Architecture Canada

Journal RAIC/La Revue de l'IRAC: December/Decembre 1967

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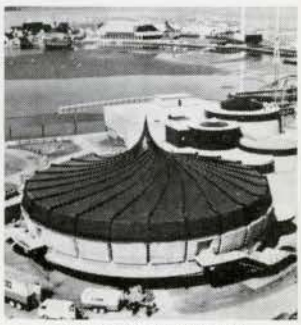
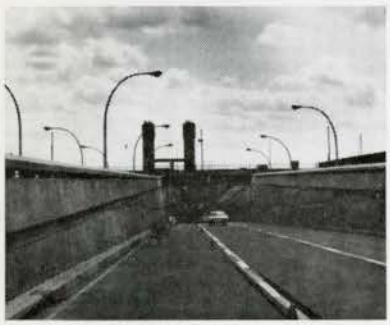


Aquarium de Montréal, à l'Expo 67



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Editorial

A Single Voice for the Construction Industry

A single voice for the construction industry is necessary to ensure that the government has the best available advice on effective planning and execution of development plans. This unification of the construction industry for a common purpose will be a reality if the two point program now being put forward by the RAIC is implemented.

The first point, which came about as a result of talks between RAIC President James E. Searle and the Department of Industry, is that architect and engineer representatives on the Department of Industry Advisory Committee be named by the professional bodies rather than separately by the Department. This will swing the weight and support of professional organizations behind Department efforts and avoid overlap of effort by the different related organizations.

The second is that there should be a Government Committee for the building construction industry composed of representatives of the RAIC, the Association of Consulting Engineers of Canada and the Canadian Construction Association along with representatives of the departments of government concerned.

The Association of Consulting Engineers will strongly support these two recommendations according to the Executive Secretary Thomas Midland. His Association, he said, could not understand why the Association of Consulting Engineers as such was not represented on the Department of Industry's BEAM Program.

It is believed that the CCA also will support these two points. The result would be to give Canada for the first time a unified group speaking for the construction industry, representing their individual organizations and working directly with the government to solve the problems of the industry.

The Fourth Annual Review of the Economic Council of Canada, released in September, emphasized the problems the country faces and the need for effective planning.

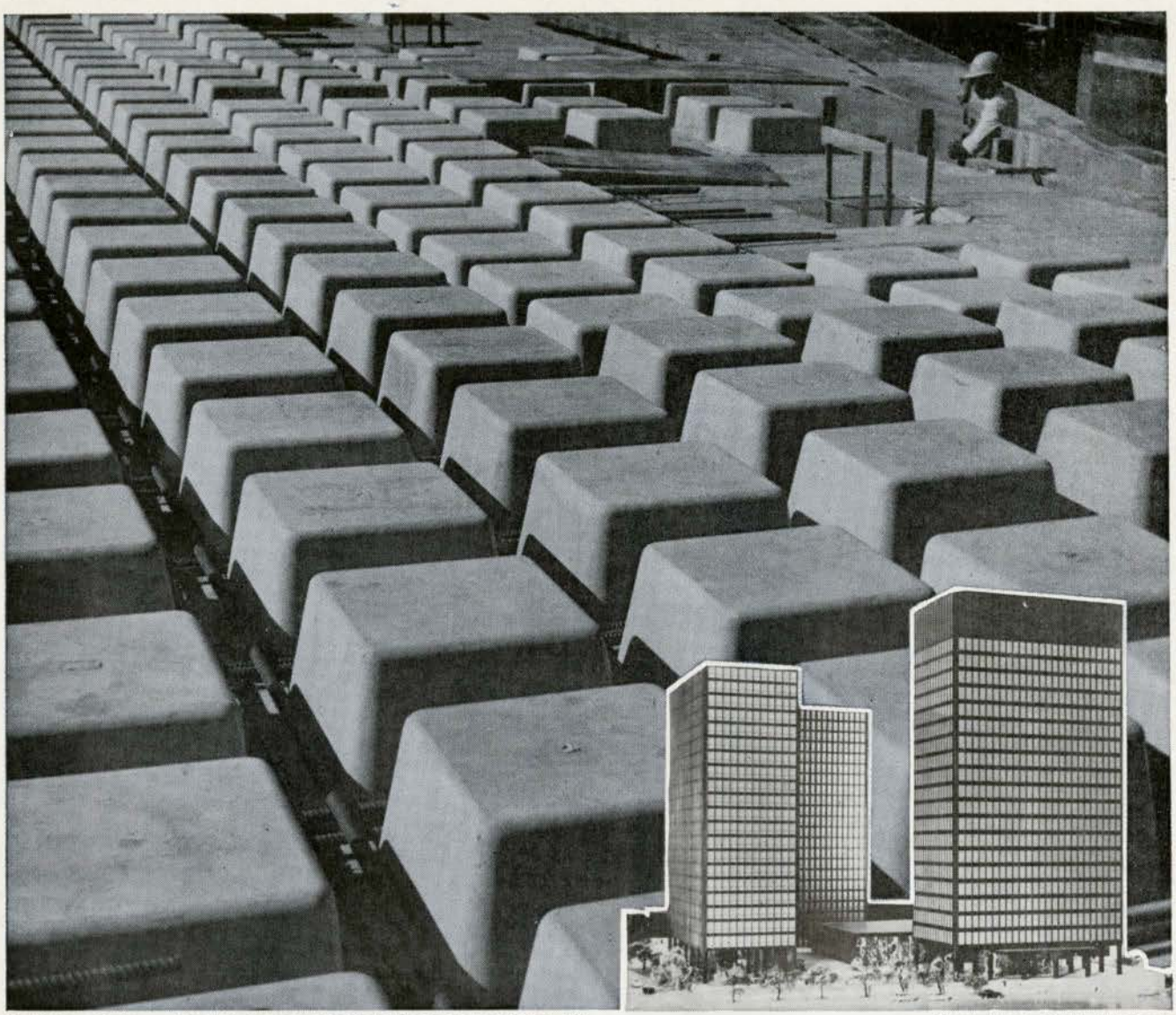
Further support of this view is given in an article by Ken Smith in the *Toronto Globe and Mail* (November 16). He pointed out that at "local provincial and federal levels architectural bodies seem to have only limited influence on public decisions that shape the urban environment". As an example he reported the lack of response to assistance offered by the Toronto Chapter of the Ontario Association of Architects. They are "making a stronger effort than in any recent year to make municipal authorities realize the need for imaginative civic design, but the frustrations are many. Individual architects may make speeches and committees may confer with officials on the need for more downtown parks, better subway design or the burying of overhead wires but civic administrations pay little heed."

The Canadian Construction Association has its problems as well. "The Association spent $100,000 this year on a study of labor in the construction industry by Carl Goldenburg of Montreal, whose report will be made early in 1968. The CCA has repeatedly criticized government agencies like the Ontario Hydro for doing construction with their own forces instead of hiring contractors.

"David Aird, recently appointed manager of methods studies for design and construction by Ontario Hydro, told a meeting in Toronto this fall that increased use of government forces is probably in the offing. 'Construction needs better management, new methods, vastly improved on-site operations, more off-site operations, better planning and design integration. It may be a question of adaptability or death for the contractor as we know him.' "

RAIC President Searle was quoted by Mr Smith as saying that a "unified approach by the industry is necessary because no government department is willing to commit itself to a single private organization."

What is needed is a joint industry co-operation with government to help the construction industry, and, as Mr Smith points out at the conclusion of his article, "if architects can help bring efficiency to the construction industry. . . public authorities may be willing to listen to architects on the matter of what is built where".



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News
Nouvelles

1

Winnipeg Art Gallery Competition

Winnipeg's national competition for an Art Gallery is now closed after weeks of protest and uncertainty about the site, an awkward pie shaped lot on which stand two unattractive incompatible buildings. Local protest was strong. An amendment regarding the site was sent to the registrants by the Professional Advisor on October 6, six days after the original closing of the question period and 27 days before closing date for entries. The RAIC objected and as a result the contestants were notified four days later, October 10, that the competition would again be based on the original site. The closing date was postponed to November 15. Of the 476 architects who registered for the competition, 109 actually had submitted entries by 28 November. Judging has been deferred until December 15-17.

Strong Appointed Chairman of U of T Department of Landscape Architecture

Richard Strong has been appointed chairman of the Department of Landscape Architecture of the University of Toronto's Faculty of Architecture, Urban and Regional Planning and Landscape Architecture. He joined the University staff in 1964. Professor Strong was educated at Ohio State University and at Graduate School of Design at Harvard. He has practised in Toronto as a Landscape Architect since 1961 as a partner in the firm of Sasaki Strong and since 1966 as principal of Richard Strong and Associates.

Richard Strong

Canadian Structural Engineering Conference

The Canadian Structural Engineering Conference to be held in Convocation Hall, University of Toronto, February 19th-20th, 1968, will present a series of papers on structural engineering and design technology. The conference is co-sponsored by the Canadian Steel Industries Construction Council, and the University's Department of Civil Engineering,

February 19th speakers will include Sir Gilbert Roberts, British bridge designer, who will discuss long span bridge design; Dr G. G. Meyerhof, Dean of Engineering, Nova Scotia Technical College, on "Some Problems in the Design of Shallow Buried Steel Structures"; W. R. Schriever, Head, Building Structures Section, Building Research Division of the NRC, on "Recent Research on Wind Forces on Tall Buildings; Dr A. G. Davenport, Faculty of Engineering Science, University of Western Ontario, on "New Approaches to the Design of Structures Against Wind Action"; and Dr Daniel Roos, Department of Civil Engineering, Massachusetts Institute of Technology on "Applications of Computers to Structural Design and Analysis".

Dr Hedley E. H. Roy of John B. Parkin and Associates will lead off at the February 20th session on "Important Considerations in the Design of High-Rise Buildings"; to be followed by a panel discussion on research and development in steel construction, and a joint paper on "System Building" to be presented by Roderick G. Robbie, Technical Director, Study of Educational Facilities, Metro Toronto School Board, and Morden Yolles and Roland Bergman of M. S. Yolles Associates Limited, consulting engineers.

Registration forms and program details are being mailed to architects, engineering consultants, educational authorities and other construction industry personnel by the Canadian Steel Industries Construction Council, 1815 Yonge Street, Toronto 7.

Montreal Society of Architects Activities

As a result of the success of their Thursday evening cocktail parties at PQAA Headquarters during Expo for local and visiting architects, the Montreal Society of Architects has now embarked on a program of events every second Thursday consisting of movies, slides, lectures and discussion periods.

The activities organized by the MSA during Expo were well attended. Among prominent guests at their hospitality evenings were Buckminster Fuller; Ralph Erskine; J. M. Richards, Editor of the Architectural Review; Dr Karl Schwanzer, architect of the Austrian Pavilion; Malcolm MacEwen, Editor of the RIBA Journal. Architects from France, Italy, Great Britain and USA were given conducted architectural tours of Montreal.

MSA plans for 1967-68 include a continuation of their architectural tours of various cities in the US and Canada.

Provincial Association Annual Meetings

The following are dates and locations of the forthcoming Provincial Association Annual Meetings:
AAA-Jan. 26, 27, 1968, Edmonton
AIBC-Dec. 8, 1967, Vancouver
AANB-Jan. 26, 27, 1968, Fredericton
MAA-Jan. 27, 1968, Winnipeg
NSAA-Jan. 27, 1968, Halifax
OAA-Feb. 22, 23 & 24, 1968, Toronto
PQAA-Jan. 26, 1968, Montreal
SAA-May 29, 1968, Regina
The RAIC Assembly will be held May 29 – June 1 at the Regina Inn, Regina, Sask.

Correction

We were horrified to notice in the November issue that the construction photograph of University of Alberta Student Housing, Architects Dennis and Freda O'Connor and Maltby, had been printed upside down. This is a rare but too often occurrence with photographs which look similar either way up.

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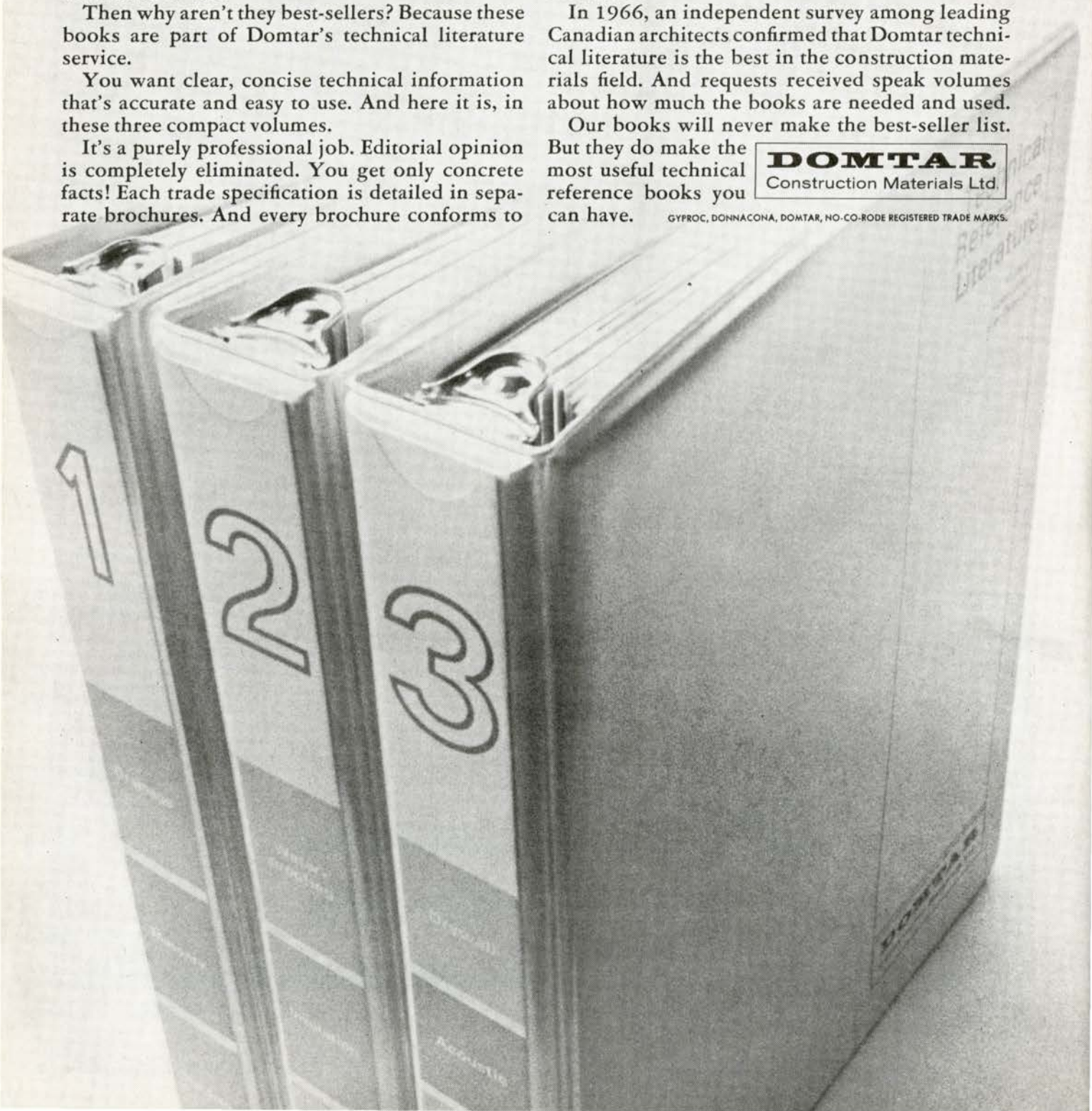

Communiqué 2

RAIC News

Canada's Architectural Archives

Research in six countries has revealed that the National Architectural Archives to be established at Ottawa probably will be the most comprehensive of its kind in the world. Walter Bowker, editor of Architecture Canada and secretary of the RAIC Advisory Committee on the project to the Dominion Archivist, Dr W. K. Lamb, reports after visiting the United States, the United Kingdom and the Continent that the closest approach he found to the proposed Canadian system was in Sweden. The Sveriges Arkitekturmuseum was launched as a project of the Swedish Architectural Association five years ago, chiefly to collect photos, plans and data of contemporary architecture in Sweden for exhibition and publication, but its value was quickly recognized by the state, which now provides 85 per cent of a budget of more than $40,000 per year.

The basic collection consists of mounted photos and plans, with project data, filed by building type, cross indexed to architect and to location. The museum, which also collects historical architectural documents, shares the old naval cartography building with the graduate school of fine art. Sweden got the idea of a national architectural archives from Finland, where one was established ten years ago.

IUA Events in USA and Spain

The fifth Seminar on Industrial Architecture conducted by the International Union of Architects will be held in Detroit, Mich., May 19–26, 1968. This will be the first occasion on which IUA members will visit the United States to exchange views on the subject of industrial architecture, and the American Institute of Architects, which issued the invitation, expects more than 80 delegates from abroad and about 100 from the United States. The seminar is being planned by the Detroit Chapter of the AIA, 28 West Adams, Detroit, 48226, from whom registration forms may be obtained.
Also in 1968 the IUA will hold a third Colloquium on Industrialization of Buildings in Barcelona April 22–27. The five main Colloquium divisions will be programs, labor, material means, economic bases and methods. Further information may be obtained from the RAIC Executive Secretary, 151 Slater St., Ottawa 4.

The IUA is also collaborating with the organizing committee of the Mexico Olympic Games, to be held in Mexico City in October 1968, on an exhibition of "Sites for Sports and Culture". RAIC members interested in having projects shown in the exhibition should send sample 8 x 10 glossy photos to Mrs Ruth Rivera, Organizing Committee for the XIX Olympic Games, Ave. de las Fuentes 170, Mexico 20, D.F., by December 15.

An IUA Conference on Housing will be held in Agadir, Morocco, April 28 to May 5, 1968. Further information may be obtained from the General Secretariat, IUA, 15 Quai Malaquai, Paris 6.

Industrial Research Institute

McMaster University, Hamilton, will have a grant of $150,000 from the Department of Industry to establish an Industrial Research Institute. The University of Windsor and Nova Scotia Technical College earlier received similar grants.

Nouvelles de l'IRAC

Les Archives nationales d'architecture au Canada

Une enquête dans six pays a révélé que les Archives nationales d'architecture, devant être établies à Ottawa, seront les plus compréhensives de ce genre qui soient au monde. Walter Bowker, rédacteur de l'Architecture Canada et secrétaire du Comité consultatif de l'Institut, de retour d'un voyage d'études aux Etats Unis, au Royaume Uni et sur le continent, a déclaré que le système ressemblant le plus au project proposé au Canada se trouvait en Suède.

Le Sveriges Arkitekturmuseum était à l'origine un projet de l'Association des architectes suédois, lancé il y a cinq ans pour recueillir des photos, plans et données sur l'architecture contemporaine suédoise en vue d'exposition et de publication. Sa valeur fut rapidement reconnue par le gouvernement qui met 85 pour cent d'un budget de $40,000 à sa disposition.

Nouvelles de l'UIA des Etats Unis et d'Espagne

La cinquième conférence sur l'architecture industrielle organisée par l'UIA aura lieu à Détroit, Mich. du 19 au 26 mai 1968. Pour la première fois les membres de l'UIA visiteront les Etats Unis et auront l'occasion d'échanger leurs vues sur l'architecture industrielle. 80 visiteurs de l'étranger et environ une centaine des Etats Unis seront attendus. Les fiches d'immatriculation pourront être obtenues au Detroit Chapter de l'AIA, instigateur de cette conférence, 28 West Adams, Détroit, 48226.

En 1968 l'UIA tiendra un troisième Colloquium sur l'industrialisation du bâtiment qui aura lieu à Barcelone du 22 au 27 avril. Les cinq groupes du Colloquium seront ; les programmes de construction, la main d'oeuvre, le matériel de construction, les bases économiques et les méthodes de construction. Pour tous renseignements s'adresser au Secrétaire administratif de l'IRAC, 151 Slater Street, Ottawa 4.

En collaboration avec le comité organisateur des Jeux olympiques qui se tiendront à Mexico au mois d'octobre 1968. l'UIA participera également à une exposition de "Sites for Sports and Culture". Tous les membres désireux de participer à cette exposition doivent envoyer des photos glacées de 8 x 10 à Mme Ruth Rivera, Comité organisateur des 19e Jeux olympiques, Ave de las Fuentes 170 Mexico 20, D.F. Date limite : 15 décembre.

Une conférence sur les logements se tiendra à Agadir, Maroque du 28 avril au 5 mai 1968. Pour tous renseignements s'adresser au Secrétaire général de l'UIA, 15 Quai Malaquais, Paris 6e.

Institut de Recherche Industrielle

Le ministère de l'Industrie a accordé une subvention de $150,000 à l'Université McMaster, Hamilton, pour l'installation d'un institut de recherche industrielle. L'Université de Windsor et l'Ecole technique de Nova Scotia ont reçu auparavant des subventions semblables.

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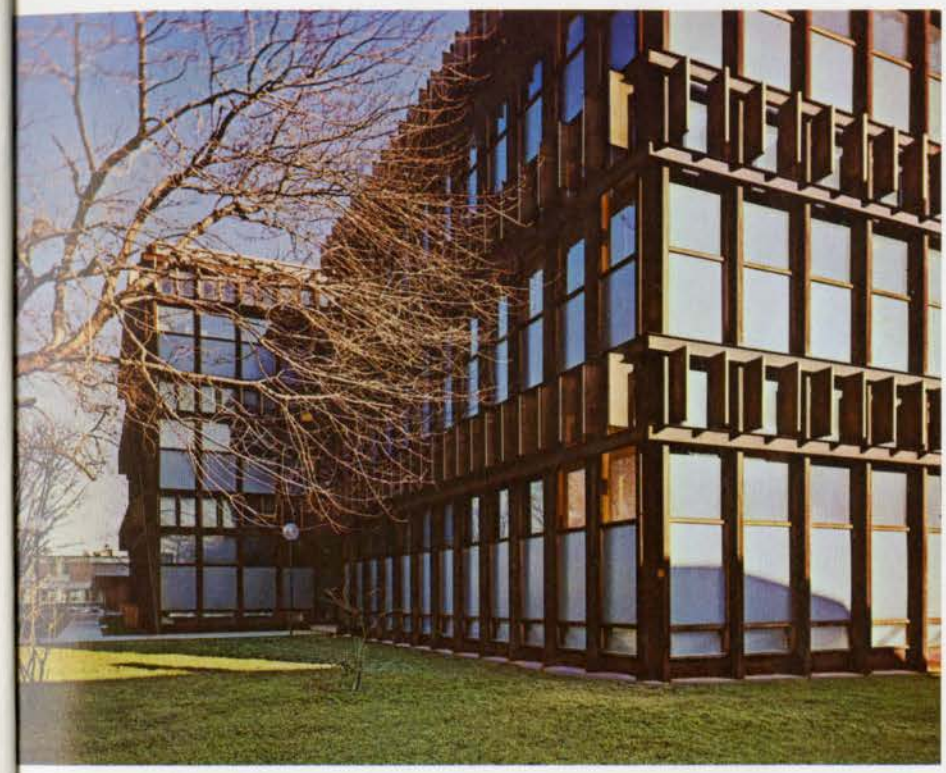

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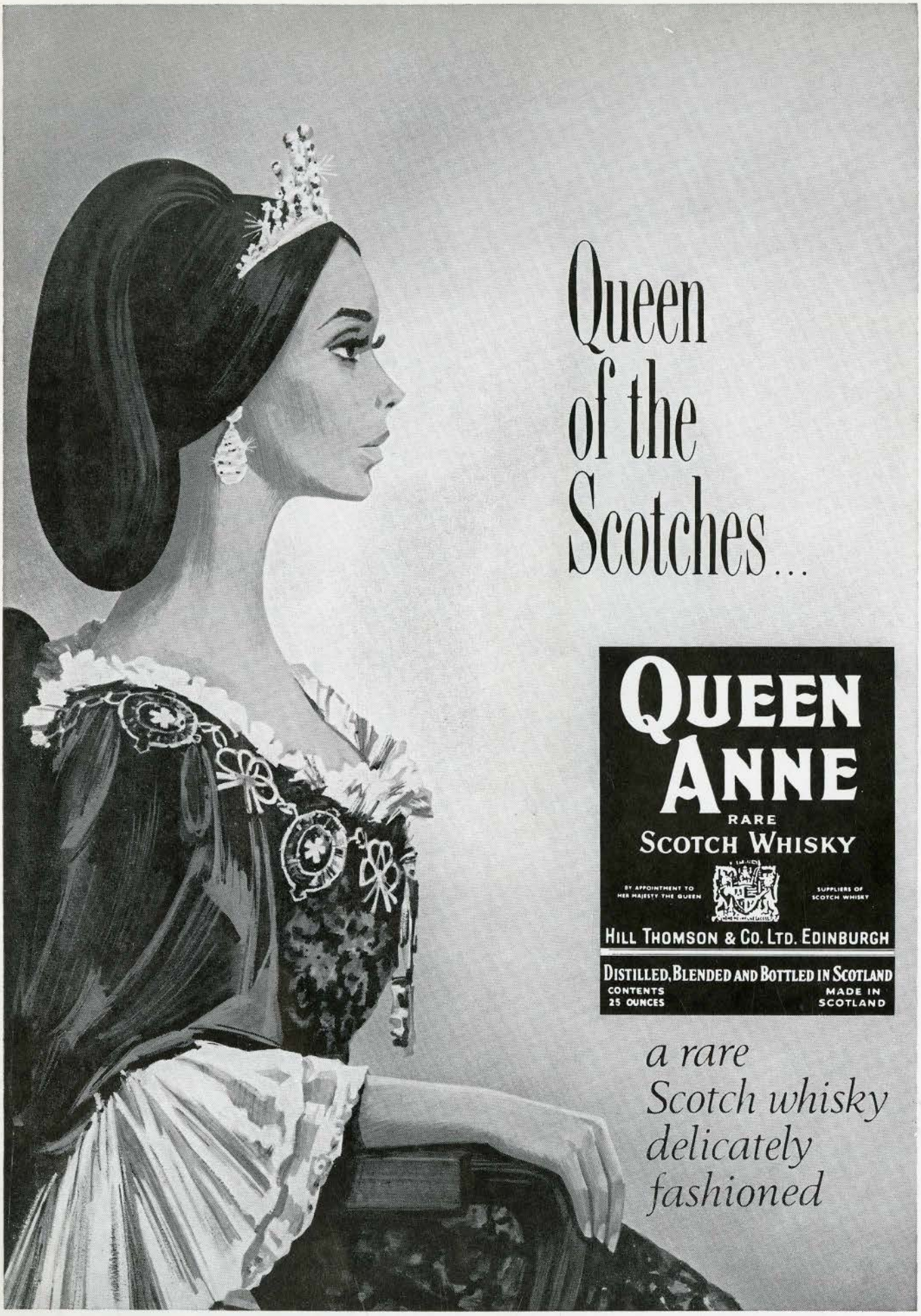
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Simpson's Courtyard

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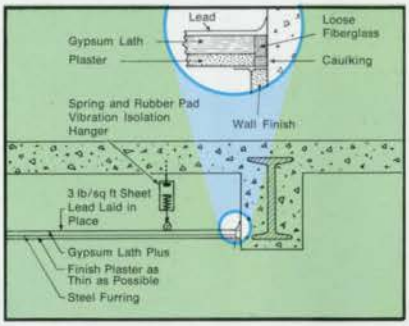
Le Chateau Champlain

D'Astous & Pothier, Architects.

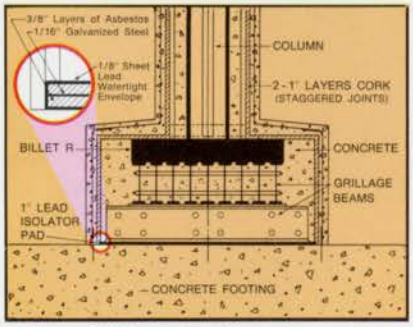
Guests in Montreal's new 600-room luxury hotel enjoy complete quiet even on floors immediately below mechanical service areas, thanks to the intervention of lead. The schematic drawing below shows typical floor-ceiling construction in these spaces.



Montreal General Hospital

Robert P. Fleming, Architect.

Recent alterations to The Montreal General Hospital, Radiology Dept., involved lining 7 rooms with lead sheet as a radiation barrier. Lead glass, lead-cored doors and lead window frames were also specified to shield hospital staff and patients from "X" and gamma radiation.



Place Ville Marie

I. M. Pei & Partners, Architects.

Affleck, Desbarats, Dimakopoulos, Lebensold, Sise, Associate Architects.

Bolt, Beranek and Newman, Inc., Acoustic Consultants.

Development of Montreal's large downtown projects proceeds above a network of railway tracks and subway tunnels, existing and proposed. Isolating buildings from street and railway vibrations is a job that must be done well — and it's a job that's regularly entrusted to lead asbestos antivibration pads.

Sun Life Building

John B. Parkin Associates, Architects.

Weather-proofing modern office buildings is one of the important architectural uses of lead sheet. Lead is both highly durable and capable of retaining a quality appearance over a long period of atmospheric exposure. It is especially valuable for keeping costly, difficult maintenance to a minimum.

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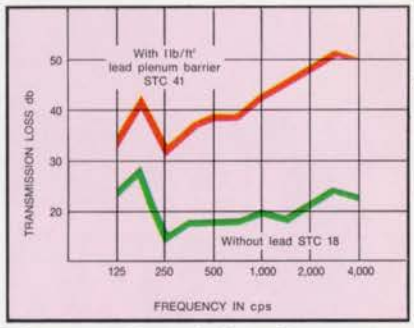

Toronto Dominion Centre

John B. Parkin Associates and Bregman & Hamann, Architects.

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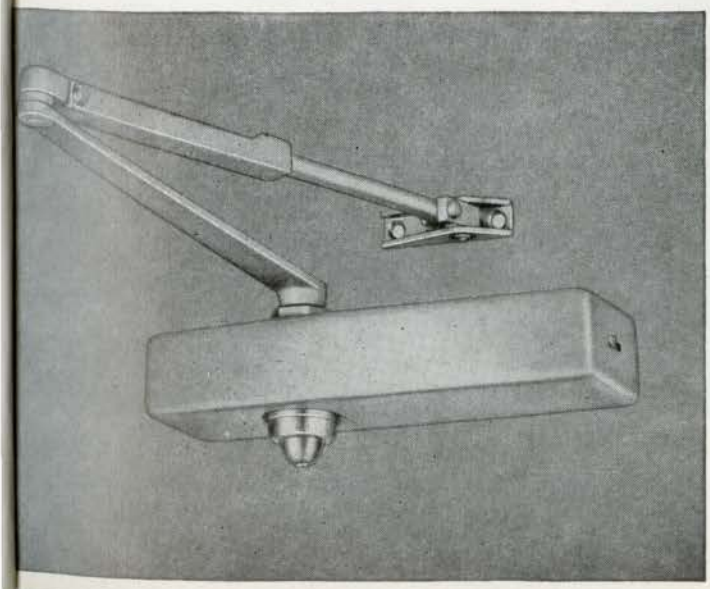
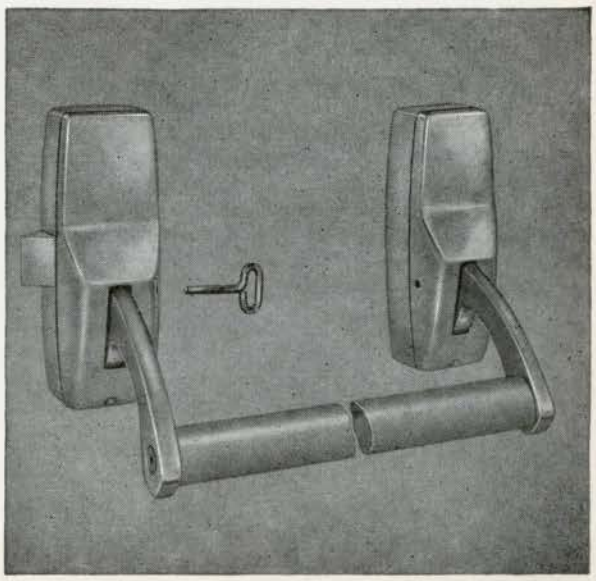


EXIT FIXTURE



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Across Canada Round Up, Part 2

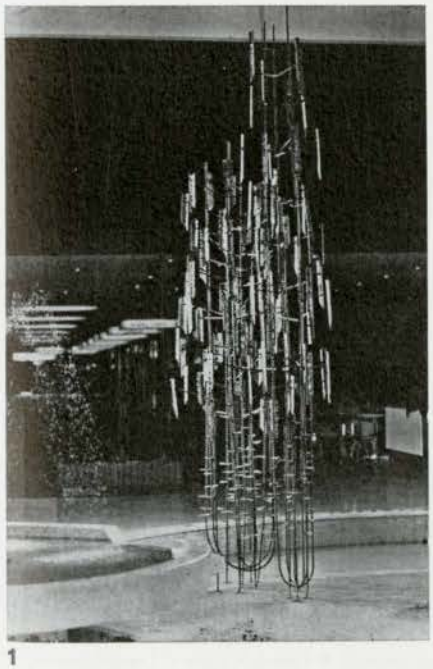
Continuing our Art and Architecture round-up, we repeat the invitation to send in photographs of what is happening in the more remote regions of Canada. The group published this month, without critical comment, shows a varied use of material in a sculptural manner. The application to architecture is varied and one can note a general move to a more contemporary image.

Anita Aarons

Sculpture in Pool in Central Mall of Meadowlark Shopping Centre, Jasper Place, Edmonton.(**1**) Artist, Aksel Anderson, Architects, Hemingway and Laubental

"Suspended vault", bronze door, and "Jewel Box", Trust Général Du Canada, Place Ville Marie, Montreal.(**2**) Artist, Mario Merola, Architects, I.M.Pei and Associates

Screen, Edmonton Inn, Edmonton.(**3**) Artist, Aksel Anderson, Architects, Hemingway and Laubental



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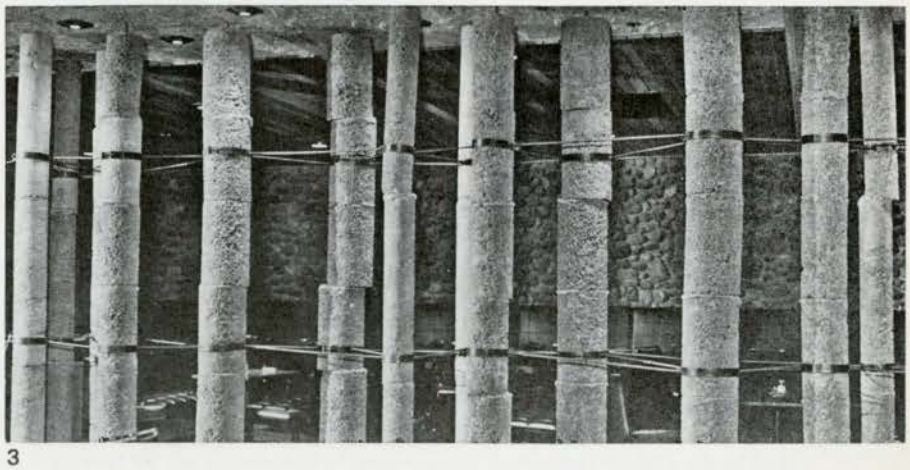

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4
Decorative Wall, Postal Station D, Vancouver. Artist, George Norris, Architect Ian Davidson

5
Centennial Mural at Art Centre, Kelowna, B.C. Artist, Z. Kujundzic

6
Fountain "Fish", Cedarbrae Shopping Plaza, Scarborough, Ontario. Artist, Walter Yarwood, Architects, Bregman and Hamann

7
Play Sculpture "The Snails", Cloverdale Shopping Centre, Etobicoke, Ontario. Artist, Joseph Gause

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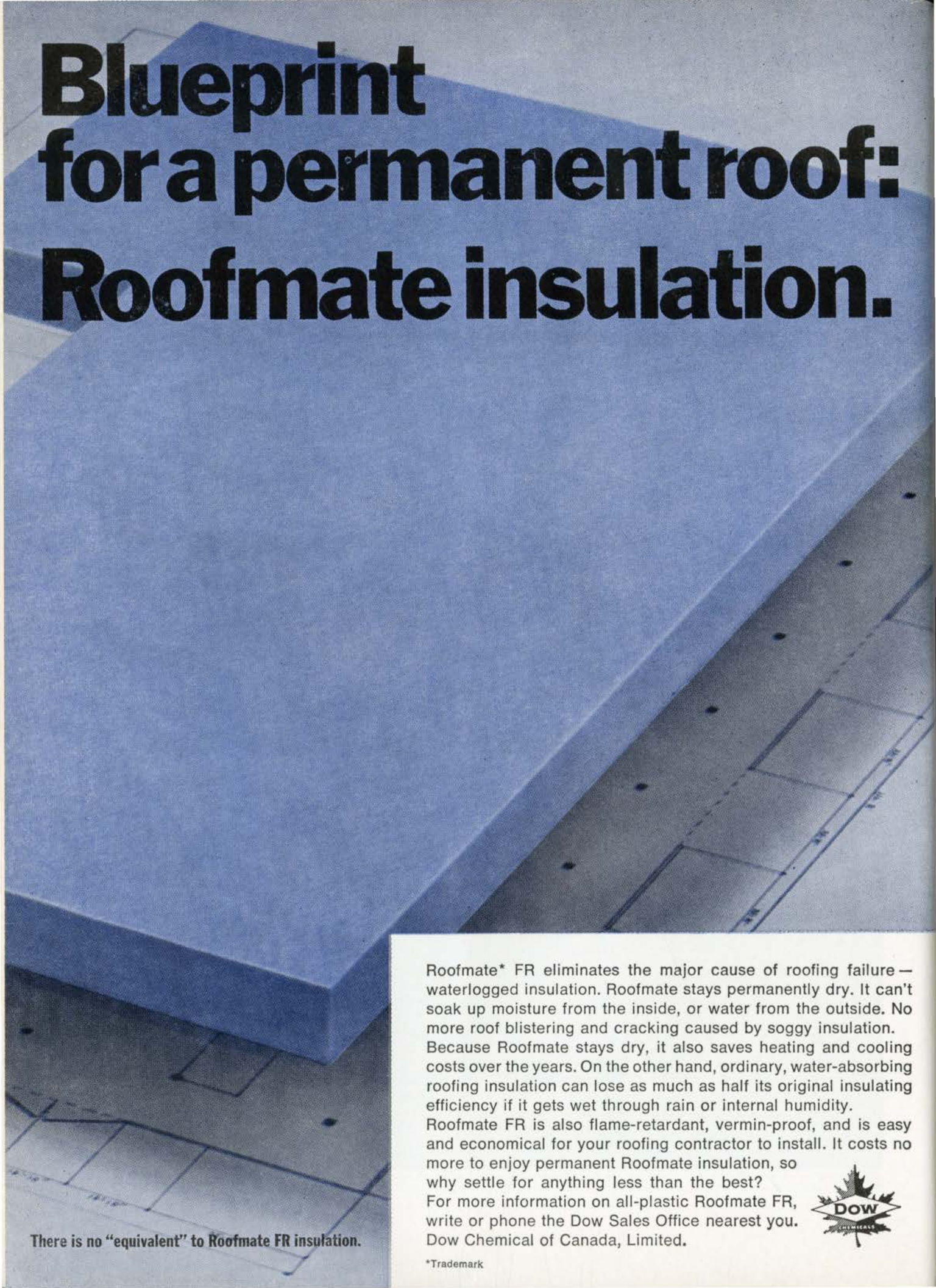
Blueprint for a permanent roof: Roofmate insulation.



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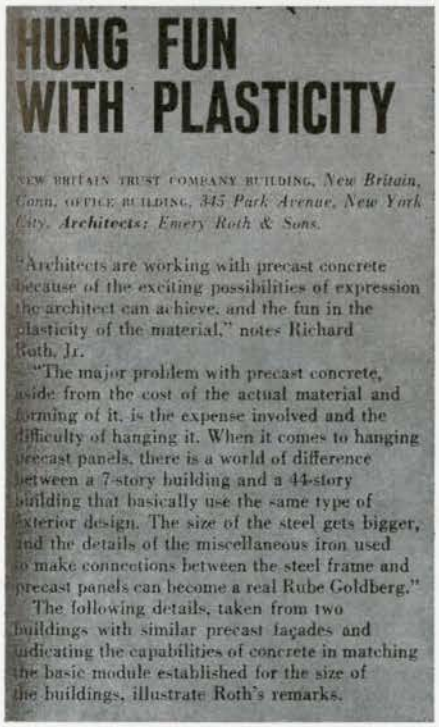
In October 1967 *Progressive Architecture* (**1**) has once again devoted an issue to concrete. And once again all that is done is to provide a revised recipe book for practitioners. Great advances are being made in concrete technology, mostly for application in support of space programs. Little of this advance is either being communicated to, or exploited by, architects: An issue of *Scientific American* in 1964 indicated the exciting state of development in the control and perfection of concrete as one of the few materials that has a wide and divers application. Issues like the one in *P/A* do nothing to move the field forward from a position of viewing concrete as "mud" to quote Paul Rudolf. When one sees concrete teased, tortured and generally pushed about to meet each architects whim, the time has come to form a society for the prevention of cruelty to concrete (SPCC).



HUNG FUN WITH PLASTICITY

NEW BRITAIN TRUST COMPANY BUILDING, *New Britain, Conn.* OFFICE BUILDING, *345 Park Avenue, New York City.* ***Architects:*** *Emery Roth & Sons.*

"Architects are working with precast concrete because of the exciting possibilities of expression the architect can achieve, and the fun in the plasticity of the material," notes Richard Roth, Jr.

"The major problem with precast concrete, aside from the cost of the actual material and forming of it, is the expense involved and the difficulty of hanging it. When it comes to hanging precast panels, there is a world of difference between a 7-story building and a 44-story building that basically use the same type of exterior design. The size of the steel gets bigger, and the details of the miscellaneous iron used to make connections between the steel frame and precast panels can become a real Rube Goldberg."

The following details, taken from two buildings with similar precast façades and indicating the capabilities of concrete in matching the basic module established for the size of the buildings, illustrate Roth's remarks.

1

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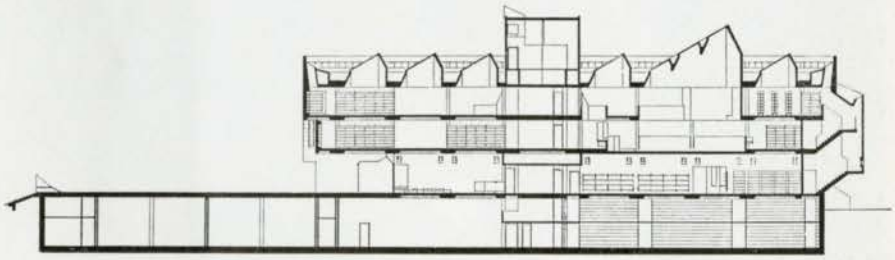

3

Architectural Review Oct 67 features the Library, Trinity College, Dublin. (Ahrends, Benton and Koralek) (**2,3**) The building is the outcome of a competition held in 1961. One of the assets, according to the jury, that the design had was its ability to exist so harmoniously with neighbouring buildings. Since 1961 the design has undergone a great deal of change. The old question is raised – are competitions to select architects or a design? The question of the management of competitions, and to which projects they are best suited is a topic which might well be aired by the RAIC and its membership. It raises other related problems — should government work — Federal, Provincial and Municipal, or where ever public money is being expended, be awarded to firms by competition? What other equitable means are there for assuring that the most appropriate and competent firms receive public commissions?

In a generally improved format *Canadian Architect* (Oct 1967) includes new features as well as interesting content: Habitat 67 is viewed in some depth, and the result is an informative issue that penetrates beyond the drama of an architectural tour de force. Perhaps even more courageous is the article "Educational Needs and Architecture Solutions" by David S. Abbey. For the first time the performance of Scarborough College is examined not as an artifact evoking strong reactions among architects, but condemned as a structure housing spaces for education and instruction.
A.J.D.

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Résumés

Page 25
City Planning According to Artistic Principles Camillo Sitte
Camillo Sitte and the Birth of Modern City Planning
George R. Collins and Christiane C. Collins

Sitte croyait en "la forte influence du cadre physique sur l'âme humaine" et, en 1889, il entreprit l'étude des oeuvres d'art urbain réussies en Autriche, Allemagne, Italie et France afin de redresser l'équilibre entre la planification urbaine en tant qu'entreprise technique et entreprise artistique. Il en résultat une hypothèse d'esthétique pratique, abondamment illustrée, basée sur ce qu'il a vu et apprécié lui-même, qui constitue un guide pour les planificateurs professionels. Sa théorie de planification urbaine artistique a été tirée des conclusions générales de ses méditations sur les phénomènes assemblés d'observations accumulées. Il concentrait sur les plus grands modèles visuels de certains endroits et étudiait les configurations externes des bâtiments, objets, passages et points de repos et leur aménagement dans l'espace; il considérait les conclusions tirées représentatives de principes artistiques établis qui seraient utiles en contrôlant les formes de nouvelles oeuvres.

Mais est-ce cette méthode d'analyse phénomènale d'oeuvres historiques était et reste suffisante? Peut-on dire que la planification et l'architecture sont si changées que ses observations n'ont plus de rapport et qu'il nous faut des principes artistiques totalement différents? Les preuves resteront dans une démonstration de la présence dans la vieille et la nouvelle architecture d'une sous-couche d'objectifs et de moyens d'expression intrinsèques.

Le mérite non-pareillé de l'oeuvre de Sitte, c'est sa méthode et ceux qui le suivent ont la responsabilité de prolonger et raffiner cette méthode. Son analyse est divisée en trois sujets principaux: sept chapitres consacrés aux places publiques, un aux rues et quatre à l'aménagement urbain de fin de siècle, avec le dernier chapitre appliquant les principes découverts à un problème contemporain. En appendices, quelques essais non publiés jusqu'à maintenant. Essentiellement, l'oeuvre fait une comparaison entre des vieux et des nouveaux secteurs urbains.

Sitte était contre l'usage de formalités qui se répètent, bassées sur des opérations mathématiques sans considération adéquate d'exigences humaines. Il voulait découvrir "les éléments compositionnels." Des exemples grecs et romains aidaient à élucider les oeuvres plus récentes, comme par exemple, le rapport entre le forum romain et les places publiques. Il analysait le contenu artistique des différents espaces formels en établissant le rapport entre les places publiques et leurs usages et la manière dont on vivait leur expérience. Il plaidait la cause d'une intégration organique du site par l'emploi d'un système naturel de placement de bâtiments et ne soulignait que les places ouvertes, satisfaisantes du point de vue visuel, ont été aménagées en forme et en dimensions de façon à dimensionner proportionellement les espaces et les structures dominantes. "Dans l'art des espaces, seul les rapports comparatifs sont importants, la grandeur absolue, par contre, comptant peu." Il discutait aussi du contenu visuel, d'expérience visuelle basés sur les mouvements à travers les espaces urbains donnant des exemples basés sur les mouvements des piétons et de véhicules lents. Les principes qui en résultaient doivent être toujours valables mais ils exigent d'autres études et amplifications en vue des circonstances changées.

Sitte critiquait surtout les "systèmes modernes", système étant un dessin élémentaire appliqué rigidement sans discrimination (les réseaux des rues, etc.,) à toutes conditions et il croyait que les rues devraient être adaptées et contrôlées pour fournir un intérêt humain. Il a tiré la conclusion qu'il fallait des simples formes et modèles de grande échelle pour imprimer l'organisation visuelle sur les complications d'une ville moderne, que les principaux bâtiments et espaces devraient être conçus ensemble, les rapports entre bâtiments publics groupés étant plus efficaces lorsque raccordés l'un à l'autre et aux espaces adjacentes. Il était partisan des "places-turbines", où les rues ne s'entrecroisent pas aux coins et a démontré que les jonctions-T pouvaient remplacer les carrefours.

Son intention était de suivre ce premier volume d'un deuxième intitulé "La Planification urbaine, Selon les Principes Scientifiques et Sociaux." Il nous a bien prévenu de la dépersonalisation des espaces humains mais son avis a été souvent ignoré. Nous devons nos remerciements aux auteurs pour la traduction en anglais de ce texte important ainsi que pour la parution de leur oeuvre récente, écrite pour accompagner la traduction et qui comprend des Notes que Sitte avait assemblées pour son deuxième volume projeté. Leur évaluation place le sujet dans tout son contexte historique et parle de la signification de ses aperçus, de sa méthode analytique et des contributions sociales de Sitte et de son oeuvre en grand détail. Ces deux livres devront être lus et étudiés conjointement pour apprécier et comprendre Sitte complètement.
Stuart Wilson

Page 28
The Voice of the Phoenix
John Burchard

Burchard a écrit un livre qui vise quantités de gens de nos jours. De qualité inégale, son jugement sur l'architecture sera mis en doute; il a grandement souffert d'avoir vécu trop longtemps dans le secteur nordest des Etats-Unis.

Son voyage à travers l'Allemagne d'après guerre sert comme fond excellent pour les comparaisons entre ce qui a été fait en Allemagne et aux Etats-Unis. On ne peut pas trouver de livre sur les affaires des architectes contemporains qui est moins prétentieux. Les commentaires sont claires et les raisonnements libres de jargon. C'est un commentaire prenant les deux côtés d'un problème, exposant le client et l'architecte. Il nous rappelle constamment les postures nord-américaines – bon avertissement pour nous, canadiens, qui ont tendance à imiter notre grand voisin opulent. Je crois que peu de dialogues sur l'architecture contemporaine ont eu l'étendue et la clarté de ce qu'on peut appeler un laïc éduqué; ses observations sont bien fondées et nullement irritables. "Phoenix" est, je crois, un livre important à cette époque au début de notre deuxième siècle. Bien des questions d'expression sociale et politique relatives aux arts sont posées; cela nous fera du bien de nous impliquer à ces questions afin de découvrir ce que nous pensons être essentiel et surtout comment nous voulons l'accomplir.

La demande, les méthodes de financement et les contrôles dans les domaines politiques et sociales agissant sur le logement et la planification urbaine sont clairement discutés, appuyés par des photos appropriées et adéquates. Pour vous donner une idée de la teneur du contenu, voici quelques citations:

Bâtiments gouvernementaux: "Winston Churchill, Franklin Roosevelt n'ont pas ajouté grand'chose aux dignités esthétiques de leurs pays." Les grosses entreprises: "L'idée que l'image d'un siège social peut être rehaussée par quelques chaises Barcelone a échappé aux hommes d'affaires allemands et à leurs architectes."

Une église: "Un peu trop d'architecture et pas assez d'église."
La Ville: "Une ville ne peut pas devenir un musée de l'histoire d'architecture, bien que quelques historiens et sentimentalistes le voudraient bien."
A. J. Donahue

Page 30
The American City – An Urban Geography
Raymond B. Murphy

De belle présentation, ce livre se lit facilement. Il présente la géographie urbaine comme champ de recherche plutôt que des connaissances établies. La géographie urbaine traite des définitions diverses de la ville avec les villes comme entités et leurs emplacements, caractères, croissance et rapports à la campagne et aux autres villes, les usages du terrain, les problèmes sociaux et culturaux et le plan de l'environnement naturel. Le géographe urbain doit d'abord tirer certaines généralisations au sujet de la ville et ce livre se préoccupe constamment des méthodes d'étude produisant ces généralisations, des concepts et méthodes de recherche des problèmes plutôt que de leurs analyses et leurs solutions. Murphy développe la théorie de la hiérachie de localités signalant les distortions locales dûes particulièrement au phénomène de la transportation changeante. Le concept d'une base urbaine économique est décrit en tant que manière à voir les rapports extérieurs d'un endroit qui tente à séparer les activités fondamentales et non-fondamentales.

Murphy observe que les moyens possibles de classifier les centres urbains sont essentiellement sans limites et il liste d'innombrables critères et activités par définition fonctionelle d'après plusieurs sources. Malgré les diverses façons de catégoriser les villes par usages prédominants des terrains, l'auteur arrive à la conclusion que la plupart des villes sont, en fait, diversifiées.

Autres points intéressants discutés : le changement dû au passage du temps, le caractère dynamique des usages urbains des terrains dû à l'équilibre des forces telles que la valeur des terrains, les effets de zoning (passifs) et de renouvellement urbain (dynamique) ; l'importance fondamentale de la transportation ; deux chapitres sur les activités commerciales, et deux consacrés à la fabrication en série, le tout très compréhensif. Il suggère les meilleures méthodes d'assembler, noter et analyser les renseignements relatifs aux problèmes créés par les centres villes. Son examen de la question des manufactures est également approfondi en principes généraux avec exemples spécifiques.

La discussion des usages résidentiels s'ouvre avec une définition soignée de l'unité d'habitation. Des explications des modèles des résidences mènent à une discussion des habitations en-dessous des normes, les modes résidentiels changeants par rapport aux états sociaux et économiques changeants.

Enfin, le rôle des facteurs politiques dans l'acroissement d'une ville est discuté. Les quantités de cartes, tableaux et diagrammes sont bien intégrées au texte, chaque chapitre ayant une bibliographie supplémentaire. Ce livre clair et stimulant réussit fort bien ses objectifs.
B. Graham-Smith

Page 30
Multistory Housing
Karl Wilhelm Schmitt

"La nouvelle construction véritable n'est pas encore commencée" est le thème choisi par l'auteur. Peut-être bien, mais nous avons fait du progrès et assurément, des illustrations trouvées dans ce livre l'indiquent. Divisée en deux sections, il y a une section d'introduction traitant du dessin de logements à étages multiples et une section consacrée aux exemples de projets et de développements résidentiels. La première section, bien illustrée, traite d'abord des considérations structurales, suivies de considérations environnementales et d'une brève histoire des développements. Un essai intitulé "Une Nouvelle Approche" concernant les idées de dessin pratique, mais pas encore généralement acceptées, est un des plus intéressante. Je suis rassuré et enchanté d'apprendre que l'auteur partage mes idées relatives au fait que les considérations physiques influencent trop le dessin des logements à l'exclusion de considérations moins tangibles.

La deuxième section contient 47 exemples de logements bien conçus et, fait surprenant, la majorité de ces projets n'est pas ce qu'on trouve d'ordinaire dans les magazines. Peut-être la seule critique de ce livre est le traitement assez superficiel de quelques sujets, l'abolissement des taudis, par exemple. Néanmoins, ce livre bilingue – anglais et allemand – sera bien utile à l'architecture et comme inspiration en dessin.
Norbert Schoenauer

Page 32
Complexity and Contradiction in Architecture
Robert Venturi

Le musée d'Art Moderne de New York a sorti son premier livre sur l'architecture, le résultat des études faites par l'auteur grâce aux subventions de la Graham Foundation de Chicago.

C'est rare qu'on tombe sur une affirmation si sensible à son sujet et si apte au moment. Pour l'auteur, c'était le moment d'écrire son analyse des qualités architecturales, le contenu pensé de bien des bâtiments, et d'y tirer pour nous systématiquement les complexités et contradictions trouvées. Il nous fait voir le passé et reprend un dialogue fondamental commencé aux années '20 ainsi nous rapprochant à la génération heroique encore une fois avec un grand succès. Par exemple, il me fait voir les valeurs durables de la Bauhaus plutôt que ses valeurs techniques, la mettant à sa place historique et à sa propre place actuelle. Il nous oblige à considérer l'architecture en profondeur, à voir les valeurs qui continuent à être valables.

Même si on n'est pas d'accord quant aux dessins choisis, on a un grand respect pour ses méthodes, l'usage de faits socio-économiques et pour l'absence de superficialité. Ceux qui ne prennent pas l'architecture au sérieux ne comprendront probablement pas ce livre. Les sérieux, pourtant, y trouveront de l'instruction et du plaisir.
Peter Thornton

Page 33
Row Houses and Cluster Houses
Hubert Hoffman

Depuis des siècles, les besoins humains ont été satisfaits par des logements à ras de chaussée, un fait qui n'est pas moins vrai pour nous à cause de la grande flexibilité obtenue en groupant ces habitations, de fait qu'elles sont faciles à adapter à la topographie et permettent une diversité d'accomodation entre les limites d'une discipline commune. Les tensions de la vie contemporaine tendent à augmenter le besoin ressenti par l'individu d'avoir une vie privée et sa parcelle de terrain à soi . . . pourvu que l'aménagement a été repensé en partant des prémisses fondamentales, de tels besoins peuvent être satisfaits en grande partie par des logements sans ascenseur, même en densités considérables.

Ce livre est un des rares qui reconnait l'importance de ce genre de logement. Hoffman précise ses définitions d'abord, esquisse l'histoire du logement urbain sans ascenseur, le compare aux développements high-rise des points de vue techniques et économiques ; il parle des aspects sociologiques et psychologiques, se réfère à l'influence des angles de soleil et aux exigences locales, catégorise les types de plans, touche sur la préfabrication et l'amovibilité ainsi qu'aux combinaisons possibles avec d'autres genres d'habitations. La plus grande partie du livre est consacrée aux exemples illustrés de logements en terrasse et en patio.

Au cours de son introduction, Hoffman cite bien des arguments favorables à ce genre de logement dont la plupart sont valables, sans doute, bien que les preuves manquent. Son 'typology of low-rise housing' n'est pas aussi bien organisé que *"Generic Plans"* récemment publié par le National Building Agency du Royaume-Uni. Cinq exemples sont originaires de l'Amérique du Nord mais la phraséologie et son expérience restent européennes. Publié en deux langues, l'anglais et l'allemand, les caractères d'imprimerie sont difficles à lire et s'emmêlent un peu trop. Néanmoins, les illustrations sont bien choisies et couvrent bien les exemples les plus importants déjà construits dans ce domaine significatif.
J. Lehrman

City Planning According to Artistic Principles

Camillo Sitte
Columbia University Studies in Art History and Archaeology, Random House, Toronto; 1965, 205 pages, $4.95

Camillo Sitte and the Birth of Modern City Planning

George R. Collins and Christiane C. Collins
Columbia University Studies in Art History and Archaeology, Random House, Toronto; 1965, 232 pages, $4.95

In the preface to the first edition (1889) of his classic work, "City Planning According to Artistic Principles", Camillo Sitte explained that while the technical progress of city planning in his day with respect to traffic, hygiene and the economic siting of buildings was readily admired, little appreciation was aroused by the limited quality of artistic achievement. Three-quarters of a century later has this situation been much changed?

Sitte believed in "the strong influence of physical setting upon the human soul". He did not view city planning only as a technical undertaking but also as an "artistic enterprise". To requite the balance he proposed to observe and study successful works of urban art in Austria, Germany, Italy and France, which still existed relatively unchanged as a legacy from the past.

From this examination he derived a theory of practical aesthetics for the guidance of the professional city planner. Instead of the actual presence of the observer at a selected site, he provided his work with abundant illustrations, both views and plans, to serve as subjects for discussion. Each chosen scene represented a place which he had looked upon and appreciated himself.

Sitte arrived at his theory of artistic city planning by drawing general conclusions from meditations upon the phenomena gathered in accumulated observations. He concentrated upon the larger visual patterns of particular places and studied the external configurations of buildings, artifacts, passages and resting-places, and their arrangements in space. The conclusions once derived, he considered them to represent established artistic principles which would be helpful in controlling the forms of new work. True principles were developed by a process of phenomenal analysis.

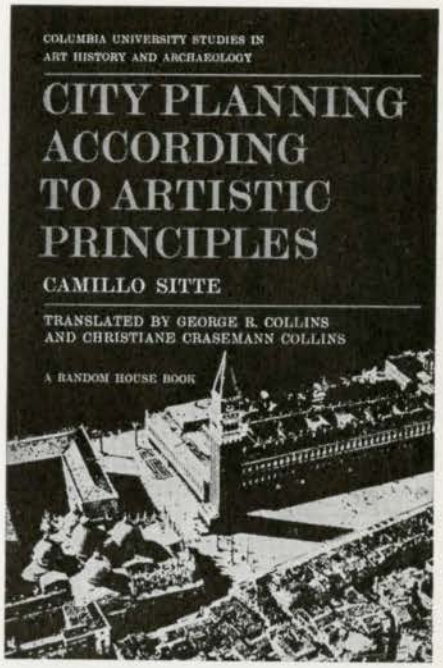
Camillo Sitte possessed a pansophic interest in all aspects of the arts viewed from philosophical, historical, psychological, and physiological points of view. The impulse appeared to spring from deep sources of hearth and soil, and the belief in the unitary character of creative process.

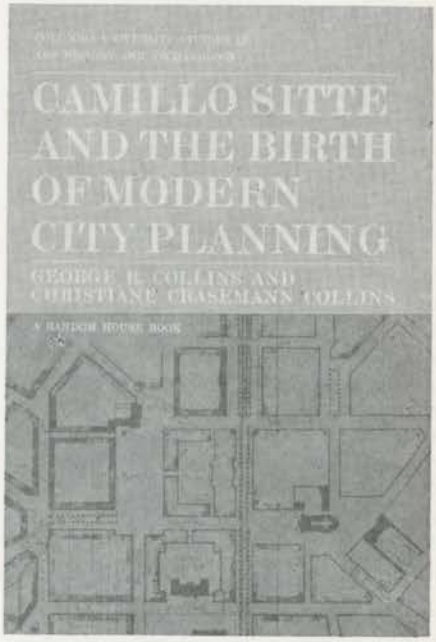
The question arises whether the phenomenal method of assessing works of the past in order to draw valid principles for the present was adequate and has remained so. Can it be said that the content of a new architecture and of new city plans has changed so radically that previous investigations have no connection with present cases? Would a new electronic age which possesses a diaphanous, vibrant and luminescent fabric require totally different artistic principles which have no filiations with the past?

The burden of the proof would require a demonstration of the presence in both old and new architecture of a sub-stratum of intrinsic purposes and means of expression. These broad meanings might be envisioned as somewhat hidden but relatively constant principles. In this view the proximate artistic essence of architecture and city-planning would be found within its substance and performance embodied in different forms and patterns.

The unexcelled merit of the work of Sitte stemmed from his method. He approached the undertaking in a bold, direct but subtle way. Criticisms which have implied that his views were partial, or limited, or subjective miss the significance of his pioneer accomplishment. Those who follow in the wake of Sitte bear the responsibility of extending and refining a method, so that blanks may be filled in and new insights revealed.

The volume by Sitte confines analysis to three main topics; seven chapters are devoted to plazas, one chapter to streets, and four chapters to the layout of urban areas at the turn of the century. A final





chapter applies the principles which he had discovered to a contemporary problem. Previously unpublished essays are added as appendices to extend the discussion. Essentially the work makes a comparison between older and newer urban areas.

In the search for suitable patterns for city planning Sitte came out against the use of repetitious formalities based on elementary mathematical operations without adequate consideration of human requirements. His aim was to discover "the compositional elements" of successful and pleasing areas selected from relatively recent historical urban environments.

He introduced Greek and Roman examples within his book primarily to assist in the elucidation of more recent work. Public activities in ancient cities took place in the open. At a later date similar events were more often enclosed and roofed. Classical structures such as temples, peristyles, colonnades, atrium houses, agora, fora, baths and basilica were either partly unroofed or exposed to the open air. These early exemplars served as historical precedents. They had established a tradition and had provided progenitors for the development of the squares, plazas or "les places" of more recent times. Sitte perceived the classical forum as the richly furnished living-room of the city, an open-to-the-sky interior with collections of artistic treasures and historical mementoes arranged about the peripheral boundary walls.

Medieval and Renaissance cities in the Mediterranean area of Southern Europe had preserved a continuity with classic precedence. Each city maintained one or more (usually three) public squares or spaces for different social purposes and events. Sitte described different types of squares based on indigenous varieties of an open and exposed public life. By relating places to their actual use and the manner in which they were experienced he analyzed the artistic content of different formal spaces.

He advocated an organic integration of site by the employment of a natural system of placing buildings and other works. All the elements were to be located in accessible and visible positions and yet remain free from undue disturbance. He held that the desirable qualities, visual and otherwise, of public spaces were enhanced and maintained by adjusting lines of sight and means of access, and not by permitting the enclosed space to be drowned with uncontrolled movement through unrestricted openings.

He emphasized that visually satisfying open places in cities had been arranged in shape and size so that the spaces and the dominating structures on them are dimensioned proportionately not only with respect to each other but also with consideration for the perceptual and other characteristics of the human occupants. Sitte stated, " . . . in the art of space the comparative relationships alone are important, the absolute size, on the contrary, counting for but little". The determination of the form of urban areas solely by the making of paper plans he considered to be not only difficult but also unwise. The sole use of this expedient was liable to result in artistic failure. Older areas had developed more naturally, under the influence of tradition and a series of considered responses to limited demands. In his opinion Baroque plans, which had been worked out on paper, were successful because formalities had not become an aim in themselves.

The analysis of older squares did not lead Sitte to advocate fixed forms for any and all occasions, independently of actual requirements. He discussed the general visual content of sequential experience based on movement through urban spaces. His examples were based on pedestrian movements or those of slowly moving vehicles. The principles which resulted from these studies should still hold. But they now require further investigation and amplification for changed circumstances.

In northern cathedral squares great churches often stood isolated. More space was left in front than on sides and rear. Often the view of towers and portal was enhanced by an approaching street. The placement of the cathedral appeared in each case to take into account both access-way processionals and visual impressions. Smaller churches were linked with surrounding buildings of the square, as in Italy. Rich groupings of plazas and public buildings occurred in Germany and the North, through the juxtaposition of the same two categories of plaza as those of the South: the deep type of plaza and the shallow plaza. Rhythmical intervals provided a play of overlapping planes and interlocking spaces.

When Sitte came to discuss contemporary urban areas he was particularly critical of "modern systems". He interpreted the word "system" in the sense of an elementary pattern rigidly applied without discrimination to all conditions. Hence the use of such terms as "gridiron system, radial system, triangular system". Within the development of today's thought, the term "pattern" might serve better (e.g. gridiron pattern). Similarly the word "network", applied to streets, was used in a disparaging sense. As employed by Sitte, the word network implied a simple geometrical pattern arrived at primarily for purposes of traffic, without adequate consideration of aesthetic or other humanistic qualities. The fundamental importance of systems of linked means of communication with respect to all sides of human life including the aesthetic had only begun to play a part in the outlook of the time.

Sitte described and analyzed the complications of traffic snarls which resulted from crossing streets in regular grid patterns. Not only were "rond-point" or regular polygonal street junctions unsuccessful in handling traffic but he judged the resultant type of urban enclosure to be too regular and impersonal to provide the onlooker with the pleasure and convenience of being able to identify his surroundings. Where traffic movement beside pavements was dense and confused he observed that pedestrian promenades rarely developed.

He believed that vistas should be adjusted and controlled to provide human interest. Streets should not run off as a mere monotonous thrust of parallel lines toward distant points. Street-views should provide closed scenes of distinctive and varied character suitable to call forth a feeling for space and place.

The colossal size of the modern city and the constant repetition of like parts produced a harsh and monotonous visual environment. Inherent constraints unavoidably influenced the character of urban areas. Sitte came to the conclusion that bold simple forms and

large-scale patterns were needed to impress visual organizations upon the given complications. He considered that a study of early classic examples and of those Baroque works of urban design, which continued and amplified the tradition, would provide artistic principles suitable for modern three-dimensional planning. This opinion did not constitute a belief in the existence of ready-made urban patterns and forms.

In older cities public spaces were devised as three-dimensional entities to achieve purpose and provide effect. Buildings occupied the land between spaces. In modern cities repetitions of regular lots with buildings dominated the plan, and left-over spaces became public places.

Sitte advocated that buildings and spaces of major importance should be designed in conjunction one with the other. Groupings of public buildings became more effective when related to one another and to adjacent spaces. Less important public buildings on less important streets could be improved and made more economical by connecting the principal building with necessary secondary structures or by linking the building into the adjoining urban fabric and by setting the principal or secondary parts on correspondingly proportioned smaller spaces off street-lines and away from traffic. Since the rectangular sub-division of urban land was common, even if not necessarily admirable, the modern examples analyzed by Sitte were made to suit this pattern, and to demonstrate that given situations could be improved.

The use of the "turbine-plaza" form, in which streets at corners do not intersect, but run in different directions, was advocated. Sitte demonstrated that T-junctions could replace cross-intersections, even in a rectangular division. The monotony of continuously repeated street-patterns, no matter what might be the value of their arrangement, was rejected in favour of variety in layout. Even a free layout when repeated continuously became restrictive and boring.

Although Sitte appreciated the hygienic importance of trees within the city, still he observed that trees were often planted without a nice discrimination. Views of cityscape should not become cluttered or congested with ineffective and misplaced greenery. Small shaded gardens in sheltered courts and places within the fabric of buildings were praised for their qualities of utility and salubrity. Bits of greenery at widely spaced intervals were disturbing in effect. Planting should be orchestrated rather than evenly repeated. However, we may see, by implication and by a generalization from the detailed descriptions and analyses of Sitte, that any urban area would tend to be inartistic in appearance and use if laid out in an elementary and mechanical way or if it followed preconceived ideas blindly. Urban areas should engage human interest. The forms of cities should be wrought so that human beings may apprehend and enjoy their surroundings by visual and other sensual means.

Major social places rather than private were observed by Sitte to have constituted in the past important spatial elements of urban pattern. He assumed that they would continue to do so in the future. For this reason the form and relative dimensions of monumental or civic plazas were examined both for their visual and symbolic aspects as well as for the social and individual activities which took place within them. The manner of the entrance into plazas of openings from the network of communication passages or streets was seen to be critical. Too many openings or improperly placed openings would inhibit the purpose and effect of the public place. The street, itself, was seen to be more limited in possibilities. Certain minor adjustments and modifications could be made to streets which would increase the artistic quality and human presence of passages.

The interests of Sitte were not confined to the interpretation of visual phenomena in urban areas. He had intended his book to be the first volume of a projected two-volume work. The second volume was to have been entitled, "City Planning, according to scientific and social principles". Unfortunately he did not live to complete this study.

By his search and analysis of principles Sitte had issued ample forewarning of the coming depersonalization of human spaces. But perhaps due to the framework of his speculations, his advice was often ignored. He had emphasized among many other principles that boundaries of places should not be increased beyond the reach of human senses, that the form of boundaries should not be so uniform and repetitious that a relative sense of position or place is lost, that humanly important parts of spaces such as buildings or other elements should be differentiated and possess interesting and characteristic forms and that they should be placed so that they can be seen and reached, and finally that intimate human patterns of social intercourse and individual appreciation can be overwhelmed by an uncontrolled increase of communication and transportation means.

We should be grateful to George R. Collins and Christiane Crasemann Collins for having translated into English this most important text, which was available previously only in the original German, in an altered French version, and an English translation issued in the 1940's based on the French edition. This new translation represents only a part of their scholarly labors in the field of Sitte studies. Their recent work, "Camillo Sitte and the Birth of Modern City Planning", was written to accompany the translation. Notes for "City Planning" are included in the critical study. This evaluation sets the subject within a full historical context and discusses the significance of the insights, the analytical method and the social contributions of Sitte and his work in great detail. The erratic influence of his book and the effect of countless misinterpretations are discussed. A new emphasis is placed on the importance of German thought and work in the foundation period of city planning.

Both books should be read and studied in conjunction for a complete appreciation and understanding.

Camillo Sitte had arrived at positive opinions, which he expressed in a most definite manner. He wrote, "It is absolutely essential to make a positive formulation of the requirements of art because today we can no longer count on an instinctive taste in art; this no longer exists. It is imperative to study the works of the past, and for the artistic tradition that we have lost there must be substituted a theoretical understanding of the reasons for the excellence of ancient layouts."

Stuart Wilson, MRAIC, School of Architecture, McGill University

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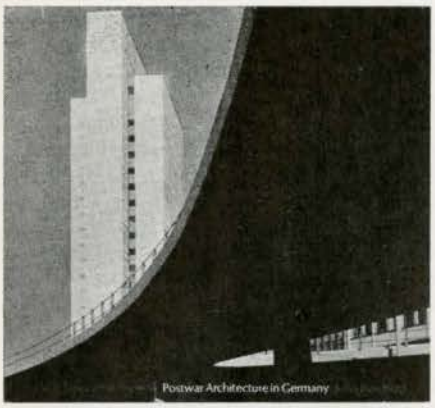
Cologne-Ehrenfeld, St Anna's
from "The Voice of the Phoenix"
2, 3
Apartment Cluster, Stuttgart
from "The Voice of the Phoenix"
Groupe d'appartements à Stuttgart
from "The Voice of the Phoenix"



The Voice of the Phoenix Postwar Architecture in Germany

John Burchard
The MIT Press, Cambridge, Mass., in Canada, General Publishing Company, Don Mills, Ontario; 1965, 179 pages, $13.75

Burchard has written a book that takes clean crisp shots at almost anyone in sight. It is a very uneven book and his architectural judgment will be questioned. He has suffered greatly from living in the North East sector of the United States.

The journey through Postwar II Germany serves as an excellent backdrop for comparisons of work in Germany to those of the United States.

No book on the present day affairs of architects has been to my mind less pretentious. The comments are clear and the reasoning free of jargon. It is a commentary which takes both sides of the case, both client and architect being exposed. The constant reminders of North American postures are a welcome warning to us in Canada, prone to ape our large and affluent neighbour.

Few dialogues on contemporary architecture have had the range and I believe the clarity of what might be called an enlightened layman. The comments are well founded and in no way petulant or carping.

It is my belief that "Phoenix" is an important book for Canadians at this time as we enter our second century. Many questions of social and political expression in the arts are asked. We would be well to involve ourselves with these questions to find out what we feel essential and most of all how we plan to achieve it.

In the field of political and social forces on housing and city planning many clear statements as to demand, methods of finance and control are discussed. The examples resulting from these forces are shown by adequate and appropriate photographs.

I would like to list some quotes from "Phoenix" to give some texture to the content:

Teaching
"Teaching responsibilities cannot be discharged by casual short and unprepared visits or by mere attendance at juries."

Government Buildings
"Winston Churchill, Franklin Roosevelt did not add much to the aesthetic dignities of their countries."

Big Business
"The idea that the corporate image can be enhanced by ownership of Barcelona chairs has escaped German tycoons and their architects."

A Church
"Somewhat too much architecture and too little church."

The City
"A city cannot become a museum of architectural history, much as some historians and sentimentalists would like to have it so."

A. J. Donahue
School of Architecture,
Nova Scotia Technical College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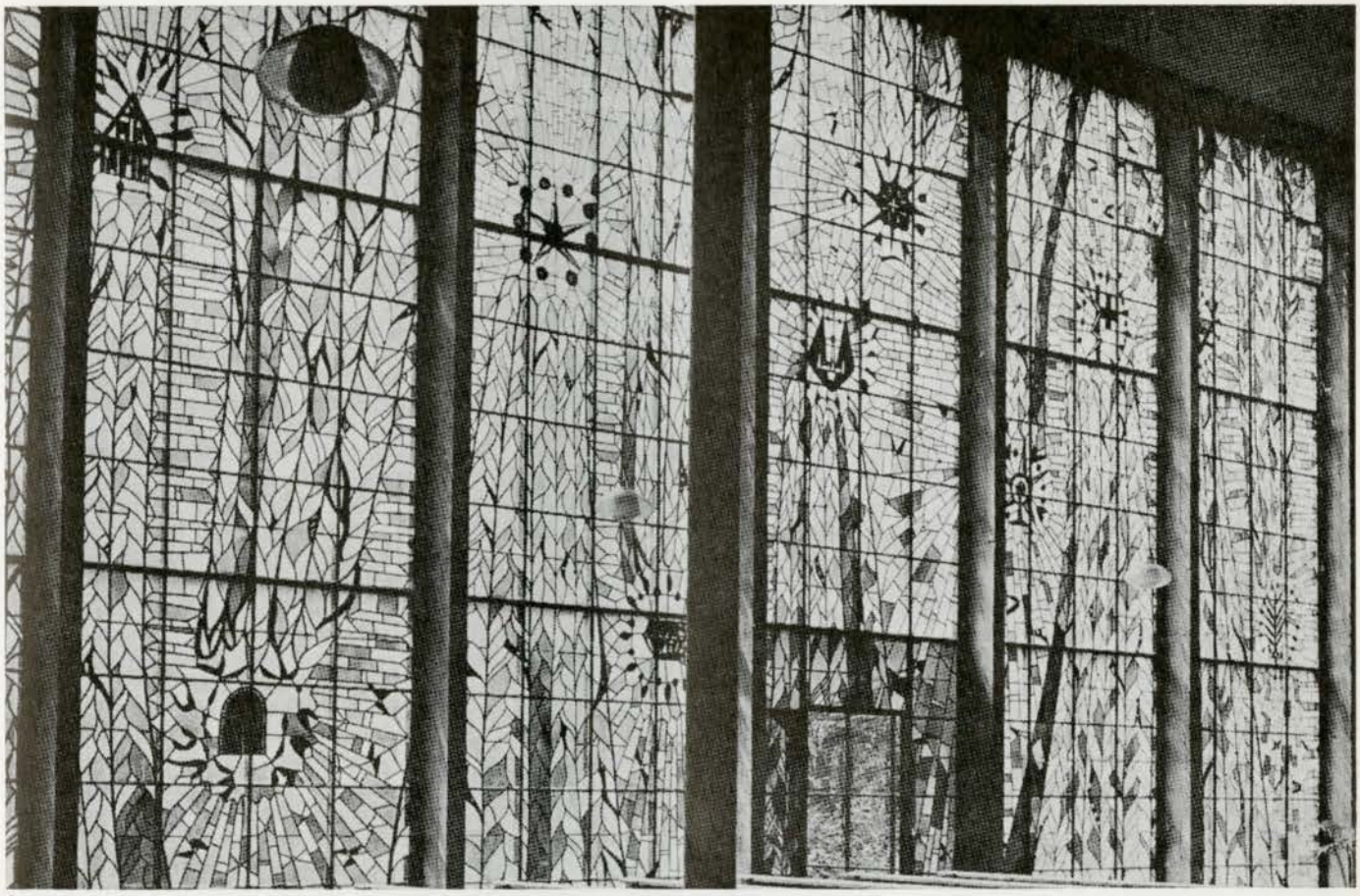
4
Cologne-Marienburg, Maria Konigin, from "The Voice of the Phoenix"

5
Government Headquarters of Lower Saxony, Leinschloss, View after rebuilding, from "The Voice of the Phoenix"
Siège du gouvernement de la Basse Saxe, Leinschloss, après la reconstruction, "The Voice of the Phoenix"



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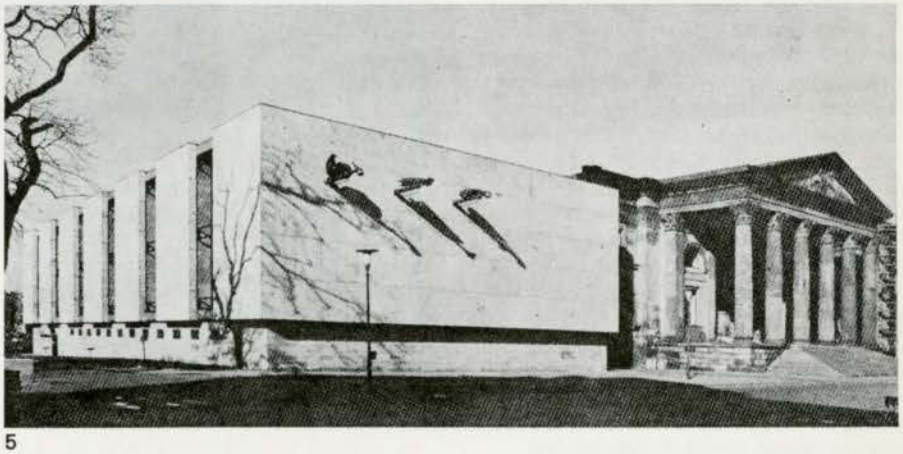

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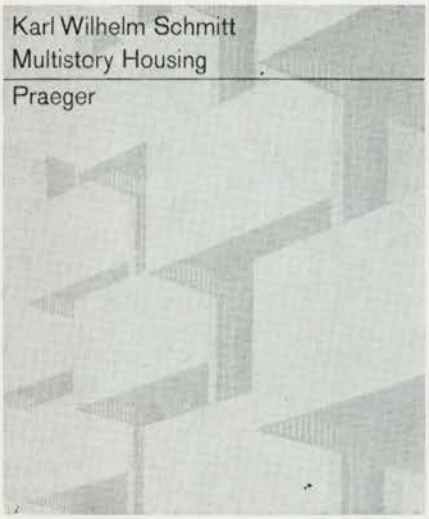


Multistory Housing

Karl Wilhelm Schmitt
Frederick A. Praeger, New York, in Canada, Burns and MacEachern, Don Mills, Ontario; 1966, 216 pages, $21.50

"Genuine New Building has not yet begun" is the theme which the author selected for his book, a statement, by the way, attributed to Geritt Rietveld shortly before he died in 1964.

Perhaps, in a utopian sense, we are indeed far removed from the beginning of "Genuine New Building", especially in the field of housing, but there is no doubt that we have recently made great strides towards a better domestic environment, and many exciting examples of residential developments illustrated in the book surely support this view.

"Multistory Housing" has two distinct parts, namely an introductory section on multiple housing design and an extensive section on samples of projects and residential developments.

The first section, about seventy pages in length and well illustrated, begins with structural considerations, and describes not only the various criteria of load-bearing structures but also touches briefly on various notions of building prefabrication. Environmental considerations follow, as well as a brief historical review of housing developments. One of the most interesting parts of the first section is an essay entitled "A new approach" which is concerned with design ideas having their roots in common sense but whose application is not yet in common acceptance.

For some time now the reviewer has deplored the fact that design decisions in housing are predominantly, if not exclusively, influenced by physical considerations. Since minimum standards designed to safeguard our psychosocial needs are still to be evolved, most designers of new buildings for habitation have to rely on standards that merely ensure well being insofar as our physical needs are concerned; less tangible considerations are usually overlooked and at best considered in a haphazard manner. The discovery that the author of this book shares related views is most reassuring and gratifying.

The second part of this book is devoted to 47 examples of good housing design, and it is a welcome surprise that the majority of these projects are not merely the usual sequence of frequently published material already found in the glossy magazines. Examples grouped together under the headings "Staggered and Terraced Building Volumes" and "Breaking with the Parallel Systems" are especially noteworthy.

Perhaps the only severe criticism one can make of "Multistory Housing" is the superficial treatment of some of the subject matter; for example, it might have been better if the 500 word essay on "Slum Clearance" had simply been omitted. Nevertheless, this bilingual book – English and German – is a useful addition to any collection on multistory residential architecture; moreover, it is a good book to leaf through in search of design inspirations.

Norbert Schoenauer
School of Architecture
McGill University

The American City: An Urban Geography

Raymond E. Murphy
McGraw-Hill, Scarborough, Ontario; 1966, 464 pages, $13.80

Mr Murphy's book is attractively bound, well set out, and eminently readable. It presents urban geography as a field of enquiry, rather than as an established body of knowledge. Urban geography deals with the many definitions of the city, with cities as entities, their locations, character, growth and relations to the countryside and to each other, also with land use, social and cultural problems and patterns of the natural environment. The urban geographer has a primary goal to arrive at sound generalizations about the city, and the constant concern of the book is with methods of study that will yield such generalizations. It is primarily a book of concepts and research methods of tackling problems, rather than of analyses and solutions.

The city's sphere of influence is variously defined, and Murphy quotes several sources, and outlines their respective methods for delimiting the areas under consideration. He develops the theory of the hierarchy of settlements, pointing out the many local distortions, due most particularly to the changing transportation phenomenon.

The concept of urban economic base is described as a way of looking at the exterior relations of a place which attempts to separate basic and non basic activities. Murphy observes that the number of possible ways of classifying urban centers is essentially without limit, and he proceeds to list the innumerable criteria and activities by functional definition from several sources, and makes some interesting comparisons. Notwithstanding the many ways of categorizing cities by predominant land use, the author concludes that most cities are in fact diversified.

There is an interesting discussion on change through time, and the dynamic character of urban land use due to the balance of forces at work, one of the most important being property value. Effects of zoning and prospects for urban renewal also have a bearing on land use, in that zoning is passive and permissive, while renewal is dynamic.

Transportation is given due weight as of fundamental importance to any contemporary discussion of the urban environment, and all means of transportation as they relate to the city are thoroughly discussed. Two chapters are devoted to commercial activities in the city, and the central business district, and are followed by a further two on manufacturing. In each of these aspects, the author has covered the ground with a thoroughly comprehensive survey, and has gathered together a remarkable assortment of data. The problems of a central business district have been the subject of much previous discussion and study, and Murphy suggests the best methods for collecting, recording, and analyzing the mass of relevant data. He agrees there are differences of opinion about details of what is happening to the central business district, but in general agreement that it is changing markedly, and is destined to change still more. The whole question of manufacturing is treated with similar thoroughness, both in general principle and with specific examples.

Discussion of residential and associated uses opens with a careful definition of the housing unit itself. Explanations of residential patterns are offered, based on ownership, age of structures, value and rent and so on. This leads naturally to a discussion of substandard housing, the closely related filtering down process, and changing residential patterns, related to changing social and economic status.

Finally, there is a chapter devoted to the political factor in the growth of the city, and a brief appendix enlarges upon governmental structure in New England, and another describes administrative census divisions of the city.

Maps, charts and diagrams are used extensively, and are well integrated with the text and each chapter concludes with additional bibliography. Clarity is the keynote of the book, which makes stimulating reading and abundantly fulfills its objectives.

B. Graham-Smith, MRAIC, Regina

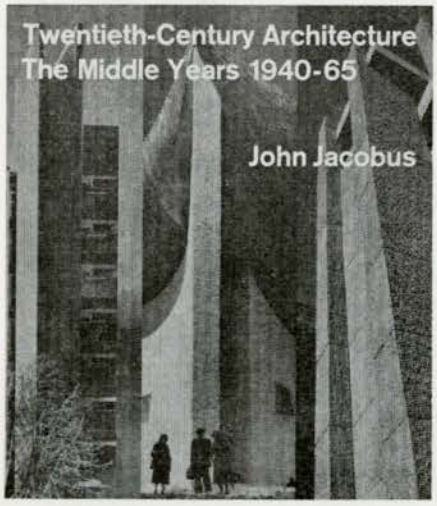
Twentieth-Century Architecture, The Middle Years 1940-65

John Jacobus
Frederick A. Praeger, New York; in Canada, Burns & MacEachern Ltd, Don Mills, Ontario; 1967, 215 pages, $21.50

"This volume," writes Professor Jacobus, "is a history of style." He then proceeds to a dextrous application of the methods used in art criticism and demonstrates how, in the Middle Years, form has followed form.

The book is lavishly illustrated not only with photographs architects will know like the backs of their hands but also with plans and other drawings. The material is arranged in historical sequence – first stirrings in the 18th and 19th centuries, the first outbursts in the 1920s and '30s, and then, without further ado, straight into the Middle Years.

Professor Jacobus deals with "War and Postwar Developments 1940-1950" and then the late works of Wright and Gropius, van der Rohe and Le Corbusier. Then follow "The Early Fifties", "The Middle and Later Fifties", and "The Architecture of the 1960s". It is all done in a scholarly way and the "Notes on the Text" contain useful bibliographical references. There is, mercifully, an index.

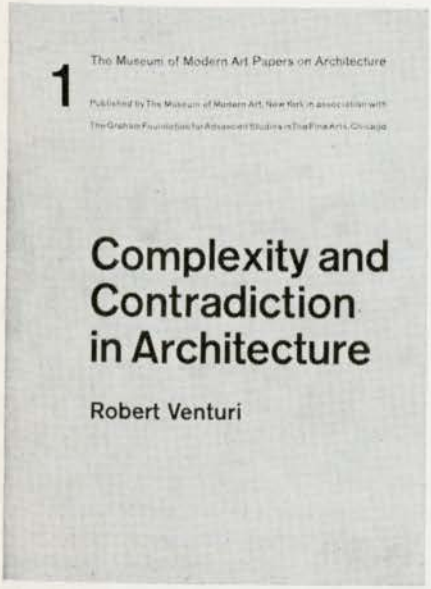


By picking his way rather daintily between the ruins of the International Style and Expressionism and Constructivism, by glancing at such concepts as the rationalism of form and the rationalism of structure, and by a neat pigeon-holing of such eminent personalities as those ranging from Bartning to Breuer, Kahn to Kallman, Ruskin to Rudolph, Mendelsohn to Mayekawa, Schinkel to the Smithsons, and from Philip Johnson to Philip Johnson, the author creates an image of the times which is as astonishing for its sustained level of criticism as for its objectivity.

In fact Professor Jacobus's objectivity is admirable. While clearly intrigued by the architecture which forms his subject matter he is not deceived by it. "The current and recurring divorce between architectural design and the myriad realities of our incessantly changing contemporary life remains a basic dilemma all through the development of modern architecture." Professor Jacobus feels that "a volume could also be written about the collective failure of our master architects to alter the totality of our visual environment." He concludes, "That a great, imponderable task remains to be defined and accomplished by the architects of the future is clear."

But is it clear to architects? From the evidence presented to us by Professor Jacobus it would seem not. Indeed, if architects continue to ignore "the myriad realities of our incessantly changing contemporary life" then the Middle Years may well prove to have been the last years.

George Balcombe
School of Architecture
Nova Scotia Technical College



Complexity and Contradiction in Architecture

Robert Venturi
Published by the Museum of Modern Art, New York, in association with the Graham Foundation for Advanced Studies in The Fine Arts, Chicago, in Canada Doubleday Publishers, Toronto; 1967, 140 pages, $5.95

This book, the first of the Museum of Modern Art Papers on Architecture, is the result of studies by the author supported by the Graham Foundation for Advanced Studies in the Fine Arts, Chicago.

All too seldom does one come across a statement as sensitive to its subject and to the moment in which it is written. For the author, this was the appropriate moment to set down his analysis of architectural qualities, the thinking content of many buildings and to draw from them in a systematic manner the complexities and contradictions he finds, for our benefit. I doubt it could have been written earlier with success and I expect it will be read and discussed for a long time.

Vincent Scully in the introduction writes, "Venturi makes us see the past anew . . . and (he) picks up a fundamental dialogue begun in the 20's and so connects us with the heroic generation once more." This he does most successfully. He makes me see, for instance, the Bauhaus for its continuing values rather than for its literal ones of technology and simplicity. He puts the Bauhaus in its historical place and gives it, for me, its proper values as seen today.

Venturi requires looking at and understanding architecture in depth; his approach is one that is rooted vertically in history and which extracts values that continue to be valid. The many examples he gives at first reading seem rather tedious and repetitive, yet upon re-reading I found them more and more revealing and rewarding.

The chapter on "works", done in collaboration with Rauch and others, expresses a consistency with the main theme. Whether one agrees with all the designs or not there is no doubt that one has great respect for his methods, direct attack on a problem, use of social/economic facts and by the lack of superficiality, of style and of fashion.

With so much attention being paid today, albeit necessary, to scientific methodology and sophisticated techniques, it is salutary to be reminded in such a scholarly way that architecture remains a social and human act and is as demanding a discipline as ever.

The book will appeal to few who think of architecture superficially; I doubt they would even try to understand it. The serious, however, should find much of instructive value in which they will delight.

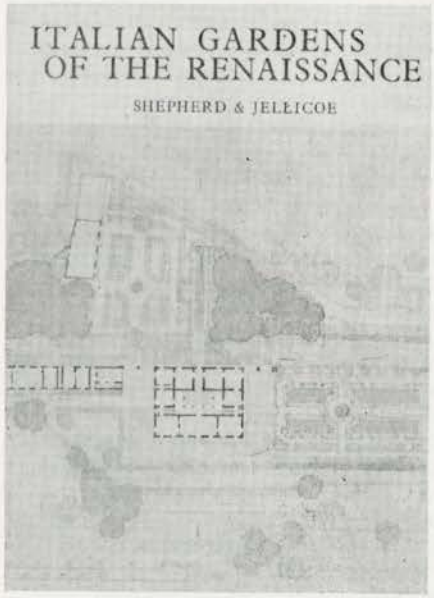
Peter Thornton, FRAIC, FRIBA, RCA
Vancouver

Italian Gardens of the Renaissance

J. C. Shepherd and G. A. Jellicoe
Alec Tiranti Ltd, London WI; 1966, 278 pages, £2.10

"Italian Gardens of the Renaissance" by Shepherd and Jellicoe, first published in 1925, follows the period of the Renaissance, its rise and downfall. In this 3rd edition, the introduction states that "this book is now accepted as the classic work on this subject". It is a tri-lingual library edition, with text in English, French and German, and is therefore more abbreviated than the book would indicate. The authors have dealt very briefly with historical background, and instead have concentrated on the basic design qualities of this great period in the arts.

The book is divided into three parts. The first part describes the architecture of the gardens. This includes a very brief historical sketch of the Renaissance period from the 15th Century through the 17th Century. It describes the three types of garden of the 15th Century, the excitement of the gardens of the 16th Century, and the first hint of



ostentation in the baroque style of the 17th Century. Also included are sub-sections on the influence of environment and climate, and the effects of light, shade, water, sculpture, etc., with specific examples given in each case.

The second part, under the section *Villas*, describes 25 outstanding gardens of the period. There is a brief but lively description of each garden, together with beautifully illustrated plans, elevations, and sections, each showing the simplicity, strength and response to site and architecture. This second part constitutes approximately two-thirds of the text.

The book concludes with ten pages of photographic details of many of the gardens. Finally, there is a map of Italy showing the location of the gardens described.

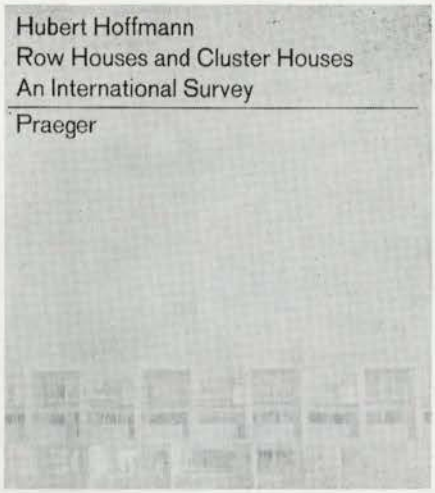
The value of this book is in its concise presentation of the individual gardens, showing by text and by illustration the basic design qualities of the Renaissance period. In Landscape Architecture, many of these qualities are valid today, and much can be gained from studying the masterpieces of the Renaissance.

John L. Lantzius, MCSLA, Vancouver

Palladio's Villas

James S. Ackerman
Walter W. S. Cook Alumni Lecture,
J. J. Augustin, Inc., Locust Valley N.Y.;
1967,108 pages, $5.00

The book consists of a lecture on the uniqueness of the villa building type for which Palladio provided such varied solutions; a bibliography; detailed notes and sources on each of the existing, demolished and unexecuted villas; and some small illustrations of Palladio's and comparative buildings. The content of the publication provides stimulation for the specialist; its small size makes it convenient as a guide book for the visitor to Venetia.



Row Houses and Cluster Houses, An International Survey

Hubert Hoffmann
Frederick A. Praeger, New York, in Canada, Burns and MacEachern Ltd, Don Mills, Ontario; 1967, 176 pages, $21.50

For centuries man's needs have been met by dwellings at ground level, and no less today is this form of housing suitable for and very evidently popular with many types of people. A high degree of flexibility may be obtained by grouping low-level housing units; they are easy to adapt to changing topographical needs, and they enable a variety of accommodation to be provided within a common discipline. Today's pressures on the individual tend to increase, and cause in turn a greater need for a privacy and a longing to own a piece of land, however small. Providing that the dwelling plan and layout have been re-thought from basic premises, such needs may be filled to a very large degree even at sizeable densities by low-level housing.

Row Houses and Cluster Houses is one of the few books to recognize the importance of this type of dwelling. In his introduction, Hubert Hoffmann defines his terms, gives a brief history and account of urban low-level cluster housing, compares it technically and economically with high-rise development, discusses sociological and psychological aspects, refers to the influence of sunlight angles and area requirements, categorizes plan types, briefly refers to prefabrication and mobility, and touches on combinations of this with other types of housing. The bulk of the book consists of illustrated examples of low-level terrace and patio housing.

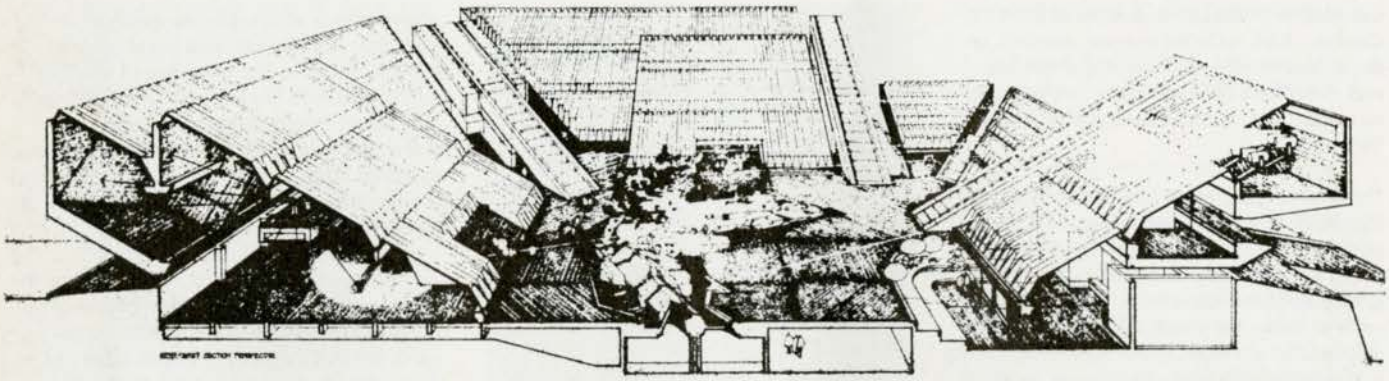
In the course of his introduction, Hoffmann gives many arguments in favor of low-level housing; undoubtedly most of these are valid, although apart from calculations of floor space index and sun angle, the book largely leaves them unproven. His "typology of low-rise housing" is certainly not as organized as the United Kingdom's National Building Agency's recent *Generic Plans*. Five of the book's examples are from North America, but its background and author's phraseology remain European. The volume is printed in English and German; both languages are in the same, small, sans-serif print strung across two-thirds of the page width and are thus not only somewhat difficult to read, but inclined to run without warning into each other.

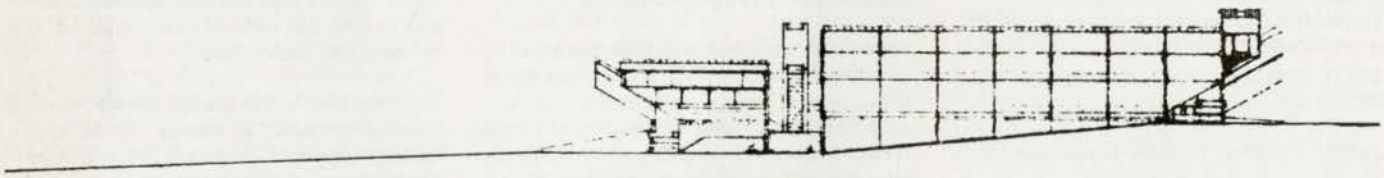
The examples in this book, however, are very well chosen. The *Survey* affords, through clear and consistent illustration by photographs, cluster layouts and individual dwelling plans, a good coverage of many of the more important examples already built in this significant field.

Jonas Lehrman
Faculty of Architecture
University of Manitoba

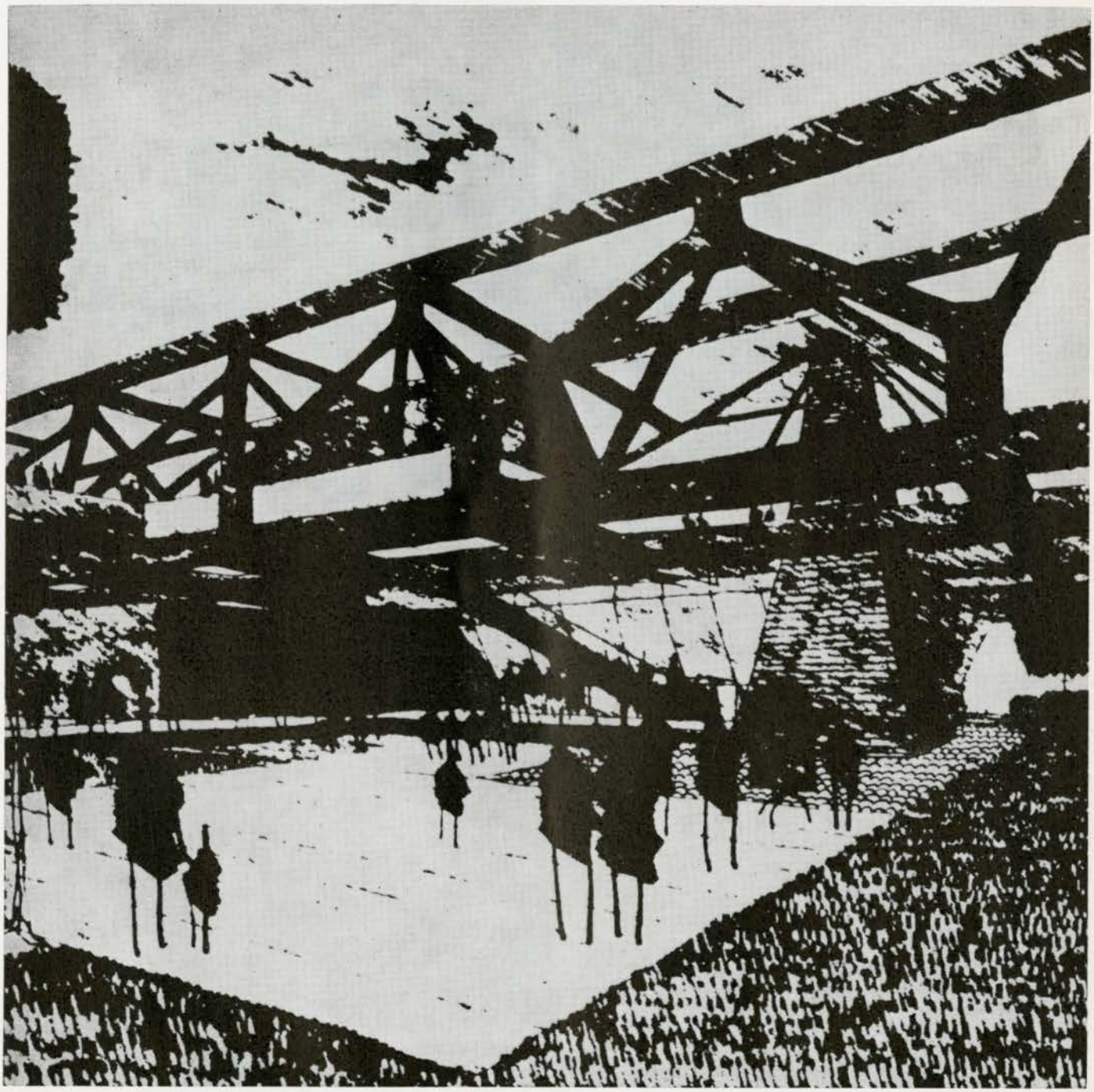
Osaka 1970
Six Entries

C. Blakeway Millar, Islington
Merit Entry

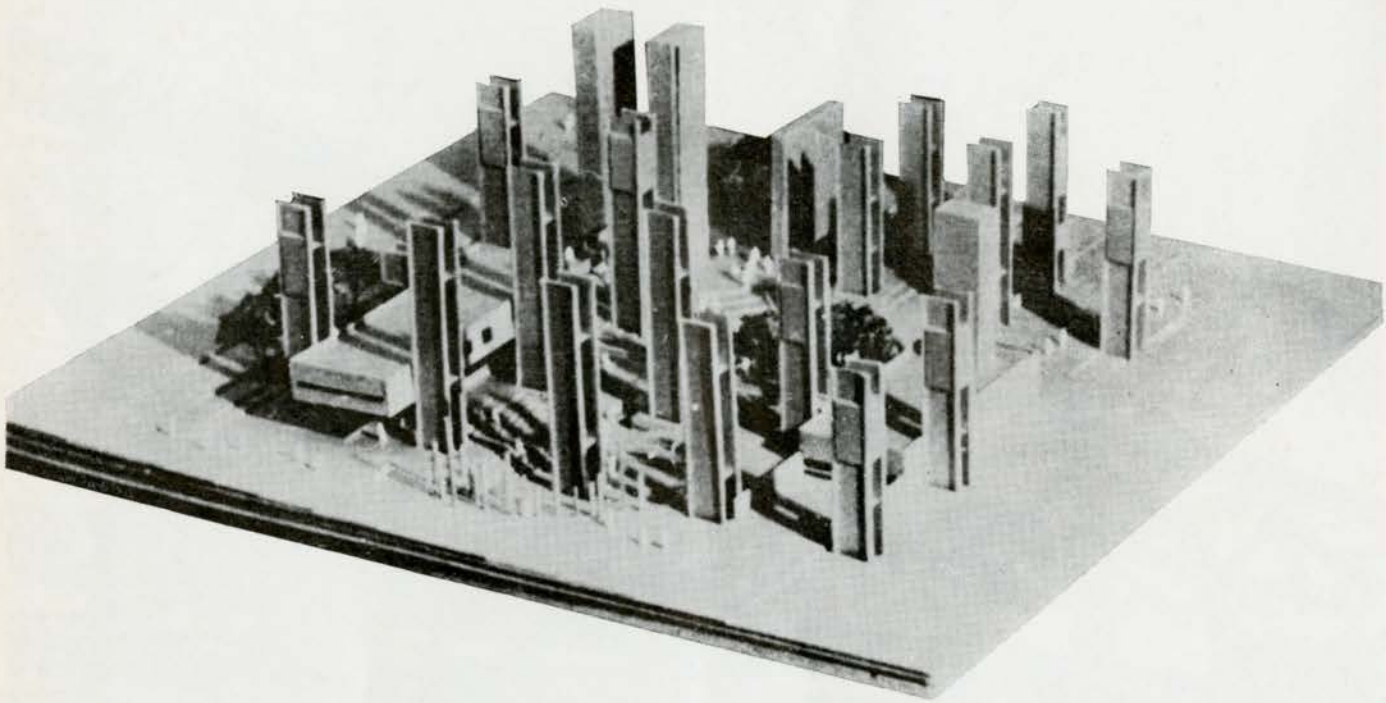




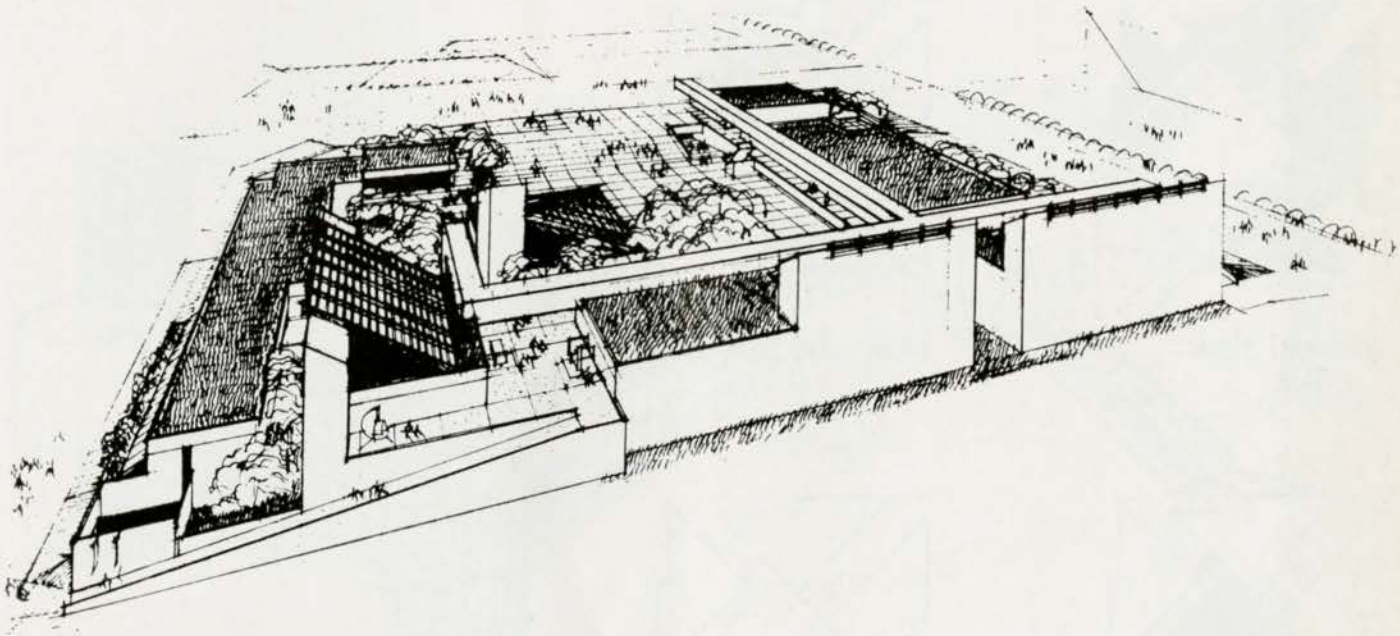
Craig and Kohler, Ottawa
Honorable Mention

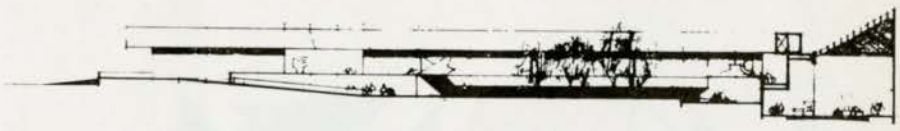


Graham, Lorimer, Langmead, Toronto
Honorable Mention



Barry V. Downs, West Vancouver
Honorable Mention

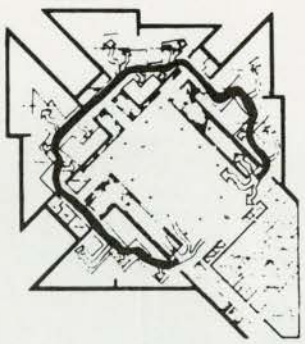




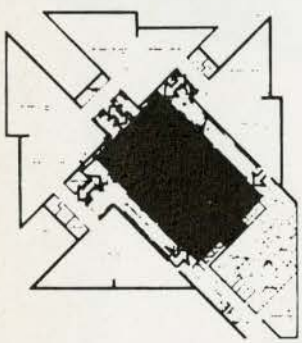
SECTION C-C

Marshall & Merrett; Stahl, Elliot & Mill, Montreal, Honorable Mention

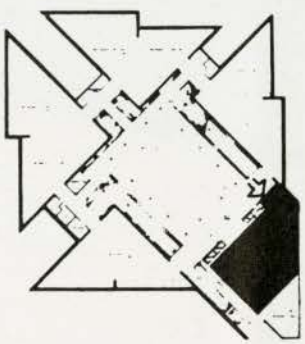
general flow



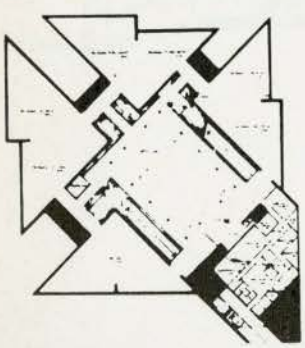
slow and fast flow



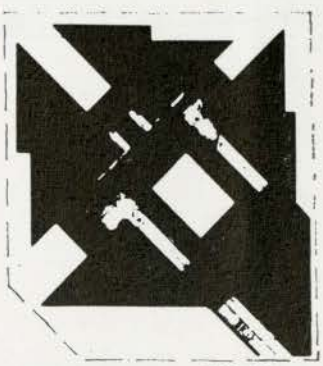
activity area / coffee shop



admin.

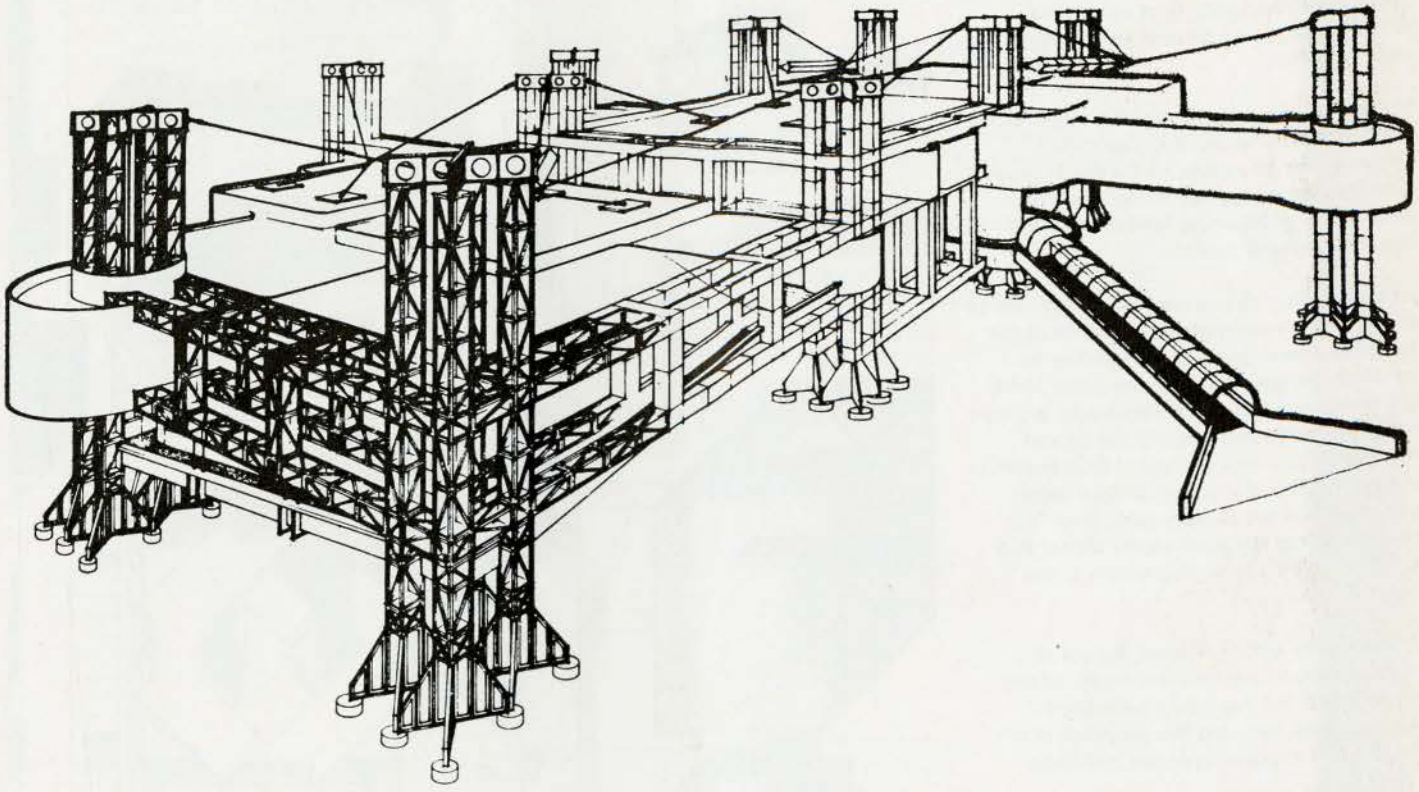


services



coverage 58%

Melvin Charney, Montreal
Merit Entry



45 Charles Street East, Toronto

Fairfield and DuBois, Architects

Farkas Barron Jablonsky, Structural Engineers
Jack Chisvin & Associates, Electrical Engineers

G. Granek & Associates Ltd, Mechanical Engineers
H. Oswald Konway Associates, Landscape Architects
Standard Life — Taylor Woodrow, Developer

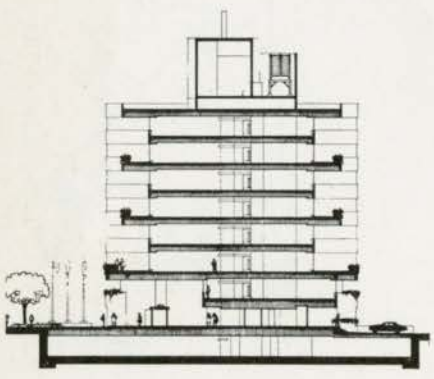
The site faces north mid-way on a lightly travelled one-way street. Zoning regulations allowed only three times lot size for the permitted above grade floor space, not including balconies. Several zoning envelopes were permitted.

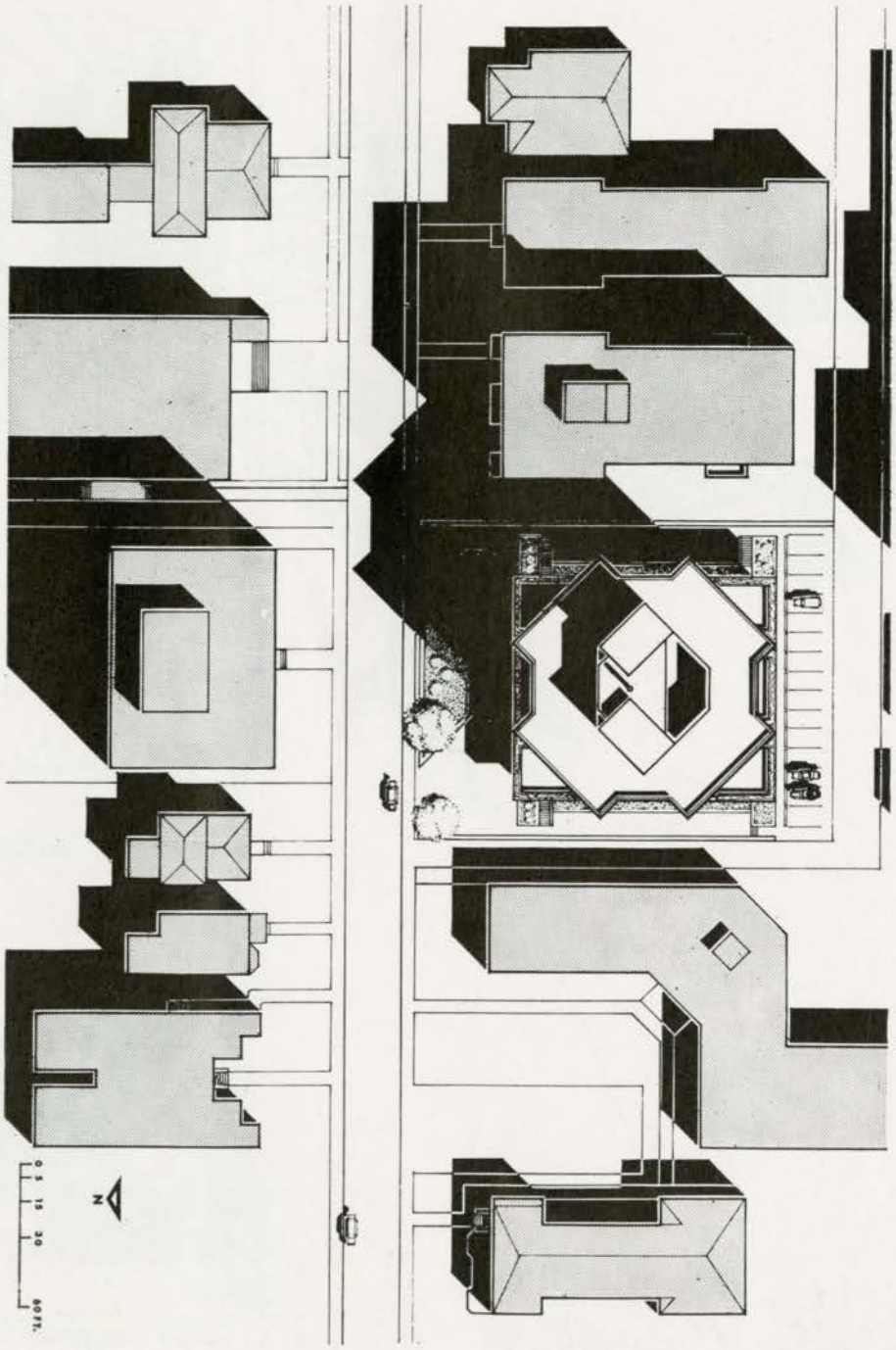
The architects first constructed a model of the street and then began fitting permitted zoning envelope models on the site. It became clear that the owner had to buy another small parcel of adjoining land to make the site economically feasible.

A large scaling device was used externally to emphasize the multi-storey character of the building, a two-storey lower building to reinforce the street wall. At the upper levels the tower was turned 45 degrees to facilitate sun penetration and to avoid the normal front, sides and back aspects of most buildings in the city. This also supplied eight corner offices. Balconies at every other level re-emphasized the multi-storey aspect and at the same time brought greenery to the upper floors.

Although the owner rejected the use of sandblasting to even the concrete surface, the architect felt this would have been desirable and included this provision in all subsequent exposed concrete buildings.

The owner was able to provide a limited amount of parking on the site as a parking garage is contemplated nearby, and for this paid the city a penalty of $1,000 per car space.





CANADIAN
BUILDING DIGEST
DIVISION OF BUILDING RESEARCH • NATIONAL RESEARCH COUNCIL
CANADA

USE OF SEALANTS

by G. K. Garden

UDC 691.58

Some form of seal is required in through-wall joints regardless of the basic principle of the joint design. The success of a joint is greatly influenced by the effectiveness of this seal, but the degree of tightness may be less significant for the control of rain penetration in one system than in another. A seal is intended to prevent the passage of liquids or gases through the space between the two components being joined, despite the differential movements between them. Various systems are being employed in the attempt to achieve the required seal at joints in exterior walls. The most common use elastomeric sealant materials, plastic caulking materials (mastics), or compressed gaskets. This Digest deals with the use of elastomeric sealants, but much of the discussion could apply equally well to other sealant materials.

Elastomeric sealants — marvellous products of modern technology — are viscous liquids that cure to an elastic material with high extensibility and good cohesive and adhesive characteristics, properties that make them suitable for sealing joints in exterior walls. They are installed in the field under a wide variety of conditions, on many different substrates, by persons with varying degrees of interest and ability in performing their jobs. They may, in service, also be subjected to severe deformation or harsh environmental conditions. Accordingly, the design of the joints in which elastomeric sealants are to be employed must be carefully considered. Surface preparation and installation techniques play an important role in sealant performance, but the shape, dimensions and location of the sealant bead are of equal or greater importance.

Shape and Dimension

A basic fact, which may not be generally appreciated, is that although the shape of a cured elastomeric sealant can be changed by force, its volume will remain constant. When deformed by a change in joint width, the shape of the cross-section of a sealant bead must change because its area must remain constant. A square bead, when extended, will "neck-in," but in doing so the surfaces free to deform are extended more than the centre of the material so that the adhesion stress at the edges of the bead becomes quite high (Figure 1a).

When the local stress at any point exceeds the adhesion strength, failure commences. It may result in total failure of the adhesion from what should be referred to as a "peeling" action. Because the free surfaces of a deep bead must deform far more than those of a shallow bead, the risk of failure increases with bead depth (Figure 1b). It should also be recognized that if the free surface at either side of the bead is not of sufficient width overstressing and failure can originate at this surface (Figure 1c).

Study of the deformation of different sealant bead cross-sections indicates that, in general, sealants should adhere only at opposite surfaces and that the free surfaces should be

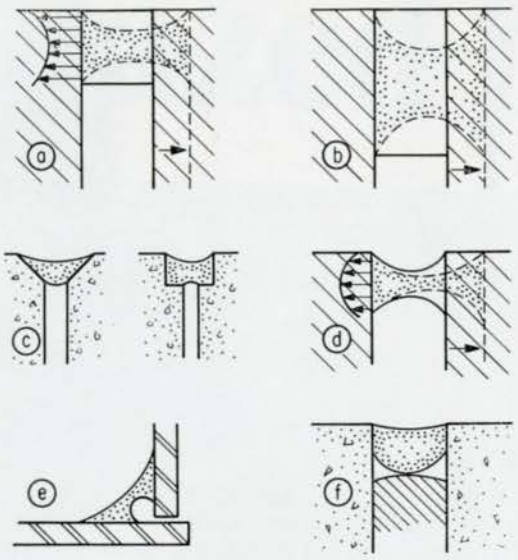


Figure 1 Sealant Bead Cross-Sections
(a) deformation of square bead
(b) deformation of deep bead
(c) undesirable bead shapes
(d) deformation of recommended bead shape
(e) corner bead shape
(f) bead shape commonly found in joints

concave. Most of the strain in a bead of this shape (Figure 1d) occurs in its central portion where the cohesive property of elastomeric sealants is generally good. This property can also be determined in advance. There is a greater area for adhesion with this shape and stresses at the corners of the bead remain relatively low, minimizing the risk of peeling. This basic shape should be used for all sealant beads, including situations where the two surfaces meet at right angles (Figure 1e). Although a sealant bead can seldom tolerate the same percentage strain in compression as in tension, this cross-section improves its potential performance.

The shape factor of sealant beads has been the subject of considerable study and it appears that the best performance can be expected only when a proper shape is employed. It has also been found that the inclusion of air bubbles in the body of a sealant bead should be prevented because they tend to cause a local stress concentration in the sealant. This stress concentration causes a cohesive failure which may propagate down the length of the bead in a "ripping" action, even without a further change in the joint width. For several reasons it appears that a sealant bead should be wider than the width indicated by the laboratory-determined extensibility factor and the anticipated movements of the elements being joined. Dimensional variations due to manufacturing and erection inaccuracies, usually discussed under the subject of tolerances, must also be considered when determining the design joint width.

Several conditions must be met to achieve a desirable sealant bead cross-section. The depth of the reglet to receive the sealant must be established by a properly shaped backing of compressible material to which the sealant will not adhere (e.g. foamed polyethylene rope). This backing must be pinched, attached, or held in some way to prevent its movement under the pressure exerted during installation of the sealant. The sealant must be forced into the reglet so that it fills the intended space completely and is forced into intimate contact with the surfaces to which it is to adhere.

To fill a reglet properly some of the sealant must be forced to flow in the reglet in advance of the gun nozzle (Figure 2). Only when this is done can the fluid sealant be forced to fill the reglet and gain intimate contact with the side surfaces. To produce a concave upper surface, the nozzle tip should be shaped accordingly or the joint surface tooled. The sealant bead shown in Figure 1f is frequently found in joints and is obviously the result of poor installation; it has little chance of successful performance.

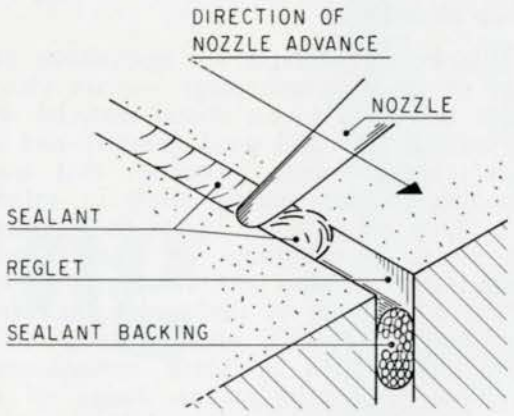


Figure 2 Installation of sealant

Adhesion of a sealant is difficult to predict. It depends upon the nature of the substrate, the surface conditions at the time of installation, and the quality of the workmanship, in addition to the properties of the sealant itself.

Priming to improve adhesion is essential with some material combinations, and it may be desirable in most instances if only to provide an opportunity for examining the surfaces before installation of the sealant. The sealant manufacturer's instructions should be followed.

Regardless of its position in a joint, the best performance can only be obtained from a sealant when the bead has the proper shape and dimensions, and when good installation techniques have been employed.

Joint Design

Joints in exterior walls must not permit rain penetration, excessive heat flow, vapour migration or air leakage despite inevitable differential movements between the elements being joined.

Rain penetration can only occur when there is an opening through which the water can pass and a force or combination of forces acting to move it inward (CBD 40). Rain penetration can be prevented if a perfect seal can be achieved and maintained. A perfect seal is not necessary, however, to prevent rain penetration. It can be prevented by designing the joint geometry in such a way that all the forces that can act to drive water inward are controlled. This actually prohibits the use of an air seal at the wetted plane. A seal inward from the wetted plane is necessary, however, to resist air leakage through the joint so that the inward air pressure drop, the major force acting to drive water inward, can be controlled. If the air seal is located where it cannot be wetted, rain penetration will not occur even at minor failures of this seal.

Heat flow at a joint is generally insignificant because of the small area involved unless air leakage occurs. Heat transfer can be reduced by incorporating a dead air space or an insulating material in the joint. The best thermal performance at a joint, however, requires proper design of the edges of the units being joined.

Water vapour migration by diffusion is a slow process and can generally be ignored, especially if there is no exterior seal in the joint. Severe water vapour condensation can occur, however, if humid air is permitted to flow by convection into cold spaces in the joint or to leak through the joint and contact cold surfaces (CBD 72).

Air leakage problems of dirt and odour entry, cold drafts, increased heating and cooling costs, and difficulty in maintaining humidity control can be prevented only by complete air tightness. As this is often impractical, it is fortunate that these problems can be accepted to varying degrees, depending upon the building occupancy. Some interstitial condensation can also be tolerated, depending upon how much there is, where it occurs, the design of the joint, and the materials involved. It is best, naturally, to prevent air leakage as much as possible, since it is instrumental in a majority of wall problems. It should also be mentioned that it is the most difficult mechanism to control.

A study of the requirements of joints shows that the seal in a joint is necessary only for the control of air leakage and that its minor failures can generally be tolerated.

Durability of Sealant

The seal in a joint must provide continuity of the function of the units being joined, not only immediately following installation but also for as long a period as possible, preferably for the life of the building. As with most materials, the properties of elastomeric sealants unfortunately tend to change through time, and this may result in a loss of their ability to perform their required functions. Durability is not an inherent property of any material, but is achieved by protecting it from most of the factors that cause or accelerate its deterioration. The designer who is aware of these factors and of the fundamentals of environmental separation should be able to develop a joint in which deterioration of the sealant is prevented or at least its rate reduced to a minimum.

Sealants located at the exterior of joints are exposed to solar radiation. The ultra-violet radiation and high temperatures that result accelerate the photo, oxidative degradation process. In this position, at the exterior of a joint, sealants must perform in the portion of a wall that is subjected to the greatest range of temperature variation and, consequently, to the greatest differential movements. In cold weather the sealant will be subjected to extreme deformation when it is least able to adjust to movement. The sealant and the materials to which it adheres will be subjected to frequent wetting; and the migration of water to the interface between substrate and sealant is fre-

quently responsible for severe reduction or loss of adhesion. A sealant bead exposed to view outside or inside is subject to attack by inquisitive fingers and other forms of physical abuse. To provide a long service life a sealant should be protected as much as possible from all these "tortures."

The sealant located toward the interior of a joint is protected from solar radiation, extremes of temperature, and from physical abuse. The sealant bead is only required to resist air leakage if rain water does not contact it. When air leakage is controlled by the part of a wall inward of the thermal insulation, the differential movements at the air seal in the joint will be at an absolute minimum. Moisture accumulation at the seal from condensation should be prevented by adequate thermal performance of the wall and joints.

Sealants located at the interior can be installed from inside the building and work can proceed despite the erection of panels on floors above. They can also be installed under weather conditions that might prohibit sealing at the exterior. The difficulty of installing sealants in joints located behind columns, beams and floor edges must not, however, be overlooked during design. It is *not* essential that sealant installation be performed from the building interior, but it *is* essential that the sealant be located at a reasonable distance behind the exterior surface.

A sealant can be protected from the major factors influencing its deterioration when it is located toward the interior side of the joint.

Conclusion

The best joint performance can only be achieved by consideration of all the subjects relating to joints. A successful joint is a compromise based on a thorough analysis of the factors influencing its performance. It is even possible for an inexpensive material properly used to give service far superior to that of the best material improperly used. The best performance from any sealant and the total joint can be gained by following these simple rules:

1. Design the joint so that the seal is located where it will have the least critical function to perform.
2. Design to protect the sealant from factors that may cause or accelerate its deterioration.
3. Determine the magnitude and nature of the differential movements that will occur at the joint.
4. Select the sealant and design its bead cross-section and dimensions in accordance with its properties and the conditions to which it will be subjected, and ensure that it is properly installed.

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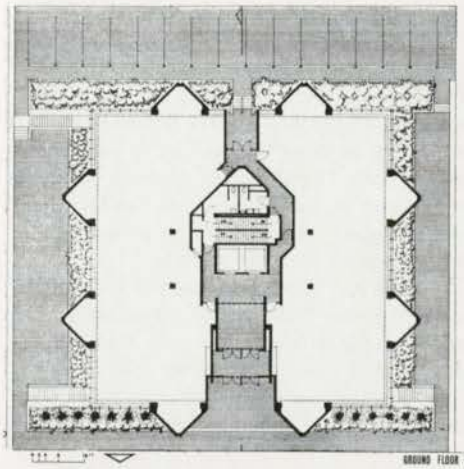
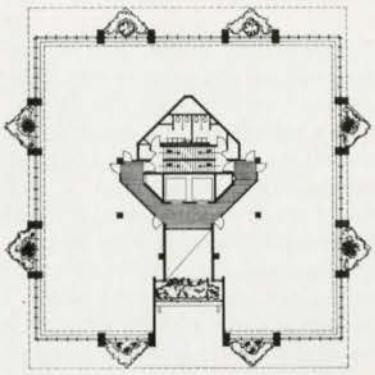
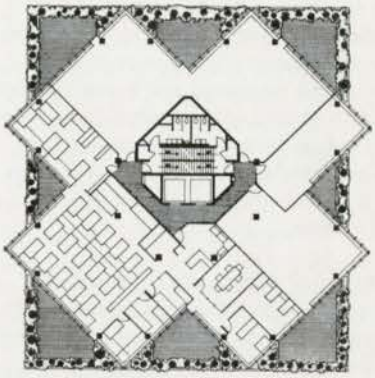
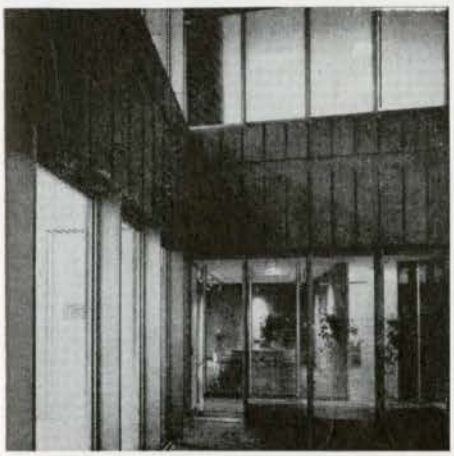
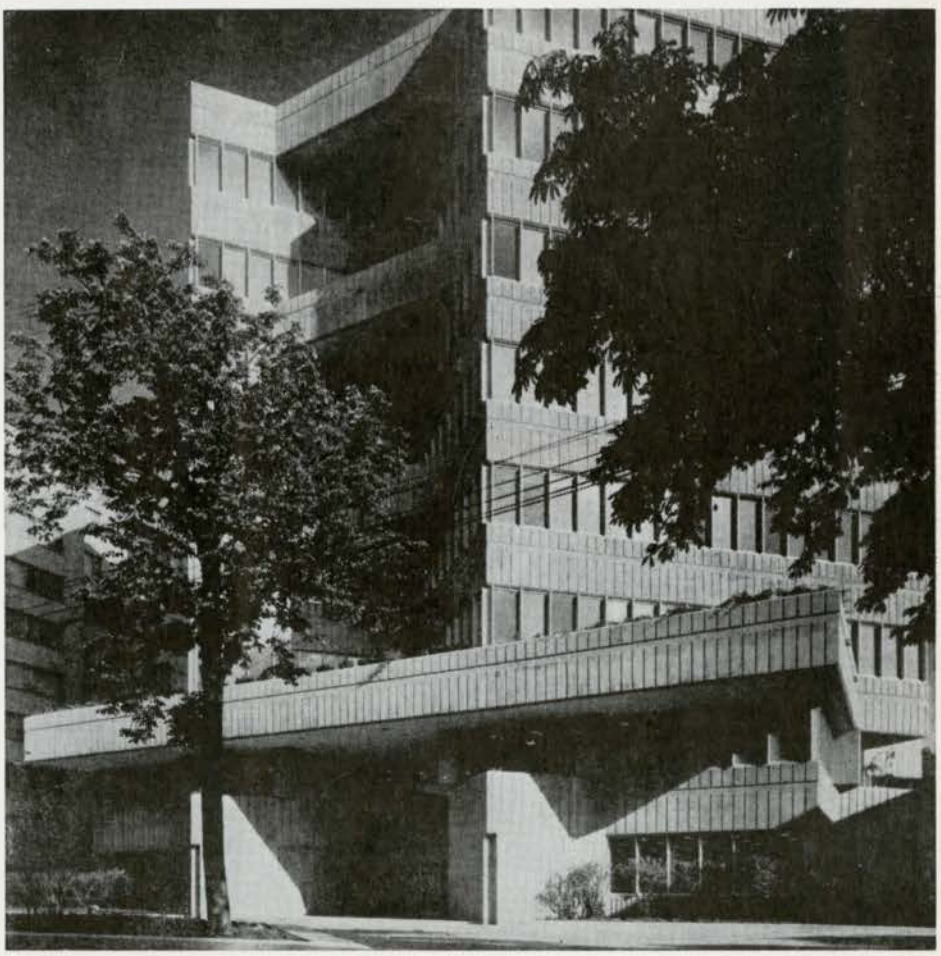


GROUND FLOOR PLAN









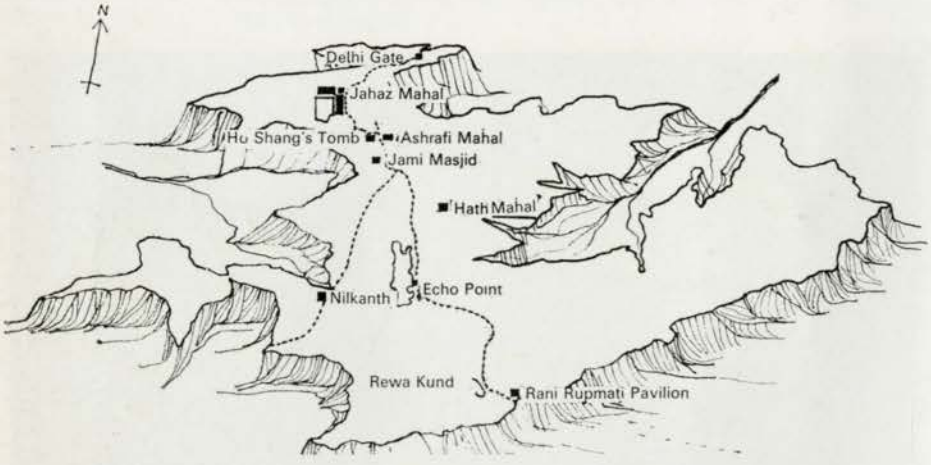
Mandu

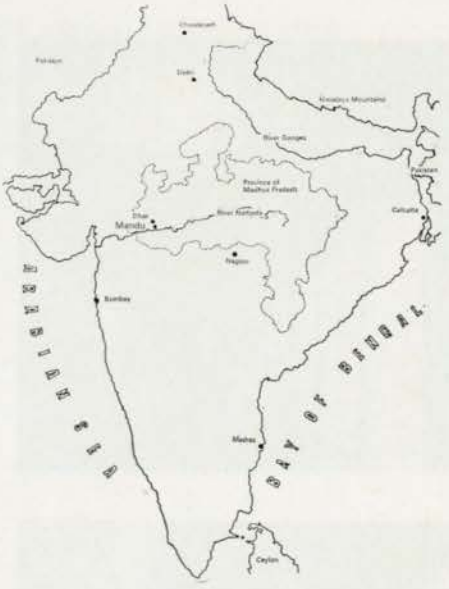
1
The Jahaj Mahal or Ship Palace
Le Jahaj Mahal ou Palais maritime

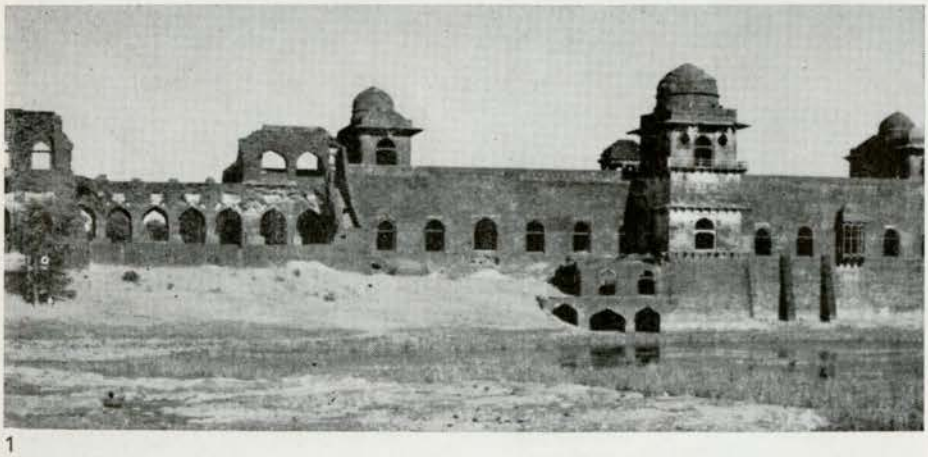
Out of a superabundance of ancient monuments of interest that India offers, the courtly complex at Mandu is perhaps the most impressive and interesting, but is comparatively unknown. This kingdom of the Malwas is still preserved and lies at the foot of Vindhya Mountains in Central India. The plateau cut off from the valley below is a naturally protected hilltop, a sturdy fortress giving a wide bird's-eye view of the Narbada River.

The remains of Mandu are scattered over about eight square miles of a scenic hilltop and are divided into three major groups, the Royal Enclave, the Village group and the Reva Kund group. Some of the interesting features to be found in the Royal Enclave are reproduced here in the photographs.

The "Jahaj Mahal", or the "Ship Palace" is the most original and exciting area. Due to its isolation from habitation, this palace assumes a solitary, ghostly appearance in moonlight, showing its outline and openings silhouetted against the sky. The "L" shaped palace, of which only one wing is visible in the photograph, the other wing being largely destroyed, encircles the lake. At some points the lake flows under the palace. The association of water with the structure is so intense that it literally becomes a part of the building itself. The lower storey of the building is always partly filled with water, keeping it cool during hot seasons.
The solid brick-stone rugged mass is punctuated in places by a form of arched openingst which act as inlets for fresh air to keep the palace cool. The efficiency of these openings is amazing as, even today, one can feel the vast change in temperature on entering the long corridors from the outside.
The brick and sandstone walls of this palace are immensely thick, which presumably accounts for its long endurance over the ages and its insulation against solar radiation. Openings, always supported by arches, are therefore very deep and clearly define







1

2
Openings supported by arches clearly define the interior from the exterior
Ouvertures soutenues par des voûtes séparent l'intérieur de l'extérieur
3
Projected overhanging balconies
Balcons projetés en saillie

4
Typical staircase in the Reva Kund group
Escalier typique du groupe Reva Kund
5
Staircase from the Royal Enclave leading directly to the river
Escalier de l'Enclave royale menant à la rivière

6
Staircase in the Village group
Escalier appartenant au groupe Village
7
First storey of underground structure
Premier étage de la structure souterraine

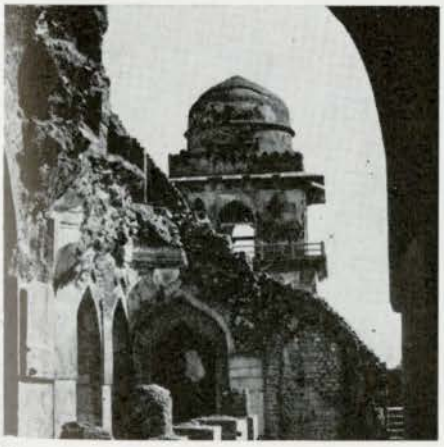
the interior from the exterior of the building. Projected overhanging balconies and the staircases are the most exceptional and exciting features of the palace. These areas, enjoying the best scenic view of the thick forest around and water below, are also very airy, most necessary for the hot Indian climate. These highly elevated areas are open from all sides, the long single tlight of steps starting right at grade level, lending a dignified termination of approach to the structure. The well balanced form of these balconies assumes the focal position in the building against a backdrop of the empty sky. The dramatic effect is further enhanced by the openings being placed right against each other, showing the sky almost from any position which the viewer might take.

Picture 4 shows a typical staircase in the Reva Kund group. From below one sees the hollow sky just touching the termination of the flight, then leads into a spacious courtyard and on to a different kind of space approach by a staircase partly visible.
The staircase in Picture 5 is from the Royal Enclave and leads directly to the river. The most impressive staircase is perhaps in the Village group (6) which has a monumental quality and looks as if it almost reaches the sky. This picture also shows an interesting example of the termination of a building with a staircase. A massive dome on the left and the thick wall soaring into the sky are interesting features of this building.
The other wing of this palace, which only partly remains, is still more impressive. A labyrinth of four storeys under water level is still accessible, although it becomes difficult to reach beyond. Used as a royal stable, as it is said, this underground structure is a mesh of massive piers and arches with "traps" of open wells in between. Picture 7 shows the first storey of the underground structure lit up by the sunlight filtering through the damaged part and gives the idea of the kind and scale of work undertaken at that time.
Arvind P. Narale


2


4


6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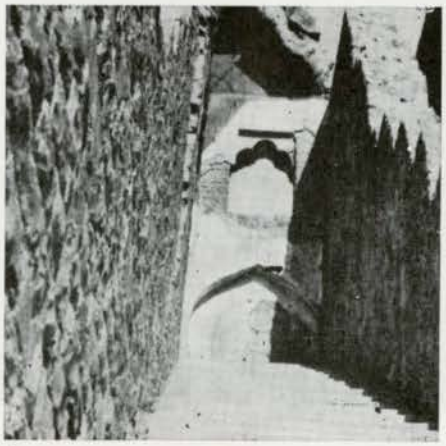
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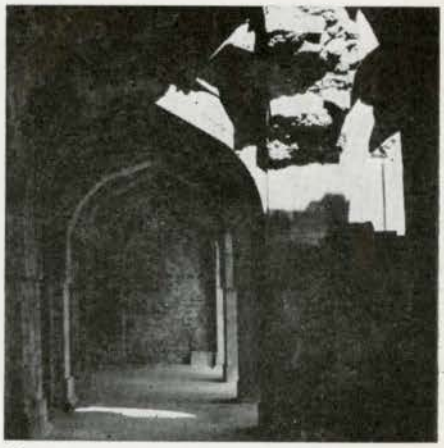
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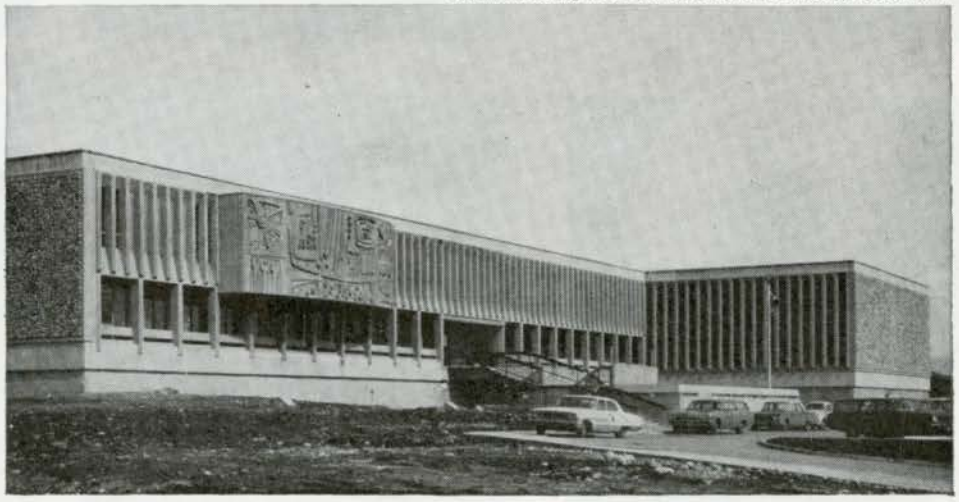
Champlain College, Trent University, Peterborough, Ontario
Architect: Thompson, Berwick, Pratt and Partners, Toronto
Structural Engineer: M. S. Yolles Associates, Ltd., Toronto

Bishop Grandin Academic Vocational High School, Calgary, Alberta
Architect & Engineer: Cohos-Delesalle & Associates, Calgary



Concrete proves itself in the classroom. Five Canadian schools selected for their imaginative uses of concrete

From Vancouver to the Maritimes, Canadian architects are constantly devising new and attractive ways of using concrete in the construction of schools. The five schools shown here give some idea of the imaginative use of this material.

Exposed aggregate has been used at Trent University and sculptured concrete at Bishop Grandin High School to good effect. Textured concrete at Selkirk College provides a handsome contrast to the precast elements. Prestressed double tee floor and roof slabs went into the Regina School while Tracy's Centre d'Apprentissage makes extensive use of cast-in-place concrete.

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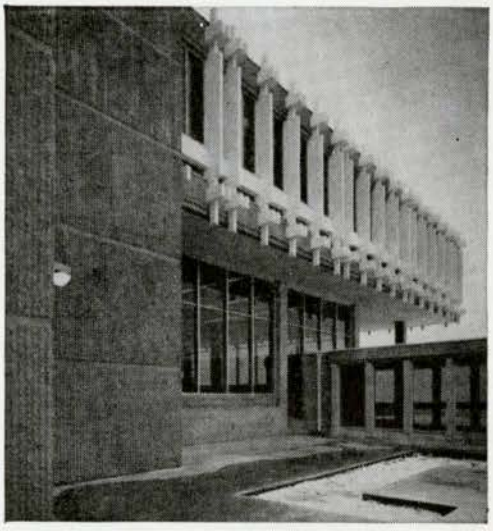
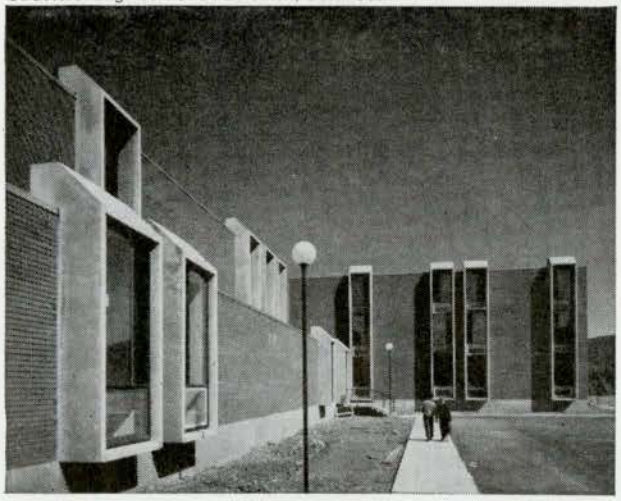
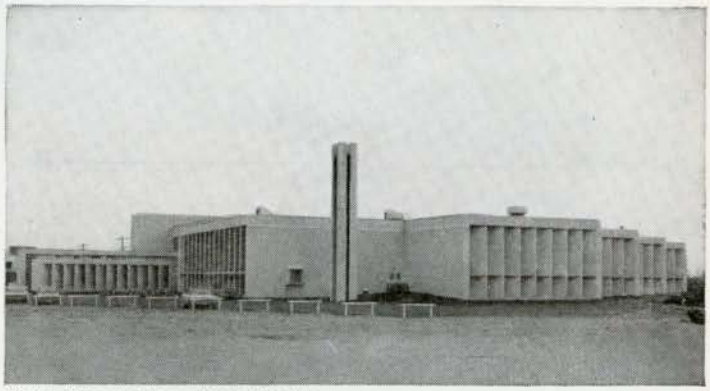
An organization of cement manufacturers to improve and extend the uses of portland cement and concrete



Selkirk College, Castlegar, British Columbia
Architect: John L. Kidd
Structural and Mechanical Engineers: Dexter, Bush & Associates Ltd.

Regina School, Corner Brook, Newfoundland
Architect: Keith L. Graham & Associates, Halifax
Structural Engineer: J. D. Solomon, Dartmouth





Centre d'Apprentissage, Tracy, Quebec
Architect: Jacques Racicot, Tracy
Structural Engineer: Claude Lanthier & Associates, Montreal

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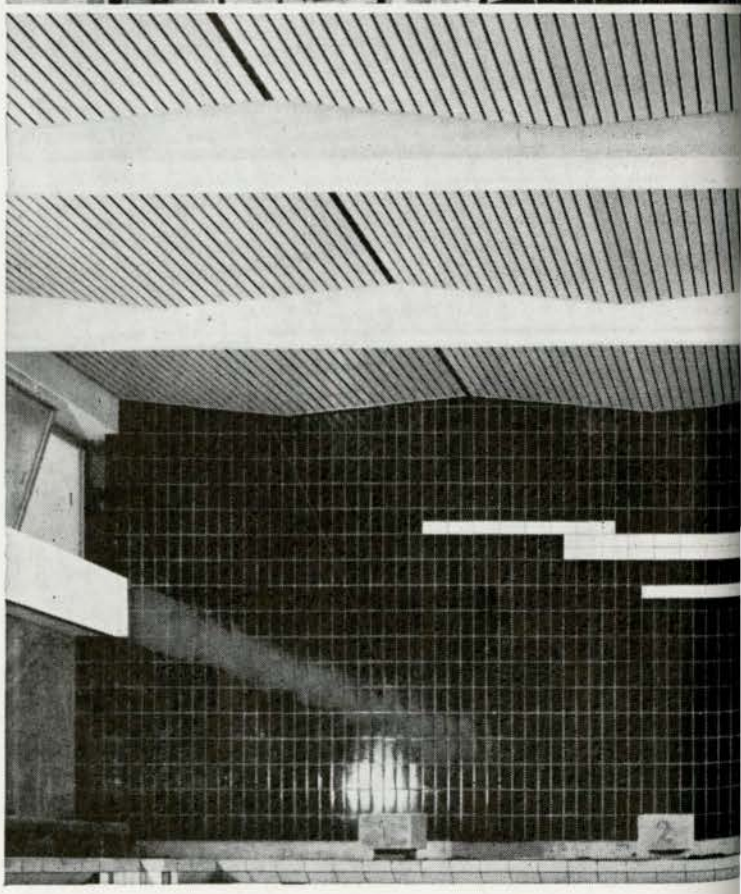

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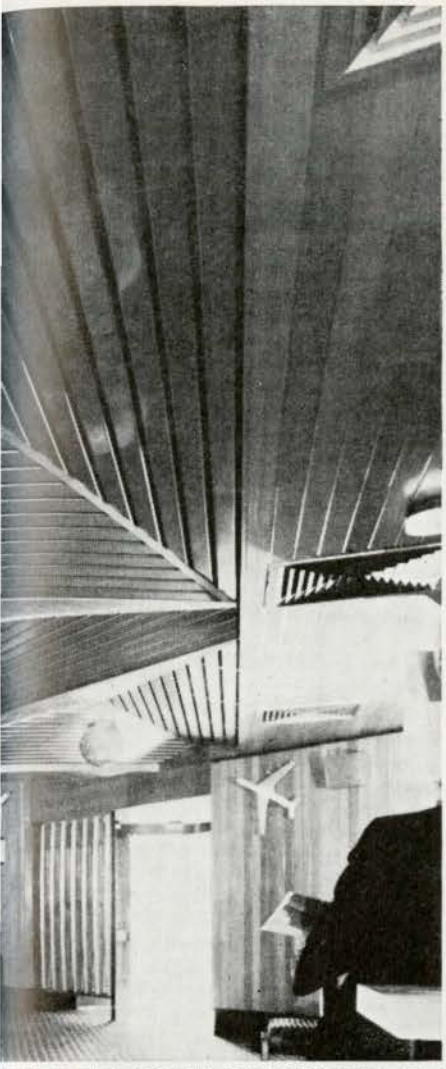
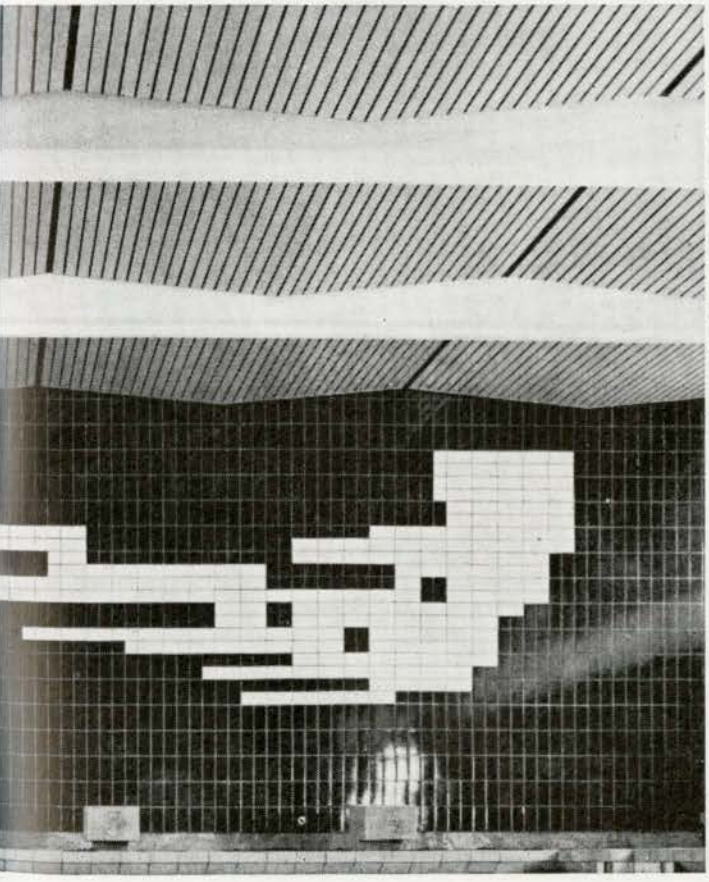
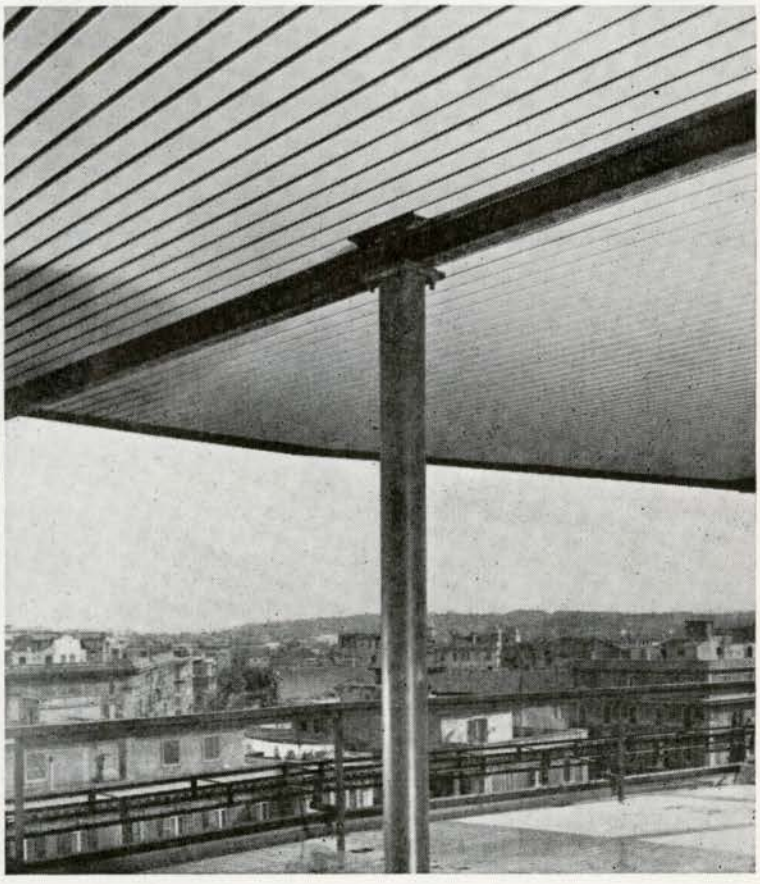
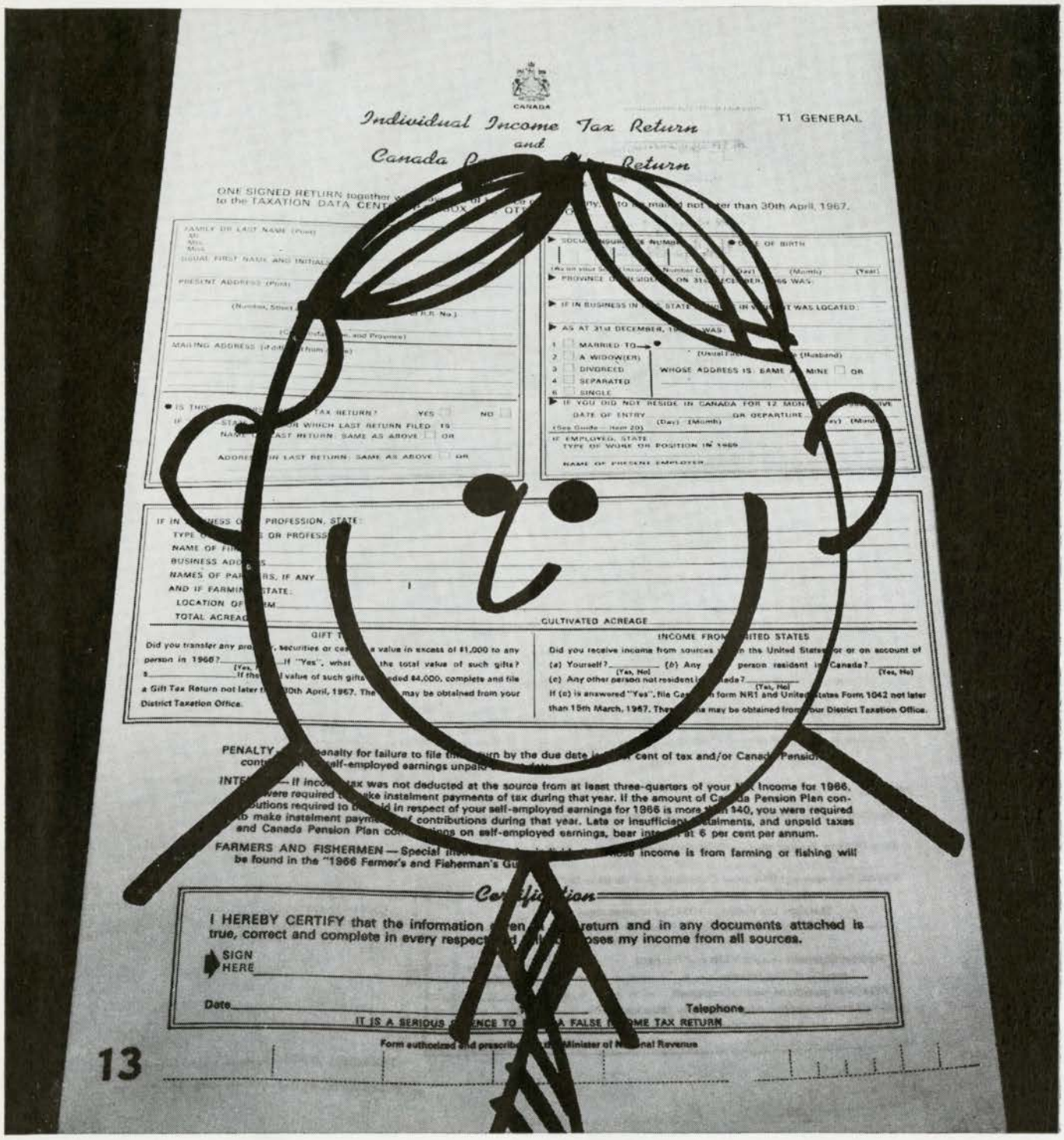






How to get the income tax people to lend you money interest free



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Planting on Rooftops and Terraces

Technical Technique 6

by James Stansbury, BLA, OALA

Mr Stansbury is an associate of Michael Hough Associates, Landscape Architects, Toronto

General Considerations

In response to a number of questions frequently occurring in our work with architects, this article concerns itself with the fundamental factors involved in incorporating planting areas directly within architectural structure. Given a project where such planting is desirable, there are a number of basic factors which must be understood early in the planning process to make such planting feasible. Even when planted terraces or rooftops are an important element in a total architectural concept, they often receive little consideration until final structural detailing has been completed. In many such cases, the building design is incapable of allowing planting to be accomplished as originally conceived, due to a lack of room for adequate soil, supporting strength, or other basic factors.

These factors can be divided into two groups:

1 organic considerations concerning the environmental requirements of living plants, and

2 physical considerations which become closely integrated with the final architectural design and construction.

Organic Considerations

1 *Climate* – exposure to wind, sun, heat, and cold is obviously far more severe at upper building levels than at grade. Less obvious is the fact that the structure itself contributes as much to the problem as natural weather conditions.

Walls and paving retain and reflect heat, internal spaces and mechanical ducts release heat to air and soil, and structural elements create wind conditions difficult to anticipate. The climate in higher places is one of the extremes of hot and cold, wet and dry. Such extremes have a decided effect on plant materials which are accustomed to less severe conditions.

Heat reflected off walls, or expelled from exhaust ducts, increases the transpiration of moisture from leaves and bark. The problem is at its worst in winter, when a very limited amount of moisture is available to plants, with a resultant mortality due to drying out.

The best solution to this problem is one of careful location of plant material.

Plants should not be placed adjacent to exhaust vents or other constantly hot surfaces. This is often attempted in penthouse gardens, with the objective of screening an undesirable view, and with an even more undesirable result.

Extreme cold and wind can be counteracted by selecting plant species capable of surviving such temperatures, and by using structure, rather than the plant material itself, to reduce winds.

Climate is not limited to conditions above grade, as it directly affects root systems as well. In winter, internal building heat eventually escapes to planting areas outside, warming the soil and stimulating root growth. Given adequate soil moisture, a limited amount of root growth during periods of dormancy is quite desirable. However, excess root growth which is out of balance with the dormant plant body above grade is harmful and often fatal.

While there is a need for further studies on this matter, existing research shows 40–45 degrees F. to be the critical soil temperature for most plants.

As a general rule, within this range of soil temperatures, root growth becomes harmfully over-stimulated.

This problem of warm soil temperature can often be counteracted with the incorporation of an insulating layer below the topsoil, as shown in Figure 1. This layer can consist of vermiculite, fiberglas battens, or other weatherproof insulating materials. The required thickness of material is dependent upon the interior and exterior temperatures involved, as well as the co-efficient of heat transmission of the insulating material. The fiberglas battens are often the best choice, as they are a stable material and require much less depth, allowing for more topsoil. Small raised planters, exposed to cold air on four sides, as well as cold air flow beneath the base, do not require such insulation.

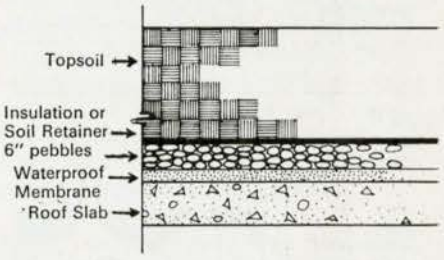


Figure 1

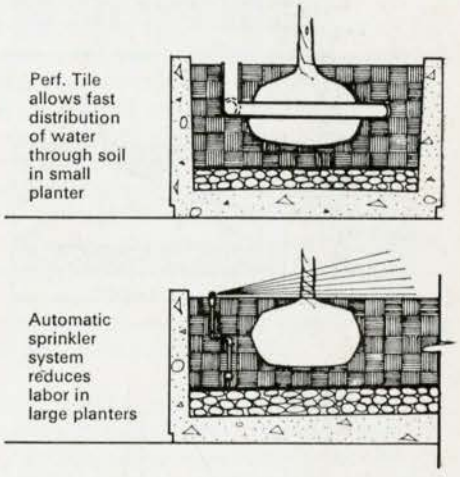


Figure 2

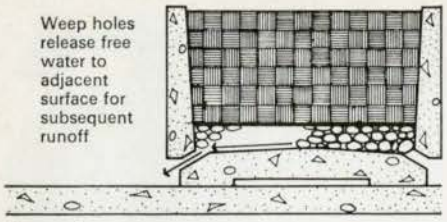


Figure 3

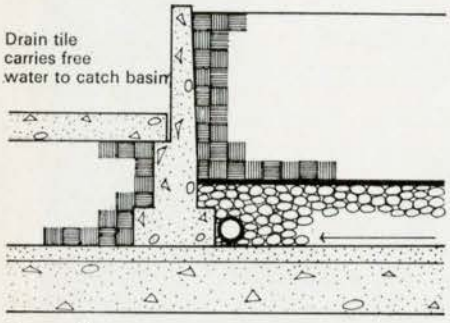


Figure 4

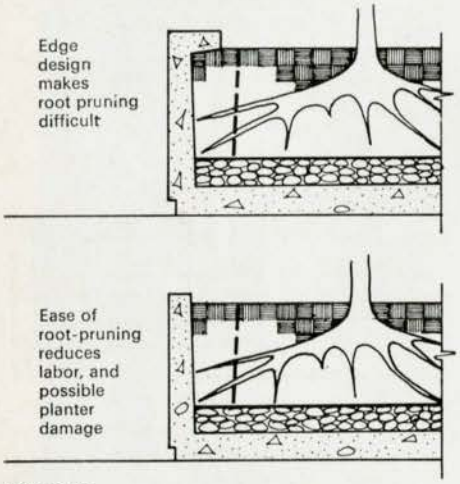


Figure 5

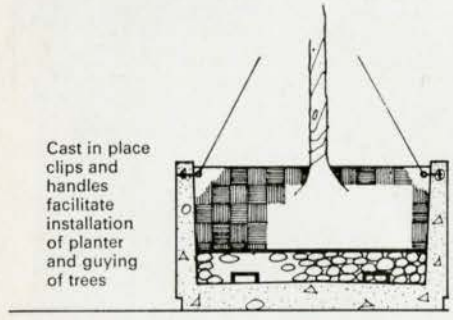


Figure 6

2 *Water* – Planting areas require a large amount of water to counteract the severely dry conditions existing on roofs and terraces. Similarly, plants must be protected from waterlogging, a common condition in planting areas of limited soil depth. Therefore, irrigation and drainage systems become interdependent, with a deficiency in one system causing a deficiency in the other. An easily accessible source of water and means of application, or an automated sprinkler system, is a fundamental requirement as shown in Figure 2. Natural precipitation is generally inadequate, and harmful if allowed to accumulate to the point of long-term soil saturation.

Drainage is facilitated by a layer of smooth pebbles in the bottom of all planting areas, as shown in Figure 1. If a waterproof membrane is required, it can be placed on the roof slab and then covered by a 3" layer of concrete, to prevent damage from stone pressure. A perforated membrane should be placed between the pebbles and topsoil, to prevent soil from filtering down to the stone layer, while allowing water to drain through. Fiberglas battens, if required for insulation, can serve a dual role in this regard. Subsequent movement of water becomes a question of design. Small planters can be designed with weep holes to release water to the exterior paving surfaces. However, in large planting areas, this method is unsatisfactory due to its general inadequacy to perform satisfactorily. In these situations, a completely separate subsurface drainage system which drains to underground utilities, is required. Figures 3 & 4 show two basic drainage systems.

3 *Soil Depths* A minimum topsoil depth of 4'0" is required for trees, 2' for shrubs and 18" for turf. Such depths are based upon their ability to provide adequate space for root systems, adequate retention of soil moisture and nutrients, and adequate support to the entire plant. If greater soil depths are possible, the additional soil will provide greater insulation and moisture retention capability. The limitations of soil depth, and lateral space as well, exert a definite control on the ultimate size of plant materials. A tree planted in a limited volume of soil will not assume the mature size of a tree growing naturally in a park. In fact, maintenance procedures for terrace or rooftop plantings are aimed at controlling such growth, to prevent self-strangulation from extensive root growth in a confined area.

Physical Considerations

1 *Load Factors* – all too often insufficient attention is given to the great weights of planted areas until the architectural design and structural detailing is frozen, resulting in inadequate support capability. Planting is subsequently reduced to a much smaller scale than originally intended, or eliminated entirely. There are three elements contributing to the total weight of planting areas: a) soil b) plants and c) structural elements such as retaining walls.

a Soil – a moist, loamy topsoil suitable for planting typically weighs approximately 90 lbs. per cubic foot. If totally saturated with water, this weight can increase to approximately 110 lbs. per cubic foot.

Lightweight soil mixtures, consisting of topsoil amended with peat moss, perlite, or other inert material, have been developed for use in warmer climates. Some of these mixtures have been successfully used in Canada, with a weight reduction of 25%. However, the lightweight soils are not without disadvantages, and require virtually full-time maintenance in order to maintain plant nutrients and water.

b Plant Materials – The weight of plant material is generally insignificant when compared to the weight of soil. However, trees are generally moved with a large heavy ball of soil containing their root systems. The following table lists typical weights for various size trees.

Caliper of Tree	*Approximate Size of String Ball*	*Total Weight*
1¾–2"	27"	450 lbs.
2–2½"	33"	850 lbs.
2½"–3"	36"	1050 lbs.
3–3½"	40"	1500 lbs.
3½"–4"	48"	2500 lbs.
4–5"	54"	3200 lbs.
5–6"	60"	4000 lbs.
6–8"	80"	8000 lbs.
8–10"	100"	16,000 lbs.

Most of the total weight is attributed to the ball of earth. While trees do grow and gain in weight, the additional weight is not as critical a design factor as the increase in size.

c Planting Structure – In order to provide adequate topsoil depth, raised planting areas formed by either retaining walls or precast planters are generally required. Small planters, set on grade and incorporating weep holes for drainage, require a base as well as side walls. Large planting areas, which incorporate a subsurface drainage system, utilize the roof slab as a base, but often require counterforts or tie rods for structural support. While lighter in weight, tie rods require locations which are in conflict with planting and maintenance, and corrode very quickly in moist soil.

Since retaining walls are typically constructed of reinforced concrete, a weight allowance of 150 lbs. per cubic foot is required. However, the use of lightweight aggregates and air entrainment can reduce unit weight to the vicinity of 90 lbs./cubic foot.

The following example may serve to illustrate the great weights involved in planting areas. Given a 10' x 10' x 5' planter of precast concrete, containing one 14'-16' high tree, there is an approximate weight breakdown as follows:
Reinforced concrete – assume 6" thick, conventional mix. 21,000 lbs.

Although occurring at grade, the Metropolitan Toronto Court House mall is situated directly above a lower basement area. Close co-ordination between the Architects and Landscape Architects allowed implementation of planting on a major scale. Architects, Marani, Rounthwaite & Dick; Landscape Architects, Michael Hough Associates Limited.

Topsoil – assume conventional soil 4' depth, intermediate saturation, and allow pit for tree ball 27,300 lbs.
Pebbles – assume 6" layer 5,200 lbs.
3½"–4" caliper tree, with 48" ball 2,500 lbs.

56,000 lbs.

Such a planter has a total weight of 28 tons, all occurring over an area 10' x 10'.

Weights such as this obviously require substantial support, the scale of which has a definite impact upon the use and quality of interior space beneath planting areas. The use of lightweight concrete and soil mixtures could reduce the above weight to approximately 41,000 lbs. or 20.5 tons.

2 *Accessibility* Accessibility is a critical consideration in designing planting areas for rooftops and terraces, and it applies to both initial installation and subsequent maintenance.

While soil is a unit material capable of being moved in small quantities, the expense of moving it in small amounts is extremely high. When designing a parking structure which will accommodate planting on the roof, for example, provision can be made to allow a single axle truck access for moving topsoil in a few trips, rather than forcing men to transport earth with wheelbarrows. On projects precluding direct vehicular access, the feasibility of using cranes requires careful consideration.

While small shrubs pose no problem different from soil, larger specimens such as trees have to be moved as a total unit. Direct vehicular or crane access is thus an absolute requirement, rather than an option. Unlike soils and planters, plant material often needs to be replaced. If a large tree is difficult to install when a properly equipped general contractor is on the site, the cost of replacement of that tree at a later date will be virtually prohibitive. Planting area structures can be constructed in place along with primary building structure. However, the installation of precast planter units poses the same problem as moving large shrubs and trees.

If planters are to be lifted into place, galvanized handles can be cast into the base to facilitate movement and reduce damage from slings, etc.

3 *Maintenance* The artificial conditions in which plants are required to live require equally artificial care, namely an extensive maintenance program. Maintenance personnel require direct access to planting areas to prune, water, and fertilize plant materials. Many maintenance activities such as root pruning, watering, and guying trees should be reflected in the design details of planting areas.
Figures 5 and 6 illustrate two of many such considerations.

Summary

The following points should serve to summarize the most important considerations.

1 Above all, the organic requirements of plants, and the physical ramifications of heavy planting areas, must be recognized in the early stages of planning.

2 As a general rule, plants must be protected in winter from warm air above grade, and warm soil below.

3 Due to a limited depth of soil, planting areas require balanced irrigation and drainage systems to prevent both drying out and water-logging.

4 Plants require wind protection. The building structure itself can provide such protection on the micro-climatic scale

5 Ease of installation and maintenance is as important as final design intent. □

Estimating

It is difficult to lay down any general rules concerning the economics of planting on rooftops and terraces. The location of planting boxes has to be studied for each project, bearing in mind the remarks made in the preceding article, and comparative costs applicable only to that project must then be calculated. In the same way although some general figures can be given for the automated sprinkler system shown in Figure 2, the cost of a complete system is governed by the number and size of the planting boxes which will determine the number of sprinklers required; the type of sprinkler heads; and the distance from the nearest water supply. Bubbler type sprinkler heads for flower beds can be purchased for about $1.50 each, and the low angle type, similar to Figure 2, cost about $4.00 each. To this must be added the cost of main supply and branch piping, fittings, and a control box and valves. A control box for an automated system costs from $50.00 to $150.00 depending on the number of outlets, and the control valves cost between $35.00 and $90.00 each. A control box and valves for a system incorporating five outlets would cost about $100.00 for the box plus $60.00 for each of the five valves or a total of $400.00. In addition electric wiring and connections have to be allowed for. As a rough guide $25-$30 per head may be allowed to cover a very economical low pressure automated sprinkler system for planting boxes.

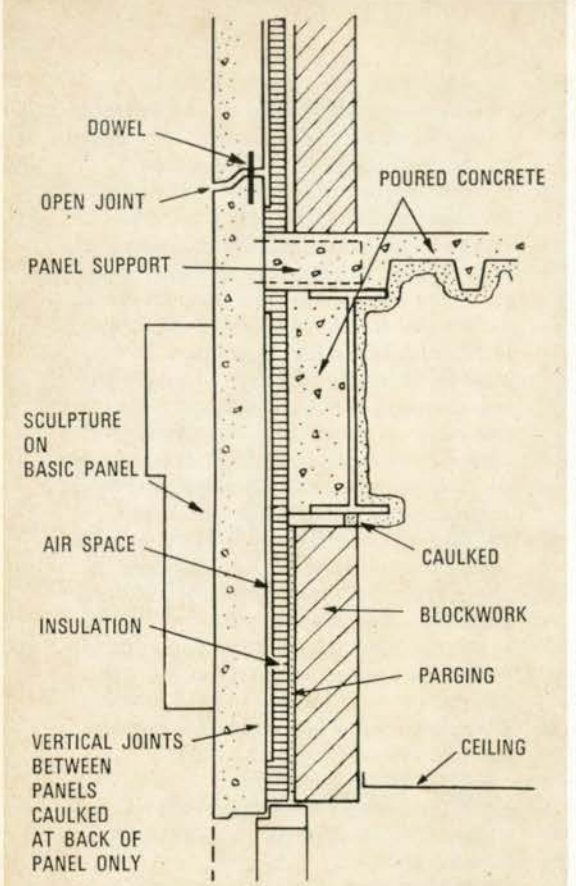
Recent prices on the drainage system also shown in Figure 2 range from $50 to $75 per planting box.
While recognizing that the weight of planting boxes has a considerable bearing on the design and cost of the supporting structure it must be remembered that lightweight materials are generally more expensive than regular weight materials. The concrete only in a 6" wall to a poured in place planting box costs approximately. 37 per square foot for normal 2500# concrete, and .50 per square foot for lightweight sand and haydite aggregate concrete. Similarly regular topsoil costs about $4.00 per cubic yard in place whereas lightweight topsoil costs $7.00 – 8.00 per cubic yard.

With regard to the costs of moving materials, carting 20 cubic yards of topsoil a distance of 200 feet using wheelbarrows will take 80 trips at a total cost of about $140. Moving the same quantity of material the same distance by truck will take 5 trips at a total cost of about $30.

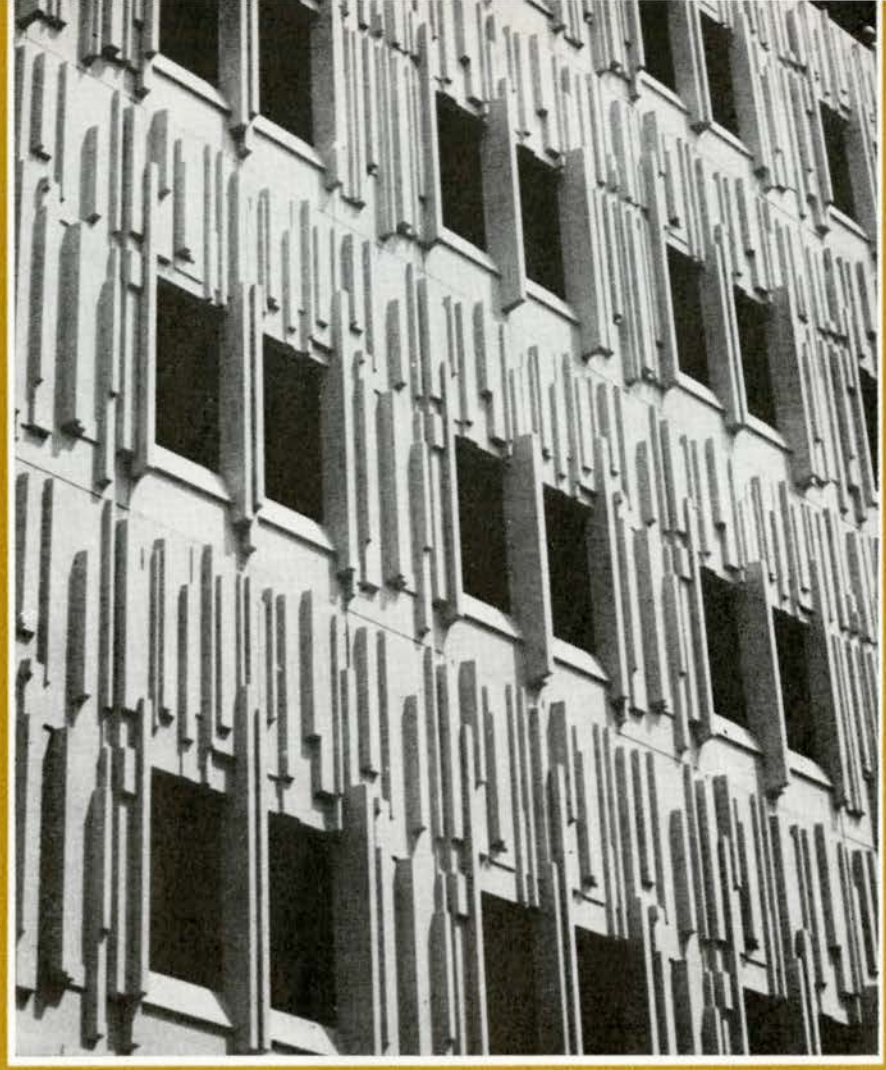
Unit prices which may be used for preliminary estimates on external works are as follows:

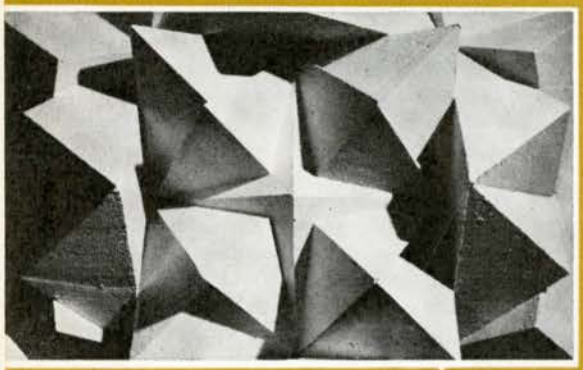
1 Asphalt paving – heavy duty .45 per SF
2 Asphalt paving – light duty .34 per SF
3 Concrete sidewalks .70 per SF
4 Gravel paving .10 per SF
5 Granite setts 2.25 per SF
6 Cobbles 1.75 per SF
7 Precast concrete paving 1.50 – 3.50 per SF
8 Brick paving 2.25 per SF
9 Concrete curbs 2.50 per LF
10 Topsoil and nursery sod .07 per SF
11 Topsoil and field sod .05 per SF
12 Seeding .03 per SF
13 Ground cover 1.75 per SF
14 Rough grading .02 per SF
15 Fine grading .01 per SF
16 Chain link fencing 4.50 per LF

Frank Helyar



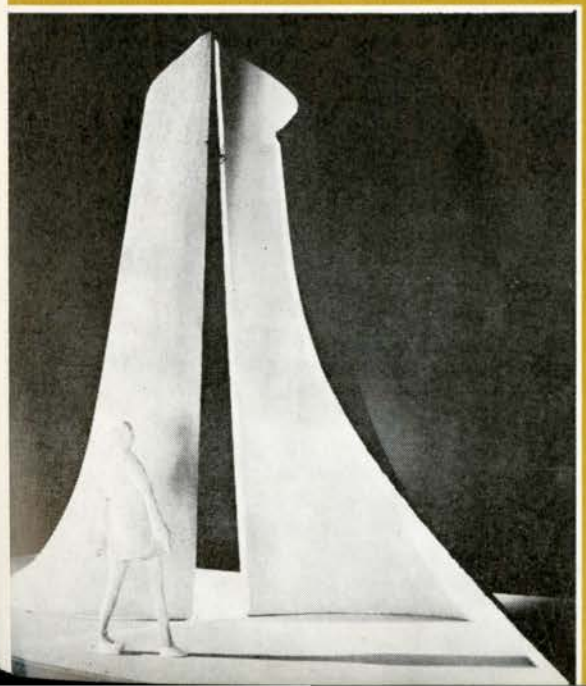
SEQUENCE OF ERECTION:
1. Steel frame & floor deck 2. Precast panels 3. Caulk inside vertical joints 4. Insulation (with cavity) 5. Concrete fireproofing & firestop at floors. 6. Parging 7. Block work 8. Window & Interior finishes.



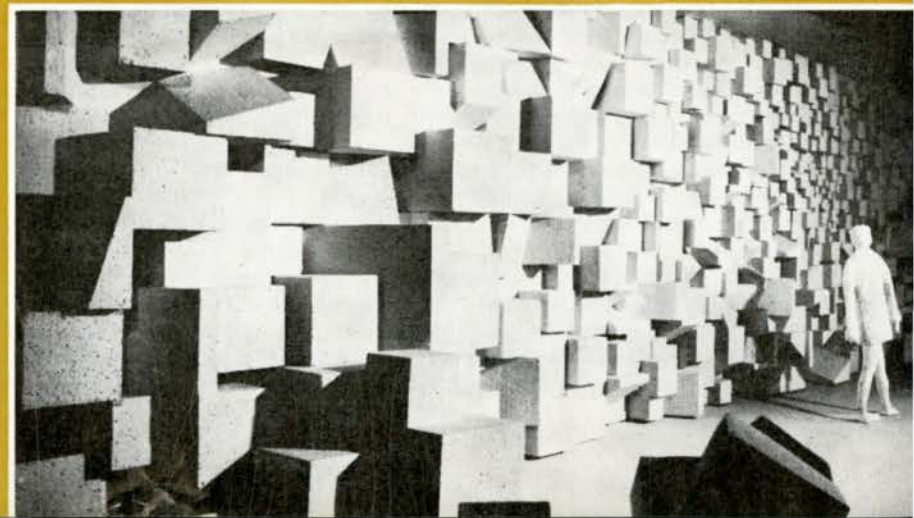


DESIGN FEATURES

- Design of the exterior walls consists of thousands of panels moulded in an abstract design of 14 variations. By juxtaposition of the panels the architects avoided repetitious themes and achieved a result which is not only decorative but forms an integral part of the construction.
- The moulded concrete embellishments fell within the financial limits of a very tight budget and at the same time, satisfied the artistic standards of the architects.
- Total wall design is based on principle advocated by the National Research Council Ottawa.
- The system overcomes the problem of cost in enriching the exterior walls of steel and concrete buildings.



Proposed precast sculpture enrichment for the building.



Architects: Govan, Kaminker, Langley, Keenleyside, Melick, Devonshire, Wilson.
In Association with: Somerville, McMurrick and Oxley
Sculptors: Robert Downing, Ted Bieler

The bas relief, with finely etched surface texture and co-ordinated colour of the precast panels harmonize with other buildings on the 100-year-old campus while contributing a characteristically modern effect of their own.

Abstract Precast shapes Medical Science Building

The abstract design of the precast walls at University of Toronto's new $36,000,000 Medical Sciences Complex is a welcome development in architectural technique. The innovations should open new areas for co-operation between architects, sculptors, and precasters to develop more originality and freedom in Canada's architecture.

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Naissance du Urban Designer

Michel Lincourt, B.A., M.Arch., U.D.

Michel Lincourt, est présentement professeur à l'Ecole d'Architecture de l'Université de Montréal et associé au professeur Harry Parnass dans une firme de conseil en design urbain.

An English translation of Professor Lincourt's article appears on page 56.

Depuis quatre ou cinq ans, un nouvel être se taille une place dans la profession. C'est le designer urbain, titre mal choisi et dont il n'est pas du tout responsable.

Les designers urbains ne forment encore dans le monde qu'un groupe très restreint qui peut se diviser en deux catégories. La partie la plus importante se compose d'architectes qui du jour au lendemain s'intitulèrent designers urbains parce qu'ils eurent à construire un bâtiment un peu plus gros que les autres. Que ceux-ci ne se méprennent pas: ils ne font que de l'hyperarchitecture. L'autre partie, qui est encore infinitésimale (une douzaine au Canada, tout au plus) est formée de jeunes architectes qui possèdent la formation officielle de designer urbain *. Ceux-là jurent qu'ils ne font pas du gigantisme architectural.

"Que faites-vous alors?"
La question leur est souvent posée et leur réponse se formule en une phraséologie plutôt confuse. Il ne faut pas s'en étonner car c'est là le comportement normal de tout embryon.

Revoyons un peu la genèse de ce néo-architecte. L'Université Harvard prétend avec fierté que tout a débuté entre ses murs. Acceptons sa prétention qui, en fin de compte, n'a pas tellement d'importance. Ce qui compte vraiment, c'est l'esprit qui préside à une création et non le lieu. Et cet esprit, Harvard ne peut le nier, débordait largement Cambridge et depuis bien avant 1960.

Contemplant avec sinon effroi du moins inquiétude le fossé énorme qui sépare les planificateurs des architectes, ils † décidèrent de construire un pont.

Ce fut la lutte contre le silence car là se trouvait, selon eux, tout le problème. Les planificateurs et les architectes ne font-ils pas le même métier, et pourtant ils ne se parlent jamais? Bien plus, même s'ils le désiraient, ils en seraient totalement incapables. Planificateurs et architectes cohabitaient pacifiquement dans le silence caractéristique de toute situation "bilinguiste".

Comme les américains ne semblent guère doués pour une seconde langue, ils décidèrent de créer un traducteur ‡: le designer urbain. Dans leur idée, celui-ci ne serait que l'homme du milieu, l'estafette qui reçoit le message du planificateur, le traduit et le remet fidèlement à l'architecte.

Dans un colloque à Cranbrook Academy en 1962, Jacqueline Tyrwhitt, professeur à Harvard, décrit le cours de design urbain en ces termes:

"This is, at present, a one year course designed simply to give further training to qualified men to help them *fill the gap* between the planning program prepared by the city planner and the building plans prepared by the architects. . . .

In principle, it adopts a planning program that has already been developed and works on its interpretation in terms of three dimensions design."

On peut difficilement être plus explicite. En 1967, le cours n'a pas changé d'un iota.

On semble aussi, à cette époque, s'entendre sur le fait que le design urbain ne constituera pas une nouvelle branche de la profession, distincte de l'architecture, de l'architecture-paysagiste et de la planification. Mort Hoppenfeld résume bien les idées quand il s'écrie lors d'un colloque à l'université Washington de St-Louis:

"I do not think we are aiming at establishing a new and separate profession."

Dans les trois ou quarte années qui suivirent ces importantes décisions de principes, on passa à l'action. Plusieurs universités américaines décernèrent des diplômes de designer urbain à quelques élus. Harvard initia même une nouvelle tradition (nul n'ignore qu'Harvard est passé maître en ce domaine): l'annuel Urban Design Conference.

Tout alla très bien.

Du moins, le crurent-ils?

Car une observation plus critique du nouvel être révélait qu'il s'acquittait plutôt mal de sa tâche de messager-traducteur. Le planificateur et l'architecte ne conversaient pas plus qu'avant. Et, comme pour compliquer encore d'avantage la situation, le designer urbain se mêlait même de concevoir quelque chose qu'il prétendait n'être ni de la planification ni de l'architecture. Cette originalité, pour le moins insolente, provoqua diverses réactions chez "l'establishment" enseignant. Une nouvelle lutte que l'Histoire rapprochera sans doute à celle opposant les modernes et les anciens du début du siècle venait de s'amorcer.

Le designer urbain est né. Il existe et agit. Mais sa production est complètement différente de ce qu'on attendait de lui, bien qu'il poursuive le même but que ses créateurs. Cet objectif est, bien entendu, un meilleur aménagement de l'environnement humain.

Quelle est la cause de ce phénomène?
Il provient surtout d'une erreur de conception à la base même du problème.

Les gens d'alors étaient convaincus que le processus de planification et d'architecture était unique. Ils croyaient que le tout se déroulait à sens unique le long d'une ligne, peut-être sinueuse mais quand même simple et directement orientée vers le produit final, c'est à dire le domaine bâti.

Logiques avec eux-mêmes, ils estimaient que le planificateur et l'architecte étaient tous deux créateurs du produit final, le premier étant responsable de la phase initiale et le second devant compléter.

Ce fut là l'erreur.

Il y a, en effet, une différence d'essence entre ce qu'élabore le planificateur et ce que conçoit l'architecte. L'oeuvre de l'un est

* entre nous, ce diplôme a la valeur de celui qui le détient, rien de plus.

† par "ils", il faut comprendre l'intelligenzia architecturale aux U.S.A., à la fin des années 50.

‡ ils auraient dû à ce moment nous consulter car rien ne vaut un canadien pour résoudre un problème de bilinguisme.

d'abord et avant tout un processus tandis que l'autre est surtout un produit. Et chacun d'eux offre une contribution originale.

S'il est vrai que l'oeuvre du planificateur influence directement l'architecte, il n'est pas moins véridique d'affirmer que l'oeuvre bâtie, par rétroaction, est en partie responsable des décisions du planificateur. L'action n'est ni linéaire ni à sens unique ; elle est mutuelle, circulaire et simultanée.

Le jeune designer urbain ressentit cette ambivalence sans pouvoir l'exprimer clairement. Son premier reflexe fut de se retirer un peu de cette intenable position du milieu. Il lui fallait voir en même temps, et le planificateur, et l'architecte. C'est par ce geste instinctif qu'il découvrit sa véritable position : il était la troisème pointe d'un triangle, au même titre que les deux premiers.

C'est seulement dans cette optique que les concepts commencèrent à se préciser. D'un côté, le planificateur disait qu'il fallait là une maison, là une école, là une usine. . . . De l'autre côté, l'architecte érigeait la maison, l'ecole, l'usine. . . . Personne ne se préoccupait de ce qui se passait entre la maison, l'ecole et l'usine. . . . Le jeune designer urbain comprit que c'était là son rôle : étudier les interrelations reliant les composantes de l'environnement.

Le design urbain s'est donc défini comme la science qui étudie les organisations de l'environnement. Cette discipline n'est pas plus de l'architecture ou de la planification que l'architecture est de la planification, ou réciproquement.

On peut argumenter longtemps contre ça. On peut dire que tout architecte ou tout planificateur digne de ce nom fait du design urbain. Bien sûr. Mais quand il le fait, il fait oeuvre de designer urbain et pour laquelle il n'a aucune formation.

Le designer urbain est dans la profession pour y demeurer. Le processus global de l'aménagement de notre territoire ne tournera rondement que lorsque les deux vieilles disciplines accepteront, à caractère égal, ce nouveau mais combien indispensable participant. □

The Birth of the Urban Designer
by Michel Lincourt

A new being has been carving a niche for himself in the profession during the past four or five years. He is the urban designer, a badly chosen title for which he is not at all responsible. These days, there are still very few urban designers ; they can be divided into two categories, the biggest one composed of architects who call themselves urban designers overnight because they have built a bigger building than others have. They shouldn't kid themselves : they're only doing hyper-architecture. The other group, still infinitesimal (at most a dozen in Canada) is made up of young architects officially trained as urban designers *. They swear that they're not producing architectural giantism.

They are often asked "So, what do you do ?" and their answer is often couched in confusing terms, which is not surprising . . . that's the way an embryo usually behaves.

Let's take a look at the origins of this neo-architect. Harvard proudly says that he was born there. We'll buy that simply because it isn't all that important. What is important is the spirit behind his creation, not the place. And Harvard can't deny that this spirit existed outside Cambridge and at that, long before 1960. When they † thought about the frightening gap separating planners from architects, they decided to bridge that gap, whereupon the battle against silence was joined and that was, according to them, the whole problem. Since planners and architects do the same job, why don't they ever talk to each other ? And what is more important, even if they wanted to talk to each other, they would be totally incapable of so doing. Planners and architects lived peacefully side by side in the silence typical of a "bilingual" situation. Since Americans don't appear to be particularly gifted when it comes to a second language, they decided to create an interpreter ‡ : that is, the urban designer, who they thought would only be a middle-man, a messenger boy taking messages from the planner, translating them and faithfully handing them to the architect.

At Cranbrook Academy in 1962, Jacqueline Tyrwhitt, Harvard Professor, said that the urban design course was "a one year course designed to simply give further training to qualified men to help them *fill the gap* between the planning program prepared by the city planner and the building plans prepared by the architects. . . . In principle, it adopts a planning program that has already been developed and works on its interpretation in terms of three dimension design". It would be hard to be much more explicit and the course hasn't changed since then. At this point, it seemed to be understood that urban design would not become a new branch of the profession. Since then, several degrees in urban design have been given in that States and everyone thought that things were going very well indeed. On closer inspection, however, the messenger-boy was seen not to be doing his job very well. Architects and planners still weren't talking to each other and to complicate the situation even more, the urban designer was daring to create something that he said was neither planning nor architecture ; this original initiative, insolent to say the least, provoked varying reactions from the teaching "establishment". A new battle had been joined ; one which history will no doubt compare to the struggle between the old guard and the new at the beginning of the century.

The urban designer was born. He exists and he acts. His output is completely different from what was expected of him even though his aim is the same as his creators : better planning of the human environment.

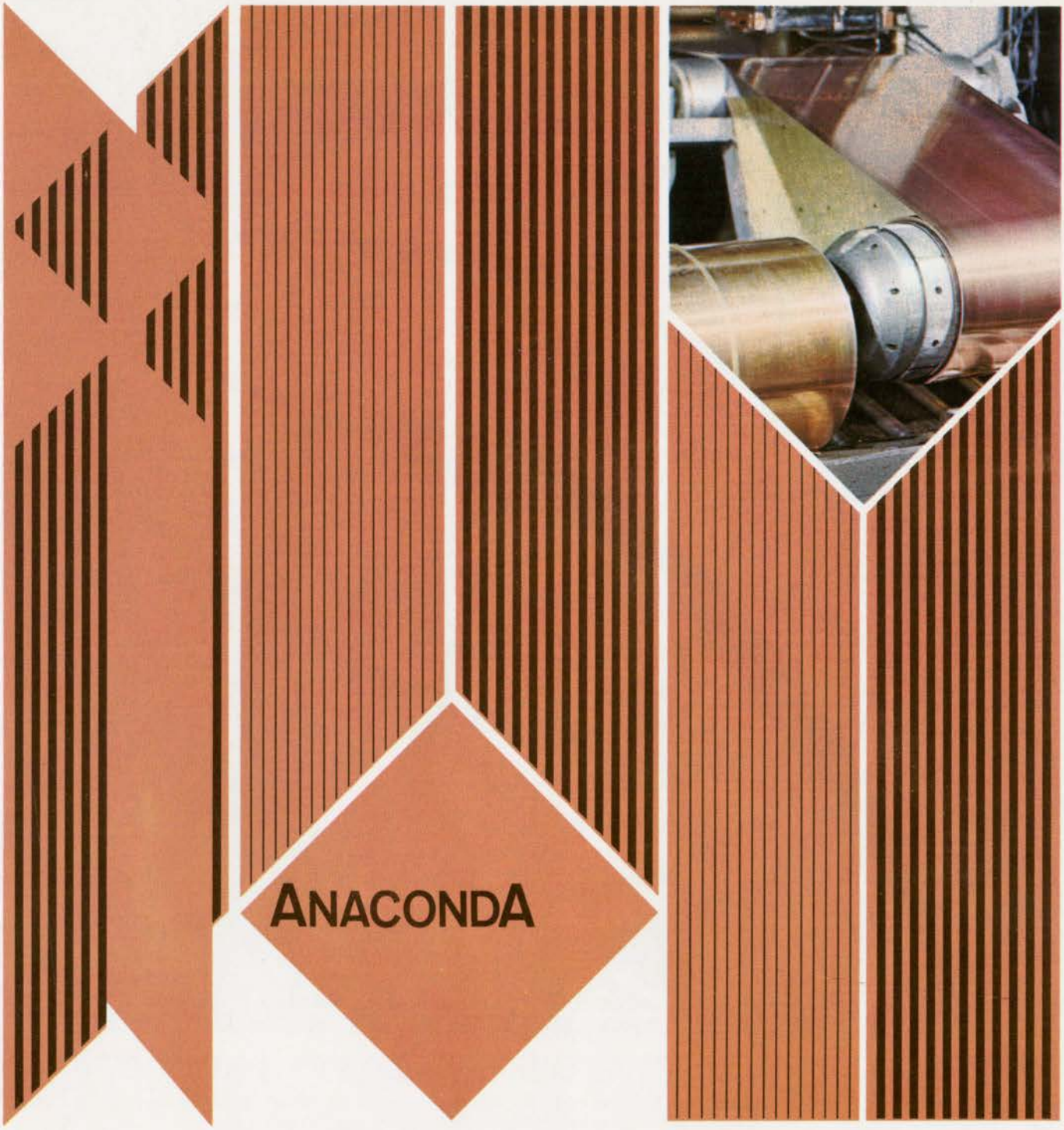
What caused this phenomenon ? It arises from a conceptual error basic to the problem. In those days, people were convinced that the planning process and architecture were a one-way street leading to a final product, that is, building, with the planner and the architect creating the final product. Not so. There is in fact an essential difference between what the planner elaborates and what the architect conceives, that is, process versus product, with each offering an original contribution. If it is true that the planners' work directly influences the architect, it is also true that the constructed work retroactively is partly responsible for the planners' decisions. It is not a one-way street but a mutual and simultaneous action.

The young urban designer felt this ambivalence without being able to explain it clearly. His first reaction was to retreat from his impossible middle position. His instinctive reaction – to see both the planning and the architectural sides – made him find his true place : he was the third angle of a triangle, equal to the two other angles. It was only from this point on that the real picture began to emerge ; the young urban designer understood that his role was to study the inter-relationships among elements of the environment.

Urban design has distinguished itself as the science which studies the organizations of the environment. It is no more architecture or planning than architecture is planning or vice-versa. You could argue about that. You could say that any architect or planner worthy of the name does urban design. Granted. But when he does, he is doing the work of an urban designer, something for which he has no training whatsoever.

The urban designer is in the profession to stay. The whole business of planning our country won't work smoothly until the two older professions accept this new but indispensable member on an equal footing. □

* between you and me, this degree is only as good as its owner, no more, no less.
† for "they" read the architectural intelligentsia of the late fifties in the U.S.
‡ at this point, they should have consulted us because there is nothing like a Canadian for solving bilingual problems.



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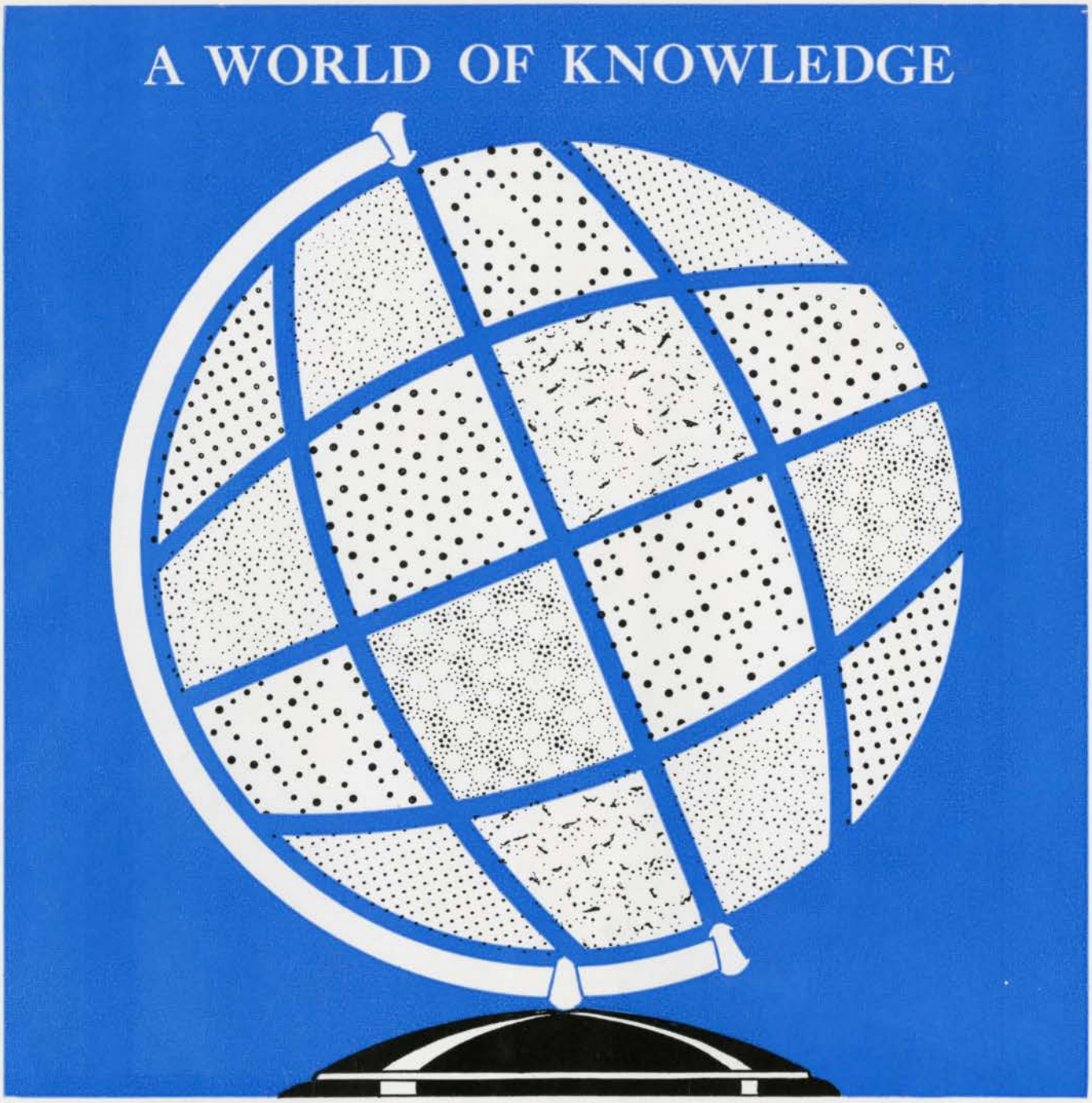

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Letters
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8

SfB Classification System

The Editors:

I was extremely interested to read the article in your June issue on "Computerized Product Selection by Performance". I wonder, however, if I may make one small correction in the note about the SfB classification system on the last page of the article. You describe SfB as a European system, but I should point out that it has been recommended for international use by the CIB (International Council for Building Research Studies and Documentation), which is holding its 4th Congress in 1968 in Ottawa and Washington. The RIBA is responsible for the administration and development of SfB as far as the UK is concerned and we are naturally anxious to keep in touch with similar developments elsewhere. There has been a good deal of interest in the system recently from both Canada and the USA; and it is already in use or being considered for use in many other countries including Austria, Australia, Colombia, Denmark, Eire, Ethiopia, Finland, Hungary, India, Israel, Japan, Netherlands, Norway, Spain, Sweden, Turkey and Yugoslavia.

A. Ray-Jones, (A), Assistant Secretary, Technical Section, RIBA

Tenth IUA Congress, 1969

The Editors:

By means of this letter I would like to draw the attention of the membership to the Xth Congress of the IUA which will be held in Buenos Aires from October 9th to 14th, 1969.

I am aware of the fact that at the time of writing it appears that this is a long way off. However, if there is enough response from the membership it might be possible to arrange a tour for the Canadian delegation, sightseeing on the way down, perhaps in Peru and Chile, and on the way back in Brazil, Rio-Brasilia and Sao Paulo, and other interesting cities in Central or South America. I attended three previous congresses in Paris, Mexico and London and can commend them to the membership as well worth while.

C. S. Jarrett, MRAIC
Toronto

Translators Needed

The Editors:

This is a request for your help in finding retired scientists who may be willing and able to make translations of foreign scientific papers into English.

The increasing importance of scientific information being published in foreign languages has become recognized by most Canadian scientists. This has led to a growing demand for translations, particularly from Russian, German, Italian, Scandinavian and Japanese. The Canadian government agency making such translations is the Foreign Languages Division of the Translation Bureau, Secretary of State Department, Ottawa, and while it only works for government scientists, its translations can be purchased by anyone interested, through the National Science Library, National Research Council, Sussex Drive, Ottawa, at the cost-price of reproduction.

The Foreign Languages Division, as a result of the rapidly growing demand and the scarcity of qualified translators, is hard-pressed to cope with its task without additional help from persons who are able to work for it on a free-lance basis at home in their spare time. Persons ideally suited for such work are often retired scientists who have both the specialized knowledge and the necessary free time.

By working as translators of foreign scientific texts, retired scientists serve both themselves and their younger colleagues – they can maintain their interest in current scientific endeavour by translating new scientific papers into English, and their younger colleagues benefit greatly from learning in detail, through their translations, what is being done elsewhere. The financial benefit will, of course, vary from person to person and from task to task, depending on the speed and aptitude of the translator; the rate of pay varies from $1.50/100 English words to $2.00/100 English words, depending on the difficulty of the material. Higher rates are sometimes paid for exceptionally complex work, i.e., work encompassing several disciplines.

If you would be so kind as to draw this very important matter to the attention of your readers or of anyone whom you consider as a good potential translator, and ask him or her to get in touch with Mr. G. A. Mendel, Chief, Foreign Languages Division, Translation Bureau, Secretary of State Department, Blackburn Bldg., 85 Sparks St., Ottawa, Ontario, this would be most helpful and greatly appreciated.

G. A. Mendel, Chief, Foreign Languages Division

It's the Principle of the Thing

The Editors:

Although I am not an architect, I always look forward to reading your publication because of its broad coverage of both architecture and the allied arts, plus the general high standard of editing.

Thus it was an unpleasant surprise to note a gross error in usage on page 32 of the September 1967 issue. In the caption's second paragraph, it states "with stone and reinforced concrete being the *principle* building elements".

As the difference between principal and principle had been thoroughly drilled into me before I entered high school, I was very surprised indeed that a publication edited by university graduates fell so far from grace! And so, on principle, I object!

Principally yours
Douglas S. Wilson

We in Architecture Canada take pride in our ability to spell a word in more than one way, but not in this particular case. The Editors

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Classified Annonces Classées 9

Practice Notes

The architectural firm of R. Stewart Smith, MRAIC, FRIBA, announces the opening of new offices at 6 Crescent Road, across from the Rosedale Subway Station in Toronto. The firm, however, will continue to work in Northern Ontario from its office in Timmins. In association with Mr. Smith, John Wimbs, chief research architect with the Ontario Department of Education, who has resigned from the department effective November 10, will practice as an Educational Facilities Consultant at the Toronto address.

John Leaning, M.Arch., ARIBA, MRAIC, has opened an office as architect and urban design consultant at 384 Bank Street, Ottawa; tel. 234-3398. He will also act in association with Murray and Murray, architects, of the same address. He has resigned from the position of Chief Architect to the National Capital Commission.

PIC Change of Address

The Plastering Information Centre has moved to 1959 Leslie Street in Don Mills, Ontario.

Positions Wanted

German Architect (32), leaving Germany in early '68 to live in Canada, wishes to contact top-Canadian architect or architects' team for a personal interview. Please write to Box Number 146 c/o *Architecture Canada*.

Woman architect, English, 41, Oxford School of Architecture, ARIBA 1948, 10 years experience Canada, Switzerland, England; 5 years housing, schools, apartments; 5 years hospital work, psychiatric, maternity, out-patient clinics, including use-requirement studies, interiors, equipment layouts. Returning to Canada, requires post as assistant architect. Mrs Rosa Bishop, 59 Bainton Road, Oxford, England.

Architect B.Sc. 1953, Cairo University, Egypt, arrived recently in Canada, seeks employment in an architectural firm in Toronto. Former experience includes design, working drawings, and urban planning, with different firms in Cairo as well as private practice in own firm. Please contact Aly El Tobgy, 47 Thorncliffe Park Drive, Toronto, Tel. 421-5807.

24-year-old architect with four years experience, Associate of Indian Institute of Architects, seeks position in Canadian architectural firm. Apply Madan Pribhdas Vazirani, 118 Sindhi Society, Chembur, Bombay-71, India.

30 year old, Chinese architect, female, eight years experience in Taiwan. Reply: Shen Audrey Shu-Chih, 69 Prince Arthur Avenue, Toronto.

Civil Engineer and Architect, 1964, University of Liège, Belgium, member of the Belgian Council of Architects, topograph officer during military service, now working in an office of architecture and urbanism, married, one child, contemplates obtaining employment in the architectural profession in Canada. Reply Pierre Chantraine, 19 rue Large, Chênée, Liège, Belgium.

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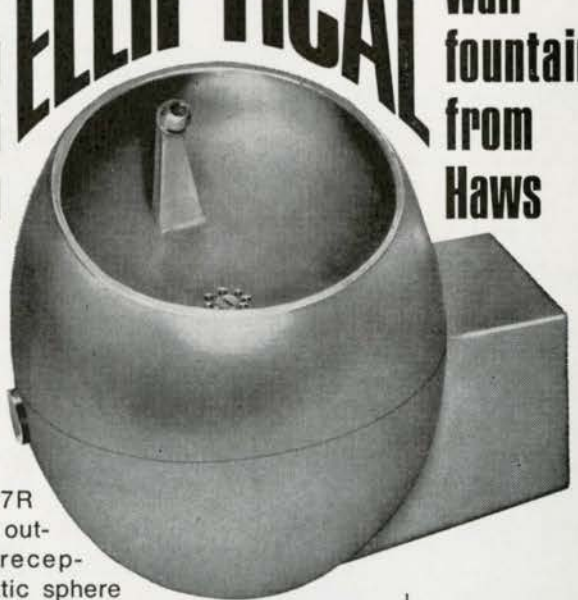

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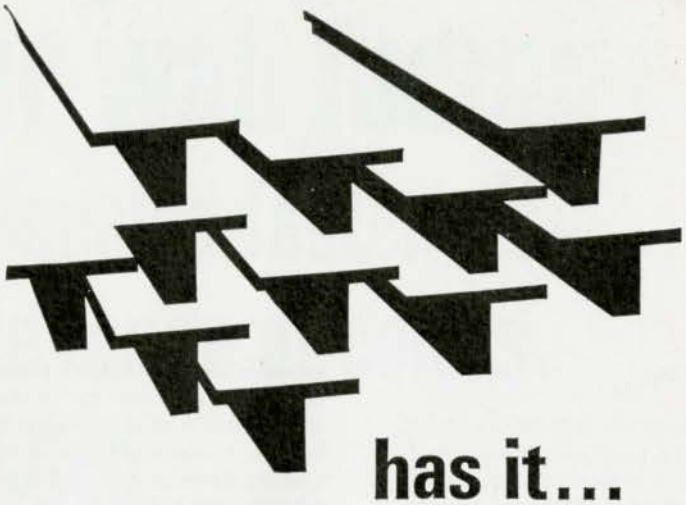

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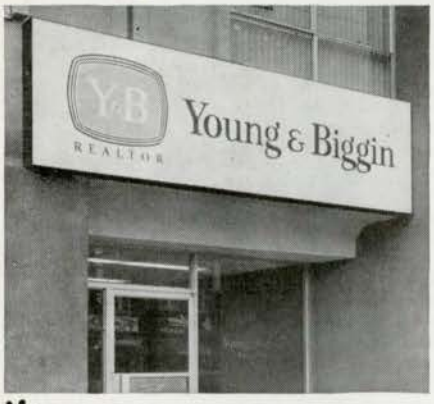

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