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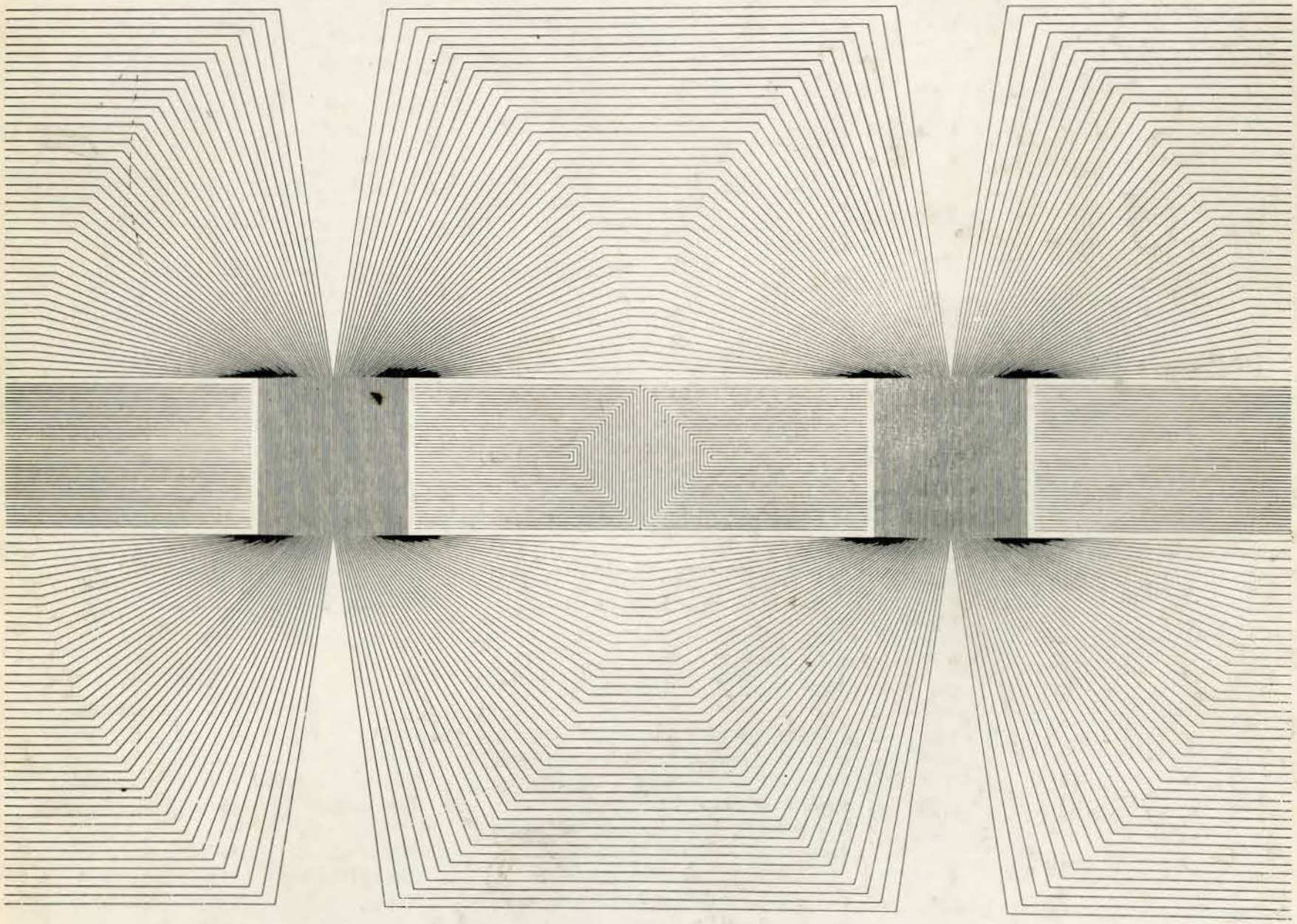

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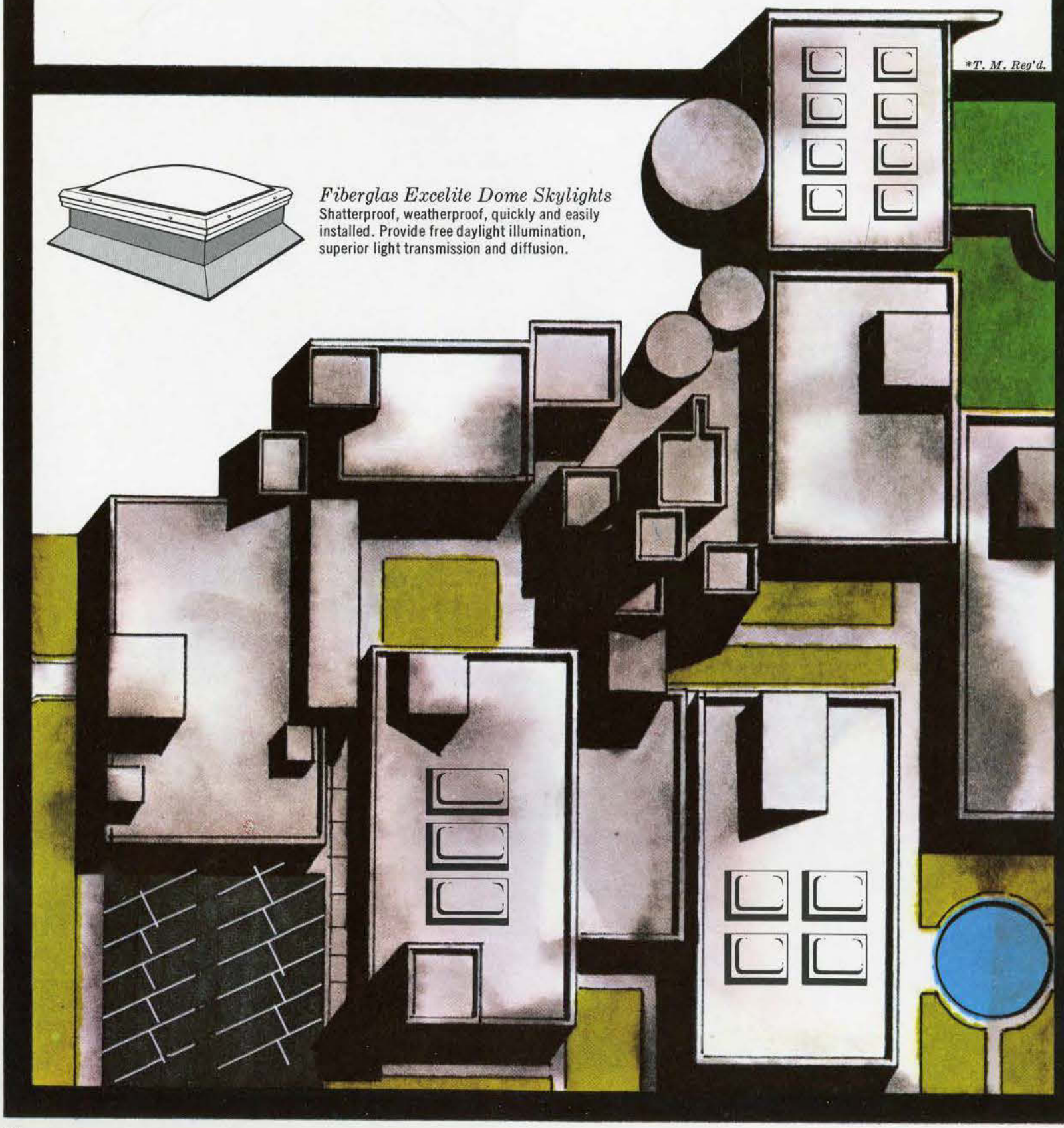

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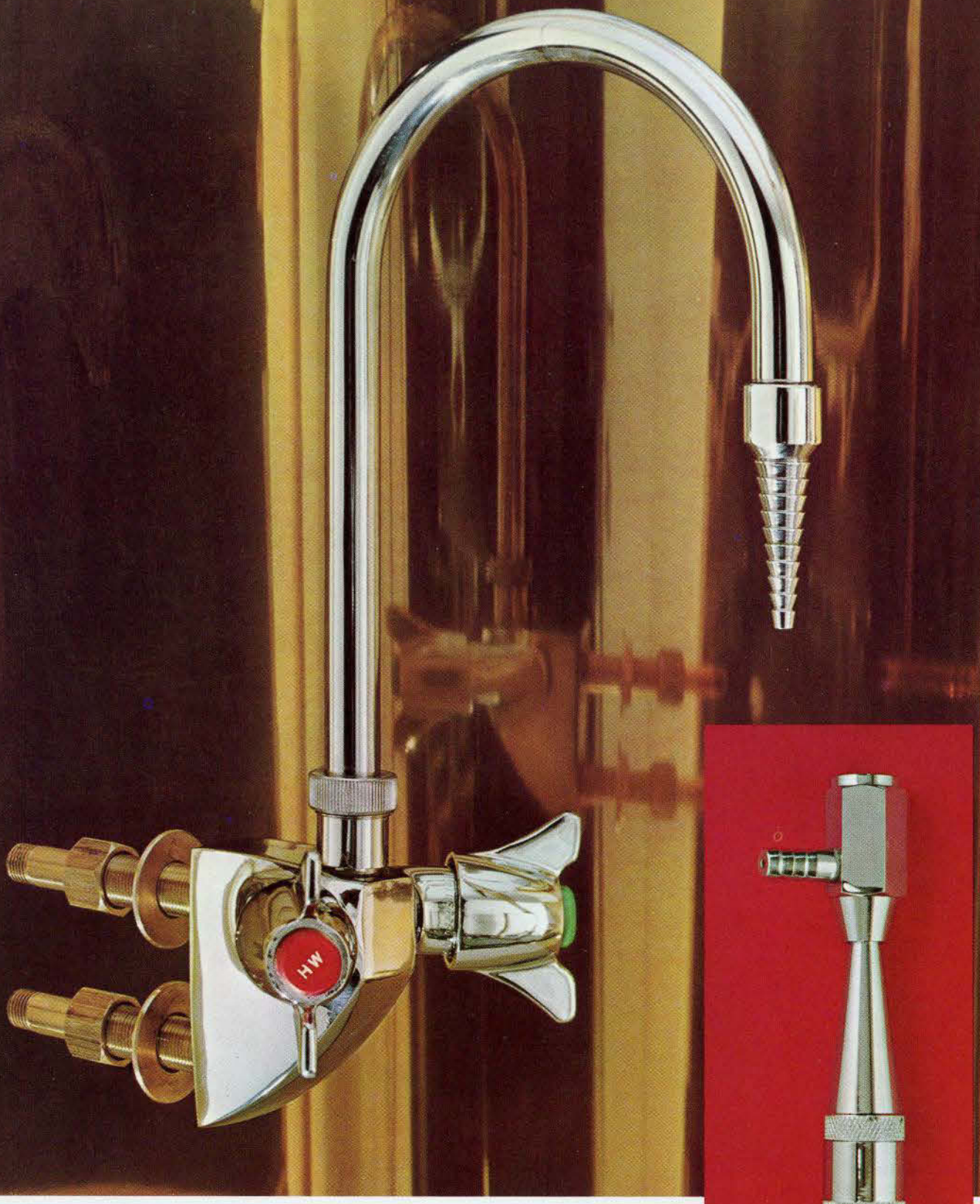

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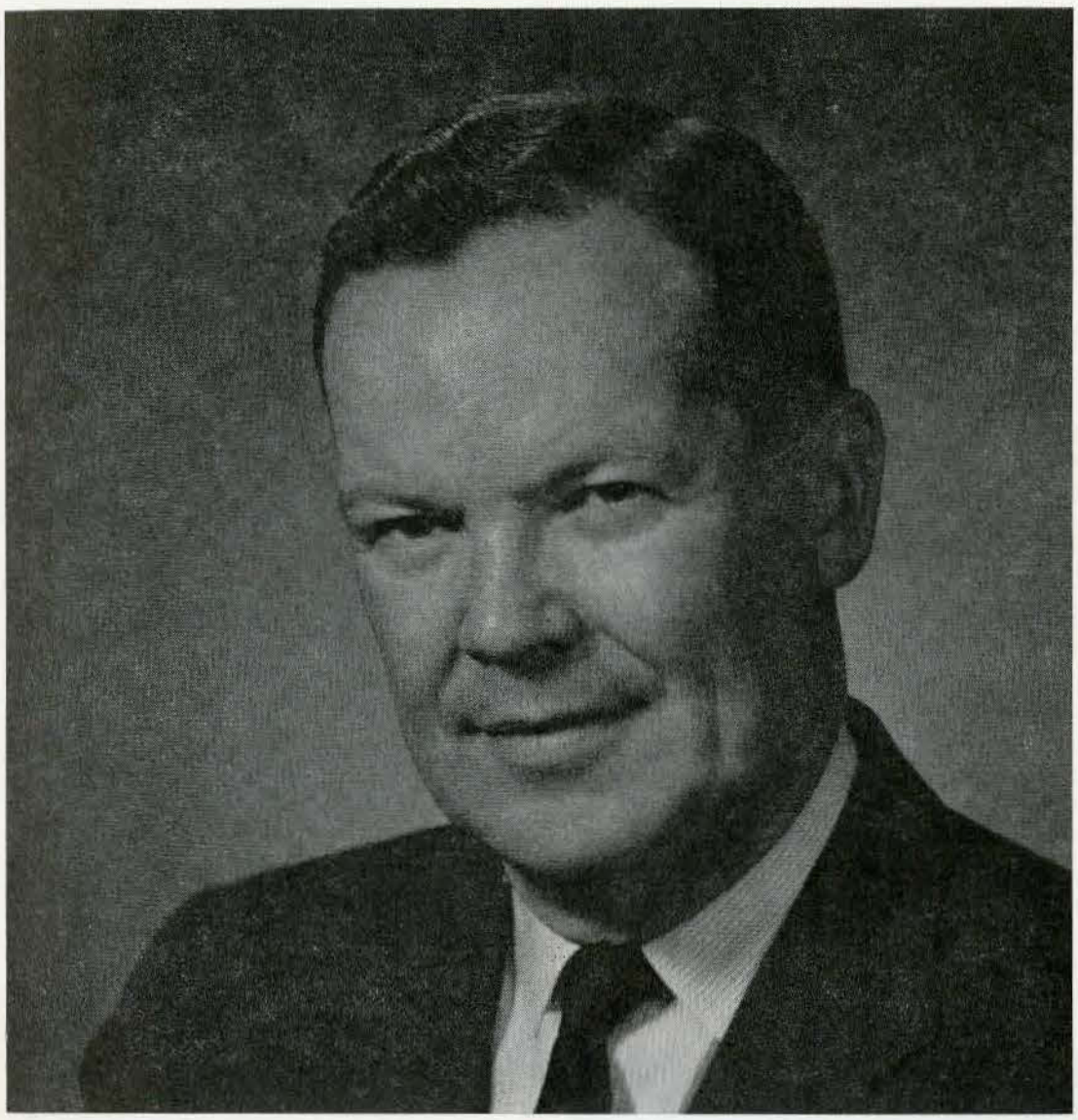


Wilson A. Salter *(F)* Appointed Director of Professional Services for RAIC

Wilson Adams Salter, FRAIC, of St Catharines, Ont., has been appointed RAIC Director of Professional Services and will assume his full time duties at Institute Headquarters in Ottawa on October 15th.

The appointment of an architect as full time staff member to coordinate and advance the expanding program of Institute activities was given top priority in the recommendations in the Report of the 1966 RAIC Survey of the Profession. President N. H. McMurrich announced RAIC Council's approval of Mr. Salter's nomination following the September 17th meeting of the Council at St John's, Nfld.

Born in Woodstock, Ont., in 1914, Mr Salter studied architecture at the University of Toronto and was graduated with his Bachelor of Architecture degree in 1939. He won the RAIC Gold Medal in both his second and fourth years. He returned to the University of Toronto for post graduate studies in 1961 and received his diploma in Urban and Regional Planning in 1962.

Mr Salter served with the Royal Canadian Engineers from 1941 to 1945 and was senior camouflage officer for the Canadian Army Overseas with the rank of major. For his war-time services he was made a Member of the Most Excellent Order of the British Empire.

After being registered by the Ontario Association of Architects in 1945, Mr Salter began his professional career in St Catharines, where he has practiced for the past 22 years. He was first in association with Robert I. Macbeth and Arthur B. Scott and from 1947 to 1957 practiced as a sole proprietor. He then entered partnership with David E. Flemming and was later joined by James E. Secord.

Mr Salter has served on a number of OAA and RAIC Committees. He was a member of the OAA Registration Board from 1958 to 1964 and the Professional Guidance committee from 1964 to 1966. He was for three years a member and two years chairman of the OAA Public Relations committee. In the national field he served as a member of the RAIC Editorial Board and was chairman of the RAIC Advisory Committee on Registration Standards.

New Architects Act in Nova Scotia

The new Architects Act for the Province has been passed by the Nova Scotia Legislature. The rather general provisions of the old Act governing who could practice have been replaced by specific provisions. It will now be an offence for anyone not duly qualified to practice and, among other things, an individual will be considered to be practicing if he designs a building of a value of $60,000 or more.
An important section for the protection of the public is retained, that stating "no person shall erect, alter or enlarge a building where the work exceeds in value $60,000 unless the alterations or enlargement has been designed by an architect qualified to practice in Nova Scotia."
A major section in the new Act governs the form of business association in which architects may practice. A body corporate may now practice in its own name provided the requirements of the new Act are met. Thus, although it will still be possible to practice individually or in partnership, it is no longer necessary to do so.
Under the new Act there will be four classes of membership – practicing, associate, student and honorary; and two divisions of

licenses – temporary and special. Qualifications for the different classifications of membership or licenses are stated. The right of qualified individuals to practice in the province is assured by a provision permitting appeals to a judge of the province's Supreme Court where the NSAA has refused membership or license.

C. E. Pratt Appointed to Hellyer's Task Force

C. E. Pratt *(F)* Vancouver, has been appointed representative of the architectural profession on the task force appointed by the Minister of Transport, Hon. Paul Hellyer, to conduct a public inquiry into all aspects of federal housing and urban development policy (see page 45). Other members of the task force are Dr Doris Boyle, head of the Economics Department of Xavier Junior College, Sydney, N.S.; W Peter Carter, mortgage comptroller, Royal Bank of Canada, Montreal; Dr Pierre Dansereau, Professor of Ecology, Institute of Urbanism, University of Montreal; Robert Campeau, Ottawa developer, and Dr James Gillies, Dean, Graduate School of Business, York University.

New Firm to Provide Construction Management

An organization has been established in Toronto to provide a complete package of construction management systems and services on a fee basis to the construction industry. Margroup Limited, with offices at 57 Bloor Street West, has been organized with the backing of the fifty year old architectural firm of Marani, Rounthwaite & Dick who are the firm's first large scale clients. The general manager is an accountant Alan Greaves; the systems manager is Ian Paterson and the architect staff member is Robert Servos, MRAIC. Incorporated to offer the whole range of ncessary supplementary services to the construction industry, Margroup's staff presently consists of some thirty specialists in such fields as accounting, construction computer programming, architectural photography, construction supervision, professional office management, space design etc.

One example of the services offered by the firm is the computerized accounting system which is operated for the client on a monthly fee basis. Besides completely revolutionizing the all-important job cost control, the system is greatly facilitating the previously laborious internal practice control in architects, engineers and contractors offices. In the professional office it permits accurate project costing by the architects or engineers of actual and anticipated cost and both current and accumulated hours and dollars from coded employee time sheets. Another example is a simplified critical path program.

Program for Young Japanese Architects to Gain Experience in Canadian Offices

The Japan Architects Association draws attention to its continuing program of delegating young Japanese architects to Canadian architects' offices for a year or more of work and training. Under the program, which started in 1959, the JAA has this year selected five candidates. The conditions of employment include a salary of $500.00 monthly, fare from Japan to be advanced by employer and recovered by monthly salary deductions. Firms interested should write the Japan Architects Association. Kenchiku-Kaikan, 1, Ginza-Nishi 3-chome, Chuo-ku, Toyko, Japan.

Roles of RAIC Committees Examined

RAIC officers and chairmen of committees met in Toronto September 14th to discuss the organization and terms of references of Institute committees.

1a-f
Meeting of the RAIC Committee Chairmen, Toronto, September 14 (left to right):
1a
RAIC President Norman H. McMurrich (F) and Dr E. R. Arthur (F) Chairman, National Architectural Archives Committee who also, as a member, represented the Competitions Committee and the Committee for the Preservation of Historic Buildings
1b
C. F. T. Rounthwaite (F), chairman of a new committee concerned with architectural services to government and R. E. Briggs, Chairman, Legal Documents Committee

1a

1b

1c

1d

1e

1f

1c
W. N. Greer, Chairman, Publications Board and RAIC Honorary Secretary Gordon R. Arnott (F)
1d
RAIC Honorary Treasurer Harry Mayerovitch (F) and S. A. Gitterman, Chairman, Research Committee and Gilles Marchand (F), Chairman, Scholarships and Awards Committee
1e
A. W. Davison, Chairman, Salaried Architects Committee, and W. M. Smale, Chairman, Architectural Education Committee
1f
RAIC staff, Managing Editor Architecture Canada, W. B. Bowker, RAIC Executive Secretary Maurice G. Holdham, and RAIC Assistant Secretary Earl C. Mayo

Dr. P. Manning Appointed Director Nova Scotia Tech School of Architecture

Peter Manning, Ph.D., AADipl., ARIBA, Liverpool consulting architect, has been appointed Director of the School of Architecture at Nova Scotia Technical College, Halifax. He succeeds Prof. Douglas Shadbolt (*F*), who recently moved to Ottawa as head of Carleton University's new School of Architecture.

After war time service with the Royal Navy, Dr Manning attended the Architectural Association School of Architecture, receiving his diploma in 1952. He was admitted to the RIBA in 1953 and in 1960 became RIBA Alfred Blossom Research Fellow.
He received his Ph.D. from the faculty of Engineering Science of Liverpool University in 1968. Dr Manning engaged in a variety of official and private practice projects from 1952 to 1958, when he entered the fields of research and teaching.
In 1959 he founded and directed for eight years the Pilkington Research Unit which produced a number of imaginative studies of the total environment created by building. In 1967 he opened a specialist consulting practice in problems of building type design, formulation of user requirements and design, appraisal of building performance and design, technical authorship and communication of technical information. He is a member of a number of professional bodies, including the International Council for Building Research Studies and Documentation (CIB) and the Illuminating Engineering Society.

W. M. Smale Joins Waterloo Faculty

Warren M. Smale, Simcoe, Ont., has been appointed an associate professor at Waterloo University's new School of Architecture. He will continue to conduct his architectural practice at Simcoe. A past president of the OAA, Mr Smale recently assumed the chairmanship of the RAIC Committee on Architectural Education.

Expo '67 Chief Architect Honored

Edouard Fiset, *(F),* Montreal, Chief Architect of Expo '67, was honored for his contributions to the architecture and planning of the Exposition by the award of the Golden Plate of the American Academy of Achievement at a presentation dinner in Dallas, Texas, in July. The Academy, composed of leaders in industry, business, literature, education, science, etc., in the United States, annually honors 50 individuals for outstanding accomplishment, and Mr Fiset was one of two from outside the United States to receive this year's award. The citation read "Edouard Fiset – architect and town planner of Montreal, recipient of the Service Medal of the Order of Canada for his contribution, as Chief Architect, to the high standard of design established by the International Exposition of 1967".

A. W. Cluff New Consultant for Architecture Canada

A. W. Cluff, MRAIC, ARIBA, senior partner of the Toronto architectural firm of A. W. Cluff and P. J. Cluff, and vice president of the Specification Writers Association of Canada, joins *Architecture Canada's* group of consulting assistant editors as advisor and contributor on the subject of architectural specifications. Mr Cluff is a member of the OAA Advisory Committee on Hospital Planning and of the RAIC Committee on Legal Documents.

Expo Chief Architect Edouard Fiset is presented with American Academy of Achievement award by Chairman Paul Thayer

2
The 1968 OAA Council sat for its first group portrait recently. Left to right are: Robert C. Fairfield, (F) *Toronto; P. John Ranta, Fort William; Ronald E. Murphy, Treasurer, London; Stan H. Butcherd, Vice-President, Port Colborne; Harold M. Little, Secretary (standing); John G. Spence, President; Dennis W. Pitt, Professional Assignments Officer (standing); Patrick M. Keenleyside* (F) *Immediate Past President, all of Toronto; Timothy V. Murray and Michael G. Dixon, both of Ottawa. Absent, W. C. Crosbie of Windsor.*

2

OAA Appointments

Prof. Stanley R. Kent has been appointed Director of Professional Studies by OAA Council. He succeeds Prof. W. G. Raymore *(F),* the first director, who was appointed in December, 1962. At that time Prof. Raymore was also responsible for the Registration Course, and about the same time started the OAA program of continuing education for members. A member of the OAA since 1946, Prof. Kent graduated from the University of Toronto School of Architecture in 1944. He obtained his Master of Architecture degree from Liverpool University in 1966. In addition to his new Director's duties, Prof. Kent will continue to serve as chairman of the OAA Committee on Modular Co-ordination, a subject in which he has taken an active interest in recent years.
Three OAA Committees have new chairmen: David Molesworth of the Convention Committee; J. Hugh Westren of the OAA/OGCA Joint Committee and Hubert Agnew of the Committee on Hospital Design. C. F. T. Rownthwaite *(F)* remains chairman of a re-organized Committee on Fees, into which has been incorporated as a sub-committee the OAA representatives on the Joint Committee on Fees for Engineering Services for Architects.

Dennis Pitt Appointed Professional Assignments Officer by OAA

The Ontario Association of Architects has added a Professional Assignments Officer to its full time staff in Toronto to conduct research and investigation of projects of a professional nature assigned by council. Dennis W. Pitt, MRAIC, ARIBA, who has practiced in Hamilton since 1955, assumed his new position September 1st.

Born and educated in the United Kingdom, Mr Pitt obtained his diploma from the Oxford School of Architecture in 1953. He came to Canada in 1955 and joined the firm of Kyles and Kyles in Hamilton. He was later associated with William R. Souter and Associates before entering into private practice. Mr Pitt was active in civic and Association affairs during his residence in Hamilton. He was a member of a number of Hamilton committees, including the Redevelopment and Replanning Committee, Downtown Association, and the Traffic and Transit Committee of the Hamilton Chamber of Commerce. He served as secretary, treasurer and vice-chairman of the Hamilton Chapter of the OAA and was incumbent chairman prior to his move to Toronto.

Competition Announced for Vienna Complex

An open international competition is announced for the design of a 700,000 cubic meter international office complex in Vienna. Sponsors are the Austrian Federal Ministry for Construction and Technique and the City of Vienna. Prize money totals about $89,500 US. Conditions will be available in October at a refundable fee of $100 US, and the competition will be carried through from November 1st to April 30th, 1969. Proof of membership in the home country architectural organization must accompany requests for information and conditions.

Requests for information and conditions accompanied by proof of professional registration in the home country, should be addressed to: Ziviltechnikerteam fuer die Vorbereitung des internationalen Wettbewerbes, Amtssitz internationen Organisationen, Architekten Appel Fleischer Lintl Schwanzer, Marc Aurelstrasse 2a/30, 1010 Wien.

Dennis Pitt

CMHC Small House Competition

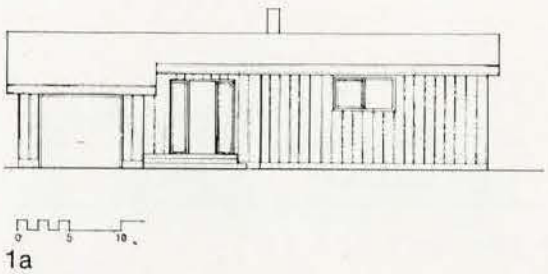
Architect/Architecte, J. B. Crawley, Winnipeg
Four bedroom Bungalow, 1256 sq ft
Bungalow à 4 chambres, 1256 pieds carrés
1a
Front elevation
Elévation avant
1b
Ground Floor
Rez-de-chaussée
1c
Basement
Sous-sol

Architect/Architecte, J. B. Crawley, Winnipeg
Two storey, four bedroom house, floor area 1537 sq ft
Maison à deux étages et quatre chambres, 1537 pieds carrés
2a
Front elevation
Elévation avant
2b
First floor
Premier étage
2c
Second floor
Second étage
2d
Basement
Sous-sol

Eighteen years ago Central Mortgage and Housing Corporation, with the cooperation of Canadian architects, launched a small house design competition program to improve the quality of single detached housing (and meet the needs of individuals wanting to build their own homes) by providing a variety of designs, with working drawings, which meet CMHC standards. The program is not an architectural competition in the full sense because entries compete not with each other but are selected to meet CMHC's idea of good small house design. The search is for variety – interesting elevations which fit well into the streetscape. (Small boxlike houses marching down the street make for boring neighbourhoods). Furnishability is very important, and the design must allow for garage or carport.

The designs selected each year serve to update CMHC's Small House Design book, (available to the public without charge) which contains over 100 designs for bungalows, split levels, one and a half and two-storey two to four bedroom dwellings, ranging from 800 to 2,000 square feet. CMHC sells working drawings for these designs at $15.00 for four copies. Last year, of 72,534 single family housing starts in Canada, about six per cent, or 4,300 were built from these designs. The purchasers were practically all individuals in small communities and rural areas where the house building industry has not penetrated. The record of previous years shows that of starts in the Atlantic Provinces about 30% used these designs; in Quebec 11%; in Ontario 14%; in the Prairies 5%; and in BC, 10%. It is interesting to note, incidentally, that the trend now is away from the single family house. It used to represent 70% of housing starts; now it is about 50%.

So far as architects are concerned, CMHC's objective is to encourage interest and work on small house design by emphasizing to the profession its interest in the field in general and in good design in particular. It is accepted, of course, that the profession has a social responsibility for good housing design, and, thinks CMHC, the competition offers an opportunity to have a mutually beneficial relationship with the public. This, of course, is true, because thousands of these architect designed houses have



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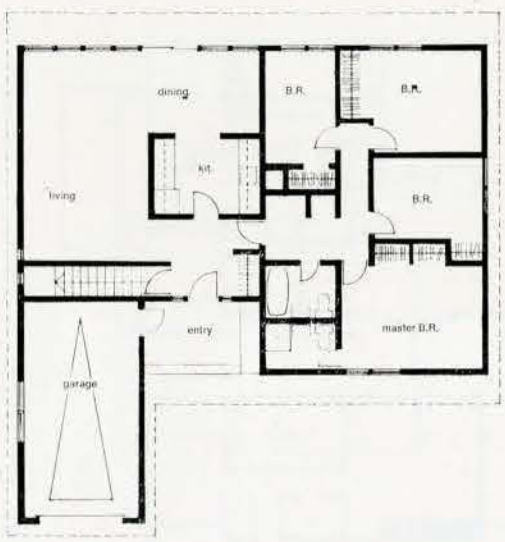

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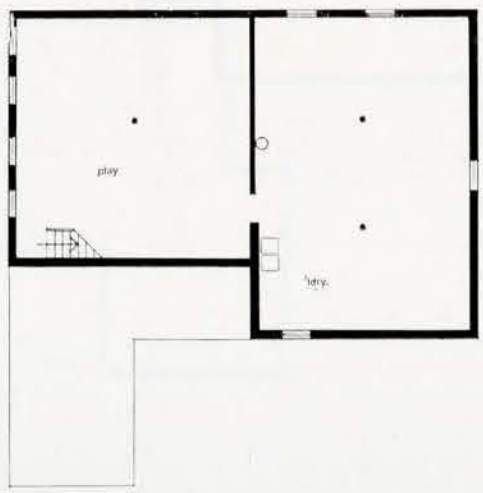

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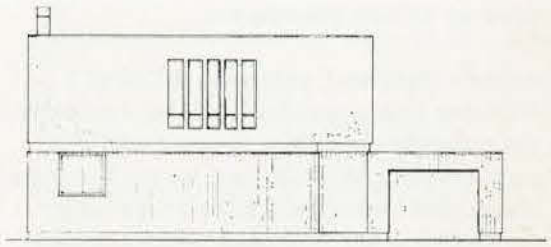

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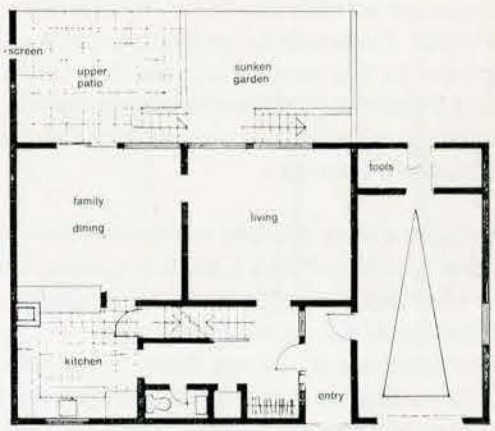

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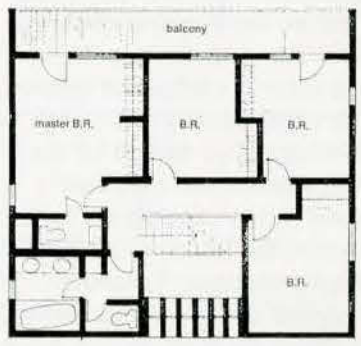

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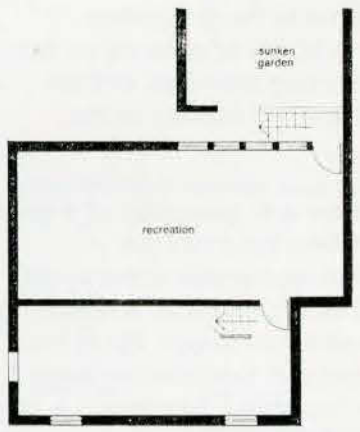


2d

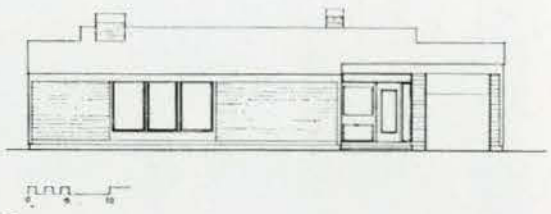
gone up all over the country.

Andrew Hazeland, chairman of CMHC's Advisory Group and Professional Adviser for the competition, is very pleased with this year's results so far. It was, for the first time, conducted under RAIC rules and, also for the first time, there are two competitions a year, the first from January to June, and the second from June to December. There were 137 entries in the first, which closed June 1. This compared with 58 entries in 1966 and 92 in 1965. He hopes for an equally good response to the second competition, which closes December 1. (The conditions were published on page 11 of the January issue of *Architecture Canada).*

Architects whose designs are selected receive $1,000; of which $150 is paid at the time of acceptance and the balance upon completion of the working drawings. Specifications are not required. In addition, architects receive a royalty of $3.00 for each set of the working drawings of their designs sold out of the book. CMHC thinks this is a reasonable return on the investment of thought and time that architects put into their entries and there is always the chance, of course, that a design could turn out to be very profitable indeed. One design hit the jackpot, bringing its architect royalties which, if collected in one year, would have put him into the 50% tax bracket. On the other hand, Jerome Markson, Toronto architect who served on this year's jury, feels that if the prizes were increased, more and perhaps better experienced architects would be attracted to the competition. It can cost up to $2,000 to produce an entry, including the working drawings, and you can't count on royalties making up the difference.

While the winners are, generally, of a good standard, he did not think that the competition produced anything that could be considered an innovation, or a radical advance in small house design. Six of the nine winning designs, illustrated on these pages, are for two-storey dwellings – a very convenient unit because more house can be got on a small lot. There is still a need, feels Mr Markson, however, for more imaginative, better planned and more contemporary two-storey house design. The comments of the

Architect/Architecte A. M. Henderson, Outremont, Quebec
Split level, three bedroom house, area, excluding garage, 1400 sq ft
Maison à mi-étages et trois chambres, surface, garage non compris, 1400 pieds carrés
3a
Front elevation
Elévation avant
3b
Main floor
Rez-de-chaussée
3c
Basement
Sous-sol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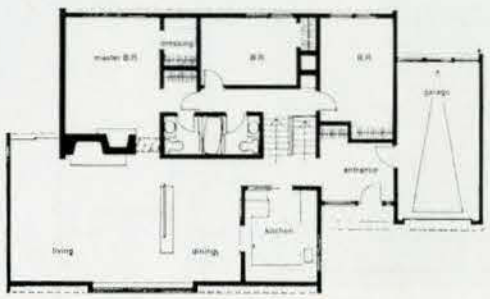

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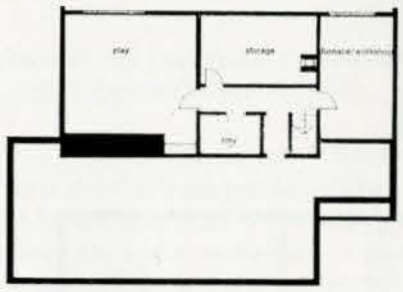
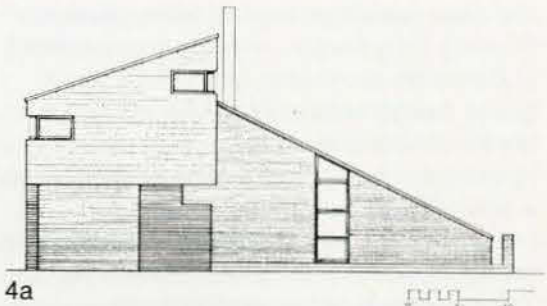


3c

Architect/Architecte Richard Fenner, Toronto
Two storey, three bedroom house, 1844 sq ft
Maison à deux étages et trois chambres 1844 pieds carrés
4a
North elevation
Elévation nord
4b
First floor
Premier étage
4c
Second floor
Second étage
4d
Basement
Sous-sol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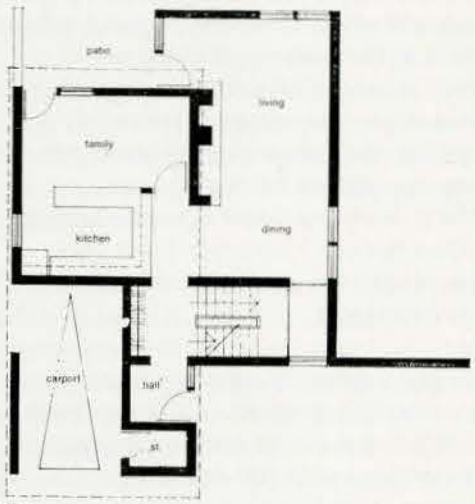

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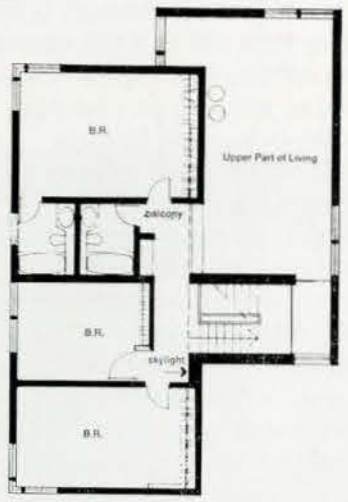


4c

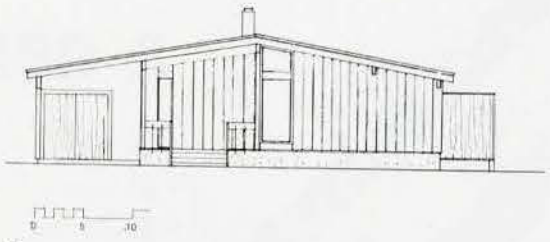
4d

jury* on the nine winners he reviewed as follows:

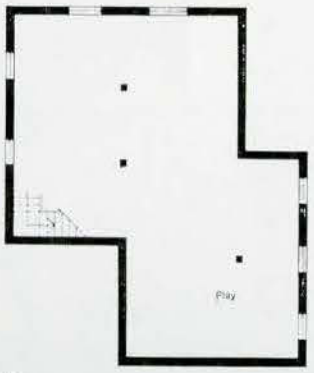
(1. Crawley) A simple, conventional and very compact plan for a furnishable and easily constructed and not expensive house.
(2. Crawley) A rectangular house, with simplicity of plan and elevations. An interesting two-storey entrance hall and upper storey, spacious without being wasteful of space.
(3. Henderson) A well worked out simple plan for a front to back split level, well zoned and with pleasant elevations. Garage is at front, but does not overpower the design.
(4. Fenner) An imaginative house, unusual in plan and elevation, with high living room overlooked by an upper balcony, with the stairs as an interesting element. It has interesting exterior spaces and form and would fit a narrow lot.
(5. Crawley) A three-bedroom house, with clear division between the three bedrooms and the living area, and a pleasant entry deck adjacent to the carport.
(6. Murray) A well zoned house with adequate facilities, projecting living room with sloping ceiling and separate dining room.
(7. Herzog) A very compact, simple workable and easy to build design with interesting elevations – actually a two-storey house on a split level.
(8. Bergin) A long, thin house with entrance and stair acting as architectural link with the (2-car) carport. Well furnishable; good recreation room; good access to kitchen and washroom from back door – interesting, if unresolved, elevations.
(9. Tiefenbeck) An easy-to-build house suitable for a narrow lot, with a more urban quality. A spacious living room and workable galley kitchen with good access from staircase and front and rear doors. There is a terrace over the garage and a huge multi-purpose basement room.

**A. Hazeland, MRAIC, Professional Advisor; J. Markson, MRAIC; S. A. Gitterman, MRAIC, MTPIC, Advisory Group, CMHC; G. Hunt, Assistant Director, Information Division, CMHC; W. E. Schreier, MRAIC, Senior Architect, CMHC.*

Architect/Architecte, J. B. Crawley, Winnipeg
Three bedroom Bungalow, 866 sq ft
Bungalow à 3 chambres, 866 pieds carrés
5a
Front elevation
Elévation avant
5b
Ground floor
Rez-de-chaussée
Basement
5c
Sous-sol


5a

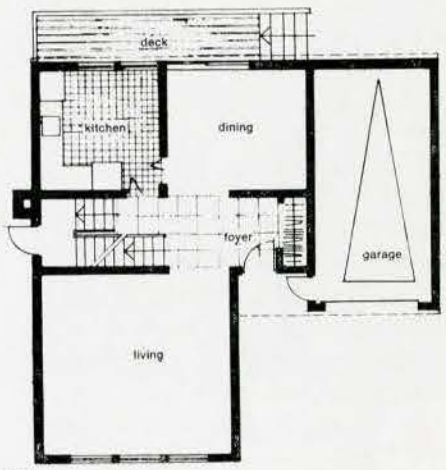
5b



5c

Architect/Architecte, James A. Murray, Toronto
Two storey, three bedroom house, 1375 sq ft
Maison à deux étages et trois chambres, 1375 pieds carrés
6a
Front elevation
Elévation avant
6b
First floor
Premier étage
6c
Second floor
Second étage
6d
Basement
Sous-sol


6a



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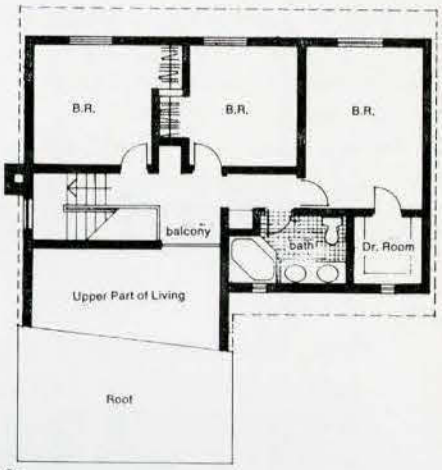
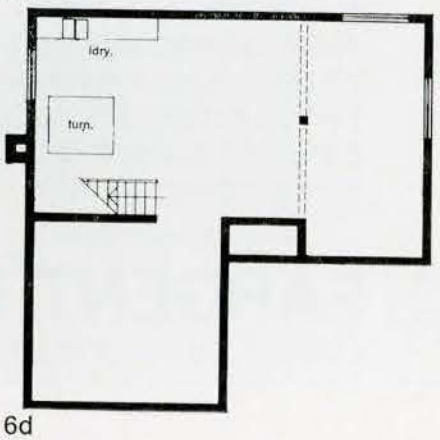
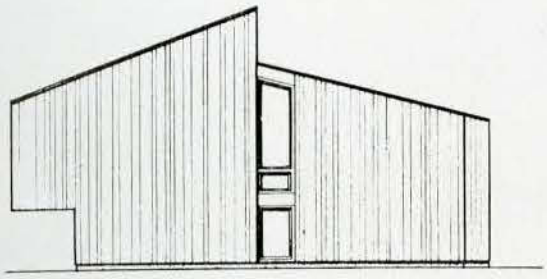


6c



6d

Architect/Architecte Saul Herzog, St Catharines
Two storey, three bedroom house, 65 sq ft per floor
Maison à deux étages et trois chambres, 65 pieds carrés par étage
7a
Side elevation
Elévation latérale
7b
Lower floor
Etage inférieur
7c
Upper floor
Etage supérieur



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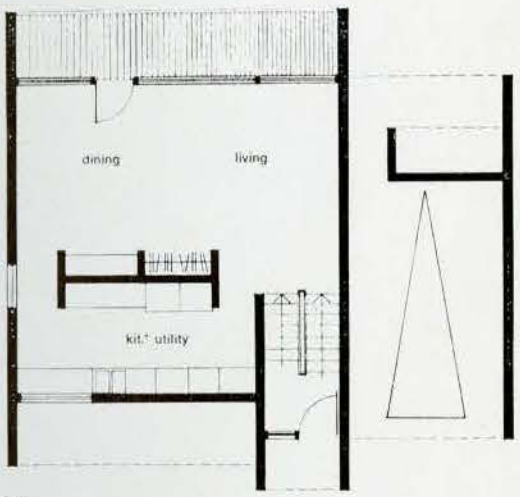

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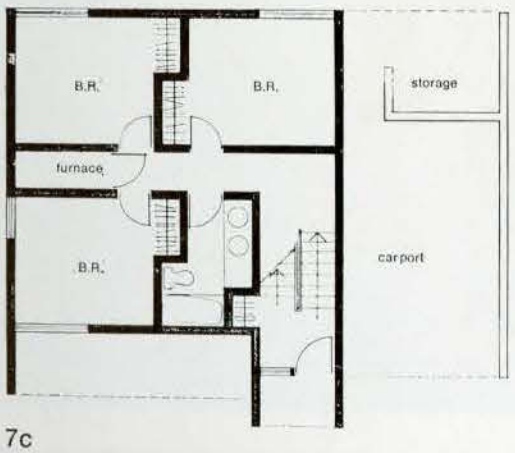
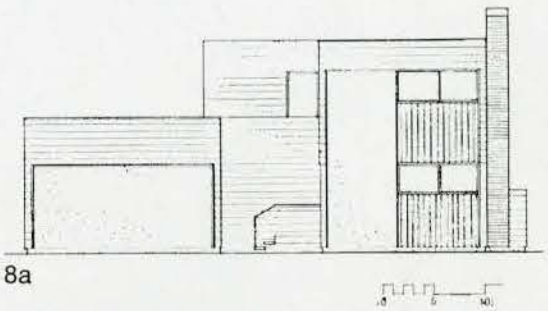


7c

Architect/Architecte J. V. Bergins, Vancouver
Two storey, three bedroom house, 1384 sq ft
Maison à deux étages et trois chambres, 1384 pieds carrés
8a
Back elevation
Elévation arrière
8b
First floor
Premier étage
8c
Second floor
Second étage
8d
Basement
Sous-sol



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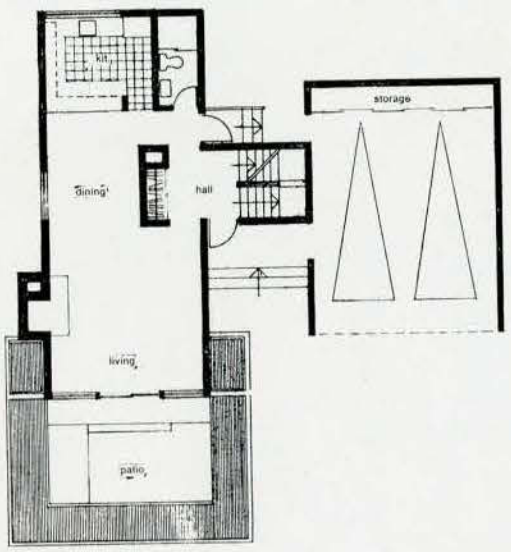

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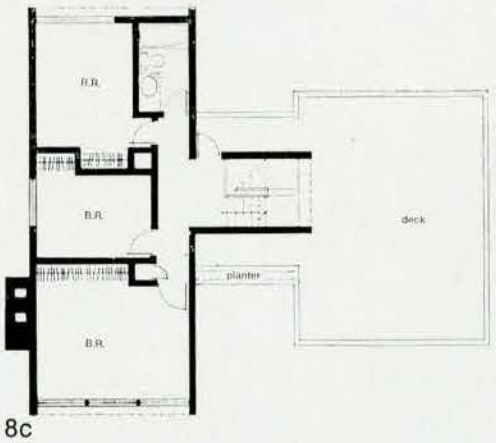

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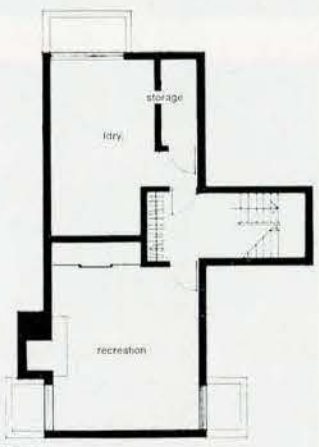
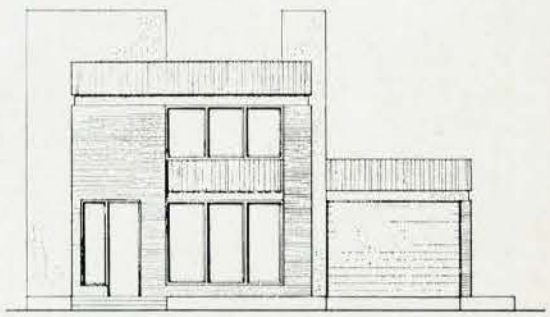


8d

Architect/Architecte Andrew J. Tiefenbeck, Don Mills, Ontario
Two storey, three bedroom house, 1474 sq ft
Maison à deux étages et trois chambres 1474 pieds carrés
9a
Front elevation
Elévation avant
9b
Ground floor
Rez-de-chaussée
9c
Second floor
Second étage
9d
Basement
Sous-sol



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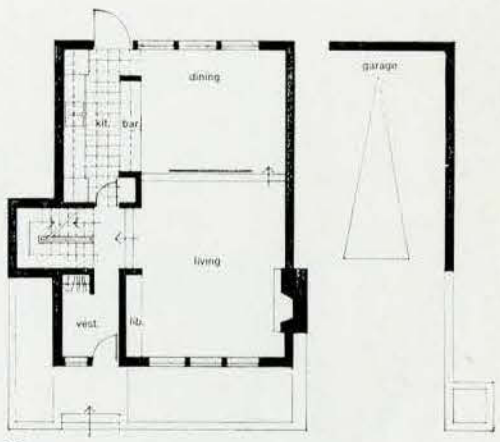

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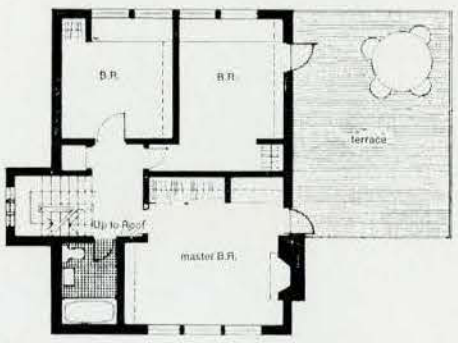

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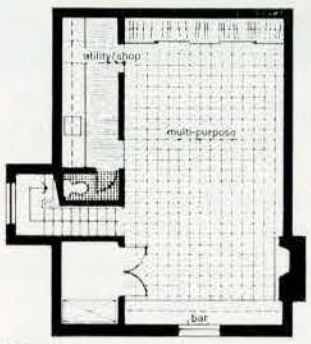

9d

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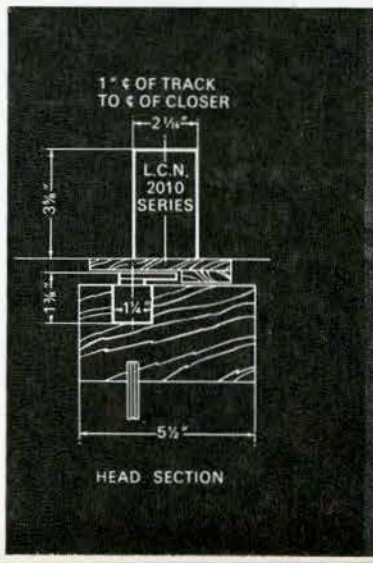


HEAD SECTION

RAIC College of Fellows
Nomination Procedures

The principles underlying the bestowal of RAIC Fellowships and the procedures for the nomination and election of Fellows were published in the August issue for the guidance of members. In view of some comment about the existing procedures earlier this year, members are invited to send any suggestions for changes or modifications to the Dean of the College of Fellows, Henri Mercier, FRAIC, 10 avenue Pratt, Outremont, Montreal 8.

Industry Department Plans Brochure
on Canadian Modular Designed Buildings

RAIC members are invited by the Materials Branch of the Department of Industry to submit photos and drawings of buildings designed and built to modular standards for use in a brochure to illustrate "flexibility and quality of design possible within the discipline of the four-inch module." Submissions should be marked to "Beam Program, Modular Coordination" and include: exterior and interior photos; a portion of floor plans showing dimensions co-ordinated by the four inch module; and a sectional detail of the joining of two or more modular components shown in the photos. Distribution of the brochure will include Canadian government offices abroad.

Seminar on Health Science Centers

The Department of National Health and Welfare, with the assistance of the Health Resources Advisory Committee, is sponsoring a two-day national seminar on the planning and construction of health science centers, October 24-25. The seminar, first of its kind in Canada, will be held in the National Library and Archives Auditorium in Ottawa. Further information may be obtained from Seminar Administration, Health Facilities Design Division, Department of National Health and Welfare, Ottawa.

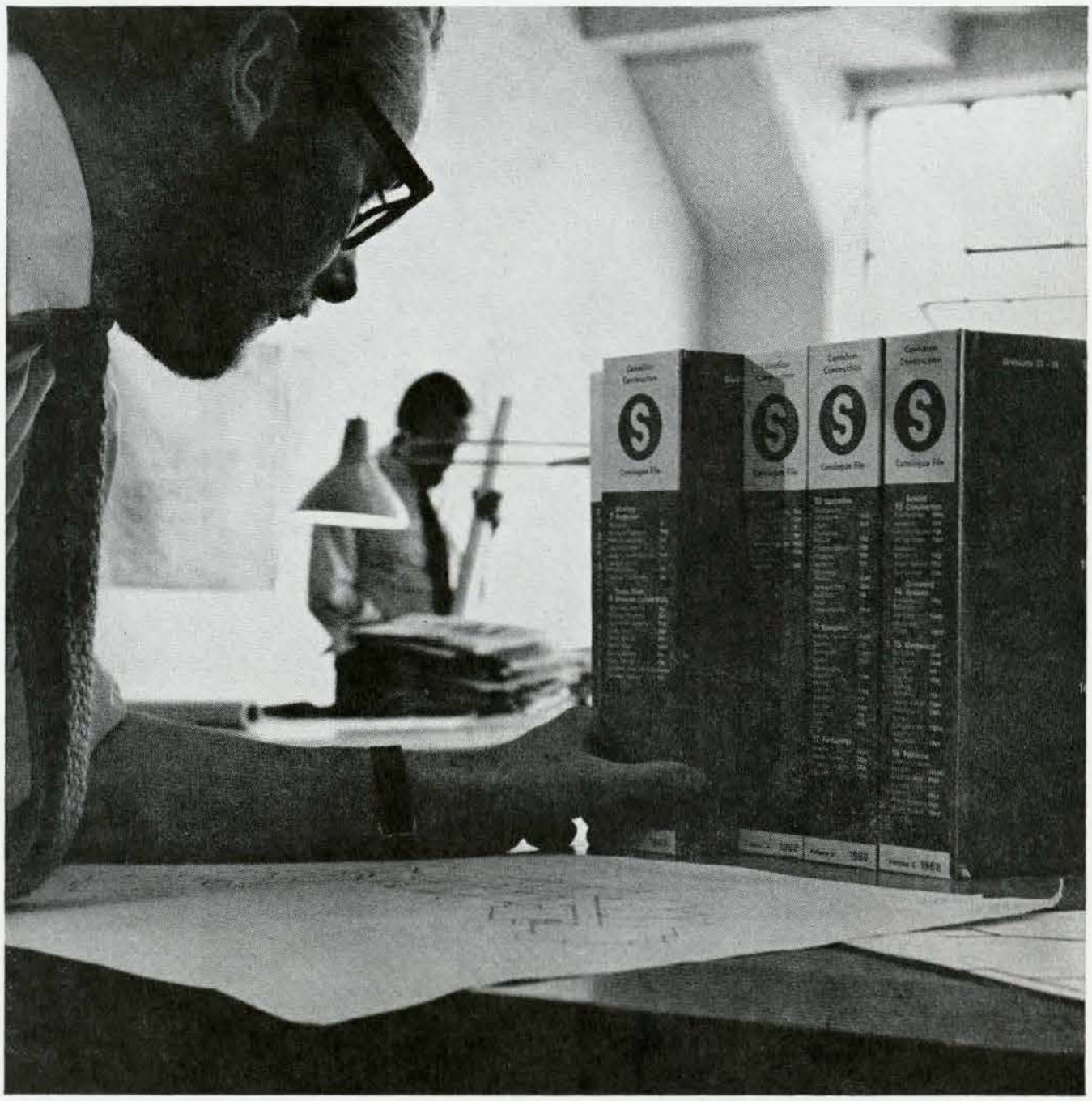
Division of Building Research News

"Atmospheric Icing of Structures" by D. W. Boyd and G. P. Williams, has been published by DBR. (NRC No 10143, price 25¢).
The Division has also produced a list of current reference material on the metric system, compiled by Eileen Carson and Charunee Pumidist. (Bibliography No. 36)
The publications listed may be borrowed from DRB Library.

Canadian Education Showplace

All Canadian architects have been invited to participate in the exhibition of school architecture at the Canadian Education Showplace in Toronto next January 23-25. F. J. K. Nicol, Toronto, is chairman of the architectural advisory Committee for the exhibit.

This project architect took 7.8 seconds to find elevators



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394 A

Communiqué 2

The Stanley House Conference

If the root of most problems facing architects today is a lack of liaison between students, the academics and architects in practice, as RAIC Past President James Searle told the American Institute of Architects in June*, then a real break-through towards establishment of a good, healthy academic-practitioner partnership was achieved last month when a group representing both sides met in the quiet of a country retreat to talk about architectural education and RAIC-educator-student relationships.

The opportunity for the week of informal discussion was provided by the Canada Council's summer program of "talk-ins" at Stanley House, the one-time fishing lodge built by Canada's

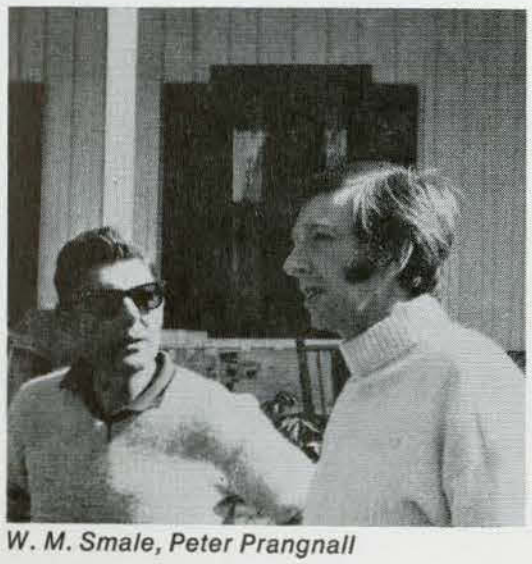
**Architecture Canada, "Communique" August 1968, Page 11*

La Conférence à Stanley House

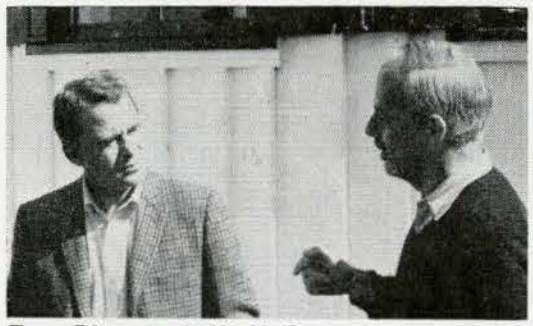
Dans son adresse à l'Institut Américain d'Architecture en juin dernier, James E. Searle, l'ancien président de l'IRAC a déclaré: "Si la raison de la plupart des problèmes auxquels la profession se heurte aujourd'hui est le manque de collaboration entre étudiants, académiciens et architectes, alors un grand pas en avant a été fait, le mois dernier en ce qui concerne le rapprochement entre les membres de la profession et ceux du corps enseignant." C'est dans le calme d'une retraite de campagne que des délégués, représentant les deux parties se sont rencontrés pour résoudre le problème de l'enseignement et des relations entre l'IRAC, le corps enseignant et l'étudiant.

Une semaine de débats officieux, organisés par le Conseil des Arts sous forme de "séances d'études", a eu lieu à Stanley House,

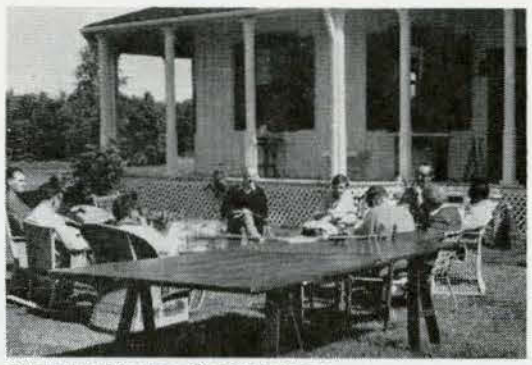
Harry Mayerovitch, Luc Durand



W. M. Smale, Peter Prangnall

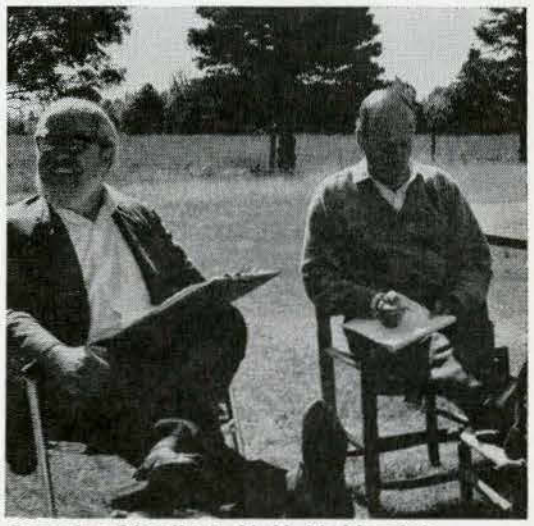


Tore Bjornstadt, W. N. Greer

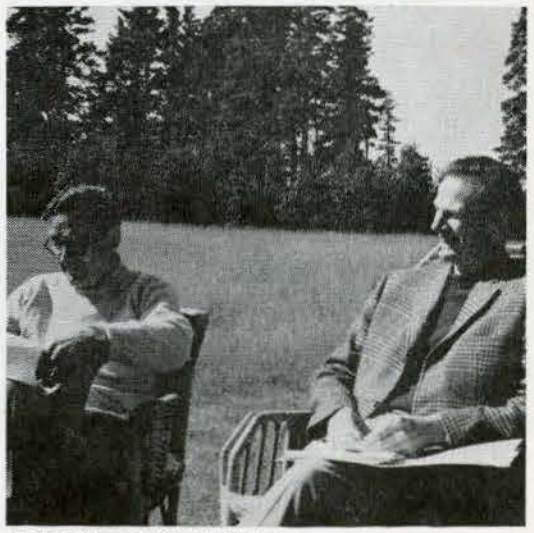


Stanley House Conference

Ian Davidson, Roy Sellors, Guy Desbarats



Douglas Shadbolt, N. H. McMurrich



John Bland, R. E. Briggs

sixth Governor General (and donor of the Stanley Cup) in the Gaspé. The house came into the possession of the Canada Council six years ago and the Council has used it since for one of its more imaginative and useful, if less known, activities — the encouragement of groups to contribute informally by discussion on subjects of national importance in the realm of the arts — all as guests of the Council.

Last year the Council invited the RAIC to use the country retreat for a week of informal talks on architectural education, and on August 5th a group of 14, headed by RAIC President Norman H. McMurrich, gathered to discuss undergraduate, graduate and continuing education. The program was prepared by Prof. Douglas Shadbolt, head of Carleton University's School of Architecture, and W. M. Smale, Simcoe, chairman of the RAIC Committee on Architectural Education, and approached the problems from the points of view of:

- What the architect today is deciding to do, or is being asked to do in addition to the standard practice of architecture
- What other climates the architect is operating in today
- How the architect is being taught today
- What new teaching methods and ideas are needed.

The "Teaching Office"

One of the more interesting proposals discussed was one by Prof. Shadbolt for the establishment of "teaching offices" in the schools of architecture. These, giving access to the latest equipment and techniques, could act as continuing education centers for practitioners and offer opportunities for the practical application of new techniques; while, at the same time, offering on-the-job training, including experience in new techniques, for the students.

RAIC-undergraduate student relationships also came under discussion. This was not a matter of scholarships or prizes, but of material assistance that would permit students to meet and talk. It was hoped to find some means of financing student conferences and ultimately to foster the organization of a national students' organization.

It became apparent early in the discussions that there was a great willingness on the part of both educators and practitioners to have the best kind of working relationship, and, if anything, the conference pointed up not so much a lack of cooperation as a lack of communication. Consisting as it did of seven educators (four of them heads of schools) and seven practitioners (who are also RAIC officers or committee chairmen), the group possessed the authority and influence to launch some new trends and ideas and it seems to have done so.

In addition to the President and Mr Smale, Institute representatives attending were Honorary Treasurer Harry Mayerovitch, Montreal; W. N. Greer, Publications Board Chairman, Robert E. Briggs, Chairman of the RAIC Committee on Legal Documents, both of Toronto; Samuel Gitterman, and Ian Davidson, Vancouver. Heads of Schools present in addition to Professor Shadbolt were Dean Guy Desbarats of the University of Montreal; John Bland of McGill and Dean Roy Sellors of Manitoba. Professor Peter Prangnell represented the University of Toronto; Professor Tore Bjornstadt, Waterloo, and Professor Luc Durand, Laval.

l'ancien pavillon de pêche, construit par le sixième Gouverneur Général (et donateur de la Stanley Cup). Il y a six ans que le pavillon est devenu la propriété du Conseil qui l'a utilisé depuis pour ses activités diverses. Des sujets d'importance nationale dans le domaine des arts étaient à l'ordre du jour.

Déjà l'année dernière le Conseil avait invité l'IRAC à se servir de cette retraite pour une semaine de débats officieux sur la formation professionnelle et le 5 août dernier un groupe de 14 délégués s'est réuni sous la présidence de Norman H. McMurrich pour étudier les problèmes relatifs à l'éducation des étudiants, diplômés et architectes désireux de poursuivre leur formation. Le programme a été préparé par le Professeur Douglas Shadbolt, Directeur de l'Ecole d'Architecture de l'Université Carleton et W. M. Smale, Simcoe, Président du Comité de l'IRAC. Ils ont approché ces problèmes de la façon suivante:

- Quelles sont les intentions de l'architecte aujourd'hui ou qu'est ce que l'on exige de lui en dehors de l'activité professionnelle?
- Quels sont les autres champs d'opération de l'architecte aujourd'hui?
- Comment l'architecte est-il formé aujourd'hui?
- Quelles sont les méthodes nouvelles et innovations nécessaires pour l'enseignement?

Amélioration des relations entre académiciens et practiciens

Une des plus intéressantes propositions venait du Professeur Shadbolt qui envisage l'établissement de "Teaching Offices" dans les Ecoles d'Architecture. Ceux-ci, tout en donnant accès aux équipements et techniques les plus modernes, pourraient servir de centres éducatives aux praticiens et étudiants et leur donner l'expérience pratique nécessaire.

La question des relations entre l'IRAC et les étudiants non diplomés est venue sur la table de discussion. Ce n'était pas seulement une question de bourses ou de prix, mais surtout une question d'aide matérielle permettant aux étudiants de se rencontrer et d'avoir des discussions fructueuses. On avait l'espoir d' avoir trouvé là un moyen de financer ce genre de conférences qui ultérieurement mèneront à la création d'une organisation nationale des étudiants.

Dès le début des débats il était évident que le désir de coopérer était sincère, mais que la conférence semblait souffrir d'un manque de communication plutôt que d'un manque de coopération. Ce groupe, qui se composait de sept éducateurs (dont quatre directeurs d'écoles) et de sept praticiens (qui sont en même temps des adjoints de l'IRAC ou des présidents de comités) possédait l'autorité et l'influence nécessaire au lancement d'une telle entreprise, et semble y avoir réussi.

En dehors du Président et M. Smale, les autres membres présents étaient Harry Mayerovitch, Trésorier honoraire, Montréal; W. N. Greer, Président de la commission des Publications, Robert E. Briggs, Président du Comité des Documents Juridiques, tous deux de Toronto; Samuel Gittermann et Ian Davidson, Vancouver. Les Directeurs des Ecoles suivantes étaient également présents: Guy Desbarats, Doyen de l'Université de Montréal; John Bland de McGill et le Doyen Roy Sellors du Manitoba. Le Professeur Peter Prangnell représentait l'Université de Toronto; le Professeur Tore Bjornstadt, Waterloo et le Professeur Luc Durand, Laval.

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Otis says:
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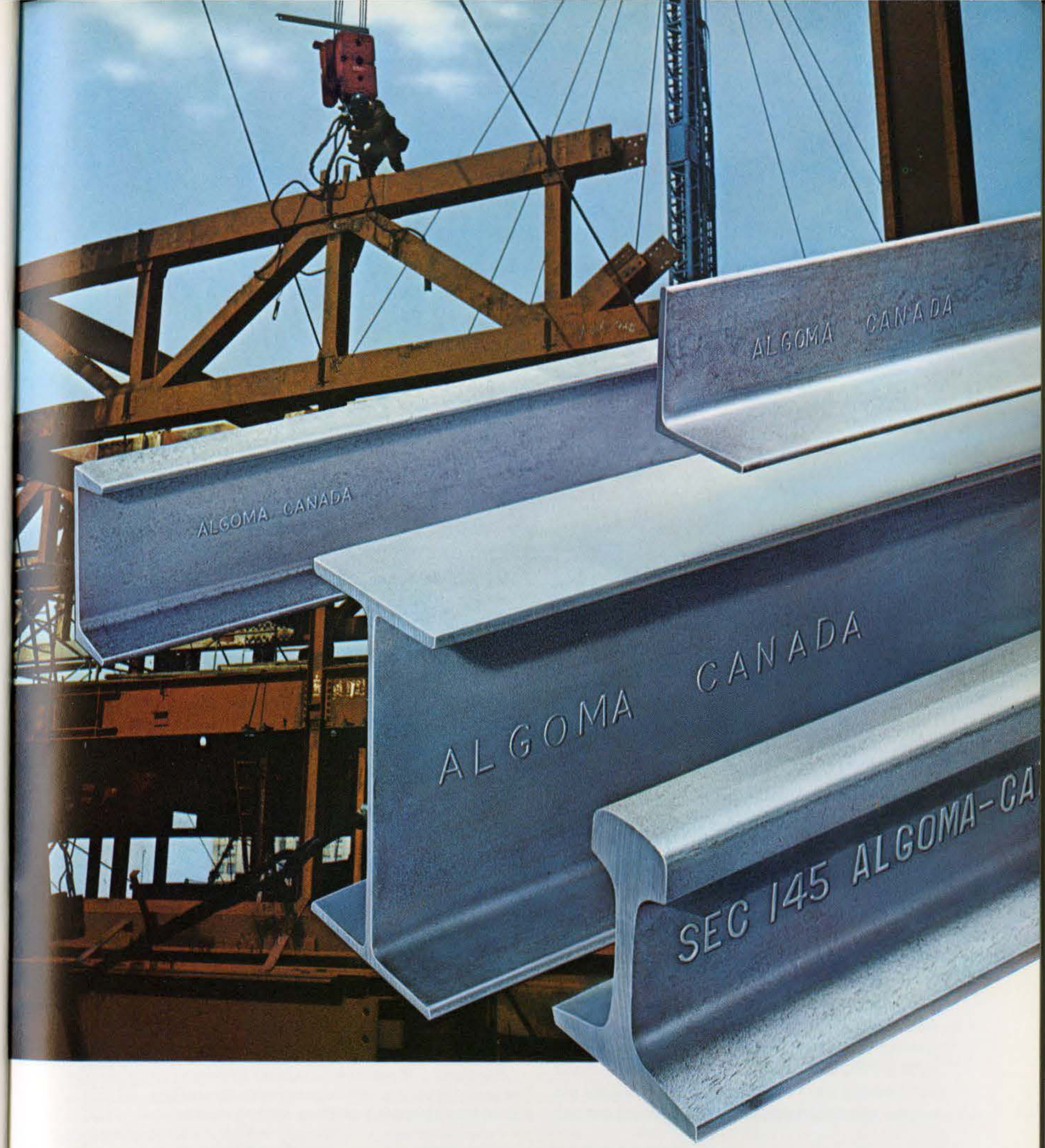

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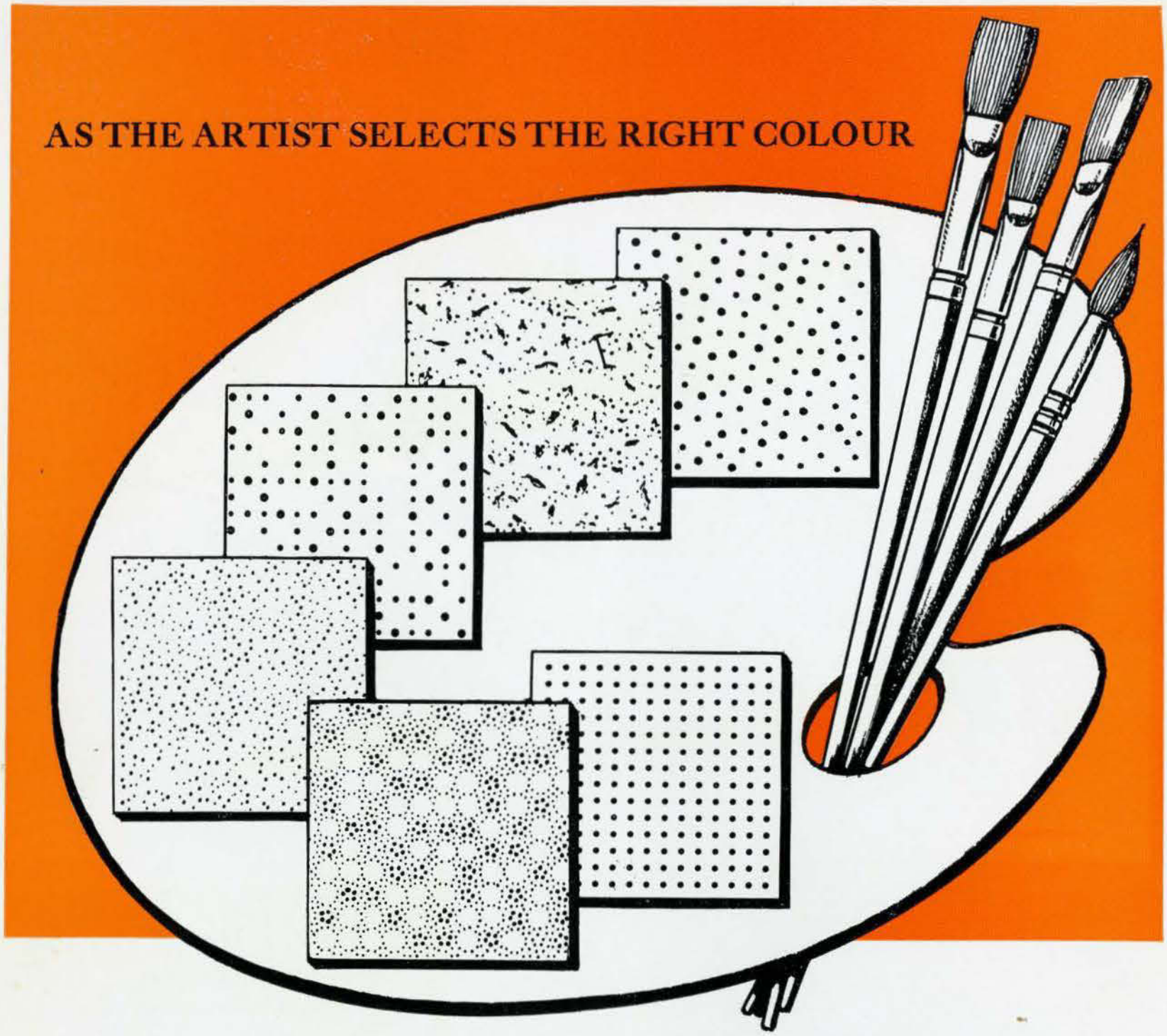

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Public Art
We . . . The Inheritors
1968-2068

Centenary year, along with various intangible fading memories, has left across Canada a remarkable inheritance of art and architecture produced under competition and stimuli from government instrumentalities. Apart from Expo the shot in the arm to municipal architecture has generated something – just what, I leave to my architectural peers to evaluate. To a sensitive layman, the crop of museums, libraries, concert halls, culture centers, and the ubiquitous planeteria, sometimes surprises. Canada has had an architectural birthday, all right, even if housing is scarce. Some of the "gifts" at this birthday party will be in the category of "silver christening mugs", others, however, are an awful inheritance rather reminiscent of gifts from well-meaning friends and relatives, which we would as soon hide away in dark closets. Unfortunately for future citizens, there are no closets for storing architectural and art mistakes.

The Cross Roads

It should be pleasing to note that apparently in all architectural gambits, the federal government's lead of setting aside a percentage of the total building cost for art work was accepted. However, this well meaning pleasantry has placed architectural art at a dangerous cross roads. Standing at this cross roads is a new patron – the well meaning but "artless" government legislator and his public servant. They can, if they have the wit, direct Canadian architectural art into meaningful and significant channels for both the artist and the public, by creating a public forum where the best of this country's creative imagery can be found. They can assist a real cultural development, or they can persist in the all too familiar course of perpetuating inanities in the form of pompous, outdated, irrelevant forms of art, thus reducing both the artist and the public to second rate producer and consumer.

A Question of Leadership

The choice is not easy. It is a question not of benign leadership but of enlightened leadership. Enlightened leadership *is not* and *never was* easy. It must be constantly worked at and revised. Success is not predictable nor error unavoidable. The test is when perception allows cognizance of success and failure and evaluations are made so that we may proceed with courage and honesty to place exciting and vital imagery before the casual eye of everyman.

This is of the utmost concern to the new group of enterpreneurs constructing the environment of the public place – the government servant, the architect, the artist and the liaison agents who effect commission and co-ordination. Not least of these is the architect, whether he be a public works servant or a freewheeling member of the various architectural combines.

Any indifference of his to both public art and architecture is an apathy which at best implies permissiveness and at worst ignorance. Too often he 'opts' out when initiative must be taken in choosing exciting, if disturbing, talent or effecting a nasty mishmash of compromise which (so I am told), is representative of public taste or the result of bureaucratic "decision" (whatever that anonymous group may be).

In defence of my trenchant criticism of procedures, I have it on good authority that the architect's reluctance to seek and find suitable artists for his project, in good time, has caused him to lose the initiative in being asked to advise in choosing talent for projects.

Sources for Advice

To whom and to what enterprises could we look for guide lines? Entrepreneurs of varying quality have consistently placed creative Canadian work in the public eye. It is to the proven best of these we should turn to for advice. (Comparison of projects will be correlated in subsequent articles). Open competition too, has yielded some pretty good results for architecture if the competitions and the judges are creative enough to attract the top quality competitor. Why not the equivalent for public art?

Public art collections should not be less valuable than those of the most discriminating private collectors. The public purse is no less affluent than that of the average industrialist. The taxpayers' contributions have made it so. The collector, both international and national, is no fool. His choice has been subject to a great deal of hard-headed education by his betters. Few are so stupid as to indulge their own uncertain taste when inexperienced in matters of art.

As artist and critic and, at the risk of appearing negative, I feel that the "go ahead" to our newly self-appointed dispensers of public art cannot be given until we examine thoroughly the results of recent activity and honestly analyse the modus operandi. To this end, in the next few months we will publish pictorial evidence, good and bad alike, with pertinent observations – your art inheritance.
Every reader, as a taxpayer, must accept his part in this choice, whether architect, artist or layman. *We* have placed money in the hands of public administrators for the purchase of this country's art. That public administration accepts stewardship is both a challenge and a grave responsibility. That *we* accept decision without question is to tacitly accept the esthetic landscape of the future.

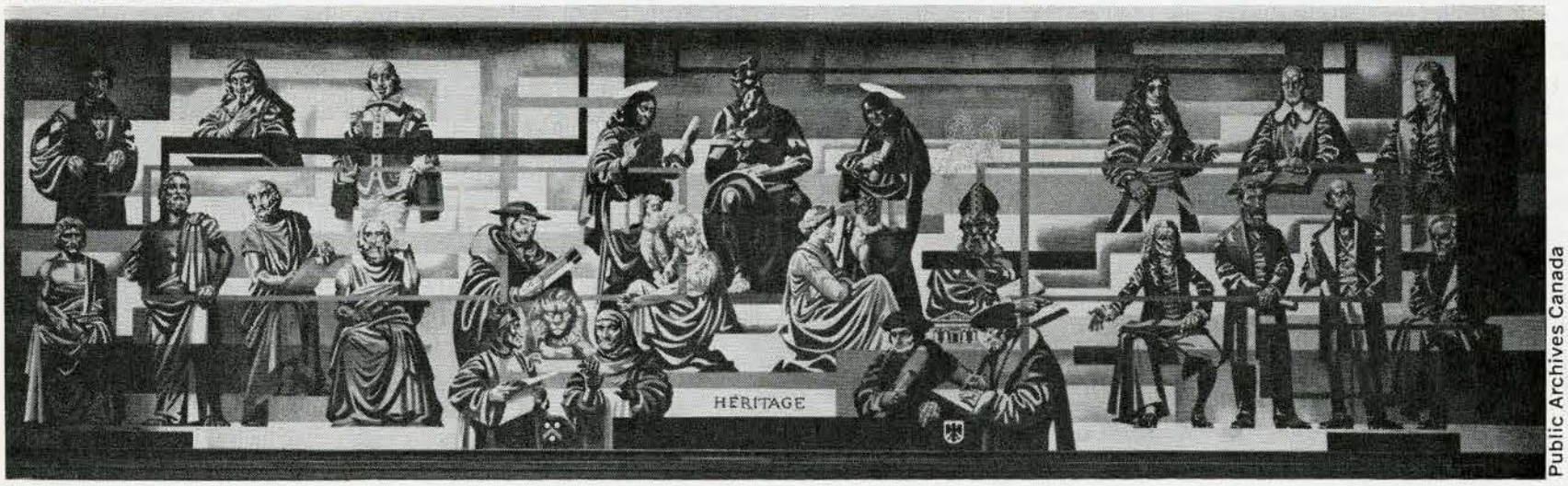
Through hard-minded assessment of these efforts we can move forward to a positive era of problem solving with those involved. We, you and I and our promoters, are at the cross roads. Canadian architectural art, to be of cultural significance, must take a more courageous and creative direction than it has so far.

Next Issue, Commissioning Public Works – How? Who?

Anita Aarons

1
"Heritage" by Charles Comfort at the National Library and Public Archives Building, Ottawa
"Heritage" par Charles Comfort, l'edifice de la Bibliothèque Nationale et des Archives Publiques, Ottawa
2
Brian Fisher's mural at the Montreal airport
Murale par Brian Fisher à l'aéroport de Montréal

Your inheritance . . . this



Public Archives Canada

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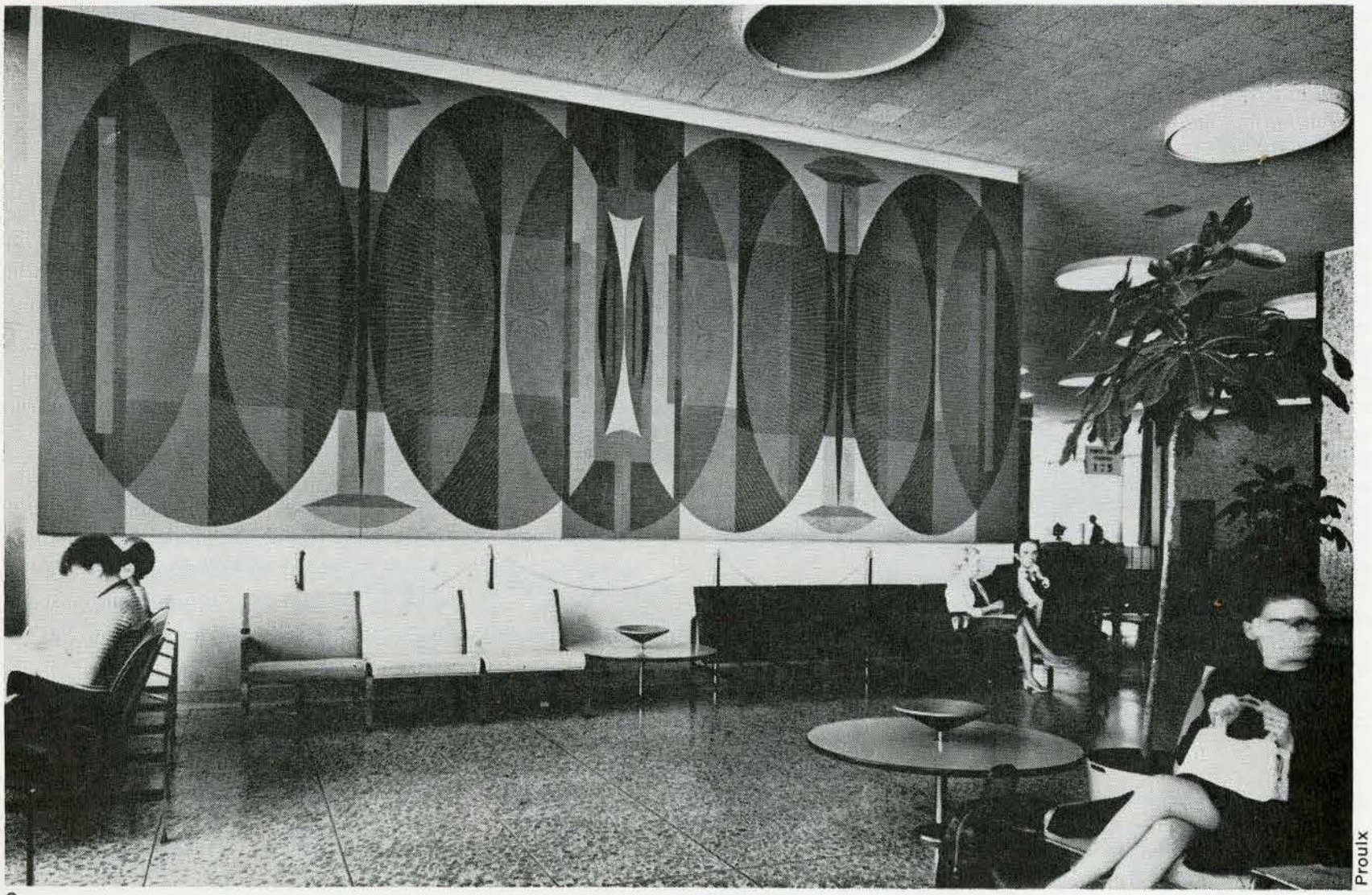

Proulx

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"Abstract" sculpture by O. Holmsten in front of Alberta Provincial Museum and Archives Building
Sculpture "abstracte" par O. Holmsten devant le Musée Provincial et le Bâtiment des Archives, Alberta
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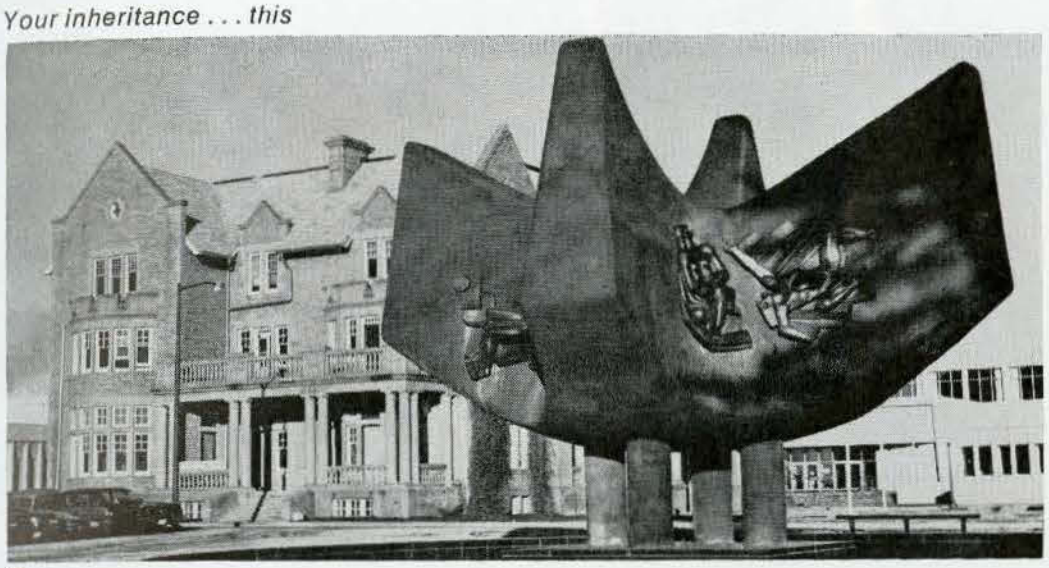
Presence, Expo commission by Armand Vaillancourt
Presence, Expo commission par A. Vaillancourt

Your inheritance . . . this



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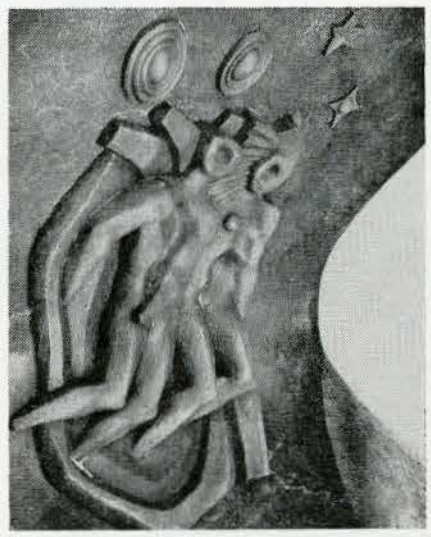

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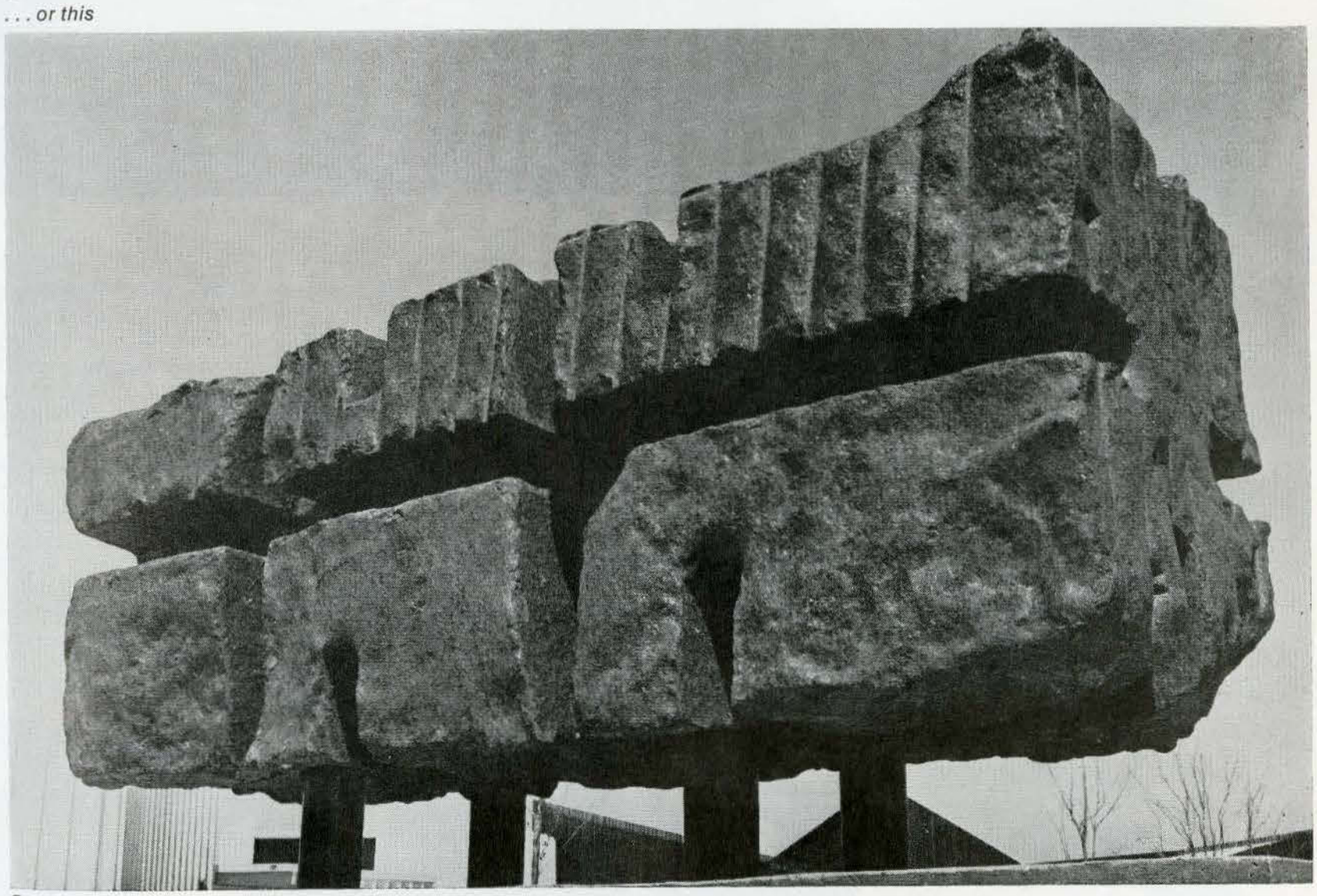

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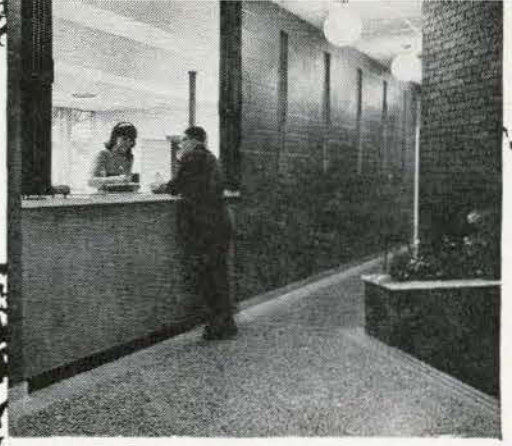
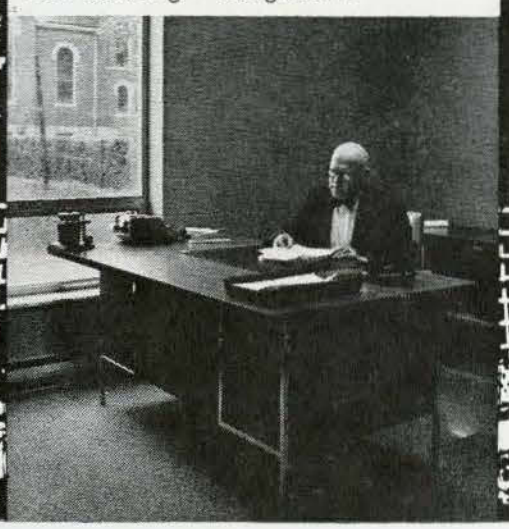
Essex Municipal Building, set among trees on the main street.



Main lobby. A fan-forced heater creates a warm welcome.



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.

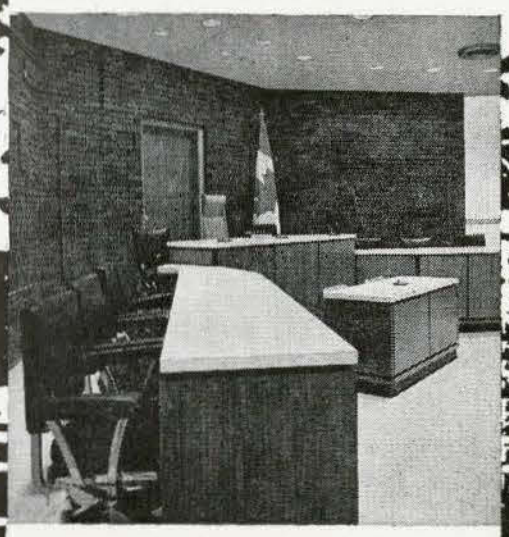
At Essex Municipal Building, dedicated in October 1967, the climate control system has to serve the Police Department, open round-the-clock; the general offices, which keep standard office hours; and the Council Chamber and committee rooms, which only need to be fully heated when meetings take place.

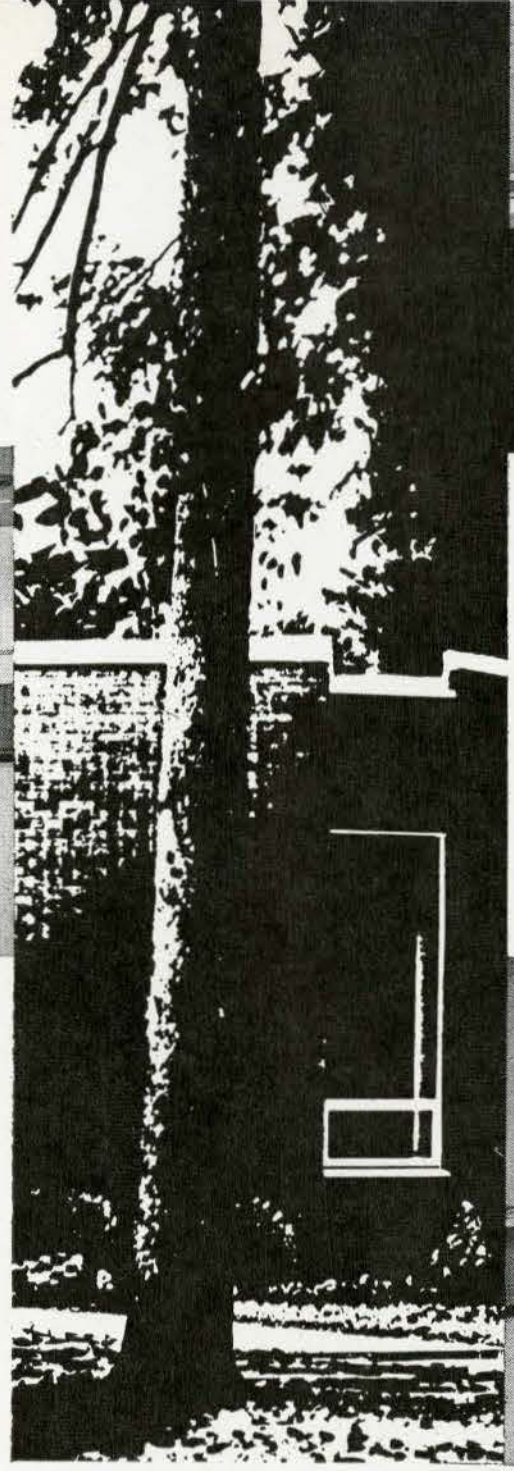
Primary conditioning air from the

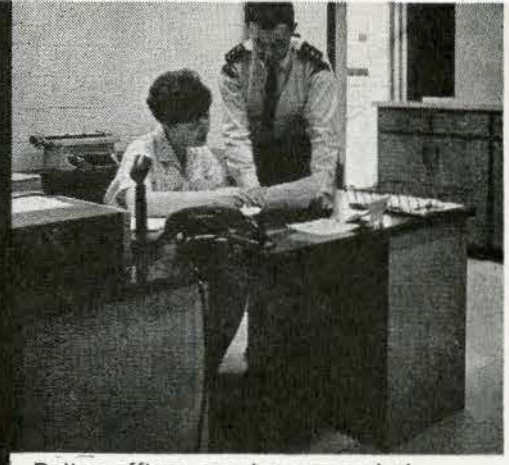
electr

18-5126

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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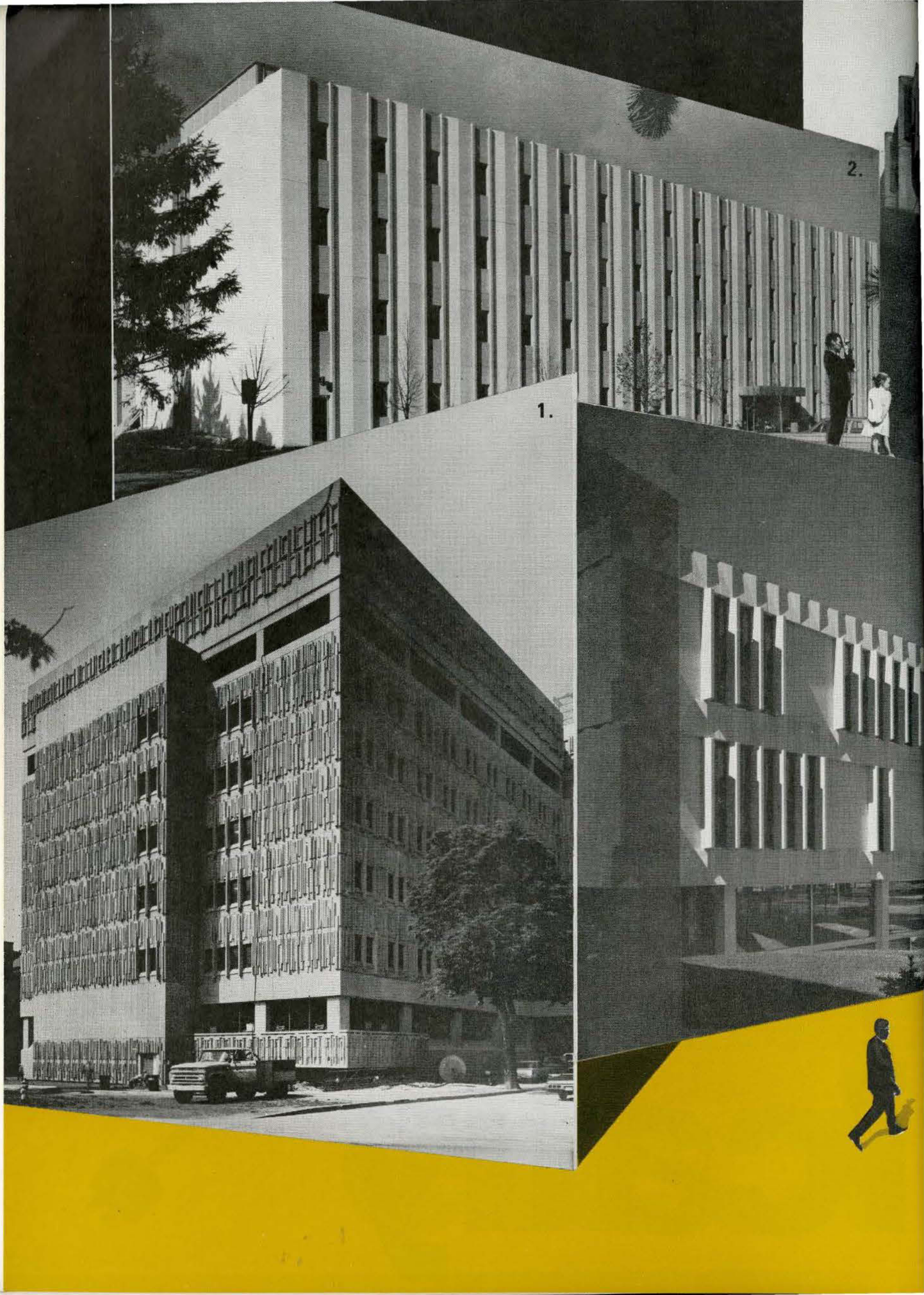
ontario hydro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1. **Medical Sciences Bldg., University of Toronto**
   Architects: Govan, Kaminker, Langley, Keenleyside, Melick, Devonshire, Wilson
   In association with: Somerville, McMurrick and Oxley
   Sculptors: Robert Downing, Ted Bieler
   Project Mgr: Canadian Bechtel Ltd.

2. **Senior Sciences Complex, McMaster University, Hamilton**
   Architects: Wm. R. Souter & Associates
   Gen. Contractors: Robinson Yates Corp. Ltd.

3. **Library Tower, Brock University, St. Catharines**
   Architects: U.P.A.C.E.
   Gen. Contractors: McNamara Construction Co. Ltd.

4. **Arts and Humanities Bldg., Laurentian University, Sudbury**
   Architects: Marani, Rounthwaite & Dick
   Gen. Contractor: Janin Bldg. & Civil Works

5. **Atkinson College, York University, Toronto**
   Architects: Allward Gouinlock
   Gen. Contractors: Milne & Nicholls Ltd.

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Bridging the gradual transition in university design from the traditional materials of the past to the modern materials of today, precast concrete has almost universal acceptance.

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Installation costs:	Total cost of building $16.60/sq. ft.
Power cost:	Maximum demand: 780kW Annual consumption: 3 760 000kWh Total cost: $33 760.00 Cost/sq. ft. $0.31 Cost/kWh: 0.88¢
Consultants:	Architects: Gauthier, Guité & J. M. Roy Mechanical & electrical engineers: Leblanc, Montpetit & Lagacé

. . . here, the mechanical engineers opted for an electric-coil induction system to heat their building. And even the normal heat given off by the light fixtures is used to advantage.
As for ventilation, this is ensured by a 33,000 cfm unit, while centrifugal compressors supply the air-conditioning.
The peak demand of the building is controlled by a load stabilizer. In addition, a thermal wheel is used in order to recover 80% of the heat from the air evacuated by the ventilation system . . .

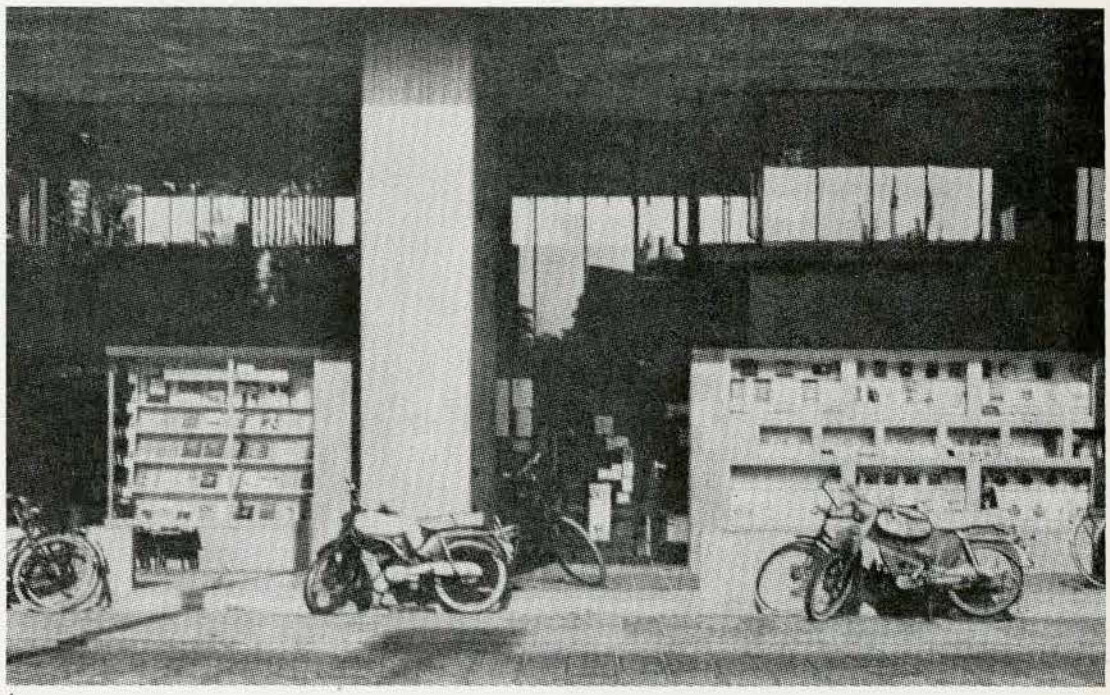
Hydro-Québec

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

Secretary Robert C. Weaver announced last month that the US Department of Housing and Urban Development has awarded a $3-million contract to the new Urban Institute to carry out research related to the Department's programs.
According to Secretary Weaver, the Institute will take a comprehensive view of urban life and will be oriented to problem solving in cities. The Institute will develop new knowledge and obtain information useful to the Department.
HUD's contract is the first to be made with the new Institute. It is expected that others will follow with several Federal departments having important urban-related responsibilities.

The Urban Institute, a private non-profit organization, was officially launched April 26. At that time U.S. President Johnson said: "As a nation we must mobilize our best intellectual resources to attack the problems of the city, to evaluate the effectiveness of alternative courses of action and to develop workable solutions. The Urban Institute is being created to focus that effort on our priority social problem – the cities."
The Institute's Board of Trustees includes 15 prominent national figures from the public and private sectors. Arjay Miller, vice chairman of the Ford Motor Co., is chairman of the Institute. William Gorham, former assistant secretary of the Department of Health, Education and Welfare and a former deputy assistant secretary of Defense, has been named president and chief executive officer of the Institute. *Architectural Record, July, 1968*

Our Prime Minister too, has expressed similar concerns for our urban society. However, the minister responsible for housing is still the Federal Minister for Transportation. The provinces and municipal governments are still constitutionally responsible for housing, in spite of the fact that they have not met their responsibilities – they have not even utilized the present legislative means at their disposal. Note should be taken of this move on the part of the US to an urban institute. CMHC's concerns after all have really been financial. The overall concerns of an improved urban and housing condition need a central, powerful agency, with a minister in full time control. □



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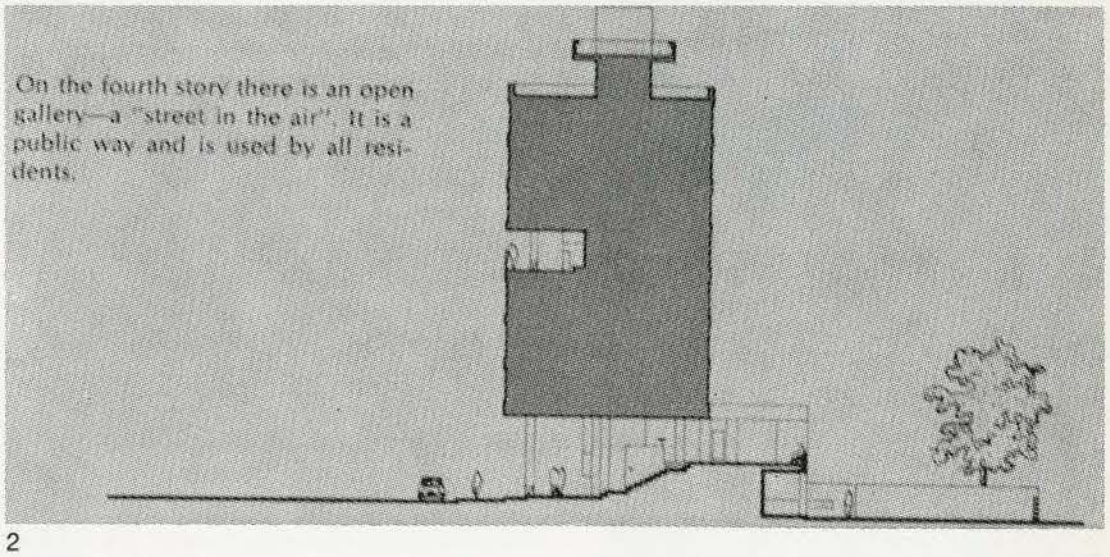

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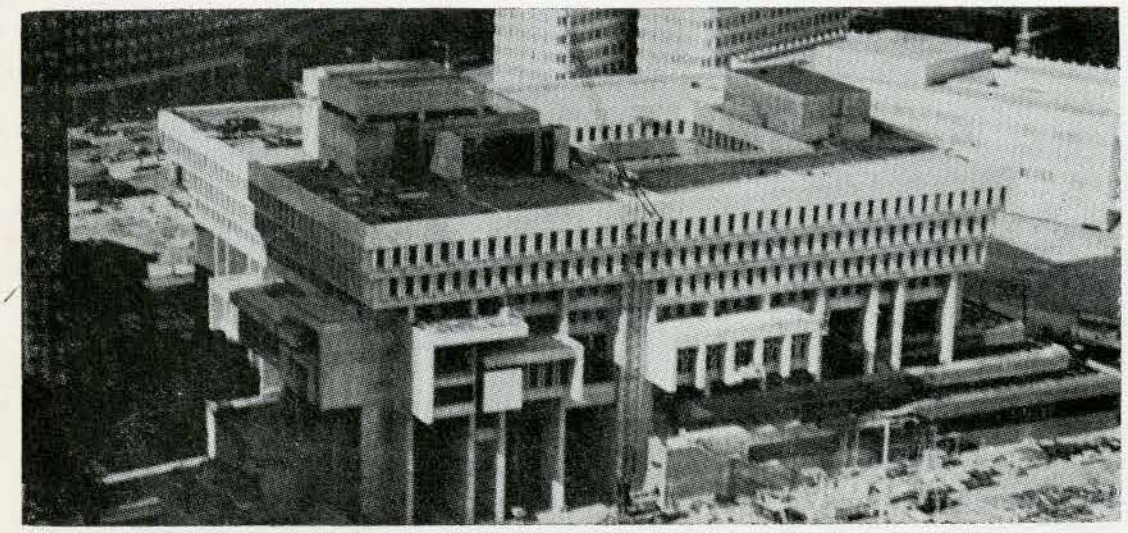
Since the mid-1950's there have appeared in Europe a number of young architects who are determined that their buildings should be relevant to those accommodated, both "at home" and when in the street. Basically these architects subscribe to the thought that architecture has no higher aim than to assist man in achieving a sense of personal well-being: a building should be judged not in terms of the usual esthetic considerations but in terms of how people react to it and use it.

When Dutch architect Herman Hertzberger talks about his solutions for the student house in Amsterdam **(1, 2)** and the Montessori school in Delft, one is immediately drawn to his concern for making people feel at home, with approaches to the buildings that are intended to make them seem like friendly extensions of the street and public spaces designed to be community gathering places. Hertzberger's buildings prove to be succinctly designed counter-forms of work and leisure.
Architectural Review, July 1968



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Boston City Hall . . . **(3)**
Monumental architecture or monument to construction ingenuity? *Bldg Const, July*

4

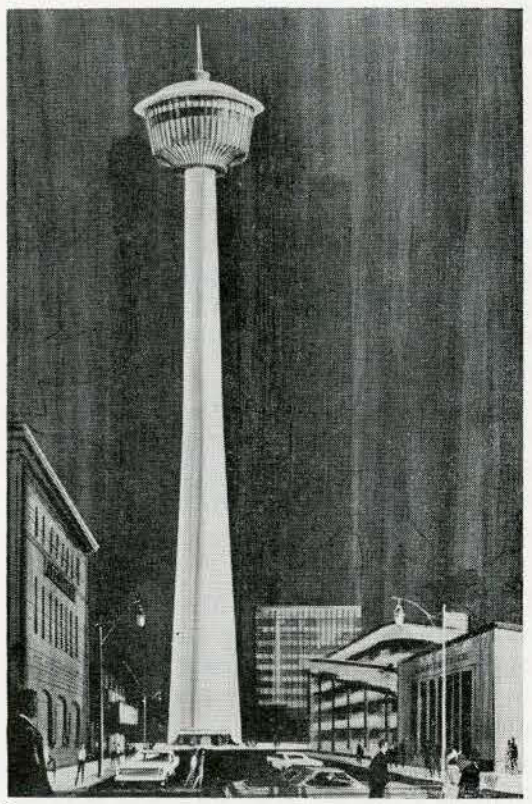
Do you know for whom you are designing? Is it not time that design criteria made mandatory consideration for paraplegics in all public building? This picture **(4)** is taken from a publication of the Potomac Valley Chapter of the AIA, on "Barrier Free Architecture".

Observation Tower for Western Canada: The 600-foot Husky Tower **(5)** is scheduled to take shape this year in downtown Calgary, Alberta, Canada. Made of concrete, the shaft will be slipformed by Canadian Kellogg Co. Ltd., a subsidiary of Pullman Incorporated, in less than six weeks.

Soon to be erected, the new 18-storey **(6)** School of Nursing and Students' Residence for the Toronto General Hospital when completed will be the largest building of its kind in Ontario, designed by *Mathers and Haldenby*. There is a common room with balcony for each floor. Ninety percent of the rooms will be single; ten percent double. Exterior walls of each bedroom, nine by eight feet, will be precast units. The ventilation system planned for the bedrooms is adapted from a previous system designed by the architects for a private home; the windows are of fixed double glass and will not open. Instead, beside the window will be a louvre panel with a 12" wide by 4 foot high door. Screened and insect-proof, it will also prevent rain from entering. Curtains can be fully drawn over windows without impairing ventilation. Project in detail will consist of an 18-storey nurses' residence, a one-storey assembly wing and a four-storey school of nursing. Construction will be of reinforced concrete structure with precast concrete walls. The residence is designed for vertical expansion of three floors.

This will be a welcome contribution to a field not usually distinguished by either good facilities or architecture.

A.J.D. and B.M.



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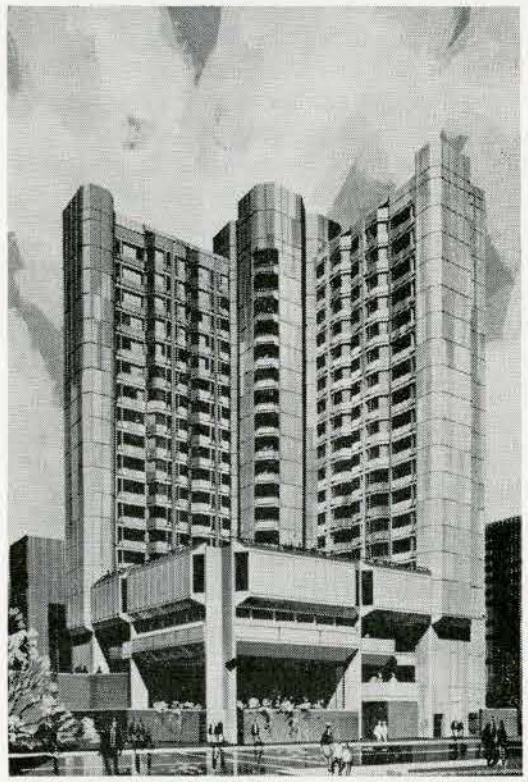

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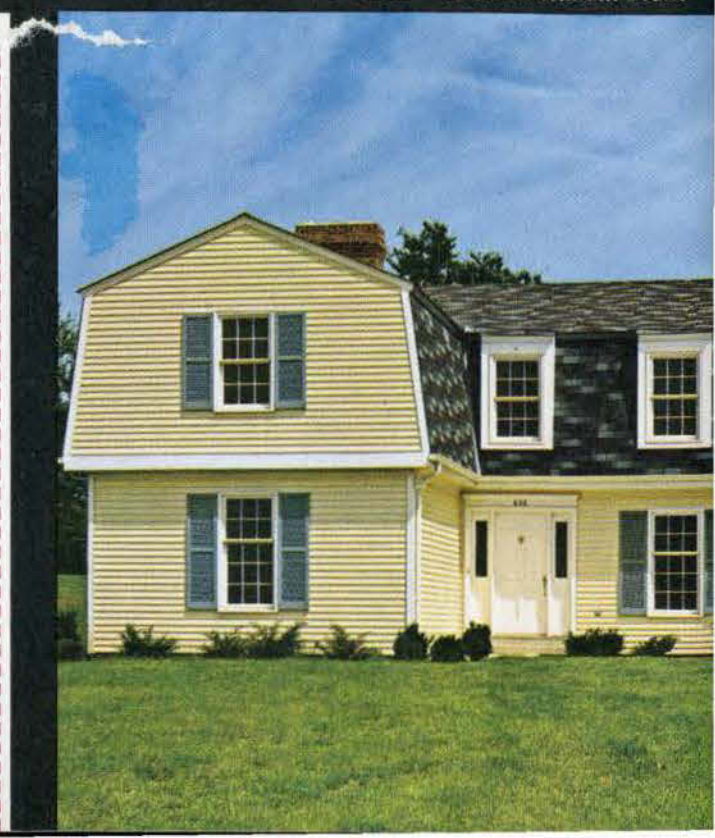

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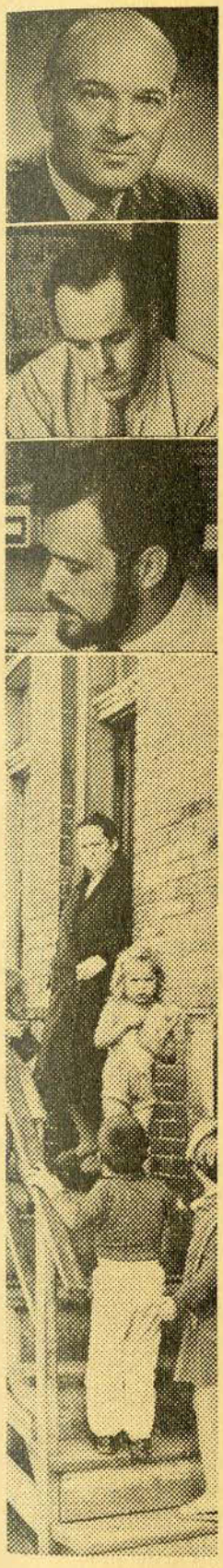

Dr Albert Rose
Page 46

Anthony Kennedy
Page 52

Ove Simonsen
Page 52

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On parle et on parle . . . Dr. Albert Rose

Le Canada ne souffre plus d'un manque de politique de logement si la politique est équivalente à l'ensemble des lois passées à ce sujet. Si la parole vaut l'action, le Canada peut être optimiste quant aux futures conditions de logement. Depuis trente ans les trois niveaux de gouvernement sont devenus de plus en plus impliqués dans le logement de toute la nation mais l'énonciation d'objectives, le passage des lois, ne suffisent pas; il faut que l'économie nationale toute entière puisse allouer des ressources proportionnées aux exigences humaines. Bien sûr, le Gouvernement fédéral fournit les fonds à placer dans la construction résidentielle, mais elle devrait continuer d'être subventionnée par le secteur privé. Il serait souhaitable que le pourcentage total des placements dépasse les 5% actuellement investis dans les logements "publics"; la plupart des Canadiens préfère toujours acheter ou louer leurs habitations sur le marché privé. Donc, la politique fédérale devrait d'abord encourager les Provinces à assumer leurs responsabilités constitutionelles. La SCHL devrait stimuler et encourager l'amélioration de la situation par le moyen d'éducation, de recherches et de participation active aux conférences et programmes appropriés. Mais son rôle le plus important c'est d'administrer les fonds pour la réalisation de ces programmes. Toutefois, elle doit s'imposer des limites car si toutes les Provinces émulaient l'Ontario Housing Corporation, les fonds seraient nettement insuffisants. Les fonds nationaux devraient être placés également dans les capitaux sociaux (éducation, hôpitaux, etc.) et dans les ressources humaines. Il faut voir le logement comme un parmi bien d'autres problèmes nationaux afin de pouvoir préciser une politique de logement appropriée à l'action sociale et la voie politique effectives. Les Provinces elles-mêmes savent bien qu'il faut des logements convenables, en lieu sûr et sanitaires. Il faudrait transformer en réalité les belles phrases et lois énoncées. Les logements publics sont plus en demande pour deux raisons: la possibilité d'en avoir et l'inflation. Le prix d'un logement dépasse de loin les revenus d'une famille moyenne. La politique de logement provinciale est aussi limitée que celle du gouvernement fédéral; beaucoup de lois existent – et peu de nouveaux logements sont contruits. Si les belles paroles des Provinces ne sont pas transformées en réalité, elles devront céder leurs pouvoirs soit au gouvernement fédéral, soit municipal. Quand même, les Provinces ont les mêmes responsabilités que le gouvernement fédéral quant à la distribution des fonds disponibles. En plus, les législatures provinciales, dominées par des représentants des régions rurales, se méfient de la société urbaine; en Ontario, 30% de la population habite la région métropolitaine de Toronto mais un cinquième seulement des sièges à la Législature lui est réservé – ceci fera obstacle à la réalisation d'une politique de logement jusqu'à ce que la rédistribution soit mise en effet. Enfin, la plupart des gens ayant besoin de logement public réside dans les centres urbains où il ne reste que peu de terrains utilisables pour le logement. Les municipalités ne sont plus du tout capables de jouer tous leurs rôles du passé même si elles le voulaient. Les gouvernements municipaux sont assez peu sympathiques aux besoins de ceux qui ont recours à l'assistance publique et je ne vois pas de changement radical dans les années à venir. Puisque les lois provinciales dépendent bien souvent de l'initiative municipale, il n'y aura pas grande activité dans le domaine du logement public à moins que l'interprétation de la législation ne comprenne beaucoup plus de motivations que le passage de la législation. La possibilité existe que les nouvelles sociétés de logement provinciales se montreront plus entreprenantes que leur état actuel de passivité ne l'indique.

Une solution à longue échéance existe mais d'abord il nous faut changer l'attitude des Canadiens par rapport au logement en tant que besoin social et il nous faut bien plus de planification. La phrase "logement public" ne devrait pas signifier l'assistance aux très pauvres seulement: la politique de logement public devrait impliquer l'intervention du gouvernement fédéral et de tous les gouvernements provinciaux afin d'assurer que la distribution des logements soit la plus adaptée à l'intérêt national.

Entre 1950-64 moins qu'un pour cent par an des placements canadiens était consacré à la construction de logements publics; l'accelération du programme de l'OHC entre

1965-67 a amené ce pourcentage à 5%, ce qui doit je crois, atteindre 10 à 15% dans les dix ans à venir. Les gouvernements fédéraux et provinciaux devraient faire une déclaration formelle de discrimination en faveur des familles et individus à revenus modestes, y compris les Indiens et les membres d'autres groupes minoritaires, mais cela ne suffira pas – il faut énoncer *pourquoi* une telle politique devrait être décretée et pour *qui*. La planification fédérale-provinciale pendant au moins 20 ans sinon 30 est le seul moyen de traduire nos belles paroles en réalité. Chaque année le gouvernement fédéral devrait pouvoir fournir aux Provinces un compte-rendu exact des programmes de logement prévus à travers le pays, qu'ils soient publics ou privés et le montant des fonds disponibles. Puis, l'allocation de ces fonds serait décidée par les deux niveaux de gouvernement. Le secteur privé devrait savoir bien en avance quel pourcentage serait voué à l'acheteur aisé, quelle proportion aux acheteurs en vertu du NHA et quel pourcentage à la majorité de notre population qui a besoin d'aide. Chaque Province devrait déterminer comment sa part serait allouée par rapport aux secteurs respectifs de son économie; elles devraient exiger des municipalités leurs plans de developpement futur, une politique de logement durant 5 à 10 ans et chaque secteur *urbain* devrait se faire un objectif de logement (y compris la rénovation urbaine) identifiant très clairement la part du logement public, sujet à l'approbation de la Province. La planification en soi ne produira pas les logements requis; il faut agir de façon à impliquer tous les niveaux de gouvernement. Il faut initier et réaliser des programmes spécifiques de logement traduisant la planification fédérale-provinciale en réalité, action qui sera retardée à moins que chaque gouvernement provincial réorganise la machinerie administrative de planification physique et de logement.
A vrai dire, nous avons négligé plus que la moitié de notre population pendant vingt ans; nous avons créé une nation de propriétaires de maisons où seulement vingt pourcent des habitants peuvent offrir à leuds enfants les avantages nécessaires à se faire une vie dans la société de l'avenir.

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Les Ghettos ruraux canadiens
Anthony Kennedy, Ove Simonsen

Nos problèmes d'urbanisation tendent à nous cacher les terribles conditions de logement qui existent dans des centaines de communautés rurales. La majorité de cette population est d'origine indienne ou métis et notre étude est basée sur des visites faites à environ 50 localités. Nos propositions s'appliqueraient peut-être aux autres communautés où existent des conditions de vie déplorables.
En établissant les catégories, nous avons pris en considération les caractéristiques physiques de la région ainsi que le degré d'isolement, le niveau de développement, etc. La frontière est-ouest physiographique entre la région agricole du sud et la région sauvage du nord crée des liens physiques plus forts entre l'est et l'ouest qu'entre le nord et le sud. Du fait que dans la région sud le réseau de transport est assez développé et dans le nord il l'est moins, il y a une différence en attitude et mobilité entre les gens du sud et du nord. Les conditions de logement ne sont pas homogènes et des problèmes divers résultent des différences régionales.
Le développement de chaque communauté devrait être basé sur: l'emplacement géographique, la topographie et la végétation; l'accès le transport et les communications; la structure et densité de la communauté et ses logements; l'emplacement et la qualité des viabilitiés et réseaux publics; les ressources et emplois importants; les principaux groupes éthniques et culturaux, leur distribution et niveau d'acculturation. Nous avons donc établi les quatre catégories suivantes: *1) Communautés indigènes isolées du nord;* accès limité, orienté vers l'eau, mélanges divers d'indiens et métis, accroissement rapide de la population, économie nettement insuffisante: *2) Petites villes du nord basées sur des ressources*: entre les deux régions géographiques principales, accès par rail ou route, existe en vertu d'une seule ressource, sujet aux changements rapides et complexes: *3) Communautés Mixtes:* agricoles; généralement "blanc", une population indigène vit dans des localités distinctes aux abords de la ville: *4) Réserves:* agricoles; caractéristiques et problèmes distincts des communautés de fermiers "blanc" qui les entourent. Les catégories un et trois nous préoccupent surtout. Au nord, l'accès n'est que rarement par route donc, on ne doit prévoir un accès véhiculaire que pour les services et les écoles; il y a toujors une source d'eau qui détermine le caractère physique et l'emplacement des logements, du roc, du muskeg, peu de terrain à bâtir; la vie tourne autor du magasin, l'école, l'église. La pêche, la chasse et les revenus doivent être supplémentés par le gouvernement. Quelques communautés mixtes ont augmenté ou diversifié leurs revenus par les travaux miniers et forestiers; ces communautés ont un accès par la route à la ville et aux régions développées mais le niveau de vie est bien moins élevé que celui des "blancs" de la ville. Les normes d'hygiène sont inférieures surtout parce que les eaux sont polluées, l'alimentation en eau insuffisante, l'accès aux sources difficile, les logements froids et humides difficiles à entretenir et ils sont surpeuplés; les égouts insuffisants, il y a beacoup de chômage, peu d'éducation, de services, un manque de divertissement, etc., reflètant une tradition économique et culturelle loin de la vie contemporaine canadienne. L'étonnant taux de natalité et le peu d'immigration ailleurs contribuent à la complexité du problème. Il est bien évident que des programmes de développement physiques et économiques doivent être coordonnées, Améliorer l'environnement physique, c'est améliorer l'éducation ce qui, à son tour, encouragera l'émigration. Le développement communautaire où tout résident prend sa part, le développement massif régional par les gouvernements et l'industrie sont des solutions de long terme. Entre temps, il faut améliorer les conditions existantes et aider les indigènes à faire la transition.
En tenant compte de toutes les conditions citées, nous avons proposé quelques solutions basées sur des groupes de logements, intermédiaires entre la communauté et le logement individuel. Première proposition: un service en commun comprenant une salle d'eau, un bloc sanitaire et une buanderie dans un bâtiment chauffé. Certaines critères sont nécessaires afin de permettre une flexibilité à chaque groupe de logements, soit: une capacité d'améliorer les services en commun; capacité d'adapter le développement à la communauté (routes, services, population); les limitations économiques déterminant quels niveaux de services améliorés seraient possibles. *Groupe de logements: Type 1:* le développement de la communauté dépend uniquement de l'alimentation en eau potable; *Type 2:* basé sur des services en commun plus développés, les résidents partagent la source d'eau et les toilettes ou la disposition des déchets. Limitations sociales et techniques: nombre de membres de la famille, dimensions du système, distance. *Type* 3: un bâtiment central chauffé contenant salles d'eaux, groupes sanitaires et buanderies, divisé en unités desservant divers groupes de logements individuels. Les problèmes d'assurances contre l'incendie ne sont pas tout à fait réglés. Puisque 60% de la population est en dessous de 19 ans, il faudrait des facilités de recréation; une garderie près de la buanderie, par exemple, amuserait les enfants et serait facile à surveiller.
Les exigences principales minima nécessaires à améliorer les conditions de logement sont: la sanitation et l'hygiène; l'espace habitable; le chauffage, l'éclairage et la ventilation; la solitude. Le milieu déterminera comment réaliser ces exigences, mais il faudrait une diversité de types de logements; l'application de la norme d'une chambre habitable par personne ne semble pas logique pour ces communautés. Ce qu'il faut c'est un logement capable de s'adapter aux saisons (voir diagramme) avec un espace séparé pour les pensionnaires (leurs chèques contribuent en grande partie aux revenus de la famille), une salle de séjour surélevée au dessus de l'entrée et le chauffage (raisons de santé) et surtout un endroit séparé pour la buanderie et le débarras. Les risques d'incendie et les frais d'entretien découragent les logements multiples. L'importation d'éléments préfabriqués coûte trop cher; la construction sur place de simples structures en bois encourage la participation des résidents, l'économie, et développe un sens de réussite personnelle. La création de logements n'est qu'une petite contribution à la solution d'un problème déplorable mais elle est importante. Dans le contexte d'un programme consacré au développement de ces communautés, l'architecte jouerait un rôle créatif et décisif en tant qu'expert dans la planification des environnements.

The Housing Crisis

This issue of Architecture Canada is designed to bring to the attention of our readers some aspects of our national housing problem – a problem so serious that it is now under country-wide investigation by a federal task force, and it will be the subject of a Canadian Welfare Council Conference on Housing in Toronto, October 20-23.

The problem is not strictly an architectural one, of course; it is primarily social and economic. But the concern of the RAIC, as a national professional body, with this and other perplexing national problems is very real and has been expressed by the President, Norman H. McMurrich. He is convinced that there should be closer cooperation between government and professional groups to help solve these problems. Professional men and women in architecture, engineering and planning are able and willing to donate their special skills and, speaking for the RAIC, the president has placed those skills at the disposal of the government.

C. E. Pratt, FRAIC, Vancouver, has been appointed representative of the architectural profession on the Minister of Transport's housing task force; the RAIC is participating in a brief to be presented at one of the inquiry hearings, and many of the provincial associations are preparing briefs also.

Position papers for the Canadian Conference on Housing in October have been prepared and we have extracted one on Canadian Housing Policies by Dr Albert Rose of the School of Social Work of the University of Toronto. A number of architects have been invited to participate in the program.

In the adjoining editorial Associate Editor A. J. Diamond points out the housing dilemma of the citizen today – not the poor citizen, but the one whom everyone thinks of as fairly prosperous, the $8,000 to $10,000 per year man. On that kind of income and with a family, he just can't afford today's big city or suburban house or apartment.

Completing this issue on housing are the results of CMHC recent Small House Competition. The nine winners are shown on pages 3-17. □

Let us at the outset dispense with the question "*is* there a housing problem?" It is clear that if we make comparisons with other times and other places, Canada is relatively well off. If, however, we compare our standard of housing with our wealth it is equally clear that Canada is poorly off. If we also view housing as a social commodity, as a concern of government in the interests of the health and well being of the nation, then there is indeed an inadequacy.

The expenditure by the Canadian government on housing, relative to other spending, is evidence for this contention: Figures given by the *Fourth Economic Review* show per capita, $75 a year spent on armed service commitments, $2 to subsidize butter, and 19c on housing.

The concept of a minimum guaranteed income is no longer viewed as radical economic theory: it is possible and desirable. Equally possible, and demonstrably of higher priority and benefit, is the realization of the concept of guaranteed minimum housing for every citizen.

However, it must be conceded that to change the role of government from merely a regulatory mechanism for the private market, to that of a producer, is a change of large order. It is perhaps this change that is central to the improvement of housing in Canada, for it has become clear that the private market alone is unable to supply adequate housing at prices within reach of all who need it. It is equally clear that housing thus requires the use of public resources to make such benefits generally available.

Some costs and income figures for Metropolitan Toronto make the point effectively. The average price for a new house in 1967 was $30,000; Only 2% of all housing, including old-age housing, is public; Residential land costs rose by 50% between 1964 and 1967; a 50′ x 100′ serviced lot in *perimeter* suburbs costs a minimum of $10,500.

These costs must be seen against take-home pay. A report of the Family Services Association showed the take-home pay for most two-child families to be between $80 and $100 per week. Of these families, 75% spent more than one third of their income on rent. Worse still, more than half the population earned less than $6,000 per annum. For Canada as a whole, 29% of families use 70% of their income on food, clothing, rent, ie, subsistence – and 41% spend 60% of their income on subsistence.

In addition, housing as a problem cannot be viewed in isolation. Exacerbating the problem is the reluctance of municipalities to use tax money on schools, clinics, libraries, and other facilities required by households with children. Consequently, the general preference on the part of *both* private and public sectors is for high density (therefore high land costs, minimum per unit service costs, and high tax returns) units for childless tenants. The result is that families with incomes under $10,000 per annum in urban areas suffer the most. And there are many, and an increasing number, of such families. Single people – old or young, and married couples who cannot afford apartment rents (two bedroom apartment rents in Toronto range upward from a low of $150 per month) suffer a similar hardship. And there are many of these people. A glance at income graphs shows 87% of all families in Canada earn less than $10,000 per annum.

While a great deal is asked of government in shifting its policy from regulating private production and marginally assisting private consumption, to producing housing and aiding consumption, a great deal should be asked of our profession. Traditionally, architects' clients have not suffered from a shelter problem. The talent and energy of architects have generally been directed to housing as a fine artifact, rather than as a public commodity. That this energy and professional resource in Canada could be directed to the creation of the best housed nation in the world is without doubt possible. The truism that great building requires a good client as well as a good architect can now be applied to government as a client.

A. J. Diamond

Brave New Words

Extract from a position paper on Canadian Housing Policies prepared for the Canadian Welfare Council's Canadian Housing Conference on Housing in October by Prof. Albert Rose of the School of Social Work, University of Toronto

Canada no longer suffers from a lack of "housing policy", if housing policy is equated in any substantial measure with housing legislation. More legislation, in terms of both the number of enactments and the quality of these enactments, has been passed since the early months of 1964 than in the whole of the previous century. If words are forerunners of deeds, then the people of Canada can look forward with considerable optimism to a very substantial improvement in their housing conditions.

As has been fully noted in this report, legislation is not tantamount to housing policy *per se* or to the implementation of a course of action intended by the government enacting such legislation. Nevertheless, within the past thirty years we have progressed from the first awakening of federal concern with the housing conditions to a situation in which all three levels of government – federal, provincial and municipal – are deeply involved with the housing of every individual and family in the nation.

It must be emphasized that housing policy never built a housing unit. The mere enunciation of the objectives of a public or voluntary body, the passage of legislative enactments through which such objectives are intended to be attained, are not by themselves enough. All the protestations of elected and appointed officials and of house builders and land developers, and all the pleas and pressures of voluntary groups and citizens' organizations will be of no avail without the capacity of the national economy as a whole to afford an allocation of resources commensurate with some measurement of human need in this field.

The limits of housing policy are, therefore, becoming clearer with each passing year. The federal government can indeed supply funds for investment in residential building activity; but the major portion of such activity will and must continue to be financed through the private financial institutions. Although it is desirable that the proportion of total investment in residential building devoted to the so-called public housing sector must increase considerably from its current levels of 5 per cent or less, most Canadians still prefer to acquire housing accommodation within the normal or traditional housing markets, that is, they prefer to buy their own homes if they can somehow manage to do so. Failing this, they prefer to rent apartments under private management.

The Federal Role and CMHC

If these statements and assumptions are correct, federal housing policy is primarily an instrumentality to encourage the assumption by the provinces of their rightful constitutional responsibilities in this field. In my view, the stance of federal housing activity has been basically correct throughout the past 25 years. Central Mortgage and Housing Corporation should stimulate, encourage, and work towards in every way (short of encroaching upon the constitutional prerogatives of the provinces) better housing and living conditions for all. It can accomplish this through education, research, and active involvement in conferences and programs designed to improve the understanding of the whole situation and its constituent parts.

More important than all these are, undoubtedly, the resources, the hundreds of millions of dollars per annum which CMHC is assigned by the government of Canada to allocate towards the implementation of those programs permissible under the National Housing Act. The Corporation is an agency and an agent of the government of Canada. It must act as the custodian of federal housing policy as it is implicit in the National Housing Act. Nevertheless, it faces severely realistic limits and these limits become the boundaries of national housing policy. For example, if all the provincial housing corporations were to emulate the activity of the Ontario Housing Corporation in recent years, there might not be sufficient resources at the discretion of the federal agency to permit this to happen. The program in Ontario is now of the order of some 8,000 to 12,000 new dwelling units per annum, plus an additional supply of residential accommodation for university students. If all the provinces were equally active, the total program for this country would be in the neighbourhood of some 25,000 to 35,000 units per annum.

Allegations that there has never been a national housing policy have been made more or less continuously for over thirty years. These are clearly ridiculous statements. What is more important than criticism is to understand and work for an elevation in the priority assigned to residential building within total capital investment. This is a desirable objective and yet it must be seen within the context of the total requirements of the nation.

Housing and Social Capital Investments

We require a vast investment in all forms of social capital – educational facilities, roads and other forms of transportation, airports, hospitals and other forms of paramedical institutions, and in special institutions for the mentally retarded and the emotionally sick. At the same time, we require a vast investment in human resources, in the training and retraining of hundreds of thousands, or even millions, of our people who are economically unfit to take their place within the demands of the society which is rapidly emerging.

The list of Canadian requirements is almost endless. If it can be argued that there is no national housing policy, then it can also be argued that there is no national transportation policy, no national policy in the utilization of natural resources, no national policy with respect to the utilization of human resources, no national policy with respect to air, water and soil pollution, and so on. The heart of this argument is that housing must take its place within the context of all these needs, requirements, demands and pressures which our entire political and economic system faces today. This is not to suggest that housing must take a back seat, that the priority for housing expansion must always remain low, or where it is today; but it must be seen as one major requirement among many. If this can be clearly understood, the limits of housing policy may be more readily amenable to appropriate political and social action.

Fine Phrases into Physical Reality

Within the provinces themselves there is now emerging a new spirit of recognition of

the need for decent, safe and sanitary housing, to use the traditional phraseology. This recognition may be late – but there is little to be gained by arguing that it is belated. What is more important is to ensure, through political and voluntary action, and specifically through pressure upon elected and appointed officials in municipal and provincial governments, that the enunciation of fine phrases, stated objectives and even lists of fine-sounding powers of provincial housing corporations must be translated into the reality of physical accommodation adequate to the needs of families, children, elderly persons, couples (young and old), and persons and families with different levels of income.

It is a matter for consternation in some metropolitan areas that the list of applications for public housing is growing by many thousands each year; and yet there is nothing mysterious about this phenomenon. It is compounded of two significant phenomena: one within the field of housing itself and one which is part and parcel of our national and international economic existence. In the field of housing, as in many other fields of human activity, it can be argued that "nothing succeeds like success". In Ontario today there are many more applications for public housing than in the past, because it appears to the applicants that they have potentially an opportunity to be accommodated. Five years ago an application was a futile gesture. Today there is a reasonable possibility that an application will result in an occupancy within six months to two years. If that concrete opportunity should arise, the applicant always has the right to decline and to reaffirm his faith in his capacity to make his own way without the assistance of a new form of social service.

The second factor in the situation is equally well known but perhaps more clearly appreciated: price inflation in the Western urban industrial society. There is no doubt that the price of housing for purchase in almost any of the Western nations has risen far more quickly than either wage rates, average individual incomes, or average total family incomes. A substantial proportion of the new applications for public housing is coming from persons who used to be considered prospective homeowners in perhaps the lowest third of the home purchasers' market. As the price of housing continues to rise rapidly, a larger and larger group of potential homeowners of the past are no longer capable of seeking a solution to their problem. They are likely to turn to the private market for rental accommodation, while applying for public housing at the same time. Again, the crucial test comes when they are actually offered public housing accommodation, and the experience in Ontario suggests that at that time often two in three, or even three in four, applicants will turn down an offer of accommodation, for one reason or another.

The Provincial Housing Policy Situation

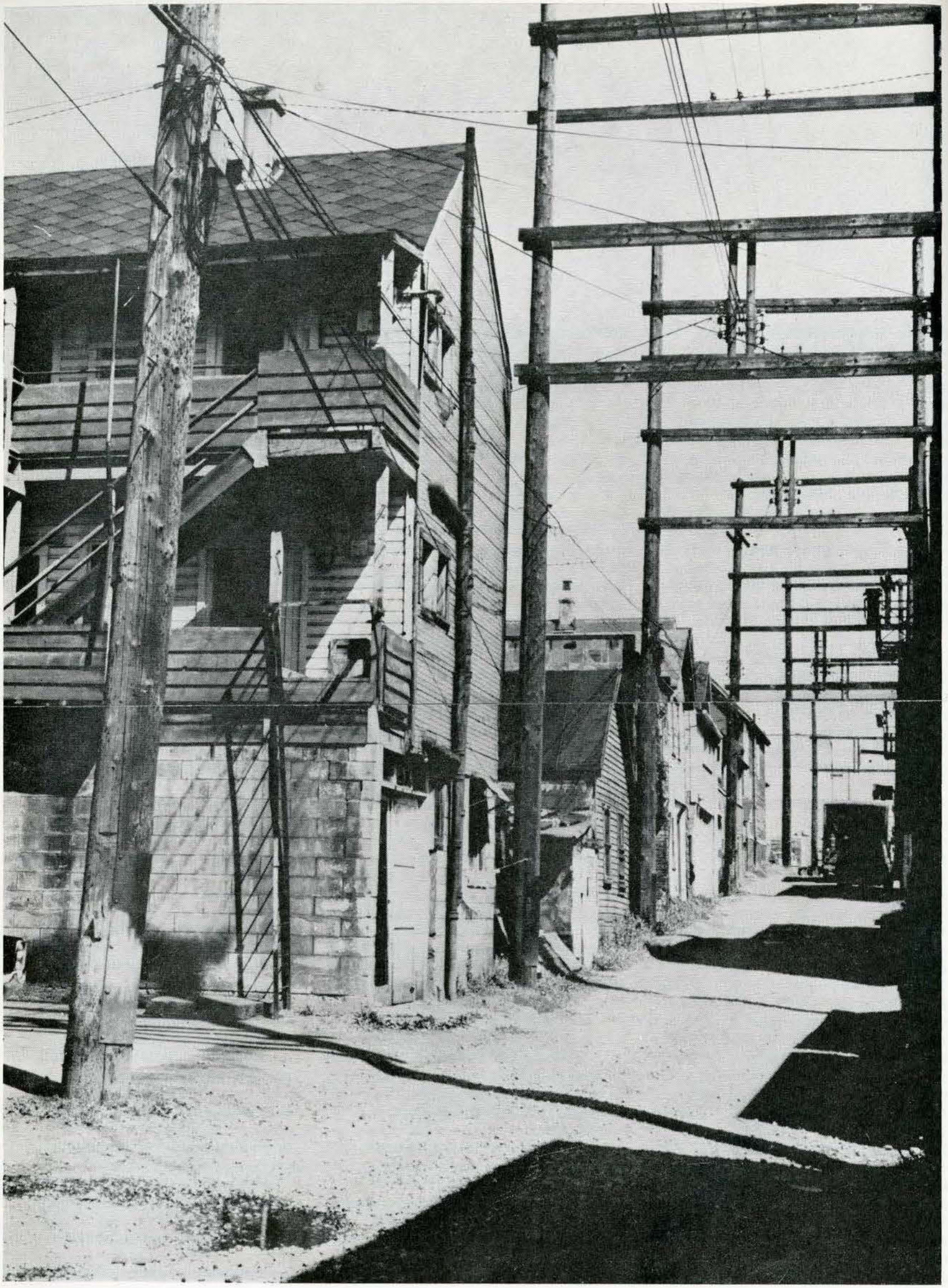
Provincial housing policy can be seen, therefore, to face limits as serious as those which surround federal housing policy. The ritual of passing the legislation required for any province to participate in the new array of programs available under the National Housing Act has been observed. It is almost as if we were back in the days of the familiar phrase, "there ought to be a law". There are now many laws and relatively little housing. The provincial governments must demonstrate within the next five or ten years that they mean serious business in attempting to provide housing for those least able to meet these needs, or they must give up their role in favor of the central government, or turn it over to the local or regional governments, which are allegedly closest to the people who really need the housing.

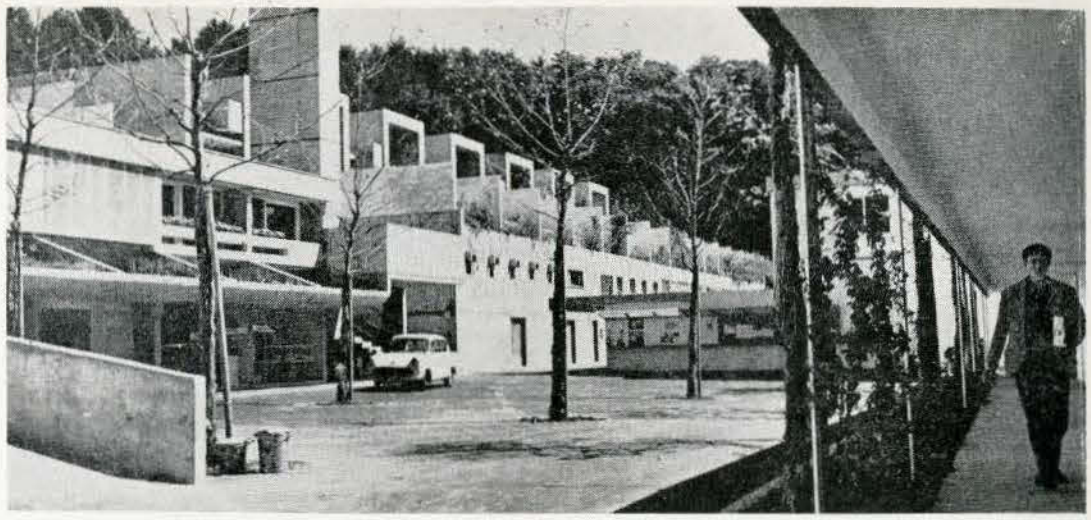
Admittedly, most of the provinces face serious financial strictures in their attempts to elevate the priority previously assigned to housing within their jurisdiction. Most of the activities that are the constitutional responsibilities of the provincial governments have become far more important in the lives of the urban resident of an industrial society – education, social services, labor relations, the development of human resources and, of course, the provision of housing accommodation. So it is not only at the federal level that housing must compete within the totality of scarce total resources for an appropriate share, but at the provincial level as well. When one considers that the combined population of all four of the Atlantic Provinces is less than that of Metropolitan Toronto, and that the total taxable capacity as represented by income on the one hand, and property assessments on the other, are far greater within Metropolitan Toronto than in those same provinces, one can begin to appreciate the difficulties faced by certain provincial jurisdictions.

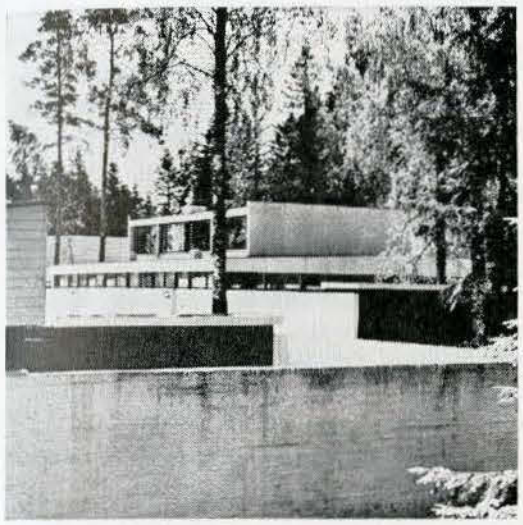
Rural Domination of Legislatures

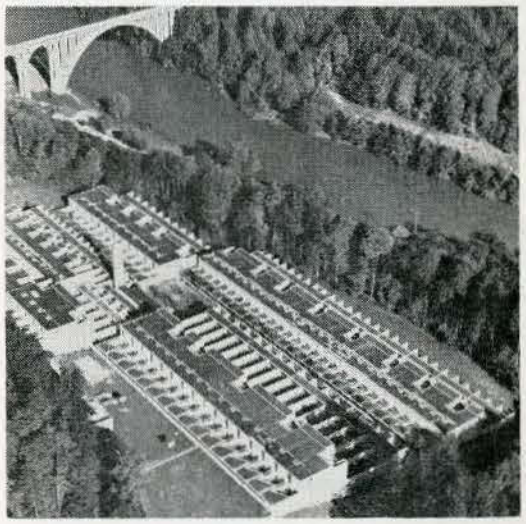
Within the provincial governments there is also the traditional distrust of urban society and the people who inhabit cities, towns and metropolitan centers. It is well known that despite increasing urbanization, the provincial legislatures continue to be dominated by members who represent rural areas. Redistribution of electoral constituencies has had some effect during the past thirty years but it is still true that the vote of a person who resides in an essentially rural constituency is worth three, four or five times the vote of the person who resides in a large urban center. In Ontario, some thirty per cent of the population resides within Metropolitan Toronto; yet only one-fifth of the seats in the Legislature are derived from constituencies within that metropolis. This disparity is not nearly as great as it was ten or twenty years ago but, in considering the views of legislators with respect to the social and economic problems of our cities, rural domination of the provincial governments is an important fact.

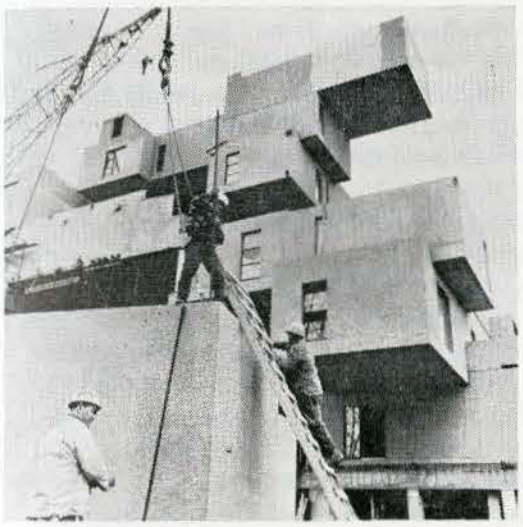
In the Census of 1951, seventeen census metropolitan areas reported a total population of nearly 8.2 millions, that is, approximately 45 per cent of the total population of 18.2 millions. Although the need for housing accommodation embraces both rural and smaller urban areas, the great bulk of the problem, particularly for families of relatively low income, rests within these 17 Census Metropolitan Areas. It can scarcely be denied, however, that within such provinces as British Columbia, Alberta, Manitoba, Quebec, and New Brunswick, domination of the legislature by non-urban-oriented members has played a substantial role in the past in restricting provincial activity in the fields of housing and urban renewal. Until redistribution of

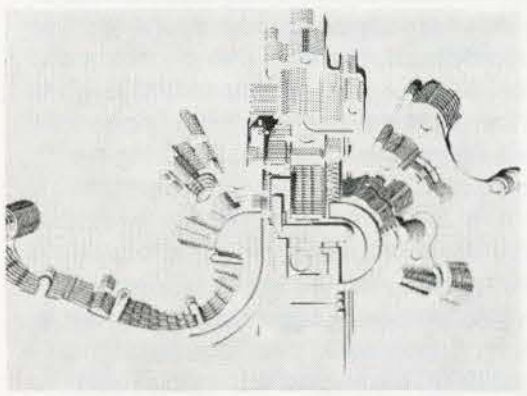


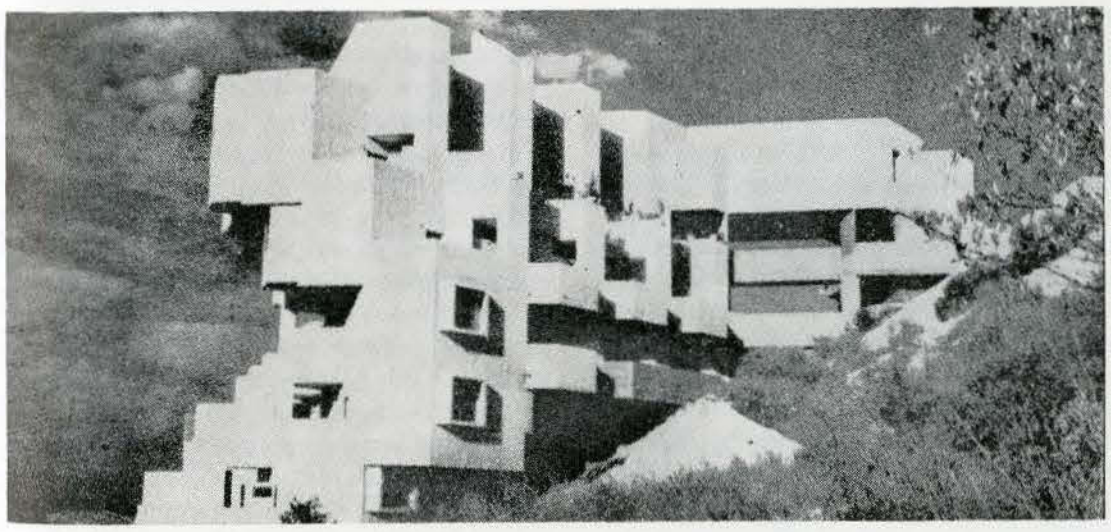


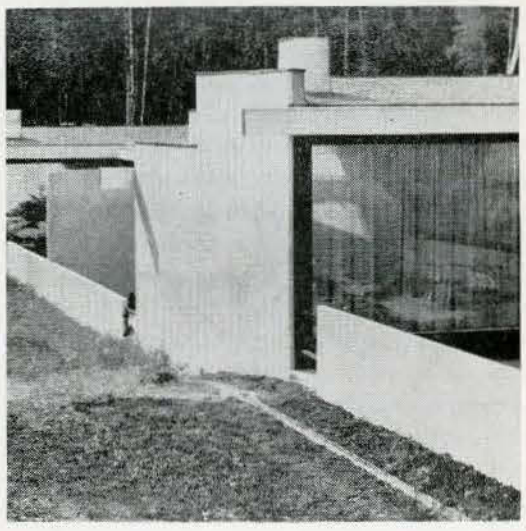












constituencies within all the provinces more closely approximates the urban-rural distribution of population, this additional obstacle to the implementation of housing policies will remain strong.

Finally, there are the municipalities wherein almost every person resides. (There are some exceptions to this rule, of course, including Canadian Indians who live on reservations; Canadian Eskimos who are nomadic; and persons in various provinces who live in so-called unorganized territories.) The scope and limits of housing policy can be visualized more clearly when one examines the record, the present situation, and future prospects within local areas than in any other political jurisdiction. It is here, at the heart of the urban metropolis, that a great many poor people tend to live. Although there are underdeveloped areas and a good deal of rural poverty in Canada, the stark reality of the lives of the urban poor is never more apparent than when one examines their housing conditions, in terms of both physical and social inadequacies.

The Urban Land Cost Factor

It is within our local areas, particularly as they achieve the status of towns and cities, that the impact of price inflation upon all aspects of living conditions becomes more apparent. The rapid growth of urbanization has had its most profound impact upon one of our scarcest natural resources, namely, land. Within the boundaries of most local communities, unless they can be extended by annexation or amalgamation with other municipalities, there is little land available any longer for residential accommodation. As a consequence, the price of land has increased by leaps and bounds during the past twenty-five years and increases of a thousandfold per acre are not unknown within the major metropolitan centers. Today the price of a single building lot in many urban centers exceeds the total price of the land and the house built upon it less than twenty years ago.

It is within this climate of demographic characteristics, price inflation and scarcity of either raw or serviced land for housing purposes, that local governments are expected to fulfil all the roles expected of them. It has become patently obvious that they simply cannot fulfil these functions, even with the best of goodwill and motivation. But one cannot take for granted that the motivation necessarily exists. Our legislators in municipal government throughout the nation tend to be self-made men and women, small businessmen and a few members of the professions. They are generally quite conservative in their views towards poor people, towards those who require assistance or subsidization in any aspects of their living conditions, including the provision of housing accommodation. In the larger urban centers, as the trend towards cosmopolitanism grows and legislators who are more urbane and sophisticated in their views attain office, these situations may gradually change. I do not anticipate, however, that the extent of local governments' participation through initiatives in the fields of housing and urban renewal will change radically during the next ten or fifteen years.

After careful examination of the "brave new words" which compose federal and provincial housing legislation of the past few years, it is precisely this point that is most disturbing. Because of the reliance upon local government initiatives in many of the provincial enactments, it will be unlikely that very much will occur within the field of public housing unless the interpretation of the legislation includes many more incentives than are apparent in the enactments themselves. There is, of course, a further possibility that the several new provincial housing corporations will, in due course, become more aggressive in their operations and adopt a posture more like that of the Ontario Housing Corporation. This is not apparent within the legislation, but aggressiveness is often the result of administrative decision and the attitudes of those who are appointed to the senior posts in such corporations. It is perhaps too soon to insist that, on paper at least, several of the new housing corporations appear much more passive than active. Nevertheless, it seems important to raise the question for consideration.

Changed Attitudes, More Meaning Needed

There is a solution to the long-term housing problem but, first, a major change in the attitudes of Canadians towards the provision of housing as a social need is required; secondly, a great deal more planning than has been evident during the past thirty-five years is necessary. The assumptions of the past with respect to those in need of assistance must be swept away. We can no longer expect to be known primarily as a nation of homeowners, because the very pace of our urban economic development makes it absurd to remain wedded to these assumptions of 1945 or 1955. Furthermore, the term "public housing" should no longer be used to mean assistance only to the very poor. Public housing policy must mean the intervention of the federal government and all provincial governments to ensure that the distribution of housing shall be the most appropriate in the *national* interest.

During the years 1950-64, the proportion of Canada's total investment in residential building actually devoted to the construction of public housing amounted to less than one per cent per annum. Similarly, the number of public housing dwelling units was a very small fraction of the total housing stock in any community. With the rapid acceleration of the program of the OHC during 1965-67, the proportion of investment in the public housing sector has risen to about 5 per cent. No doubt there will be a further increase as the new provincial housing corporations develop their own programs. In my view this percentage must rise during the next decade to at least 10 and preferably 15 per cent, not merely of investment but of dwelling units constructed each year.

The most important change that could be made in our national housing policy would be a formal declaration that the federal and provincial governments intended, during the balance of this century, to discriminate in favor of families and individuals in the bottom half of the income distribution. This would include Canadian Indians and members of other minority groups; the elderly and the not-so-elderly who are single, widowed, or otherwise alone in our society; families headed by women with

dependent children; families of chronically-ill male heads; and intact families of fully employed parents whose incomes are clearly insufficient to enable them to rent or purchase housing in the private market and at the same time maintain a standard of living below which we would not want any Canadian family to fall.

This change in national housing policy would be discriminatory. It would discriminate against the well-to-do and against the homeowner in favor of all those individuals and families who really need substantial assistance to enable them to partake of some reasonable share of the national affluence. The declaration of such a policy would be salutary although not enough in itself. Our legislation, at both the federal and provincial levels, has always been distinguished by its terseness and paucity of policy objectives. It is not good enough to state that the National Housing Act is "An Act to promote the construction of new houses, the repair and modernization of existing houses, and the improvement of housing and living conditions". It is time to borrow a leaf from the American book and to point out *why* we must enact adequate housing legislation in the major legislative councils of our nation, and for whose benefit it is being enacted.

The only way in which our determined and clear cut statements of policy will be translated into reality will come as a result of federal-provincial planning, for at least one or two decades ahead, if not for the balance of the century. Each year the federal government should be able to provide the provincial governments with a statement of the anticipated total housing programs within the entire nation, whether under private or public auspices. It should also be able to tell its provincial partners what financial resources seem to be available, and at what cost, to accomplish this purpose. The next step would be federal-provincial planning of the allocation of these resources towards the several segments of our national population requiring housing accommodation.

The private sector should know well in advance what proportion of our resources could be devoted to the well-to-do purchaser of housing accommodation; what proportion could be made available, on terms like those of the National Housing Act, to another segment who may wish to become homeowners; and what proportion should be made available to provide housing, for sale or for rent, to the mass of our population who require a good deal of help in this important area of living.

Each province would need to determine how its share of resources would be allocated within the respective segments of the provincial economy. The time has come for our provincial governments to reconsider their permissive view of local governmental activities in housing and community planning. A reversal of the traditional approach would mean that our local governments would be required to plan future development within their jurisdiction and, in this course, they would be required to create a housing plan, perhaps for five or ten years ahead, but certainly composed of annual target objectives. The local option to undertake such planning should be removed and each *urban* area, at least for a start, should set a housing objective within which the public housing component would be very clearly identified. If the target objectives were not appropriate in the view of the responsible provincial agency, the local plan should be returned, as many draft "official plans" are now sent back in Ontario, without the approval of the Minister. The targets in mind would include slum clearance and urban renewal, as well as firm additions to the housing stock to be allocated appropriately within the several housing markets in the community.

Admitted, forward planning will not by itself produce the required housing. There must be action and the action will involve almost every local government and certainly every provincial government. By "action" the writer means the initiation and implementation of specific housing programs which will translate federal-provincial planning into reality. Finally, initiation and implementation will be inhibited unless each provincial government examines and restructures its administrative machinery in the fields of physical planning and housing. We can no longer tolerate the three to five years' interval between initiation and occupancy of housing, which has been characteristic of Canadian experience from 1950; only in Ontario has there been a great improvement in this situation.

The reality is that we have neglected more than half of our population for the past twenty years; we have saddled a substantial proportion of them with mortgage debts that restrict their capacity to command appropriate goods and services to maintain an acceptable standard of living and to provide an education for their children. *Although we have created a nation of homeowners, the fact is that only those in the upper twenty per cent of the income distribution can truly afford to provide the opportunities which their children need to make their way in the modern automated society of the next thirty years.* □

Canada's Country Ghettos

Indian and Metis Communities in the Prairies

The following article is based on the first stage report of a Housing Study of Isolated Communities and Indian Reserves in the Prairie Provinces, conducted by Anthony A. Kennedy and Ove C. Simonsen for C.M.H.C. with the cooperation of the Department of Indian Affairs and Northern Development. The authors, who are presently engaged in the second phase of the study for C.M.H.C., are members of the Winnipeg firm, Architect's Consortium, Kennedy/Li/ Simonsen/Smith.

As our attention focuses ever more sharply on urban problems, our slim awareness – if it existed – of the hundreds of destitute communities in Canada is diminishing. While the vast majority of these communities are economically dead, the migration of population to growth centers that might be expected by textbooks on supply and demand is simply not happening. In fact, the populations are growing at an astounding rate and the living conditions are horrible.

Where are these communities? What specifically are their problems? What are the forces tending to perpetuate their problems and in fact make them worse? What aspects can the architect-planner attack and how can his professional effort tie into the total?

The overwhelming majority of the destitute population in these communities is wholly or partially of Indian ancestry and it is our intention here to deal mainly with the problems of these people as they exist in totally native communities and as large settlements on the fringe of a white community. Our attempts to visit a representative-cross-section of isolated communities and Indian reserves in the Prairie Provinces in the first stage of our housing study took us into some 50 communities. All but a handful have severe housing problems and our major emphasis is on these problems and their related aspects. Our proposals for further development and prototype testing may not apply only to native people, nor is poverty and substandard housing in these communities a feature of Indian and Metis* life exclusively.

**Throughout this article, the terms Indian and Metis are not used in an anthropological sense but rather in a definition accepted legally and by the people themselves. We have described as Indian only those people who are registered as Treaty Indians under the Indian Act, regardless of ancestry. A Metis person is any person, not a Treaty Indian, who is recognizably or admittedly of Indian ancestry in some part or in total.*

Regional Characteristics

While each of the communities covered in the first stage has its special local characteristics and flavor, with a preliminary study of this scale it was helpful to consider the major regional forces shaping the community, to clarify the common characteristics and establish broad bands of classification for the communities.
The physical characteristics of the prairie region such as topography, access, soils, developed natural resources and climate, all influence individual communities and their relationship one to another in terms of degree of isolation, level of development and physical form. The divisions between the categories established are not clear cut and some characteristics may be common to a number of groups.

The east-west delineation of the physiographic regions of the prairies creates a fairly distinct boundary between the uniform agricultural development in the south and the scattered development to the north. In Manitoba and Saskatchewan and to a lesser extent in Alberta, the physical ties are much stronger in an east-west direction than those north to south. Certainly, with the very regular grid pattern of roads and land use stretching across the plains region, the political and administrative boundaries become less significant in terms of interdependence of communities.
In contrast, the absence of an extensive transportation network in the precambrian area and the nature of the natural resources (trapping, fishing, mining, lumbering) create distinct differences in the attitudes and mobility of people living in the north as opposed to the south.

As a result, housing conditions are not uniform or homogeneous throughout the Prairie Provinces and in large measure the range of problems are a reflection of regional differences. The communities covered in our study fall into three principal regions: the northern precambrian area and

Métis Housing, The Flats, Churchill, Manitoba
Habitation métisse, The Flats, Churchill, Manitoba

CANADIAN
BUILDING DIGEST

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HEATING AND COOLING REQUIREMENTS

by D. G. Stephenson

UDC 697.1

The heating and cooling load for a room is the rate at which heat must be supplied to or removed from it in order to keep the temperature within a specified range. This is the load that must be handled by the air-conditioning system. Its magnitude depends on outside climatic conditions, the type of occupancy, and, to a great extent, the design of the building.

The design of the building will, on the other hand, depend to some extent on the design of the air-conditioning system, inasmuch as space must be provided for the heating and cooling ducts or pipes and associated boilers, chillers and fans. The amount of space needed depends on the type of air-conditioning system and the magnitude of the load it must handle. The same factors also influence the capital and operating costs of the building.

Thus, all the design choices are inter-related and each has to be made with an awareness of its effect on the other parts of the system. This is the crux of systems engineering; and it can be applied to advantage in building design. This Digest is concerned primarily with the way the various components of the heating and cooling load vary during a day and during a year. An appreciation of the magnitudes of these loads and the way they vary can be helpful in making some of the initial architectural decisions, particularly with respect to windows.

Cooling Load

The cooling load for a room is made up of some or all of the following components:

1. heat from lights and equipment;
2. heat given off by people;
3. cooling and dehumidification of ventilation air;
4. heat transferred through the building envelope.

Their importance can be appreciated most easily in terms of an example. Consider an office space 15 ft by 20 ft, accommodating four people:

Lights. An illumination of 100 ft-candles provided by recessed fluorescent fixtures requires about 1.5 kw of electric power. If it is assumed that the lights are on continuously for 10 hours every day, the cooling required to dissipate the power drawn by the lights would be as shown in Figure 1(a). This indicates that less than half the electrical power supplied to the lights appears immediately as a part of the cooling load. The difference between the energy supplied to the space and the heat removed by the cooling system is stored by the structure and furnishings and is released after the lights have been turned off. This is why the cooling load persists during the time when the lights are off. The cooling load increases continuously when the lights are on, but even after 10 hours it reaches only 80 per cent of the input power. Increasing the mass of the building, particularly the mass of the floor slab, increases the heat storage capacity of the structure and causes the cooling load from lights to be spread more evenly over the entire 24 hours.

People. The sensible and latent heat produced by four people doing normal office type work is shown by the hatched areas in Figure 1(a). The sensible heat production is about 75 watts per person; and it causes the temperature of the air

in the room to rise. A small part of this heat is stored by the structure and given off after the occupants leave, but this effect is small and has been neglected in the example. People also give off water vapour, and the latent heat associated with this vapour imposes a load on the air-conditioning system when water is removed from the air. This latent component of the cooling load due to people is about 60 watts per person for those engaged in a sedentary occupation in a comfortable environment. If the room is a bit too warm or if the occupants are particularly active, the latent load increases substantially.

Ventilation. An office with 300 sq ft of floor area requires 75 cu ft of fresh air per minute for adequate ventilation. Cooling and dehumidifying this air from the conditions that prevail outside to the conditions required in the room is a significant part of the total cooling load. Figure 1(b) gives values for this component for a daily range of outside wet bulb temperature from 71 to 77°F, the highest design value for Canada. The higher curve is for a room in which the relative humidity is kept at 50 per cent; the lower curve indicates the reduction that would occur with an inside relative humidity maintained at 70 per cent. Recent studies have indicated that, in summer, comfort (for people at rest or engaged only in light work) is independent of relative humidity for values up to 70 per cent if the air temperature is less than 78°F. The curves in Figure 1(b) show the advantage, from a cooling load point of view, of accepting the higher humidity, although 70 per cent is substantially above the recommended levels for general use.

If 75 cu ft per minute of fresh air has to be supplied to the room, an equal amount of room air has to be exhausted. It could be used to ventilate the space between the ceiling and the floor of the room above and thus remove some of the heat being given off by lights. This approach would reduce the peak cooling load from lights in this example by about 10 per cent. It would also reduce the total cooling that must be provided by the refrigeration machinery, because this exhaust air is discharged to the outside and does not constitute a load on the air-cooling plant. The benefit of this technique would have to be weighed against the cost of arranging the air return. It is one example of the interrelatedness of the various sub-systems, in this case lights and ventilation.

Figure 2 shows the sum of the loads from occupants, lights and ventilation (assuming 70 per cent humidity is maintained in the room). If the room is in the core of the building this sum is the total cooling load.

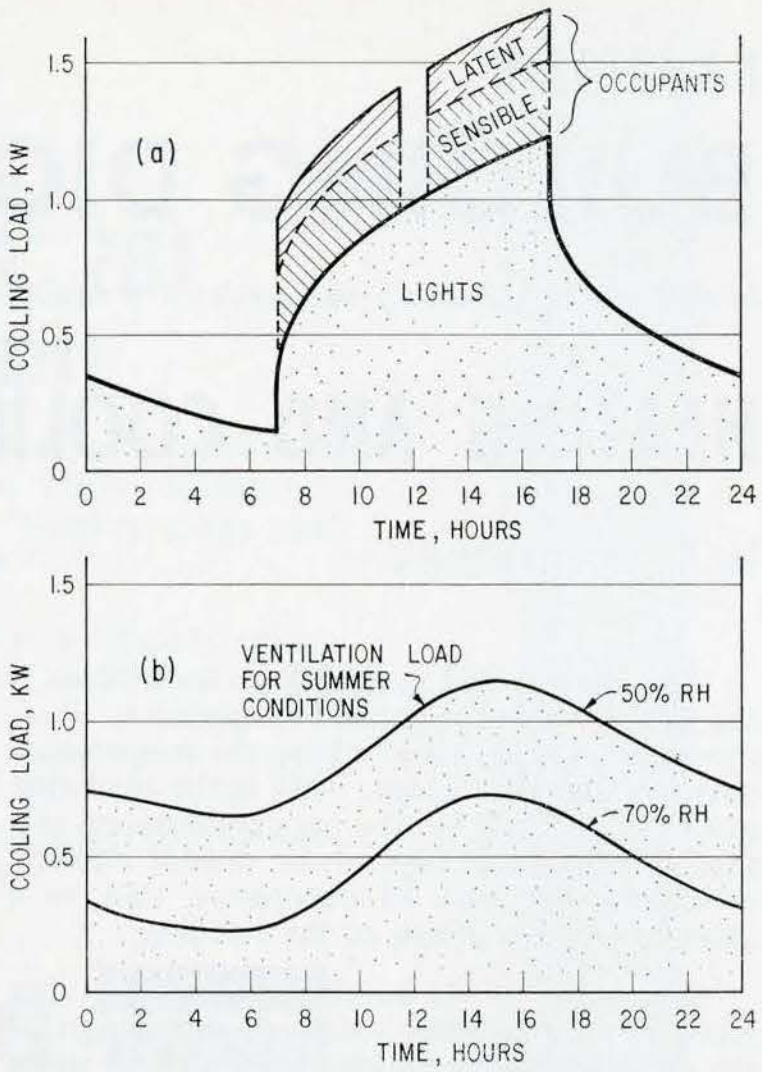


Figure 1 Cooling load for 300-ft² interior office space.

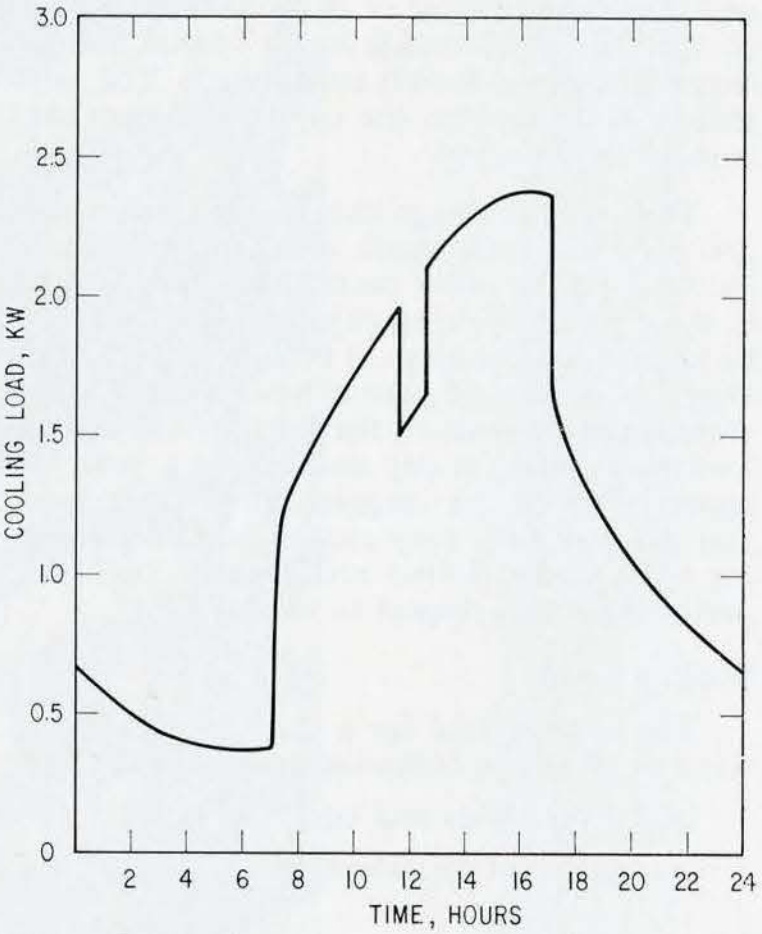


Figure 2 Total cooling load for 300-ft² interior office space.

Heat Transfer Through Walls and Windows. In addition to loads from lights, people and ventilation, rooms with an outside wall gain and lose heat through the wall and window. There may also be some air infiltration through the outside wall owing to wind effects.

Figure 3 shows the additional cooling load imposed by 100 sq ft of double-glazed window that has a shading coefficient of 0.55. This shading coefficient is appropriate for sealed double glazing with an outer pane of heat absorbing glass or for an ordinary clear-glass double glazing unit with a venetian blind. The hatched area at the bottom is the part of the window load resulting from the difference between inside and outside air temperature, and is the same regardless of the direction the window faces.

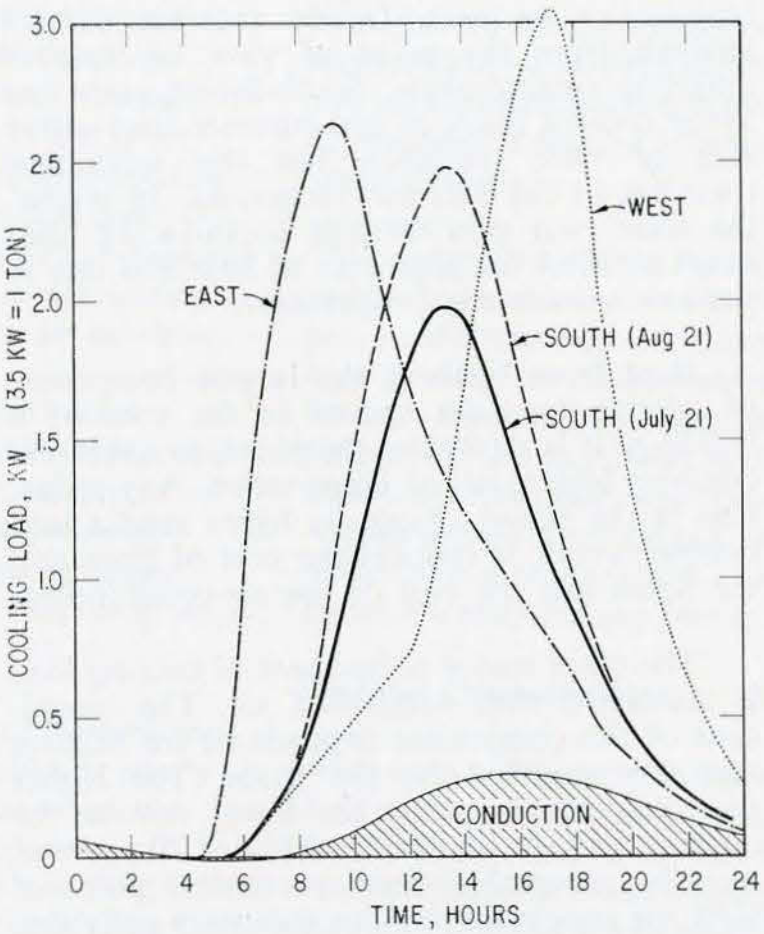


Figure 3 Cooling load for 100-ft² double glazing.

The solar component of the window load is dependent on orientation. The load from east and west windows is practically the same for any sunny day during the summer, regardless of latitude. Thus, the curves for east and west exposures shown in Figure 3 are representative of summer conditions anywhere in Canada. The curves for a south window are based on the solar intensities that would occur on an average cloudless day at Ottawa (45 degrees north latitude). The load for a south window increases continuously as the summer progresses. The change between 21st July and 21st August is shown by the two curves in Figure 3; the increase in the following month is even greater.

The heat gain through an insulated wall is very small compared with that through glass areas. If the office considered above had 150 sq ft of outside wall, with a light coloured outer surface and a U-value of 0.03 watt/ft² °F (0.10 Btu/ft² hr °F), the maximum cooling load associated with the heat gain through the wall would be only 100 watts.

The load due to the infiltration of outside air is difficult to estimate precisely because it depends on the air tightness of the building shell and the air flow patterns around the building. In any case, it is quite small compared with the solar load from the windows, and is only present when there is a wind blowing. A wind causes the solar load from the windows to decrease and this drop in the window load is probably about the same as the increase caused by the infiltration, assuming that the building is reasonably tight. Thus, the curves in Figure 3 can be taken as including the effect of infiltration, since they were calculated for calm conditions.

If the room considered in this example had an outside wall with 40 per cent of the wall area glazed, the total cooling load would be the sum of the base load given by Figure 2 plus the values given by one of the curves in Figure 3 appropriately adjusted for the glass area involved. If the room were at a corner of the building and had glass in both outside walls, the solar loads for both exposures would have to be added to the base load. A comparison of Figures 2 and 3 brings out one favourable aspect of windows facing east compared with those facing west: the peak cooling load from the east glass occurs early in the day, well before the load from lights and ventilation reaches its maximum value. With west-facing glass, all the components of the room cooling load reach their daily maximum at about the same time, so that the total cooling load has a much higher maximum value.

Heating Load. A heating load is just a negative cooling load; i.e. if the sum of all the cooling load components is negative, it means that an equal amount of heat must be supplied in order to keep the inside temperature at its specified value. During a large part of the year the temperature of the outside air is lower than that inside the building, so that the cooling load associated with ventilation air and the conduction part of the load due to windows are negative. The negative load associated with ventilation air can be increased by increasing the proportion of fresh air delivered to the room; and under

some conditions the heat from lights, people and windows can be dissipated by ventilation alone (without any refrigeration). Unfortunately, the negative cooling load components are greatest during the hours when the positive components are lowest and vice-versa.

Thus it is common, especially during spring and fall, to need heating during the night and early part of the morning, and require cooling in the afternoon. This requirement for heating and cooling during different parts of the same day complicates the design of the air-conditioning system. There is no specific date when the cooling season can be said to end and the heating season to begin. In fact, rooms with large areas of glass facing south may need cooling late into the fall and again early in the spring. During the same period, night time heating loads can be very substantial.

The maximum heating requirement occurs during clear winter nights. For example, if the outside air temperature is −25°F and inside conditions are maintained at 75°F and 30 per cent RH it requires about 2.8 kw to heat and humidify 75 cu ft per minute of outside air. Under the same conditions the conduction heat loss through 100 sq ft of ordinary double glazing is about 1.8 kw, and the heat loss through 150 sq ft of insulated wall is less than 0.5 kw. Thus, as in summer, heat flow is much greater through the window than through the opaque sections of wall, but the wall heat losses are not negligible.

The major component of the heating load is associated with ventilation air. Ventilation should be kept to a minimum, therefore, when the building is not occupied; but it cannot be eliminated completely. There is bound to be some air leakage resulting from wind action and stack effect. For a room with 150 sq ft of opaque wall and 100 sq ft of window the air leakage might be about 50 cu ft per minute under severe winter conditions. It would require about 1.9 kw to heat and humidify this amount of outside air. In other words, the heating load due to air leakage may be of the same order of magnitude as the heat loss through the glass area.

Conclusion

A building is made up of many interdependent sub-systems. The designer should take full account of their interaction in order to produce an optimum design for the building rather than an optimum air-conditioning system, an optimum lighting system, or an optimum wall, etc. One of the links that joins the various subsystems is the heating and cooling requirements. An appreciation of the nature of these requirements, as they are affected by and as they affect occupancy, location, fenestration, lighting and other factors, is of primary importance in the initial phase of design. Such an understanding enables the architect to make the best use of his specialist consultants, from the initial design phase through the final optimum design.

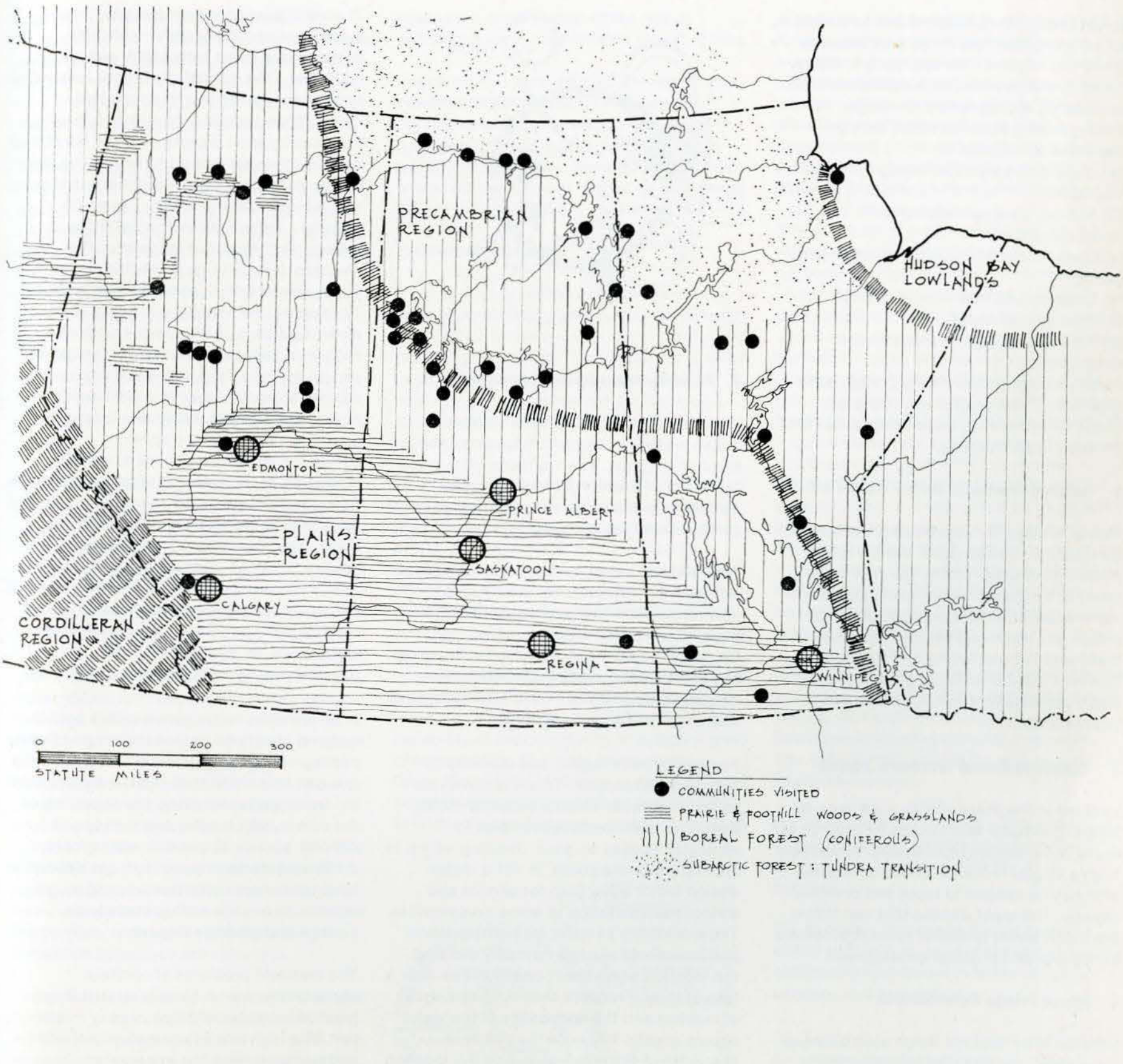
The heat gain through windows is a relatively large part of the total heat gain of a space at the perimeter of any building. Thus, the choice of window type and the extent of fenestration in each façade requires careful analysis from the point of view of air-conditioning requirements. South-facing glass has lower cooling loads at mid-summer than either east or west windows, but this advantage dwindles as the summer progresses. In winter, the solar heat gain through south-facing glass helps to offset the high rate of heat loss due to the low outside air temperature.

Heat from lights is the largest component of cooling load for spaces in the core of a building. It is desirable, therefore, to avoid excessively high levels of illumination. Any reduction in the power drawn by lights results in a double saving; it reduces the cost of operating the lights and the cost of the air-conditioning.

The other major component of cooling load is associated with ventilation air. The magnitude of this component depends on the relative humidity specified for the space. The higher the allowable humidity the lower will be the cooling load. A relative humidity of 70 per cent may be acceptable from a comfort point of view for people involved in sedentary activities.

The heating load in winter is caused by ventilation, air leakage and heat loss through the building envelope. As the two latter terms are, to some extent, at the discretion of the designer, the cost of any measures to reduce them should be compared with the resultant savings in the cost of heating.

1
Communities visited and major physiographic characteristics in the prairie provinces
Communautés visitées et les principales caractéristiques physiographiques dans les prairies



2
Community diagram, influences and characteristics
Schéma de la communauté, influences et caractéristiques

forest area, the agricultural belt to the south, and the intermediate fringe area between these two regions. The approach to future housing and physical development in each community should reflect the major distinguishing features which may be identified as follows:
(a) Geographic location, topography and vegetation
(b) Access, transportation and communications
(c) Community and housing structure and density
(d) Location and level of community facilities and services
(e) Principal resources and means of employment
(f) Major cultural and ethnic groups, their distribution and level of acculturation.
Using these factors, we establish four basic groups of communities.

1 Isolated Northern Native Communities

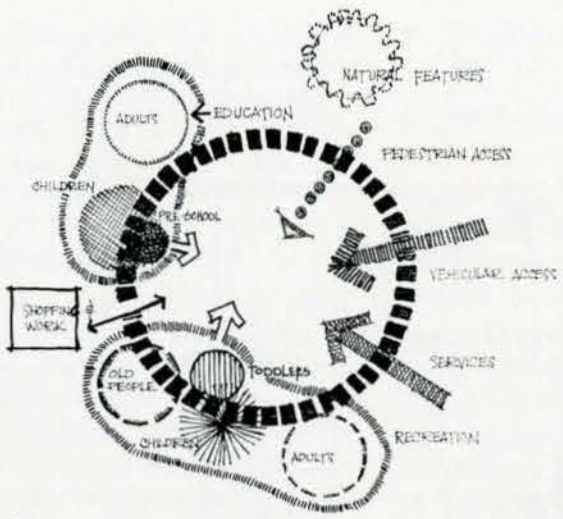
Mainly located in the precambrian area with generally limited physical access to the surrounding areas and to the developed areas in the south, these communities are water oriented, with varying mixtures of Indian and Metis population. The chief livelihood is from fishing and trapping, however rapid population growth and a vastly inadequate economic base are characteristic.

2 Resource-Based Northern Towns

Located in the precambrian area or on its fringe, generally with access by road or rail, these communities have usually developed from a single, resource-based enterprise and may be subject to rapid and complex change. The rapid decline that can follow the initial boom presents special problems in housing and physical development.

3 Mixed Fringe Communities

Located in or near the fringe area between the agricultural belt that runs diagonally across the Prairies from southern Manitoba to central and northern Alberta and the coniferous forest areas north of the agricultural zone, these communities are predominantly "white", often with a substantial native population clustered into distinct fringe settlements.



2

4 Reserve Agricultural Communities

This classification covers the numerous Indian reserves scattered throughout the agricultural zone. The characteristics and problems of these reserves are quite distinct from the non-native farming communities that surround them.

The isolated northern native communities and native settlements on the fringe of northern white communities that are the main focus for this article, such as Fort Chipewyan and Faust in Alberta, Fond du Lac and Ile a la Crosse in Saskatchewan, Berens River and The Pas in Manitoba, have distinct physical characteristics.

For the northern region, accessibility by road is the exception. Travel is mainly on foot, by dogteam, skidoo, canoe or motor boat. The need to make provision for vehicular access to each dwelling which is mandatory in the south, is not a major design factor other than for service and school transportation in some communities. The availability of water for transportation and household use has normally dictated the location of northern communities near a lake or river. Frequent rock outcrops, areas of muskeg and the dominance of the water source greatly influence the physical character of the community and the location of dwellings. In many cases the amount of buildable land is severely restricted. Clusters of houses frequently develop in northern communities due to family groupings and dictates of topography. Northern community life centers on the store, school and church.

The traditional economic base for the majority of native people in northern communities is the natural fish and fur resources. The depletion of these resources or their overtaxing due to population increase has reduced the average income from fishing and trapping with the result that seasonal income in most communities must be supplemented by government assistance. Welfare and other transfer payments provide a major source of income for Indians and Metis in a majority of the northern communities in the Prairies.
Some mixed fringe communities such as The Pas or La Ronge have expanded or diversified their economic base, which enables a better opportunity for the native people to find employment. For example, mining, forestry and government services have created some seasonal employment apart from fishing and trapping.
Unlike the majority of isolated northern communities, the mixed fringe communities have road access to the town center, as well as access to the developed areas to the south. The town offers a fair range of services such as restaurants, stores and beer parlors but there is generally a distinct discrepancy between the standards of servicing and housing in the native fringe settlements as compared to the predominant white component in the town.

In all northern native communities both in isolated situations and on the fringe of white communities, health standards are typically low due to a number of related factors such as: water pollution along the shoreline of the community, inadequate supply and difficult access to potable water, cold, drafty and damp houses that are difficult to keep clean (poor construction and rough materials), overcrowding, inadequate sewage and garbage disposal.

The manifold problems of northern communities are so closely related they preclude simple definition or easy resolution. The high rate of unemployment and underemployment, the low level of educational achievement in relation to white communities, the low standard of health and community services, overcrowded and poorly constructed houses, lack of recreational and social diversion, the high birth rate and the very high proportion of children to adults are commonplace

3
Housing Group diagram, influences and characteristics
Schéma de l'ensemble d'habitation, influences et caractéristiques

problems in northern communities.
In addition, the existing conditions in these communities may reflect an economic and cultural tradition which is poorly understood because it does not coincide with the mainstream of contemporary Canadian life.

The astounding population explosion in these communities has become a crucial factor and this compounds the urgency of the problem. In fact, if the existing growth rates and low level of outmigration continue, these northern native communities will double in size within the next two decades. The multiplicity and scale of the problems demand concerted and coordinated action. For this reason, the inherent danger of a study that concentrates on physical problems is that the issue is oversimplified and physical problems are taken out of context.

It is apparent that physical improvement programs must coincide with programs dealing with economic problems. This is not simple. One must question the justification of the massive expenditure of public funds necessary to bring the physical environment up to a decent standard in communities with severe and obvious limitations in economic base. Here one may feel that the major effort should be directed toward a program of outmigration to economically viable areas. However, it may be argued that if a key to mobility is education, an improved program of education to facilitate effective outmigration is extremely difficult without parallel improvement in the physical environment of the home and the community. When a home has an effective and efficient heating system, adequate space and light for children to study and basic conveniences that ease the burden of the parents, some of the impediments to education incentives are removed.

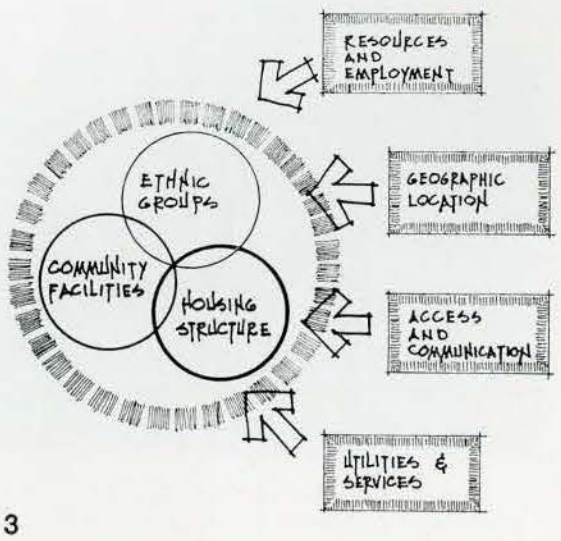
There is an urgent need for a comprehensive approach to community improvement that will involve the residents at every level from education and planning to decision making and policy implementation. Until a massive program of regional development is undertaken by government and industry, offering the local resident a greater choice and inducement to locate elsewhere, it is likely that the isolated settlement will be the home for a large portion of the native population for a considerable length of time.

Improvements must be implemented in the interim to ease the severity of present conditions and aid transition. We have suggested in the first stage of our study a number of simple concepts for improvement which we feel deserve further development. Several of these follow.

The Housing Group

If the various facilities within a community may be considered as an outgrowth of family requirements then there is some validity in providing a physical framework for a small number of related or compatible families whereby improvements can be made on a step by step basis without involving an entire community.

As a basic premise, effective and convenient sanitary facilities are important for a family regardless of its economic and social position. Furthermore, the provision of decent standards of sanitation can only be effective if they extend beyond the individual dwelling since the habits of one family may directly affect its neighbours even in a low density situation. In many cases it is not economically or physically possible for the individual family to fully satisfy some of these basic needs nor is it within the capability of the community to supply a level of services that can meet these needs.
Given the natural tendency in many isolated native communities and fringe settlements to cluster in family groups or where the land is best, we have been led to consider the housing group as an intermediate scale between the community as a whole and the individual house. When this approach is carried into the service systems, it has the advantages of freeing the physical development of the community from the tyranny of the gravity flow sewer line, allowing clustering where good land or individual desire dictates.
The provision of water supply and waste disposal on an individual unit basis in northern communities is often prevented, apart from topographic and economic considerations, by primitive heating systems which regularly permit temperatures inside the small houses to drop below freezing. Furthermore, in many native communities and settlements it is not uncommon for a family to go visiting or out on the trapline for a period during the winter and the house is not heated during this time. A shared service facility that is communally heated appears to be a viable solution as an initial improvement measure. As the level of desire, economic resources, or acculturation, may not be homogeneous throughout the community or from one community to another, a range of possibilities is available.



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Given the uncertain economic future of most isolated and semi-isolated communities and varying demands for change, flexibility in each type of housing group is important. The criteria that should be met to allow for flexibility include:

(a) *Improvement Capacity* – The group should have the capacity to gradually improve the level and amenity of its services.

(b) *Growth* – The group should have the ability to fit into an expanding and improving community framework in terms of roads, services and population.

(c) *Economy* – Apart from desire, economic limitations may determine what level of improved services can be implemented. The type of services and facilities, the methods and type of construction will need to be assessed in economic terms for the individual settlement and individual groups within a settlement.

4
Housing Group Type One, diagram of group type
Ensemble d'habitation, 1ère catégorie, schéma de l'ensemble
5
Housing Group Type Two, diagram of group type
Ensemble d'habitation, 2ème catégorie, schéma de l'ensemble
6
Housing Group Type Three, diagram of group type
Ensemble d'habitation, 3ème catégorie, schéma de l'ensemble

Housing Group: Type 1

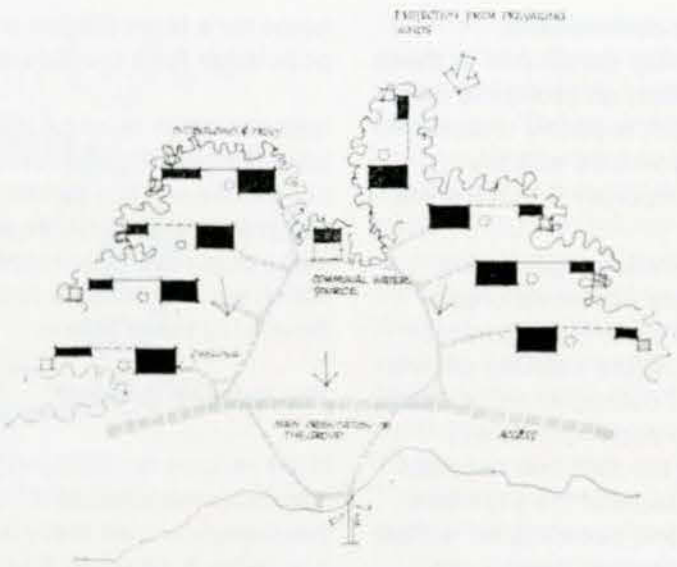
The primary level of the housing group centers around the communal supply of potable water. Where the water source has been the lake or river, pollution of the water along the shoreline from garbage and other wastes is now common in most water oriented communities.

Housing Group: Type 2

This group is based on a higher level of communal or shared facilities. In principle, the number of houses in the group should be limited, since the communal facility proposed involves sharing of both water supply and waste disposal or toilet facilities. In addition to the social limitations (family or friendship ties, family size, etc.) there are technical limitations on the number of units in the group such as the optimum size of the disposal system. The factor of distance to the facility will limit the size of the group as this should not exceed the distance to the normal outdoor privy.

Housing Group: Type 3

This group is based on the concept of a service core that is shared by each unit in the group and heated communally. Heating and construction of the dwelling units themselves can be an individual family responsibility. Fire spread between units must be prevented in addition to which there are some economic and legal limitations to this type which require further investigation. However, this type would satisfy the need for a higher level of individual servicing within a communal group concept.
In developing communal facilities consideration should be given to the inclusion of laundry facilities. This offers the benefit of eliminating a major contributor to high humidity and condensation in the home. For this reason coupled with the social possibilities the idea of a communal laundry found ready acceptance whenever we discussed it in northern communities.
On the basis of population breakdown (commonly 60% below 19 years of age in native communities) there is a special need for recreational facilities. Within a housing group, recreational facilities for young children could be combined with the communal facilities in such a way as to



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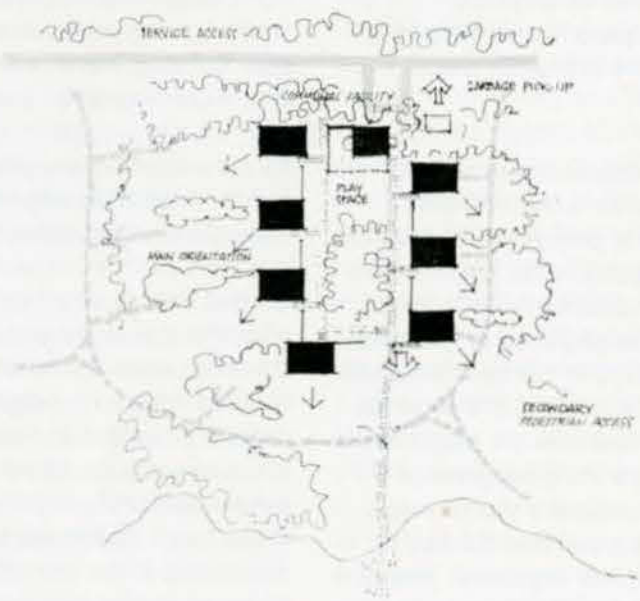

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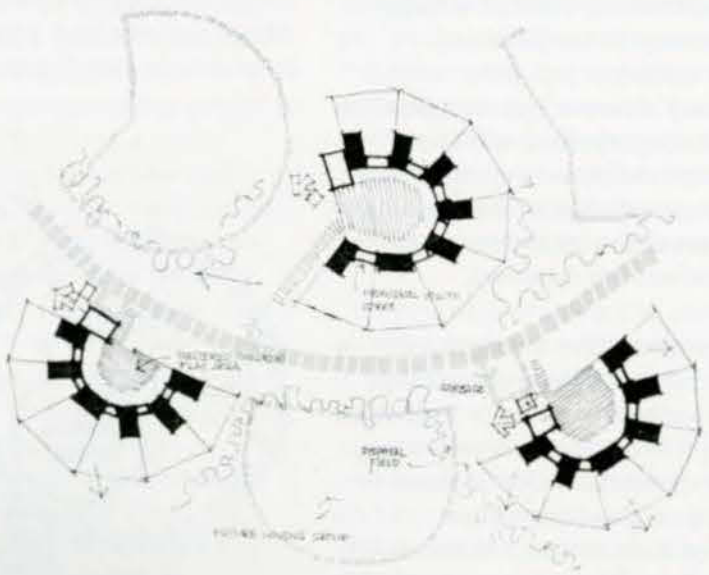

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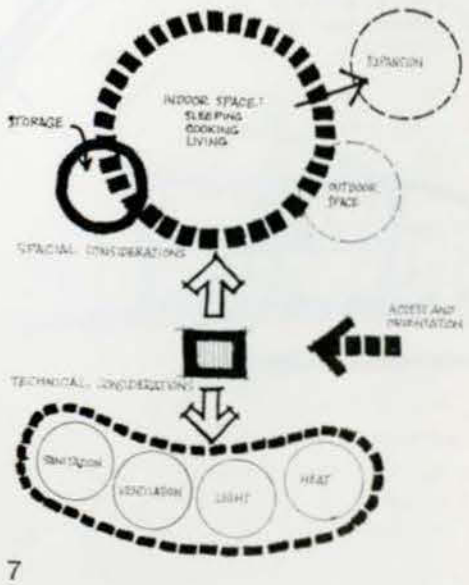
provide easy supervision from the laundry for instance.

Where a communal facility or shared core system requires a level of technical skill not available in the community it could be prefabricated. If the dwelling units are individually constructed this approach would offer a compromise to the situation where total prefabrication does not allow a significant labour contribution by the owner/occupant.

The Dwelling Unit

If, by some magic decree, one could achieve as the lowest existing level of housing in



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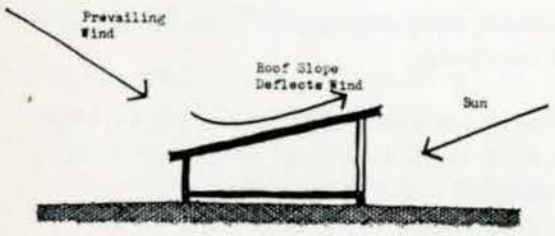
Canada, a single space shelter, insulated to conserve heat and shaped to reduce drafts, ventilated to control humidity, with adequate storage space, a sleeping space for each members of the family and a heat source that is economical in its use of fuel, the improvement on existing conditions would be very great indeed. In considering the requirements for individual dwelling units in isolated native communities and settlements it is clear then, that there is a range of very real functional needs between the level of the subsistence shack and the suburban "ranch-style" bungalow.
The need for adequate and improved housing on all levels is immediate and urgent and unless some minimum housing needs are met in the majority of native communities, the opportunity to participate in the general growth and development of

8
Minimum shelter, plan
L'abri minimal, plan
9
Minimum shelter, section showing wind and sun
Abri minimal, coupe montrant le vent et le soleil
10
Minimum shelter, sketch
Abri minimal, esquisse

11a — c
Diagrams showing principle of seasonal expansion house
a. Habitable volume contracts in winter when heat is precious
b. Habitable volume expands in summer to alleviate crowding and provide an area of the house that is cool relative to the cooking area (wood stove)
Schéma montrant l'essentiel d'une maison saisonnière extensible



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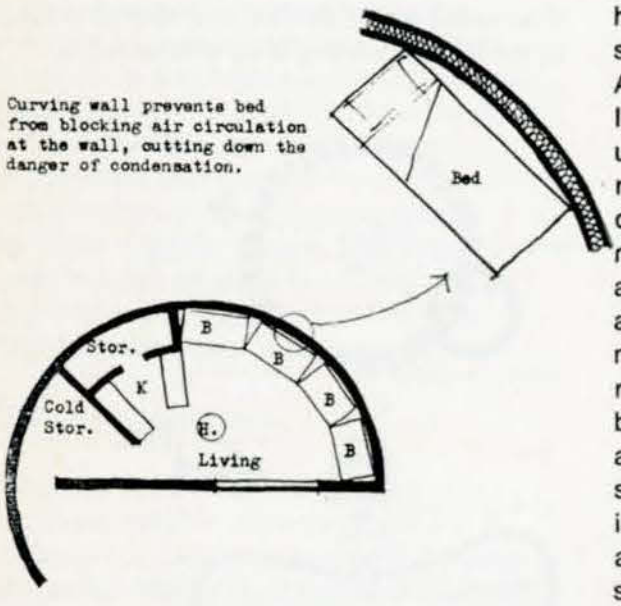

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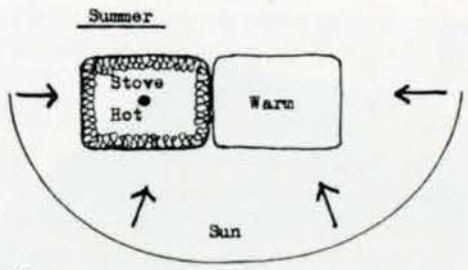
Canada will be delayed and become increasingly difficult. In the majority of native communities in the north, improved housing conditions involve some basic factors such as:

1 Sanitation and hygiene
2 Living space
3 Warmth, light and ventilation
4 Privacy (for the family and the individual)

How these factors are put into a physical form depends on a number of determinants and constraints such as cultural, economic, social and physical factors as well as housing and planning policy. A range of housing is required, from the simple shelter to the more sophisticated dwelling. Although the problem of overcrowding in Indian and Metis homes is a serious one, a uniform Canadian standard of one habitable room per person can be seriously questioned as a basis for house design in most native communities. The many cultural and economic differences mean that some adjustment in space standards will be necessary in each community to suit regional or local conditions. A sliding scale based on family size has been suggested as a general guide to adequate space standards. This warrants further investigation and development as an alternative to the less flexible Canadian standards that presently exist.

While it is desirable that all dwelling units be capable of permanent expansion, consideration should be given to the development of a house type capable of seasonal expansion. In summer, the habitable volume would expand to alleviate crowding and provide either a summer kitchen or an area of the house that is cool relative to the cooking area (wood stove). The habitable volume would contract in winter when heat is precious.

In the precarious financial position of many native families the old age pension cheque represents a major source of income for the whole of the extended family. The common existence of the extended family within the same dwelling unit should be recognized by providing slightly separate living space for the one or two grandparents. While enjoying the advantages of a degree of separation the extended family could dine together, lend



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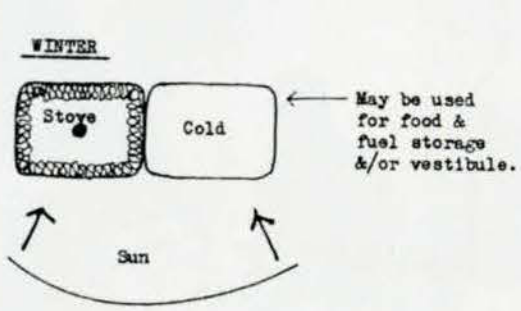

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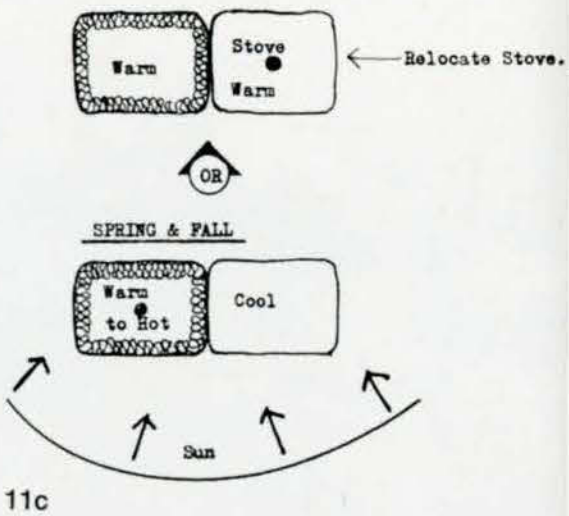

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12
Sketch of extended family unit
Esquisse de l'unité familiale étendue
13
Extended family unit, plan showing main family area and aged parents area
Unité familiale étendue, plan montrant lieu de séjour principal et l'endroit réservé aux parents agés

14
Elevated living space, sketch
L'espace vital élevé, esquisse
15
Elevated living space, section
L'espace vital élevé, coupe

assistance to one another in times of illness and help with babysitting.

The development of a housing unit that elevates the living space above the level of entrance and heating unit, offers the advantages of a draft-free entrance, a warm floor in a gravity heat situation (cold floors are an obvious health hazard to the children for which they are the only indoor play space), and a distinctly separate space for laundry (a major contribution to condensation) and general storage.

It will occur to many that there are potential savings in land coverage, heat loss, and materials in the development of multiple dwelling units in the north. This is true, and there is a need for such units, particularly for older people who may wish to share some facilities. However, the costs of servicing high density developments and more particularly the hazard of fire tend to discourage such developments in isolated communities.

From our limited investigation it appears that the prefabrication and subsequent shipping of dwellings into the northern areas of the Prairies is not generally as cheap as local construction using ordinary wood frame techniques. In areas where prefabrication may be competitive or cheaper in cost than local construction, government authorities generally prefer local construction due to the benefits involved in stimulating the local economy and creating a sense of personal pride and achievement in the dwelling when the owner is involved in its construction.

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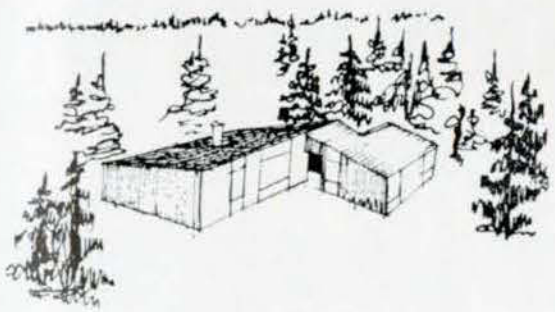

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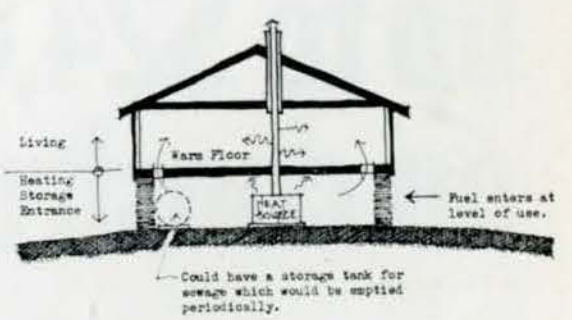

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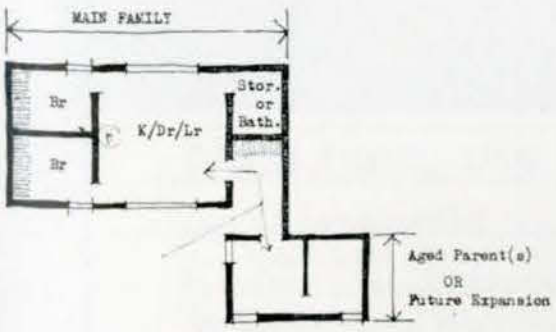

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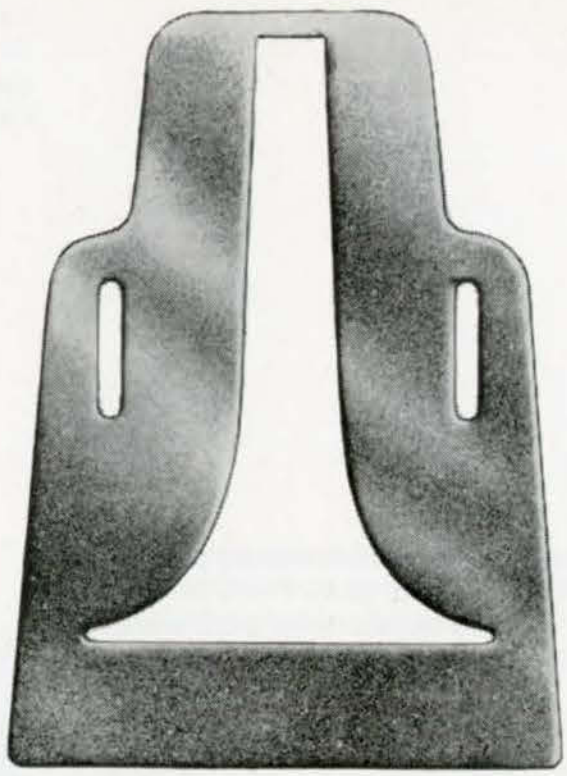
On the basis of our surveys and study it is evident that an important segment of the population in the Prairies lives in deplorable conditions. It is also apparent that there is no single or simple solution and that improved housing makes a relatively small but necessary contribution to a problem whose roots are economic, social and cultural. It is not therefore our thesis that improving housing conditions alone will result in a major step forward relative to the total problem. Housing has an important role to play on a cost-benefit basis. In the extremely depressed conditions that exist even small improvements in sanitation and ability to get a decent sleep at night will give large dividends in improved health and attitude at school or at work. The need for effort to improve the design of housing and develop new housing types is an important part of a larger improvement effort.
By any humanitarian standard it is clear that despite the effort, skill, and money being expended in this area now, much more is required.

In many isolated communities the efforts to improve environment and education must be directed toward a massive effort to facilitate outmigration and relocation to areas in the north and elsewhere with a viable economic base. The successful marriage of pools of destitute people who wish to continue living in the north, with northern industries suffering high labour turnover will not be easily or obviously achieved. Within the total program directed toward this end, the architect as an environmentalist has an important and creative role to play, both in the declining isolated community and the viable economic growth center. □



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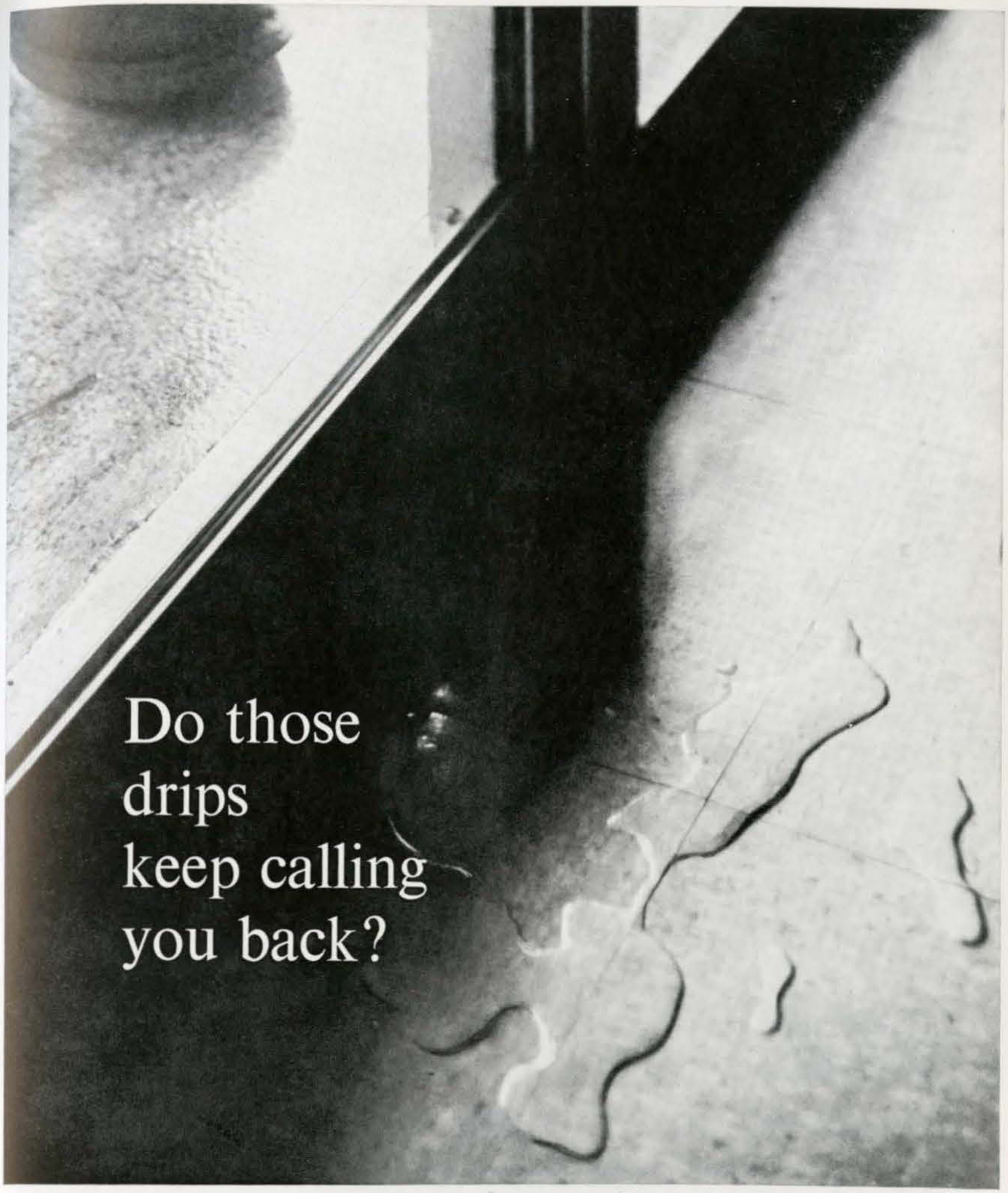

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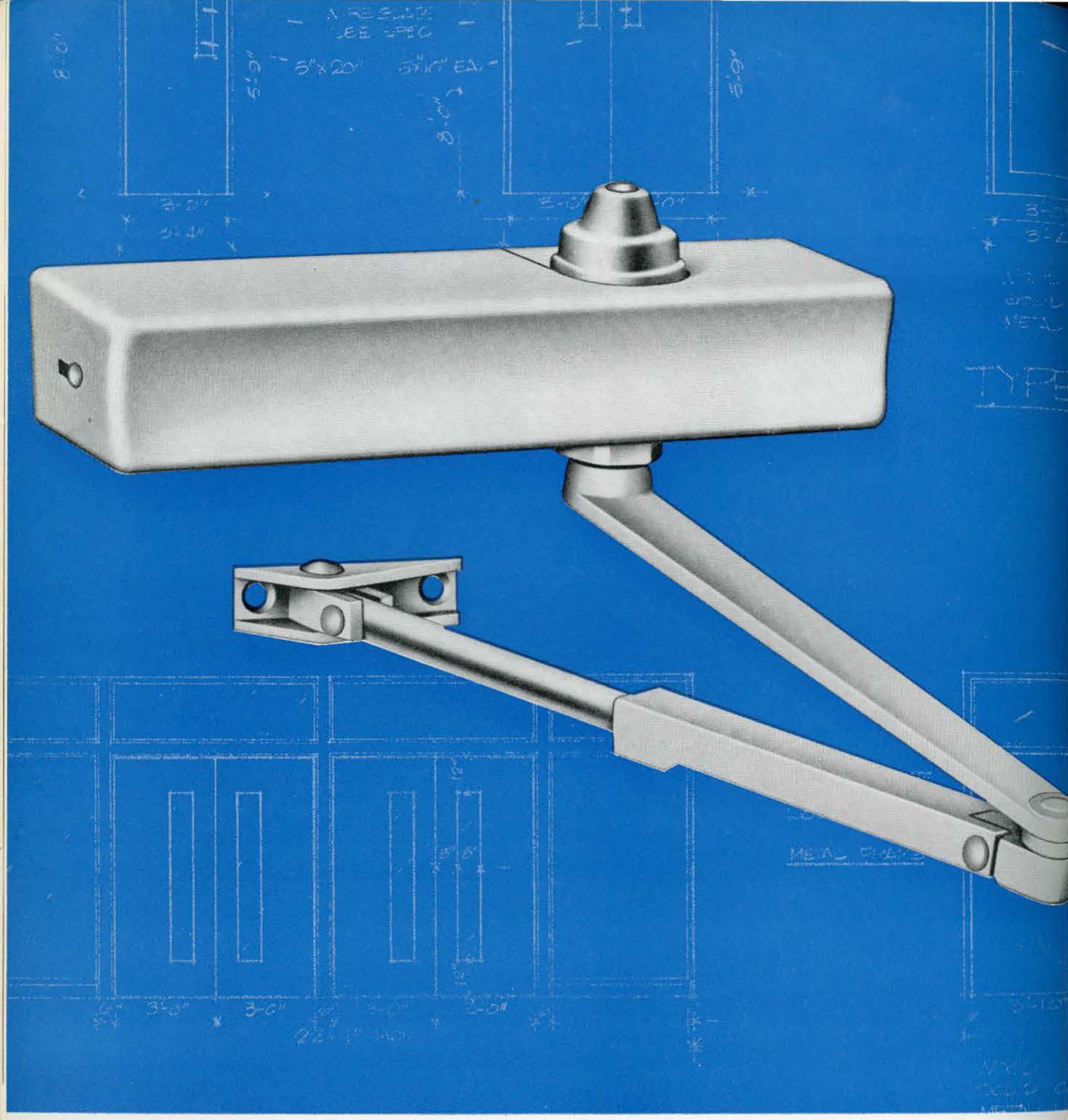

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Results of a Department of Industry study launched a year ago in July to determine the feasibility of establishing a national, comprehensive construction information system having proved encouraging, the Department's Materials Branch is now proceeding to a second phase, the development of an experimental model using a key word co-ordinate indexing system to establish performance criteria and evaluate user response and costs. The project is part of the Materials Branch BEAM (Building Equipment, Accessories and Materials) program to increase the productivity and efficiency of the building construction industry.

The development of a really comprehensive and always up to date information system would, of course, be a great blessing to architects, engineers, contractors, government departments and manufacturers and distributors of construction materials; in all probably about 10,000 users, plus about 30,000 suppliers of information. The problem, as the Department is well aware, is to offer a subscriber something he has not now got. The reproduction of current product literature on microfilm or microfiché is not enough.

The initial system envisaged by the Department as a result of its studies is multi-tiered, providing facilities for in-house information storage, satellite centers for restricted searching and a central agency for complex computor aided searches. Initially, product literature would continue to be supplied as it now comes. Eventually a standard format would be prepared for in-house storage as well as for microfilming. At a later date the system would be expanded to provide information on prices, technology, building codes, standards, and specifications. The in-house information bank, contained in microfiché or microfilm, would be set up in accordance with the individual user's profile and would be updated about every six months.

The system apparently would not affect the Building Construction Index (BCI), the 16-division product literature and office filing system adopted three years ago by the RAIC, the Association of Consulting Engineers of Canada and the Canadian Construction Association to replace the old AIA-RAIC Standard Filing System. The BCI is the Canadian version of the system developed and adopted in the United States by the Construction Specification Institute and the AIA, and it is expected that the two will be consolidated in the near future so that one single indexing and filing system will be in use throughout North America.

The experimental model, which will take about a year to develop, will concentrate on product literature in a limited number of categories and will be used to evaluate methods, techniques and equipment, and assess user reactions and needs. The process will take about a year and will enable performance criteria to be defined and equipment needs determined. The Department's goal of a national construction information system may thus be achieved. From the beginning the project has had the help of an industry advisory committee, representative of all sectors of the construction industry and of the professions in the dissemination and retrieval of construction information.

Architect members include Warnett Kennedy, MRAIC, Vancouver; Gordon R. Arnott, FRAIC, Regina; Frank J. Nicol, MRAIC, Toronto; D'Arcy G. Helmer, FRAIC, and Douglas Shadbolt, FRAIC, Ottawa; Henri P. Labelle, FRAIC, Montreal. Subcommittees have been given specific responsibilities, as follows:

— Experimental model system development, chairman, John Brett of Brais, Frigon, Hanley Brett and Rinfret, consulting engineers, Montreal;
— Management and organization (corporate structure) chairman, J. R. Faulds, vice president, Canadian Pittsburgh Industries Ltd., Toronto.
— Indexing and coding, chairman D'Arcy G. Helmer, FRAIC, Ottawa.
— Marketing, chairman, Ross Stenson, of Domtar Construction Materials Ltd., Montreal.

Editor's note:

Announcement of the Department of Industry's study of building materials information retrieval systems 15 months ago held off further development of two separate computerized systems then being launched as private business ventures in Toronto until such time as the probable direction of the DOI program could be assessed.

First in the field, Construction Computer Systems of Canada, demonstrated its system of "product selection by performance" to architect-engineer potentional clients in September 1966 and the president of the firm, R. P. G. Pennington, MRAIC, ARIBA, described the system in an article in Architecture Canada (June, 1967, page 33). Recently the firm felt able to proceed again and, says Mr Pennington, is developing a clientele for the system.

The second firm to enter the field was Construction Computer Company, headed by Ronald Marsh of the Toronto Specification writing firm of Ronald Marsh and Associates. This firm based its computerized service on the European SFB indexing system. It was learned recently that this product information retrieval system operation has become part of a new organization, Infors, of which C.F.T. Rounthwaite, FRAIC, is president. Infors is closely related to Margroup, a Toronto based organization offering what is believed to be the first complete package of construction management systems and services on a fee basis to the construction industry. (See News, page 10.) Mr. Marsh, in the meantime, proceeded with another project, computerization of specifications, and in September announced his first example of computer written specifications for a major building.

All of this leaves where they were the two printed systems of product literature retrieval. The RAIC Publications Board has just produced its fifth edition of ADA, the Architectural Directory Annual; and in May, Sweet's issued its third edition of the Canadian Construction Catalogue.

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1968 Graduates and Prize Winners

RAIC Medal Winners for 1968

Ditlef A. Knudsen, originally of Chicago, Illinois, RAIC medal winner from the Nova Scotia Technical College attended the School of Architecture at McGill for three years before transferring to the Nova Scotia Technical College in 1964. In 1968 he received the L. E. Shaw Design Scholarship. After graduation Mr Knudsen was employed by the architectural firm of L. Paul Herbert and Associates, Halifax.

André Cardinal, licencié de l'Université Laval est le gagnant de la médaille de l'IRAC pour 1968. Etudes préliminaires à l'Ecole de Décoration et à l'Ecole du Meuble à Montréal. En 1963-64 il a obtenu le prix de la Société des Architectes de Québec et en 1966-67 le prix Ernest Wilby lui a été décerné.

André Brodeur, RAIC medal winner from the University of Montreal was born in Beloeil, Quebec and obtained his pre-university education at the St Hyacinthe Seminaire. He will spend the next two years in French Guinea.

William Donaldson Hulme, of Montreal was the 1968 RAIC medal winner from McGill University. He attended Lower Canada College where he won the Lieutenant Governors' Bronze Medal for highest standing in 1958. At McGill he was a McConnell Scholar, 1967-68. He won the CMHC Travelling Scholarship and the CIP Scholarship in 1967 and the A. Faustin Prize and the Anglin-Norcross Prize in 1966.

Timothy D. Ritchie, University of Toronto RAIC medallist was born in Winnipeg and obtained his pre-university schooling at Stratford Collegiate, Stratford, Ontario. His thesis subject was a design for a Community College of Applied Arts and Technology for 5000 Students.

Marcia Ellen Secter, University of Manitoba RAIC Medal winner, born in Kingston, Ontario attended school in Winnipeg. She was the recipient of the MAA book prize for excellence in design V in 1968 and won the W. J. Dick Bursary in 1963. Mrs Secter, with her family, will spend the next year abroad exploring the character of urbanity in different environments.

Donald I. Gutstein of Toronto transferred with honors from the Department of Architecture at the University of Toronto to the University of British Columbia where he won the 1968 RAIC Medal for that school. Mr Gutstein's special interests are reading and sketching.

1968 Graduates

Nova Scotia Technical College

Graduates: Robert Blache-Fraser, Douglas D. Campbell, Michael Cham, Gerard Felderhof, Raymond Kaizer, Ditlef A. Knudsen, J. Douglas Miller, Lt. Richard E. Moody, G. Douglas Murray, William MacCallum, Daryl Neve, Shulim N. Rubin, Gerald J. Savoie, Beaton Sheppard, Peter Strother, John M. Thomson, Donald Williams, David Wooldridge.

Principal Scholarships and Prize Winners: Ditlef A. Knudsen, RAIC Medal.

Université Laval

Gradués: Georges Amyot, Jacques Audet, Denis Blais, Marcel Blouin, Paul Brassard, André Cardinal, Nicol Labbé, Denis Laflamme, Paul Dupuis, Henri Durand, Germain Laberge, Philippe Paquin, Guy Poulin, Michel Rheaume, Normand Rodrigue.

Principaux prix et bourses: André Cardinal, Médaille de l'IRAC; Henri Durand, Médaille du Ministre de l'Education.

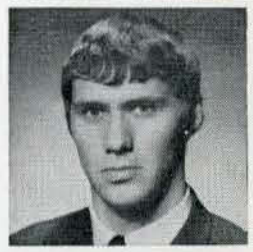
Ecole d'Architecture
Université de Montreal

Gradués:
Michel Beaudoin, Jean-Louis Beaulieu, Claude Bernard, Pierre-Richard Bisson, Robert Blache, Gilles Boivin, André Brodeur, Alejandro Dipp, Louis Famelart, Rolland Gervais, Peter Hailey, Georges Marois, Gilles Munn, Pierre-André Paquin, Jacques Parenteau, Bertrand Pelletier, Claude Pilon, Jean-Guy Renault, Guy Trudelle.

Principaux prix et bourses: Jean-Louis Beaulieu, Médaille du Ministre de


Ditlef A. Knudsen


André Cardinal


André Brodeur


William D. Hulme


Timothy D. Ritchie


Marcia E. Secter


Donald I. Gutstein

l'Education; Robert Blache, Bourse Francou; André Brodeur, Médaille de l'IRAC.

McGill University

Graduates: Ronald G. Barbour, Bruce A. Berglund, Richard W. Bromfield, Antony Chiu, Jean-Pierre Gadoury, Timothy Grosvenor, David A. Hancock, William D. Hulme, David A. Katz, Edmund D. Koch, Robert LeBlond, Henry Leung, Bruce Lorimer, Allan Louis, B. J. Mocsy, Robert Moskovic, Michael H. Ross, Desmond Senior, Hack Sklofsky, Dennis K. Tanada, James P. M. Waugh.

Principal Scholarships and Prize Winners: Jean-Pierre Gadoury, CMHC Fellowship for Graduate Study; William Hulme, RAIC Medal, McGill Delta Upsilon Memorial Scholarship, McConnell Scholarship; Robert LeBlond, Dunlop Travelling Scholarship; Michael Ross, McLennan Travelling Scholarship, Minister of Education Gold Medal, Distinction in Architecture in Final Year; James Waugh, Rhodes Scholarship.

University of Toronto

Graduates: Robert E. Barnett, Thomas G. Bentley, Stephen Bernatt, Ronald D. Brandon, Mrs. Judith A. Brown, Kenneth J. Cochrane, Graeme C. Consiglio, John Cowle, Miss Sarah Crompton, Norman S. Crone, Kenneth L. Elder, James E. G. Fowell, Peter B. Glass, Kenji E. Ito, James D. Lethbridge, Peter M. J. McCutcheon, Barry C. McFarquhar, Gerald W. McMaster, Martin G. J. Myers, Manfred Neumann, Peter E. Peltekoff, Douglas B. Pollard, Erkki Pukonen, Mrs. Toby Rayman, Timothy D. Ritchie, Robert G. Robinson, Joachim U. Rohn, Leslie Soltay, Allan J. Stone, Peter F. Turner, Christopher Wallace, Peter J. Zoubek.

Principal Scholarships and Prize Winners: T. D. Ritchie, RAIC Medal, Anaconda American Brass Scholarship, George T. Gouldstone Fellowship; P. F. Turner, Toronto Architectural Guild Medal (Silver); P. J. Zoubec, Jules F. Wegman Fellowship.

University of Manitoba

Graduates: Bachelor of Architecture: Brian D. Atkinson, Kenji Kenneth Ayukawa, Herbert Bassler, Joseph Cantafio, Raymond S. Carter, Howard E. Cohen, Mel E. Craven, John S. Frain, Neil F. Harris, Francis U. L. Kwok, Richard B. Jackson (deceased), Lawrence J. Lunghamer, Nils Pederson, Bernard M. Rasch, Ashley E. Raynor, Norman C. Ripley, Paul Schouw, Marcia E. Secter, Geoffrey E. Simson, Carl M. Skerl, Ernst H. Snijder, Donald C. Stewart, Ernest H. Walter.
Master of Architecture: Zaheer Alam Sheikh.
Master of City Planning: Harry Heimark, Gary R. Norris, Basil Michael Rotoff, Jacobus Daniel Theron.

Principal Scholarships and Prize Winners: Norman C. Ripley, The University Gold Medal in Architecture; Marcia E. Secter, RAIC Medal; Howard E. Cohen, Alpho Rho Chi Medal; Norman C. Ripley, Bachelor of Architecture Thesis Prize; Richard Jackson (deceased), Pilkington Travelling Scholarship.

University of British Columbia

Graduates: David C. Backstrom, Alan S. Bell, M. Colvin Chen, Shane R. Davis, Robert M. Dill, Rol Fieldwalker, Donald I. Gutstein, Thomas L. Hong, Kenneth H. Hutchinson, John R. Kembar, Wm. Nick Marach, Nick J. Milkovich, John A. Neilson, Alvin P. Schellenberg, D. Barry Simpson, Guy M. Walters, Barry C. Nixon.
Principal Scholarship and Prize Winners: Donald I. Gutstein, RAIC Medal; Alan S. Bell, Architectural Institute of British Columbia Book Prize; Kenneth H. Hutchinson, Alpho Rho Chi Medal.

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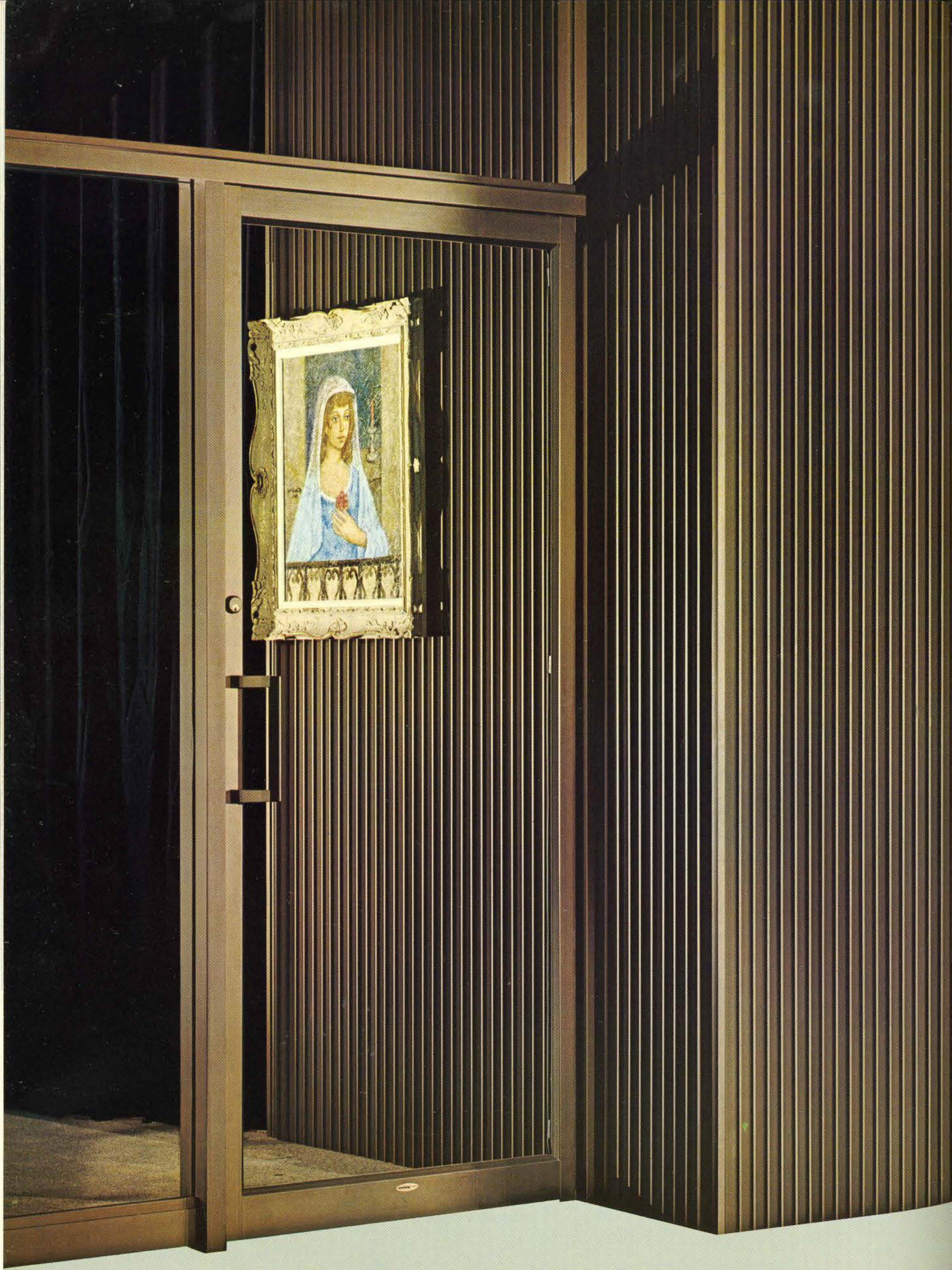

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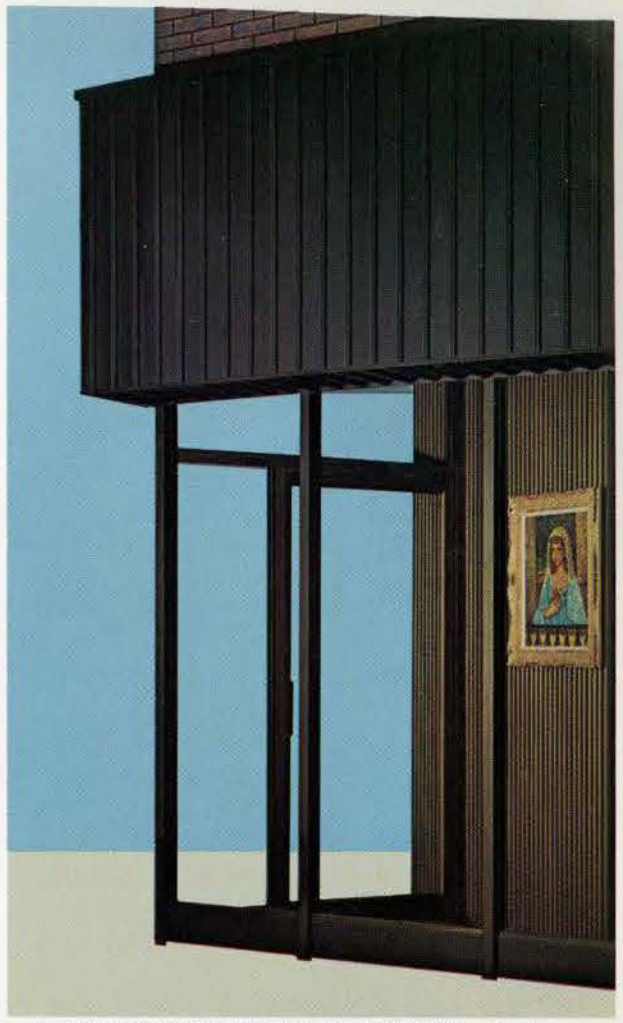

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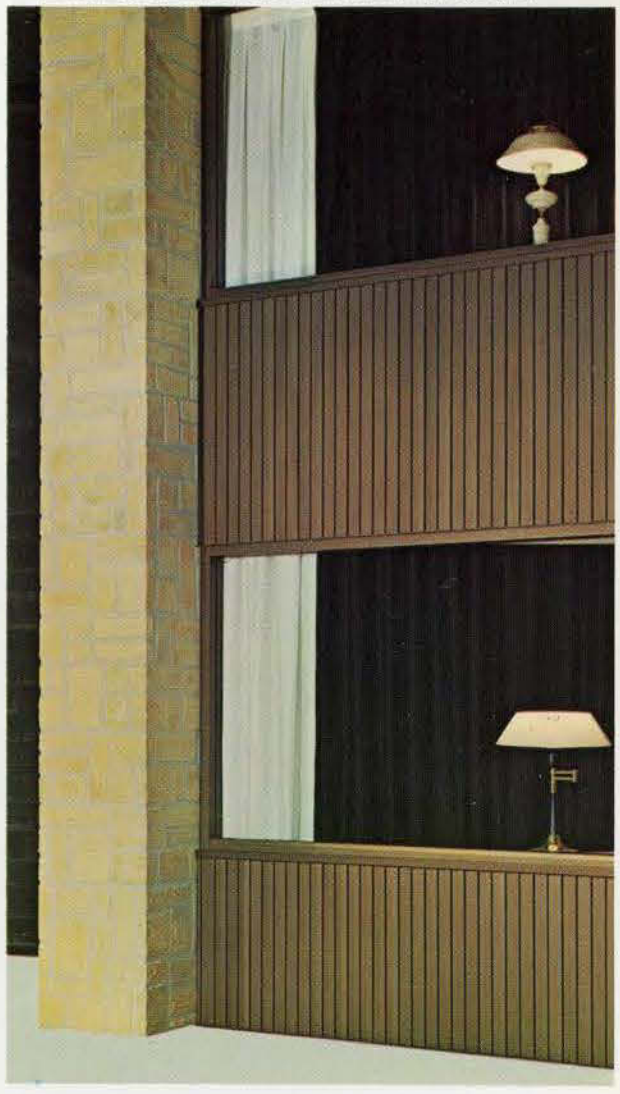

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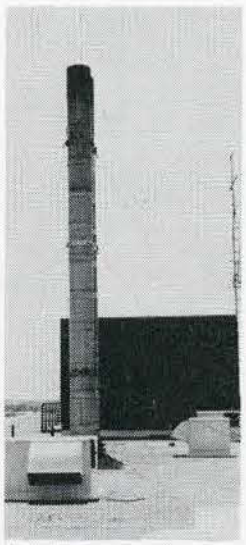
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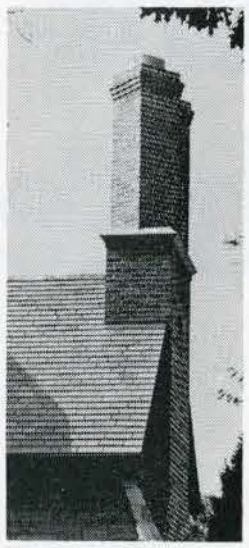
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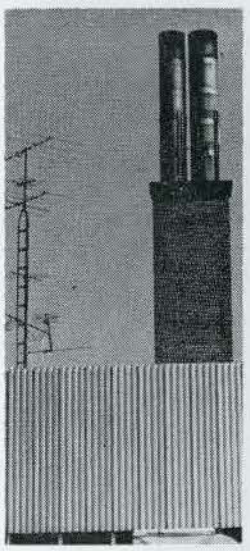
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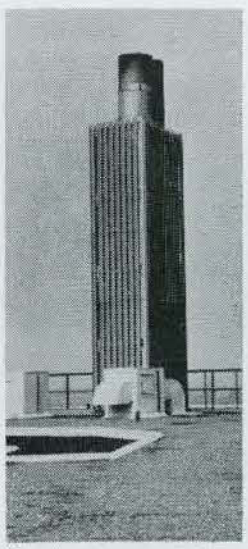
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Woolworth's Hats?

The Editors:

The use of your Journal to stir up a little architectural thinking would be appreciated. I refer particularly to the matter of chimney design which seems to have become a lost art especially as applied to apartment buildings. **(1)** Generally speaking, the designs are respectable and a few are striking – until the eye reaches the roof when the effect resembles a woman with a dress from Dior's and a hat from Woolworth's.

Time was when a house was not complete without the finishing touch of a well-designed chimney **(2)**. Apparently on the mistaken assumption that one only looks at an apartment house from either inside or immediately outside the front door, little or no attention is paid to-day to the structures on the roof – chimneys, elevator penthouses, ventilation equipment **(3)**. The new apartment buildings are in fact becoming a dramatic and dominating feature of big city landscape. Their *complete* design, therefore, is of the greatest visual importance as they become community identification points, a function once served largely by churches and institutional buildings. **(4)**

The need for strong visual focal points in the urban structure has usually been recognized by architects, but to be effective, the focal points must appear finished. **(5)** It is suggested that the regrettable lack of attention to the design of apartment roof top structures is not due to indifference, but merely to this important feature being overlooked. It is surprising how many architectural perspectives show the roofs completely devoid of all structures, yet a single glance at any actual apartment building quickly shatters the illusion.

It is appreciated that there are severe limitations to the design of modern roof stacks – a task made even more difficult by the requirements of the air pollution control authorities. Many attempts are being made – some successful. **(6)** It is hoped that by drawing attention to the subject that those architects concerned with designing apartments will think about the problem and in so doing achieve an architectural solution which may enhance the urban scene.

G. G. Muirhead, MTPIC, Director of Planning and Secretary-Treasurer, Borough of Etobicoke, Ontario

Illusion and Architecture

The Editors:

Cheers to *Architecture Canada* for introducing a little bit of senseless humor into the otherwise quite learned contents of its July edition.

"Illusion and Architecture" by Anita Aarons goes beyond ambiguous image and poetic licence when it suggests that "our young magicians of art could be used by architects who appreciate that some of their environmental spaces are anonymous, lacking in sense of identity and in all, coldly asceptic" bless the wordage.

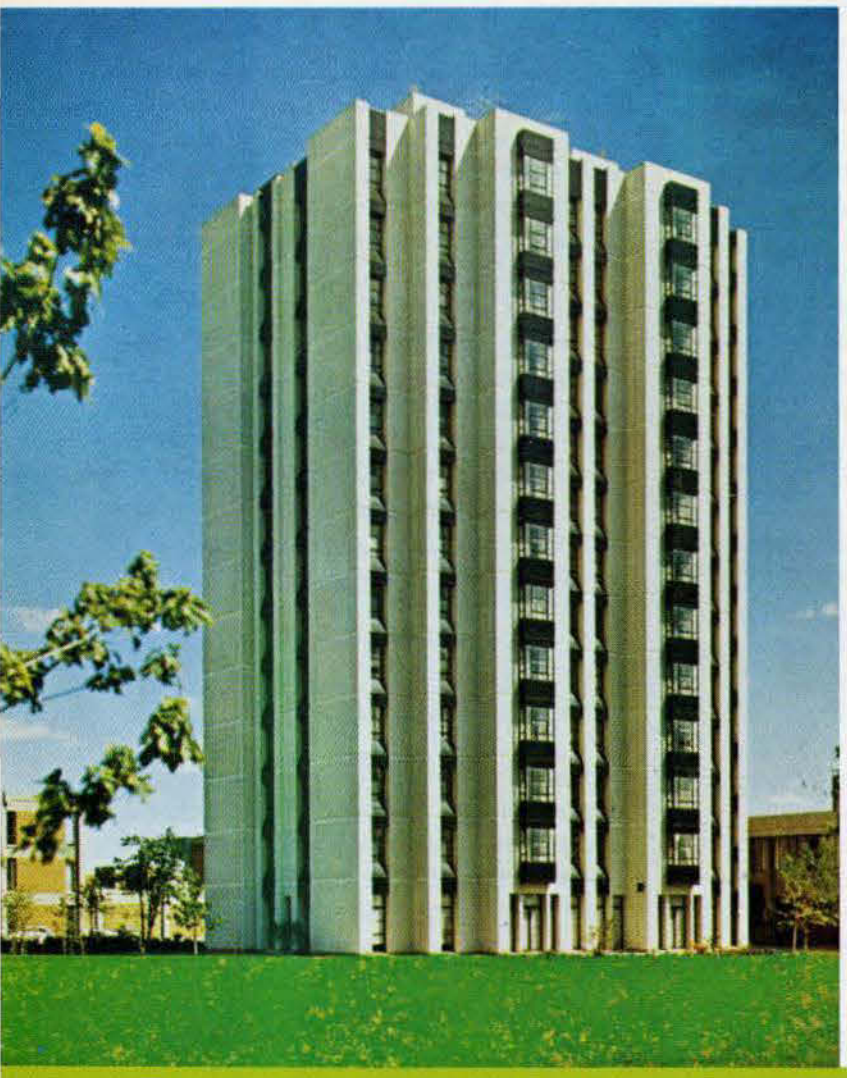
It is bad enough to publicly propose the degrading of good artists into decorators of anonymous environmental spaces. It is an arch-sin, however, to scheme against the ultimate aim of those that care, which must be to integrate art and architecture where possible, rather than apply one to save the other.

H. G. Schenk, North Vancouver

Allied Arts Editor's Note:

Hurray! Even if one's intentions are misinterpreted, it is good to have reaction and at least one reader "who cares". The aim is to have the top creative artist as collaborator rather than a decorator which, in the main, integrator-artist is expected to be when he "adapts" to the client's and architect's problems to-day.

Accents for Toronto's charm. Precasts in white. Medusa White.



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Classified Annonces Classées

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Positions Wanted

Architectural draftsman, AIIA, 5 years experience seeks position. Write to S. G. Bhavsar, B/New Dashmukh Waki. P.K. Road, Mulumd, Bombay, 80.

Architectural student from British university seeks employment for one year from April 1969 to April 1970 to gain practical experience in Canadian architecture. Intermediate RIBA Age 21. Write J. Holmes, 59 Springfield Rd, Kings Heath, Birmingham 14, England.

Montreal area. 28 years old Graduate from the University of Mexico, experience in design, field supervision, in hospitals and public buildings in Mexico, Spanish, English and French speaking, seeks position as assistant architect in Montreal area. Reply P.O. Box 69605, Mexico 21, D.F.

Indian architect, 15 years experience, Specializing in oriental interiors, furnishings and exhibitions. Resume on request. Write M. S. Majithia Bangur Nagar, Dandeli/North Kanara, Mysore State, India.

1964 Andes' University Architect wishes a position in Canada, Fulbright scholarship in City and Regional Planning, U.S.A. Presently head of Architecture and City Planning Department, National Geographic Institute, Bogota. Part time professor of architecture and urban design, Piloto University, America's University, Bogotà. Write to Santiago Martinez, Carrera 15# 72 - 14, Bogota, Colombia.

Situation required by B. Sc.B. Arch (Madras), AIIA, as architect or junior anywhere in Canada. Experience four years in design, detailed drawings, supervision etc. Two years' teaching experience as lecturer, University of Kerala, V. S. Subramoni, Hotel Aristo, Trivandrum.

Japanese architect, AIJ, seeks employment as an architect's assistant or draftsman in Toronto. Graduated in 1967. Presently employed as architect's assistant in Tokyo. Contact Hiroshi Tomobe, 19-12 Ryujogaoka, Hiratsuka-City, Kanagawa Ken, Japan.

30 years old, Filipino citizen, married, 10 years experience as designer in Philippine architectural and structural firms, willing to travel and work abroad anytime. Write Mr Eduardo N. Apolinar, 2448 San Anton, Sampaloc, Manila, Phillippines

Architect, University of Santo Tomas, 1965, Member, League of Philippine Architects, experience in supervision drafting and design, has been an Instructor at Technological Institute of the Philippines, seeks position in Canada. Write Annete B. Zingapan, 9932 C Bilibid Viejo, Quiapo, Manila, Philippines.

British Architect, 27, Dip Arch. (Edinburgh) 1966, five years pre-college and two years post college office experience, hospitals, schools, housing, seeks position with architectural practice in Toronto, commencing 30 September 1968. Long term immigration intended. Reply W. D. Crawford, 21 Royal Crescent, London W. 11 England.

Graduate Filipino architects-draughtsmen, B.Sc. in Architecture, University of Sto Tomas, Philippines (1966). Two years experience in military buildings, residential and apartment buildings/working drawings, wish position in Toronto architectural firm. Will be in Canada within the year 1968. Write A. G. Sambrano (23) & N.T. Diguangoo (22), c/o Linda G. Gallardo, 51 Grosvenor Street Apt 213-A Toronto 5, Ontario.

An ARIBA, 30, with 6 years office experience in designing offices, residences, factory and interiors, specification writing, seeks a position with architectural practice in Toronto or Southern Ontario. Please contact Jadav, Apt. 306, 48 Grenoble Drive, Don Mills.

Filipino architectural draftsman with five years experience in the Philippines, Graduate of Architecture, Mapua Institute of Technology, April 1967 seeks position in Canada. Reply to Jacinto M. Gotanco, 38 A Unida St, Baclaran, Paranaque, Rizal, Philippines.

1968 Bachelor of Architecture; Honors Class II, University of New South Wales, two years office experience seeks position in Canada, write John Russell, c/-34 Jamison Street, Sydney, Australia.

Architectural Assistant (Irish), age 35, with 17 years varied experience in private, commercial and local government offices, including school, hotel, shop and domestic design, shortly sitting for RIBA final, Part 2, examination, seeks employment in Canada. Write R. Leslie Jackson, MSAAT, 118 Beechgrove Ave, Belfast 6, Northern Ireland.

British architectural model maker, 28, 11 years experience in all fields of model making, seeks position in Canada. C. J. Ciney, 40 Alracks, Basildon, Essex, England.

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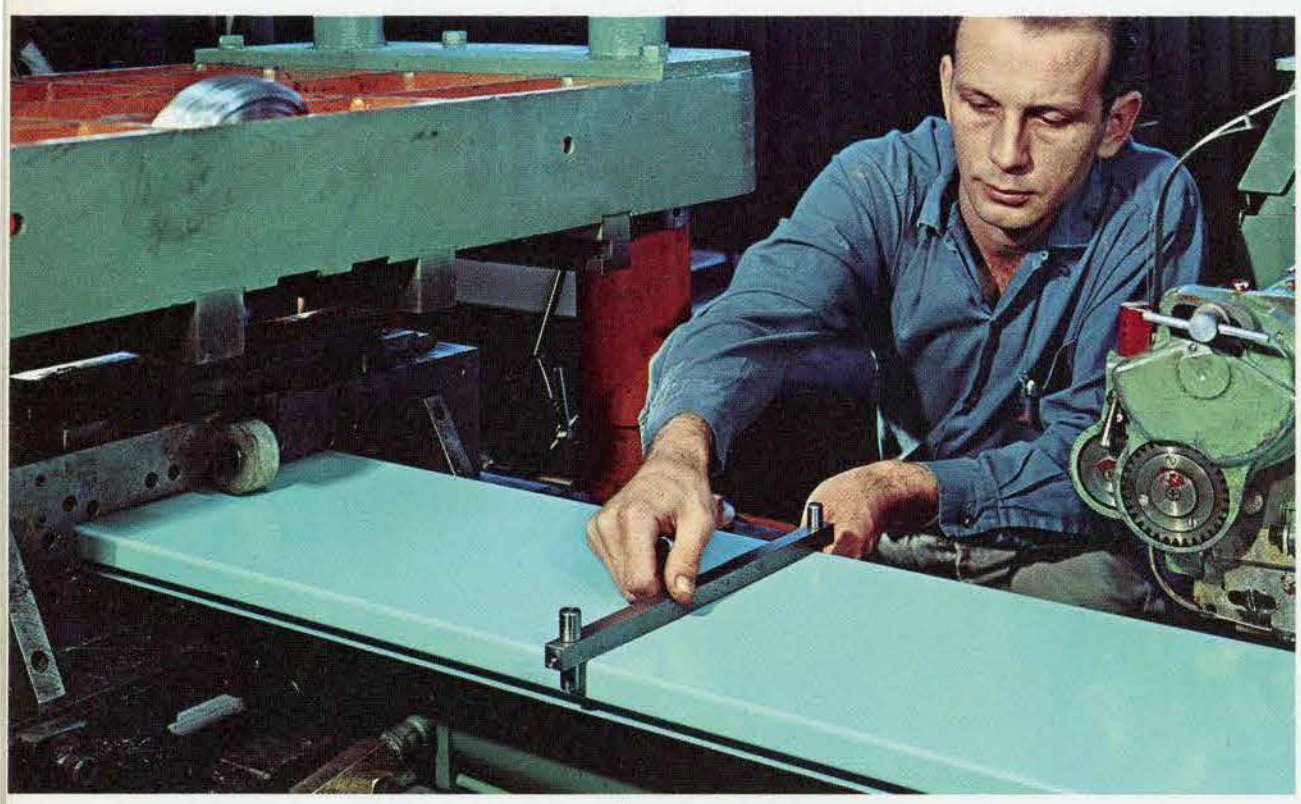
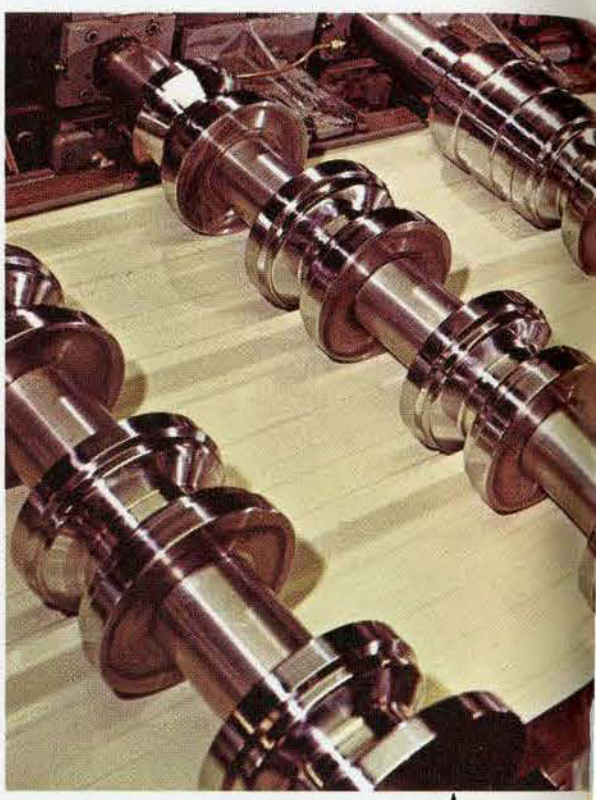
We started things rolling when we introduced

STELCOLOUR



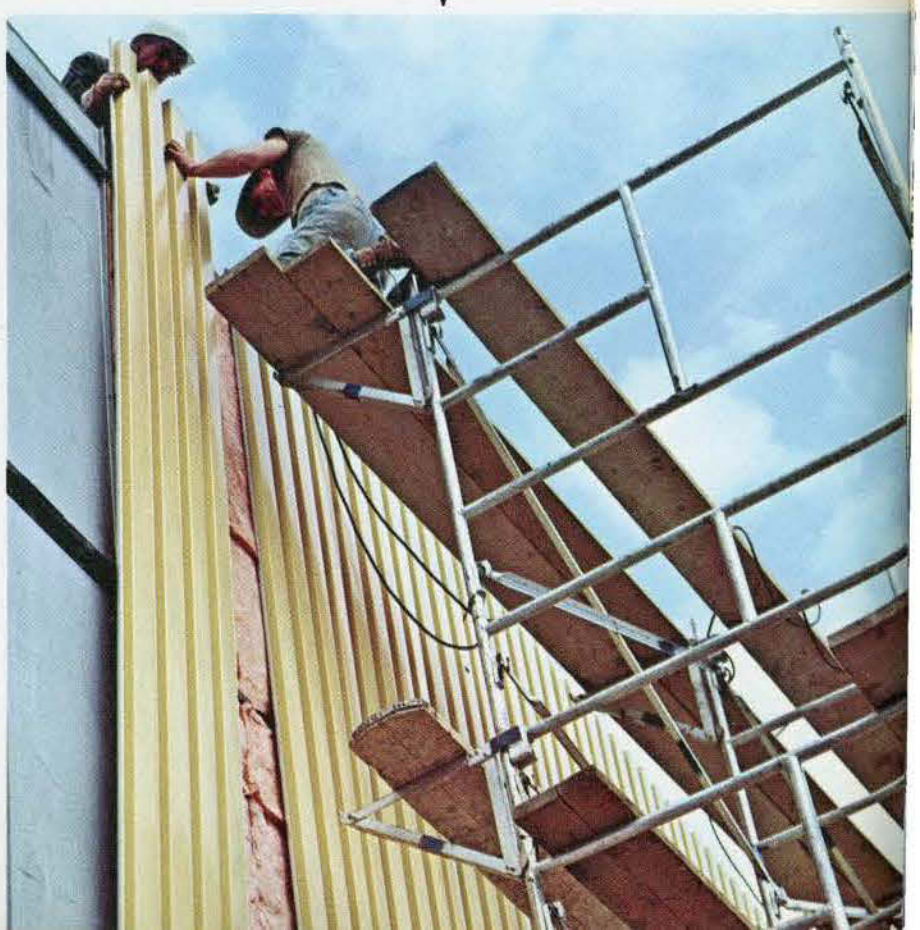
Quality control at Robertson-Irwin Limited.



Roll forming at Butler Manufacturing Company (Canada) Ltd.

Roll forming at Lorlea Enterprises Limited.

Installation of panels manufactured by Peerless Enterprises, a division of Tectum Limited.



Late in 1965 we announced that "Stelcolour" would soon be available. We called it "the latest product advancement in the Bright New World of Steel". And we explained that this was steel with a permanently bonded finish in the colour of your choice . . . guaranteed to resist corrosion . . . guaranteed to retain its original beauty and lustre through all normal fabricating techniques. In 1966, with production under way, industry began fabricating "Stelcolour" for a wide variety of applications: "Stelcolour" lived up to everything we had claimed! Today, leading fabricators of steel siding for architectural use are in full production to keep up with demand. The pictures below tell their own story.

Like to know more about "Stelcolour"? Why not talk to a fabricator in your area. He's probably forming some now.

In "Stelcolour" we've really started something rolling. Care to join us?

PREPAINTED STEEL STELCO

THE STEEL COMPANY OF CANADA, LIMITED • A Canadian-owned company with sales offices across Canada and representatives in principal world markets.

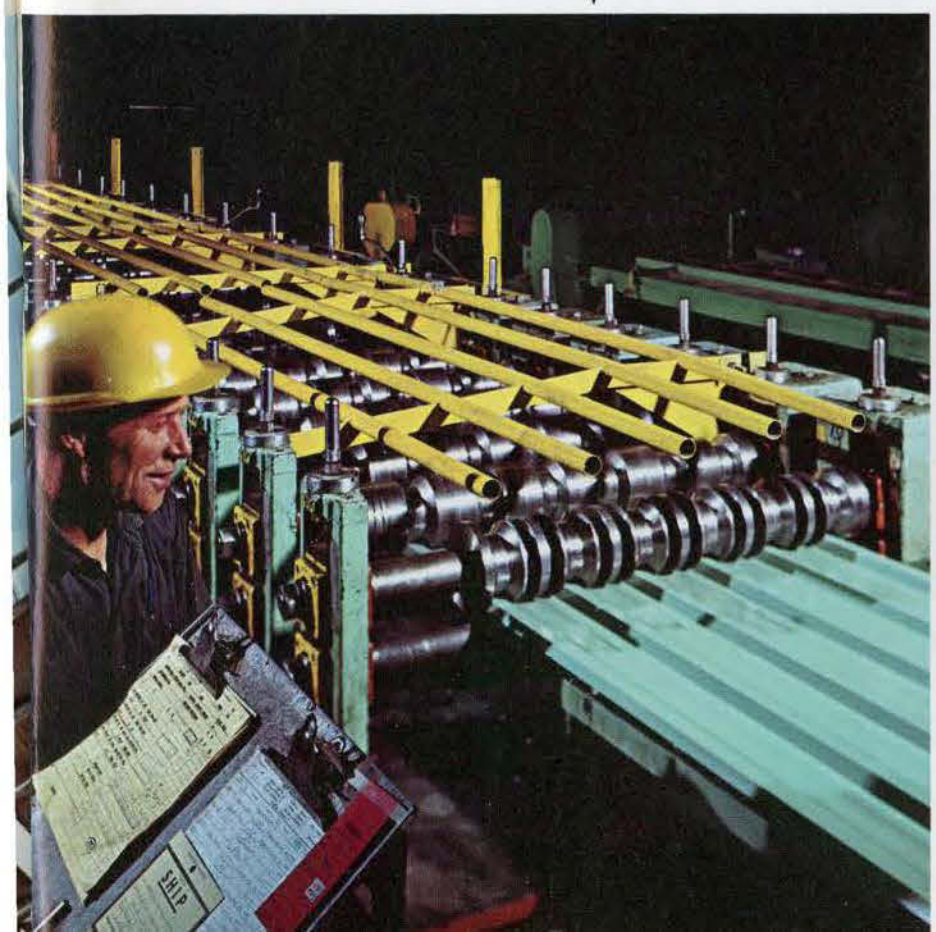
TO: The Steel Company of Canada, Limited,
Dept. "A", Wilcox Street, Hamilton, Ontario.
Please send me the booklet "The Characteristics and Fabricating Qualities of Stelcolour".

Name .....
Company .....
Address .....

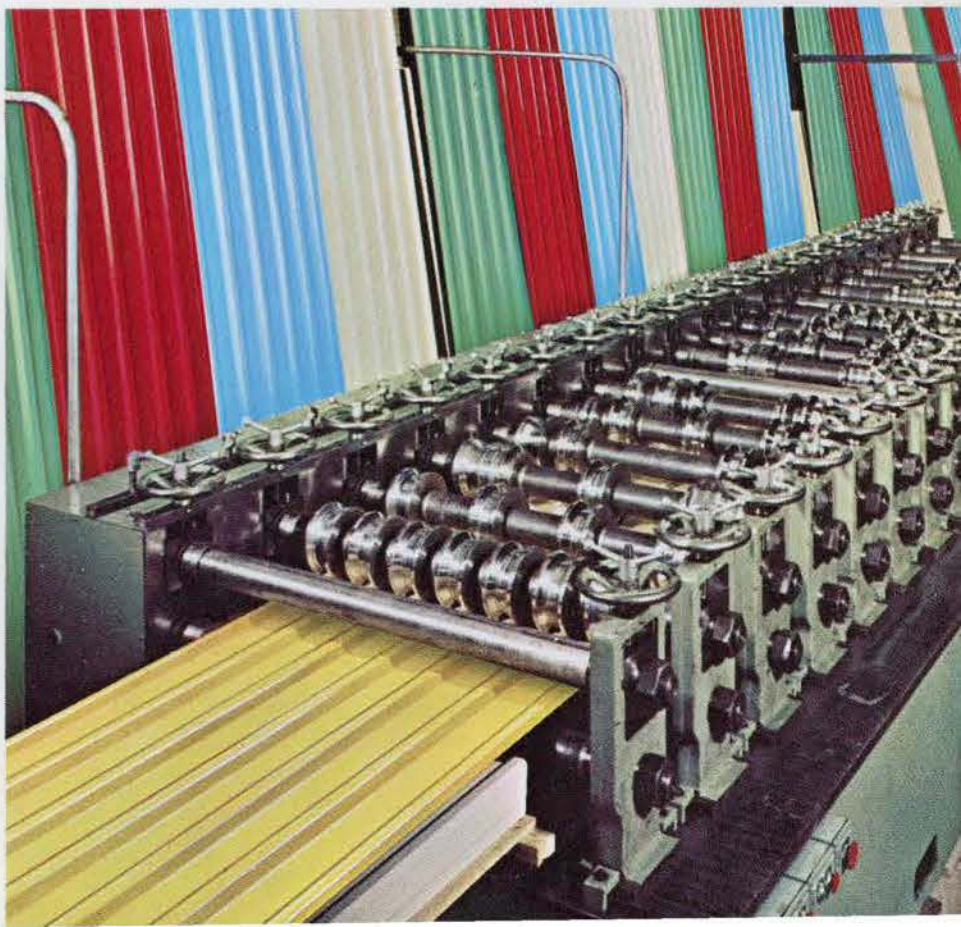
6701/1 (Rev.)

Production inspection at Armco Drainage & Metal Products of Canada Ltd. new roll-forming equipment

Order checking at Westeel-Rosco Limited



Panels being roll-formed at Eastland Metals Ltd.



Index to Advertisers

When should Pozzolith be used in concrete?

Always...and here's why.

Concrete made with POZZOLITH has greater strength and durability than plain concrete or concrete made with any other admixture.

Its five main advantages are explained below:

GREATER COMPRESSIVE STRENGTH

To begin with, POZZOLITH concrete develops up to 25% higher compressive strength. With an increase in both flexural and bond strength.

REDUCES VOLUME CHANGE

POZZOLITH reduces shrinkage cracking. By reducing the amount of mixing water. And by improving the uniformity of the concrete.

INCREASES WATERTIGHTNESS

POZZOLITH concrete is considerably more watertight than plain concrete of the same strength.

GREATLY IMPROVES DURABILITY

POZZOLITH makes good concrete more resistant to natural weathering, freezing and thawing, and scaling from use of de-icing salts.

IMPROVES APPEARANCE

When forms are stripped, POZZOLITH concrete needs less finishing and rubbing. And produces the sharp details important in architectural concrete.

Now you'd probably like to know more about POZZOLITH and how you can benefit from it. Our field man will be glad to talk with you. Just call.

Our general office and factory is in Toronto. Our branch offices are in Vancouver, Calgary, Edmonton, Winnipeg, Regina, Ottawa, Montreal and Moncton.

POZZOLITH*

A Product of

MASTER BUILDERS

*POZZOLITH, *a registered trade mark of The Master Builders Company, Ltd.*

MC-6605PR

The Argument for new Dampa 10 linear ceiling system.

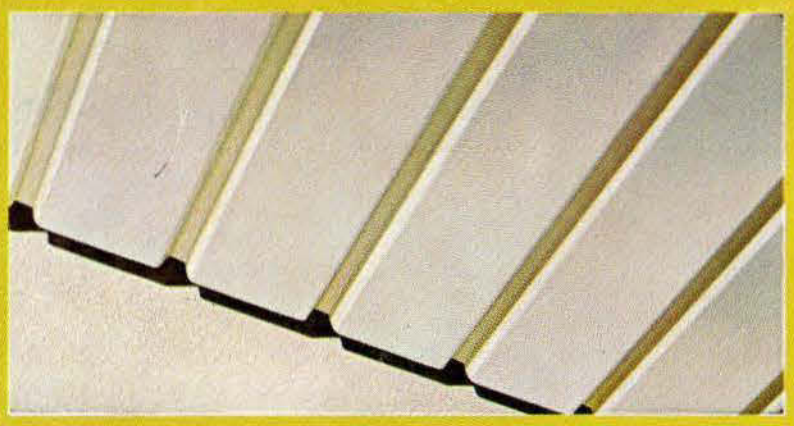
No gaps. No spaces. No way to look through and see unsightly plumbing fixtures. Because Dampa 10 strips overlap to provide a tightly fitted closed ceiling system. Yet there is complete plenum accessibility.

And it's non-progressive: the strips clip to special U-channels, spaced 4 feet apart.

What about acoustics? You can get high sound absorption with perforated Dampa 10. As a matter of fact, a range of noise reduction co-efficients are available from tests conducted at the National Research Council.

Are integrated ceilings your preference? No problem. Because Dampa 10 is made to a 4″ modular width, and so are the lighting fixtures and air diffusers. And Dampa 10 is also available specially slotted for ventilated ceilings, where plenums are pressurized.

Domed ceilings. Compound curves. Mouldings. Inverted V-shaped ceilings. You name it and Dampa 10 can handle it. Because Dampa 10 is a new alodized aluminum linear ceiling system that takes curves easily.



There are no holes in it.

The curves won't throw you.

And its flexibility doesn't stop there. By itself, Dampa 10 creates distinctive architectural effects. It visibly widens corridors and it's suitable for ceiling, soffit or wall application. Interior and exterior. In combination with drywall, plaster, or ceiling tiles or panels, the design possibilities are limitless.

And you can design in colour, too. Because Dampa 10 is available with white baked-on enamel finish, plus ten other special colours.

And even that's not the whole story. If you'd like more information on Dampa 10, call your Domtar representative, or write to: Domtar Construction Materials Ltd., Suite 2210, 1 Place Ville Marie, Montreal 2, Quebec. We'll give you complete specifications. With no arguments.

DOMTAR