

Architecture Canada

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du Canada

The Journal is not responsible for opinions
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Publications Board
Head Office
160 Eglinton Avenue East,
Toronto 12, Ontario

Telephone (416) 487-5591



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William R. Rhone

AIBC Annual Meeting

William R. Rhone was elected president of the Architectural Institute of British Columbia at the annual general meeting in Vancouver on December 6th. He succeeds John M. Dayton (F). Other newly elected Council members were Fred T. Hollingsworth, Vice President, and Ian Davidson and Douglas Henderson. Two additional Council members, Frank Russell and Dick Archambault, were elected for one year terms to help with the increasing volume of work involved in AIBC affairs.

The new president received his M.Arch. degree from the University of California, Berkeley, and completed post graduate studies in town planning and civic design at the AA School in London, England. He is a partner in the Vancouver firm of Rhone and Iredale.

Amsterdam City Hall Competition

Wilhelm Holzbauer of Vienna won first prize in the International Competition for the design of the new Amsterdam City Hall. Second prize was won by Bernardo Winkler with Friedrich Hahmann and Hanna Hahmann of Starnberg, Germany, and third prize by J. H. Maissonneuve with Eva Karczewska and Jan Karczewski of Paris,

France and Andrzej Kozielowski of Warsaw, Poland. There were 804 entries, 30 of them from Canada. Fairfield and Dubois, Toronto, placed seventh in the competition.

Practice Section Inaugurated

Beginning with this first issue of the year we are changing the name of our Technical section to Practice, which better describes the special interests and problems related to practice towards which the section is being oriented. Frank Helyar, MCIQS, Technical Editor since January 1968 remains in that capacity and, as was announced in the September issue, is joined by A. W. Cluff, MRAIC, ARIBA.

Alastair Grant Coordinating Editor

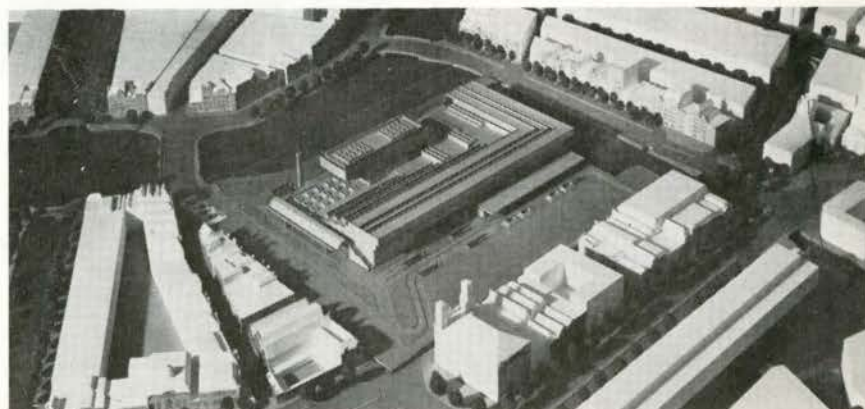
Alastair Grant, MRAIC, joins *Architecture Canada* as coordinating editor for the Schools section. Mr. Grant received his B.Arch degree from University of Toronto in 1958, winning a Jules F. Wegman fellowship for further study, which he used to attend a UN seminar on regional planning in Tokyo. He afterwards studied historical architecture in Japan and India. From 1959 to 1964 he was employed in the office of James A. Murray. He then joined the office in Toronto of R. J. Thom, a partner of the Vancouver firm of Thompson, Berwick, Pratt and Partners. He became a member of the Ontario Association and the RAIC in 1962. Among the projects on which he has worked is the master plan for Trent University, Peterborough.



Alastair Grant

Competition for RCAF Memorial, Trenton

A two-stage national competition for a Memorial for the Royal Canadian Air Force at Trenton, Ontario, has just been announced by Professional Adviser, Dr. Eric Arthur (F). The Memorial will consist of a Memorial Hall, a Hall of History, a non-sectarian chapel, two smaller chapels and a community activities area for people at the base and special events. Competitors will design a building to cost not more than \$2,200,000 (including landscaping) with a further sum not to exceed \$500,000 allotted for sculpture, paint-



The winning scheme in the Amsterdam City competition by Wilhelm Holzbauer.

ing, furnishings etc. The competition is two stage, a maximum of four finalists will be selected, each receiving \$6,500. The final prize will be an additional \$23,500.

The jury consists of Brigadier General D. R. Adamson representing the RCAF, Professor Charles Moore, head of the School of Art and Architecture at Yale and Charles Elliott Trudeau, MRAIC.

Registration (fee \$10 payable to Professional Adviser "in trust" and refundable to bona fide competitors) closes March 1, last date for despatch of entries, May 15, judging 1st stage, May 26, 2nd stage, August 25.

All correspondence should be addressed to Dr Eric Arthur, Professional Adviser, Room 29, 49 Wellington Street East, Toronto 1, Ontario.

UIA Xth World Congress

The dates of the UIA Xth World Congress of Architects in Buenos Aires in 1969 have been changed to October 19 to 25. The theme of the Congress will be "Architecture as a Social Fact". Social housing will be studied from the point of view of residential groups, multi-family and one family housing. Each will be analysed from the point of view of form, material, use and financing. Write RAIC Headquarters for further information and, if interested in going as part of a low air fare group from Canada, write Claude Jarrett, Page and Steele, 2 St. Clair Ave. W. Toronto 5.

Coming Events

OAA Convention, Royal York Hotel, Toronto, February 20-22.

DBR Air Conditioning and Building Design Seminar, Ottawa - March 24-25, 27-28, Calgary - April 9-10.

5th North American Conference on Campus Planning and College Building Design, University of Illinois, April 20-24, 1969.

Specification Writers Association of Canada's 1969 Convention, Inn on the Park, Toronto, April 23-26.

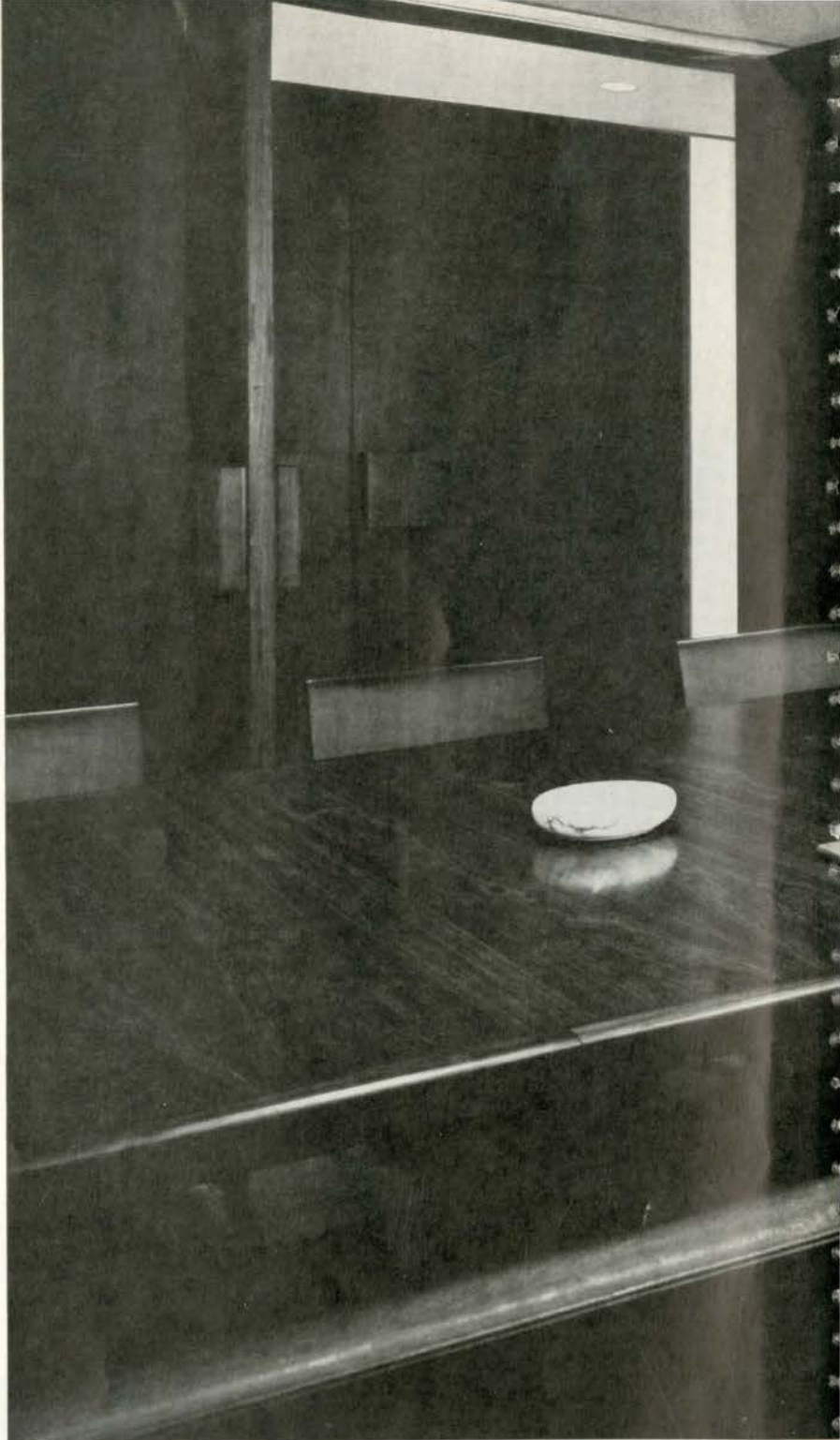
Canadian Institute of Quantity Surveyors, Westbury Hotel, Toronto, May 16-18.

Conference on Single Family Houses, Copenhagen, May 18-22.

MIT Computer Program, June 17-27.

1969 Athens Ekistics Month, July 7-August 1.

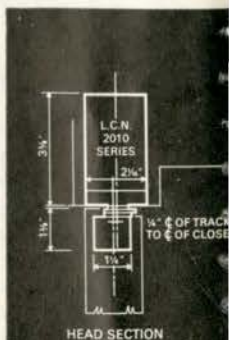
UIA Xth World Congress of Architects, Buenos Aires, October 19-25.




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This is the impressive boardroom of the Toronto-based mining corporation, Rio Algom Mines Limited, located on the top floor of the new twenty-six story Richmond-Adelaide Centre. Architects: Webb, Zerafa, Menkes of Toronto. For trouble-free door control, standard LCN closers were specified for the entire building.

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LCN door closers

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New RAIC By-Laws Now in Effect

The new By-Laws of the RAIC came into effect on January 1st. Designed to restructure the Institute more closely in accord with the Constitution and define its position as a confederation of the nine provincial component associations, the new By-Laws will enable the RAIC to play a strong role in matters of national importance without duplicating or conflicting with provincial activities or affairs. There is, in fact, already considerable evidence of the stronger role at the national level, particularly in relationships with Federal departments and agencies. Under the new By-Laws, the Electoral Board goes out of existence and Council will consist, after the Convention in Chicago in June, of 13 members: (a) An executive composed of the Immediate Past President; President, Vice President, Honorary Secretary and Honorary Treasurer; and (b) One representative from each of the component associations, appointed by those associations; and (c) One alternative representative from each of the component associations, similarly appointed, who will only attend meetings and vote in the absence of the regular representative. The out-going Council, at its last meeting of the year, will elect the new executive. Nominating and voting procedures are laid down in the new By-Laws, which are now being printed for distribution to the membership.

Student-Institute-Inter School Communications

One immediate result of the Stanley House Conference on architectural education and communication (*Architecture Canada, December 1968*) was a program to utilize the School's section of *Architecture Canada* as a direct communications link and a forum for discussion between the undergraduates, the Institute and the practitioners, and of course, between the student bodies in the schools. To date, six of the nine undergraduate schools have appointed student contributing editors, and four of these have sent in a list of topics they would like discussed in *Architecture Canada*. Alastair Grant, MRAIC, who has agreed to act as coordinating editor for the Schools section, introduces the topics for discussion on page 59.

Chicago Assembly is 22-26 June

Our apologies for the confusion in the last issue about dates for the RAIC - AIA Joint Convention in Chicago in the summer. The correct dates are Sunday, June 22 to Thursday, June 26. There will also be post-convention activities in Chicago which should make worthwhile a few extra days in the city. It is hoped the full program will be available for the next issue.

Les nouveaux Statuts de l'IRAC actuellement en vigueur

Les nouveaux statuts de l'IRAC ont entré en vigueur le premier janvier. Conçus afin de rapprocher la structure de l'Institut à la Constitution et de définir sa situation en tant qu'association des neuf associations provinciales constitutives, les nouveaux Statuts permettront à l'IRAC de jouer un plus grand rôle dans les matières d'importance nationale sans reproduire ou sans être en désaccord avec les activités ou affaires provinciales. En effet, il existe déjà de l'évidence considérable du plus grand rôle au niveau national, notamment dans nos rapports avec les ministères et agences gouvernementales. En vertu des nouveaux Statuts, la Commission électorale n'existera plus et le Conseil consistera de 13 membres après l'Assemblée de Chicago: (a) un exécutif constitué du Président sortant de charge; du Président, Vice-Président, Secrétaire-honoraire et du Trésorier-honoraire; et (b) un représentant de chaque association-membre nommé par ces associations; et (c) un suppléant de chaque association-membre, nommé également, qui assistera aux réunions seulement dans l'absence du représentant titulaire. Le Conseil sortant va élire le nouvel exécutif pendant sa dernière réunion de l'année. Les procédures de nomination et de vote sont constatés dans les nouveaux Statuts qui sont actuellement à l'imprimerie pour la distribution éventuelle aux membres.

Communications entre les Etudiants, l'Institut et les Ecoles

Un résultat immédiat de la Conférence à Stanley House sur l'éducation et les communications en architecture (*Architecture Canada, décembre, 1968*) fut l'emploi de la Section des Ecoles dans *Architecture Canada* comme moyen direct de communication et un forum entre les étudiants, l'Institut et les architectes praticiens, et, bien sûr, entre les étudiants des différentes écoles. Jusqu'à ce jour, six des neuf écoles ont nommé des rédacteurs dont quatre ont envoyé des listes des sujets qu'ils voudraient discuter dans *Architecture Canada*. Alastair Grant MIRAC, qui veut bien agir comme rédacteur coordonnateur de la Section des Ecoles, présente les sujets de discussion à la page 59.

L'Assemblée de Chicago aura lieu le 22 au 26 juin, 1969

Dans le dernier numéro d'*Architecture Canada* on s'est trompé de date à propos de l'Assemblée conjointe IRAC - AIA à Chicago et on s'en excuse. Les dates correctes sont du dimanche, le 22 juin au jeudi le 26. D'autres activités après l'Assemblée de Chicago mériteraient un séjour de quelques jours de plus dans cette ville. Notre prochain numéro publiera probablement le programme complet.





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Essex Municipal Building, set among trees on the main street.



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Mayor Edmund A. Michael has only one word for comfort in the new building—"delightful".




Heat pump brings economical day-round, year-round, comfort to Essex Municipal Building

Architect William J. Hilliker of Windsor has designed two electrically-heated municipal buildings in Essex County; one at Amherstburg, the other at Essex. In each, he found the heat pump the most economical and effective way of meeting the special comfort control requirements of the building.

At Essex Municipal Building, dedicated in October 1967, the climate control system has to serve the Police Department, open round-the-clock; the general offices, which keep standard office hours; and the Council Chamber and committee rooms, which only need to be fully heated when meetings take place.

Primary conditioning air from the

elect



Council Chamber. Ventilated, warmed and cooled by the heat pump. Supplementary heating by wall-mounted units under individual thermostatic control.



Police offices can be warmed at night without affecting other rooms.

General office. Precise temperature control creates the best possible environment for work.



heat pump, distributed through ceiling diffusers, ventilates, warms and cools every part of the building.

Secondary conditioning is by baseboard convectors, except in the Council Chamber and lobby, where wall-mounted electric heaters are used. All secondary units are individually controlled by thermostat.

The result is a highly flexible comfort control system which allows each part of the building to call for extra warmth as needed, without affecting any other part. Incidental benefits are a clean, uncluttered appearance to the building, both inside and out; some useful extra floor space; low maintenance demands; and long expectation

of life for the equipment used.

The heat pump has proven to be an ideal solution to the complex year-round conditioning requirements presented by many modern buildings. Apart from its ability to provide heating and cooling from one compact unit, it has operational advantages over other systems and even, as at Essex, can be lower in capital cost. Heat pump installations are featured, among others, in Ontario Hydro's Electric Heating Reports, available on request from Commercial and Industrial Sales, 620 University Avenue, Toronto 2.

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New Working Tool for Architects

Volume II of the Allied Arts Catalogue extends to 89 the number of artists included in the RAIC's continuing record of Canadians working in arts allied to architecture. 182 photographs, 14 in color, illustrate the work of sculptors, painters, ceramists, weavers, potters, artists working in metal and stained glass, and "idea" men.

This volume is a must for every architectural office – with its "op art" cloth bound cover, fine offset printing and large color illustrations it also makes a handsome gift.

Available from the RAIC Publications Board, 160 Eglinton Ave. E., Toronto 12, at \$6.00 plus 50¢ postage per copy. Volume I, is still available at \$3.00 plus 50¢ postage for soft bound, \$6.00 plus 50¢ postage for hard bound.

As we go to press, Toronto is raging with a press blow-up on the art with architecture for Queens Park complex.

After four years as allied arts editor publishing facts and admonitions relevant to this subject it is rewarding to find someone on the daily press coming out from behind the esoteric gallery wall to show some interest in what is happening in art for public buildings. Hopefully this will bring to attention the implications of public art bought with taxpayers' monies. Just why fine art in the galleries has been savagely and continuously criticized when within the hallowed halls of architecture it has been afforded sanctuary is hard to fathom. A little erudition and some constructive criticism will not only assist vigilance of standards but will stimulate general interest in what is and might be done in this area. Which brings me to the same old theme song, if we are to make this thing called "architectural art" work. In the criticism which I suggest will follow the completion of most projects which have been spawned as early as 1965, all manner of palliatives—hastily conceived by outraged "connoisseurs"—will be suggested. After four years in the field let me now reaffirm with even greater purpose that *no committee-no client-no gallery director* can alone cure a situation where artists and architects are alienated from common purpose. The only hope for distinguished architectural work of the future is for genuine cognizance of the problems involved and for true rapport between artists and architects trying to place the best of the creative work of this country where the man in the street can see it as part of his every day environment.

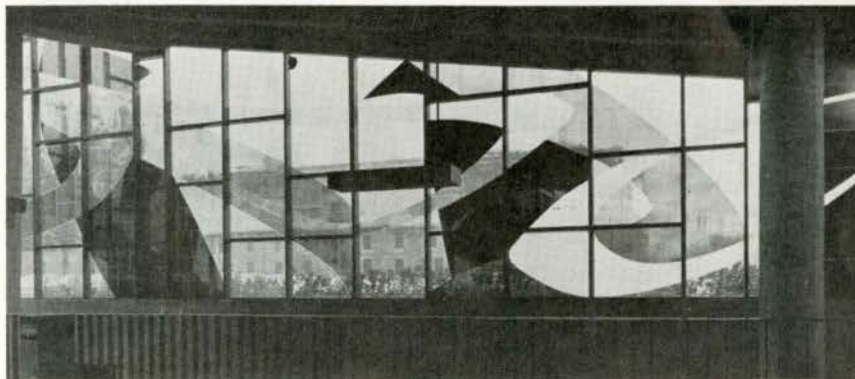
The problem remains as ever in two parts . . . Either the architect has perception and sensitivity to enshrine products produced in isolation in special settings or artist and architect collaborate together to introduce new forms for more exciting environments. It behoves all of us . . . artists, architects and critics to understand, in contemporary parlance, "where we are at" at this dangerous crossroads in art and to make new year resolutions to "Get with it" for 1969 . . .

Another resolution to clean up my files has given you this small survey of unpublished work offered without comment.
Anita Aarons



1
Tony Tascona puts finishing touches to mural now in Winnipeg Concert Hall. Architects, Associated Architects

Tony Tascona fait une dernière retouche au mur de la Salle de Concert à Winnipeg. Architectes, Associated Architects



2
Marcelle Ferron's glass wall at Champs de Mars Metro Station, Montreal, Designer, A. Niklewicz

Marcelle Ferron, mur de verre à la station de Métro, Champs de Mars, Montréal, A. Niklewicz, Concepteur

Varry — Super Seal Corporation

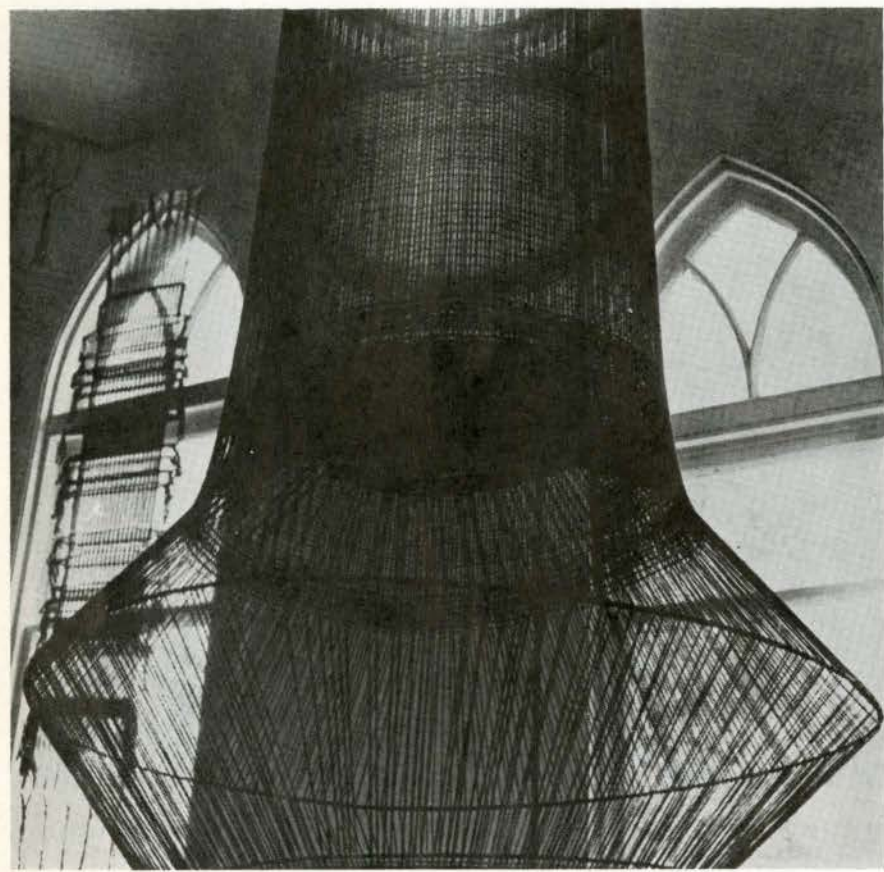
3
Charlotte Lindgren's hanging, "Light Nets",
(wool with steel), Great Hall of Queen's
College, St-Johns, Nfld. Architects, Keith L.
Graham & Associates
Charlotte Lindgren, tenture, "Light Nets",
(laine et acier), Great Hall de Queen's Col-
lege, St-Jean, Terre-neuve, Architectes, Keith
L. Graham & Associates

4
Gino Lorcini's silver and gold anodized
aluminum mural, Montreal Forum Building,
Project Managers, Stone & Webster Ltd.
Gino Lorcini, mur d'aluminium anodisé ar-
gent et or, Forum de Montréal, Administra-
teurs de project, Stone & Webster Ltd.

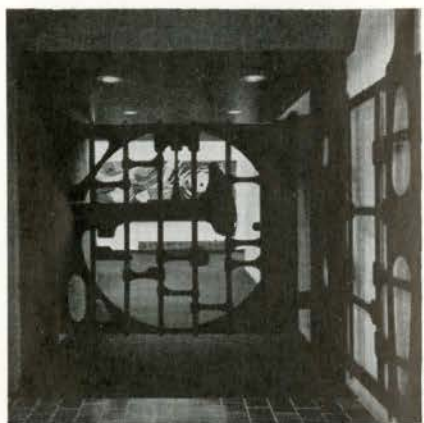
5
Ron Baird's steel movable mural-gates,
Oakville Centennial Building, Architects,
Dunlop, Wardell, Matsui, Aitken
Ron Baird, portes murales amovibles en
acier, Oakville Centennial Building. Archi-
tectes, Dunlop, Wardell, Matsui, Aitken

6
Jordi Bonet's metal wall decoration, Stu-
dents Union Building, University of Alberta,
Architects, Richards, Berretti & Jellinek
Jordi Bonet, décoration d'acier sur mur,
Students Union Building, Université d'Al-
berta. Architectes, Richards, Berretti &
Jellinek

7
Gord Smith's metal screen in reception
area, International Nickel Co. of Canada,
Toronto Dominion Centre, Architects, Page
& Steele
Gord Smith, cloison en métal, salle de ré-
ception, International Nickel Co. of Canada,
Toronto Dominion Centre, Architectes, Page
& Steele



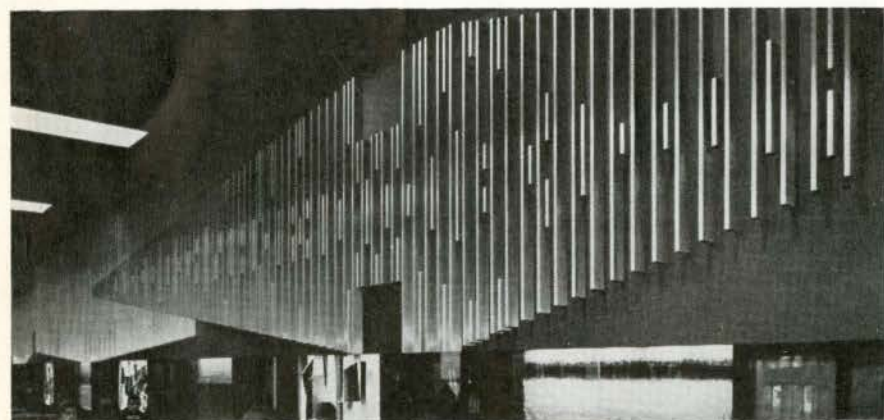
3



Jowett



Hutchison



4



7

This is the third year in which we have presented our annual preview issue. Each year more and more projects have been submitted (this year 186). Improvements in quality besides quantity can be assessed by comparing the last three January issues. If nothing else, the quality of presentation has greatly improved: Many photographs of working models and isometric drawings are now included along with the conventional plans and sections. These, in addition, seem to have gained clarity, precision and sensitivity.

We mentioned last year that there were encouraging signs of change in firms not before noted for their design enterprise. These continue, and although they are sometimes superficial should not be severely criticized. A realization of the wider satisfactions required in design is, we believe, indicated by these symbols of new thought (Architects unlike political realists are ever optimistic.)

Apart from this very slight appraisal we make no comment on the projects published. As we have tried to accommodate as many as possible, the amount of space available has been the sole, inadvertent critic. We believe, however, the preview issue does serve as an indication of the architectural state of the nation. The readers themselves can be the judge of that state. We would welcome your personal appraisals should you be so moved.

A. J. Diamond

Educational

Trent College V, Peterborough, Ontario
Residential College for 400

Fairfield and DuBois, Architects

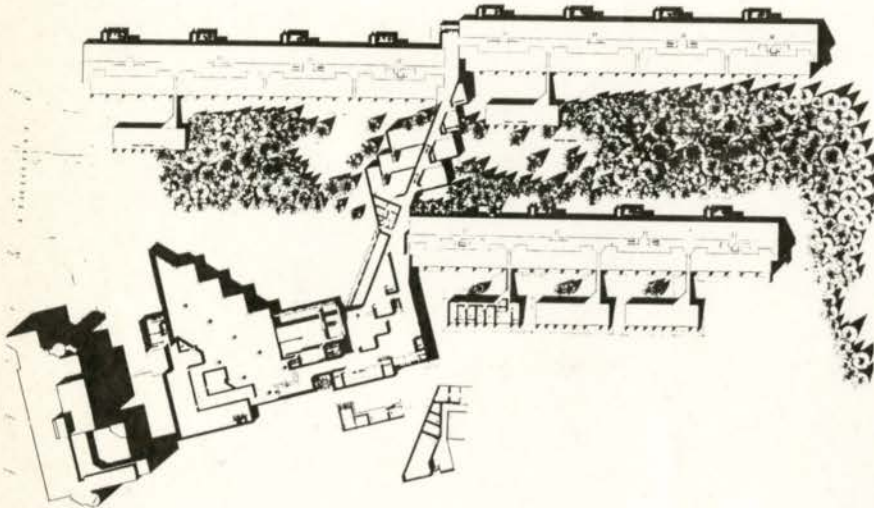
- 1a
Site plan
Plan de situation
- 1b
Typical elevation
Façade type

- 1c
Section through bedrooms and don's suite
Coupe sur les chambres à coucher et
l'appartement du professeur

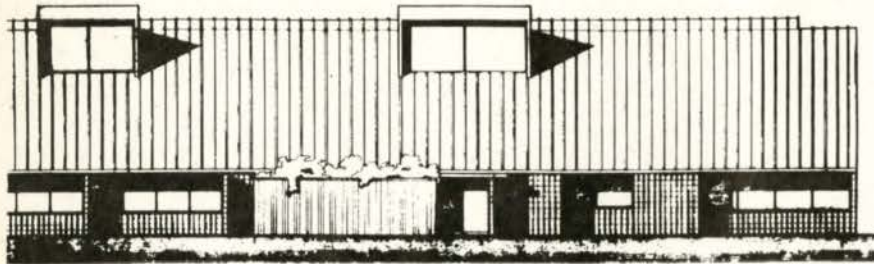
Algonquin College of Applied Arts and
Technology, Woodroffe Avenue, Ottawa

Murray & Murray, Architects and Town-
planners

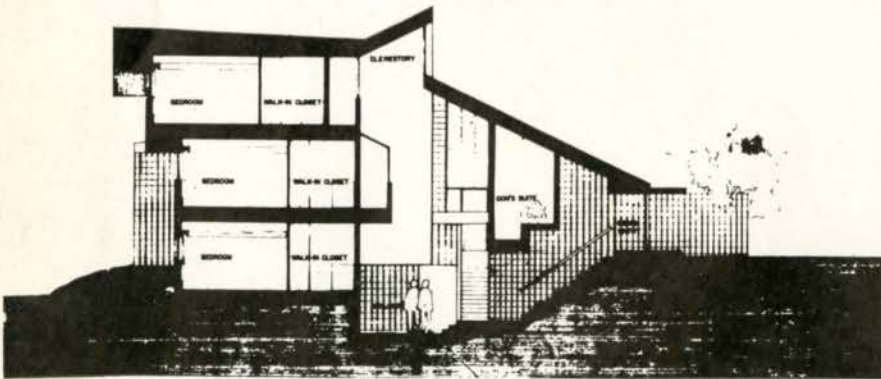
- 2a
Phase I, site plan
Phase I, plan de situation
- 2b
Model
Maquette
- 2c
Model
Maquette



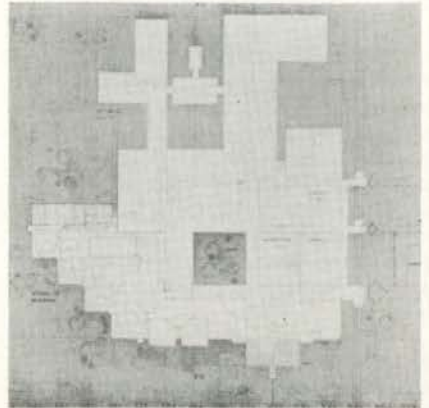
1a



1b



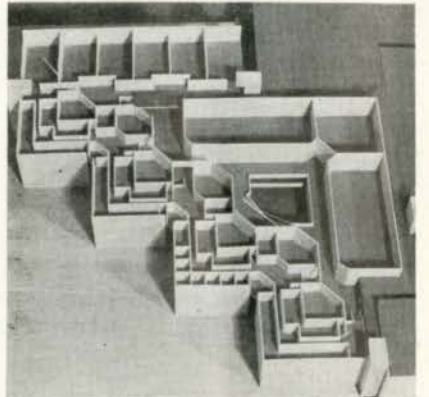
1c



2a



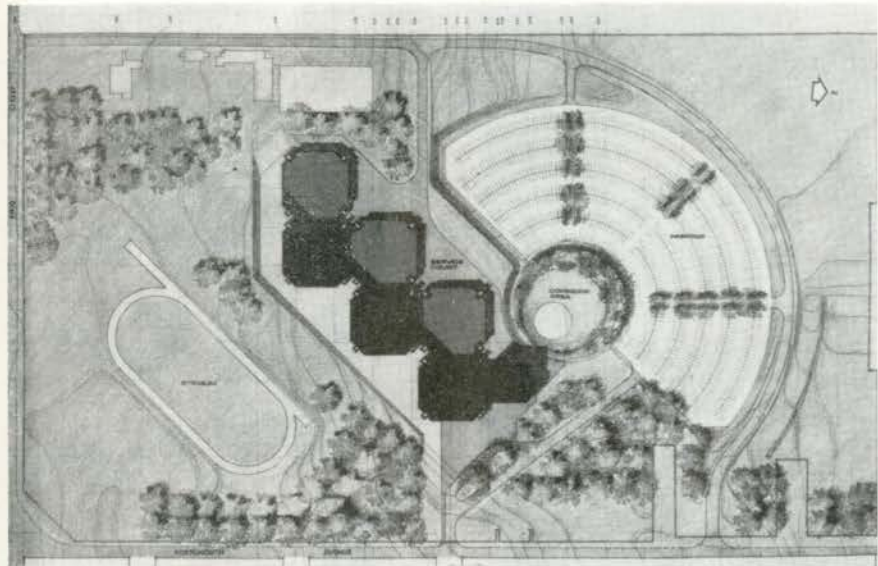
2b



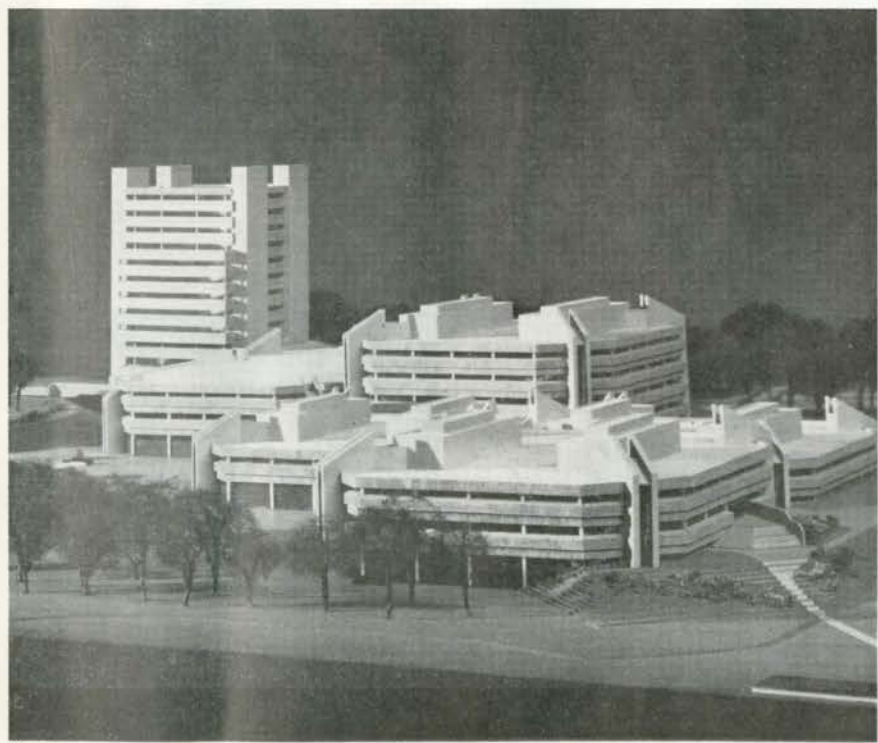
2c

Technology, Kingston, Ontario
Allward & Gouinlock, Architects

- 3a
Site plan
Plan de situation
- 3b
Model
Maquette



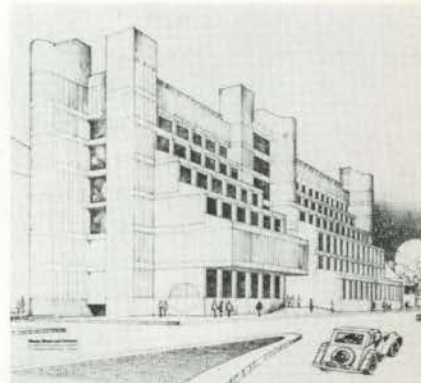
3a



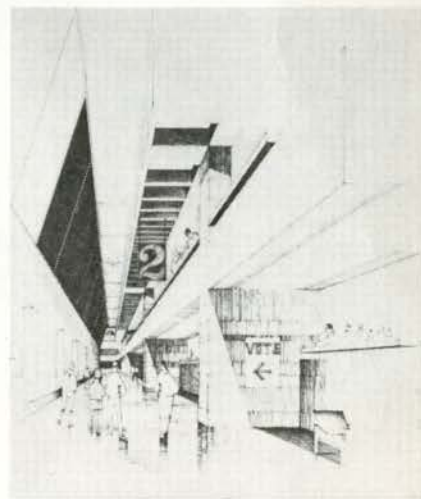
3b

Moody, Moore and Partners, Architects and
Consulting Engineers

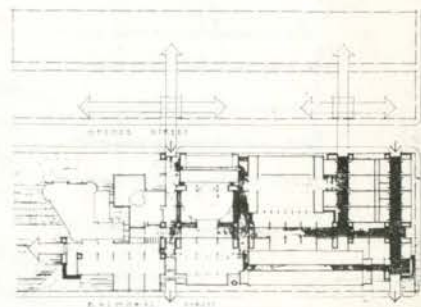
- 4a
View from Ellice and Balmoral
Vue d'Ellice et Balmoral
- 4b
View of pedestrian street
Vue du passage de piétons
- 4c
Development for 6,000 students
Aménagement pour 6,000 étudiants



4a



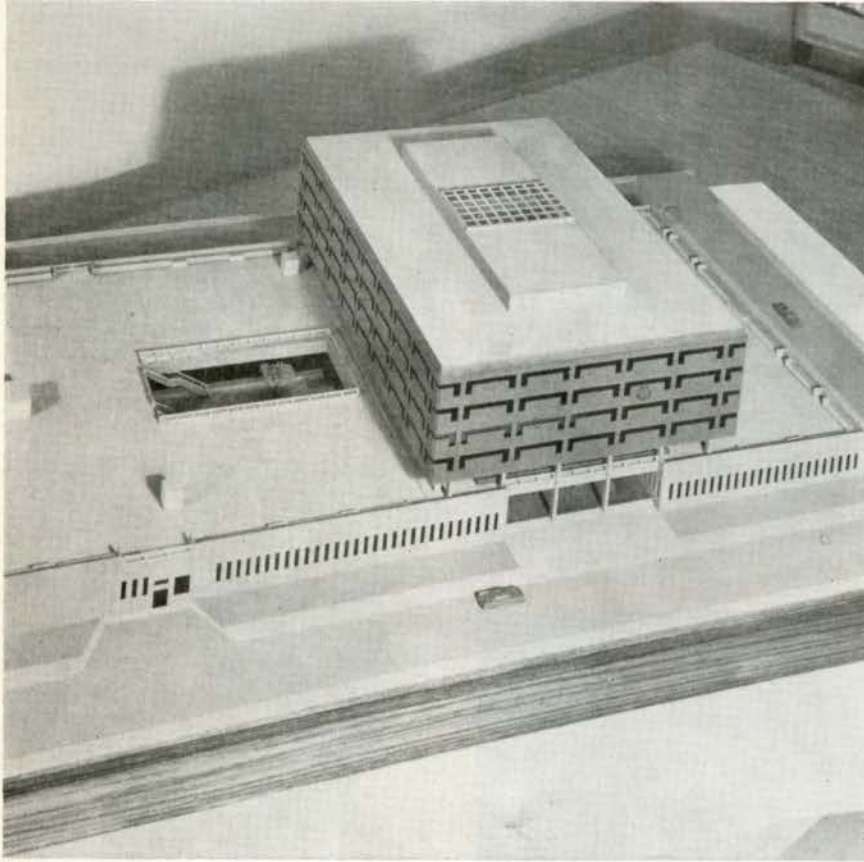
4b



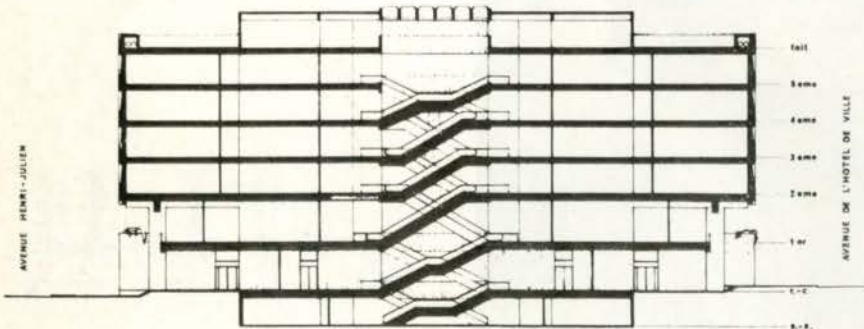
4c

Pauer, Bourassa, Gareau et Jean Louis
Lalonde, Architectes Associés

5a
Maquette
Model
5b
Coupe
Section



5a



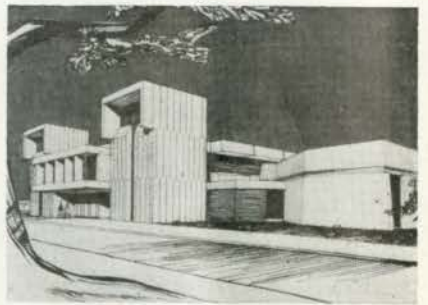
5b

Thomas Ibronyi, Architect

6a
Perspective from north-east
Perspective du nord-est
6b
First floor plan
Plan du premier étage



6a

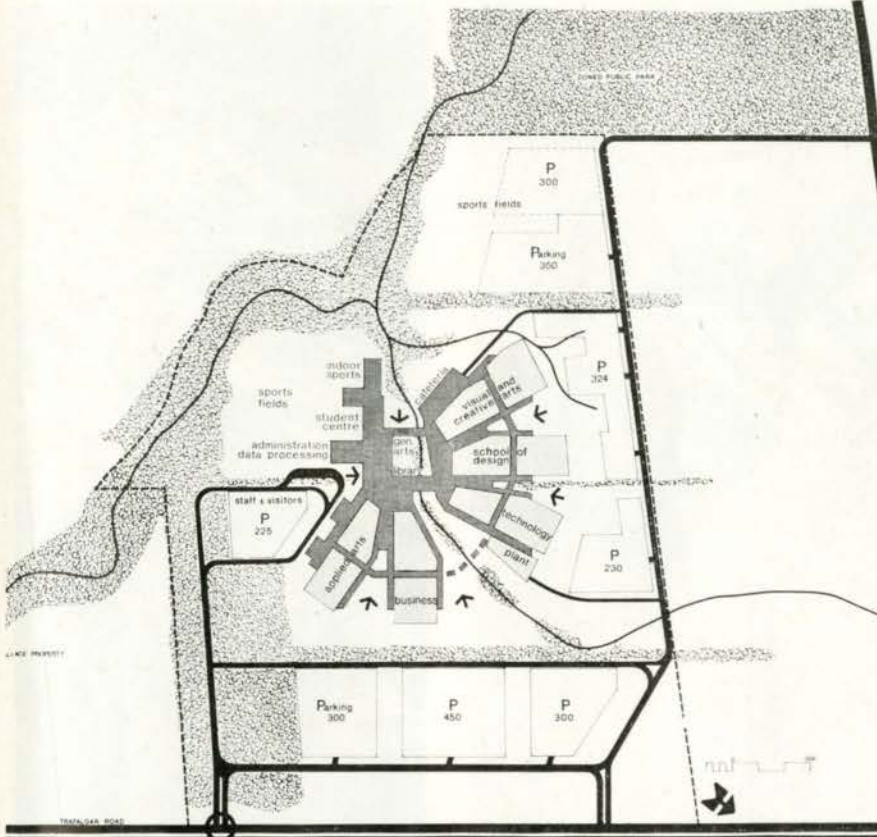


6b

Sheridan College of Applied Arts and Technology, 98 Church St. E., Brampton, Ontario

Marani, Rounthwaite and Dick, Architects

7a
Master plan
Plan directeur
7b
Site model
Maquette de l'ensemble

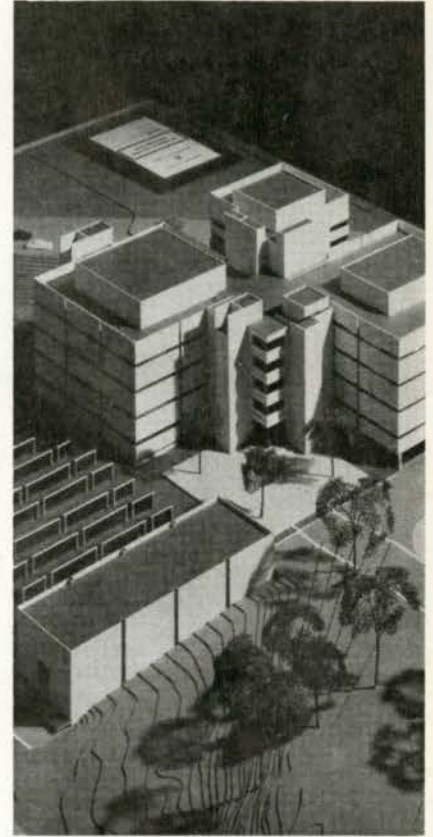


7a

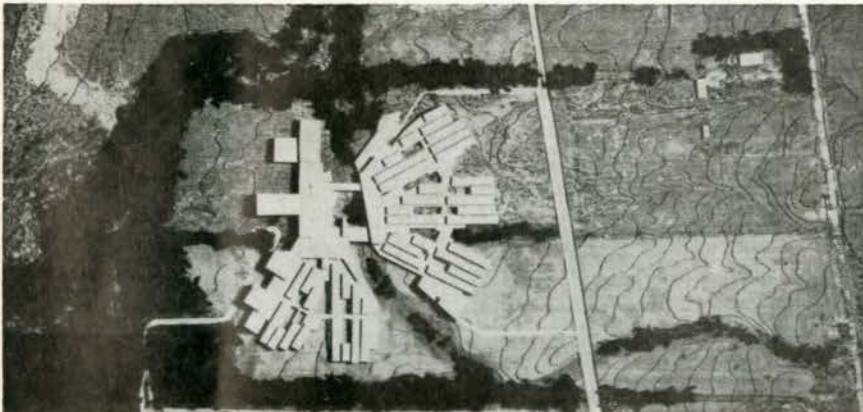
Engineering Building, University of Ottawa, Nicholas Street, Ottawa

MLM Consortium, Martineau, Lapierre, Murray & Murray, Architects

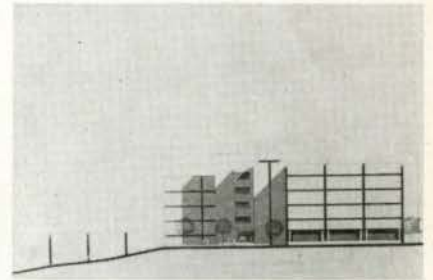
8a
Model
Maquette
8b
North elevation
Façade nord



8a



7b

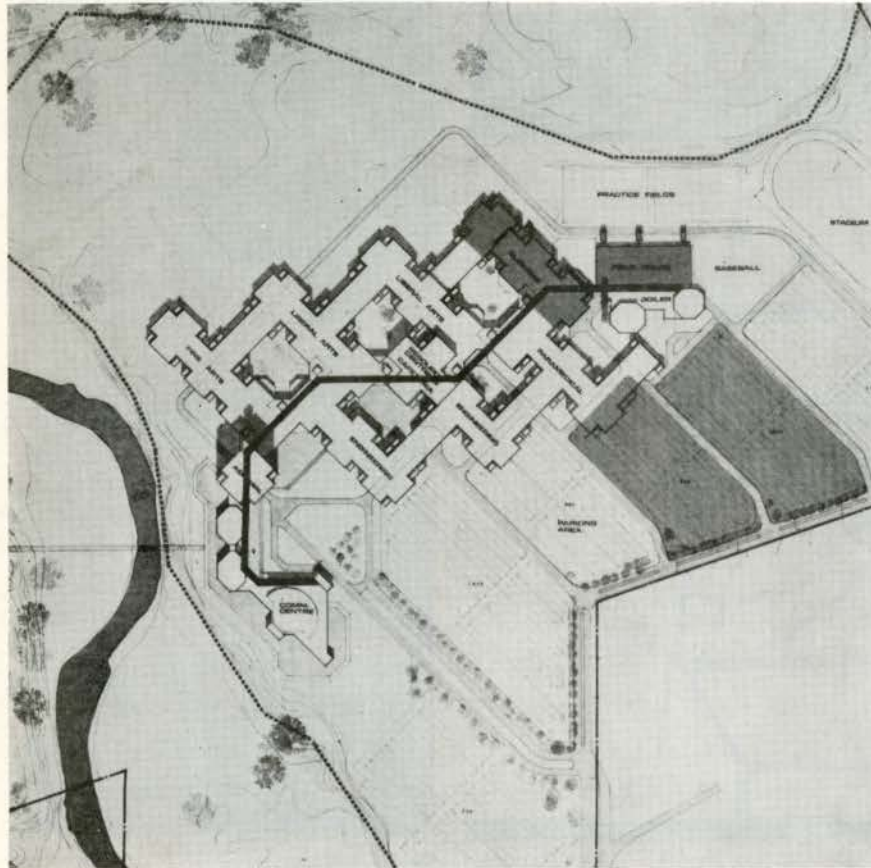


8b

Humber Community College, Etobicoke,
Ontario

Allward and Gouinlock, Architects

9a
Site plan
Plan de situation
9b
North elevation
Façade nord



9a

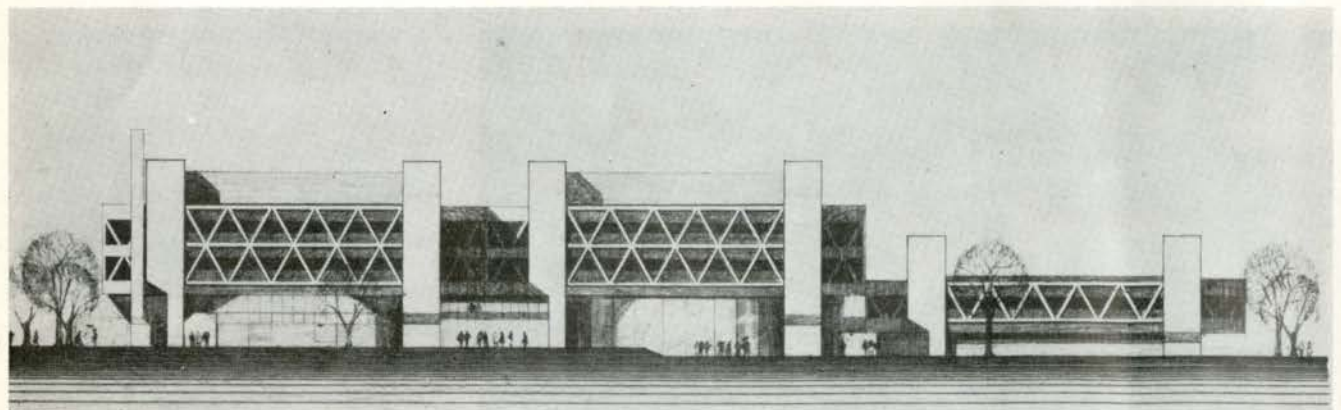
University of Ottawa Master Plan,
Sandy Hill, Ottawa

Martineau, Lapierre, Murray & Murray,
Architects, Planners

10a
Model
Maquette



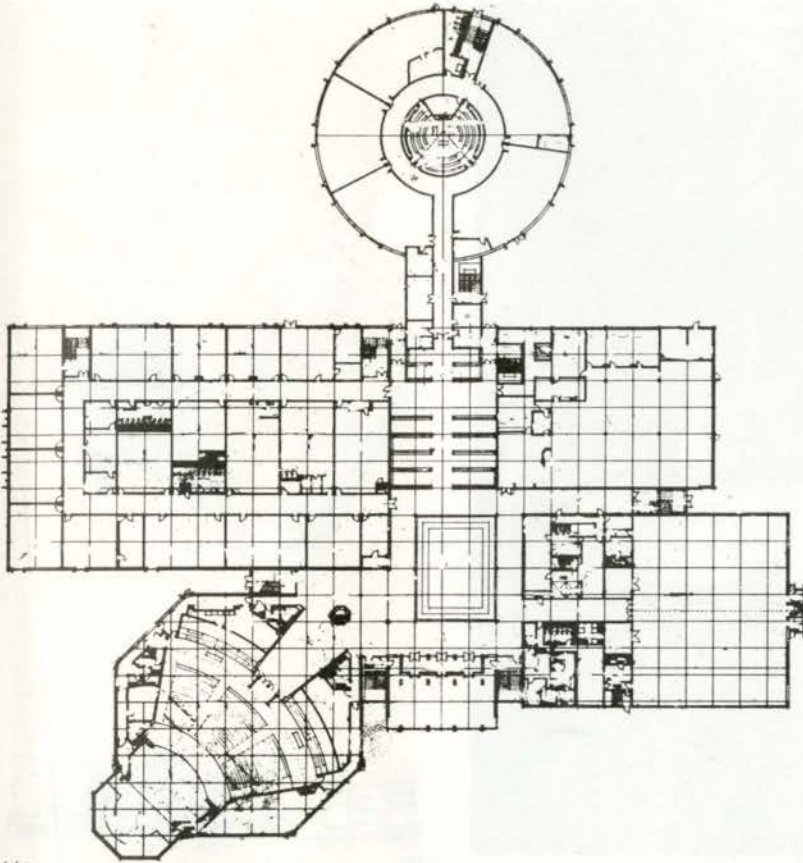
10a



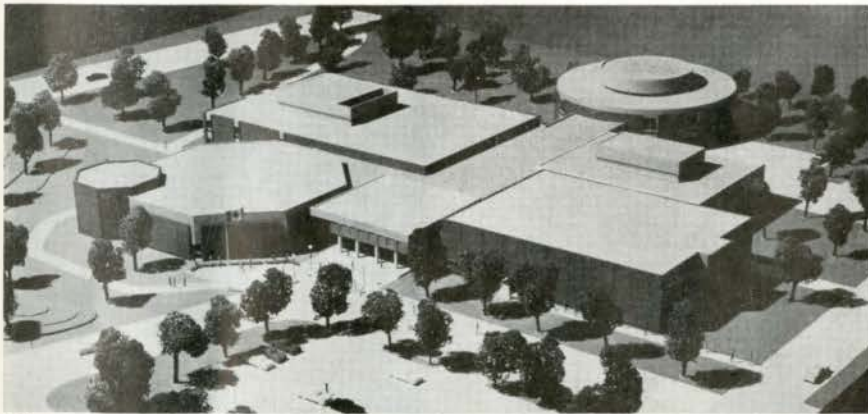
9b

Balharrie, Helmer, Gibson, Architects
and Engineers

- 11a
First floor plan
Plan du Rez-de-chaussée
- 11b
Model
Maquette



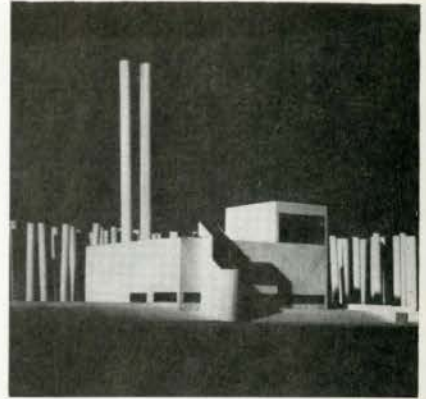
11a



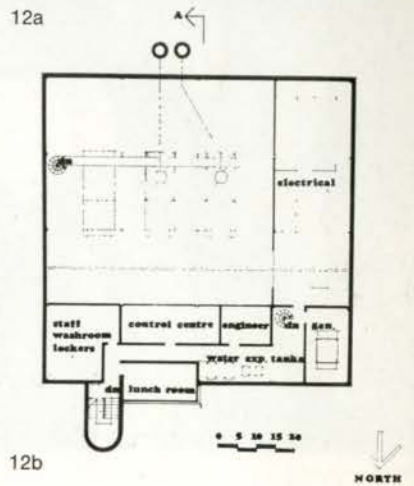
11b

Marani, Rounthwaite and Dick, Architects

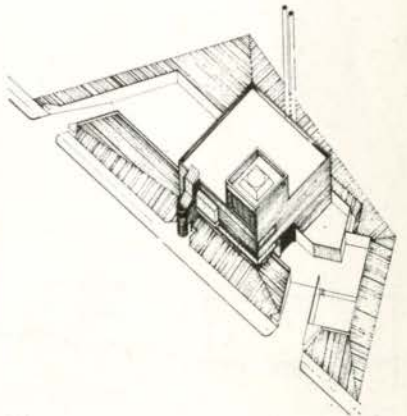
- 12a
Model
Maquette
- 12b
Mezzanine
Axonometric
Axonométrique



12a



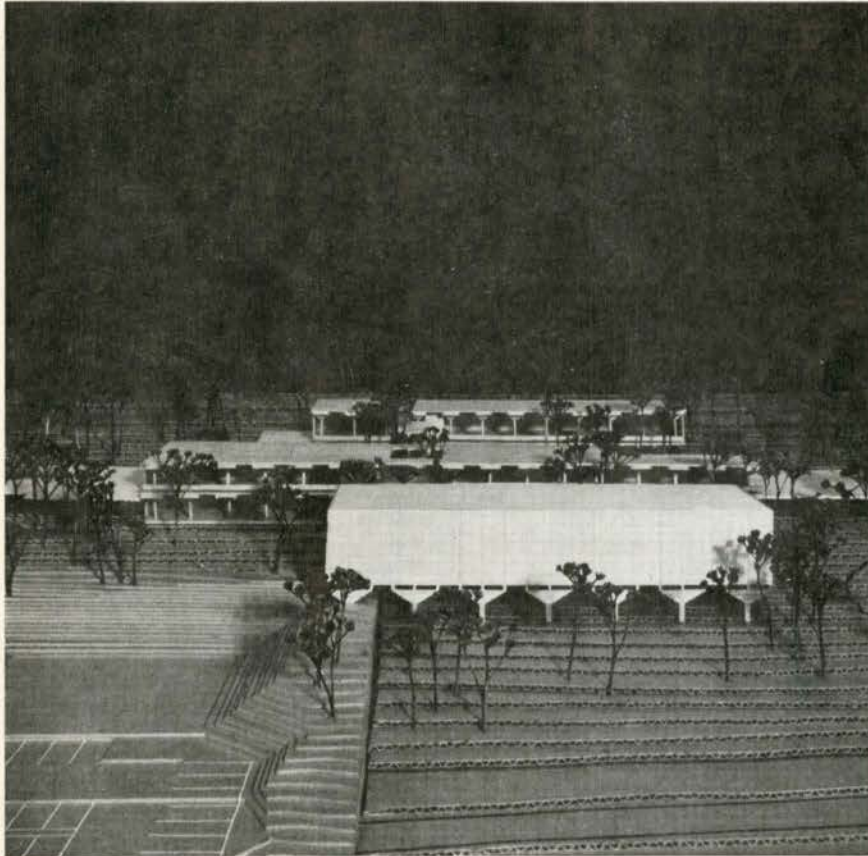
12b



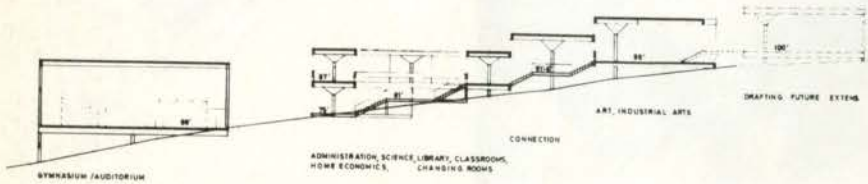
12c

Gardiner Thornton Davidson Garrett Masson
& Associates, Architects and Planners

- 13a
Model
Maquette
- 13b
Section
Coupe



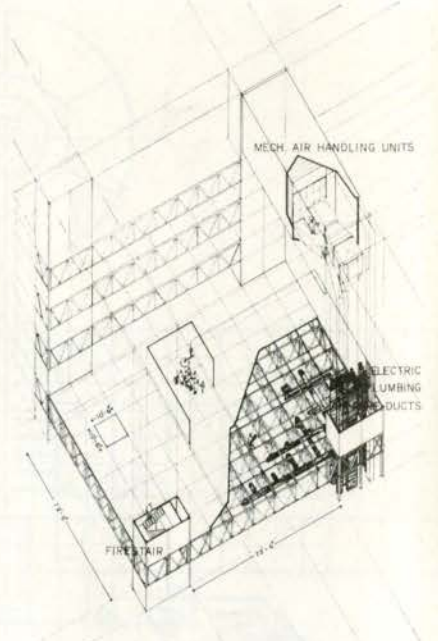
13a



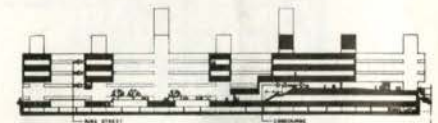
13b

Craig, Zeidler, Strong, Architects

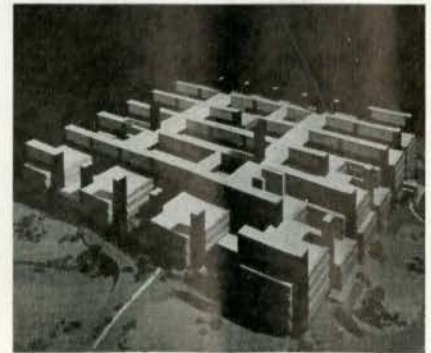
- 14a
Servo-System
Servo-système
- 14b
Section through esplanade
Coupe sur l'esplanade
- 14c
Model
Maquette



14a



14b



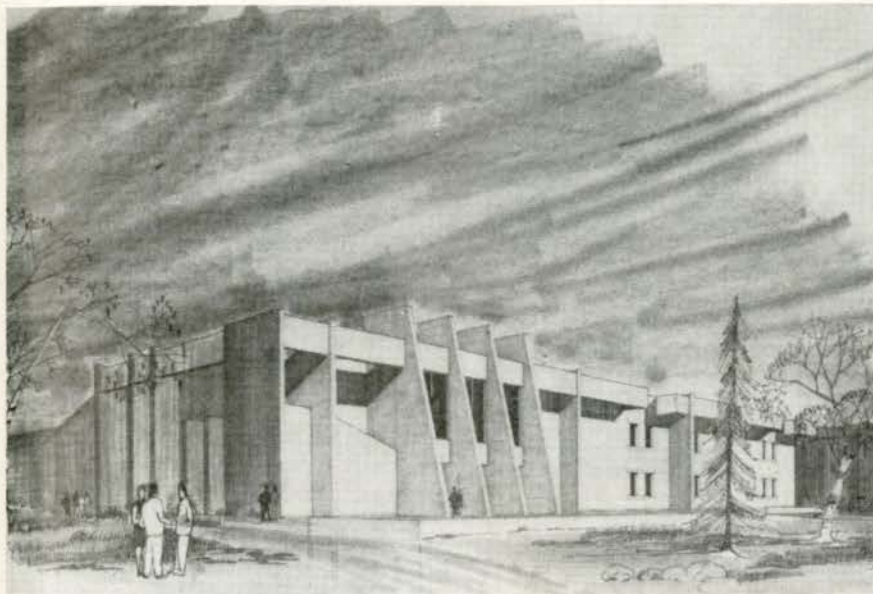
14c

R. Stewart Smith, Architect

15a
Perspective
15b, c
Sections
Coupes

K. R. Cooper, Architect

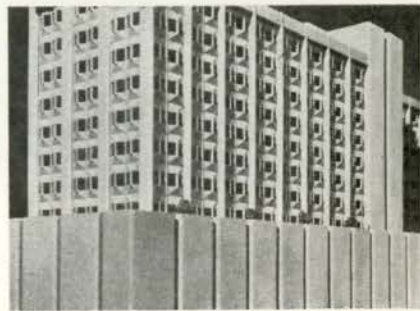
16a, b
Model
Maquette



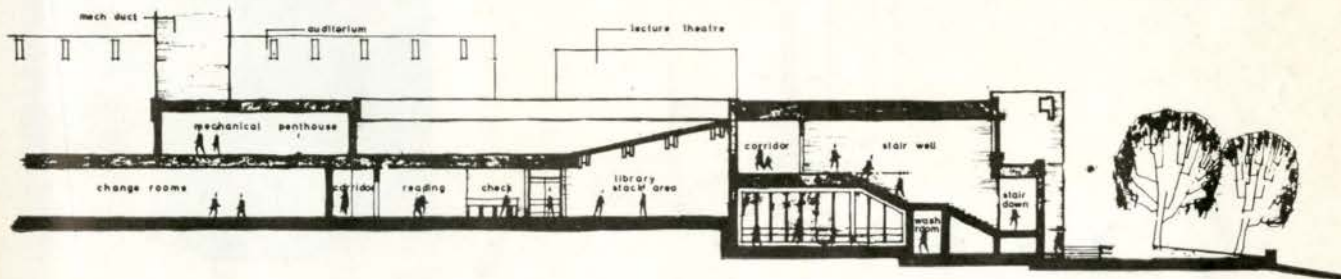
15a



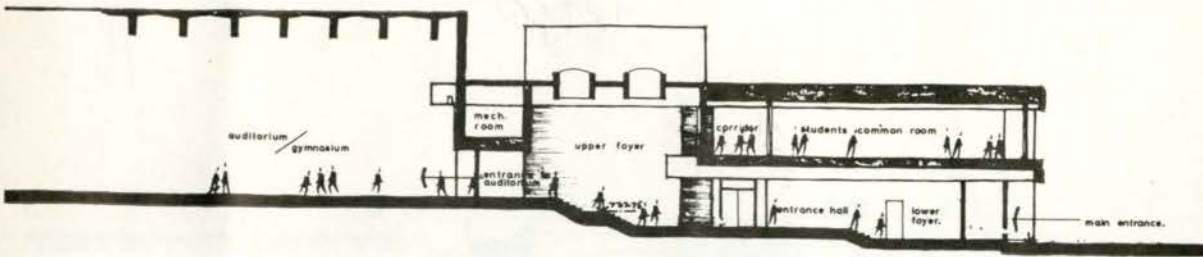
16a



16b



15b



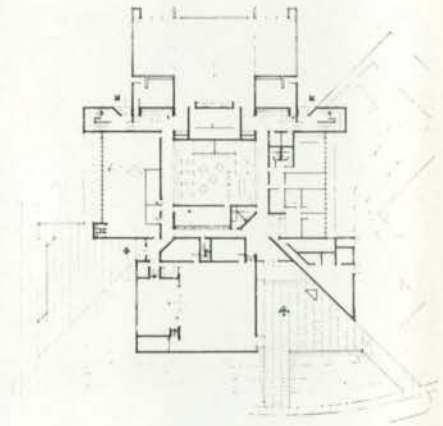
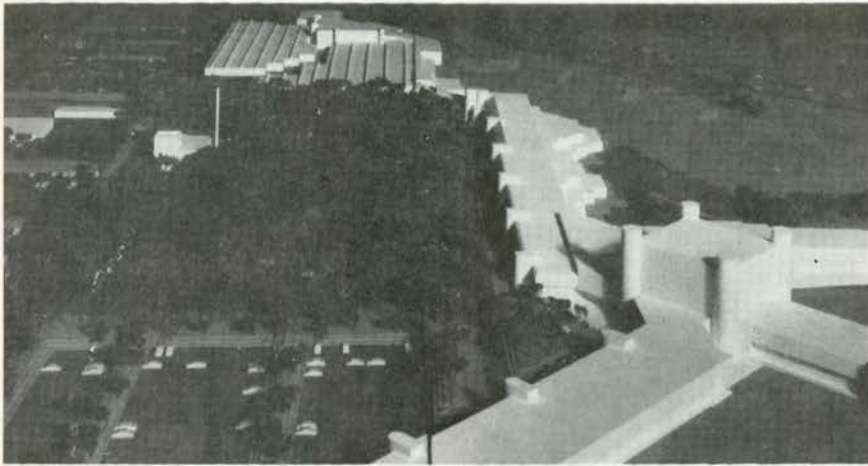
15c

Marani, Rounthwaite & Dick, Architects and
Planners

John Sullivan, Architect, Planner

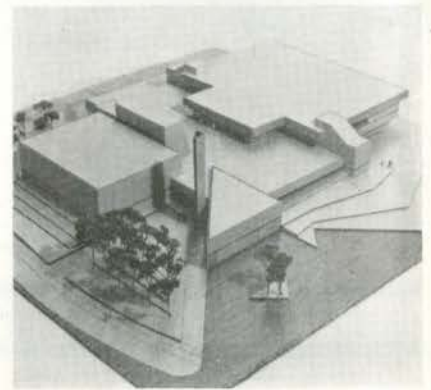
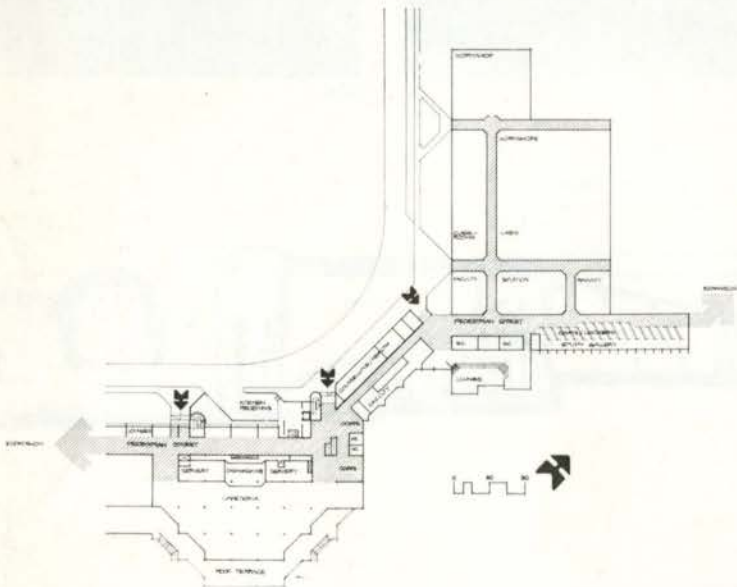
17a
Model
Maquette
17b
Ultimate use, phases 2 and 3, Level 2
Emploi final, phases 2 et 3, niveau 2
17c
South elevation
Façade sud

18a
Ground floor plan
Plan du Rez-de-chaussée
18b
Model
Maquette



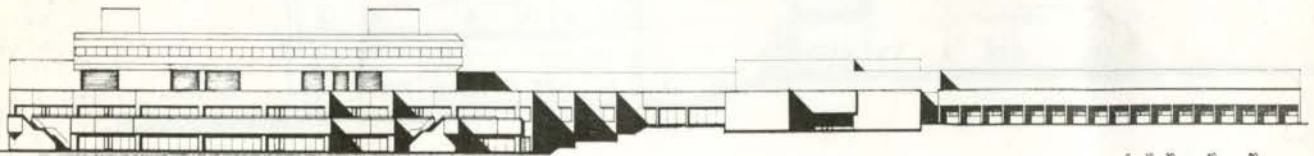
17a

18a



18b

17b



17c

Toronto French School, Mildenhall Road,
North York, Ontario

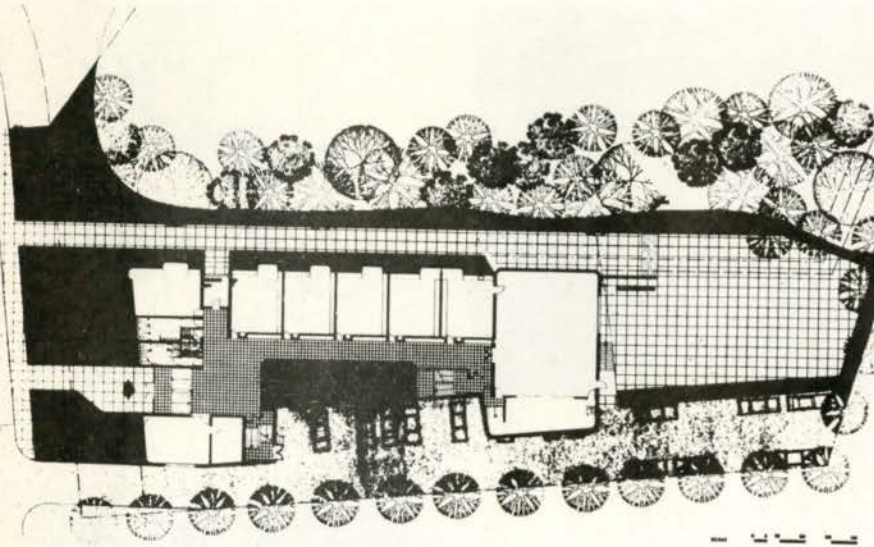
**Banz, Brook, Carruthers, Grierson, Shaw,
Architects**

- 21a
Plan
- 21b
South elevation
Façade sud
- 21c
Section
Coupe

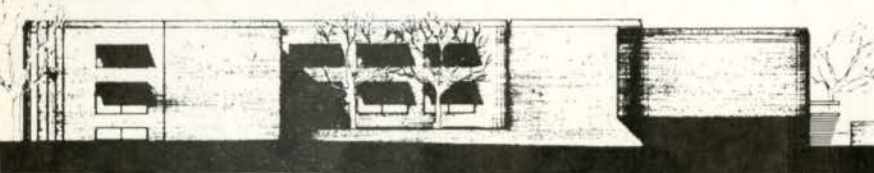
Sir John A. Macdonald Secondary School,
Hamilton, Ontario

Prack and Prack, Architects and Engineers

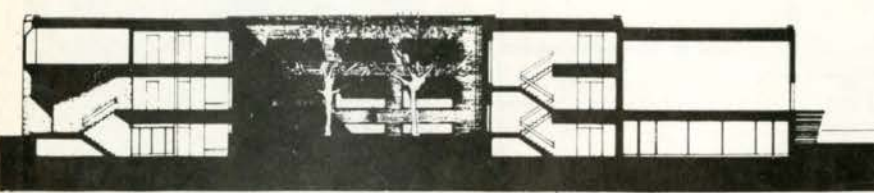
- 22a
Model
Maquette
- 22b
Plan
- 22c, d
Sections
Coupes



21a



21b

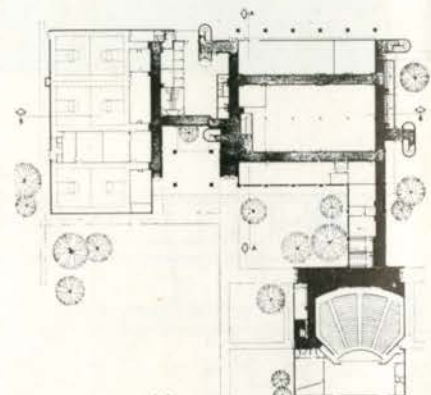


SCALE 0 5 10 20 40

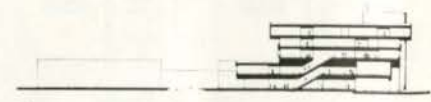
21c



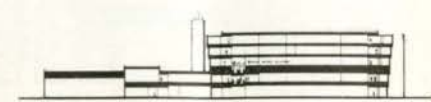
22a



22b



22c



22d

Educational Studies Centre, Truro, Nova Scotia

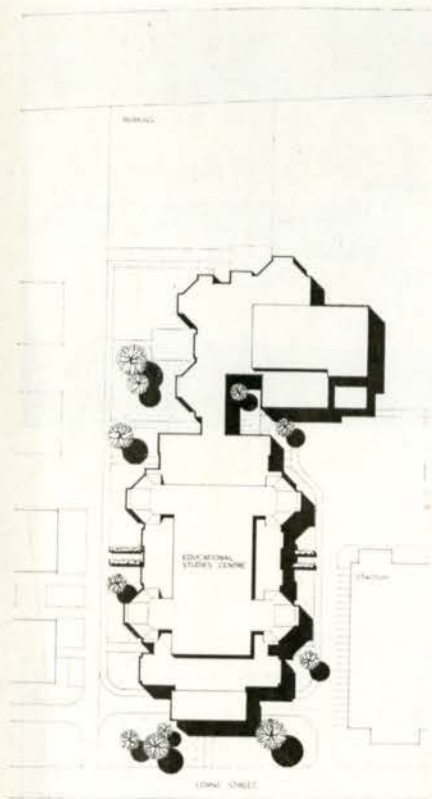
Leslie R. Fairn & Associates, Architects, Engineers

23a
Site plan
Plan de situation
23b
West elevation
Façade ouest
23c
South elevation
Façade sud

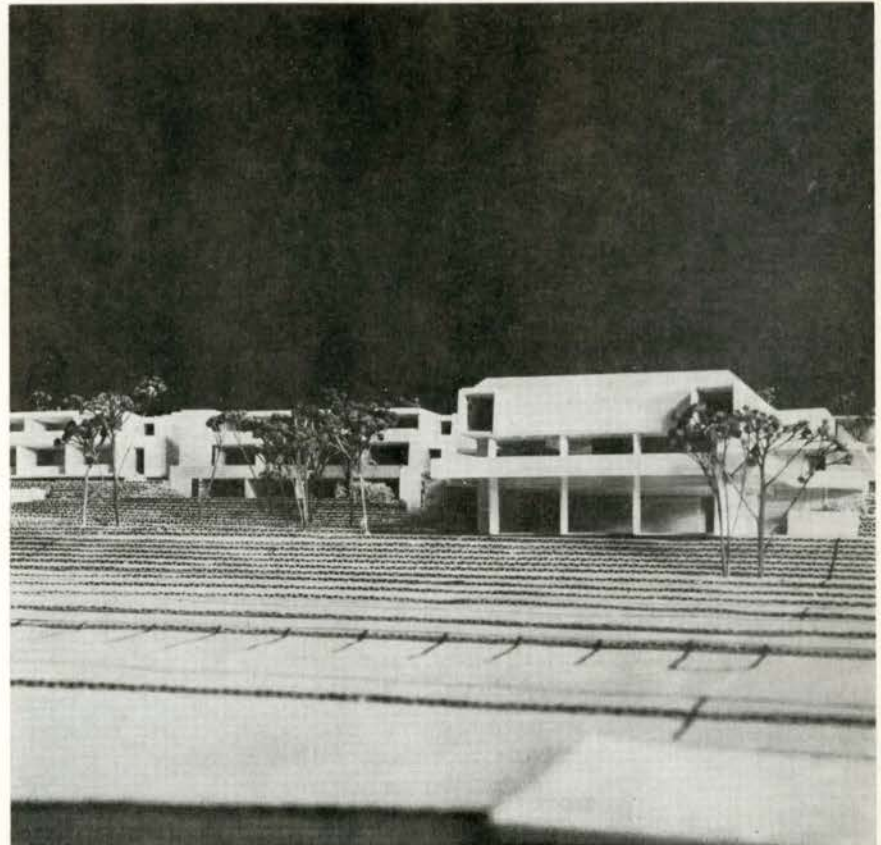
Strathcona Girls' School, Shawnigan Lake, B.C.

Gardiner, Thornton, Davidson, Garrett, Masson and Associates in collaboration with Barry V. Downs, Architects

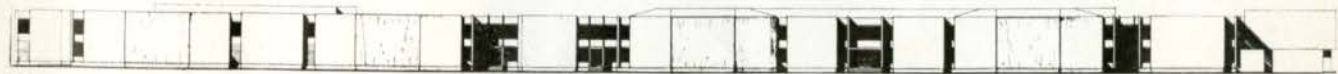
24a
Model
Maquette



23a



24a



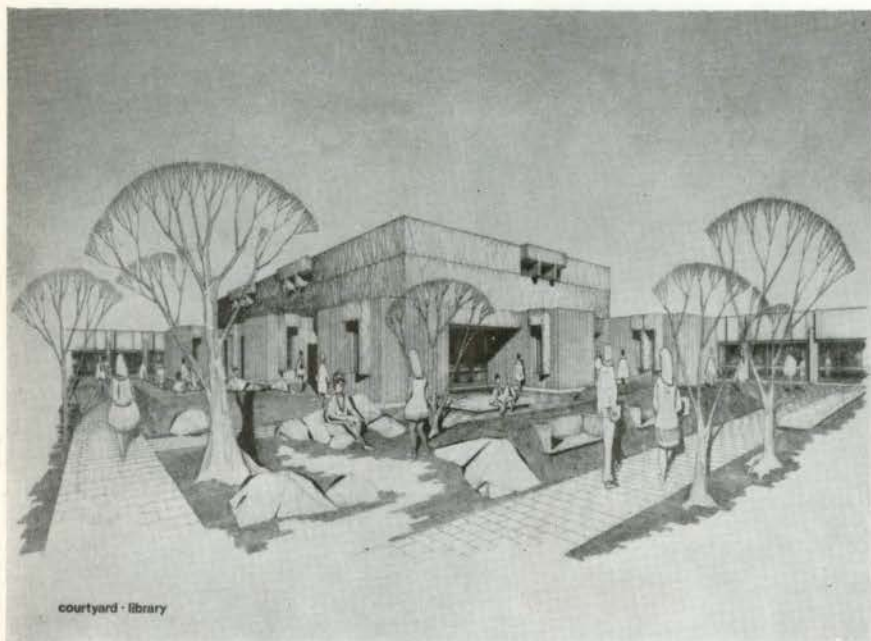
23b



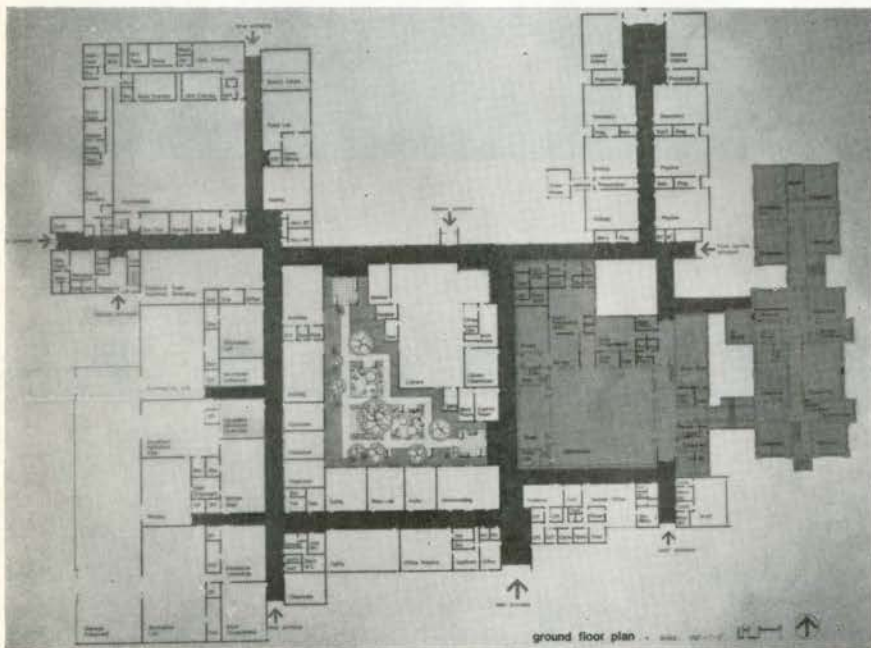
23c

Black, Larson, McMillan, Architects and
Engineers

25a
Library courtyard
Cour de la bibliothèque
25b
Ground floor plan
Plan du rez-de-chaussée



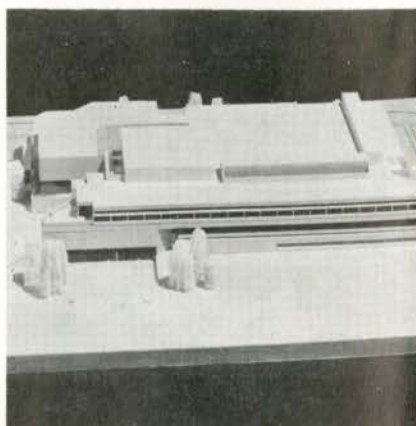
25a



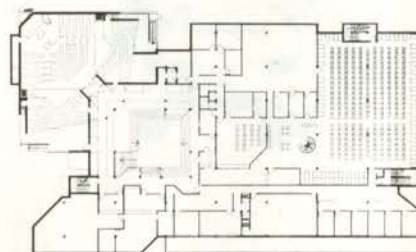
25b

Gordon S. Adamson & Associates,
Architects

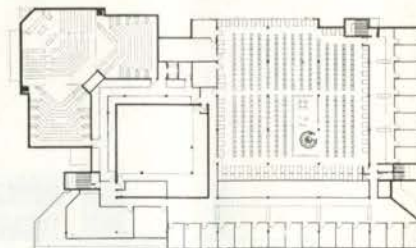
26a
Model
Maquette
26b
Second floor plan
Plan du deuxième étage
26c
Third floor plan
Plan du troisième étage



26a



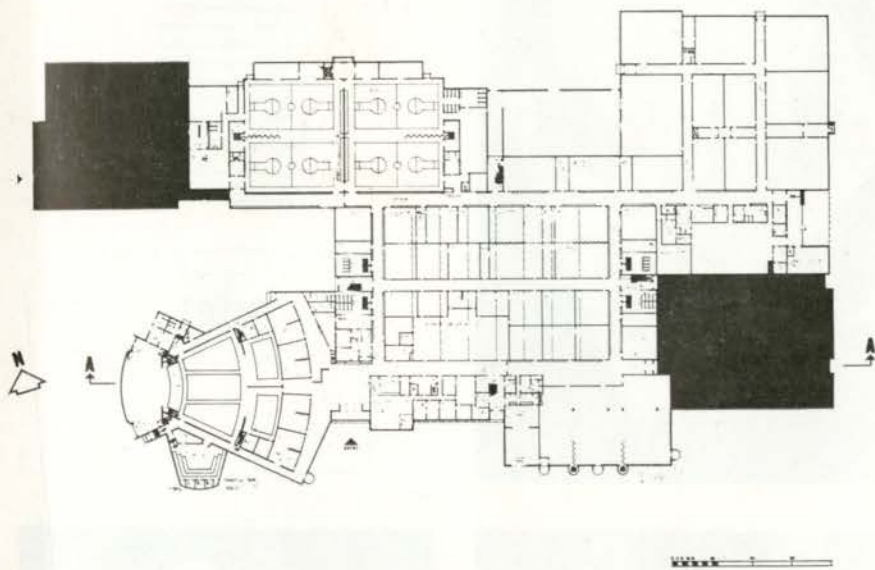
26b



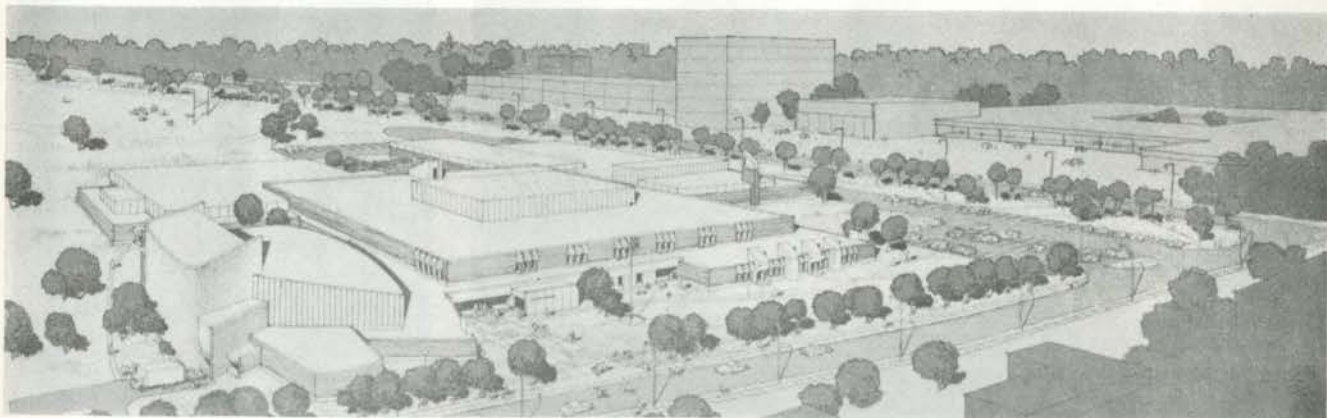
26c

Leonard M. Huget, Architect

27a
Ground floor plan
Plan du rez-de-chaussée
27b
Perspective

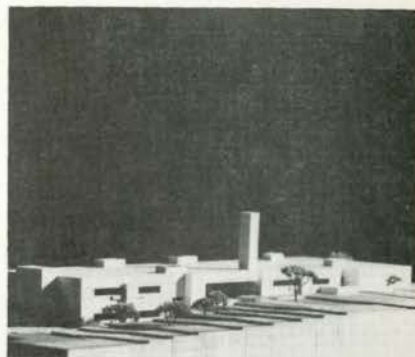


27a



27b

28a
Model of Scheme Number 23
Maquette du projet numéro 23
28b
Ground Floor plan
Plan du rez-de chaussée
28c
First floor plan
Plan du premier étage



28a



28b



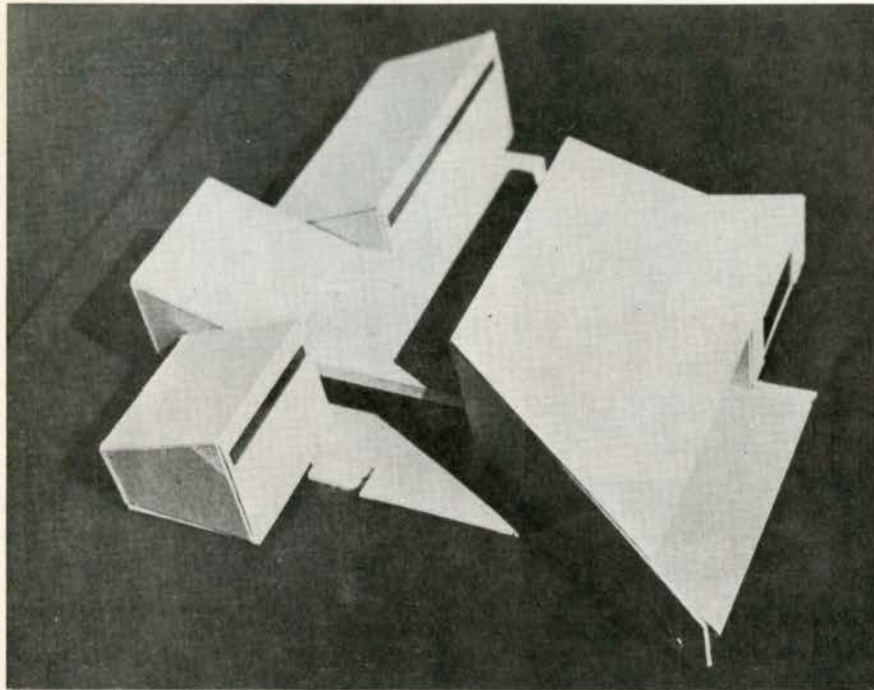
28c

Commercial and Industrial

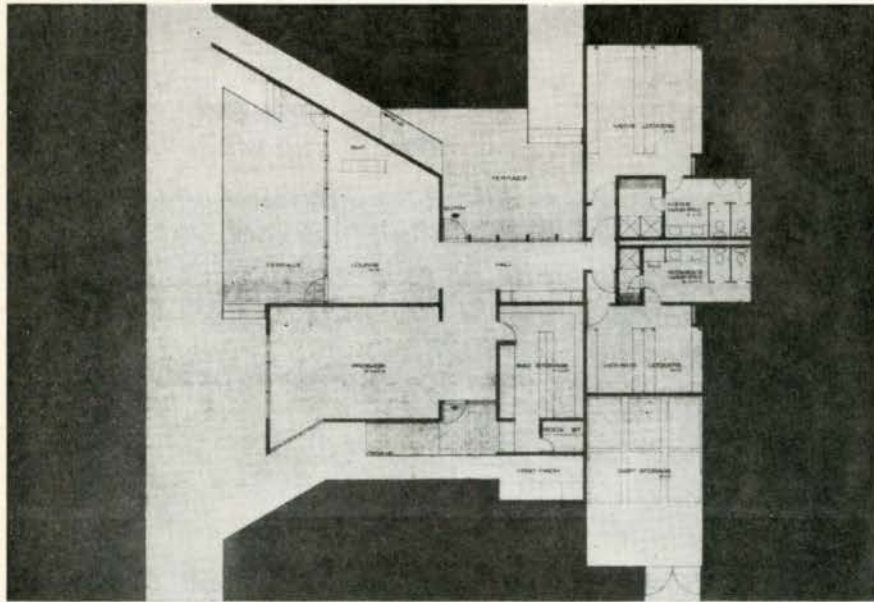
Sacandaga Golf Club, Sacandaga, New York

Rosen, Caruso, Vecsei, Architects

- 1a
View of entrance
Vue de l'entrée
- 1b
Plan
Plan



1a

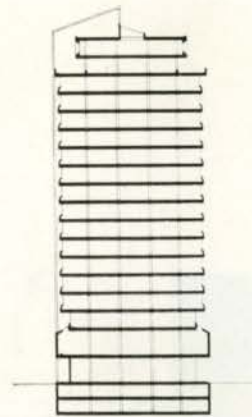


1b

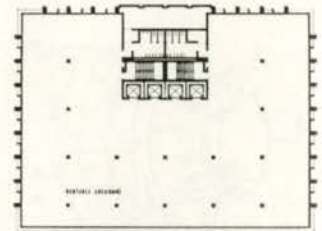
Bloor-St. Thomas Development, Toronto

Gilleland & Janiss, Architects

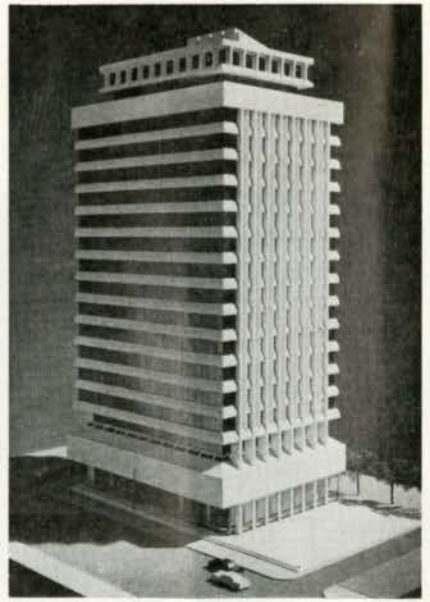
- 2a
Section
Coupe
- 2b
Typical floor plan
Plan d'étage type
- 2c
Model
Maquette



2a



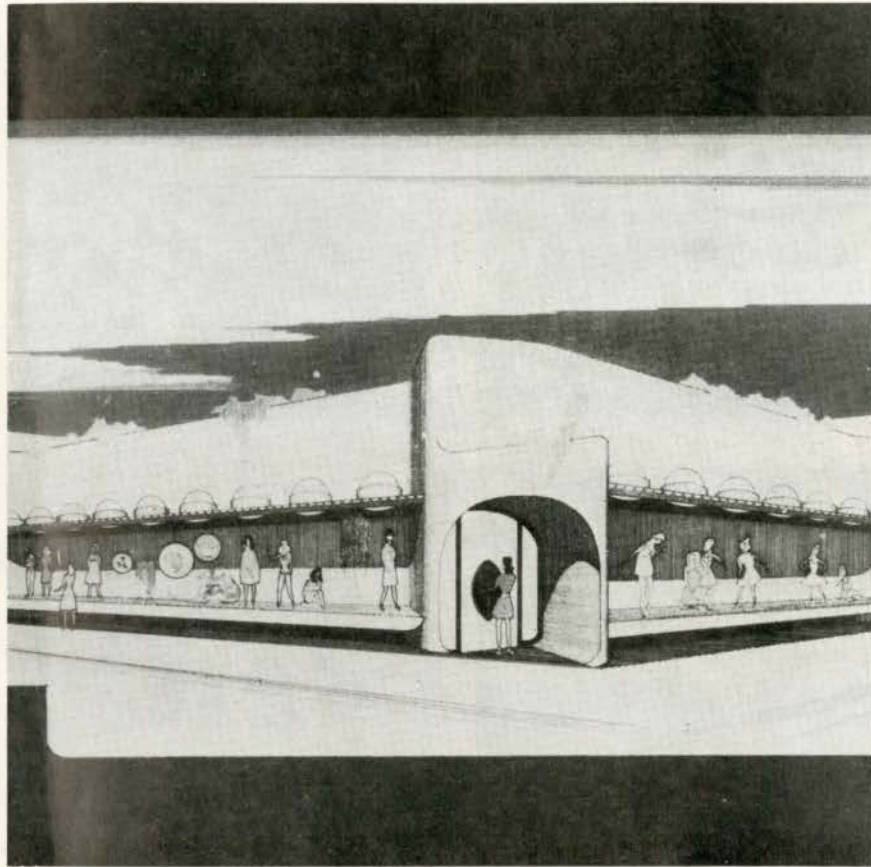
2b



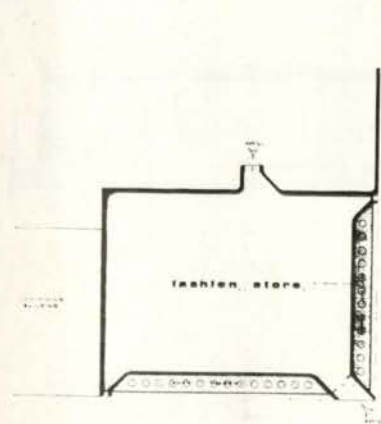
2c

John R. Kay, Architect

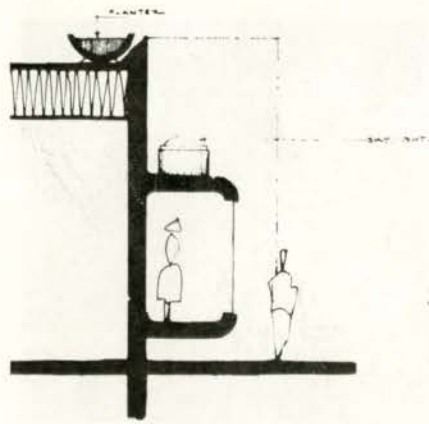
- 3a
Perspective
- 3b
Plan
- 3c
Section
Coupe



3a



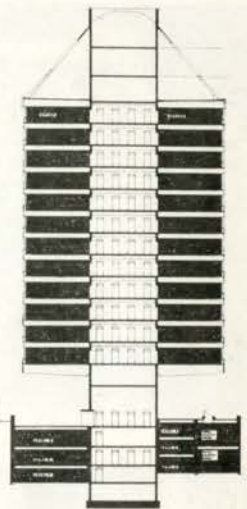
3b



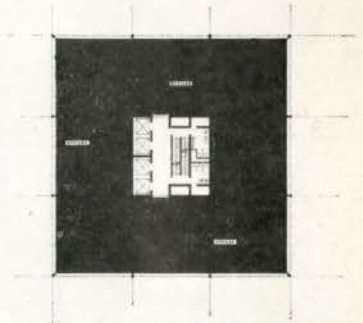
3c

Rhone & Iredale, Architects

- 4a
Section
Coupe
- 4b
Plan of typical office floor
Plan d'étage des bureaux type
- 4c
Model
Maquette



4a



4b



4c

**Ontario Hydro Head Office Building,
Toronto**

**Architects for the Ontario Hydro Head
Office Administration Building (Gordon S.
Adamson and Associates, Shore and Moffat
and Partners)**

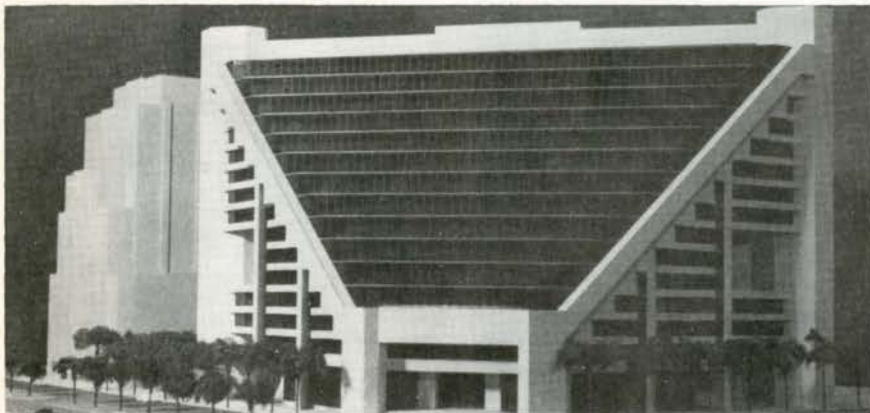
- 5a
Model
Maquette
- 5b
First floor plan
Plan du premier étage
- 5c
Eighth floor plan
Plan du huitième étage

- 5d
Fifteenth floor plan
Plan du quinzième étage
- 5e
Section
Coupe

**Office Building for M.I.L. Tug and Salvage
Ltd., Halifax, N.S.**

P. B. Le Claire, Architect

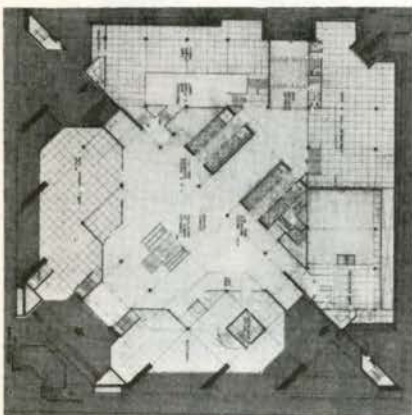
- 6a
Perspective
View
- 6b
Second floor plan
Plan du deuxième étage
- 6c
South elevation
Façade sud



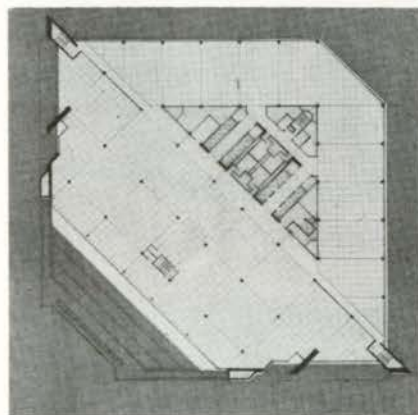
5a



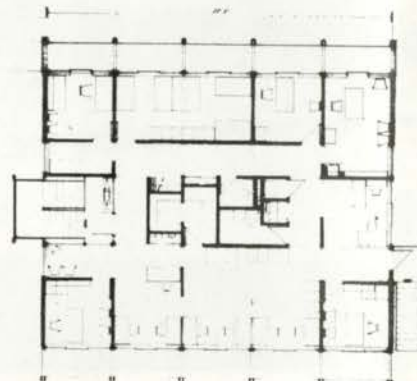
6a



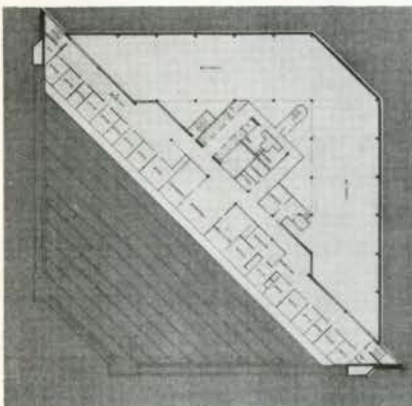
5b



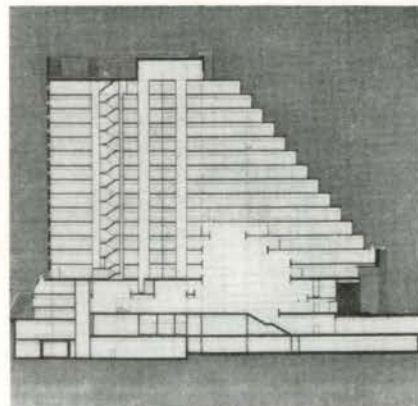
5c



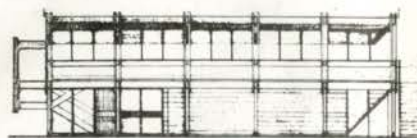
6b



5d



5e



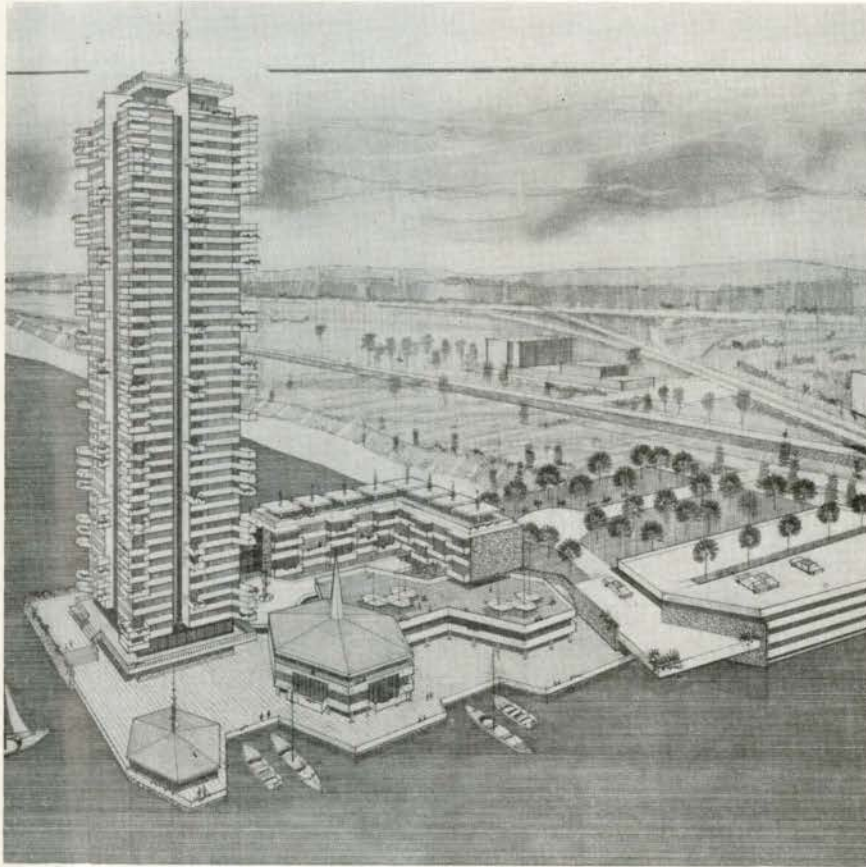
6c

New Brant Inn, Burlington, Ontario

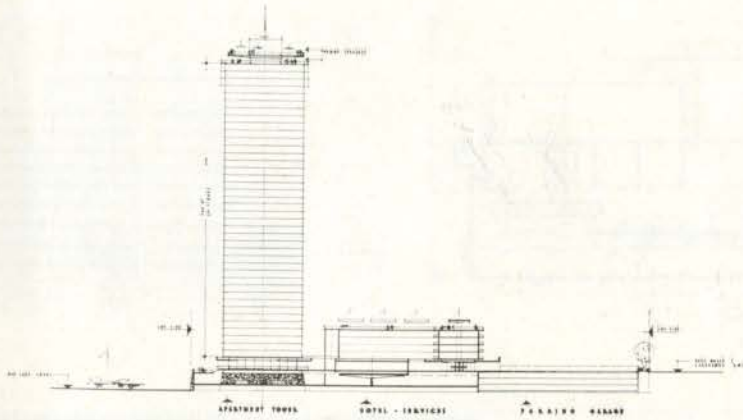
Visvaldis V. Upenieks, Architect

7a
Perspective

7b
Schematic section
Coupe schématique



7a

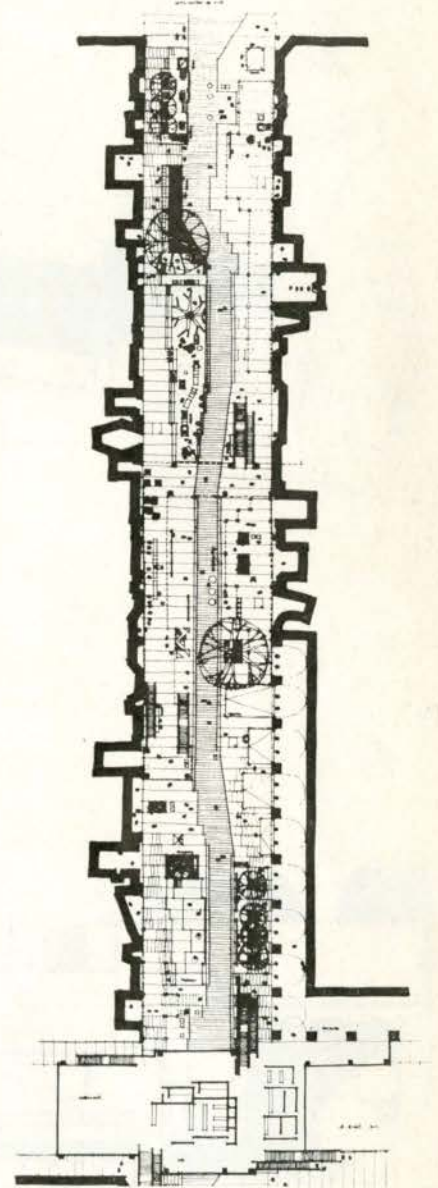


7b

8th Avenue Mall, Downtown Calgary, Alberta

Gordon Atkins, Architect

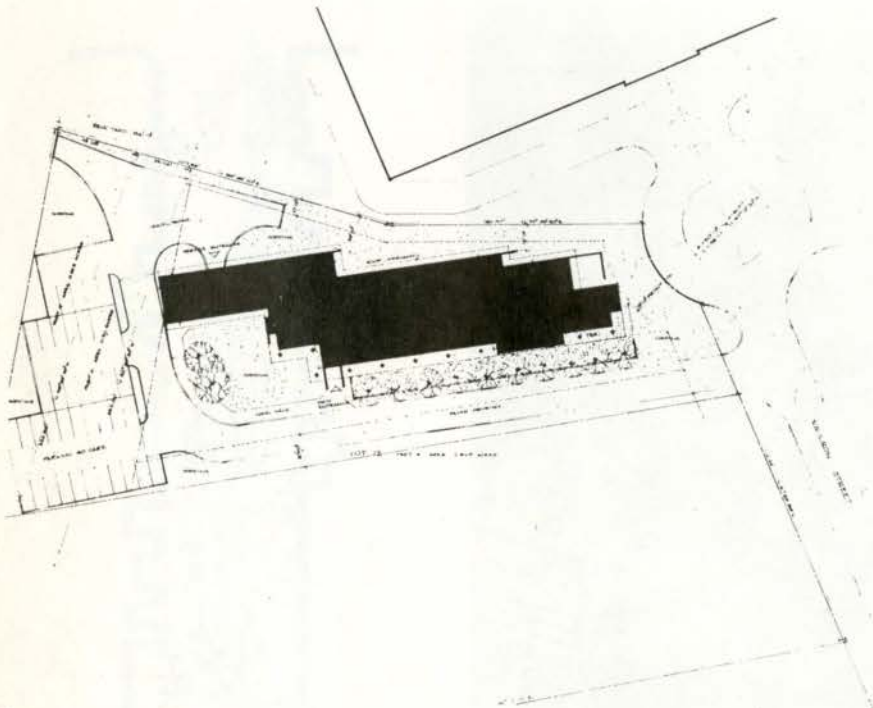
8a
Plan, portion of mall
Plan d'une partie de la promenade



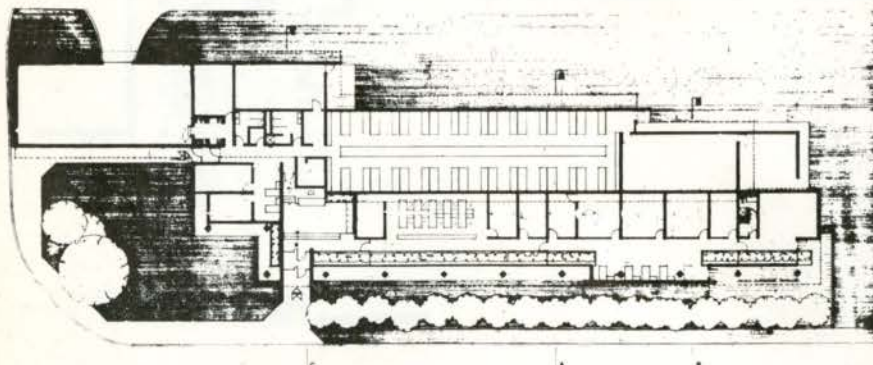
8a

Fairfield and DuBois, Architects

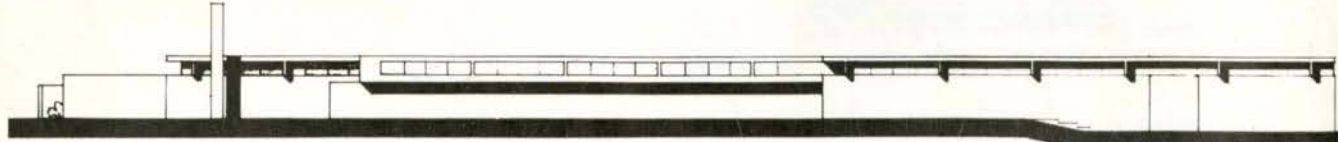
- 9a
Site plan
Plan de situation
- 9b
Plan
Plan
- 9c
North elevation
Façade nord



9a



9b



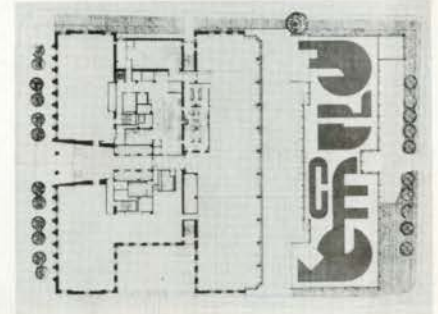
9c

Marani, Rounthwaite and Dick, Architects

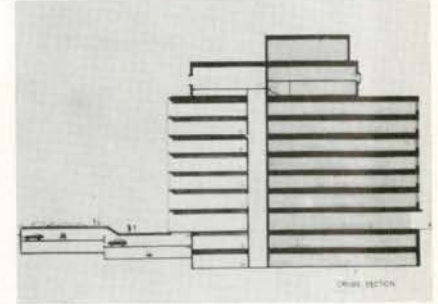
- 10a
Model
Maquette
- 10b
Plan
Plan
- 10c
Section
Coupe



10a



10b



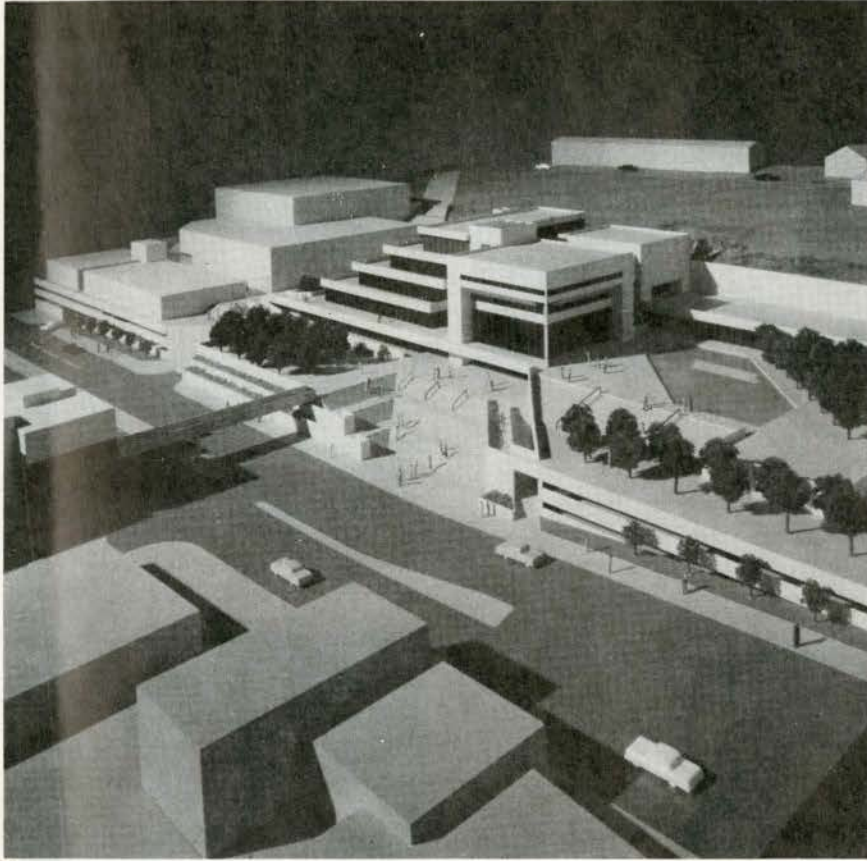
10c

Public

Saint John's City Hall, Newfoundland

John B. Parkin Associates, Architects
Horwood, Campbell, Guihan, Associate
Architects

1a
Model
Maquette
1b
Section
Coupe

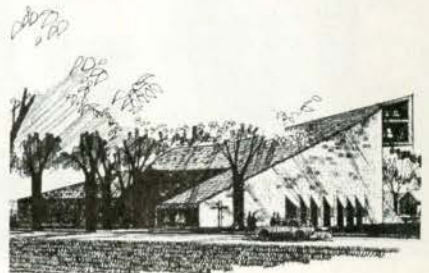


1a

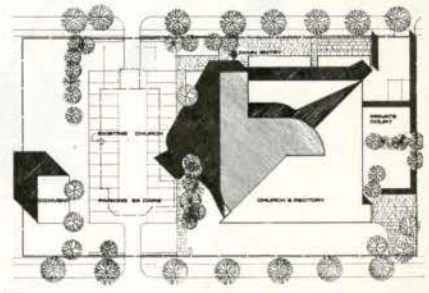
St. John Cantius Catholic Church,
Winnipeg, Manitoba

Libling, Michener & Associates, Architects

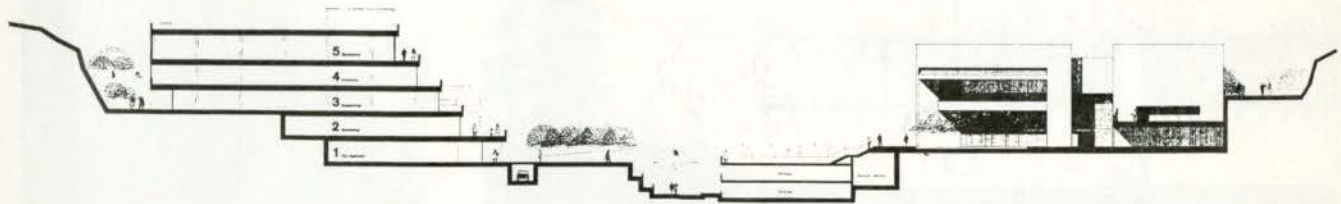
2a
Perspective looking south-east
Perspective vers le sud-est
2b
Site plan
Plan de situation



2a



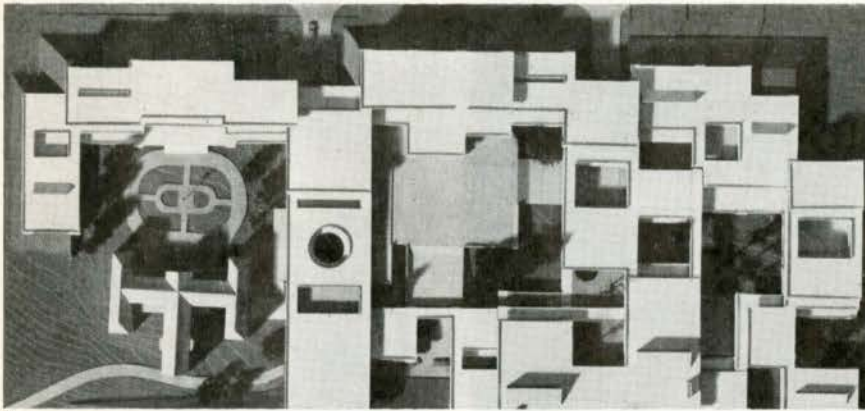
2b



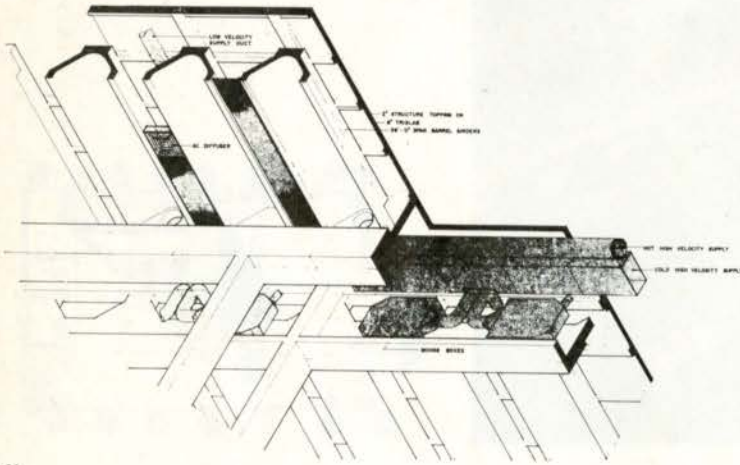
1b

Rhone & Iredale, Architects

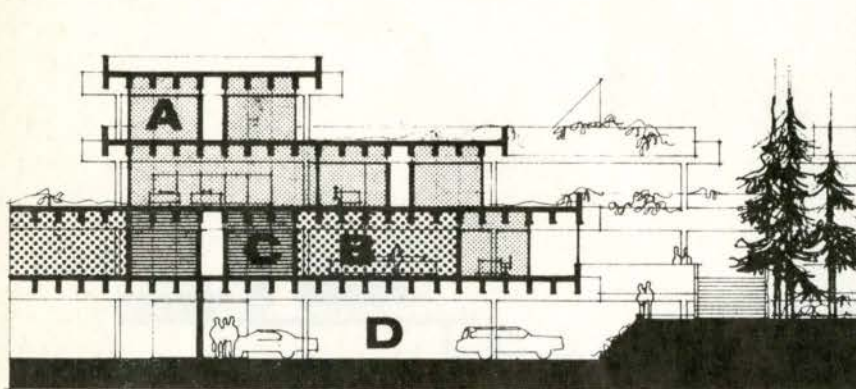
- 3a
Model
Maquette
- 3b
Isometric of building system
Projection isométrique du système de construction
- 3c
Possible section arrangement
Aménagement possible des secteurs



3a



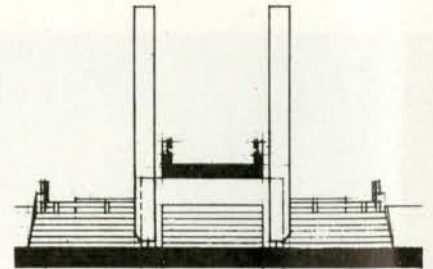
3b



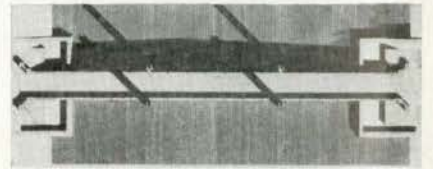
3c

Harry Heuer, Chief Architect, City of Calgary

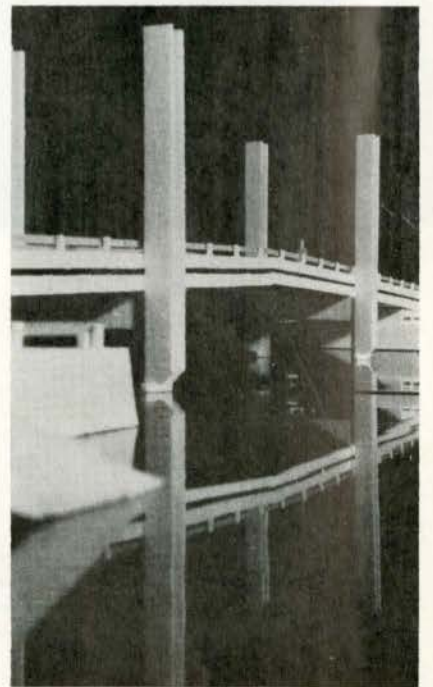
- 4a
Section
Coupe
- 4b
Plan
Plan
- 4c
Model
Maquette



4a



4b

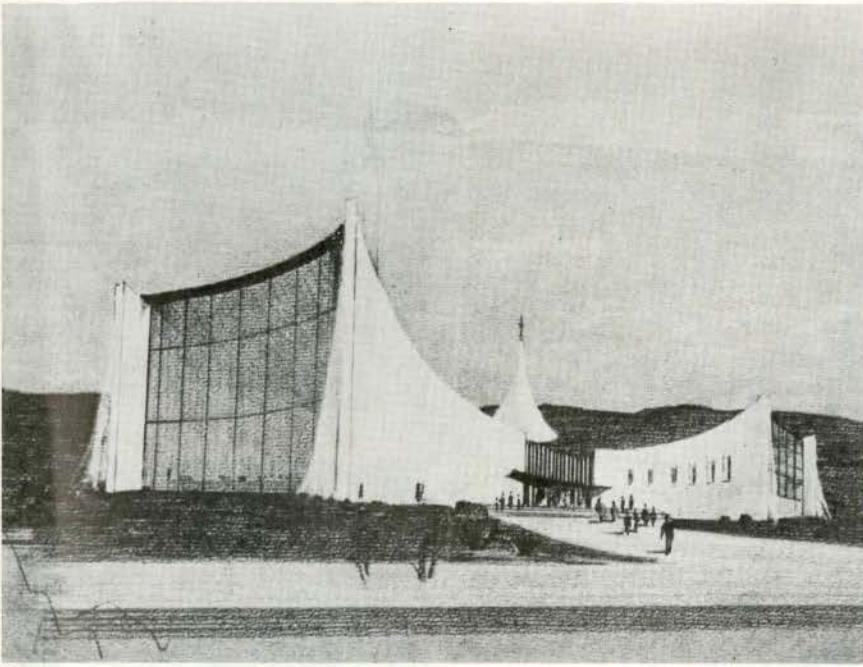


4c

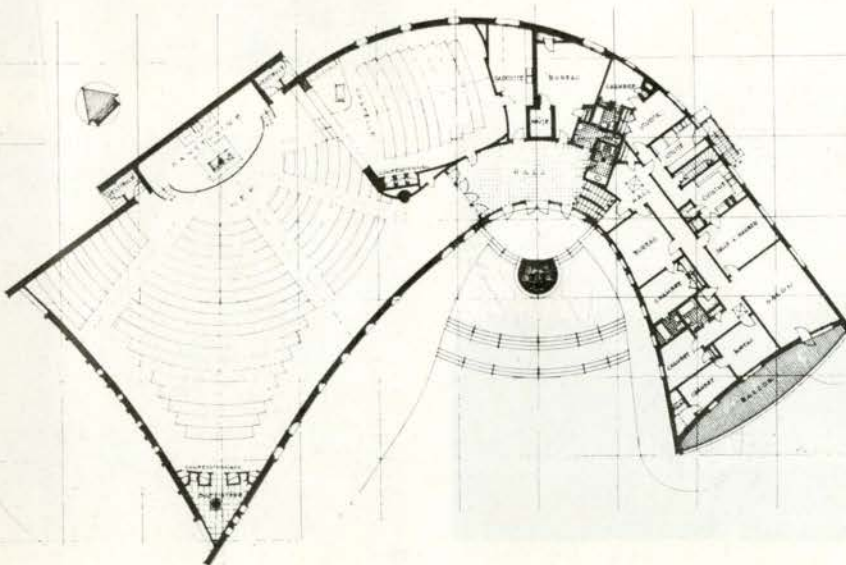
**Eglise Ste Madeleine, Havre - aux -
Maisons, Quebec**

Dupuis et Mathieu, Architects

- 5a
Perspective
- 5b
Plan



5a

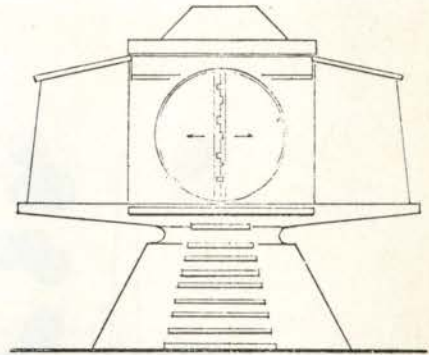


5b

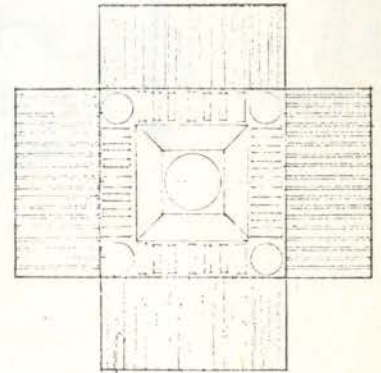
**Trailer, 10' x 20', for the New Mutant
Society of Tibetan Buddhism**

Henry York Mann, Architect

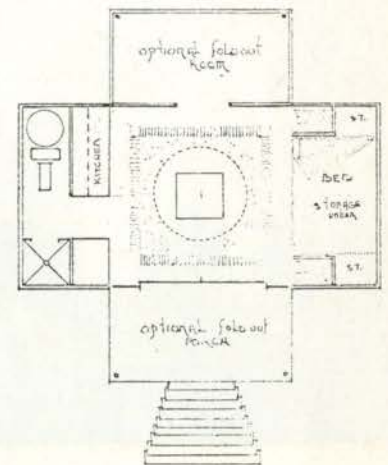
- 6a
Elevation
Façade
- 6b
Roof plan
Plan de la toiture
- 6c
Floor plan
Plan d'étage



6a



6b

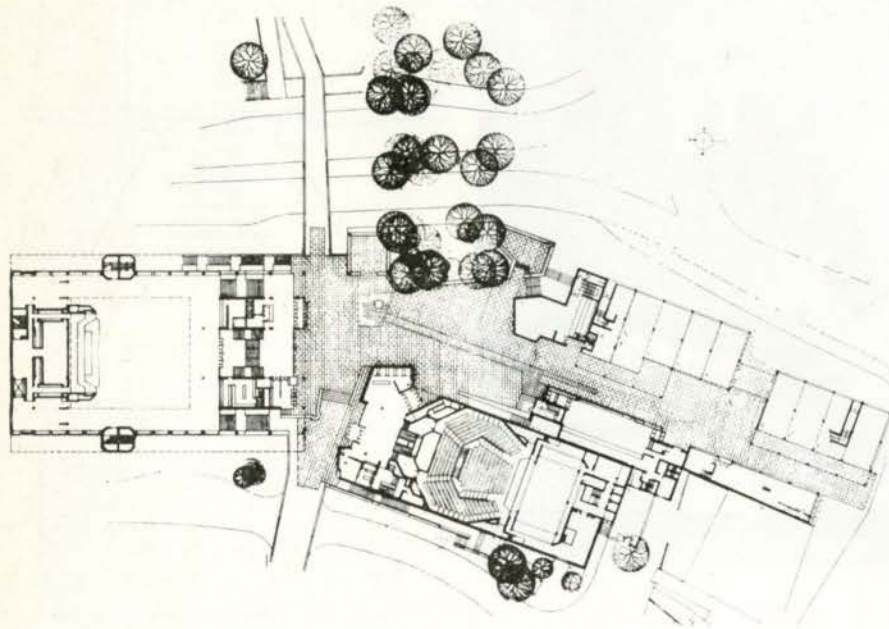


6c

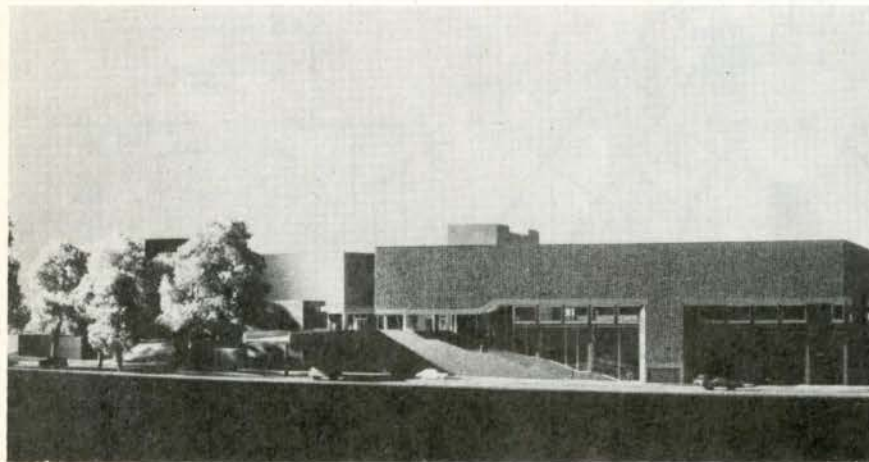
Swindon Civic Centre
Swindon, U.K.

Casson Conder & Partners

7a
Plan
7b
Model, view from north-east
Maquette vue nord-est



7a



7b

Bloorview Childrens Hospital, Toronto

Govan, Kaminker, Langley, Keenleyside,
Melick, Devonshire, Wilson, Architects

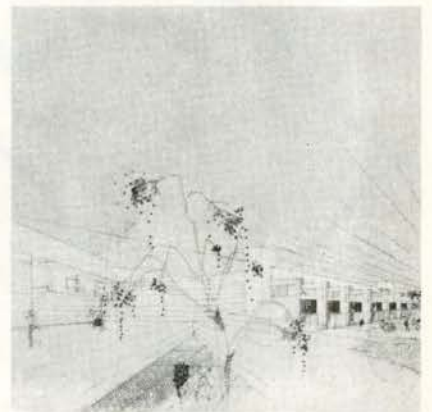
8a
View from oval court
Vue de la cour ovale
8b
View from Glentworth Road
Vue du Chemin Glentworth
8c
View from Sheppard Avenue West
Vue de l'Avenue Sheppard ouest



8a



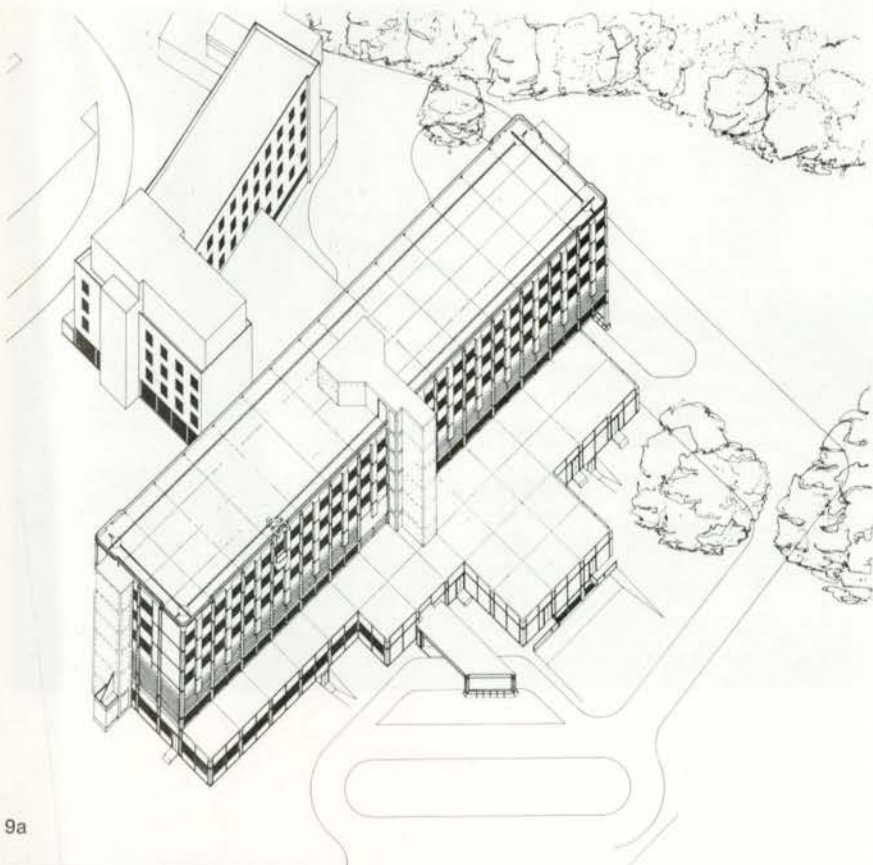
8b



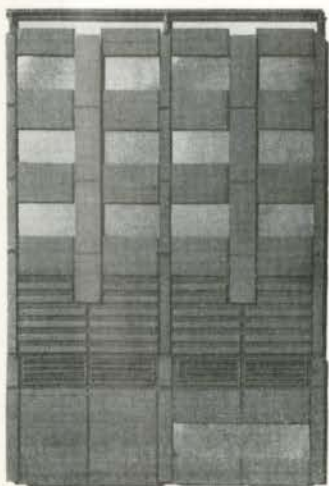
8c

Marani, Rounthwaite and Dick, Architects

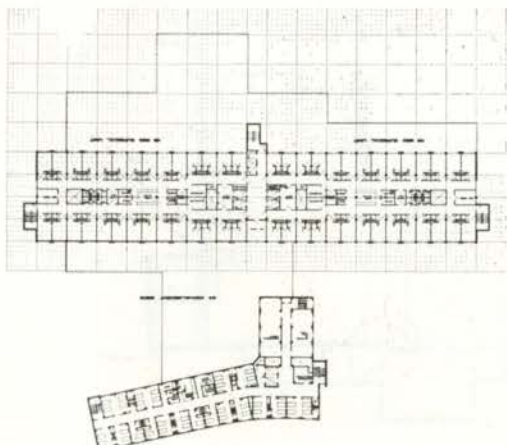
- 9a
Axonometric
Axonométrique
- 9b
Detail of Façade
Détail de Façade
- 9c
Plan, level 3
Plan, niveau 3



9a



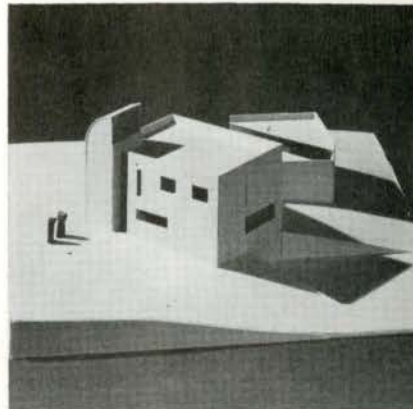
9b



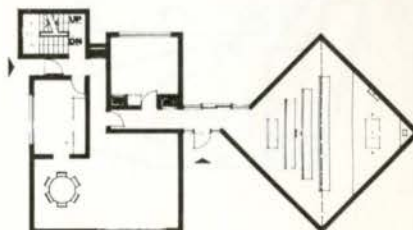
9c

John L. Blatherwick, Architect

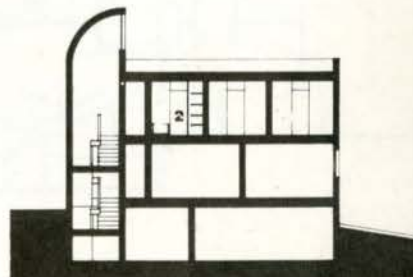
- 10a
Model
Maquette
- 10b
First floor plan
Plan, premier étage
- 10c
Section
Coupe



10a



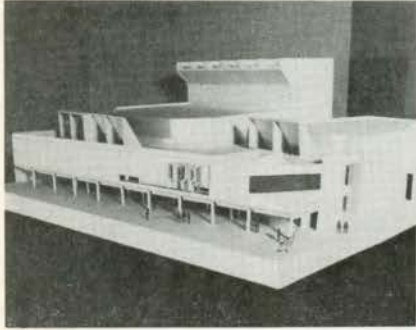
10b



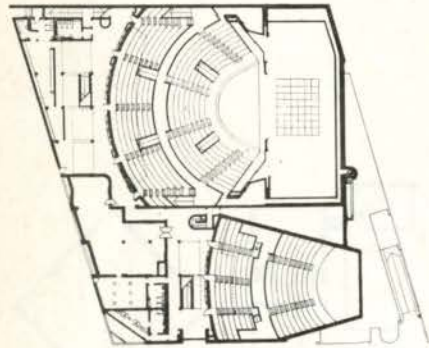
10c

Gordon S. Adamson & Associates,
Architects

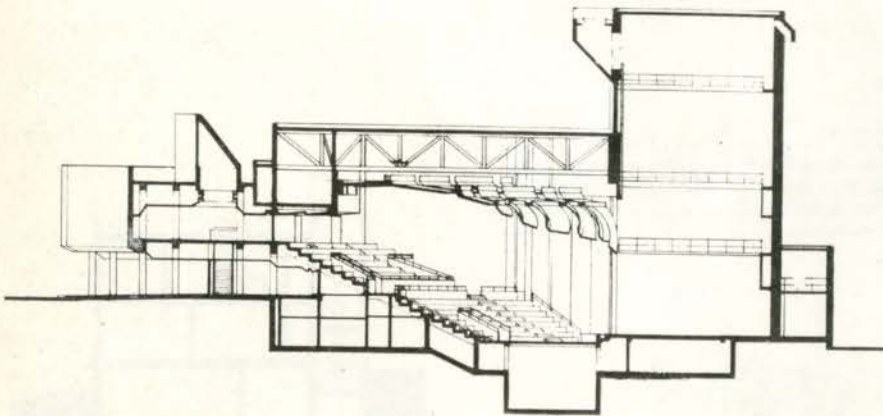
- 11a
Model
Maquette
- 11b
Second floor plan
Plan, deuxième étage
- 11c
Section through theatre
Coupe sur le théâtre



11a



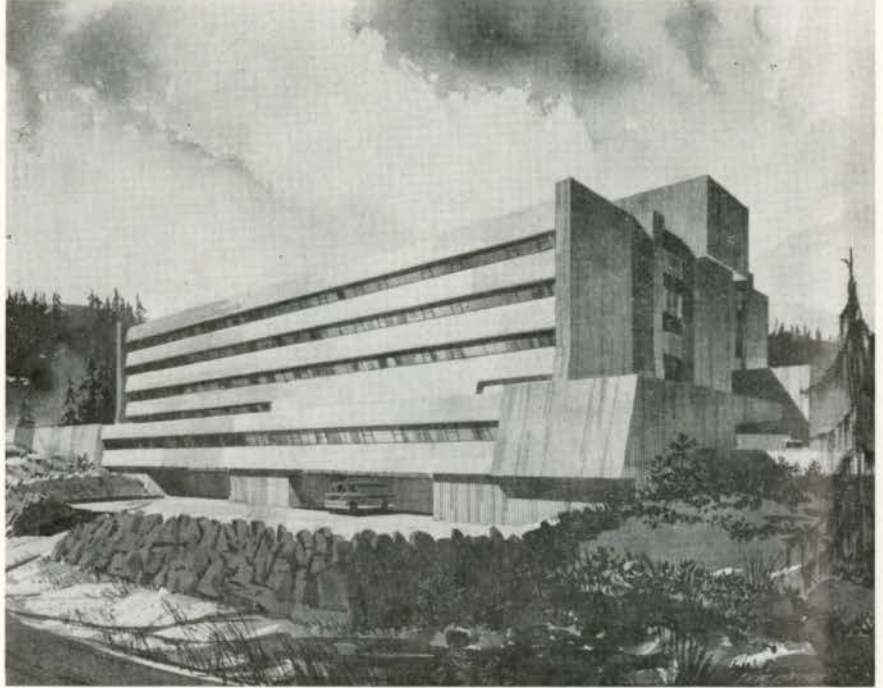
11b



11c

Thompson, Berwick, Pratt & Partners,
Architects

- 12a
Perspective



12a

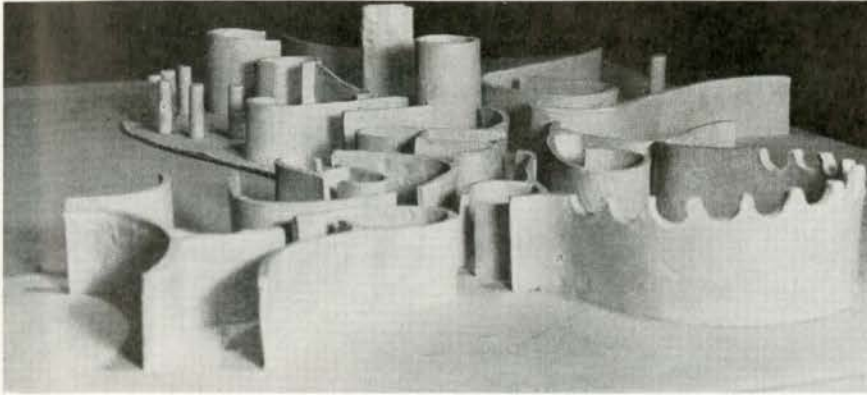
Housing

1d
Elevation
Façade

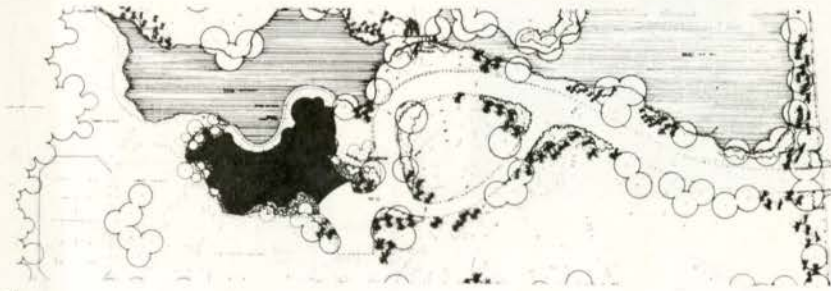
Reininger Residence, 38 Glenwood
Crescent, Toronto

Fairfield & DuBois, Architects

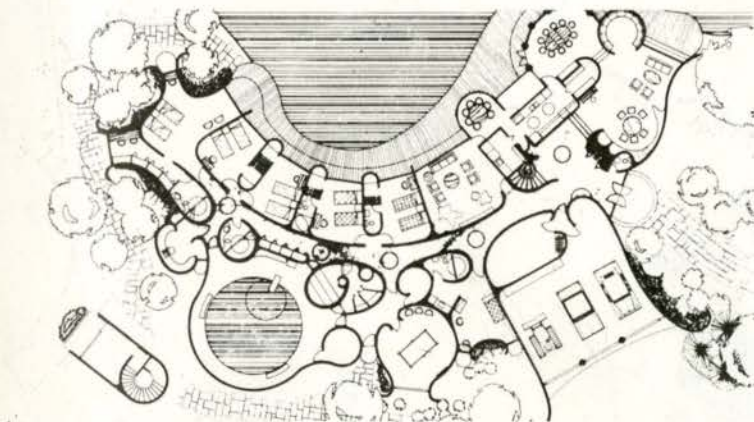
1a
Model
Maquette
1b
Site plan
Plan de situation
1c
Plan



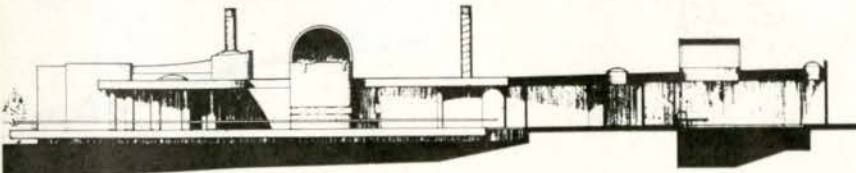
1a



1b



1c

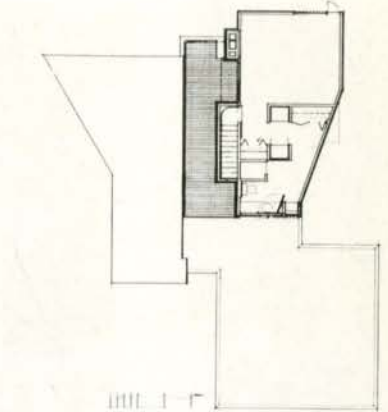


1d

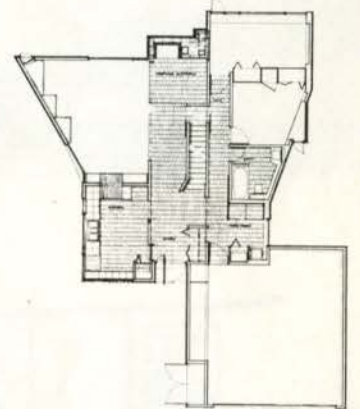
The Ballard Residence, Calgary, Alberta

Gordon Atkins, Architect

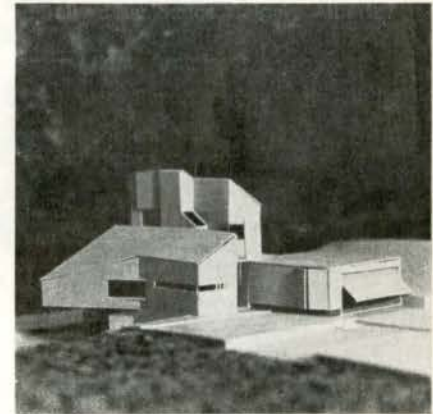
2a
Upper floor plan
Plan de l'étage supérieur
2b
Main floor plan
Plan du rez-de-chaussée
2c
Model
Maquette



2a



2b

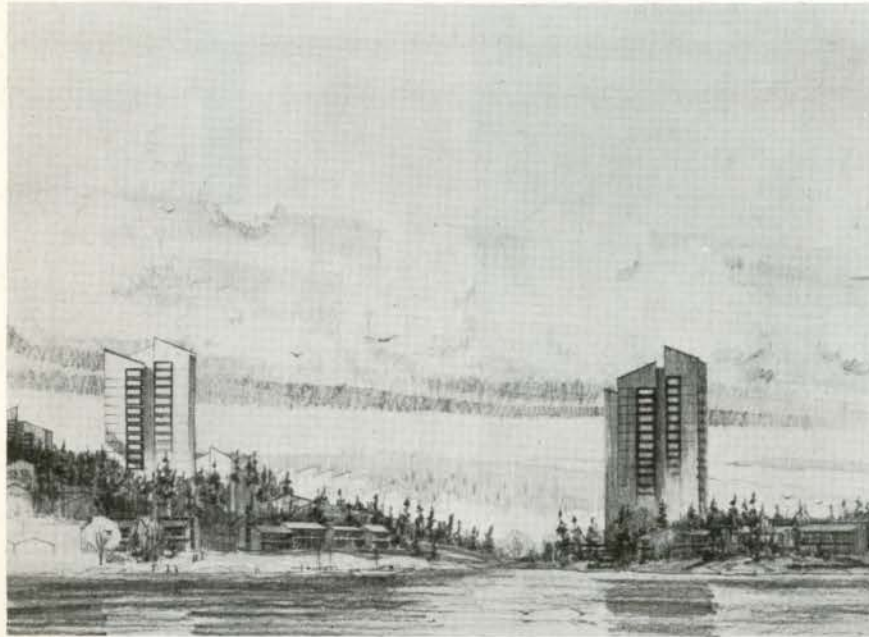


2c

Pinehurst Estate, Halifax, N.S.

Webber, Harrington & Weld, Architects,
Planners, Engineers
Project Planning Associates Ltd.,
Consultants

3a
Site plan
Plan de situation
3b
Perspective



3a

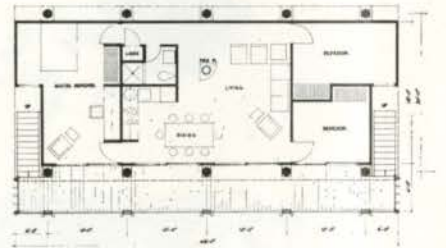
Summer Cottage for Mr. and Mrs. S. J.
Down, West Hawk Lake, Manitoba

Architects Consortium, (Kennedy, Li,
Simonsen, Smith) Architects

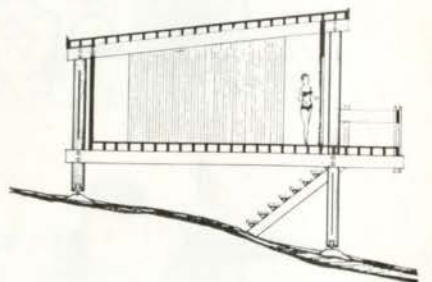
4a
Perspective
4b
Plan
4c
Section
Coupe



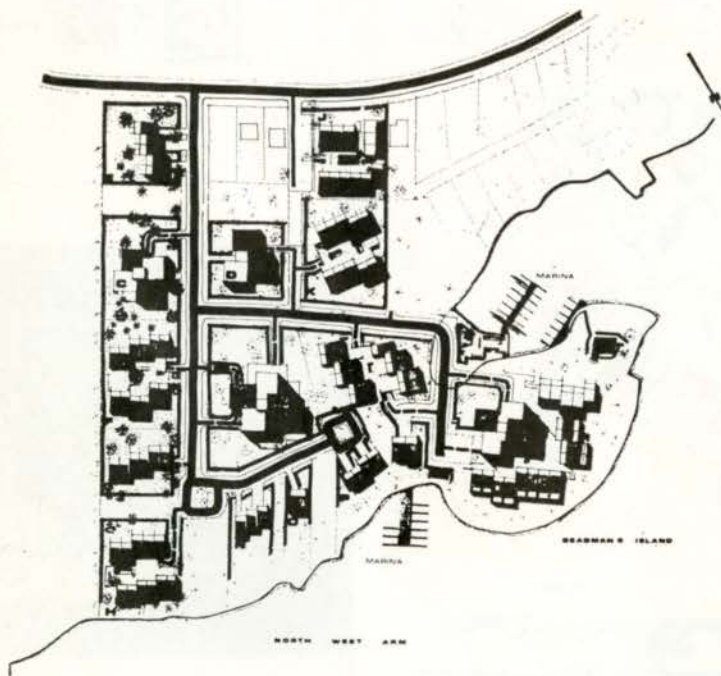
4a



4b



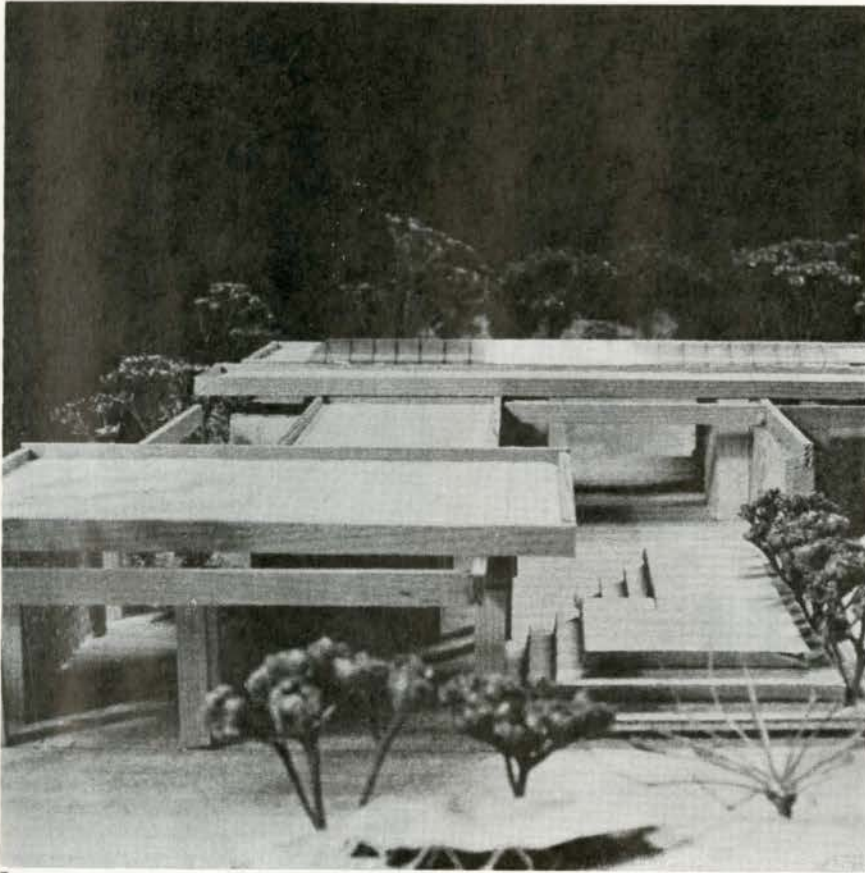
4c



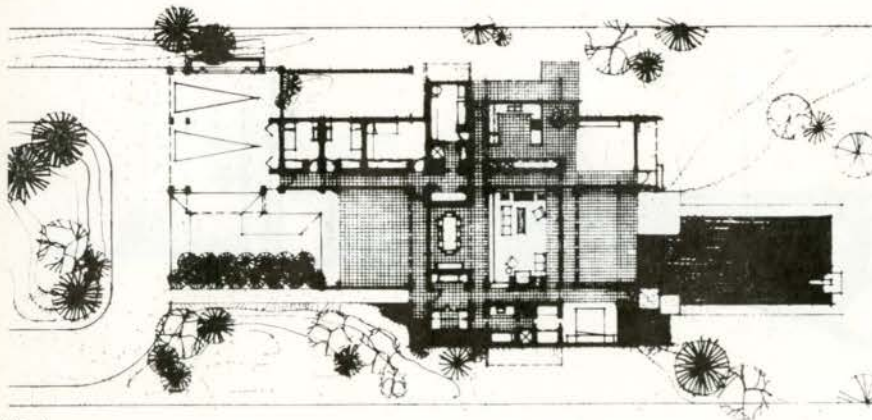
3b

Barry V. Downs, Architect

- 5a
North elevation and entry
Façade nord et entrée
- 5b
Plan



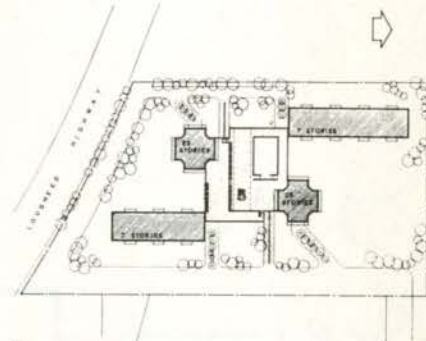
5a



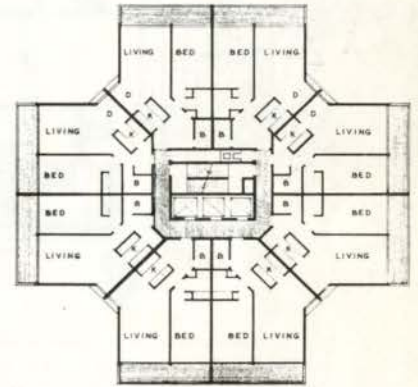
5b

R. Rapske, Architect

- 6a
Site plan
Plan de situation
- 6b
Typical tower floor plan
Plan d'étage type de la tour
- 6c
Perspective



6a



6b



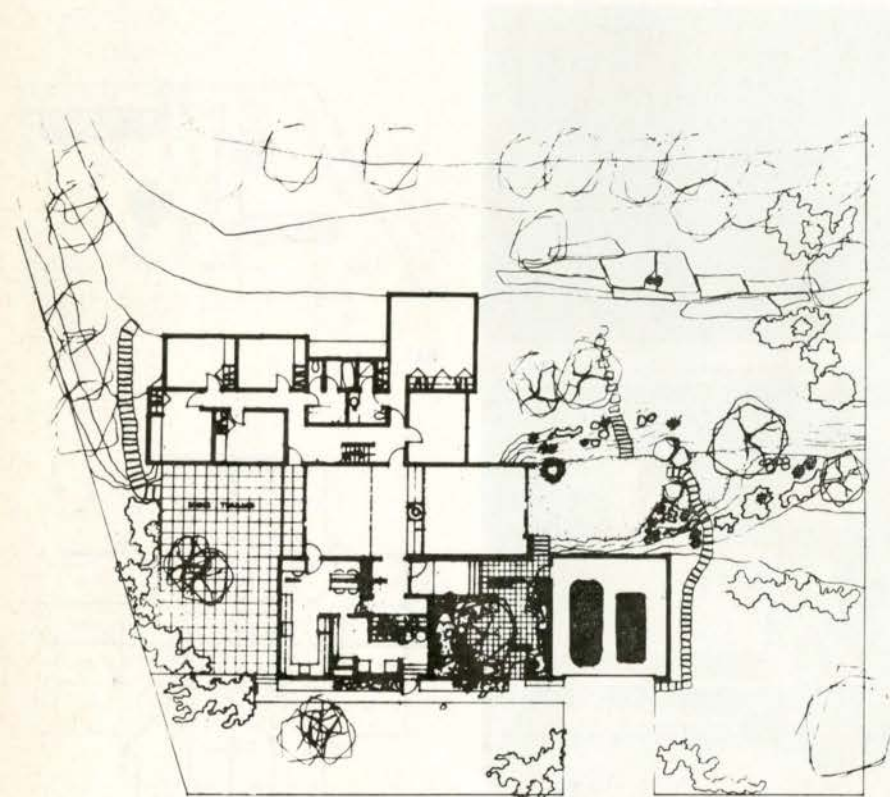
6c

Van Vlymen House, Kingston, Ontario

Holtshousen, Thompson, Laframboise,
Mallette, Architects and Engineers

7a
Ground floor plan
Plan du rez-de-chaussée

7b
West elevation
Façade ouest



7a

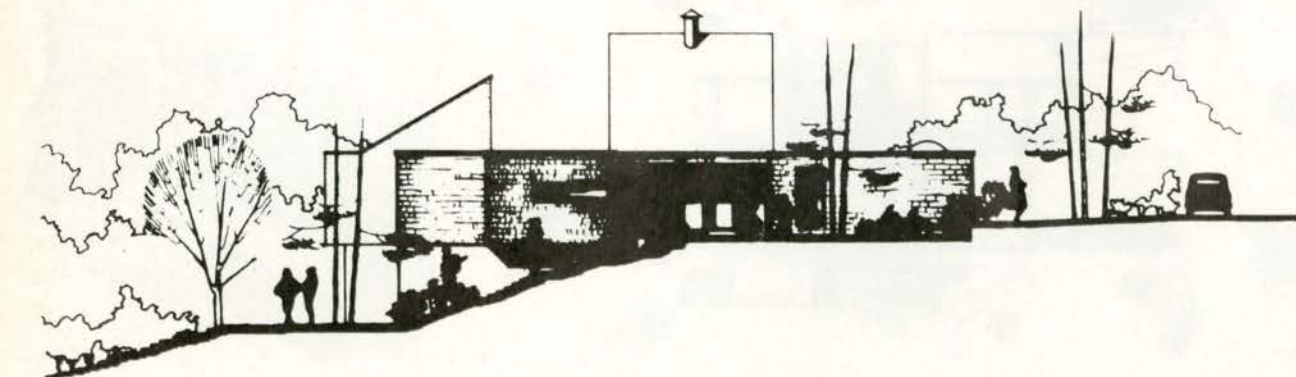
Place du Portage, Hull, P.Q.

Daniel E. Lazosky, Architect

8a
Model
Maquette



8a

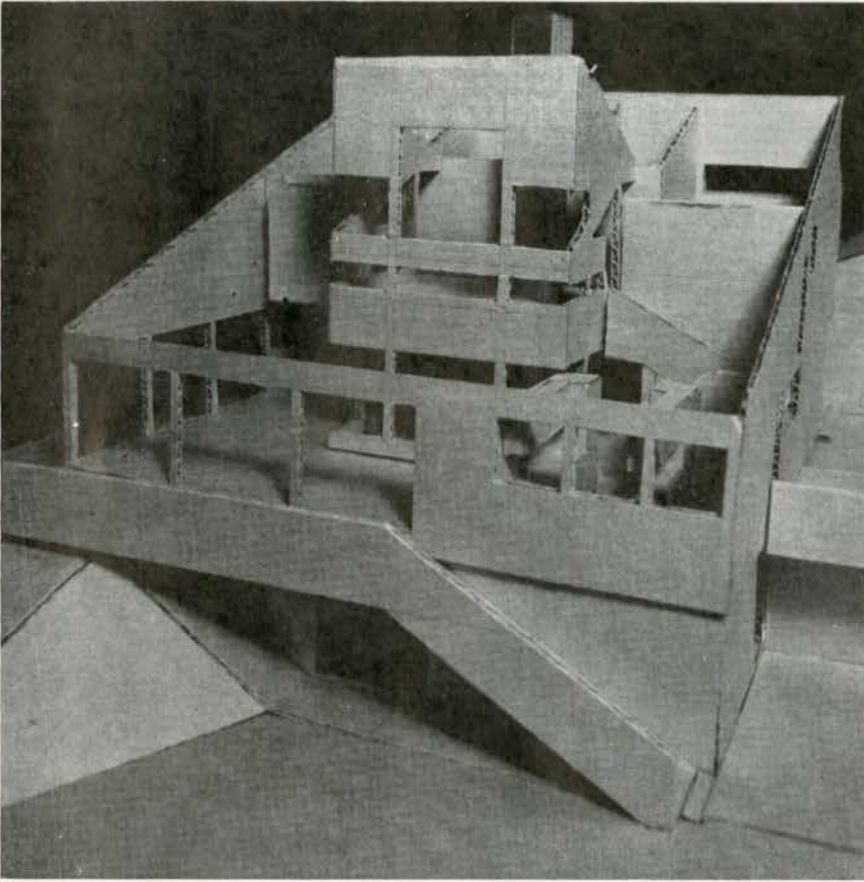


7b

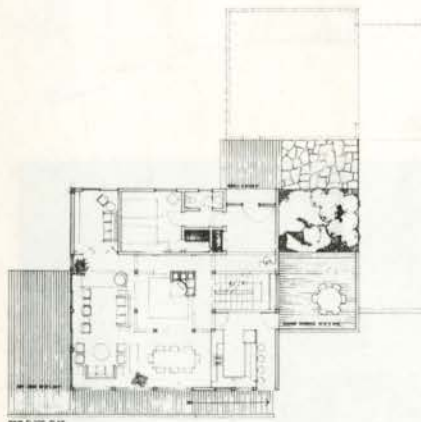
Larkin Residence, two miles N.W. of
Newmarket, Ontario

Marani, Rounthwaite & Dick, Architects

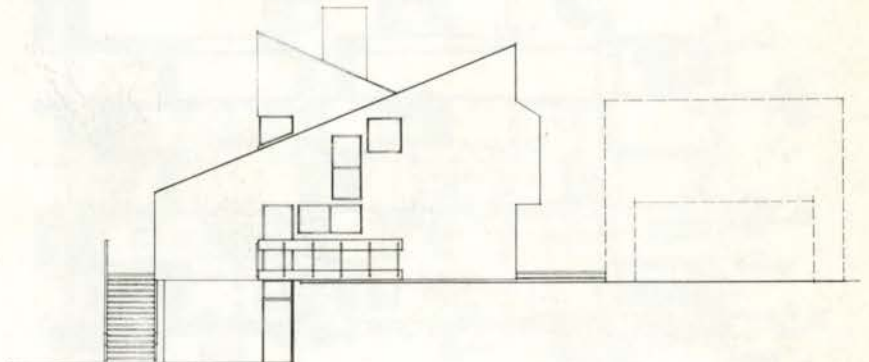
9a
Model
Maquette
9b
Plan
9c
Elevation
Façade



9a



9b

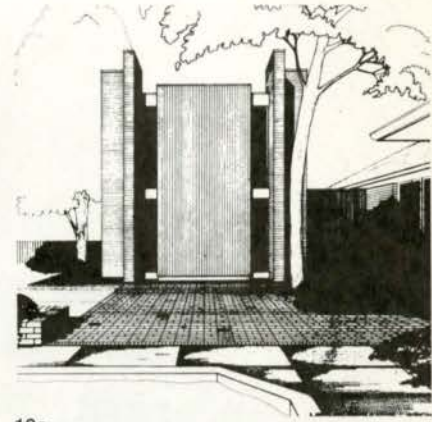


9c

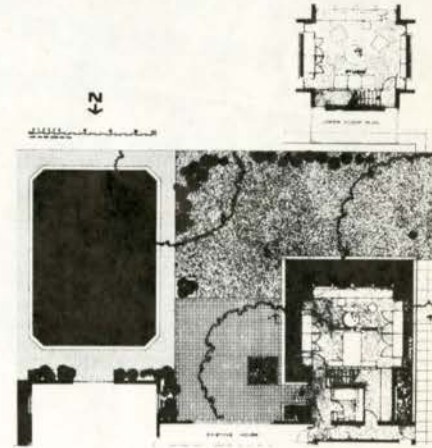
Pavilion for Tamara, 543 Blythwood Road,
Willowdale, Ontario

Leslie Rebanks, Architects

10a
Perspective
10b
Site plan and upper floor plan
Plan de situation et plan de l'étage supérieur



10a



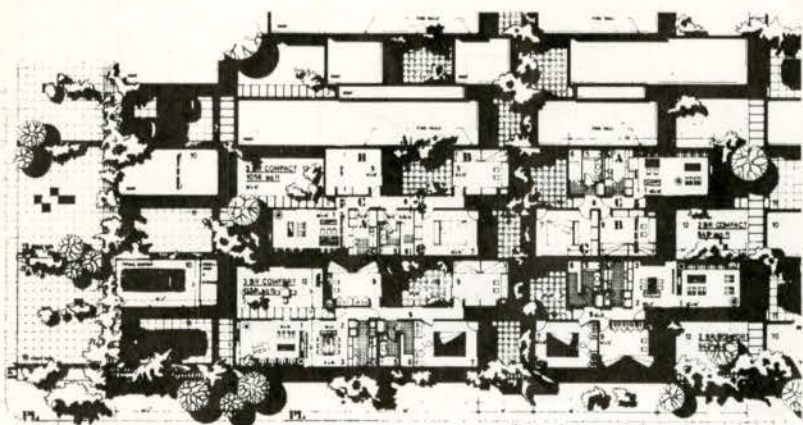
10b

J. M. Schmidt Associates, Architects and
Consulting Engineers

- 11a
Perspective
- 11b
Floor plans
Plans d'étages



11a

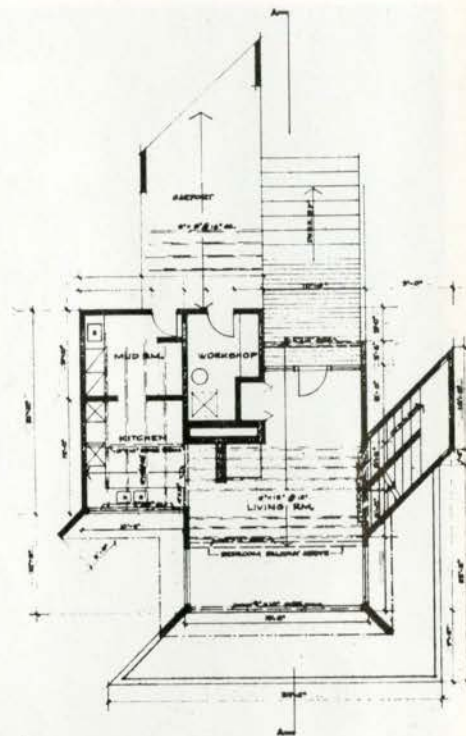


SIDE STREET

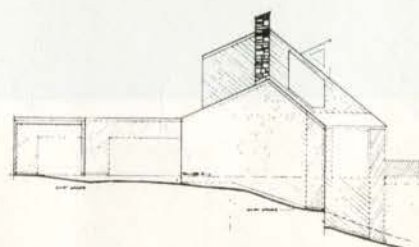
11b

Gardiner, Thornton, Davidson, Garrett,
Masson & Associates, Architects

- 12a
Main floor plan
Plan du rez-de-chaussée
- 12b
West elevation
Façade ouest
- 12c
Model
Maquette



12a

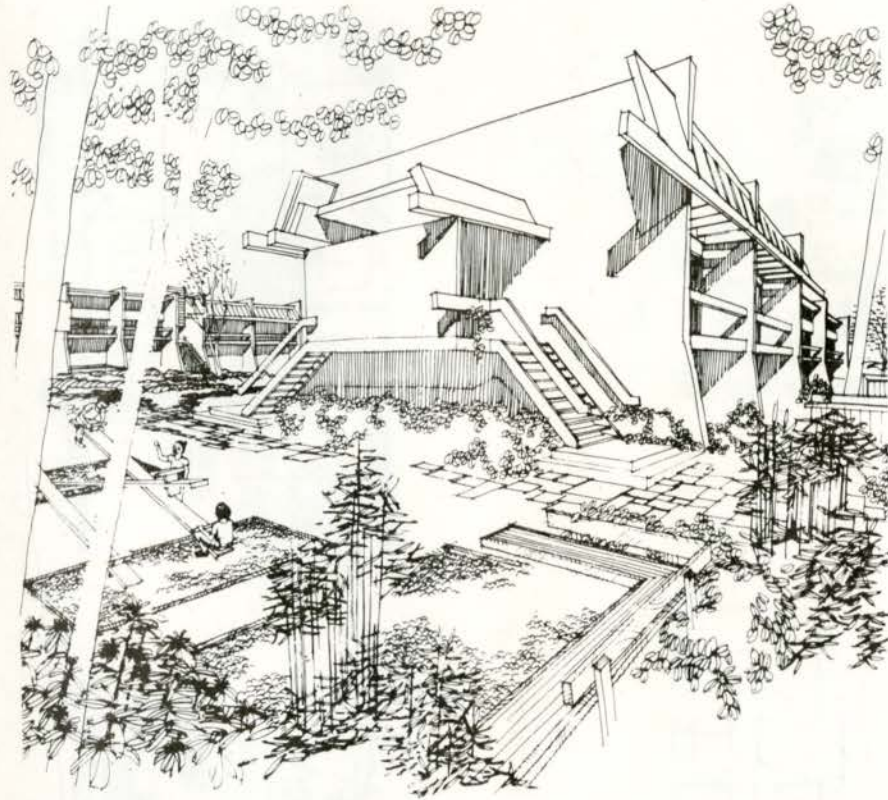


12b



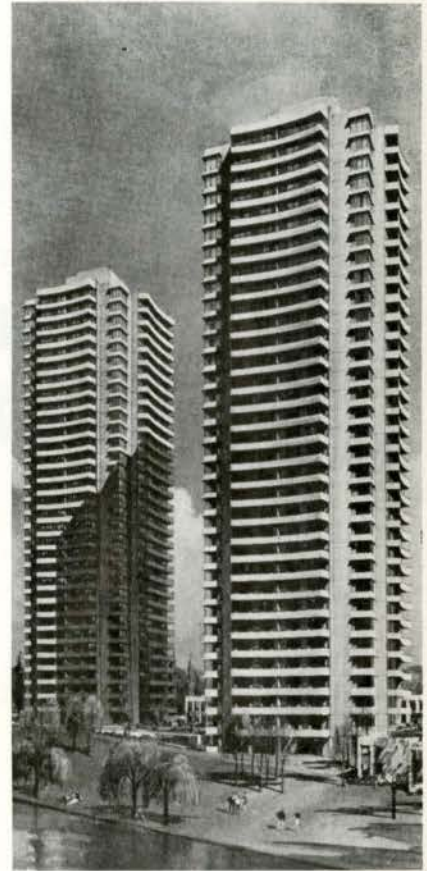
12c

13a
Sketch
Esquisse
13b
Model
Maquette



13a

14a
Perspective



14a



13b

Residence for Dr Mymn, Lot 57, Red River Drive, St. Norbert, Manitoba

Team 2, Architects & Urban Design Consultants, Architects

15a
Exterior view south-west
Vue extérieure du sud-ouest
15b
Ground floor plan
Plan du rez-de-chaussée
15c
Second floor plan
Plan du deuxième étage

15d
Section
Coupe
15e
South elevation
Façade sud

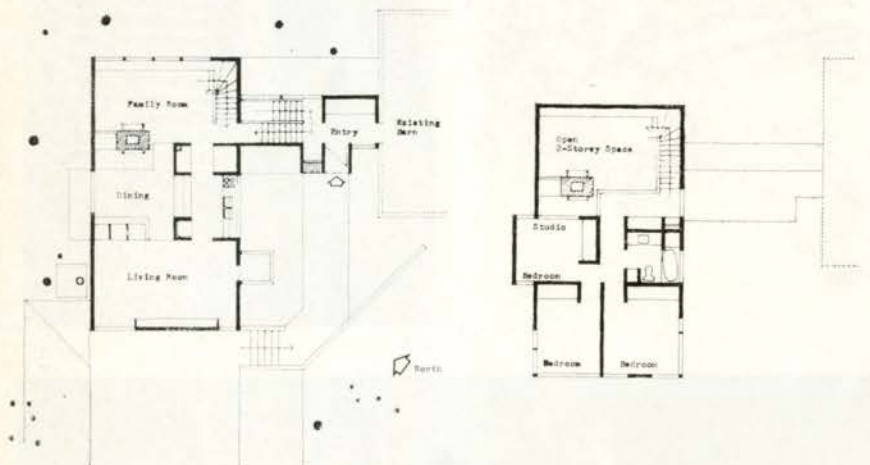
Residence for Dr. Castaldi, Cloutier Drive, Winnipeg

Arnold Koerte, Architect, Team 2

16a
Plan
16b
Section
Coupe
16c
Perspective

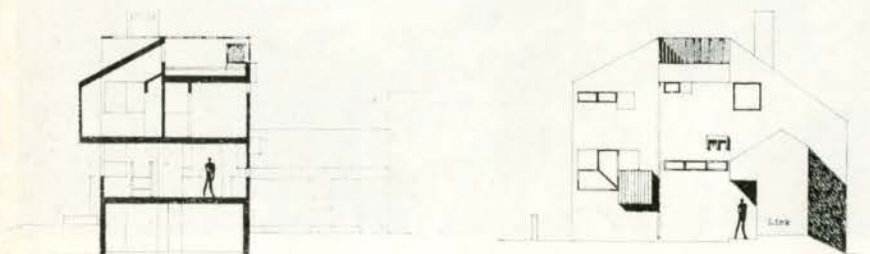


15a



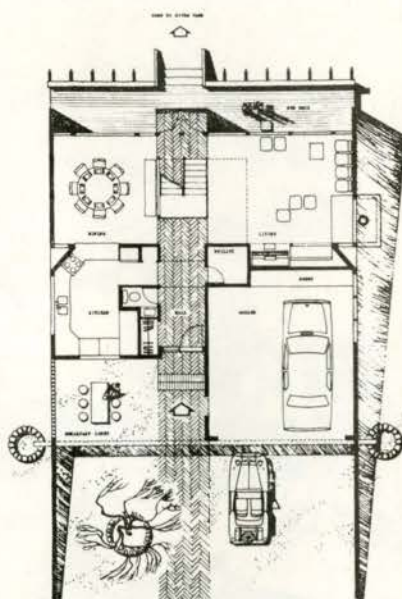
15b

15c

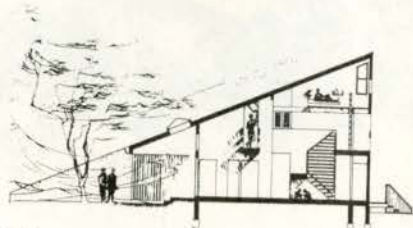


15d

15e



16a



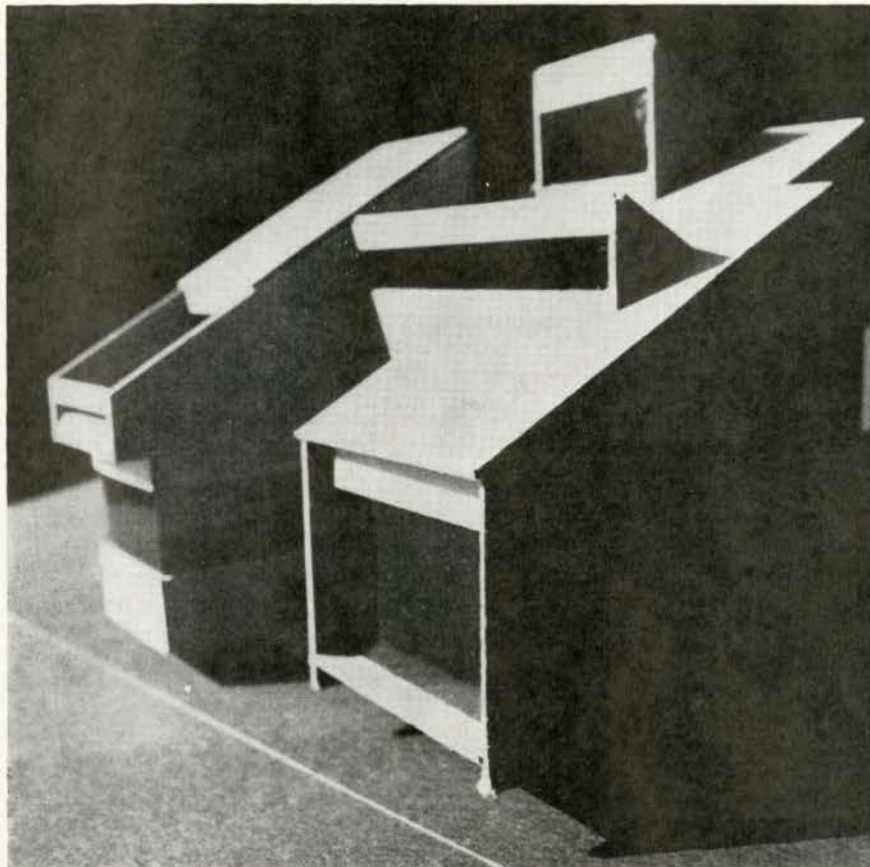
16b



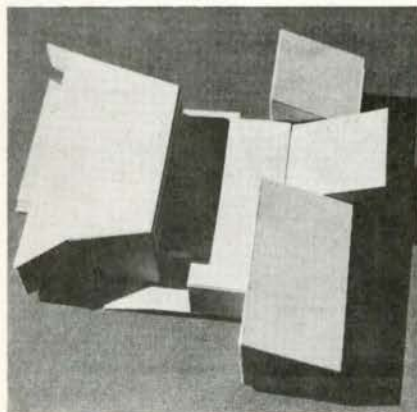
16c

Rosen, Caruso, Vecsei, Architects

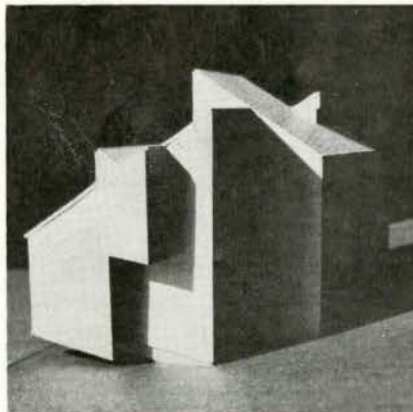
- 17a
View from lake
Vue du lac
- 17b
View from Golf Club
Vue du Club de Golf
- 17c
Entrance view
Vue de l'entrée



17a



17b



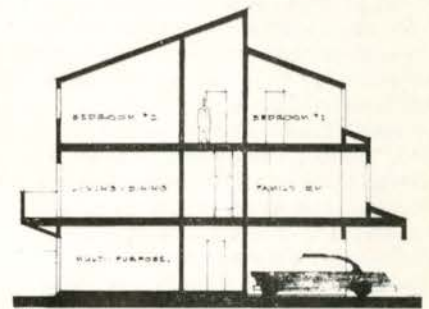
17c

John R. Kay, Architect

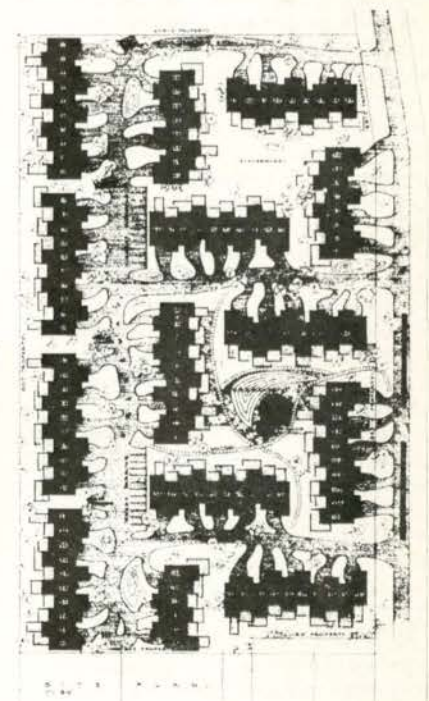
- 18a
Perspective
- 18b
Section
Coupe
- 18c
Site plan
Plan de situation



18a



18b



18c

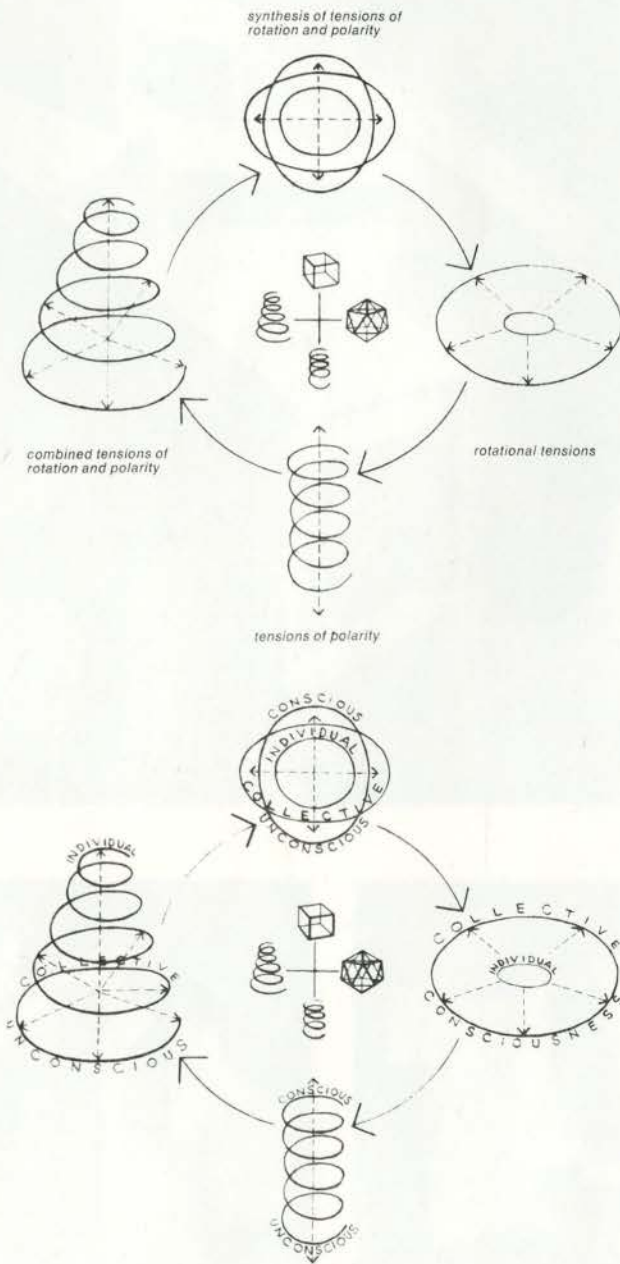
Anne Griswold Tyng, AIA

This is the third part of an article begun in the November issue. Material was prepared by Miss Tyng under a grant from the Graham Foundation. Miss Tyng is presently teaching a course in metamorphology at the Institute of Environmental Design of the University of Pennsylvania.

Creative Image as Tension Between Known and Unknown

Jung's concept of "individuation" is expressed in a cycle of four stages, which, articulated by *archetypal images*, show an extraordinary correspondence with the four stages of the geometric cycle which I have proposed – *bilateral, rotational, helical* and *spiral*. Jung has characterized archetypal images as "instincts of the imagination" and the Swiss scientist Pauli wrote of them, "As ordering operators and image-formers in this world of symbolic images, the archetypes thus function as the sought-for bridge between the sense perceptions and the ideas."³ Briefly, I have articulated Jung's "Homo" phase of psychic equilibrium as a *rotational* "energy-form diagram", indicating psychic energy directed outward and in tension with the world around – the expansion of the ego, the strengthening of conscious mental processes in relation to environment or *the tension of the individual with collective consciousness*. In the phase Jung calls "Serpens", the psyche, in its shift from the "rounding-out" process to the process of elongation in "depth", expressing *the tension of polarity between the conscious and unconscious mind*, finds a new source of psychic energy in reaching a new stage of temporary equilibrium, the new minimum energy configuration for polarity articulated in the "energy-form diagram" of the *helix*. Jung's third stage or *spiral* form of archetypal symbol expresses a *two-way tension – the polarity between the conscious and unconscious* as in the "Serpens" phase and also *the tension between the individual and the collective on the unconscious level* (as opposed to the tension between the individual and the collective on the conscious level in the "Homo" phase). This two-way tension is seen in the "energy-form diagram" in which the broadening base of the spiral articulates the rotational-polarity pull between the *individual center* and the *collective unconscious* "below" and around it. Jung's fourth stage "Anthropos-Rotundum" of synthesis and rebirth, is articulated in an "energy-form diagram" expressing the *balancing of tensions*, the integration of forms within forms – a transformation of

Geometric Cycle of Tensions



All three articles in this series have been copyrighted © by Anne Griswold Tyng.

⁴ Gerhard Adler, *Notes Regarding the Dynamics of the Self, Dynamic Aspects of the Psyche*, p. 14, publ. The Analytical Psychology Club of New York, Inc.

⁵ Herbert Read, *Icon and Idea*, pages 19 and 39, Harvard University Press, 1955

⁶ Will Grohmann, *Paul Klee*, p. 214, Harry N. Abrams, Inc. New York

"collective and biological drives to individual and spiritual drives of a higher order."⁴

The psychic synthesis of "rebirth" is far removed from the structure of hemoglobin, but in each case the simplified relationship of complex internal structure creates a new unity, and in the process of psychic individuation a new involution of structure creates from all the complexity of a collective and primitive origin an uniquely individual form. So that the principles of *space, time, causality* and *synchronicity* have validity for the psychic cycle, *space* expressing the tension of individual man with the collective consciousness of external environment, *time* the tension between conscious thought and unconscious memory and *causality* to the interrelated and combined tensions of both space and time, between the individuating conscious psyche and the vast reaches of primordial memory in the collective unconscious.

Herbert Read, in relating the evolution of man's perception and his creativity, wrote, "Successive stages in man's apprehension of reality . . . successive conquests by human consciousness of definite modalities of existence – the animal, the human, the intellectual, the numinous, the transcendental, the real and superreal spheres of being or experience . . . indicate a correspondence between the main epochs of art and an expanding awareness of the nature of reality." Read also seems to suggest that this evolution of consciousness was not a *lineal* development but a *cyclic* development – . . . "It is possible that in the vast stretches of time that intervene between paleolithic naturalism and the naturalism that was to succeed neolithic abstraction, the geometric style had its separate origin, as the *expression of a specific psychic state* . . . it is even conceivable . . . that a geometric art, of which we have no knowledge, because it left no traces, preceded the naturalistic art of the Paleolithic period."⁵ (my italics)

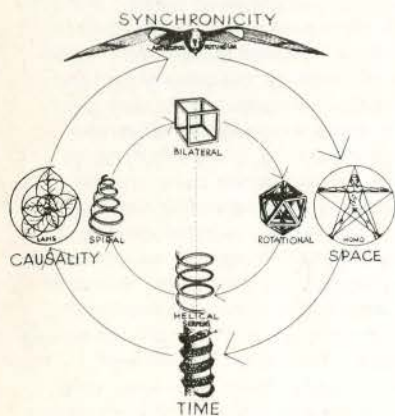
The evolution of creativity in primitive man could be imagined in the four phases of its

first cyclic evolution. After man first stood erect in a *bilateral* stage of synthesis, the next phase of rotational form – the expression of tensions between him and the world around, must have developed the use of his hands, the extension of his skills and the coordination of mind and hand in the making of useful things such as tools. The next phase of *helical* form in the tension toward introversion may have added emotional depth to skill in the creation of something an individual felt was sensually pleasing – such as a beautiful piece of pottery. The next stage of *spiral* form, of combined tensions of rotation and polarity – between the individual and the collective, between conscious and unconscious mind – may have meant the creation of more universal art forms in image and myth for religious ritual or worship, forms with more powerful collective empathy. The next phase of bilateral synthesis and of balanced tensions could have brought about the discovery of abstraction in art forms, the simplification which expressed an essence of beauty with significance to *both the individual and the collective and including both sensuality and spirituality*.

The artist Paul Klee wrote in his diary in 1918, "Thus image-making must be understood as an aspect of the life force that forms itself, spontaneously. My hand is entirely the tool of a distant will."⁶ These delineations of shifting psychic forces, the archetypal images, which power the creative energy of man are the "skeleton structures" on which the "flesh-forms" are hung throughout history in the different periods of changing art forms. Generally the periods of *rotational* form relate to periods of external ordering of the psyche, periods of expansion, of materialism and practicality, of openness, *space*, of concern with life, light, sun, of physical comfort and pleasure, of rationalism, humor, confidence, of belief in the essential goodness and creativity of man; the phases of *helical* form relate to periods of internal ordering of the psyche, of subjectivity and intuition, of containment and verticality (polarity), of concern with our origins, with past and future and the element of *time*, with death and the principle of evil,

darkness, of emphasis on emotion and inner spirit; the phases of *spiral* form relate to periods of increased tension and containment of opposites, contrasts of light and darkness, of complexity, of bizarre and exotic styles, exaggerated motion and energizing of form, forms with complex curves, pointed arches, ovals, winding processions and labyrinths, tapering towers and spires, the transformation of matter with light, forms with weightlessness, with progressively diminishing horizontal and vertical dimensions, *the combined tensions of space and time*; and the phases of *bilateral* form relate to periods of synthesis and serenity, of balance, unity, cubic forms with emphasis on horizontality and planar surfaces, forms with rectilinearity, simplicity, axially and solidly, forms expressing the integration of *tensions in equilibrium*. From the time of the Great Pyramids of Gizeh to the present forms of man's creativity, I have traced 11 cycles of form which become progressively shorter in length in *bilateral, rotational, helical* and *spiral* phases.

From Proto-Renaissance to High Renaissance to Baroque to Rococo, one of these cycles is clearly seen beginning in the bilateral phase of synthesis named for "rebirth". The strong cubic forms of the palaces of Florentine merchant princes express the solid serenity, symmetry and horizontality of this phase of *bilateral* forms. *Rotational* forms were pioneered in the work of Brunelleschi, in his daring structural innovation in the dome of the Florence cathedral and also appear in the later work of Alberti. Inventiveness and the extension of knowledge characteristic of a *rotational* period recall an earlier rotational period of classical Rome and appear in the invention of movable type with the printing of the Gutenberg Bible and in such documents as Pacioli's *De Divina Proportione*, Copernicus' work on the solar system and Vesalius' work on anatomy. The new humanism, the concept of man as creator, a zest for living and all the delights of physical existence contrast with the introversion of the following helical period with Martin Luther's rebellion against the corruption of the

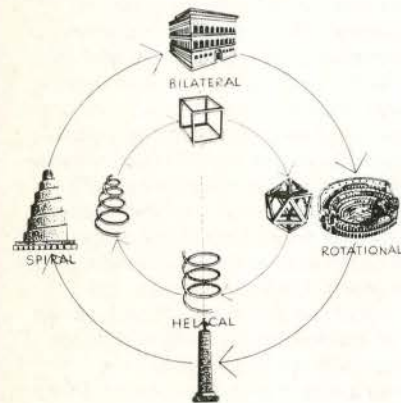


church. The empathy for *helical*, or so-called spiral, stairs is a feature of Baroque architecture and the verticality of Pope Sixtus V's obelisk recalls the Egyptian obelisks and Trajan's column of earlier *helical* periods. Elongated, intensely articulated forms appear in the work of painters of the time – "Mannerist painters were also retreating from events in the external world."⁷ The tensioning of forms in both space and time of a *spiral* period is articulated in the concave-convex facades, frescoed ceilings and complex curves of late Baroque and Rococo forms with their elaborate ornament and *spiralling* motion.

Form hierarchies appear in urban structure as time-evolved cycles. As an organism in evolution, the city, through selection and mutation finds genetic validity of forms. The rectilinearity of individual buildings and the fourfold orientation of the grid-iron street patterns originate in the basic spatial concept of man related to the four points of the compass and to some of man's earliest concepts in the ordering of his environment. *Bilateral* synthesis in different periods took form in the Roman camp towns, in the axially of early medieval manor, church and rectilinear castle forms, and in the strong axially of linear market street village. *Rotational* forms appeared in the protective circle of castle moats, and the ring-wall enclosures of medieval towns and in the radial expansion or rotational clustering forms of villages. *Helical* periods were marked by the verticality of protective helical tower forms, the internal ordering of city spaces as in Baroque squares and fountains and in the setting aside of park spaces. *Spiral* phases were articulated in the collective specializations of urban life, the branching out and expansion beyond the cathedral or castle nucleus, and in more irregular street patterns such as the labyrinth patterns of Chinese city streets, deliberately tortuous so that the evil spirits cannot find their way. Many cities retain the traces of a second and third encircling wall or line of fortification to mark the synthesis of a *bilateral* period, and the containment in *rotational* forms which followed a period of *spiral* expansion. In some cities, a

prehistoric nucleus is contained in a Roman camp form which was again enclosed in the walls of a medieval city. This in turn, expanded by developing trade and commercial activities, was integrated in a Renaissance form. Eighteenth century trade and industry again expanded urban boundaries to be synthesized in high rise urban centers at the beginning of the 20th century. Now these are by-passed and encircled with their own protective beltways and expressway systems, the *rotational* ring-wall protection from vehicular traffic.

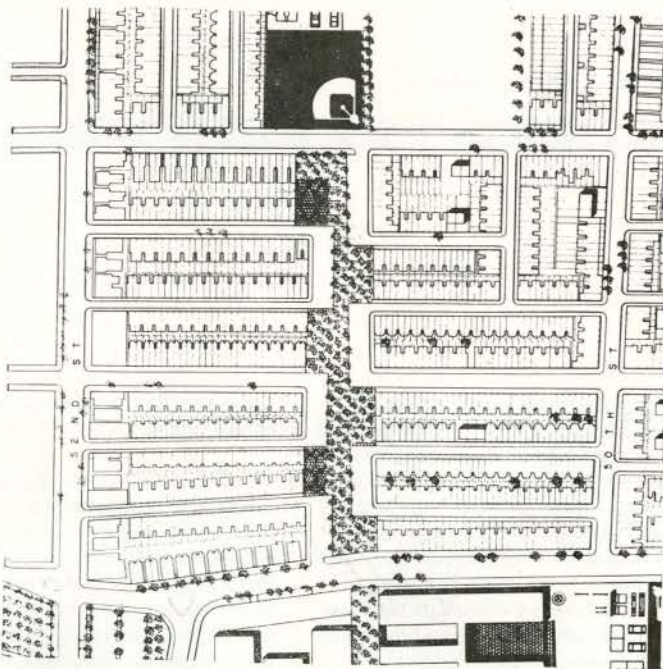
The continued vitality of hierarchical forms can be found in the urban space systems which have survived. Elements of the "Zahringer New Towns" from the end of the 12th century have this growth capacity. Although some of the towns are not much bigger than large super-blocks, the elements and proportions function successfully today and indicate that these *bilateral* forms of synthesis have validity within hierarchies of present urban space systems. Of the eight basic laws governing the layout of the Zahringer towns, two are of particular interest: "the market thoroughfare, 100 feet wide, stretched continuously from town portal to town portal as the main interior space of the town" . . . and "the orthogonal geometry used in the planning of town quarters, homestead, and street widths in the harmonic proportions of 2:3, and 3:5."⁸ The strong *bilateral* axially of the market thoroughfare acts as a synthesis of the town space and the Fibonacci proportions of 2:3 and 3:5 suggest that some of the towns' vitality probably derives from the appropriate use of these growth proportions from the summation series we have seen is a sub-unit of the Divine Proportion. The ring-wall enclosure at this scale may be compared with the encircling roadway of a super-block, which articulates *rotational* form including *bilateral* form, with the alternate use of the market thoroughfare as a pedestrian park green-way. A comparison of existing and proposed traffic patterns of a small portion of the Mill Creek Redevelopment Area Plan (prepared in 1954 for the Philadelphia City Planning Commission, Louis Kahn, consultant architect, Louis E.



McAllister, Kenneth Day and Anne Tyng, associated consultant architects) shows such an hierarchical articulation of a super-block of residential scale. With its axial green-way, it is related at right angles to the larger pedestrian way connecting the institutional elements of churches and schools in the greater neighborhood. The internal reordering of existing grid-iron street patterns shows a new source of vitality for cities which has barely been tapped. Such an internal reordering (on which I worked) was developed in the 1950's by Louis Kahn for the entire central area of Philadelphia.

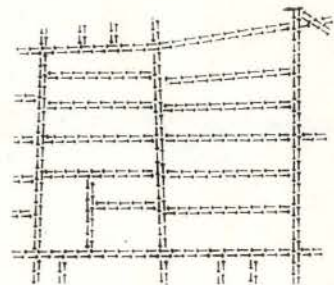
Further intensification of urban forms occurs in the denser vertical elements of multi-storied towers, expressing the *helical* phase of forms. Their appearance in medieval towns such as San Gimignano, as well as their function in articulating the ring-wall enclosures gives a vitality of form which the continuous spreading of horizontal-*bilateral* forms do not. In fact, in larger and larger sizes, bilateral forms alone tend to have an overbearing lifeless quality. Increased vertical density combined with perimeter suburban expansion, require an intensification of forms in movement systems, which, in expressway forms and interchanges, have

the complex curves and interlacing forms characteristic of a *spiral* phase. The time-space complexity of the greater speeds and larger scale essential for urban vitality requires curvilinear forms which make the *bilateral* forms of the city's nucleus inadequate. Just as in the nucleus of the atom, the protons and neutrons are close-packed and dense compared to freely spinning electrons in the surrounding space, so, at the nucleus of the city, within bumper to bumper traffic, the city itself must move as one body to become a system of moving pedestrian streets and freight conveyor systems. Proposed for the nucleus of the

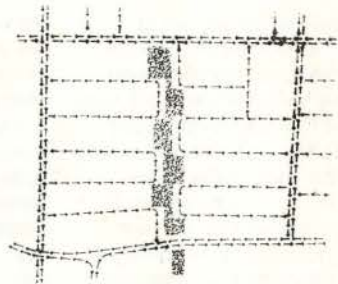


Portion of Mill Creek Redevelopment Area Plan, 1954
Philadelphia City Planning Commission

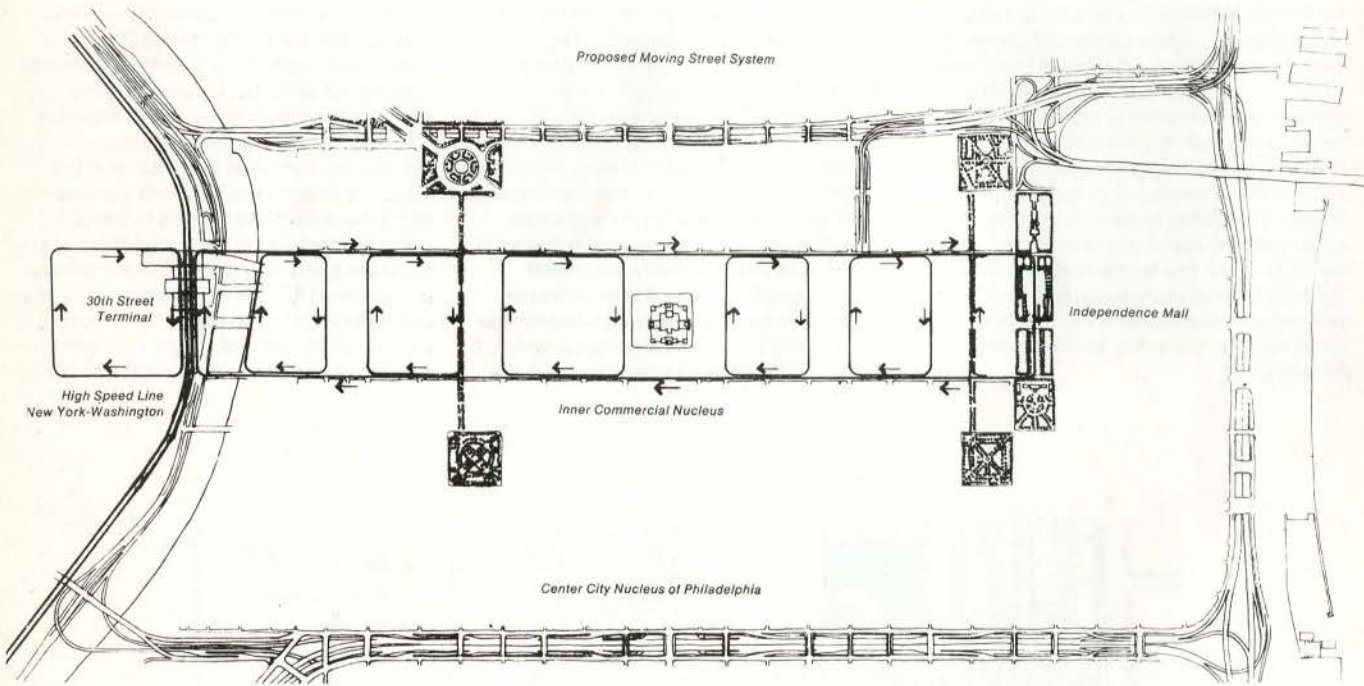
Louis I. Kahn consultant architect
Louis E. McAllister, Kenneth Day, Anne Tyng associated consultant architects



existing street pattern



proposed street pattern



nucleus of Philadelphia, this system of rotating super-blocks would mesh with an elongated loop connecting the 30th street terminal of the New York to Washington high speed line with the Commercial Core and with Independence Mall. Interlocking speeds would mesh with the faster speed of the main loop, which in turn may be geared to the high speed line itself so that the train may load and unload at the same speed as the moving loop, without actually stopping.

"A form-synthesis of city spaces can give life to the *rotational* tensions of *space* – tensions of the individual with collective consciousness, the tensions between private dwelling unit and collective services and institutions, between privacy and crowds,

between the desire for spaciousness and the vitality of density; to the *helical* tensions of *time* – the tensions between old and new forms, the tensions between earth and sky in man-made towers, between high and low forms, between man-made forms and the forms of nature in existing terrain, fountains, parks and waterways; and to the *spiral* tensions of *space-time* – tensions between individual uniqueness and mass production, tensions between the well-rounded individual and collective division into specializations, the tensions between the reinforcing of similar uses of space and the rich vitality of mixed uses, tensions between integrated population and scattered ethnic communities, and tensions between indi-

vidual creativity and the collective power of institutions."

The organic principles of asymmetry, of growth and proportion, the gradual intensification of form with the building up of hierarchies within hierarchies, the inclusion of existing or "old" forms in new forms, the integration of moving forms in static forms, the interlacing of complexity within an overall simplicity, the space system of a higher order which can correlate other space systems – all can provide new ways of binding the whole into a unity of moving growing form – a balanced creative image as tension between known and unknown for the spatial synthesis of collective life. ■

Frank Helyar, MCIQS

Technical Section Renamed Practice

As noted in the news section of this issue, we have renamed our Technical section "Practice" as being more descriptive of its greater emphasis on aid to the practitioner, both in the day to day problems of practice and in keeping abreast of the new techniques and technology, news of current events relative to practice, and new technical literature. Frank Helyar, MCIQS, continues as editor of the section aided by A. W. Cluff, MRAIC, ARIBA. A practicing architect, Mr Cluff also is vice-president of the Specification Writers Association of Canada, and his special area of interest in the Practice section is specifications and technical literature. Contributors in the next six months will be Wilson A. Salter, (F), the recently appointed RAIC Director of Professional Services; S. A. Gitterman, chairman of the RAIC Committee on Architectural Research; and C. F. T. Rounthwaite, (F), chairman of the new RAIC Standing Committee on Architectural Services for Federal Government Work. Prof. C. Herbert Wheeler AIA, will continue with more articles on emerging techniques of architecture practice.

Questions on problems of practice or suggestions for the future articles will be welcomed. The Editors

About 80-90% of the world population now uses the metric system and the trend is growing, even in the Anglo-Saxon world which is the last major holdout. In Australia there is a movement under way to consider conversion. India's ten year program for conversion is virtually complete with all Indian standards now based on metric units, and Britain is on the threshold of a major change to the metric system. In Canada the use of the metric system has been legal for over 100 years, and the trend in the use of metric units, usually in conjunction with British units, is increasing, particularly in certain industries.

The United States

A Bill passed this year calls for a three year study to assess the advantages and disadvantages of a change to the metric system.

Other than this, little is being done officially in the United States and there is little political movement for conversion. However, general interest has increased, particularly since the Second World War, and it is hoped that the study generated by the new Bill, will, if nothing else, generate more interest and make the general public aware of the implications of conversion.

In the past there has been strong opposition to any move toward the metric system, particularly from the heavy industries and automobile manufacturers who would be faced with heavy re-tooling costs. Despite this, the general feeling seems to be that, with Britain converting to the metric system and with the necessary interchangeability required in military hardware, the pressure for conversion can be expected to increase, and the United States will inevitably have to change some day, but exactly when and how is still not clear.

The United Kingdom

The initiative for a change to the metric system in Britain came from industry rather than government, prompted no doubt by the desire to enter the Common Market, and in 1965 the decision was made to institute a ten-year plan of conversion. One of the first changes was in the use of Centigrade (or Celsius) rather than Fahrenheit for measuring temperatures, but the major dates, at least as far as the construction industry is concerned, are February 1971, when decimal coinage will be fully introduced, and 1st January this year when architects started producing metric drawings and contract documents, with complete conversion for the construction industry due by 1972.

The British Standards Institute has been given the responsibility of developing the conversion program. They have issued a program for production of new British standards based on the metric system by the end of 1972 and have published a guide for the use of the metric system in the construction industry.

It is felt that advantages to the construction industry of a change to the metric system are few while the problems are great. One of the advantages is the opportunity it gives to review the age-old methods and



Britain's Miss Metric

techniques which have been used by the industry and to change or rationalize them where it seems appropriate. As a result dimensional co-ordination and standardization of components will become more commonplace. It is hoped that this will reduce costs by introducing a degree of systemization leading to a reduction in the labor required for detailing in the architect's office, coupled with increased mass-production by component manufacturing industries.

Critics of the change are not slow to point out the disadvantages. The traditional system of measurement is based on man's physical needs and comprehension. The Greek foot of sixteen finger-widths, divided by the more prosaic Romans into twelve thumb widths, is a readily judged distance, and a furlong (ie. a furrow long) was originally based on the amount of land a team of oxen could plough in a day. By contrast the recommended units of metres and millimetres are artificial, not as easy to comprehend, and there is too great a disparity between them. Admittedly the British Standards Institute recommends 300 mm (approximately 1 foot) as the first preference in the metric dimensioning of building, followed by 100 mm (4") as the second preference,

and 25 mm (1") as the third preference, but this attempt to relate the new metric units to the old Imperial units creates inconsistencies because 300 mm is not a factor of a metre. The artificiality of metric units was summed up by the old prole in '1984' when he said "alf a litre ain't enough, it don't satisfy, and a 'ole litre sets my bladder running."

The cost of changing to metric sizes and producing new trade literature will largely be borne by industry. While products will change from Imperial to metric in one step it is expected that the changes in product literature and specifications will be a gradual one starting with the metric equivalent of Imperial sizes, 12" for example also being given the metric equivalent of 304.8 mm; followed by the Imperial equivalent of metric sizes, 305 mm also being given the Imperial equivalent of 12"; and finally the recommended metric dimension (300 mm) with no reference to the Imperial equivalent. To confuse the issue even more it is likely that some materials, lumber and piping for instance, will continue to be described in Imperial dimensions for some considerable time, resulting in such mixtures as 2" x 8" joists 3 metres long.

Other problems which will face architects include that of designing a new extension based on metric dimensions for an existing building which was based on Imperial dimensions, and the client who has carpets and furniture which need to be converted into metric dimensions to ensure that they will fit his new house.

In summary the change to the metric system in Britain has not been as simple as it may at first appear. As simple a matter as whether the decimal point should be a full point or a comma, whether there should be a space, no space, or a comma after the thousands, and exactly how metres and millimetres should be noted on drawings and specifications has required long hours of discussion. One thing is certain. Britain will provide an excellent market for second-hand Imperial measuring tapes, rods and rules all soon to be discarded.

Canada

There has been no government action either for or against conversion to the metric system in Canada, and the government merely seems to be watching the situation through the Departments of Trade and Commerce and Industry. There have, however, been several committees set up to study the metric system. Among them can be listed a committee of the Engineering Institute of Canada which does not appear to have been too active lately, an inter-departmental meeting of various departments of the Department of Trade and Commerce which issued a report in August 1966* and a special committee on metric and inch systems set up by the Canadian Standards Association which issued a "Report to the CSA General Manager by the

Special Committee Set Up to Study the Metric Question" in April 1964.

More recently the CSA has conducted a canvass of some of their major technical committees to determine their views on some aspects of the metric system. The result of this canvass, issued in November 1968, together with some of the comments of the committees referred to above can be summarized as follows:

(a) The technical problems of a change to the metric system are not difficult, but could sometimes be onerous.

(b) One of the major problems is the re-education of technical, skilled and semi-skilled personnel.

(c) The cost of conversion would be substantial in the heavy industries but only moderate in the light industries.

(d) In general the International System of Measurement (SI) is not used extensively by Canadian manufacturing industries. While some industries use the SI for scientific research and development, the only ones to use it for other purposes are the photographic industry, the optical industry, the scientific instrument industry and the pharmaceutical industry.**

(e) The principal advantages of a conversion would lie with those industries primarily concerned with export.

(f) It is unanimously agreed that the major advantages of the metric system is the simplification of calculations and measurements and international standardization and uniformity.

(g) It would probably require a changeover period of 10 to 20 years for most industries, and there would be a need for running parallel production for a certain period of time.

Although in Britain the change to the metric system is accompanied by, among other things, modular coordination, there is no need for Canada to wait, and in fact Canada is not waiting for conversion until modular coordination can be introduced. There is little doubt that Canada will eventually con-

*IRA Report No. 6: 23 August 1966, "Current Status of the International System of Measurement in Canadian Manufacturing Industry."

**The metric system is, however, being used in the medical field. The Vancouver General Hospital converted to metric last year on October 30. All clocks have had their dials altered to the 24-hour system, ordering and administration of drugs is now done in metric, and all weights, measurements and temperatures recorded in metric. The hospital staff, nevertheless, still communicates with patients by using the old system.

vert to the metric system, but it will do it in step with the United States which means that it will be a long time coming.

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Chartered Surveyor, March 1968
Going Metric — 1. Why and when. MPBW, HMSO, 3s
A Guide for the use of the metric system (PD 6031), BSI 7s6d.

Library Review

Wind Effects on Buildings & Structures. 1233 pp. University of Toronto Press, Front Campus, U. of T. Toronto, 5. 2 vols. \$15.00.

Contains the proceedings of the International Research Seminar held in Ottawa 11-15 September, 1967, consisting of 37 papers by authors from 15 countries. Subjects covered are climatic factors, wind tunnels, full scale measurement, performance of buildings, towers, bridges and code criteria for design.

Events

Air Conditioning and Building Science Seminar

A building science seminar on air conditioning and building design will be presented by Division of Building Research, NRC, twice in Ottawa 24-25 March and 27-28 March, and once in Calgary 9-10 April. Registration forms are available from L. P. Ruddy, DBR, NRC, Ottawa 7.

Conference on Campus Planning

The Fifth North American Conference on Campus Planning and College Building Design will be presented at the University of Illinois, April 20-24, 1969. Building types to be discussed at this conference include centers for the performing arts and facilities for education in visual arts, music, and architecture. For information write "Architecture and the College," Department of Architecture A2, University of Illinois, Illinois 61801.

Conference on Single Family Houses

An international conference on single family houses will be held in Copenhagen May 18-22. Write DIS Congress Service, Skindergade 36, DK-1159 Copenhagen K, Denmark.

MIT Computer Program

MIT is offering a computer aided urban design program from June 17-27. Write Director of Summer Sessions, Room E19-356, MIT, Cambridge Mass, 02139.

Another "all-electric" building

St. Joseph's Institute QUEBEC CITY, P.Q.

Type of building:	Educational institution
Area:	135,000 sq. ft.
Connected loads:	Total: 1,247 kW (Includes 750 kW for heating and 75 kW for ventilation)
Installation costs:	Electricity and heating: \$3.25/sq. ft. Plumbing and ventilation: \$1.37/sq. ft.
Power cost:	Peak demand: 516 kW Annual consumption: 2,149,880 kWh Total cost: \$19,541 Cost/sq. ft.: \$0.14 Cost/kWh: 0.91¢
Consultants:	Mechanical and electrical engineers: Gilbert, Bourassa, Gagné & Morin

... "We can say that an all-electric system has put an end to many of our maintenance and personnel problems" states the General Treasurer, Sister Simone Cloutier.

The institution's living quarters are baseboard heated while the classrooms and other areas are heated and ventilated by means of a double conduit system. Further, all domestic hot water is heated entirely during off-peak periods.

Demand is kept to a minimum by a load stabilizer and a cycling unit ...

Hydro-Québec



THE FUTURE IS ALL-ELECTRIC... YOURS IF YOU PLAN ON IT.



**A Forum for Undergraduate-Practitioner
Communications**

One of the results of last August's Stanley House Conference was a recognition of the need for improved relationships between schools of architecture and the profession at large. An important aspect of this is the promotion of a better understanding between practicing architects and the undergraduate students in the schools themselves.

During the visit of the President of the RAIC to one of the nine schools of architecture, it was suggested that the Schools section of *Architecture Canada* be used to further this purpose. Accordingly, each school has been asked to nominate a student contributing editor to the magazine, and it is the intention to initiate on this page a forum for the exchange of ideas between the students of the various schools, and between students and members of the profession.

In addition to the three appointments noted in the News section of the November issue, three more student contributing editors have been nominated: Kenneth Fisher for British Columbia, Brian Eldred for Manitoba, and Yves Gosselin for Carleton. Other appointments will be announced when they are made.

Students to Submit Topics

The student contributing editors have been asked to submit suggestions for topics which they would like to see discussed, and replies have been received from Carleton, Manitoba, McGill and Toronto. Interestingly enough, there is a certain similarity among the questions that have been raised, indicating a concern for common problems in all parts of the country.

As might be expected, some emphasis has been given to the educational process itself. Students are concerned about their programs of study, and its relevance to the problems they will have to face in practice. Yves Gosselin of Carleton is interested in a general discussion of the aims of a school of architecture. He questions the value of the existing curricula, and raises the possibility of the inclusion of such things as

the liberal and performing arts in the study of architecture. At McGill, Ronald Rayside is interested in the conflict between education in a general sense and training. "Although the validity of an architectural training with technical know-how is not questioned, there could probably be considerably more emphasis on humanities subjects." And Brian Eldred of Manitoba asks "What limits should be set on the technical aspects of architectural education?" and "in our era of technology, when a new emphasis is being placed on humanism in architecture, is there adequate study in the humanities for the architectural student?"

Other issues are also raised. "The question many ask is whether the design problems we are given prepare us for a useful role as professionals in solving the architectural problems of our society?" (*Ronald Rayside*)

Or on a more pragmatic level, "Are architectural students adequately trained to face the economic aspects of practice?" and "How can the university provide sufficient information to increase the practical skills of the graduate in preparation for his first two or three years in an office, or do practicing architects feel this to be a problem?" (*Brian Eldred*)

Students are also concerned about the part the universities can play in continuing education. "Should a program of refresher courses be implemented in order to keep practicing architects abreast of advances made in all areas of the profession?" (*Brian Eldred*)

Some interest is shown in a discussion of their own problems – the general problem of students within the university, of faculty-student relationships, and of interrelationships between schools of architecture.

**Concern Expressed About the Future
of Architecture**

But above all there is concern about the future of architecture itself. Norman Hotson of Toronto raises the question "Who are we designing for? Who is the real client?" and

asks whether architecture has become an anachronism. Ronald Rayside says "Many of us wonder what the future of the architect will be, as he is now being involved in less and less of the building now taking place." And there is confusion about the direction taken by some members of the profession. "Why do magazines devote so much time and space to irrelevant projects and 'pop' architecture." (*Norman Hotson*)

Consideration of these and other questions will be of interest not only to students but to all those in the profession who are trying to define the role of the architect at the present time.

This page belongs primarily to students, but other points of view will be presented when they add something to the dialogue. Articles, statements, and additional topics for discussion are invited from anyone who wishes to make a contribution. In particular, comments from architects and members of other professions will be solicited when it is thought they will add valuable insights to the subject under review.

It is not anticipated that this venture will provide all the answers to the problems that are voiced – to expect that from a profession which is currently trying to identify which are the relevant questions would be too much – but it may suggest some of the solutions. At the very least it is hoped that it will serve to foster a knowledge among both students and practicing architects of a common purpose to their enquiries, and by reducing some of the distance that now seems to separate them, will initiate a joint effort on the solution of important matters facing architects everywhere.

Alastair Grant
Coordinating Editor, Schools Section



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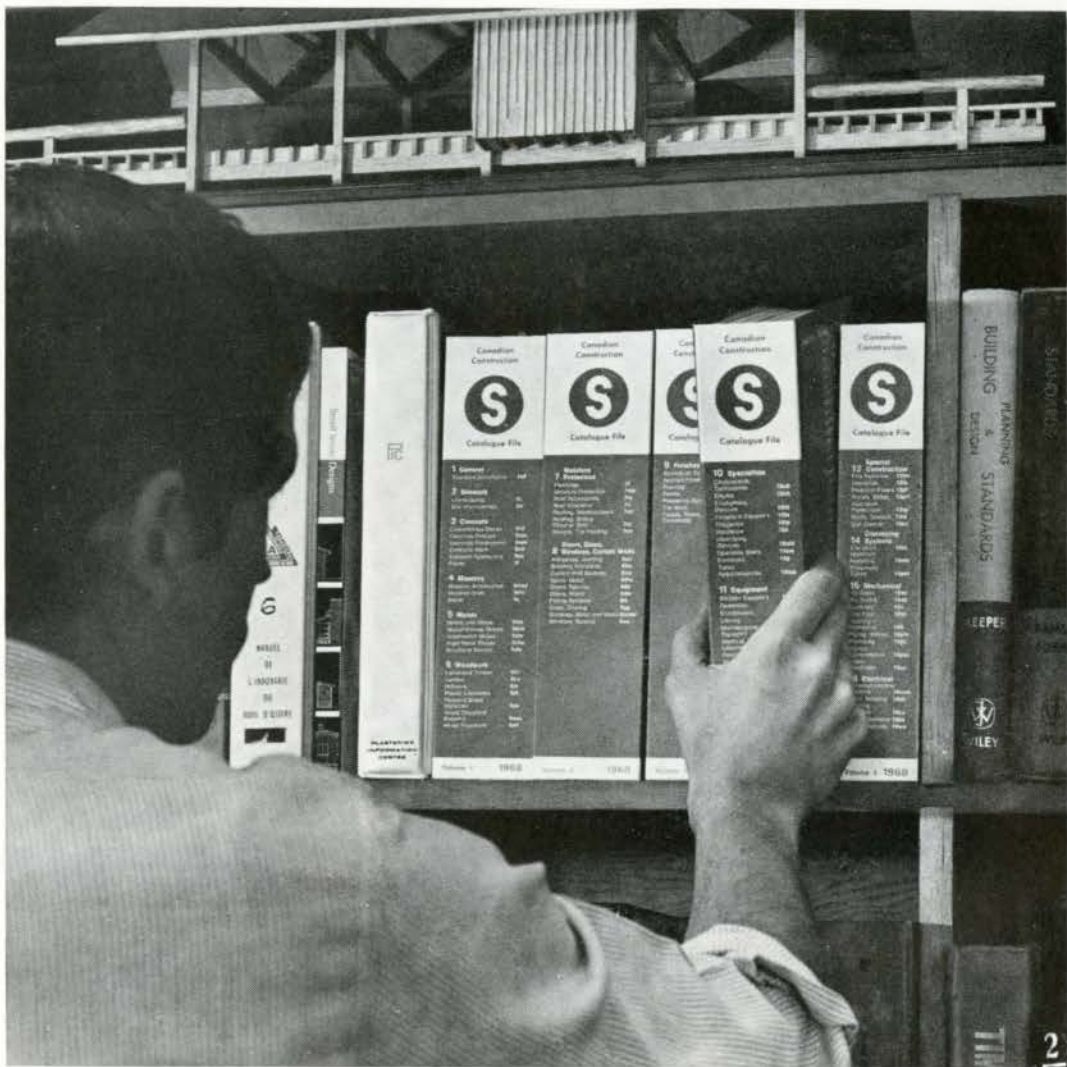
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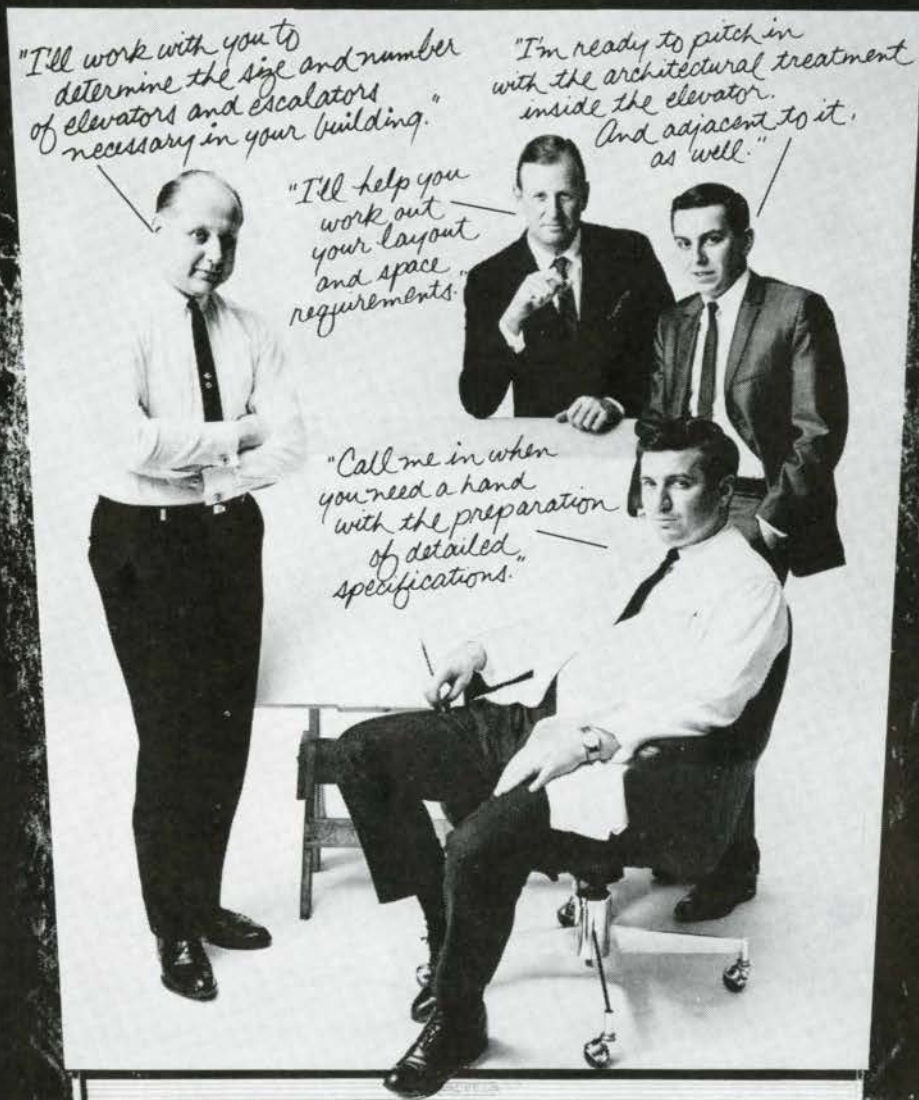
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Registrations

Ontario Association of Architects, January 1, 1969: Maurice Bergman, B.Arch; Malcolm J. Bett, Dipl.Arch; Barrie G. Chadwick, Dipl.Arch; Edouard Fiset, FRAIC; Alfred G. Foty, B.Arch; J. Wylie Freeman, M.-Arch; D. A. Gale, Dipl.Arch; Robert J. Graham, B.Arch; Jack L. Hall, B.Arch; J. Anthony Jackson, B.-Arch; Walter J. Luciw, B.Arch; Ian Mackenzie, B.Arch; Peter R. Moy, Dipl.Arch; Nelson K. B. Pau, B.-Arch; Robert J. Posliff, B.Arch; Howard Rafael, B.Arch; Prof. Douglas Shadbolt, B.Arch, FRAIC; Mrs. Lily K. Shinkoda, B.Arch; Ilmar Wallner, B.Arch; Alan P. Warren, ARIBA. Registrations effective November 5, 1968: Paul Kershaw,

ARIBA; Barry R. Cline, B.Arch; J. M. Donaldson, B.Arch; Kenneth I. Robb, B.Arch; Brian H. Stewart, B.Arch. Restored to membership November 5, 1968: John Dryton, FRIBA.

The Alberta Association of Architects has admitted six new members: Larry Loh; K. Shimizu; Haikaz Michaelian; G. J. Zimbachs; N. O. Jackson; Allan C. Traish.

RIBA Elections

Alexander McD. Heaton, D.A. (Glas.) MRAIC, 148 Bank St., Ottawa 4, has been elected a fellow of the RIBA and awarded retrospectively, the degree of B.Arch.

Practice Notes

W. H. Gilleland and Dr Eugene Janiss announce the retirement of W. H. Gilleland as a partner, effective January 1, 1969. Mr Gilleland's professional services will continue to be available to the firm as a consultant. Dr Janiss will continue to carry on the practice under the title "Eugene Janiss, Architect, 234 Eglinton Avenue East, Toronto 12, (416-773-3581)."

Changes of Address

Jean Serge LeFort, from 195 Laurier Ave. E, Ottawa 2, to 18 Eastern Drive, Glenwood Park, Lucerne, P.Q. Telephone 684-3930.

Michel Beaudoin, from 6455 Molson St, Montreal 36, to 5685 Boul Lan-gelier, Montreal 431, Q.P.

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Gramercy House, Toronto, Ont. *Owners & Builders:* Greenwin Construction Company Ltd. *Architects:* Harry B. Kohl. *Consulting Structural Engineers:* Kazmar Consultants Ltd. *Masonry Contractor:* New Hillmount Construction Company. *Concrete Masonry Units:* Richvale Block Supply Co. Ltd. *Ready-Mixed Concrete:* Richvale Ready Mix Ltd.



Apartment Complex at 100 Maitland Street, Toronto, Ont. *Owners, Architects & Builders:* Grozbord, King & Associates Ltd. *Consulting Structural Engineers:* Kazmar Consultants Ltd. *Masonry Contractor:* J. Russo Masonry Contractors. *Concrete Masonry Units & Ready-Mixed:* Richvale Ready Mix Ltd.



The Attache, on Shaughnessy Blvd., Toronto, Ont. *Owners & Builders:* North Valley Const. Ltd. *Architects:* E. I. Richmond. *Consulting Structural Engineers:* Alex Tobias & Associates Ltd. *Masonry Contractor:* Omar Masonry Contractors Ltd. *Ready-Mixed Concrete:* Mel-Mix Concrete & Asphalt.



Markham-Eglinton Square, Toronto, Ont. *Architects:* Martin L. Mendelow. *Consulting Structural Engineers:* Farkas, Barron, Jablonsky. *General Contractor:* F.T. Developments Ltd. *Masonry Contractor:* M. Rodaro Co. Ltd. *Concrete Masonry Units:* Meteor Building Supplies Ltd. *Ready-Mixed Concrete:* Mel-Mix Concrete & Asphalt.



Columbus Centre, Kitchener, Ont. *Owners:* Corporation of the Knights of Columbus. *Architects:* Horton & Ball. *Consulting Structural Engineers:* McCargar & Hachborn Ltd. *General Contractor:* Brandon General Contractors Ltd. *Masonry Contractor:* Seibel Masonry Ltd. *Concrete Masonry Units:* Forwell Ltd. *Ready-Mixed Concrete:* Albert Raith Cement Contractor Ltd.



Prague Towers, 737 Birchmount Road, Toronto, Ont. *Architects:* Keywan & Kassian. *Consulting Structural Engineers:* Farkas, Barron, Jablonsky. *General Contractor:* Prague Towers Investment Ltd. (Owner & Builder). *Masonry Contractor:* Gottardo Contracting Co. Ltd. *Concrete Masonry Units:* Richvale Block Supply Co. Ltd. *Ready-Mixed Concrete:* Richvale Ready Mix Ltd.



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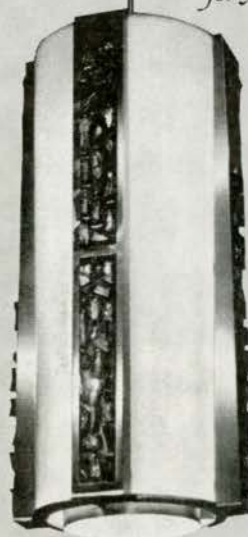
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