Marie, Montreal)



MATTER



FOTO-GRAF



4



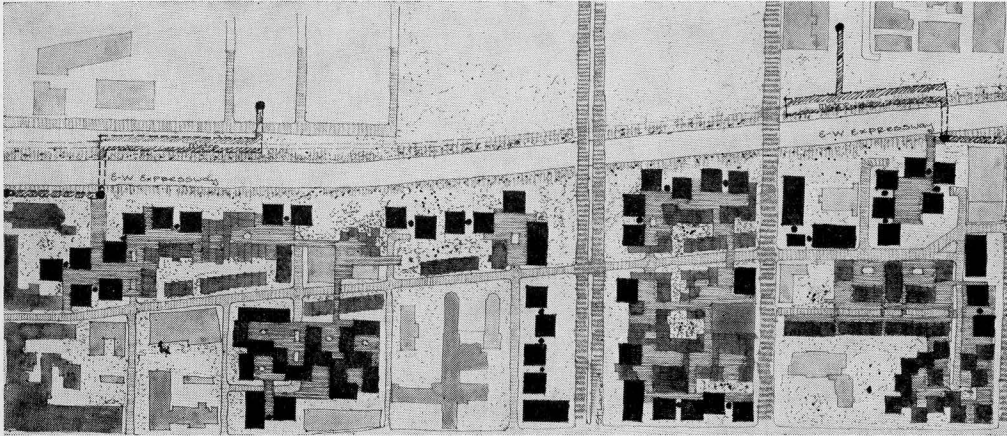
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2

Structures and Spaces related to movement. An attempt to create a system in which scales of movement are differentiated but not isolated in an area suitable for redevelopment. Many of the old houses and other buildings are retained but their relationship to pedestrian and automobile ways is changed. (A plan for circulation and redevelopment, east of the Central Area of Montreal. This is part of a larger plan for central area circulation. Van Ginkel Associates)

Structures et espace ayant rapport au volume de trafic. Ce système démontre que le volume de trafic dans une aire de

redéveloppement est différencié mais il n'est pas isolé. (Plan pour la circulation et le redéveloppement dans l'est du centre-ville de Montréal. Van Ginkel Associates)



6

The pedestrian is no longer "pedestrian" in the colloquial sense. He still enjoys the enduring delights of seclusion and the pastoral walkway, but he also enjoys the more complex spatial sensations of the twentieth century. To combine these two factors in a single entity should be a goal of contemporary urban design. This is a departure from the concept of the conventional pedestrian walkway system which is essentially two-dimensional and attempts to isolate the pedestrian from any contact with faster movement. This is not to say that such systems as the precinct and the interior walkways are of no value. The elements of tranquility which they characterize are

necessary ingredients in the urban complex. But they should be part of a richer system, and their qualities of separation should not mean isolation from other movement and activity. Above all they should be knit into the larger system of the city, rather than being a separate entity gratuitously embedded in it.

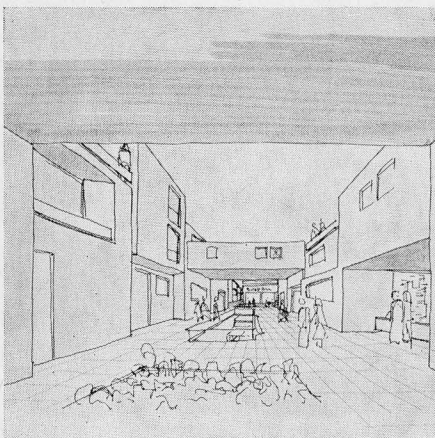
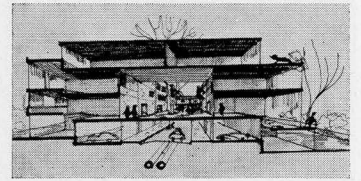
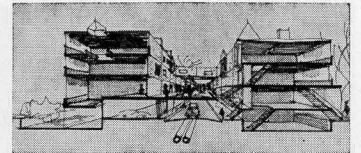
The implications of form in such a pedestrian system are compatible with those of the total circulation system of a contemporary city. The separation of functions and speeds combined with the need for a high density of activity inevitably produces three-dimensional systems. The aesthetic of such a system in its intrinsic form is that of the artists and poets who simultaneously with Einstein discovered a new meaning in space-time at the beginning of the twentieth century. The qualities of simultaneity and penetration of space have long been a part of the architects' vocabulary. These same qualities are needed in the urban design which is the context of the buildings.

A pedestrian system which recognizes both the enduring qualities of man and the particular characteristics of today cannot exist except as part of a total system of circulation and urban design. Some of its elements can be perceived in the plan for Philadelphia's Centre City, in the proposals for the Market Street-Penn Centre complex. Here mass transit, expressway, service

road and pedestrian way are conceived together as elements in a multi-level system.

The pedestrian way is not only a sylvan walkway or a sidewalk, it is also the enclosed shopping street of an arcade, the subterranean connection to a subway, the high level approach to an elevated structure, a second storey gallery – or the Ponte Vecchio. Each is an interesting event. A comprehensive design for the pedestrian, in which they are elements, can be an exhilarating experience. The subterranean shopping concourse of Place Ville Marie, from which one glimpses the movement above ground, is a good example of such an element in the contemporary city. However, it should be a part of the city rather than only a part of a building complex. The current proposals to strengthen the connection with the department stores on St Catherine St and with Sherbrooke St to the north and with the CN terminus, Place Bonaventure and Place Victoria to the south, could bring it into a pedestrian system.

The Central Area Circulation study made for the Montreal Citizens' Committee in 1960 proposed a multi-level pedestrian system throughout the Central Area. As part of a total circulation system the pedestrian ways flowed from one level to another, connecting the multiple functions of the city. Below ground, upon the ground and above the ground were regarded as equally significant –



Automotive Service Centre, Malton

- 1
*Shell Service Centre at Toronto International Airport
Station à essence à l'aéroport de Toronto*
- 2
*Section of Sales Building
Coupe du bâtiment commercial*
- 3
*Site Plan
Plan d'emplacement*

John B. Parkin Associates, Architects

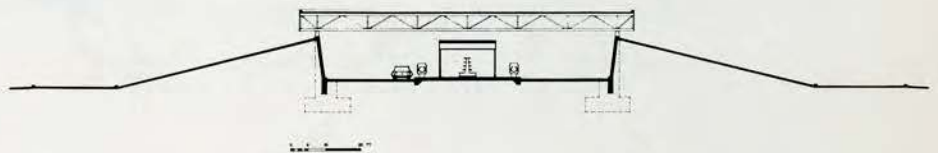
the quiet churchyard, the bustle of the subterranean concourse and the view from the bridge, complementing each other.

A walk through Venice, the Italian hill towns, or Louisberg Square in Boston, still is a delight. But the success of these examples of urban design depends on a narrow range in the scale of movement. The Old City area of Montreal, for instance, would be admirable if there were some separation of circulation by function. It was, after all, built for one kind of traffic – mixed though it was – and now is used for other kinds and scales of movement. In many cities there are old streets and walks which should be preserved – in the working and not in the museum sense. Most of them are destroyed aesthetically, if not physically, for lack of twentieth century facilities. Many could be restored to our enjoyment if they were allowed to maintain the scale of movement which is appropriate to them by providing the supporting, larger scale of circulation in a related system.

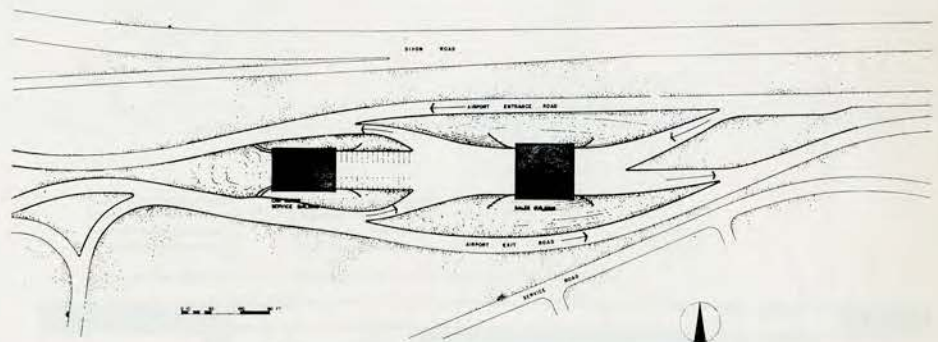
The central area of the contemporary city has a larger scale and a greater complexity in the relation of its functions than heretofore – and its form should be appropriate. Since pedestrian and even automobile ways can be under, through or over buildings, private structures and public access should be designed within a single system. The functional, spiritual and aesthetic demands, far from being in conflict, all indicate a new form for the centre city which is spatially akin to the sculpture of Max Bill or Jean Arp, the mobiles of Alexander Calder, the engineering of Robert Maillart or Robert LeRicolais, the landscape of Noguchi – and commensurate with the spirit of man who still is a biped but not necessarily “pedestrian”. □



1



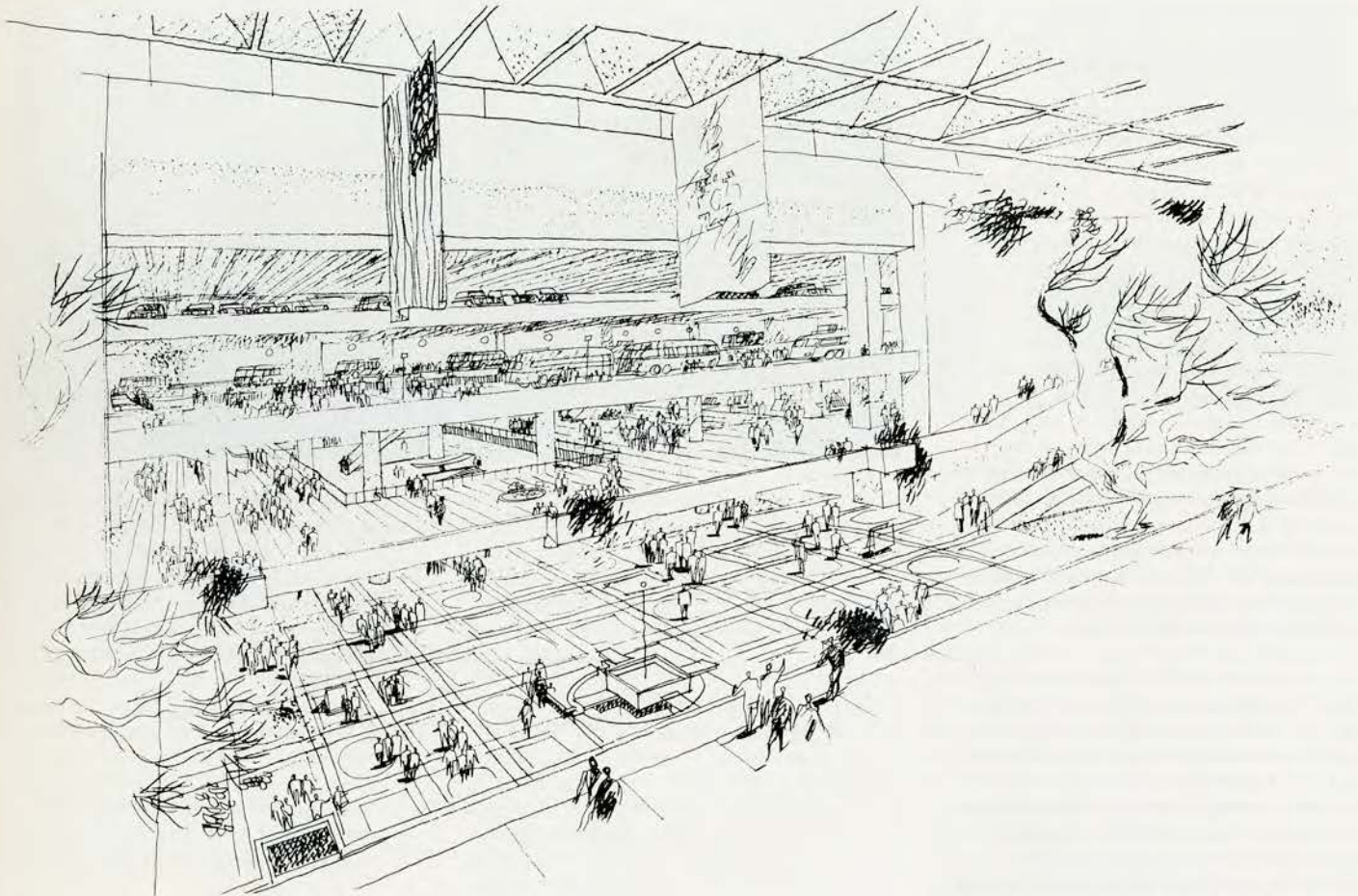
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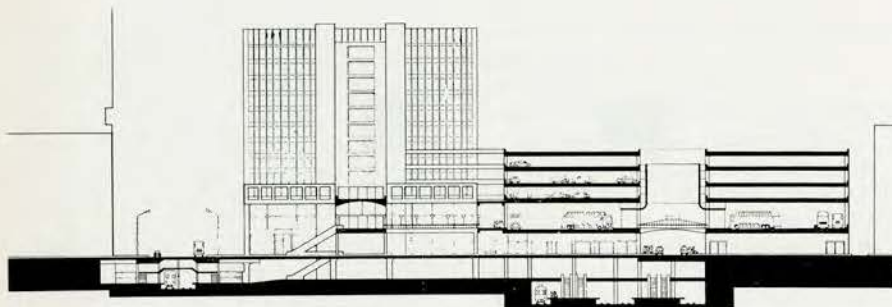
3

Market East Study Philadelphia

1
Sketch, Terminal Hall
Croquis, le terminus
2
Section at street crossing
Coupe au niveau de la rue



1



2

The Philadelphia Market East scheme illustrated here is a development based on a series of studies undertaken by the Philadelphia City Planning Commission. At the time this study was done, Romaldo Giurgola was architectural advisor to the Commission. The scheme consists of four principal features – an airconditioned and landscaped pedestrian mall lined with retail shops and serving the major department stores; a great hall as a focus to transit and pedestrian movement which acts as a portal to the city; a new city element bridging 8th and Market Streets to connect all levels of pedestrian movement and join the three major stores; a new element at 13th and Market Streets to connect all subway levels, the shopping promenade and the South side of Market Street. □

3

Street level

Niveau de la rue

4

Shopping Promenade

Arcade à boutiques

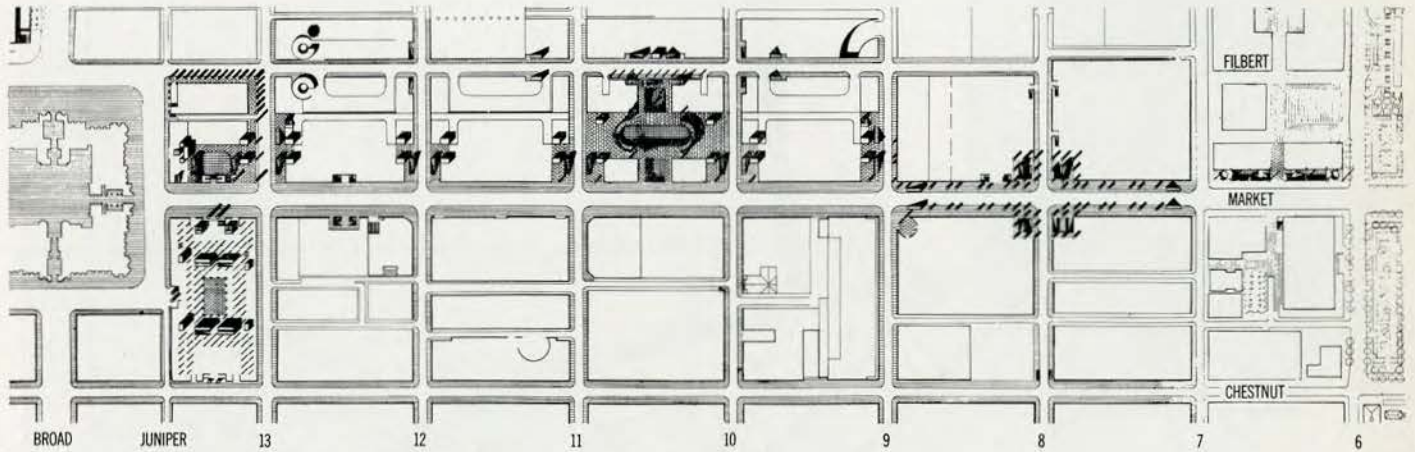
5

Subway train concourse, Market East

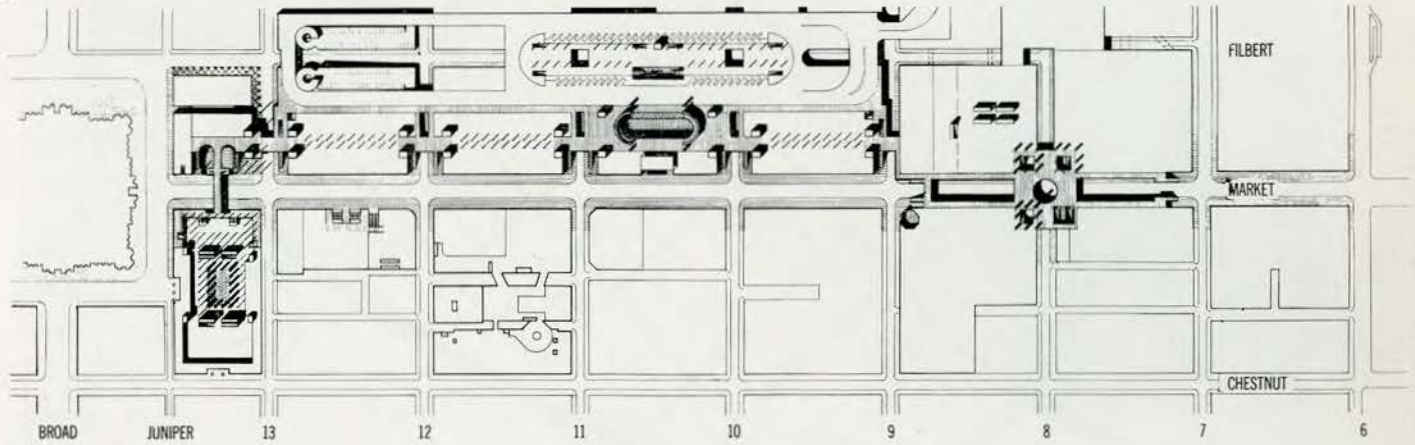
Scheme

Les accès aux quais du métro, Market

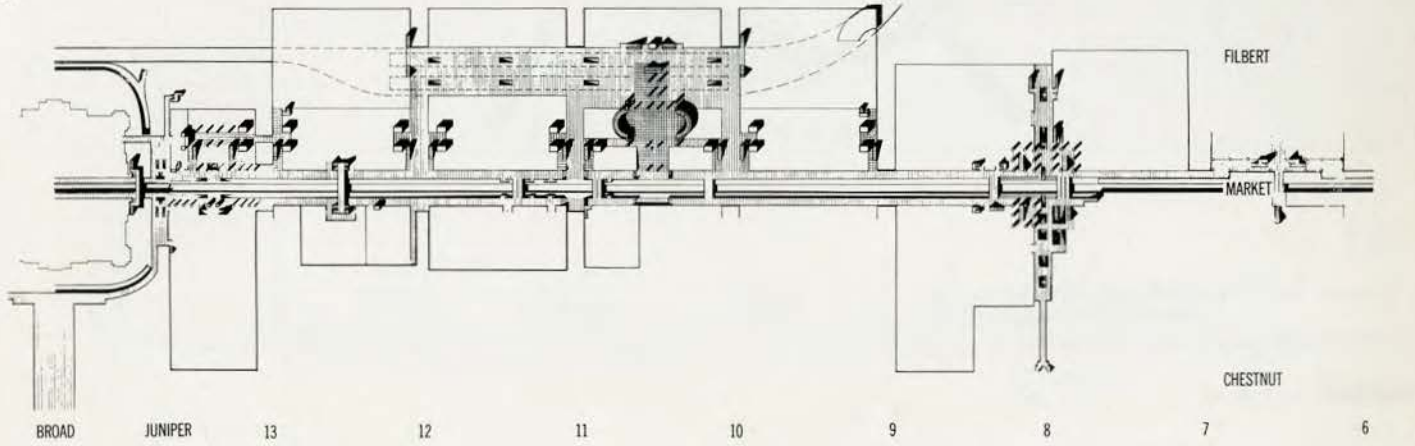
East Scheme



3



4

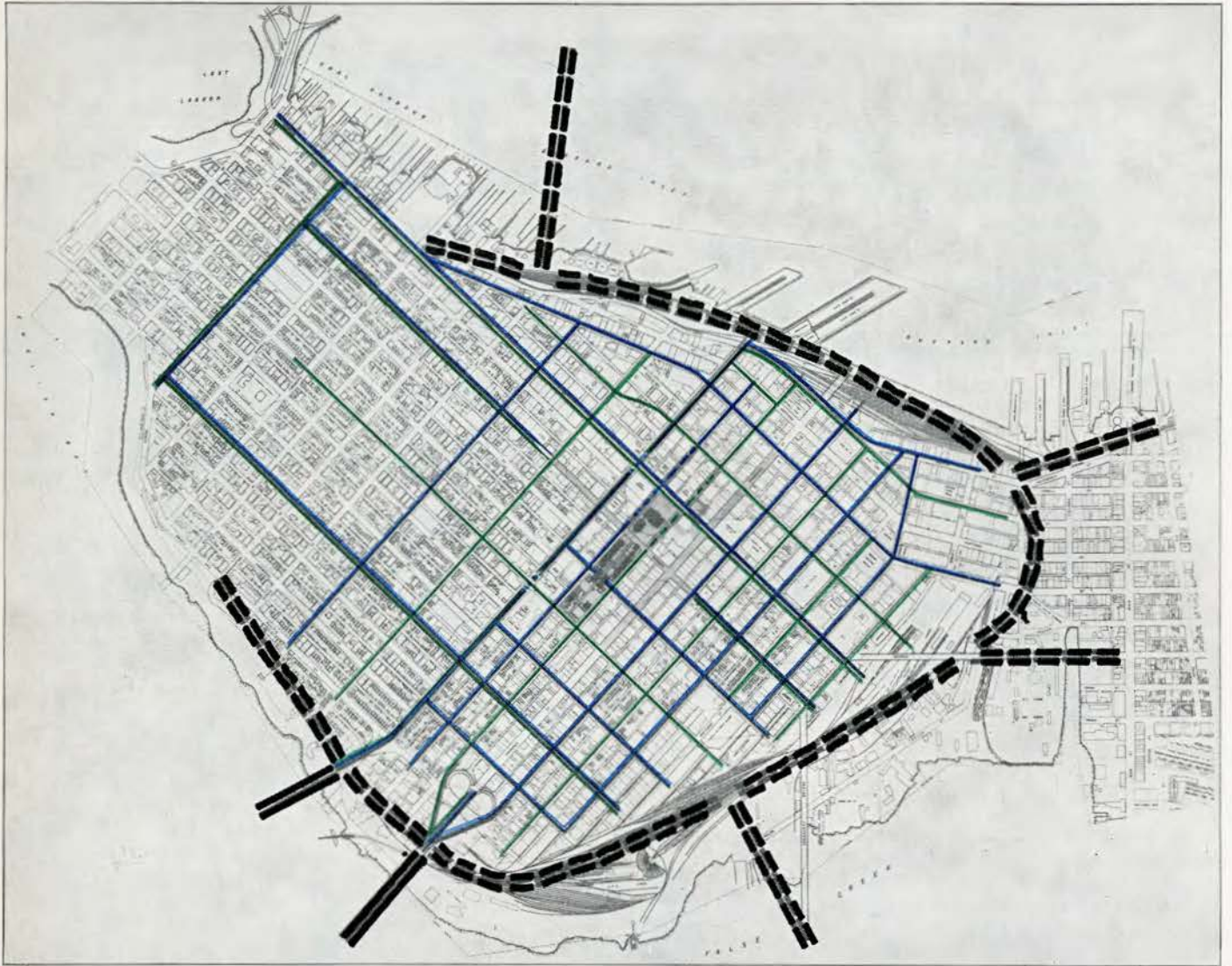


5

Proposal for Block 61 and the Downtown Core, Vancouver

This study for Vancouver, by Erickson-Massey, was commissioned by the Community Arts Council. Its intention is in no way "visionary". The object was to explore, via a realistic scheme, the potential of a situation created by new development, specifically Blocks 42, 52, and 61 of the downtown area, and generally the problems associated with a growing city. The proposals are a series of systems and policies, rather than specific recommendations for buildings in the downtown core.

1
Downtown Peninsula
Péninsule au centre-ville



1

Legend

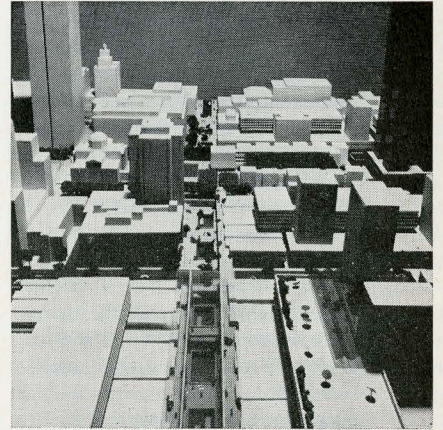
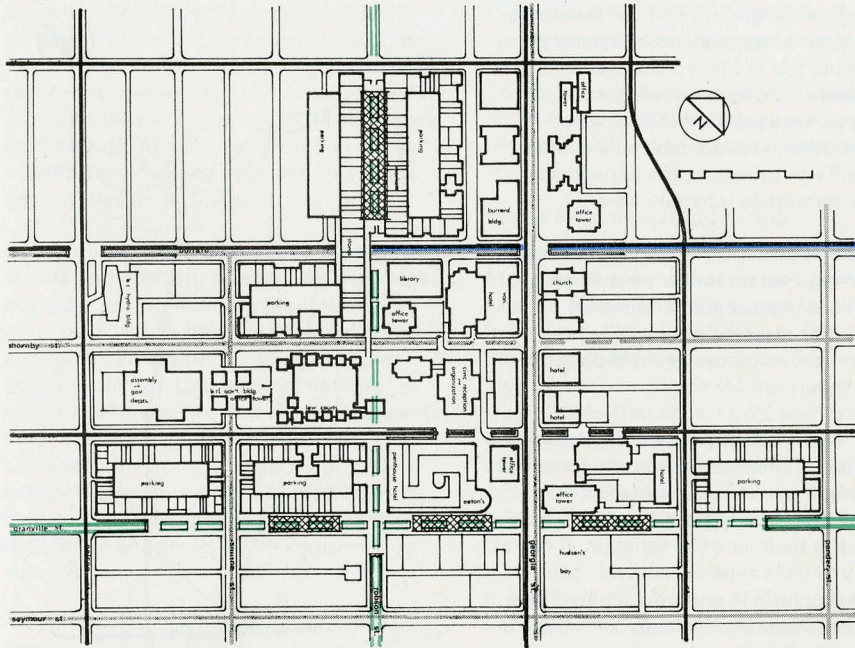
- One way streets east and south
- One way streets west and north
- == Ring Road

2
Plan

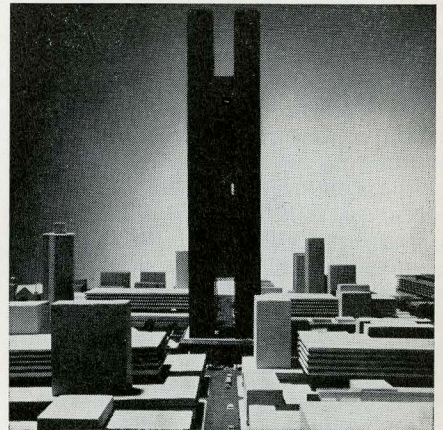
3
Section through Robson Street
Coupe à travers Robson Street

4
Aerial view of Robson Street, Shopping
Arcades
Vue aérienne de Robson Street, arcades
à boutiques

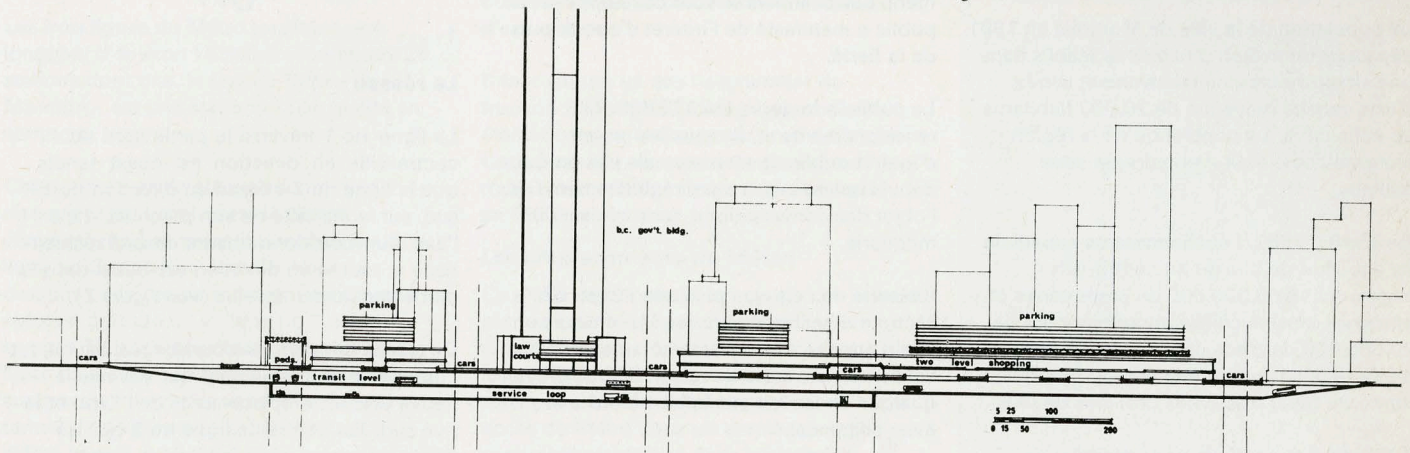
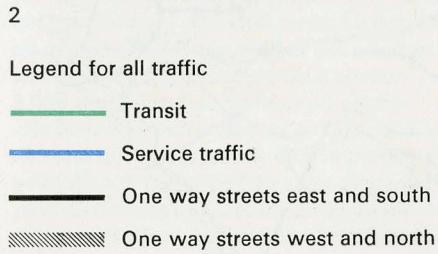
5
View west along Smithe Street
Vue prise à l'ouest de Smithe Street



4



5



3

Le Metro* de Montréal

par Guy R. Legault, MIRAC

Le 3 novembre 1961, le Conseil de la Ville de Montréal donnait son approbation pour la construction d'un réseau de Métro. Le 2 avril 1962, le Comité Exécutif de la Ville de Montréal autorisait le service des Travaux Publics à faire des appels d'offre pour la construction du premier tronçon de la ligne no 2. Au mois d'octobre 1966, le Métro sera en exploitation sur une longueur d'environ neuf milles.

Cette suite accélérée d'événements fait un brusque contraste avec la sorte d'inertie que semblait éprouver la réalisation de ce projet depuis cinquante ans. En effet, on parlait déjà de faire un métro à Montréal en 1910. Comment se fait-il qu'au lendemain des élections municipales de l'automne 1960 le projet revienne sur la scène de l'actualité et se réalise avec une rapidité et un aplomb étonnants?

Je pense qu'il est juste de dire que le nouveau maire de l'époque, Me Jean Drapeau, a été le premier animateur du projet et qu'il a été loyalement secondé, dans cette entreprise, par le président du Comité Exécutif, M. Lucien Saulnier. Mais cette initiative seule n'aurait pas pu susciter une tournure heureuse des événements si elle n'avait pas coïncidé avec un grand nombre d'autres facteurs qui ont fait que la décision de construire un Métro à Montréal était une décision hautement opportune.

La population de la ville de Montréal en 1961 dépassait un million d'habitants établis dans une structure urbaine relativement serrée, d'une densité moyenne de 20,000 habitants au mille carré. La population de la région métropolitaine était de l'ordre de deux millions.

De 1949 à 1962, l'équipement de superficie de plancher de bureau au centre-ville augmentait de 9,000,000 de pieds carrés et atteignait ainsi le chiffre impressionnant de 20,000,000 de pieds carrés localisés sur un territoire relativement peu étendu où prenait forme un foyer d'activités urbaines de plus

*Métro : mot employé pour désigner un réseau de transport en commun selon l'article 79 du Bill 100, sanctionné le 20 juin 1962.

M. Legault a travaillé au service d'Urbanisme de la Ville de Montréal depuis sa graduation en 1956, où il dirige présentement la division de l'Aménagement Urbain. Il a participé aux travaux préliminaires du Métro.

en plus diversifiées. En 1958, on assistait à la construction des premiers bâtiments de taille géante tels la Place Ville-Marie, le C-I-L House, la Banque Impériale de Commerce. On avait l'impression que Montréal devenait désormais plus qu'une grande ville de province; elle acquérait un statut de métropole internationale.

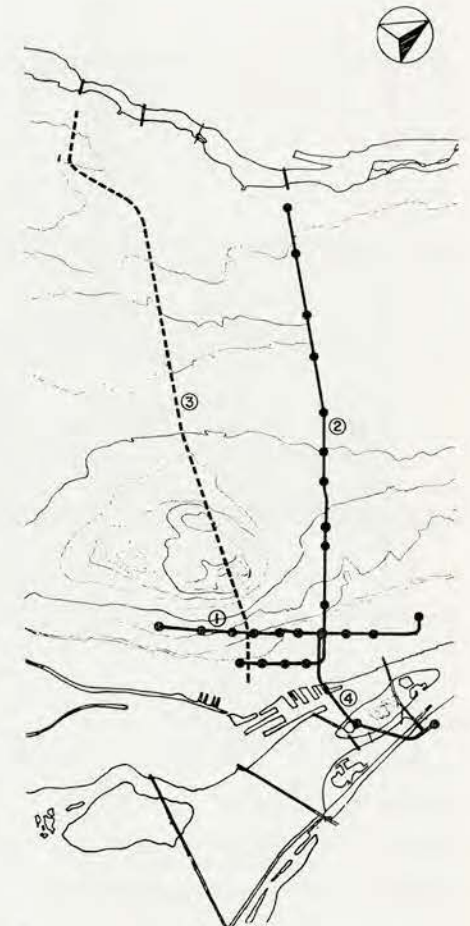
Si l'expérience de l'entreprise de construction du Métro est un indice valable, on peut croire qu'à la même époque Montréal possédait des réserves de savoir-faire considérables, en termes de main d'oeuvre et de technique.

En effet, il est assez intéressant d'observer que l'entreprise du Métro a été une entreprise qui a été réalisée par les autochtones et que ceux-ci, selon toute vraisemblance, se sont montrés à la hauteur de la situation. Il ne faut pas voir dans cette allusion du chauvinisme, mais plutôt le point de départ d'une sorte de sentiment de solidarité collective qui se développa dans le public. Le phénomène du Métro à Montréal a requis la participation de plusieurs milliers de Montréalais dans toutes les sphères d'activité. Des maçons, des menuisiers, des esthéticiens industriels, des électriciens, des mécaniciens, des ingénieurs, des manoeuvres, des arpenteurs, des plombiers, des architectes, des machinistes, des dactylos, etc. ont été autant de témoins et de porte-paroles de l'événement. Les chantiers se sont développés et le public a manifesté de l'intérêt d'abord, puis de la fierté.

Le public a toujours été à l'affût des renseignements et, de tous les projets d'intérêt public, je n'en connais pas un qui, depuis quatre ans, a aussi régulièrement fait l'objet des conversations, sans cynisme ni moquerie.

Il résulte de cela que plus que l'Expo 67, le Métro a développé chez les Montréalais un lien d'attaché à la collectivité, une sorte de solidarité, une sorte de raison d'être fiers de quelque chose qui se réalise en ordre et avec diligence.

1
La ligne no 1 traverse la partie nord du centre-ville en direction est-ouest tandis que la ligne no 2 s'étend en direction nord-sud, sur la majorité de son parcours, dans l'axe d'un corridor de haute densité résidentielle et tourne en direction est-ouest dans la partie sud du centre-ville.
Line no 1 crosses the downtown area in the east-west direction and no 2 runs generally north-south through a high density residential strip then east-west in lower downtown.



1
Le réseau

La ligne no 1 traverse la partie nord du centre-ville en direction est-ouest tandis que la ligne no 2 s'étend en direction nord-sud, sur la majorité de son parcours, dans l'axe d'un corridor de haute densité résidentielle et tourne en direction est-ouest dans la partie sud du centre-ville (voir figure 1).

Ce réseau primaire, en cours de réalisation, fut complété par la ligne no 4 qui traverse le fleuve vers les emplacements de l'Expo et la rive sud. Par contre, la ligne no 3 qui, au début du projet, avait fait l'objet d'une étude sérieuse, n'apparaît plus dans le réseau actuellement en construction.



2

*Les huit stations du centre-ville
The eight downtown stations*

3

*Emplacement de métro, Station Mt-Royal
Site of Mt-Royal Station*

Dans les conditions présentes, la desserte du réseau formé par les lignes nos 1, 2 et 4 fera qu'une population de quelque 900,000 personnes, résidant sur un territoire d'environ 30 milles carrés, pourra rejoindre désormais, en moins de 30 minutes, le centre-ville au moyen d'un itinéraire qui combine l'usage des autobus et du Métro.

Le réseau de Métro a en effet été conçu en vue de tirer profit du rabattement des autobus aux stations. Le Métro de Montréal n'est donc pas, comme celui de Paris, un réseau autonome. En dehors du centre-ville, les lignes d'autobus convergeront vers les stations de Métro qui deviennent des points de correspondance autobus-Métro. L'éloignement entre les stations aux extrémités de ligne est plus grand qu'au centre-ville et dépasse souvent une distance de 2,000 pieds de centre en centre des stations.

Au centre-ville, par contre, les stations sont plus rapprochées et atteignent un éloignement qui est de l'ordre de 1,600 pieds. La desserte du centre-ville est assurée par deux lignes parallèles éloignées entre elles d'environ 2,000 pieds. Les huit stations du centre-ville sont à peu près placées en quiconce, de sorte qu'il est possible, de n'importe quel point d'un territoire de 600 acres au centre-ville, d'atteindre une station de métro en moins de 3 minutes de marche (voir figure 2).

Les trois lignes du Métro totalisent une longueur d'environ 15 milles et comptent 26 stations dont une, la station Berri – de Montigny, est une station qui en réalité en comporte trois.

Cette station est la plaque tournante du réseau car les trois lignes de Métro y chevauchent. Les quais en bordure de la ligne no 2 sont à environ 35 pieds au-dessous de la rue de Montigny tandis que ceux en bordure de la ligne no 1 sont à environ 18 pieds plus bas. Les quais de la ligne no 4 sont à 90 pieds en dessous de la surface du sol et sont construits dans un tunnel de 44 pieds de largeur creusé à même le roc.

La station Berri – de Montigny est le point de correspondance des trois lignes de Métro.

En moyenne, le Métro dessert, à l'intérieur du périmètre de 30 minutes du centre, une population d'environ 60,000 résidents par mille de longueur.

Trace hors des grands axes

Il est intéressant de noter que le tracé du Métro a pris place en marge des grands axes de concentration que sont les rues Saint-Denis (nord-sud), Sainte-Catherine et Saint-Jacques (est-ouest). En effet, la ligne no 1 plutôt que d'avoir été construite sous la rue Sainte-Catherine, l'a été sous la rue de Montigny située à 400 pieds au nord. De même, la ligne no 2, dans son tracé nord-sud, a été construite sous la rue Berri située de 250 à 400 pieds à l'est de la rue Saint-Denis.

Durant le chantier ce choix s'est démontré fort judicieux puisque les travaux d'excavation du tunnel et des puits de travail n'ont pas embarrassé d'une façon directe l'activité commerciale de la rue Sainte-Catherine et la circulation de la rue Saint-Denis.

De même en fut-il de la partie est-ouest de la ligne no 2 qui, située entre les rues Craig et Vitry, à 400 pieds au nord de la rue Saint-Jacques, a été réalisée sans pour autant que le quartier de la finance de Montréal dusse subir les inconvénients des travaux d'excavation.

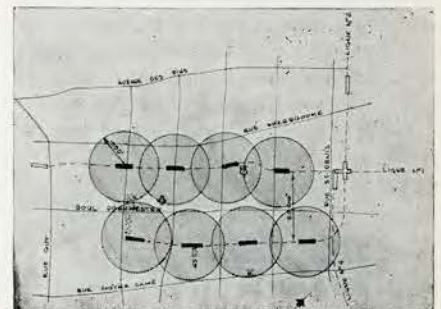
Il faut ajouter ici que l'alignement du tronçon EST-OUEST de la ligne no 2 est établi de façon à assurer au nord de la rue Craig l'espace nécessaire au passage de la route transcanadienne qui sera construite en 1967.

Les emplacements de Métro

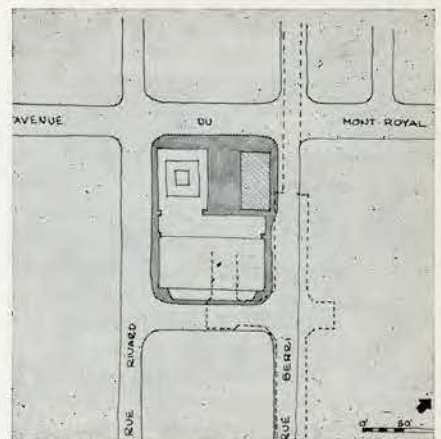
Ce choix de construire en marge des axes de grande activité a également permis de remembering des emplacements dans lesquels les accès au Métro pouvaient prendre place sans gêne. L'idée d'aménager les accès de Métro dans un emplacement remembré plutôt que dans les trottoirs étroits des rues de Montréal, comportait les

avantages suivants :

- a profitant de plus d'espace, il devenait possible de mieux dégager les accès et d'y situer les escaliers mécaniques qui, selon les standards du Métro, sont obligatoires partout où il y a une distance verticale de plus de 12 pieds à franchir ;
- b situés au coeur d'un emplacement plus vaste qu'il ne le faut pour les accès, les terrains résiduels offraient une occasion de développement qui viendrait identifier en volume l'accès du Métro. En attendant, des édifices temporaires sont actuellement construits aux fins d'abriter les accès ;
- c pendant la période de construction, les emplacements de Métro ont servi aux fins du rangement des matériaux et de l'équipement très encombrant que nécessite une telle entreprise. De plus, plusieurs de ces



2



3

Le projet comporte un bâtiment de 5 étages sur la partie sud de l'emplacement et prévoit la conservation du bâtiment existant d'une caisse populaire à l'est.

The design includes a five storey building on the south part of the site and retains an existing bank building on the east.

emplacements ont servi de puits de travail pour les excavations des tunnels dans le roc ;

d'enfin, partout où cela pouvait être désirable, l'emplacement a été entouré d'une chaussée où les autobus pourront boucler leur circuit en dehors de la circulation intense des artères. Cette dernière proposition, bien qu'apparaissant intéressante, n'a pas encore suscité l'enthousiasme des exploitants du réseau d'autobus. En effet, ceux-ci sont d'avis, jusqu'à présent, qu'il est préférable que la station de Métro soit le point milieu d'un circuit d'autobus plutôt que le terminus.

Quelle que soit la tournure des événements, il semble qu'en termes d'aménagement urbain les emplacements de Métro offrent des possibilités fort intéressantes.

En guise d'exemple, les figures 3 et 4 montrent l'emplacement remembré pour les accès de la station Mont-Royal. Le projet d'aménagement en surface a été préparé par l'architecte Victor Prus, également architecte de la station Mont-Royal.

Le terrain a une superficie d'environ 25,000 pieds carrés. Les autobus peuvent circuler sur le périmètre de l'emplacement et arrêter en dehors de l'axe de circulation Mont-Royal. Les voyageurs peuvent faire la correspondance sans avoir à traverser de rues, ni être exposés aux intempéries, étant donné que des marquises recouvrent les quais.

Le projet, qui n'a pas encore fait l'objet d'une proposition officielle, comporte un bâtiment de 5 étages sur la partie sud de l'emplacement et prévoit la conservation du bâtiment existant d'une caisse populaire à l'est. Au centre de l'emplacement, il y aurait un dégagement flanqué à l'ouest par un volume de 15 pieds de hauteur qui serait occupé par du commerce de détail.

Il y a en tout une vingtaine d'emplacements de Métro. Un seul de ces emplacements a été, jusqu'à ce jour, loué et la construction du bâtiment est presque terminée (voir figure 5). Cet emplacement est situé à l'angle sud-est

des rues Guy et Burnside et est relié à la station Guy.

L'Architecture dans le Métro

La participation des architectes aux travaux du Métro représente, selon toute vraisemblance, une expérience inédite dans ce genre d'entreprise, tout au moins quant à la façon avec laquelle l'expérience fut réalisée à Montréal.

En effet, les architectes fonctionnaires et les architectes engagés dans la pratique privée furent appelés, dès le début des travaux, au moment même où le programme des stations était formulé, à participer aux travaux. Cette méthode de travail, à notre connaissance, n'est pas très répandue puisque généralement on consulte les architectes dans de telles entreprises lorsque les décisions, quant à la charpente en particulier, au génie civil en général, et même à la circulation, sont arrêtées.

On peut dire que la présence active des architectes dans la composition des stations a fait que, de façon générale, l'organisation des volumes et des circulations a dépassé un ordre strictement fonctionnel. Les pénétrations des volumes des stations avec les accès ont été développées par les architectes d'une manière telle que, par exemple, le voyageur peut, avant d'accéder aux quais de la station, apercevoir ceux-ci et se repérer dans l'espace (voir figure 6).

La participation d'un grand nombre d'architectes a fait que, malgré la standardisation du programme de circulation et de certains équipements, le volume, la couleur et l'éclairage des stations présentent une grande variété. Cette variété offre beaucoup d'intérêt pour le voyageur qui progressivement verra son itinéraire ponctué d'une séquence d'impressions différentes au moment où les voitures passent d'une station à une autre. Chaque station deviendra perceptible plus par son allure générale que par la lecture de l'affiche qui porte son nom.

On observe, en visitant les chantiers des stations, que généralement ce sont les

matériaux qui portent les couleurs et que le choix et la qualité de ceux-ci, ainsi que la façon de les assembler, reflètent une certaine discipline. On retrouve dans le Métro l'usage de la céramique, de la pierre, du béton, du verre et du métal.

Le voyageur qui verra dans le Métro des murs recouverts de plaques de granit sera tenté de croire que c'est par souci de réaliser un environnement luxueux qu'un tel matériau fut choisi. Tel pourtant n'est pas le cas. Il s'est avéré avantageux de choisir des matériaux dont la résistance à l'usure était garantie, dont l'entretien et la pose étaient faciles, dont la couleur était juste et durable.

Dans certains cas on observe un effort en vue de faire pénétrer la lumière naturelle le plus profondément possible dans les stations. Ainsi, les stations Laurier et Beaubien, construites en tunnel dans le roc, ont des puits qui font pénétrer la lumière du jour jusqu'au point milieu du cheminement entre la surface du sol et les quais. Les quais des stations Champs-de-Mars, Place d'Armes et Sainte-Hélène seront au lieu des accès, éclairés par la lumière du jour.

L'affichage a été prévu dans les stations et la localisation des affiches a été incorporée dans la composition des murs. Cette disposition aura pour effet de contenir dans



des limites précises le phénomène de l'affichage publicitaire.

La voiture

Outre la participation des architectes en ce qui a trait à la construction des stations, les esthéticiens industriels ont réalisé des travaux sur différents sujets.

Jacques Guillon a créé le design de la voiture, lequel design fut inclus aux cahiers de charge. Le modèle de la voiture de Métro était celui de la voiture de petit gabarit de 8'-3" de largeur et de 57 pieds de longueur, comprenant quatre portes de chaque côté (voir figures 7 et 8).

Dans un article qui s'intitule "Riding Around at Expo" * l'auteur Scott Kelly rapporte d'une façon fort injuste à mon avis, au sujet des voitures du Métro de Montréal que : "Half the floor space will be vacant and the other half will be the scene of a writhing mass of bodies straining to leave or enter". Ces propos, ainsi que bien d'autres dans l'article de Scott Kelly, biaisent le sens des réalités.

La voiture de Montréal, bien sûr, n'a pas été faite selon le standard en usage en Amérique. Elle n'est pas pour autant dépourvue de qualité.

La courte voiture de 57 pieds à Montréal compte autant de portes, soit quatre de



chaque côté, que les longues voitures de 74 à 78 pieds du standard américain. Chaque porte a une largeur de 4 pieds 3 pouces. Le système de la voiture montréalaise, inspiré du système parisien, a pour but d'éviter la circulation dans l'axe longitudinal de la voiture et, en conséquence, de réduire la largeur. Les voitures de Montréal ont 8 pieds 3 pouces de largeur, comparativement à la largeur de 10 pieds 8 pouces des voitures de standard américain.

Dès l'arrêt des voitures, les passagers, assis ou debout, sont à proximité de la porte. En conséquence, l'évacuation de la voiture peut se faire rapidement.

Il est vrai que le nombre de 40 sièges est moindre dans la voiture de Montréal, toute proportion gardée, que dans la voiture de standard américain. Ce choix peut être motivé de la façon suivante : aux heures hors pointe, le nombre de sièges est toujours suffisant et il n'y a donc pas lieu de l'augmenter. Aux heures de pointe, il est préférable, pour une opération plus rapide, d'avoir le moins grand nombre de sièges possible.

Quoi qu'il en soit, la voiture plus étroite de Montréal a permis de construire des tunnels fort économiques de 23 pieds de largeur, d'une seule portée, et dans le roc, des stations sans colonne, d'une portée de 44 pieds avec des quais latéraux de 12 pieds

de largeur.

La voiture de 57 pieds de longueur permet un rayon de virage de 500 pieds à la vitesse commerciale et de 120 pieds sur les voies de service.

La rame du Métro de Montréal aura la même longueur que les rames de standard américain, soit environ 500 pieds. Cependant, cette rame comptera neuf voitures plutôt que six.

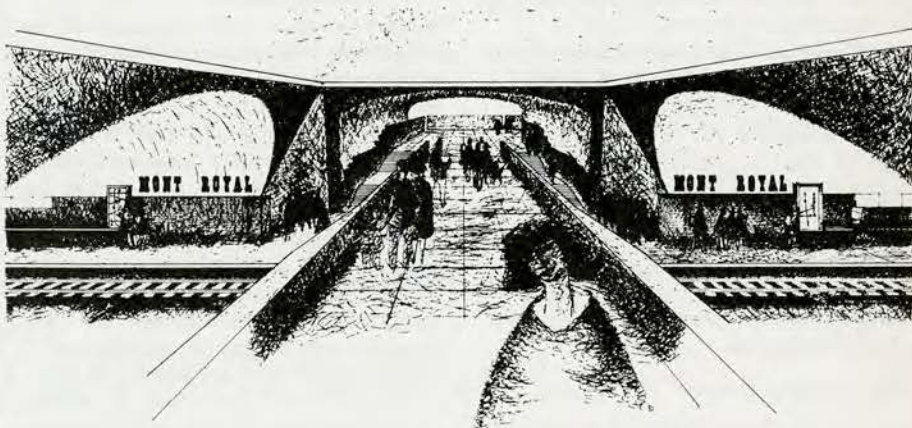
La rame est composée de trois éléments de trois voitures. Dans chacun des éléments, il y a deux voitures motrices et une voiture remorque. L'élément de trois voitures est indivisible pour les fins d'exploitation.

Une rame complète peut contenir 1,500 passagers. L'intervalle minimal entre chaque rame est de 90 secondes, ce qui veut dire que, théoriquement, le Métro de Montréal pourra transporter 60,000 voyageurs à l'heure dans une seule direction.

Les stations à Montréal ont une longueur légèrement supérieure à 500 pieds et toutes les stations ont des quais latéraux.

Le symbole

La firme Jacques Guillon & Associés a également créé un symbole d'une grande simplicité qui, depuis sa création, a identifié les chantiers de Métro. Ce symbole (voir page



7

Le modèle de la voiture de Métro était celui de la voiture de petit gabarit de 8'-3" de largeur et de 57 pieds de longueur, comprenant quatre portes de chaque côté
The model of the subway coach was of the smaller 8'-3" size, 57 feet long with four doors on each side

8

La voiture de Métro telle que réalisée par Canadian Vickers selon le design de Jacques Guillon
Jacques Guillon's design of the subway coach as built by Canadian Vickers

45), peut indiquer les directions lorsque l'on fait pivoter la flèche sur le centre du cercle. La flèche est blanche sur fond bleu. Ce symbole est reproduit sur des matériaux opaques ou translucides. Le symbole a été utilisé sur les cartes d'affaires, dans les publications, dans les annonces d'appels d'offre, etc.

Le pneumatique

Le Métro de Montréal est un Métro sur pneumatique. Cette invention française qui fut introduite à Montréal par les conseillers français de la Régie Autonome des Transports Parisiens, est mal connue en Amérique. Encore une fois, ce n'est pas parce qu'on s'écarte du standard américain qu'on fait fausse route. Le roulement sur pneu offre certains avantages qu'il est opportun de mentionner :

- le roulement sur pneu est plus silencieux et offre une meilleure suspension que le roulement sur fer ;
- le roulement sur pneu assure une décélération (arrêts d'urgence) de 6 milles / heure / seconde, ce qui a pour effet de réduire l'espacement des trains et d'en augmenter la fréquence ;
- le pneu permet des pentes de 6% ce qui incidemment a permis la traversée du fleuve.

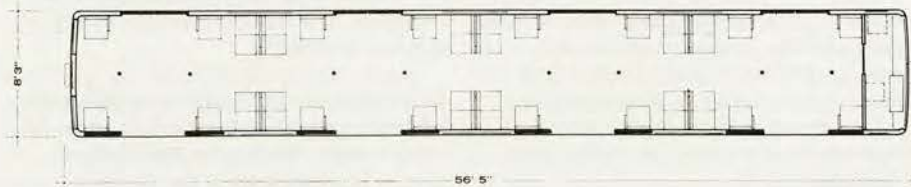
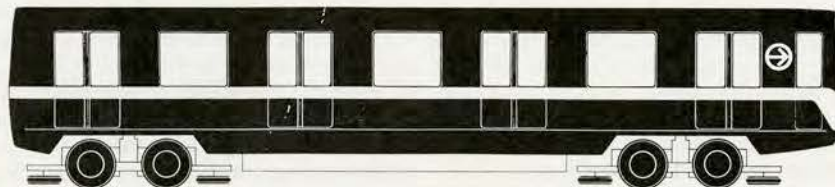
Coût

Le coût total de l'entreprise du Métro sera de l'ordre de \$215,000,000, y compris le matériel roulant. Pour un réseau de 15 milles, on obtient donc un coût moyen de \$15,000,000 au mille. Ce résultat correspond assez fidèlement aux estimations préliminaires qui évaluaient le réseau initial à \$132,000,000 pour 9 milles de longueur environ, soit \$14,700,000 du mille.

Si on tient compte du fait que dans la presque totalité de son parcours le réseau prend place à même le tissu urbain, qu'une ligne traverse le fleuve Saint-Laurent et qu'on compte plus de deux stations au mille, il semble que les sommes investies ont été bien employées.

Expérience de travail

Les travaux du Métro maintenant s'achèvent, tout au moins en ce qui a trait au réseau



7



8

initial. Nous avons parlé précédemment de la fierté des Montréalais pour le Métro. Parallèlement, le Métro a été une expérience de travail enrichissante pour un groupe d'hommes qui ont, pendant plus de quatre ans, participé à la réalisation d'une oeuvre dont la vocation est essentiellement civique. Ces hommes sont, d'une part, des fonctionnaires qui ont créé et coordonné le travail. Ils ont été dirigés pour toute la phase de la construction par M. Lucien L'Allier à qui il sied ici de rendre hommage pour la fidélité dont il a fait preuve tout au long de ce travail. Ces hommes furent aussi des architectes, des ingénieurs et des entrepreneurs de l'entreprise privée à qui on a demandé de s'asseoir régulièrement autour de la table de discussion

pour vérifier les propositions, les analyser, les perfectionner et recommencer. De même, les conseillers français, M. Derou et M. Gaston, malgré leur vaste expérience, ont accepté de vérifier leurs propositions, de les expliquer et très souvent même de les transformer pour les rendre plus compatibles aux exigences locales.

Maintenant qu'on peut avoir un certain recul, je crois que dans une large mesure cette pensée de Saint-Exupéry s'est réalisée : "La grandeur d'un métier est peut-être avant tout d'unir les hommes." (Terre des Hommes). □



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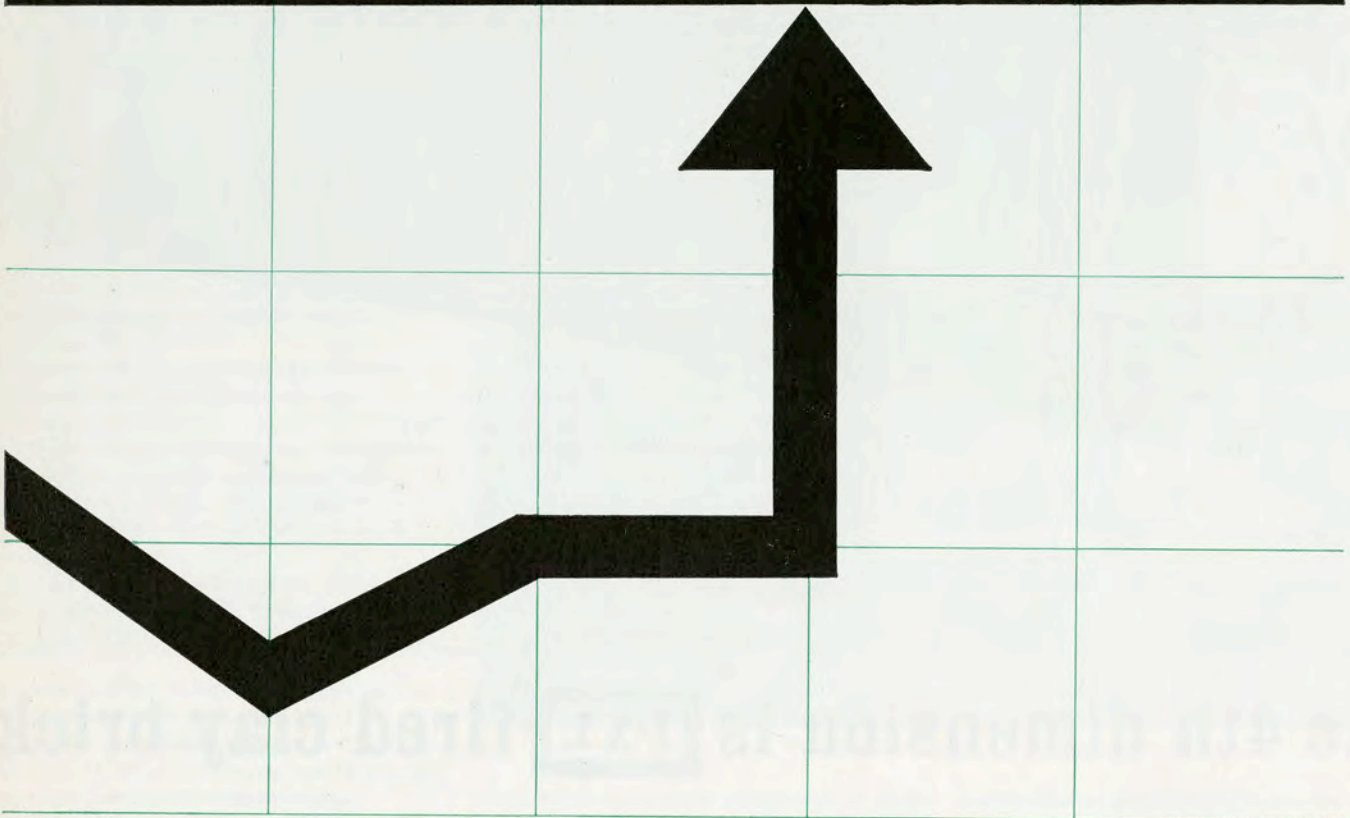
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School Inter-Communication Equipment

Though 1984 is still eighteen years away, the electronic shadow of Big Brother is already traceable on the path of the present. The electronic tools of communication, supervision and control are in our hands, and it only remains for us to use or mis-use. Today the vicarious and catholic spray of words and music which engulfs all for the enlightenment of the few is tolerated or accepted, where only a few decades ago man would have taken arms against such an invasion of privacy.

Against, however, the frightening mis-use of piped music, the ubiquitous transistor radio, the tuned-to-the average televisions, we can count at least one advantage – the closed circuit communication system. By electronic means a school of forty classrooms becomes as tightly knit as the rural red school house; words formerly addressed to thirty pupils are now beamed at a thousand; a million steps are saved, and a thousand hours.

Instant communication helps the school become what it should be – an architectural element designed for the purpose of communicating knowledge.

Today, the school without an intercom system is outdated, and the principal who does not know how to make use of such a flexible tool is not fulfilling his purpose, whether he is in charge of a 1,000 pupil vocational school or an elementary school of 200. And naturally, to achieve good results, a system must be correctly designed for its specific purpose and must be handled easily.

In smaller schools, ease of handling is paramount, since few principals in such schools possess a secretary, and the principal, always overworked, should not be faced with an array of switches that would coerce a Bell engineer. Relay switching methods avoid this confrontation, enabling the call initiator to reach any room or area by dialling a number. Very straight forward, since everyone today is familiar with dialling. The machinery of communication becomes simplified, removing the mechanistic

obstacle between thought and deed. One cannot overstress the importance of ease-of-use in instruments which may be used by anyone from an electronics lab instructor to an art teacher. The relay-dial system has recently been simplified even more by the introduction of the push-button system by which a principal may contact any room in a large school by depressing a few buttons.

In the larger school, a secretary normally takes over the main sound bay, screening calls from the school to the principal and in general protecting the principal from interruptions, while still leaving the principal the ability to broadcast or make private calls as he wishes. In still larger schools the vice-principal, vocational guidance director, or shop director should have master controls for the immediate initiation of communication, by-passing the master control.

Initiation of programs by means of record, tape, or radio in the larger school is usually taken care of by one of the clerical staff who is completely familiar with the main control centre. This main "sound bay" should be convenient to, but not necessarily in the general administrative office. Again, simplicity of operation is the keynote if broadcasts are to be clean, professional and without distraction.

In classrooms or shop, accepted practice places a speaker and a hand set, with a switch for privacy, for answering and for calling. With the switch on "Private" the master control may call the room, but cannot receive an answer until the classroom switch is put on "Answer". With the switch on "Private", no eavesdropping can be done by the master control. With the switch on "Answer", the call can be answered from any point in the room and with the switch in this position, aural supervision of the room can be carried out from the main control if the teacher is absent from the room. Depressing the "Call" switch actuates a buzzer at master control, for attention.

A more sophisticated wiring system enables the principal to page an area, such as all grade 11 classrooms, or all corridors, or all

shops, by simply dialling once, or depressing a single button.

Recommended practice places a master control unit in the auditorium, or swimming pool. In divided gymnasiums, the stage master unit can be used for half the area, while a further unit covers the other half.

More flexible is the provision of wiring for speakers in each of such areas with a jack into which an instructor may plug a portable amplifier equipped with microphone tape recorder, record player, etc. Similar wiring to an outdoor speaker allows the supply of music or directions to the playing field. Coverage of the complete exterior surroundings of the school may be obtained by strategically placed speakers, although placing of speakers and limitation of volume must be taken into account if the school is in a residential neighborhood. Outside coverage, as well as that of corridors and washrooms, is essential if the communication system is used for time signals.

Full attention must be given to speakers and their placing if the product of fine microphone and amplifier is not to be lost at the point of reception. In gymnasiums, swimming pools, or similar areas which exhibit extreme reverberation and reflection conditions, the use of sound column speakers has become standard in the last few years. Such a speaker is an in-line sound radiator using several cone speakers one above the other, in phase. Such speakers give broad horizontal dispersion, narrow vertical dispersion of sound, and as a result sound can be "placed" only where needed, avoiding reflection and reducing acoustic feed-back and reverberation. Such speakers give good reproduction and are relatively inexpensive.

In shops, boiler room, etc., where a relatively high noise background is normal, hand-sets of the carbon microphone type are usually used, to help eliminate background.

In the near future, visual dimension will be added to the audio in intercommunication. Video-tape installations are already within

the reach of the secondary school, and closed circuit audio-visual instruction will undoubtedly soon be standard.

The "language-laboratory" has gained a certain popularity in schools and universities in the past decade, though its acceptance has not been as immediate as expected. One type of laboratory consists of a wired set-up between teacher and up to forty private "student stations". By means of tape, record or radio the teacher may feed a selection of training programs to any or all students, graded to suit the students; may monitor any one and converse with any one. The student may respond at any time and simultaneously hear his voice by earphone to correct his pronunciation; may call the instructor; may tape his voice; or may join a group for conversation.

A second type consists basically of a radio transmitter under the control of the instructor, and receiving head-sets on any number of students. The aerial for transmission is run around the walls of the room. Each student has a microphone for speech and simultaneous hearing. To such a set-up may be added individual tape recorders for each student.

The second type allows all equipment to be carried from room to room. No listening cubicles for students are used, and any classroom thus retains flexibility of use.

The closed circuit television system and the language laboratory together inspire a picture of the future in which the auditorium, the classroom as we know it, and the individual teacher disappear, to be replaced by a master communication control employing audio-visual instruction and supervision. Automation of the school may be for our grandsons.

R. G. Cripps

Estimating

Under the heading of Fittings, Fixtures and Special Equipment in the preliminary estimate are included all those items which are essential to the function of the building, but which are not part of the building fabric.

These items would consist of such things as mirrors, washroom accessories, kitchen cupboards and counters, reception desks and similar items of cabinet work, dock bumpers, and all other miscellaneous accessories, together with more major cost items such as cranes, mono rails, intercommunication systems, and sterilizing, laboratory, kitchen and other items of special equipment.

This section is often very difficult to price when preparing a preliminary estimate. The only way to assess its cost accurately is to measure and price all the items in detail, but, as in the case of interior finishes, their number and extent is not usually known when a preliminary estimate is being prepared. Some of these items may be excluded from the contract on some projects, and all of them are subject to a wide range of prices, depending upon the inclination of the Architect and his Client.

The only way to price this section on a preliminary estimate is to base it on the cost per square foot of the gross floor area. At a later stage when more details are known, the items can be priced in detail. Listed below are costs per square foot for various types of buildings:

- 1 Office Building – prestige .18c. per SF gross floor area
- 2 Office Building – speculative .07c. per SF gross floor area
- 3 Hospitals 1.20 per SF gross floor area
- 4 Public Schools .56c. per SF gross floor area
- 5 High Schools 1.00 per SF gross floor area
- 6 Vocational Schools 1.10 per SF gross floor area
- 7 Apartment Buildings .83c. per SF gross floor area

- 8 Factories – light industrial .06c. per SF gross floor area
- 9 Factories – heavy industrial .65c. per SF gross floor area

In addition to the above, kitchen equipment can be assumed to cost about \$200 – \$250 per person served.

With regard to intercommunication systems, a simple system for use in an Elementary school with 15 – 25 outlets costs approximately \$80–\$100 per outlet. A similar system but a little more sophisticated and with more facilities for a Secondary school with 30–40 outlets cost \$125–\$150 per outlet. A dial or push-button system would be used in a school with 50–100 outlets and would cost approximately \$100–\$125 per outlet. The lower unit cost, in comparison with a 30–40 outlet system, is mainly accounted for by the fact that it is the basic equipment which is the major item of expense, as more outlets are added the unit cost per outlet reduces. An advantage of a push-button system over a dial system, apart from neatness and speed of operation, is that it is less expensive when additions are made at a later date. A 25 place language laboratory would cost approximately \$15,000 or \$600 per position including the cubicles.

Cost information on intercommunication systems was obtained from J. K. Plumbtree Sales Limited, 557 Kennedy Road, Scarborough, Ontario

F. W. Helyar

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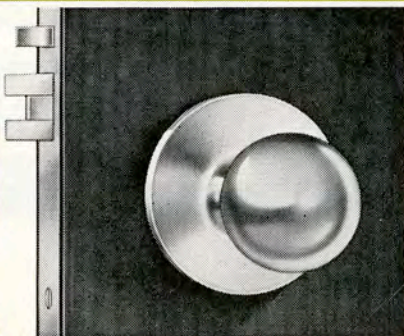
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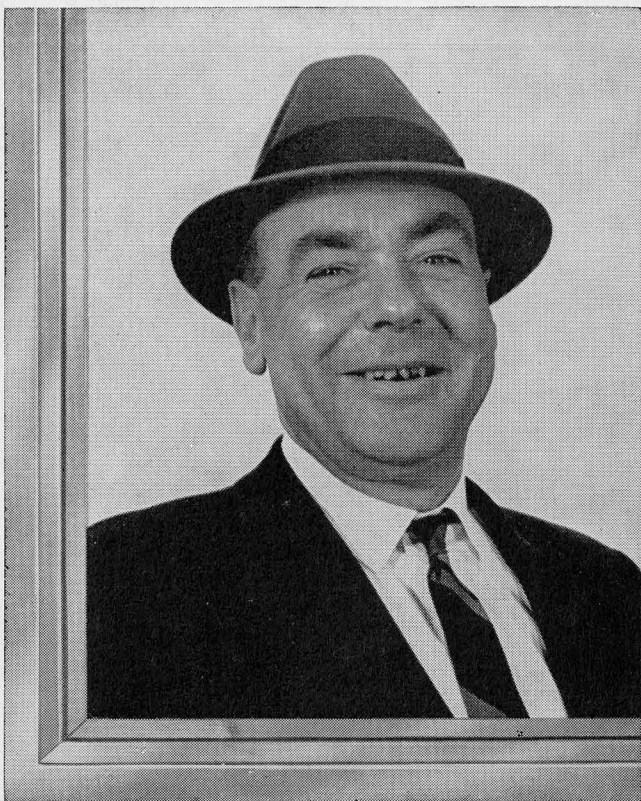
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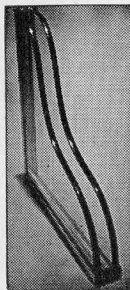


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*Claude Parisel, Ecole d'architecture,
Université de Montréal*

Jury Report

The sensitive handling of building masses and interesting exterior spaces to produce a most exciting and successful urban environment earned Mr Parisel the unanimous decision of the jury. His excellent solutions to the complex circulation problems of a high density urban university community were commended as was his obvious appreciation of human values and human scale. Mr Parisel's submission was not without some less desirable features but it did stand out from the other entries.

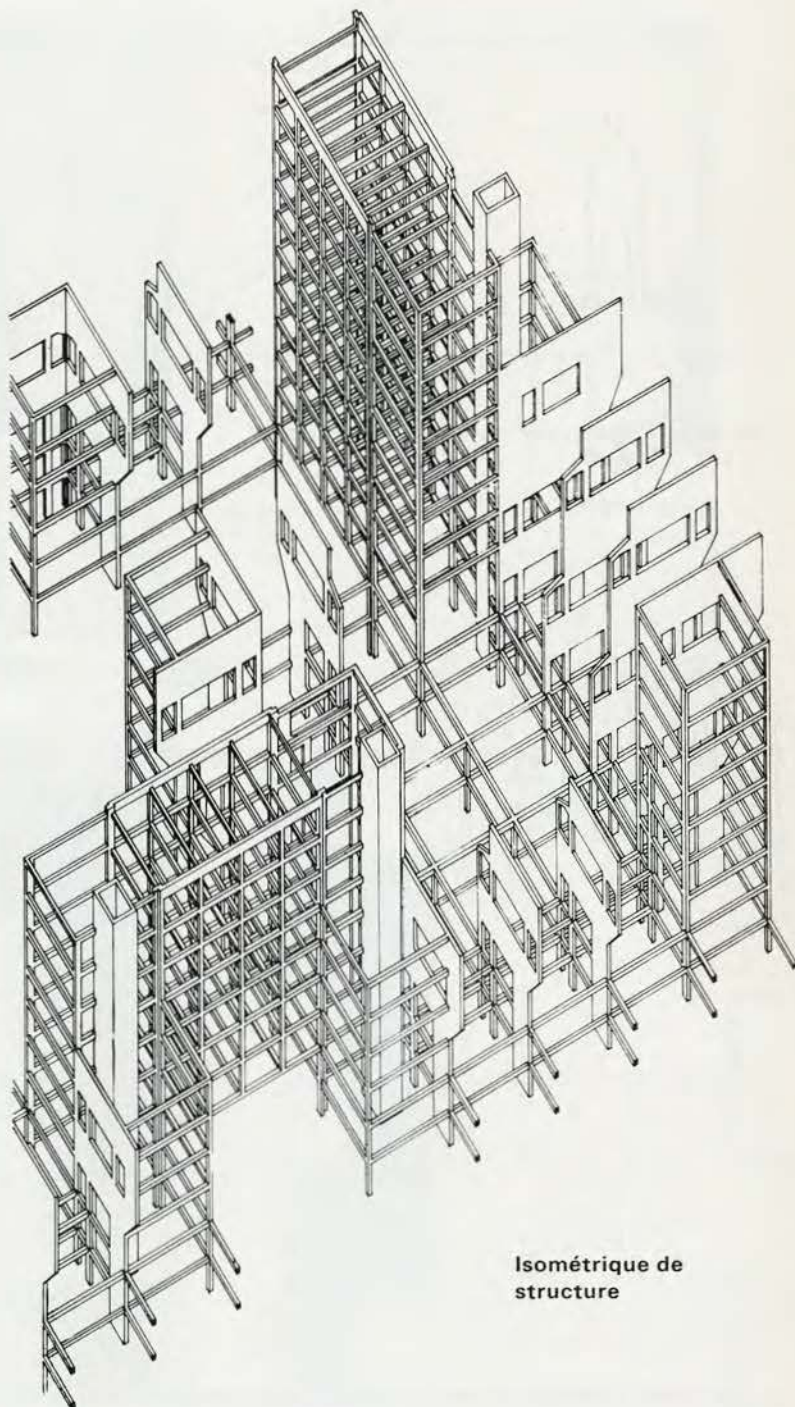
*Kerby Garden
Professional Adviser*

Rapport du Jury

L'utilisation sensible des édifices et des espaces extérieures pour d'achever un environnement urbain très progressif, a valu à M. Parisel la décision unanime des jurés.

Une mention spéciale a été faite sur les excellentes solutions apportées aux problèmes de circulation dans une communauté universitaire à forte densité, ainsi, que sur l'appréciation évidente de l'échelle et des valeurs humaines.

La présentation de M. Parisel n'était pas sans caractéristiques moins désirables mais ressortait des autres inscriptions. □

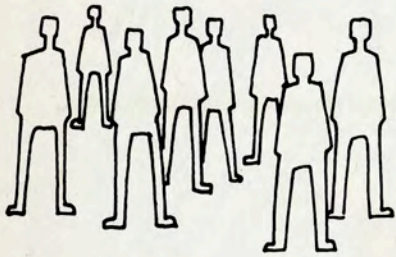


Isométrique de
structure

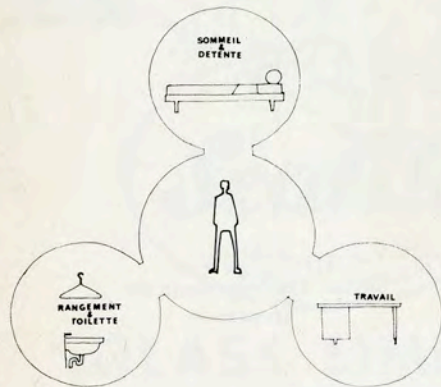
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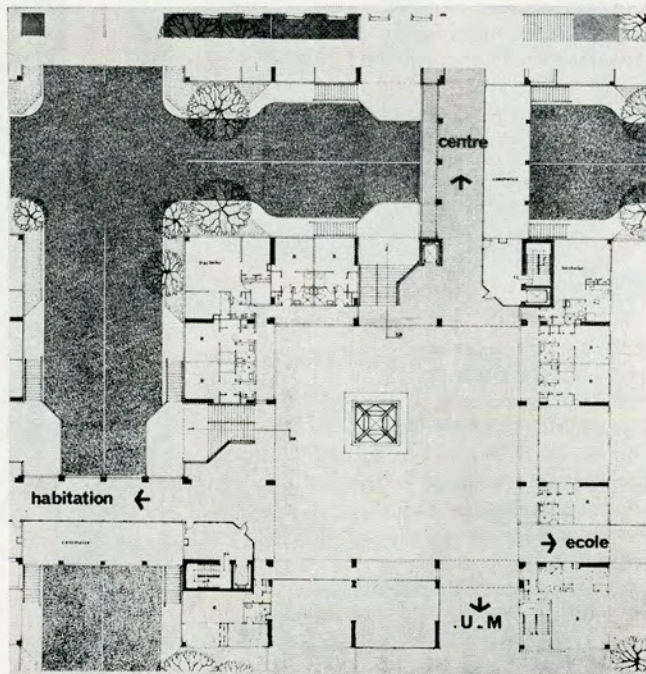
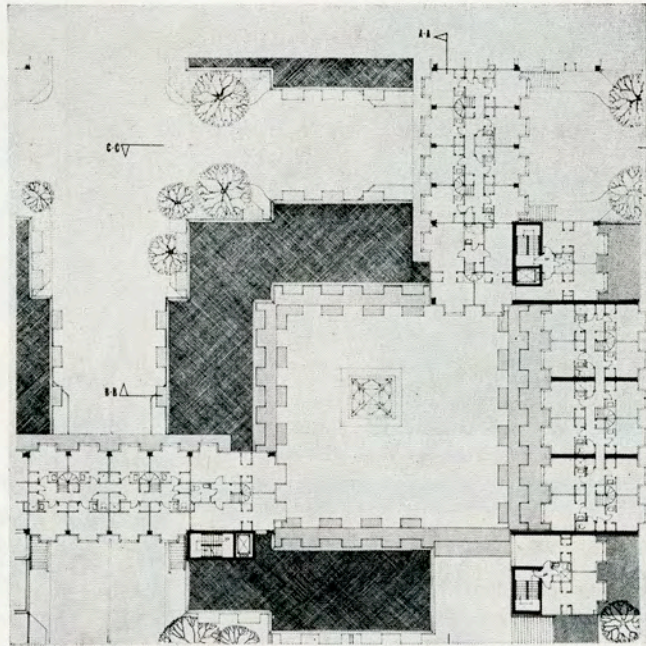
GROUPE

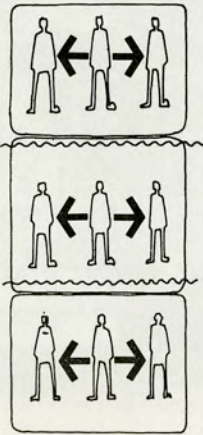
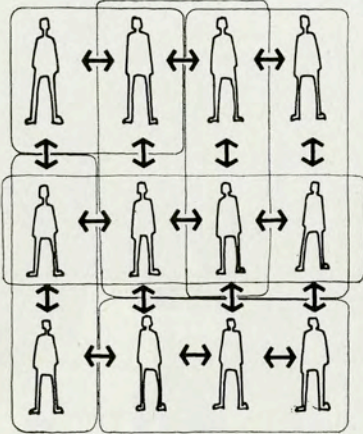


indépendance

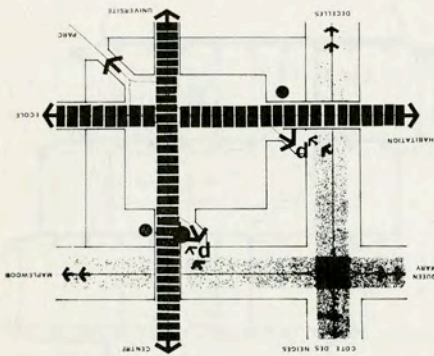


autonomie

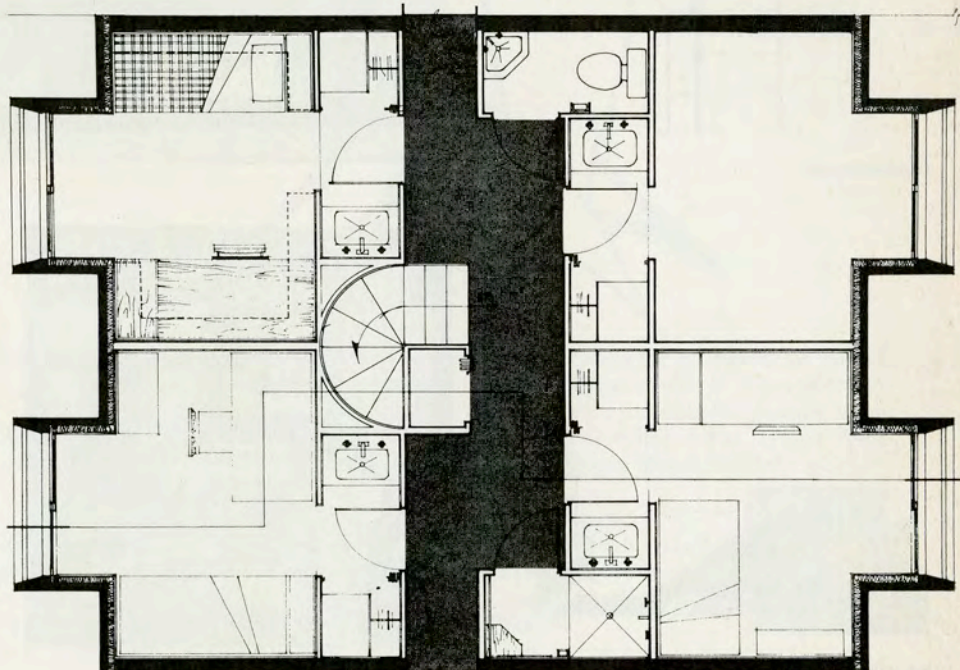
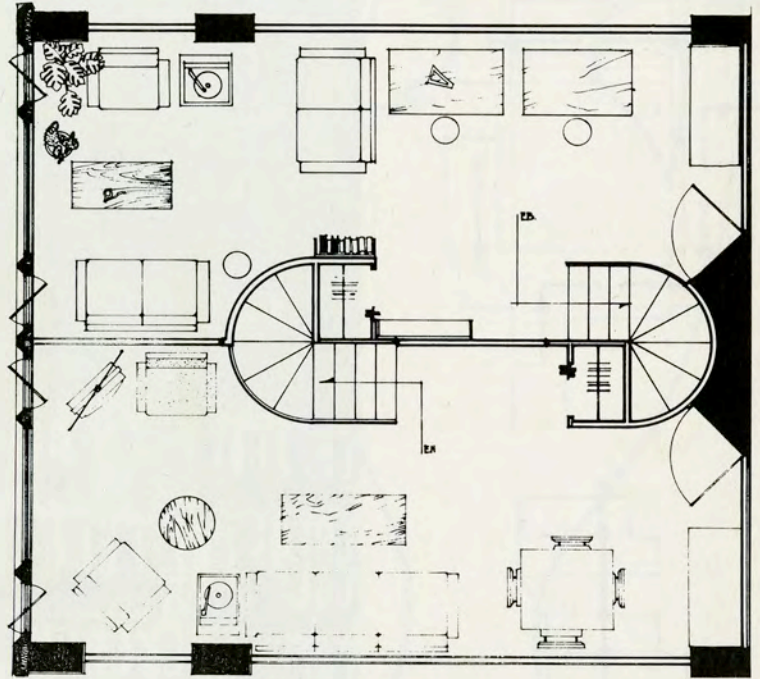


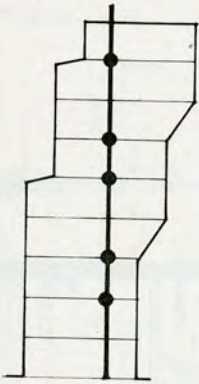
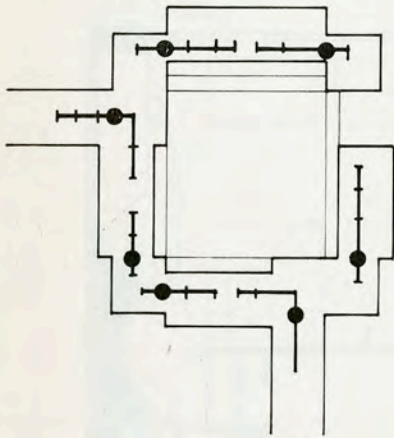


flexibilité

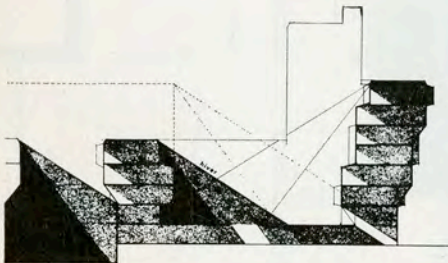
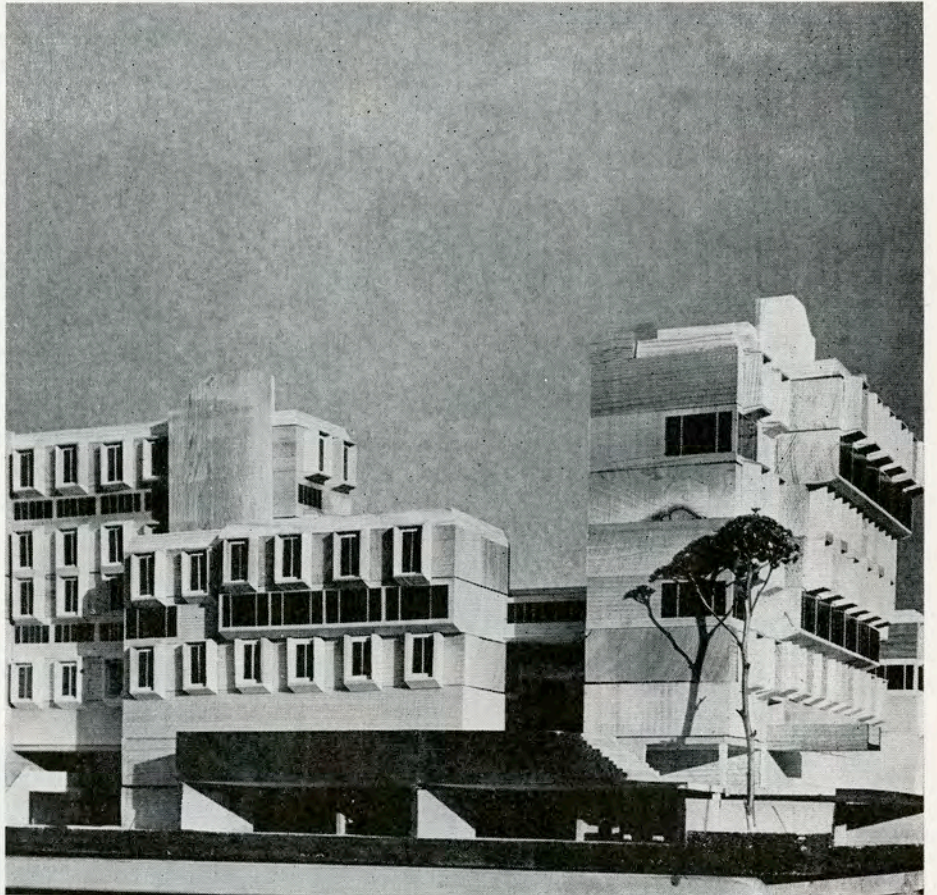


circulations

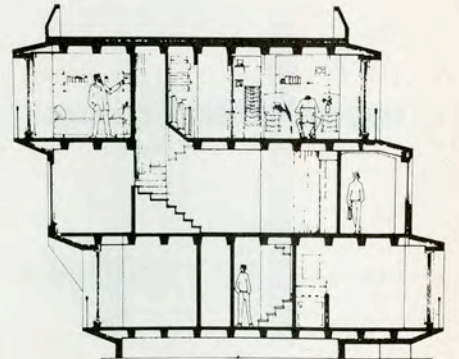
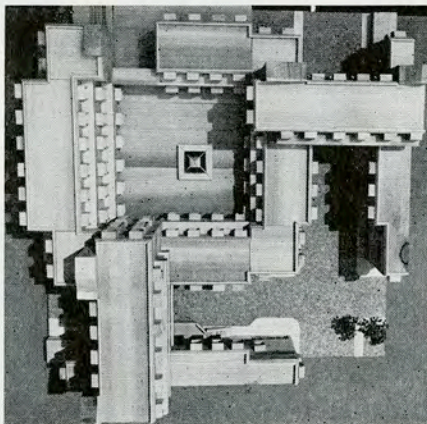


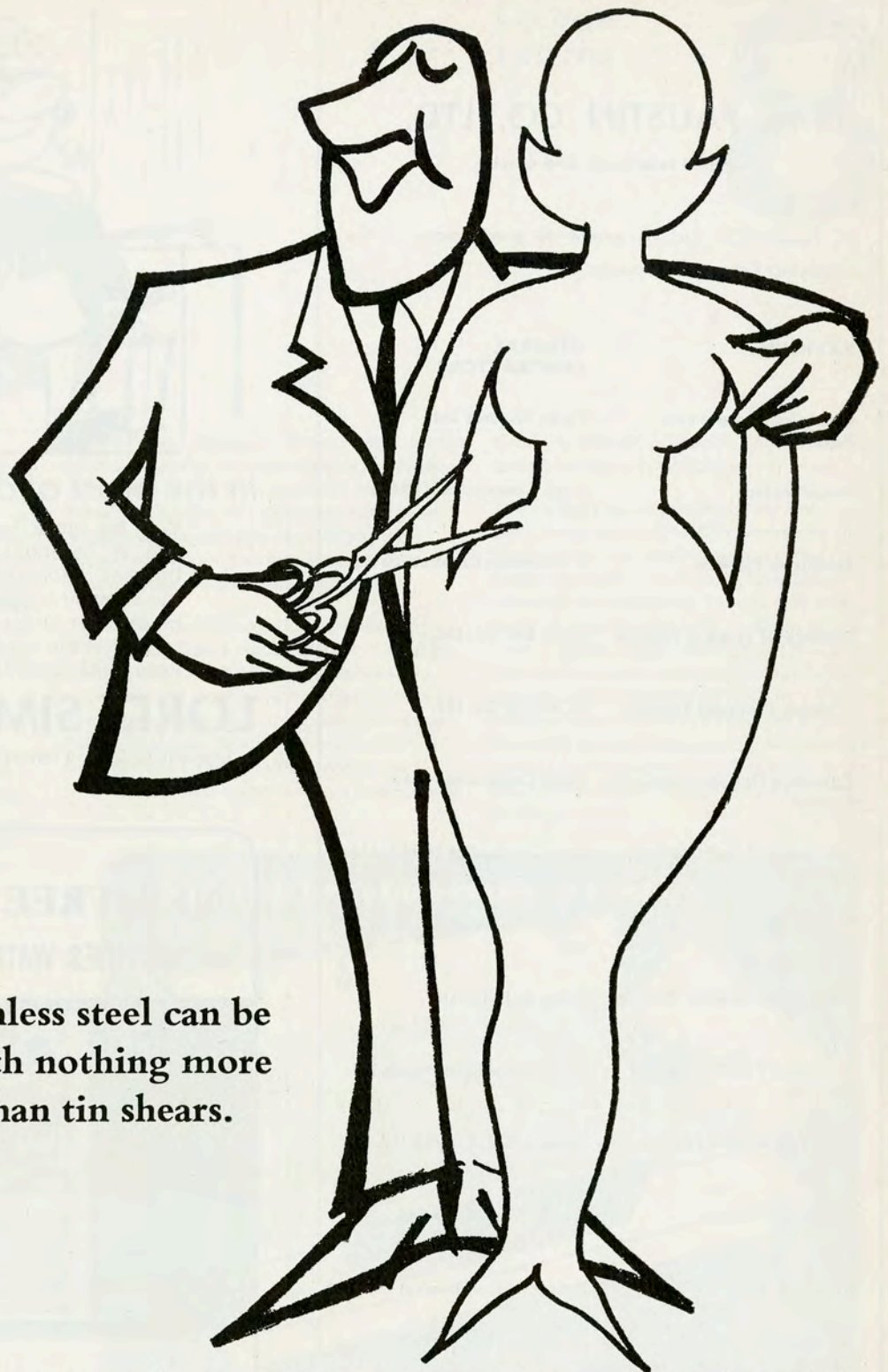


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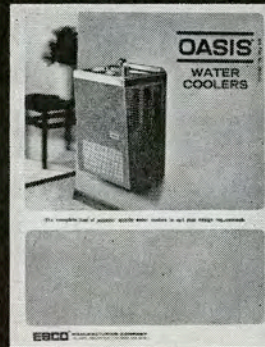
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Correspondence from G. Stephenson,
Dean, School of Architecture, University
of Western Australia, member, the Jury,
Toronto City Hall Competition, 1958

The Editors,

In the March issue of your *Journal*, Professor Shadbolt discusses the Toronto City Hall and attempts to trace the history of the building from its inception. He is worried by the sequence of events which led to the final design. He concludes that the building is not as good as it might have been because of a drastic change in the basic structure. He then lays some blame for the change on the two members of the jury who expressed a minority view.

It is to be assumed that before writing his paper Professor Shadbolt had not read the penetrating analysis by Professor Desbarats in his article in the same issue of the *Journal*. He would then have understood why there were doubts in the minds of two members of the jury. They foresaw what Desbarats expressed so well in talking of "the difficulties which arise from the very nature of the project".

As presented in the two stage competition, Revell's design was an idea illustrated by beautiful models and minimal drawings. The facts now support the view that carrying out the idea would cost far more than the amount stipulated in the conditions. The minority thought that there were better designs in the last eight, which were well related to the civic environment and could be developed into outstanding buildings within the budget.

The minority accepted the view of the majority in the small hours of the last meeting. In a democracy the minority, having made its case and lost, must accept the view of the majority if a conclusion is to be reached. That is why all five members of the jury recommended to the Mayor and City Council that Revell should be the architect, and in doing so completed their job. They did not tell him what to do, nor did they suggest that he should work with any particular Ontario firm. This was a matter for the assessor, who advised the City Council and called the jurors to meetings.

Perhaps the majority and minority views should not have been expressed in the

Jury's Report, especially as they were written at about 3 am in the morning after the session. But on the whole they expressed the jury's feelings. The majority view may have been a little exaggerated and the minority view played down, but the main thought of the jury was that the job should go on.

Two other matters might be mentioned. The Sydney Opera House story is ending in disaster of a kind. It has been financed by a succession of lotteries rather than taxes, and was a work of genius. It is quite difficult to follow Professor Shadbolt's comparison between the Opera House and the City Hall. The Opera House responded in a magical way

to its site in Sydney Harbor. The City Hall turned its back on the City.

The minority jurors reported their fear that the arrangement of the City Hall on its site would affect the redevelopment of the Eaton properties. They could have been right in their prediction. The old City Hall, which is visually part of the civic centre is now in danger. From the moment they first met the five jurors were unanimous in their opinion about the old City Hall. As a very important example of the symbolic architecture of an earlier generation, they thought it should be allowed to hold its place at the head of Bay Street for many years to come.

G. Stephenson



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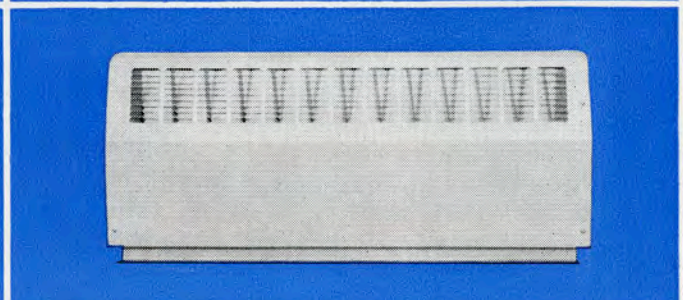
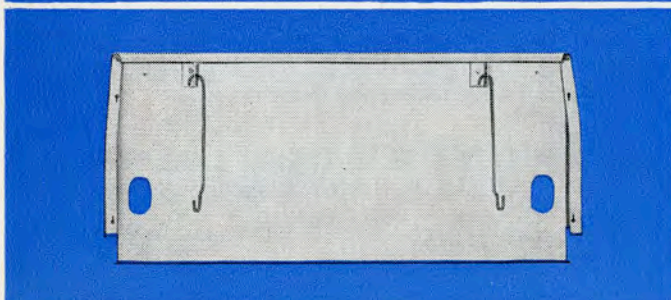
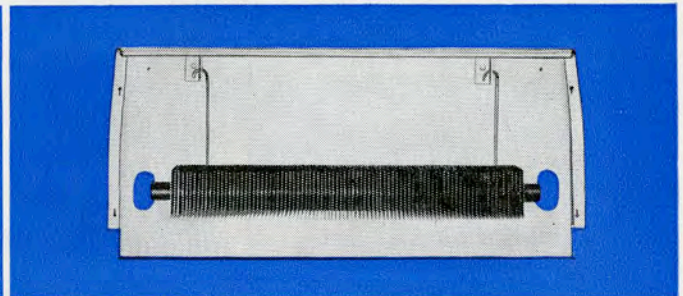
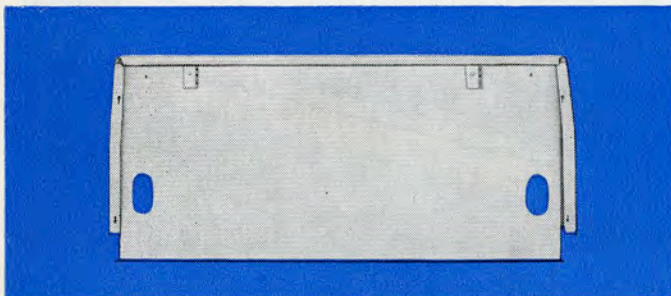
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Practice Notes

The office of Paul D. Smith, architect and associate Michael G. Weller is now located at 779 W Broadway, Vancouver 9; telephone 874-8512.

P. George Nash has established a private architectural practice from 35 Scott Street, Kitchener, as of July 4, 1966.

Positions Vacant

Hart Massey Architect urgently requires experienced graduate architects to work in Toronto and Ottawa offices on large University project. Send full information to 33 Somerset Street, West, Ottawa.

Positions Wanted

Australian architect wishes to immigrate to Canada early August this year and is looking for a position with a Toronto architectural firm. Mr Innes is a graduate from the University of Melbourne (B.Arch.), with one year office experience and presently working with a firm of chartered architects in London. Write Michael R. Innes, 11 Addison Gardens, Kensington, London, W. 14, England.

28-year-old graduate of the Mapua Institute of Technology (B.Arch.) with six years office experience in the Philippines, the United States and England, seeks position in Canada. Contact Benjamin E. Toribio, 14 Alabama St., Quezon City, Philippines.

Member of the League of Philippine Architects, with ten years experience in designing and supervising residential, commercial and industrial buildings, wishes position in Canada with view to immigration. Write Susano S. Ignacio, 46 Panghulo, Malabon, Rizal, Philippines.

23-year-old architectural student at Cambridge University, with 16 months experience in an architect's office, seeks position in Canada. Louis Drake, Hardwicke House, Fen Ditton, Cambridge, England.

35-year-old Turkish architect, B.A. (Ankara University), B.Arch. (Columbia University New York), eight years experience in Turkey and the U.S. wishes employment with a Canadian firm. Write Erdogan Alpar, 31 / 8 Izmir Caddesi, Yenisehir, Ankara, Turkey.

Graduate of the University of Buenos Aires, Faculty of Architecture and Town Planning, 29 years old, five years office experience, seeks position in Canada. Write Jacobo Eduardo Calb, 29th November Street, No 30, Tel-Aviv, Israel.

Filipino architect, 30 years of age, B.S. in Architecture, Mapua Institute of Technology, seven years experience wishes to immigrate to Canada and seeks position with an architectural firm. Manuel S. Arceo, Architect PIA, 9th Floor, Oledan Building, 131 Ayala Avenue, Makati, Rizal, Philippines.

Graduate of the University of Bombay, B.Arch., with office experience wishes employment in Canada with view to immigration. Mr. Ghatalia Girish, Sobhag Bhucan, Navroy Lane, Ghatkopar, Bombay-77 AS, India.

Registered Filipino architect wishes to immigrate to Canada and seeks a position in the Toronto area. Mr. Lapid is 37 years old with twelve years experience in the architectural field and building construction. Reply Ramon P. Lapid, Suite 304-306 Campos Rueda Building, Tindalo, Makati, Rizal, Philippines.

Doctor of Architecture from Turin University Politechnic (Italy) with more than three years experience in Italy and England, good knowledge of English, French and Italian seeks interesting position, beginning in September / October, with architects or engineers office in Toronto. Write Iraj Majzub, 42 Weymouth Street, London W.1., England.

23-year-old Filipino architect, graduate of the University of Sto Thomas, two years office experience wishes a position in Canada. Antonio R. Encarnacion, 96 K-3rd Kamuning, Quezon City, Philippines.

Egyptian draftsman seeks employment in an architectural office in Ontario. Write Zaki Sarwat Hilil, 3 Tiba Street, Camp Chesar, Alexandria, U.A.R.

Technician, 36 years old, presently appointed an Associate in an architectural firm in England, seeks information on employment in Toronto. K. F. Isitt, "Sihala", 6 Belmont Park Road, Maidenhead, Berkshire, England.

British architect, ARIBA, age 36 years wishes employment in Toronto from August 1966. Write Roy Wilson, 117 Station Road, Marple, Stockport, Cheshire, England.

23-year-old graduate from the National University, Manila, with two years experience, is looking for an opening in a Canadian architectural firm. Contact Carlos S. Soriano, Malvar Street, Lingayen, Pangasinan, Philippines.

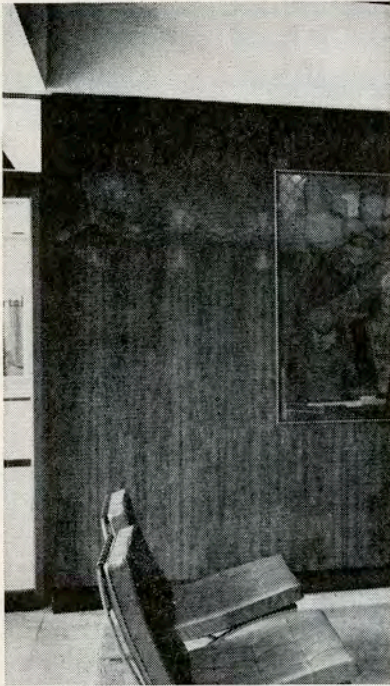
Filipino architect, 28 years old, seven years office experience wishes a position in Ontario. Reply Perfecto A. Espiritu, Meycawayan, Bulacan, Philippines.

Graduate from the University of Bombay (B.Arch.), 23 years old, with experience in the construction field wishes to immigrate to Canada and seeks position with an architectural firm in Ontario. Arun P. Phadnis, "Sunita-Sedan", Block 6, Ghantali Road, Naupada, Thana, Maharashtra State, India.

27-year-old Filipino, graduate from the University of Santo Tomas in Architecture (B.S.) with three years post-graduate office experience wishes to immigrate to Canada and seeks a job with an architectural firm. Reply Alberto B. Bondad, 547 Paraiso Street, San Juan, Rizal, Philippines.

Request for product literature: Schools

Research on the design and construction of schools in the Quebec City region is being undertaken by the office of C. Ross Anderson, Architect, 1134 Chemin St-Louis, Quebec 6. A file of technical literature will be required and submissions of manufacturers' literature on materials and equipment for use in schools in this region would be appreciated.

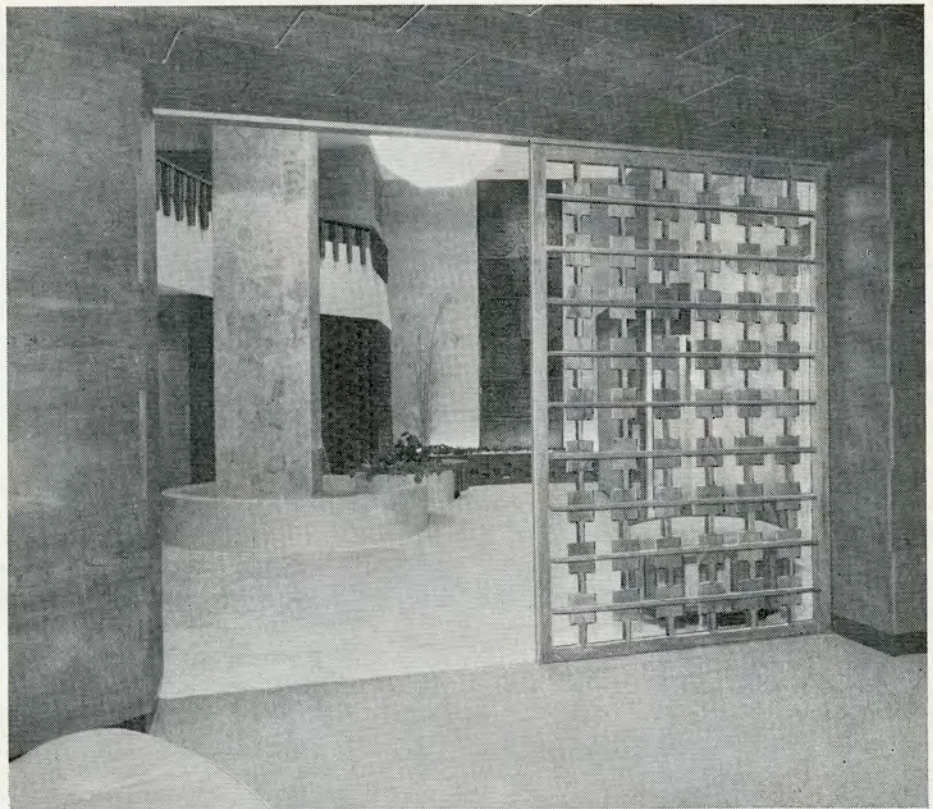


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Wood panelling was used in the lobby entrance of Cantlie House, Montreal to give warmth and enrichment contrasting with the smooth hardness of ceramic materials. Ian Martin Associates, Architects.

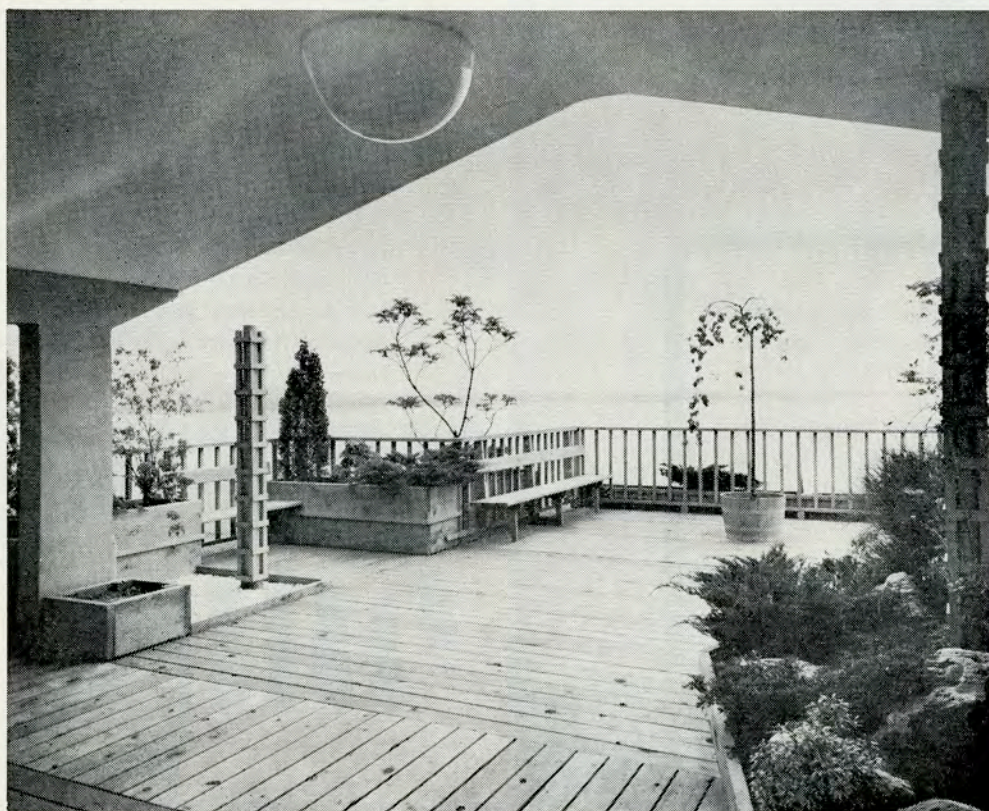


Ingenious use of wood was made by the Winston Group in the foyer of 4000 Yonge Street, Toronto. It is evident here in wall and ceiling panels (foreground), decorative screen, circular pedestals and mezzanine handrail.

From early cave house to modern cliff dwelling, men have lived in harmony with wood. They trust it structurally. They feel at home in its environment.

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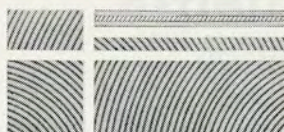
To create a comfortable residential atmosphere, architect Leo Lund, MRAIC, of Vancouver used wood in the lobby and recreational areas of Seastrand Apartments, Vancouver, as well as in the pent-house garden. Landscape Architect, Phillip Tattersfield and Associates.

For useful booklets giving examples of wood in business, church, school, residential and recreational applications, please write:

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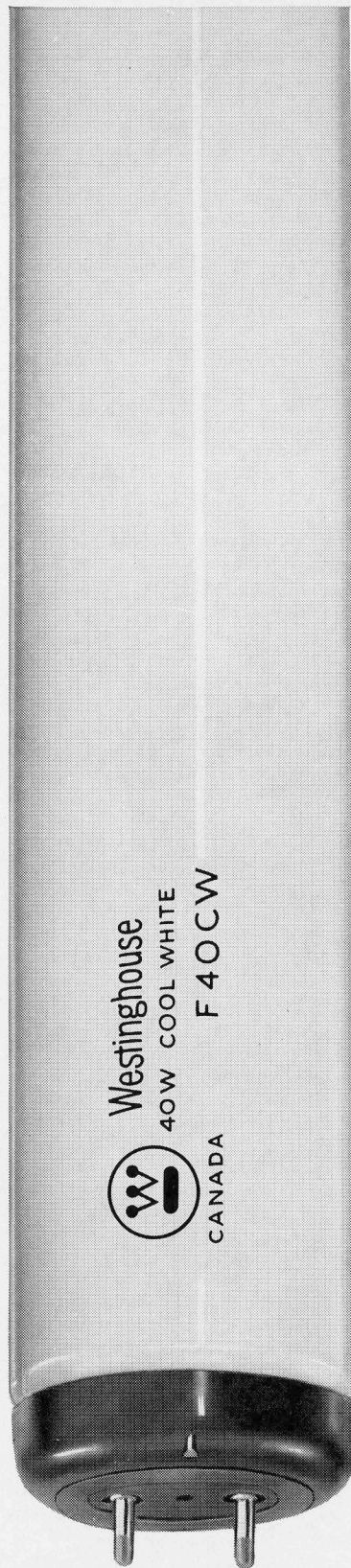
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	3/16					\$23.85	\$28.60
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	3/8					\$23.00	\$27.50
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