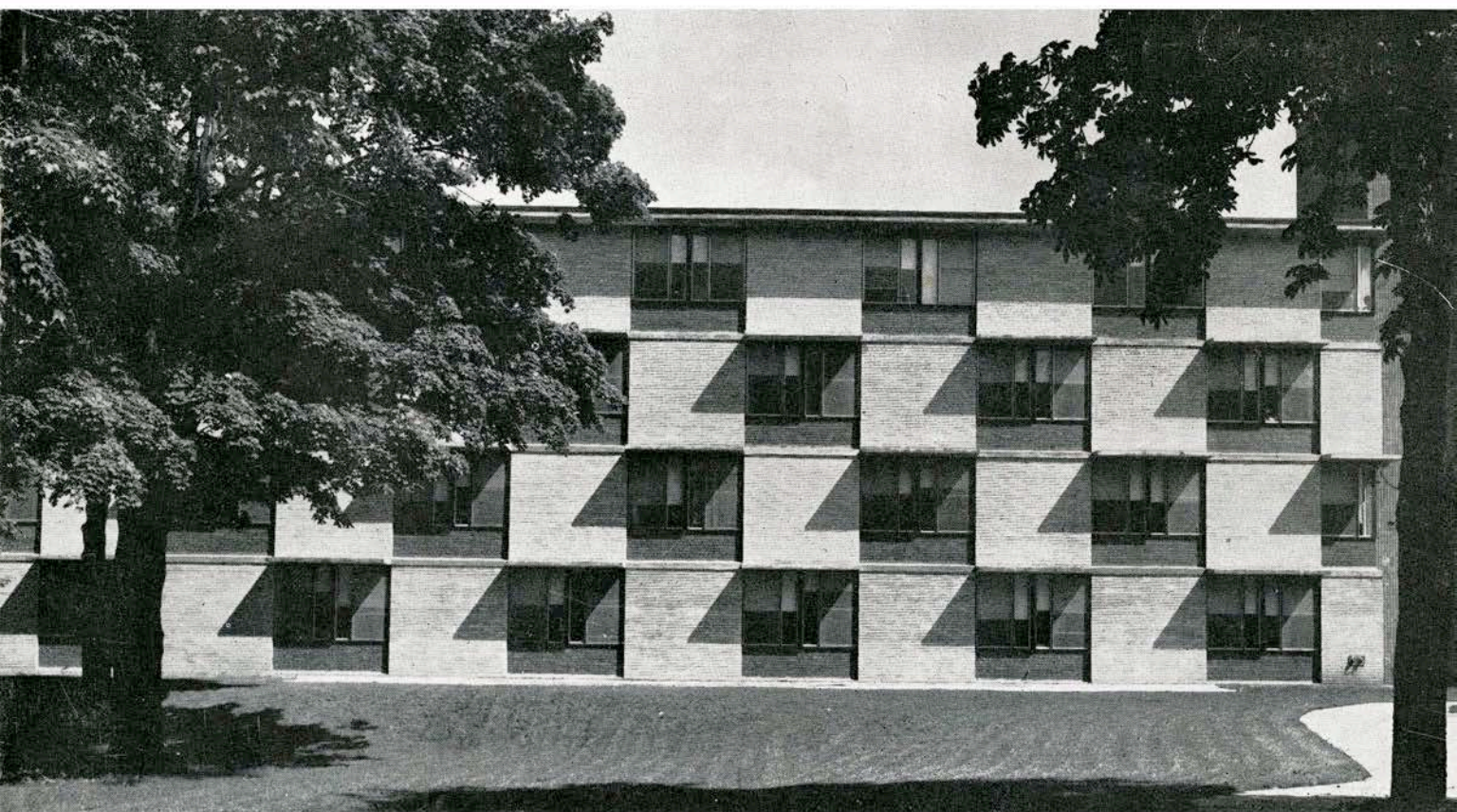


ROYAL
ARCHITECTURAL
INSTITUTE
OF CANADA
JOURNAL



MAY 1961

ROYAL ARCHITECTURAL INSTITUTE OF CANADA
INSTITUT ROYAL D'ARCHITECTURE DU CANADA

NEW **TRANE** HEATING AND COOLING COILS OUTDATE OTHER COILS

From the TRANE House of Weather Magic comes a completely new and proved line of heating and cooling coils! They're the most compact ever made . . . one row of coils now does the work of two! Result? Greater efficiency, greater saving in space, 40% less weight, decreased floor and ceiling loading.

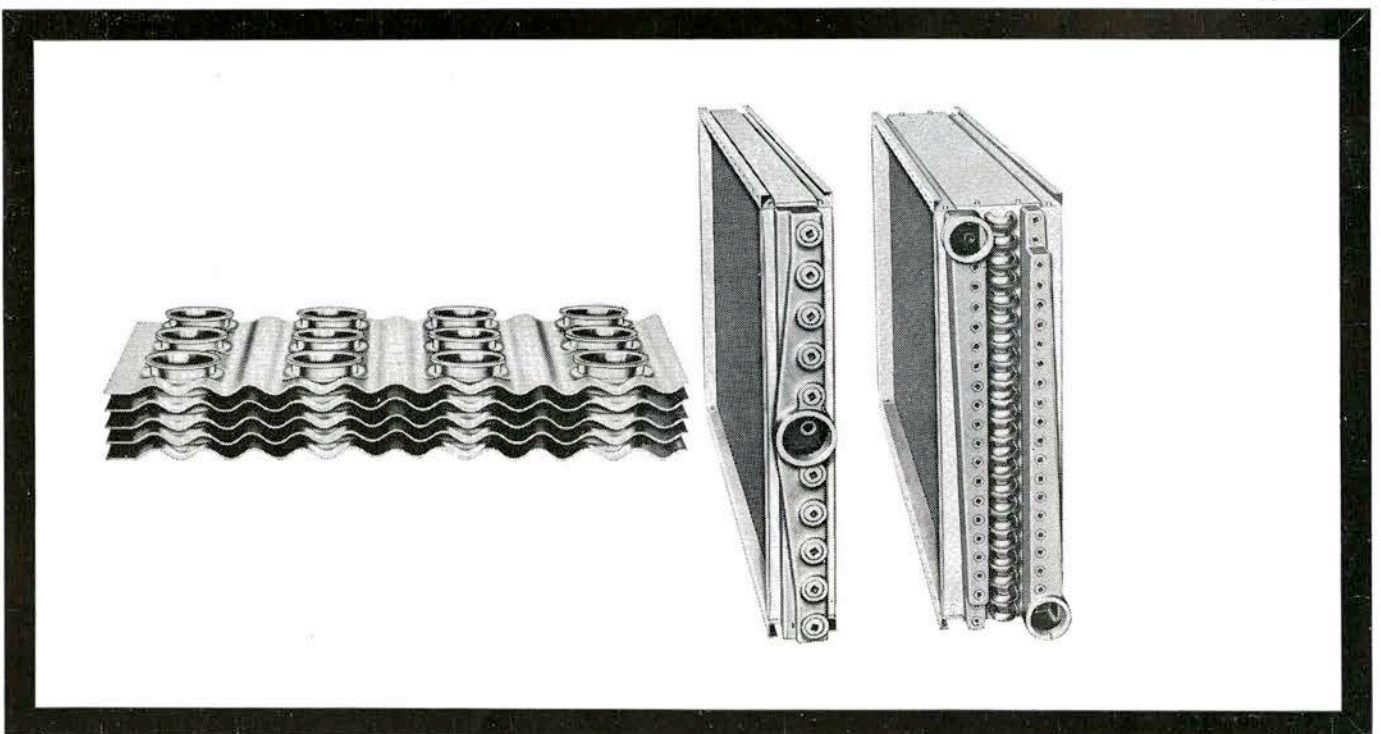
The new TRANE cooling coil line features an all-purpose coil, a completely drainable coil, a completely cleanable coil, and a direct expansion coil. TRANE'S new cooling coil gives pin-point accuracy of selection, over a wide range of conditions—based on theory and correlations developed by exhaustive TRANE research. Another revolutionary TRANE development: exclusive Sigma-Flo Fins. Their "S"-shaped design ensures the high performance of TRANE heating coils, by increasing turbulence and heat transfer.

Get the full details about this new TRANE line of heating and cooling coils. Just call your nearby TRANE representative.

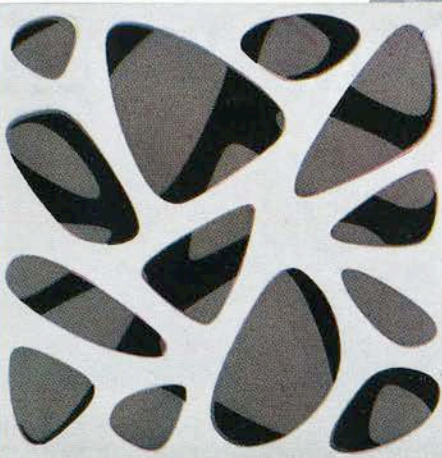
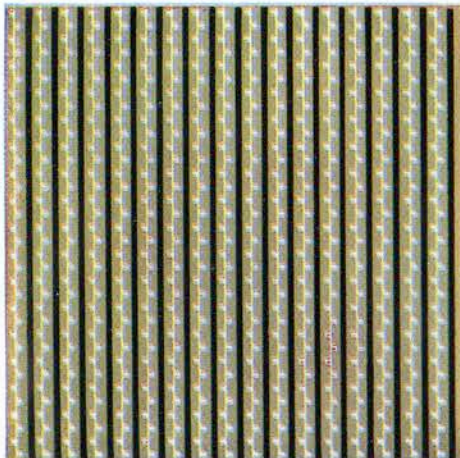
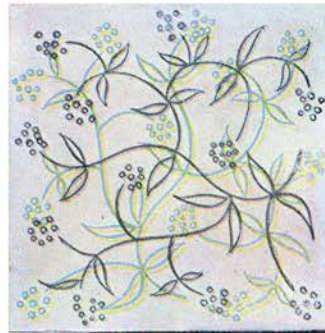
Manufacturers of air conditioning, heating and ventilating equipment.
TRANE COMPANY OF CANADA LIMITED, TORONTO 14

TRANE

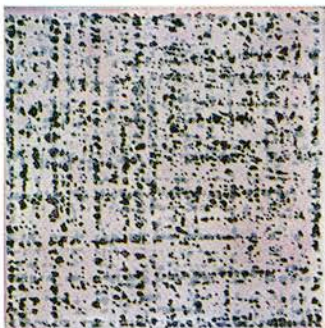
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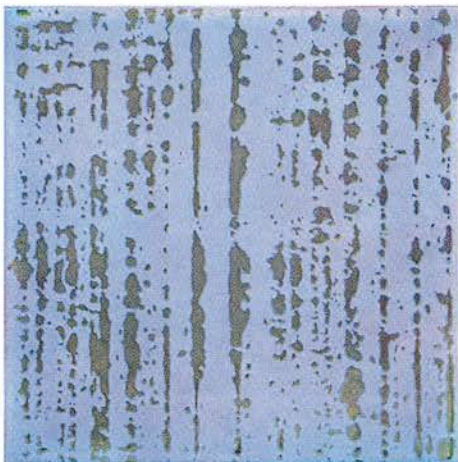
take
a look
at...



PILKINGTON'S TILES



The wide range of Pilkington's tiles, both plain coloured and decorative, will delight you at once with its practicability and with its creative possibilities. And the skilled staff of Pilkington's Design Department will give you every assistance you need.



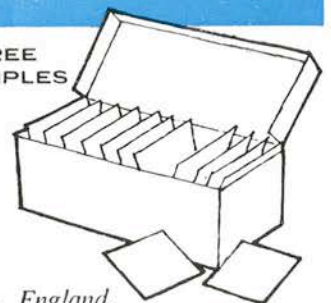
**FREE
SAMPLES**

A sample pack containing the full range of plain colours and a booklet showing the full range of screen prints will be posted to you by our nearest agent on request. Please indicate if pack or booklet, or both, are required.

AGENTS
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Alberta: Ronald F. Butler Ltd., 10532- 130 Street, Edmonton, Alberta
British Columbia:
Atlas Import Products Ltd., 1221, Glen Drive, Vancouver, B.C.

PILKINGTON'S TILES LIMITED

Clifton Junction, Manchester, England.



2505 ©

Have window coverings kept pace with architectural trends?

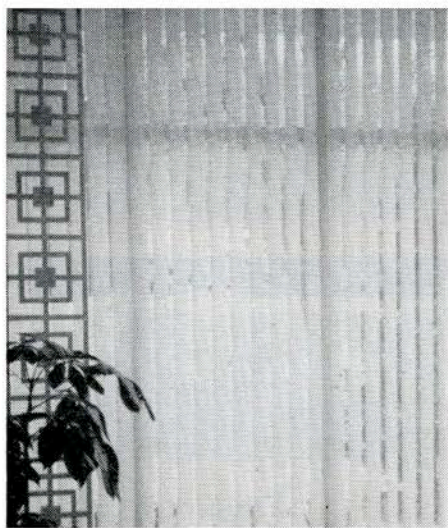
More glass. More daring, dramatic use of glass. This certainly is the trend in commercial building. The Flexalum people have matched new building trends with new window covering designs and innovations. Among them — “fixed-tilt” blinds adjusted to open only at pre-set angles in order to maintain uniform exterior appearance . . . fixed position blinds which open or close to specially

chosen heights . . . “between glass” blinds for special installations . . . elegant Stellair traversing screens . . . Sun Vertikal louvres . . . and others. Choosing a permanent, window covering that’s different, good-looking *and* practical presents no problem when you have the Flexalum story at your fingertips. Write for the Flexalum window covering reference library of literature . . .

Hunter Douglas Ltd., P.O. Box 90, Youville Station, Montreal, P.Q.

Makers of Flexalum window coverings, aluminum awnings and siding, and Klad Koil coated metals.

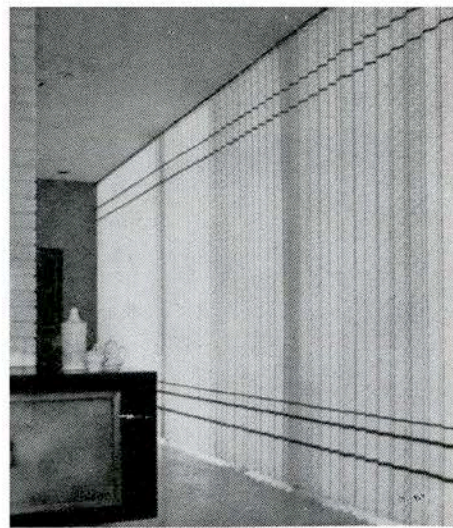
Flexalum



Sun Vertikals . . . window louvres of fabric or aluminum rotate to give the effect — and effectiveness — of a vertical design sun shield. Cool and crisp-looking inside; decisive, striking from the outside. Ideal for lobbies, street level openings.

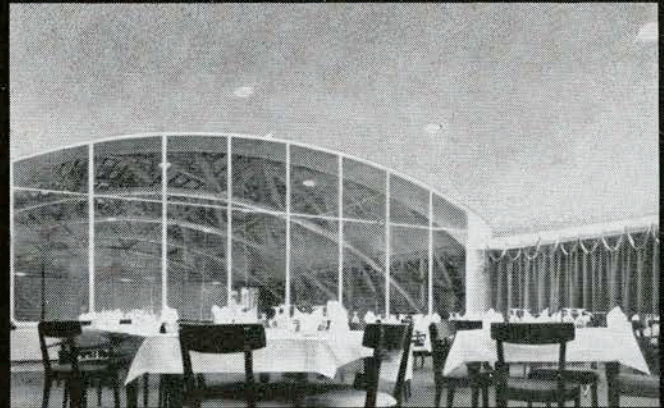
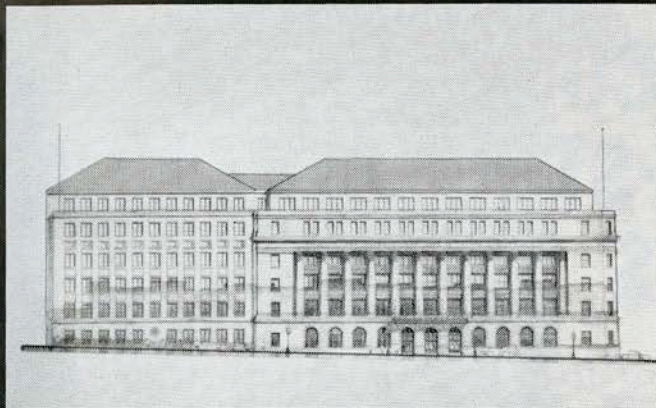


Flexalum verticals . . . louvre-like blinds to provide infinite range of light control, ventilation without drafts. Draw like drapes . . . to give classic vertical lines suited equally to contemporary and traditional architecture.



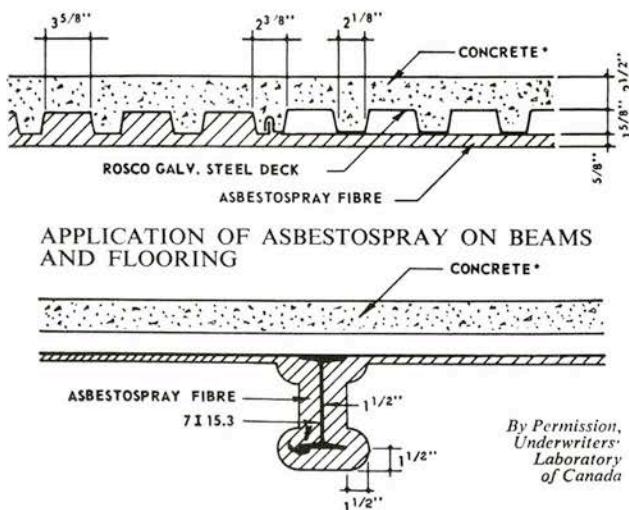
Flexalum Stellair . . . permanent window covering with a flair. Custom assembled of 3-inch translucent, fade-proof plastic modules. Admits light, air. Rejects glare. Most compact folding ratio available . . . one foot folds back into one inch!

FOR FIRE PROTECTION...
SOUND CORRECTION
ASBESTOSPRAY
SPRAY-ON FIBRE



Metropolitan Life's new Head Office in Ottawa uses Asbestospray for fire-proofing.
Architect: Marani Morris & Allan, Toronto.
General Contractor: Angus Robertson Ltd. Ottawa
Asbestospray by: David McFarlane & Assoc. Ltd. Toronto.

The dining room of a Toronto gentlemen's Club has an Asbestospray ceiling for acoustical correction.
Architect: Basil G. Ludlow, Toronto
General Contractor: W. B. Sullivan Construction Ltd. Toronto
Asbestospray by: David McFarlane & Assoc. Ltd. Toronto.



Here's the modern spray-on insulating material that's fire resistant and sound absorbing! Gives up to 4 hours of protection when exposed to fire . . . can be used to absorb sound over the entire frequency range. Asbestospray is applied directly to beams, floors and ceilings with one pass of the spray gun. No prime coat is needed!

THERMAL INSULATION
Asbestospray has a K-factor of 0.26.

CONDENSATION CONTROL
Prevents dripping in high humidity areas.

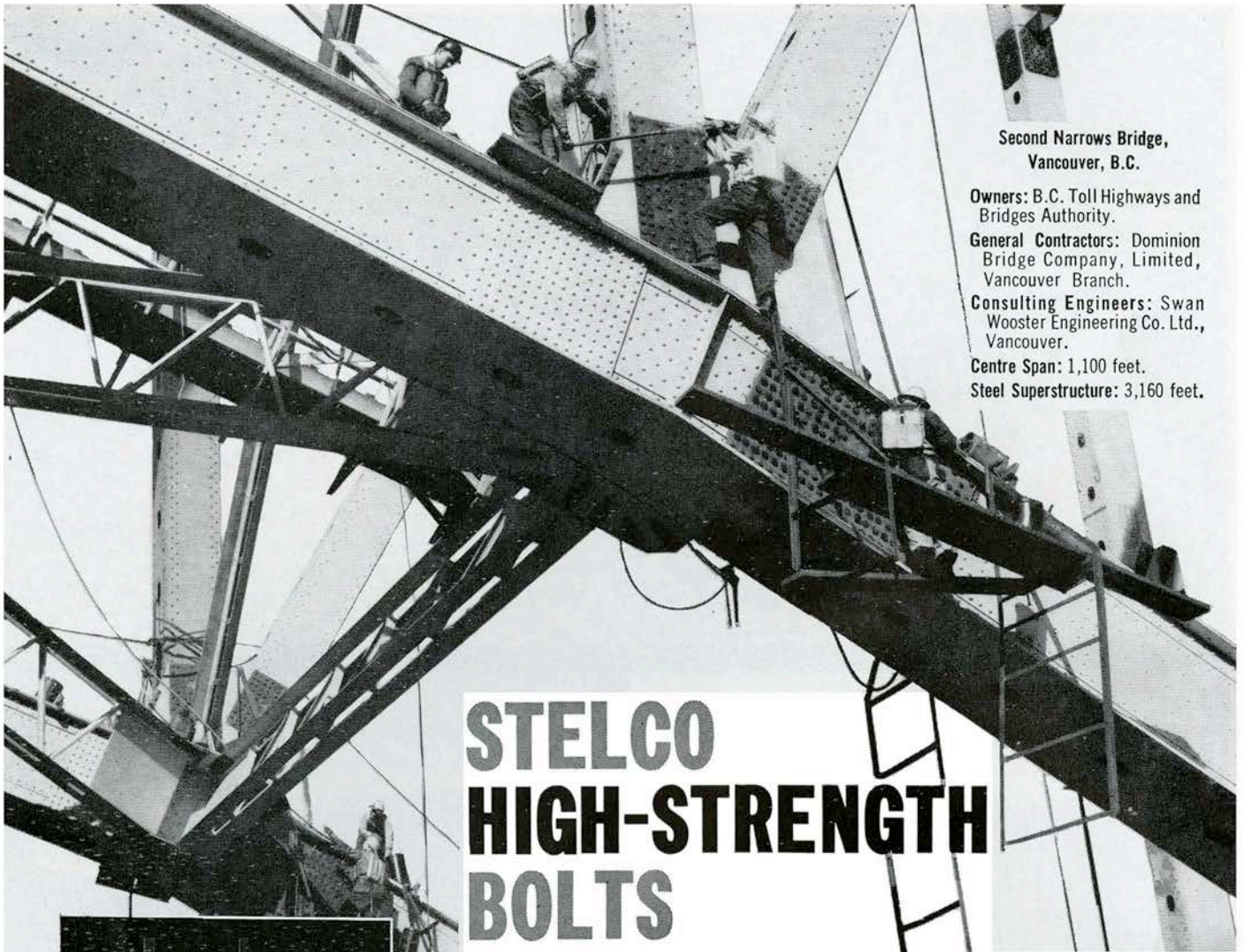
ONE PASS APPLICATION
Asbestospray can be built to any required thickness without mechanical support.

LIGHTWEIGHT
Less than one pound per board foot.

Canadian Made—Canadian Tested—For further information, contact:

 **BISHOP PRODUCTS LIMITED**
TORONTO, ONTARIO

 **SIDNEY ROOFING & PAPER CO. LTD.**
BURNABY 3, B.C.



**Second Narrows Bridge,
Vancouver, B.C.**

Owners: B.C. Toll Highways and
Bridges Authority.

General Contractors: Dominion
Bridge Company, Limited,
Vancouver Branch.

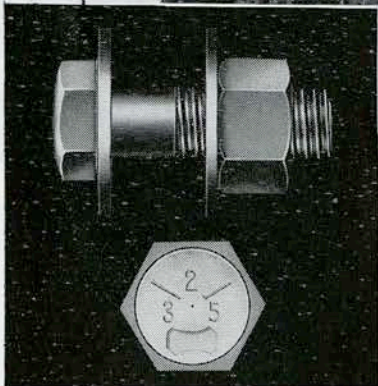
Consulting Engineers: Swan
Wooster Engineering Co. Ltd.,
Vancouver.

Centre Span: 1,100 feet.

Steel Superstructure: 3,160 feet.

STELCO HIGH-STRENGTH BOLTS

give strength to big B.C. bridge



All STELCO High-Strength Bolts are identified as shown, and conform to ASTM Specification A-325. A certificate of guarantee is given with each shipment.

For strength, speed, and future ease of maintenance, engineers chose Stelco High-Strength Bolts for the field connections on the Second Narrows Bridge, over Burrard Inlet, B.C. Nearly 316,000 Stelco bolts put the vital strength and staying power into the 16,600 tons of steel which make this the second longest cantilever bridge in Canada, and probably Canada's biggest bolted structure to date.

Two men, easily trained, can set three High-Strength Bolts as fast as a four-man crew can set two rivets. Bolting is stronger than riveting, requires less equipment, removes heat hazards, and cuts inspection needs by 90 per cent. Subsequent maintenance is an easier, two-man, two-wrench operation.

Stelco High-Strength Bolts are superior in all respects to rivets, and offer savings in time, labour, inspection and maintenance. Detailed information is available on request from any Stelco Sales Office.



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Hamilton, London, Windsor, Sudbury, Winnipeg, Edmonton, Calgary, Vancouver.

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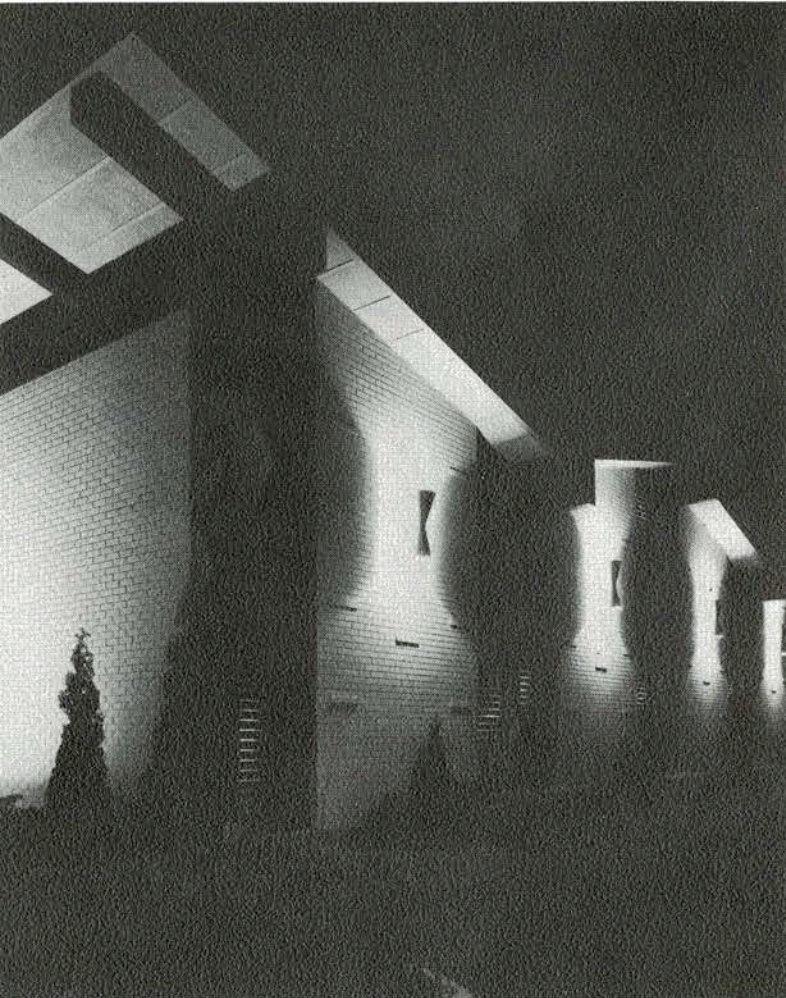
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Northern Electric

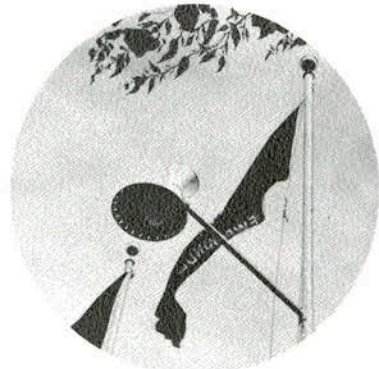
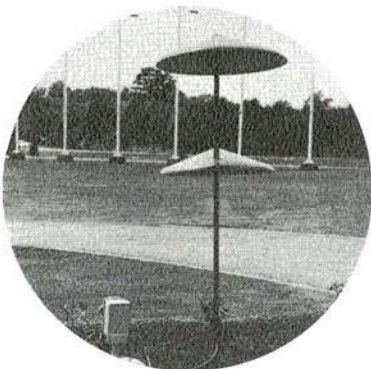
for a complete lighting service!

EXHIBIT BUILDING, The Thousand Islands, Ontario.

Architect H. H. ROBERTS, M.R.A.I.C., Westport, Ontario.
General Contractor TOWER COMPANY LIMITED, Montreal, Quebec.
Electrical Contractor G. COLIGAN, Prescott, Ontario.



The Exhibit Building at the new Hill Island Development at the Thousand Islands, Ontario is part of a 350-acre resort area which is presently being developed by International Resort Facilities Limited. As part of the initial development, the Exhibit Building and its lighting indicate the modern concept that will be applied throughout the area. An interesting variety of lighting equipment is used to illuminate this building and surrounding area, with each unit selected to provide the *right* light at the *right* place and to complement each other. All of the lighting equipment, including lamps, was supplied through the Northern Electric lighting service. The products of many leading illumination manufacturers are conveniently available from Northern Electric and our lighting specialists will gladly assist you in the planning of efficient indoor and outdoor lighting systems.



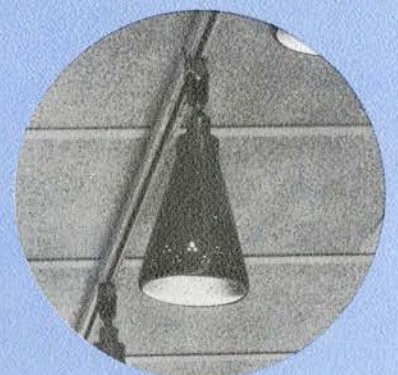
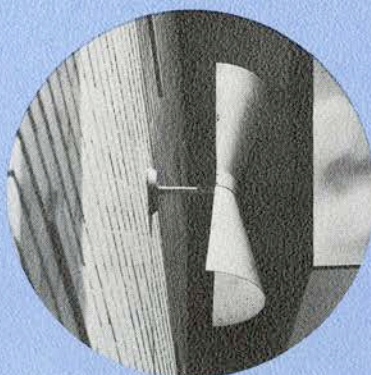
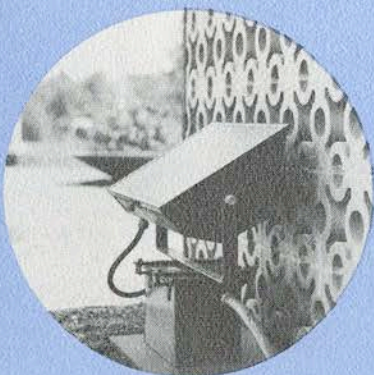
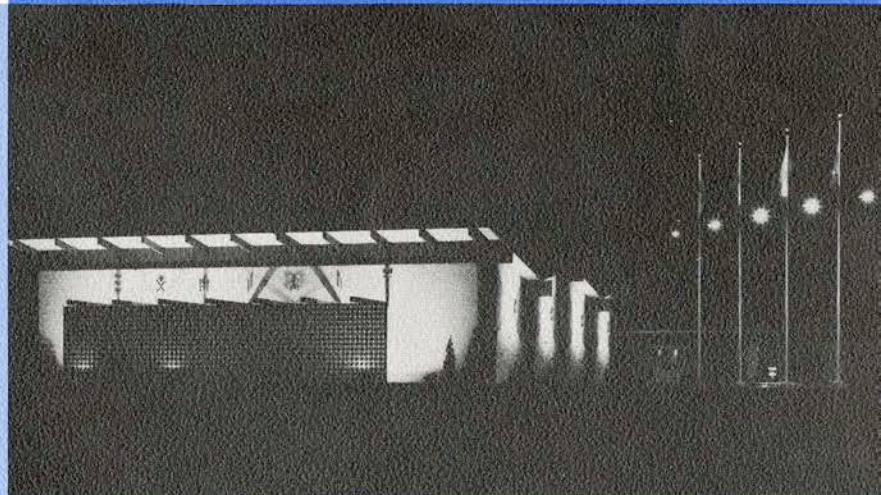


The interior of the building is complemented by colourful "super hi-lite" units suspended from the ceiling. In another section, a modern, flexible lighting system is provided through the use of lighting duct and cone-shaped fixtures containing reflector spotlights.



The exterior of the building is strikingly illuminated with sodium floodlights and large twin cone fixtures. Twin cone fixtures mounted on aluminium flagpoles illuminate the flags and the immediate approach to the building.

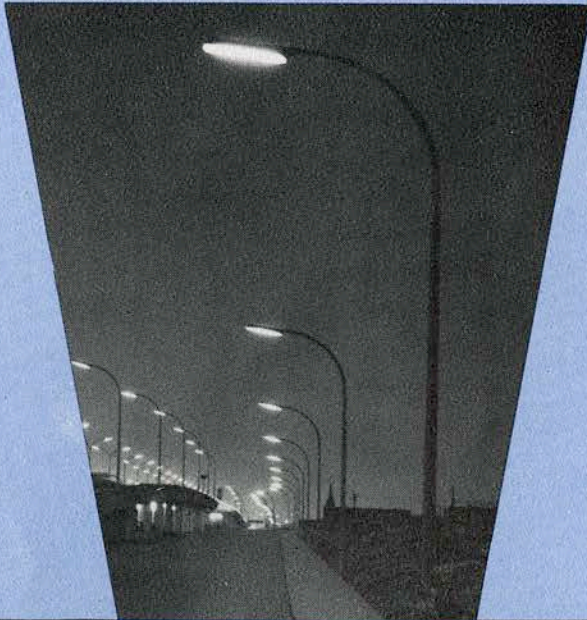
Decorative luminaires and standards are used to illuminate walkways and landscaped areas.





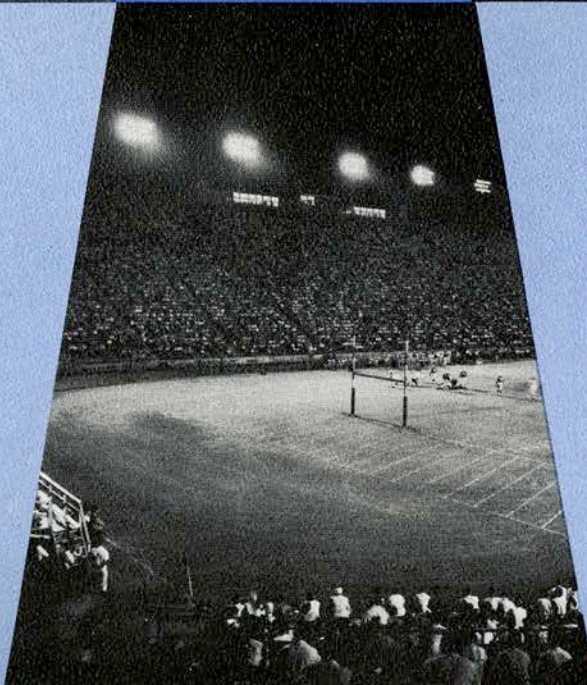
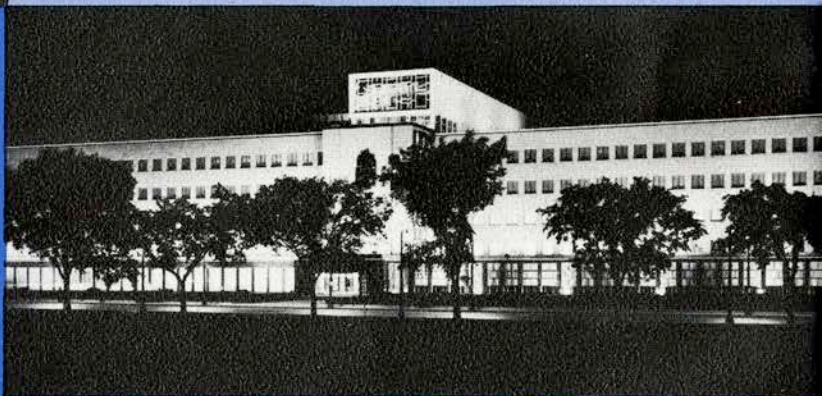
ONE

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MANY SOURCES OF LIGHT**



Northern Electric can supply quality equipment to meet all lighting objectives, whether your need is for the illumination of commercial or industrial buildings, shopping centres, streets and sidewalks, park areas or sports stadiums.

A single call to your nearest Northern Electric office will give you immediate access to information on the technical aspects and availability of the products of most of the leading illumination manufacturers.



Use the **NORTHERN ELECTRIC
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— our lighting specialists will be pleased to assist in the planning of any interior or exterior lighting layout.

Northern Electric

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**FOR
BETTER**

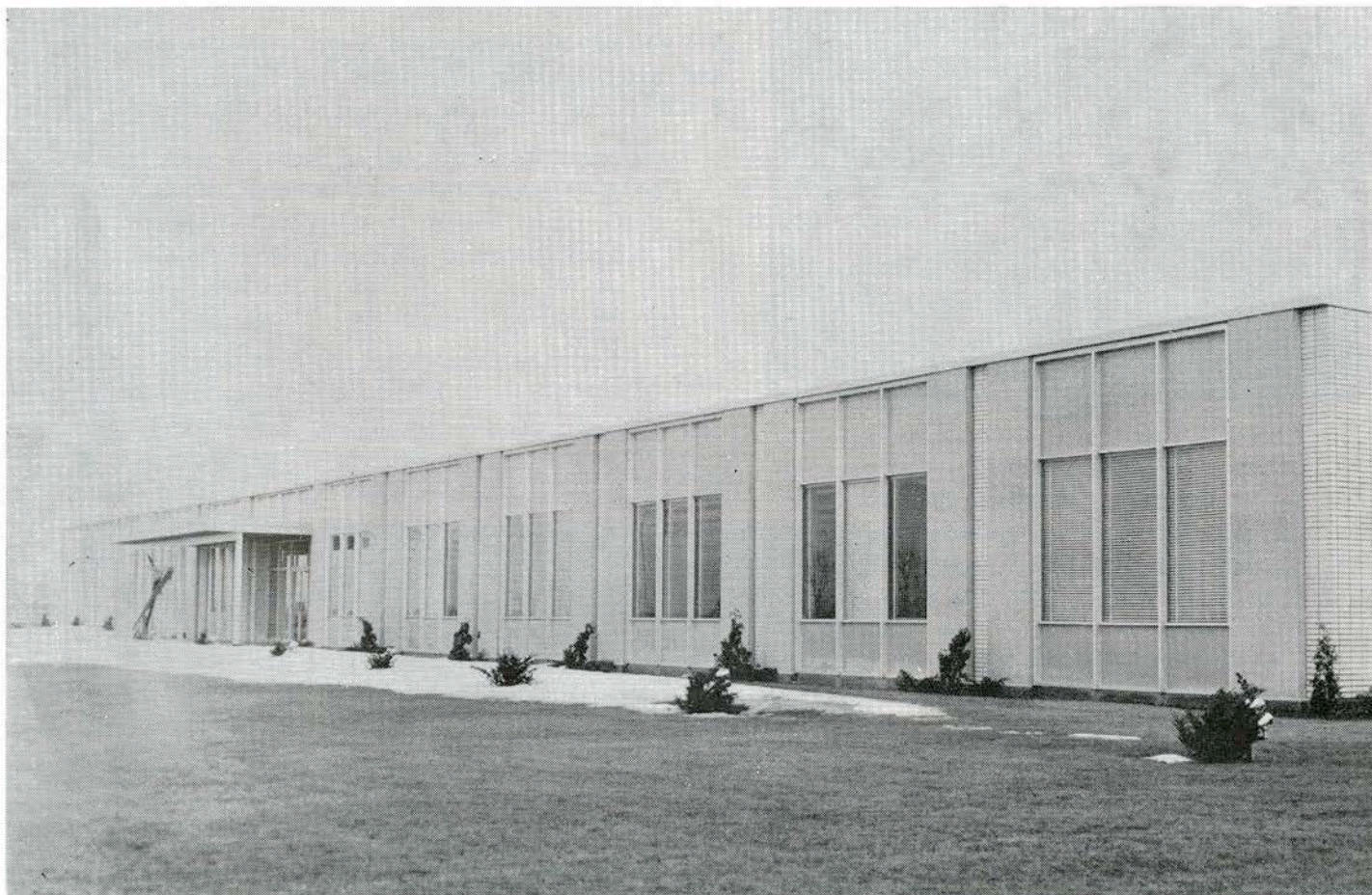
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installations*

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Architect:
Paul H. Lapointe

Consulting Engineer:
R. P. Steketee

**METRO INDUSTRIES
LIMITED**
MONTREAL — QUEBEC — OTTAWA

speaking of 2-ball-bearing hinges ...

**ONLY A HAGER
HAS
THE EXCLUSIVE**

"Life-Time Bearing"

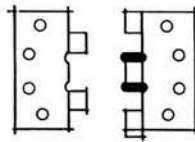
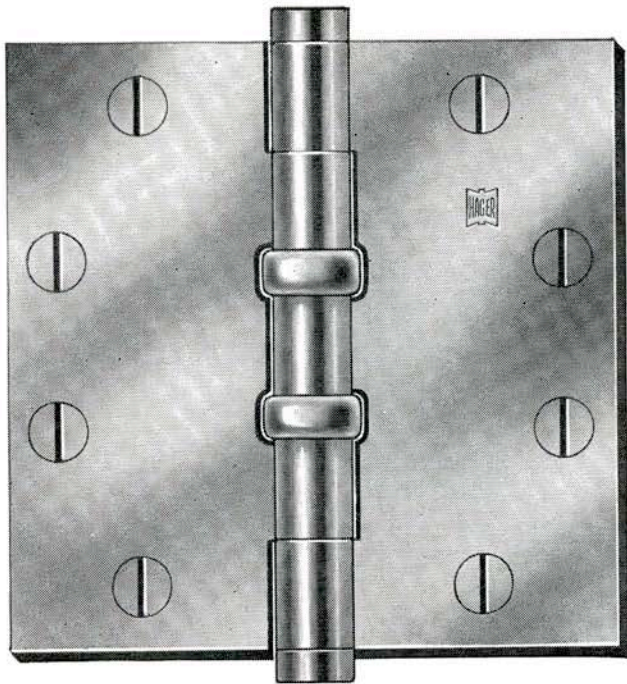
**PERMANENTLY ANCHORED IN THE KNUCKLE
WITH CASE HARDENED STEEL—NOT BRASS**

In the wear-away zone (zone of bearing anchorage) soft brass rubs steel in other leading hinges and they sometimes fail. Not so with Hager!

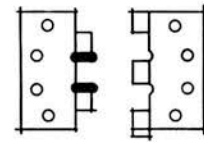
Hager's advanced, two-knuckle-bored construction puts steel against case hardened steel in this failure zone. The result is flawless ball bearing performance—life-time performance.

Yet you pay no premium for Hager's superior design and material. Compare and discover: Hager 2-ball-bearing hinges are unequalled in the industry!

These same life-time features are also a part of the Hager 4-ball-bearing hinges.



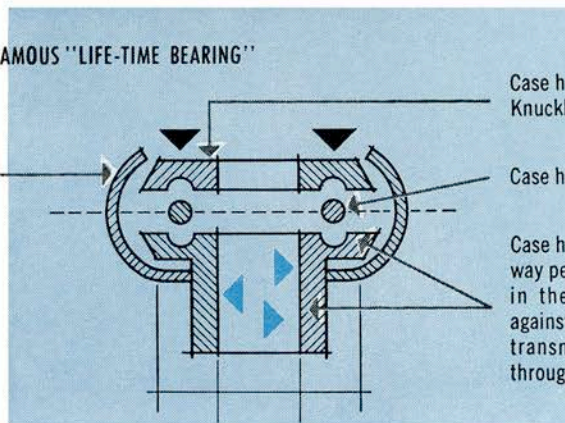
NOT THIS ...
not one-knuckle-bored with wear-away brass to anchor the bearings. (Bearings finally fall out when pin is removed)



BUT THIS ...
two-knuckle-bored construction with bearings anchored with case hardened steel.

EXPLODED CLOSE-UP OF HAGER'S FAMOUS "LIFE-TIME BEARING"

Brass outer shell permanently fixed. Protects raceways and balls from dirt. Contains lubricant in bearing.



Case hardened steel top raceway. Knuckle rides on this.

Case hardened carbon steel balls.

Case hardened steel bottom raceway permanently fixed. Puts steel in the zone of lateral thrust against pin. Carries vertical thrust transmitted from top raceway through balls.



EVERYTHING HINGES ON *Hager!*®

▼ VERTICAL THRUST
▲ LATERAL THRUST

(Both stainless steel raceways and balls are available on stainless steel ball-bearing hinges.)

• C. HAGER & SONS HINGE MFG. CO., ST. LOUIS 4, MO., U.S.A.
HAGER HINGE CANADA LIMITED, 61 LAUREL ST., EAST,
WATERLOO, ONTARIO

Armstrong Resilient Floors for Schools

A SPECIFIC TYPE OF FLOORING FOR EVERY REQUIREMENT

Rather than specify one type of resilient floor for an entire school building, it is often better to choose several different resilient floors to meet the varied surface requirements and wearing conditions found within the building. An inexpensive floor such as asphalt tile will give excellent service in most areas, but other products may offer greater satisfaction in areas subjected to unusual conditions. Conversely, a high quality floor, such as homogeneous vinyl tile, will give superior service in all areas, but may not be in keeping with budget limitations if used throughout the school.

The following notes are prepared by Armstrong, the one company that makes all types of resilient floors, to illustrate how different resilient floors can be used to best advantage in today's modern schools.

1. Libraries, music rooms, study rooms

Naturally, these rooms will be more pleasant and conducive to work if they have a quiet floor. Cork tile is excellent in this respect. Rubber tile and Classic Corlon tile are also extremely quiet and require a minimum of upkeep. Sheet Vinyl Corlon and linoleum also do an excellent job of reducing noise.

2. Locker rooms

Sheet Vinyl Corlon with Hydrocord Back is recommended for locker room floors which are usually subject to splashed and tracked-in water. Because they can be installed with a minimum number of seams and with edges flashed up the walls, sheet vinyl floors present a virtually watertight surface that can be easily and quickly mopped dry and clean.

3. Heavy wear areas

Some floors in school buildings, such as those in entryways and corridors, receive more concentrated wear than other floors in the building. When this is the case, vinyl-asbestos tile, linoleum, vinyl sheet flooring, and Linotile should be specified. Naturally, the heavier thicknesses should always be used when wear is of primary concern.

4. Chemistry labs

Chemicals that can severely damage most types

of resilient floors will inevitably be spilled in school chemistry labs. However, Armstrong Classic Corlon tile has proved to be particularly resistant to acids, solvents, and other chemicals, and is the Armstrong floor ideally suited to chemistry labs.

5. Areas continually exposed to sunlight

Prolonged exposure to intense sunlight may occasionally cause shrinkage or fading. The inherent stability of sheet floors, plus their 6' width, minimizes the possibility or noticeability of shrinkage.

Resilient floors fade no more than any other materials under prolonged exposure to the actinic rays of sunlight. But it should be remembered that neutral colours (grays and tans) show the best light resistance, while pastel tones give the poorest colour-retention performance.

6. Cafeterias

Grease and alkali resistance and easy cleaning are prime considerations when choosing floors for school cafeterias. To meet all these requirements, vinyl sheet material and vinyl-asbestos tile are preferred choices.

7. Classroom lighting conditions

A number of different systems have been devised for assuring the best possible lighting conditions in school classrooms. Floors usually have to be chosen in accordance with these requirements. The working surface (book, desk, etc.) is usually the reference point. In one system, for instance, this point has been assigned a reflectivity value of 70%. For ideal reading conditions, floors should have reflectivity values not greater than that of the reference point and not less than one-third of this value. Except for cork tile and Custom Vinyl Cork tile, all Armstrong floors are available in a wide range of colours that meet these requirements.

Assistance to architects

Your Armstrong representative will be glad to help you choose the best floors for any project. Call him at your Armstrong District Office. Or write to: Armstrong Cork Canada Limited, Dept. A, P.O. Box 919, Montreal, P.Q.

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planned lighting with eye comfort



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Development of the
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● EFFICIENCY

Fewer fixtures are needed per foot-candle. Sabre's high, 74½% efficiency makes today's desirable, higher lighting levels practical for many more stores, offices, schools, and public buildings.

● COMFORT

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District Offices: Montreal, Saint John, Winnipeg, Vancouver

Affiliate: Vancouver Lighting Co. Ltd., 8650 Barnard St., Vancouver, B.C.



**INTERIOR
WALLS
of Distinctive
Beauty
with CONCRETE
MASONRY**



Coloured Haydite concrete masonry units were used as an interior wall finish for the new St. Pius X High School, Montreal.

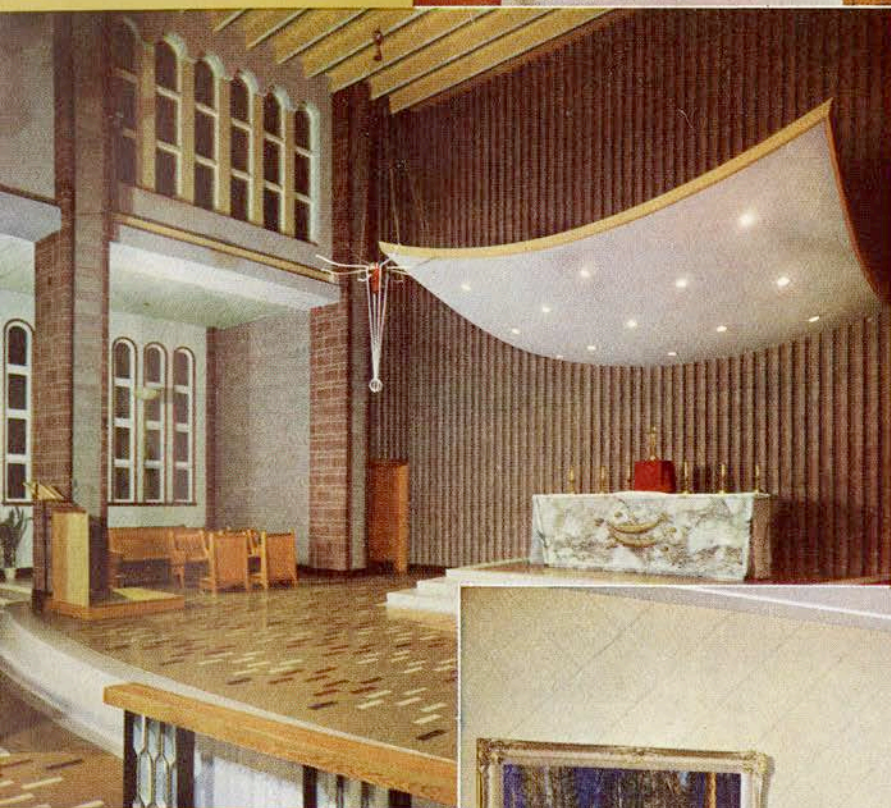
Architect: GÉRARD NOTEBAERT. General Contractor: FERNAND J. LABROSSE INC. Manufacturer of Concrete Masonry Units: PRESSURE PIPE CO. LTD.

Dignity and beauty so important in churches has been achieved effectively and economically with concrete masonry for interior walls in the St. Paul's Church, Beauharnois, Que.

Architect: PIERRE DIONNE. General Contractor: PERCIVAL HÉBERT. Concrete Haydite Blocks made by: PRESSURE PIPE CO. LTD.

The diagonal stacking concrete masonry pattern adds distinction to this living room of a modern home at Elmira, Ontario. The decorative wall built of split concrete blocks is another attractive feature.

Masonry Contractor: HENRI WIMENHOVE. Manufacturer of Concrete Masonry Units: COOPER CONCRETE BLOCK CO. LTD.



Auditorium at St. Mary's Hospital, Montreal featuring attractive coloured concrete masonry walls.

Architect: EDWARD J. TURCOTTE
General Contractor: PIGOTT CONSTRUCTION CO. LTD.
Concrete Haydite Blocks made by: PRESSURE PIPE CO. LTD.

Concrete masonry has won a unique place in modern building construction. In terms of wall volume, it is used for more than two-thirds of all masonry walls built.

Concrete masonry has long been recognized as an excellent structural material. Now, architects and craftsmen, having become better acquainted with it, have a fuller appreciation of its wide architectural possibilities as a finish material for both exterior and interior walls. The characteristics demanded in modern-day structures—beauty, fire-safety, durability, economy, comfort and good acoustics—are obtained with concrete masonry.

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Canada Cement Building,
Phillips Square, Montreal, P.Q.

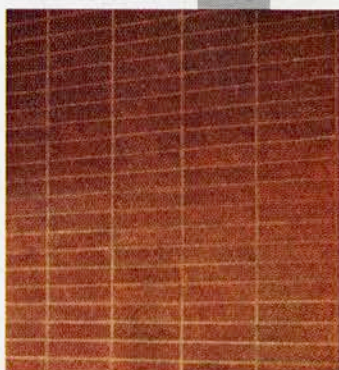
To receive these five free brochures, please clip this coupon to your letterhead and mail it to Canada Cement Company.

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- Concrete Masonry Handbook for Architects, Engineers and Builders
- Recommended Practices for Laying Concrete Block
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- Concrete Masonry Homes for Better Living





NEW
BEAUTY
NEW
DESIGNS
IN
CONCRETE
MASONRY



Modern home at Elmira, Ontario, featuring attractive concrete split block masonry wall.

Masonry Contractor: HENRY WIMENHOVE, DRAYTON, ONTARIO. Concrete
Masonry Units Manufacturer: COOPER CONCRETE BLOCK CO. LTD., TORONTO, ONT.

FUNCTIONAL AND DECORATIVE EXTERIOR WALLS OF CONCRETE MASONRY

In many of the finest churches being built today, exposed concrete masonry is used for both exterior and interior walls. A fine example of this type of construction is the new St. Vital's Roman Catholic Church at Fort Garry, a suburb of Winnipeg, Manitoba.

Architect: ROY SELLORS



Modern building housing Radio Station CHEC of the Southern Alberta Broadcasting Limited, Lethbridge, Alta. showing distinctive effects that can be created through the imaginative use of concrete masonry.

Architect: MEECH, MITCHELL, ROBBINS AND ASSOC. General Contractor: ART BATTY CONSTRUCTION LIMITED. Concrete Masonry Units made by: SUPERIOR MASONRY PRODUCTS LTD., LETHBRIDGE, ALTA.



MADE
WITH
CANADA CEMENT

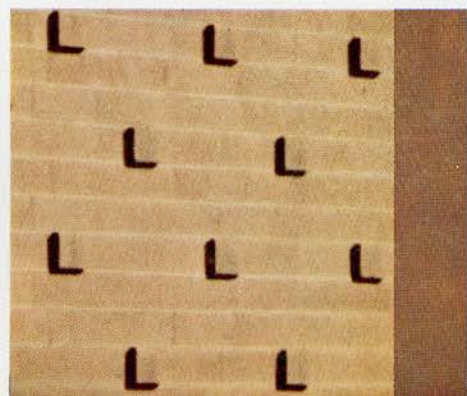


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Dream Come True ...



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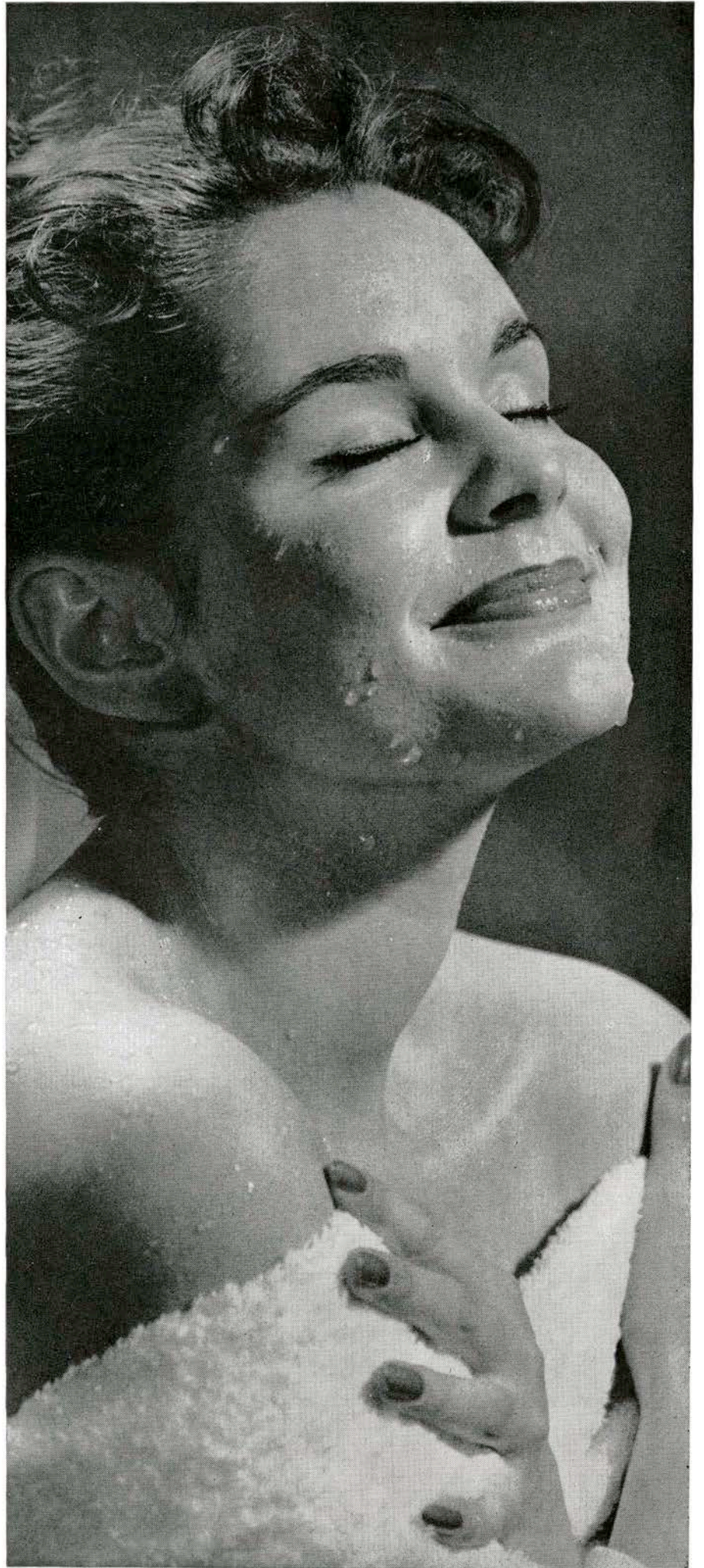
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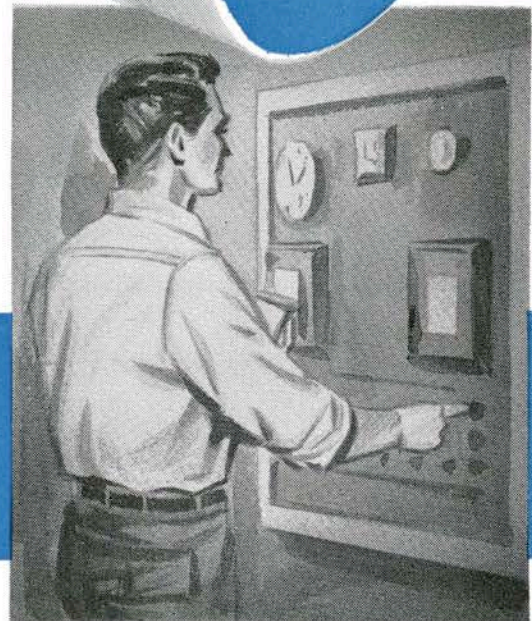
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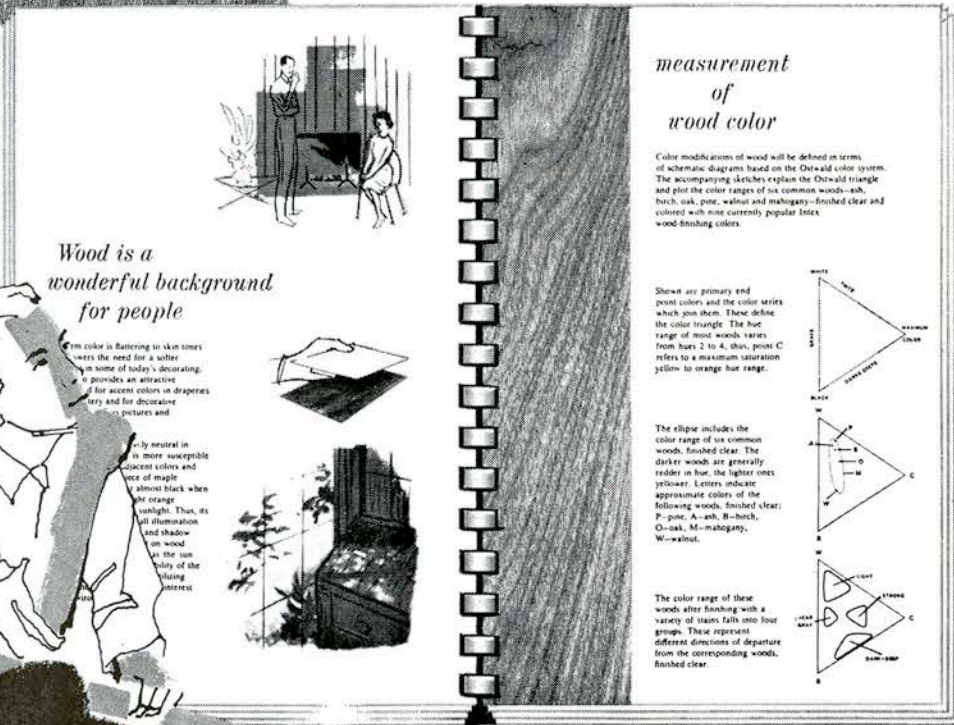
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Wood Color

*in relation to illumination
and color environment*



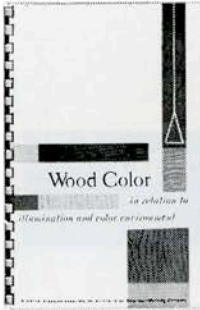
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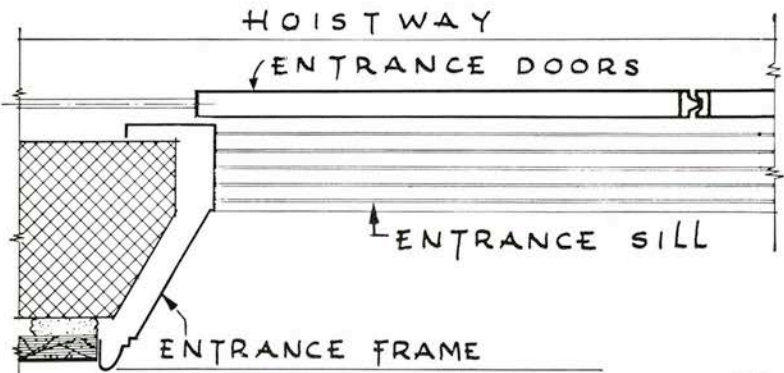
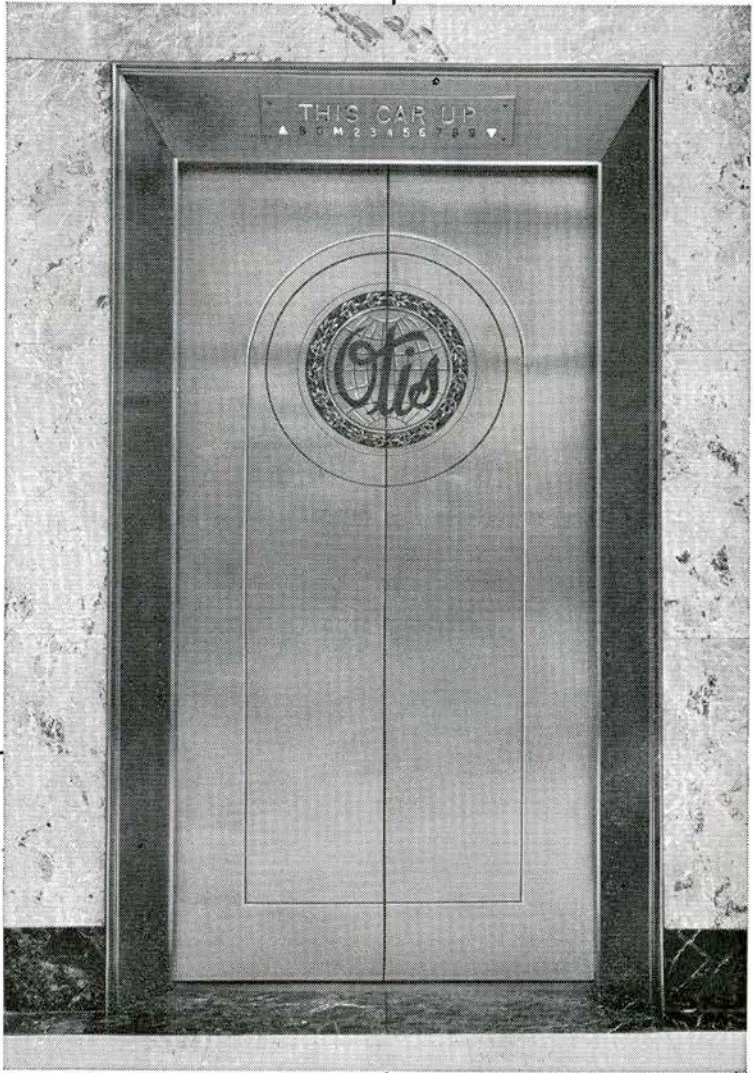
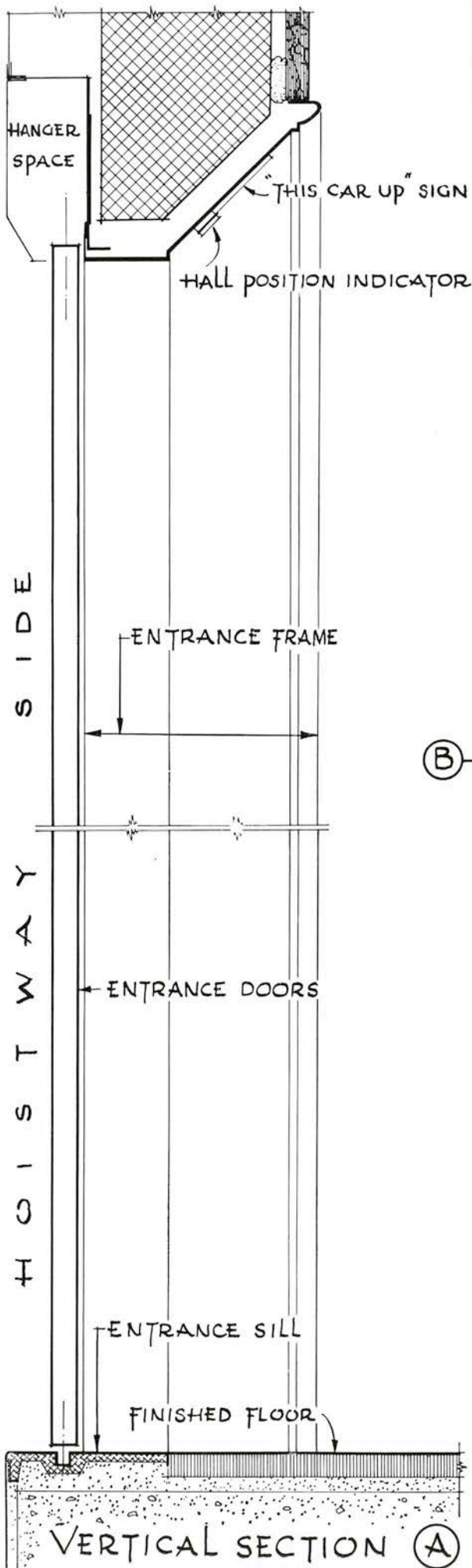
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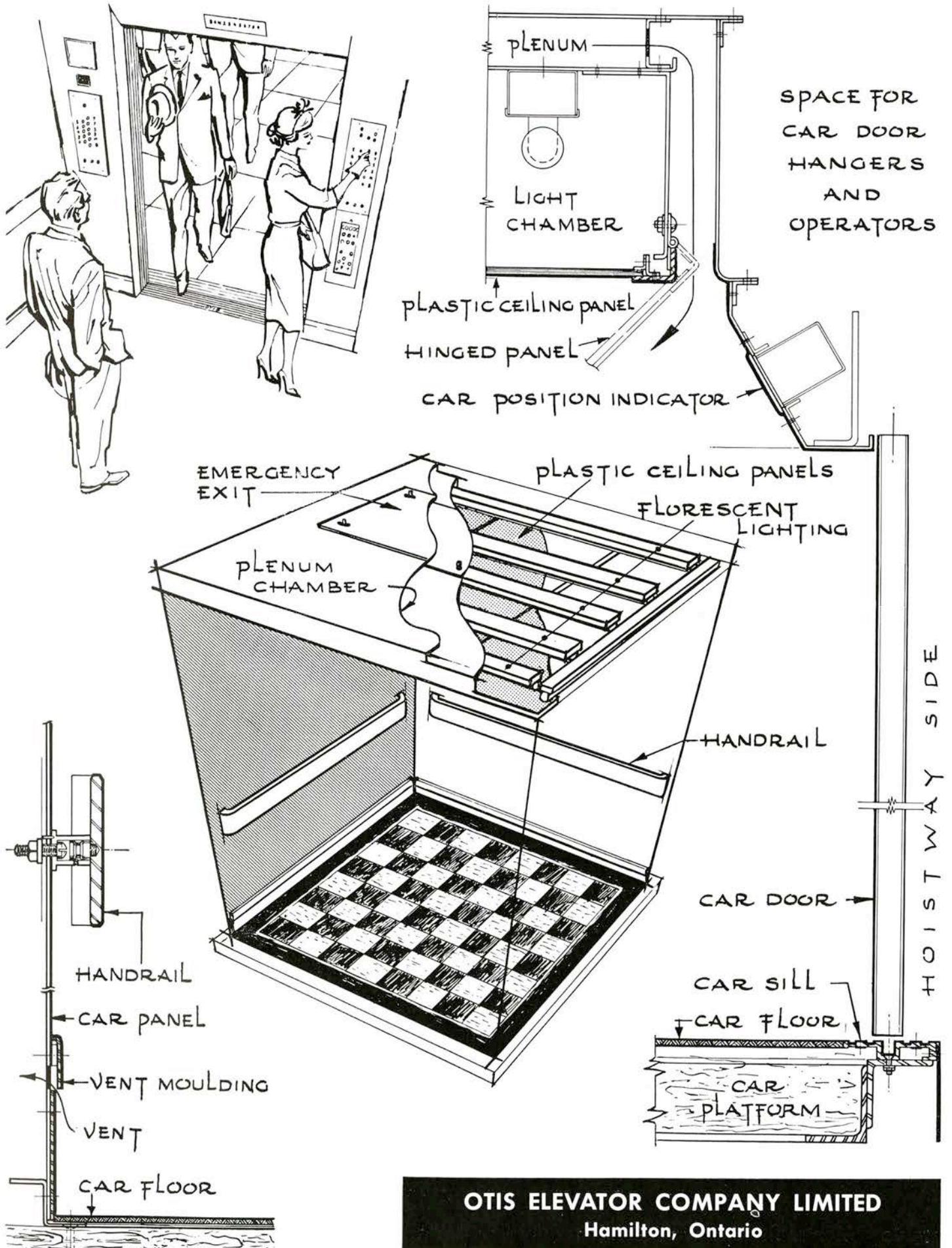
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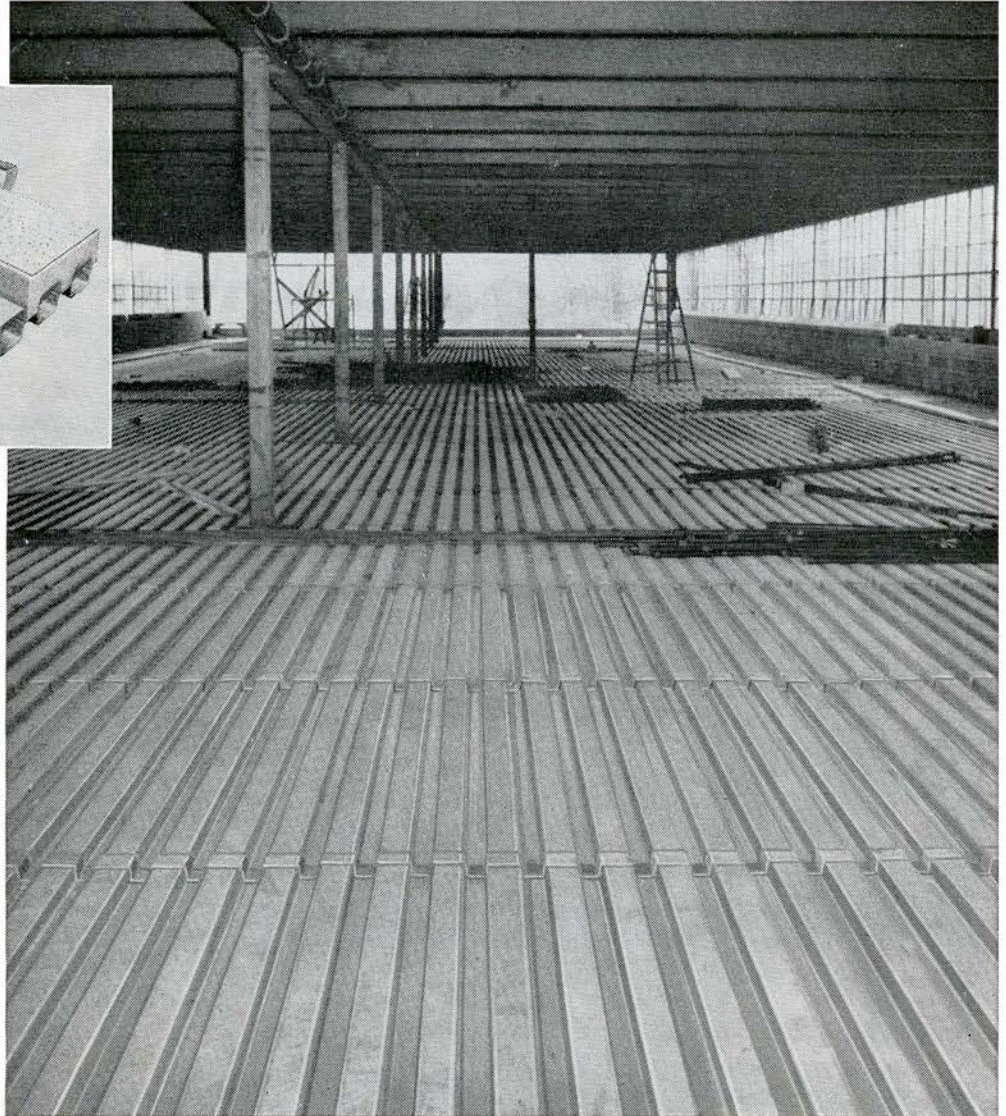
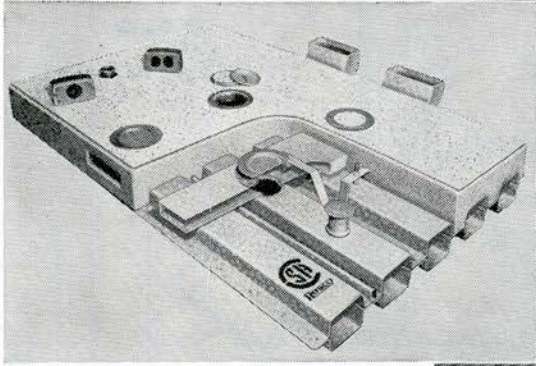
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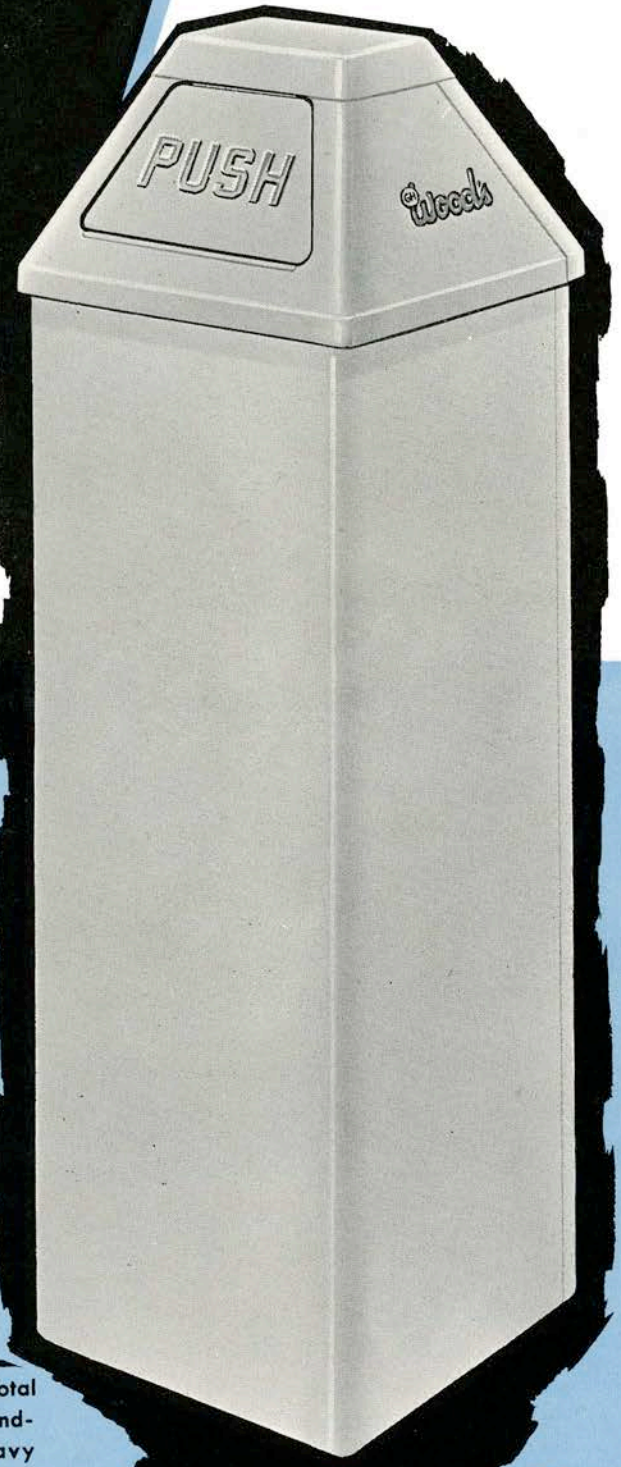
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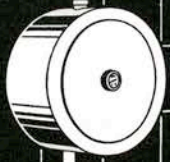
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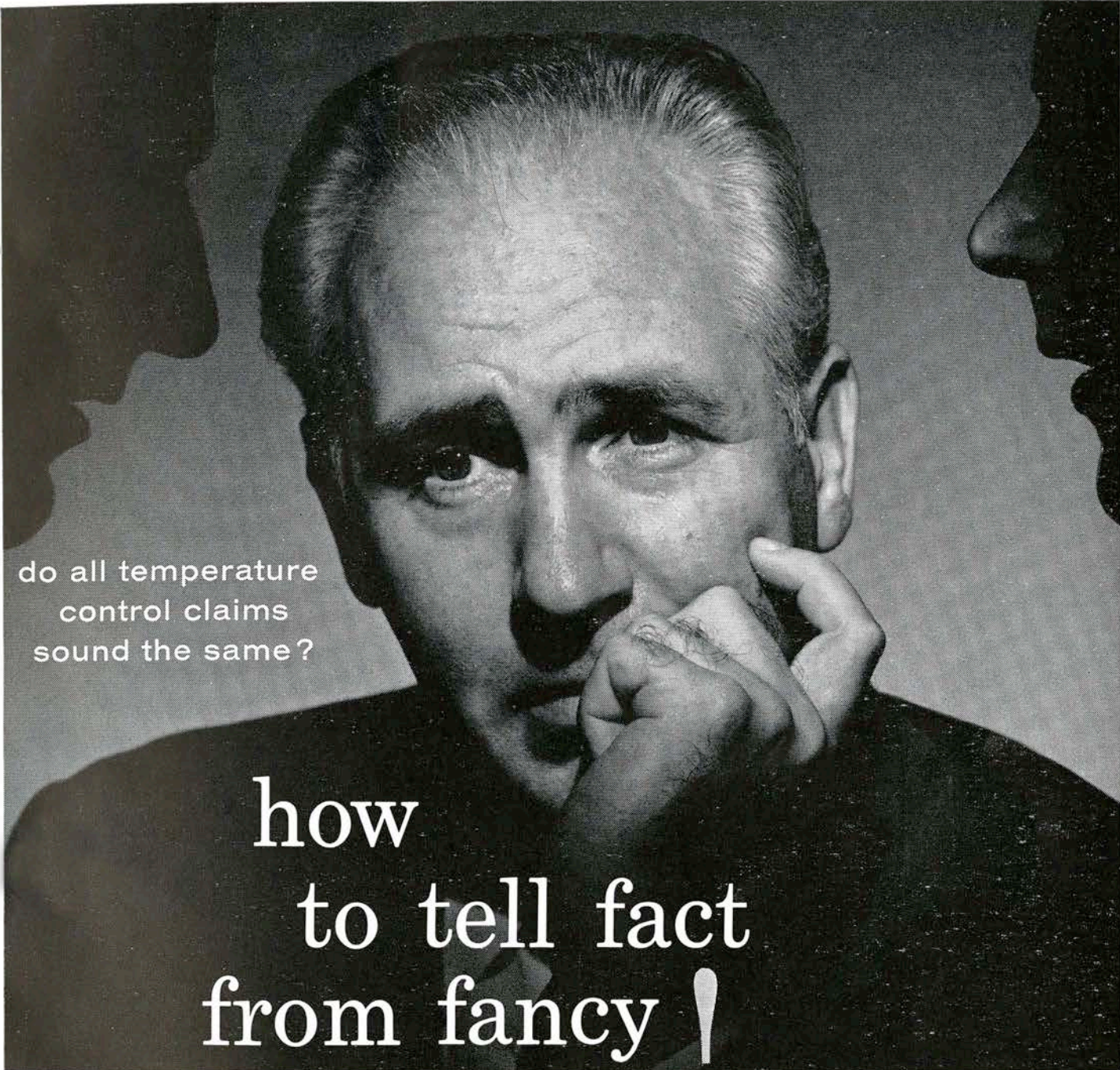
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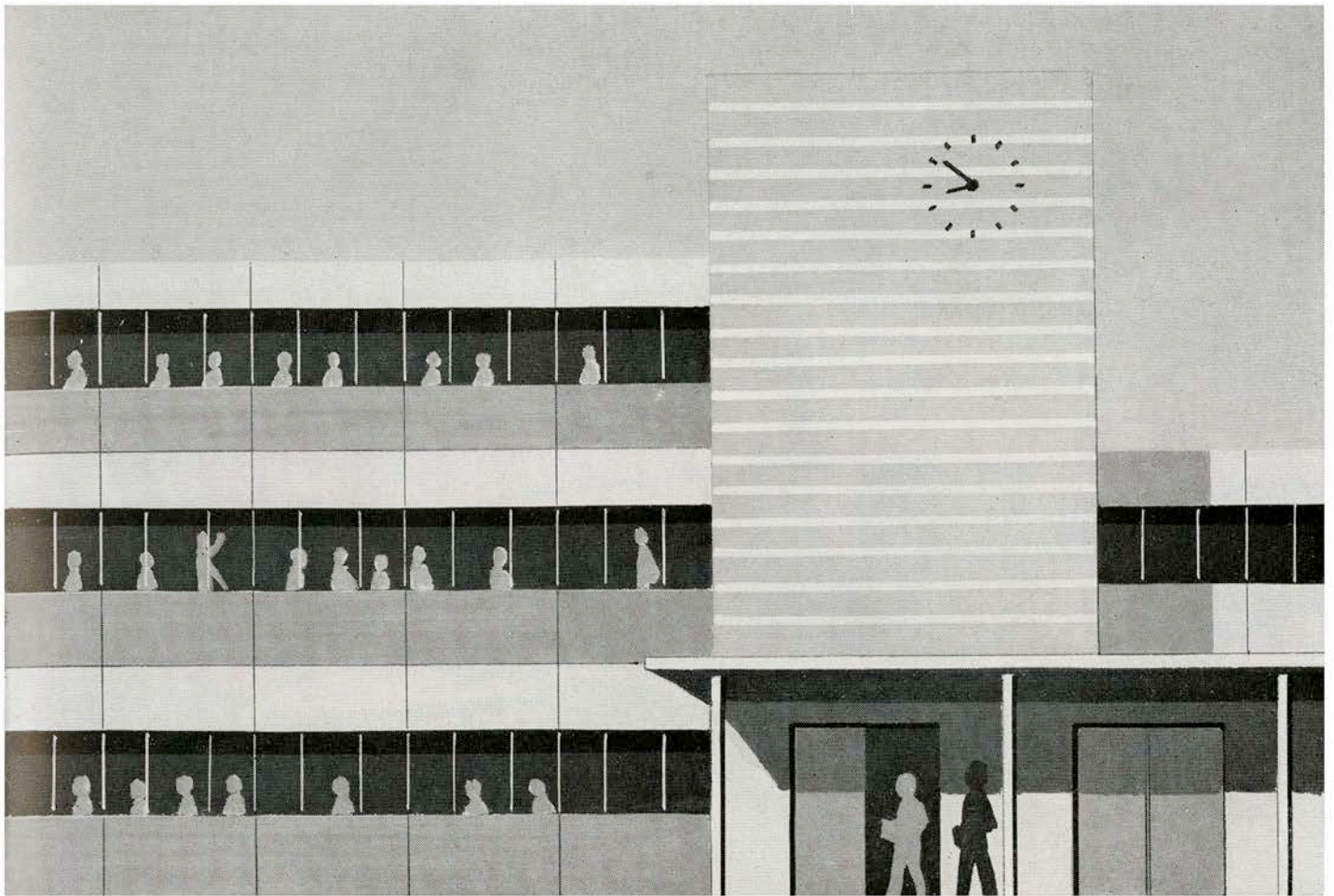
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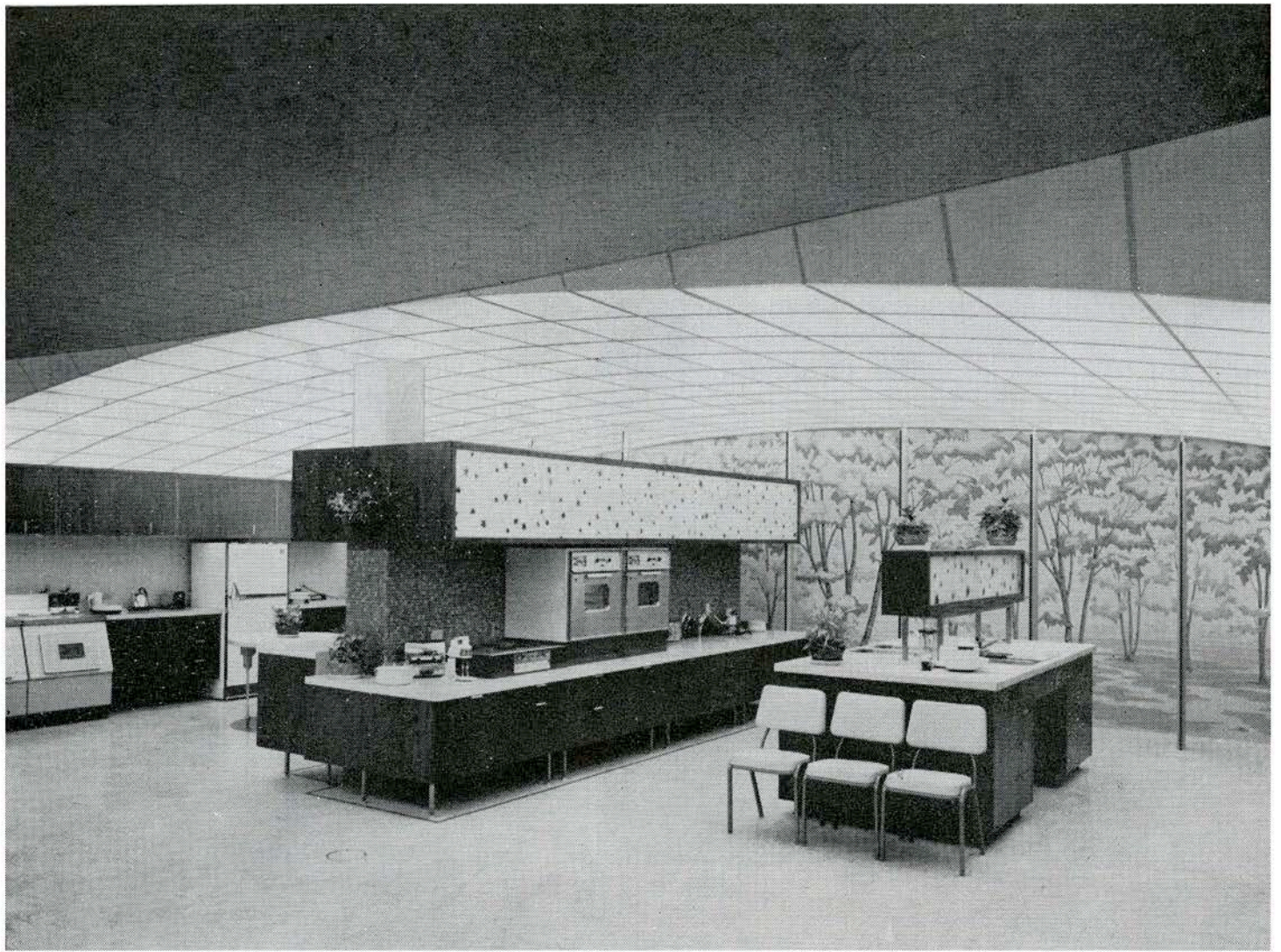
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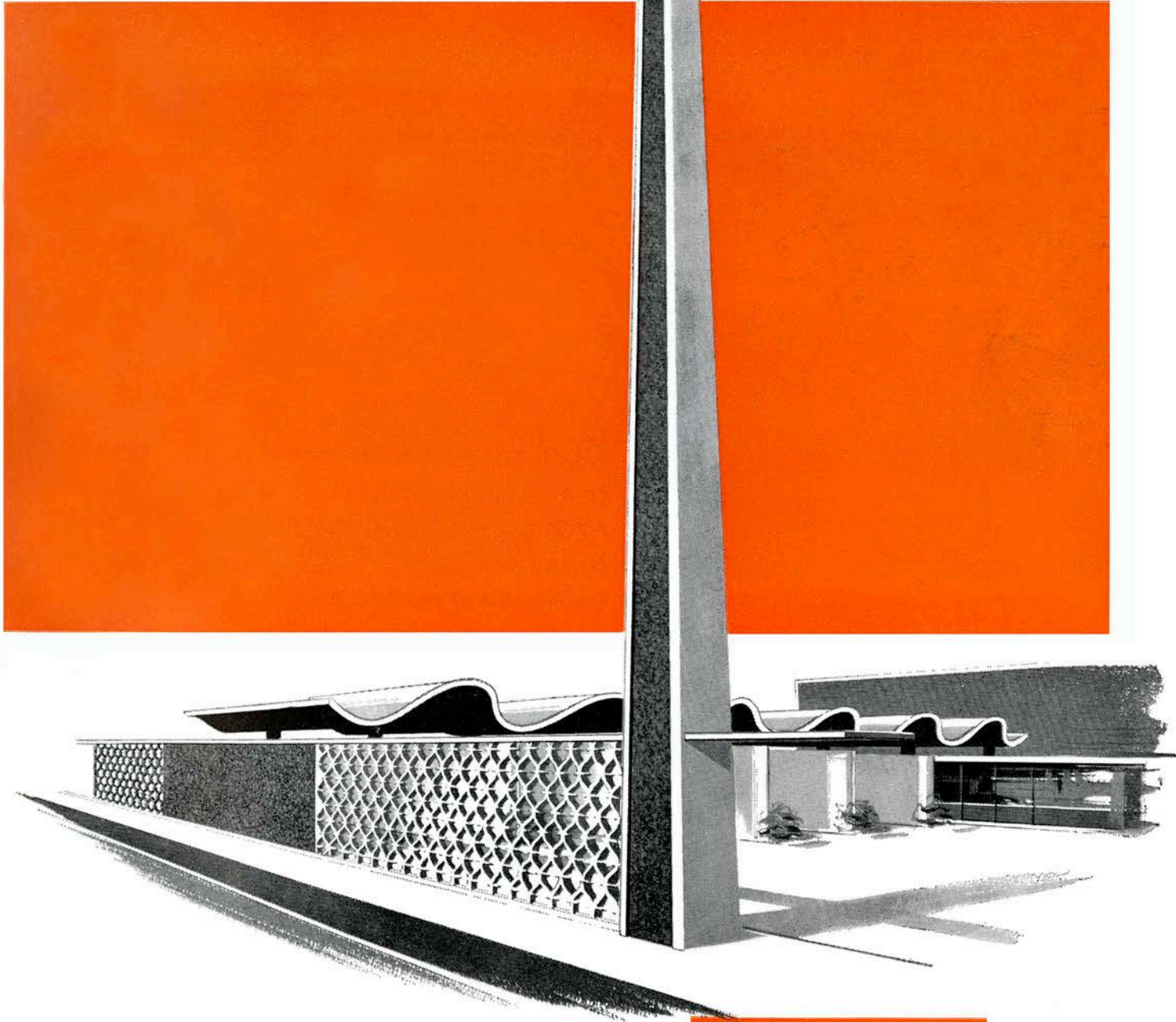
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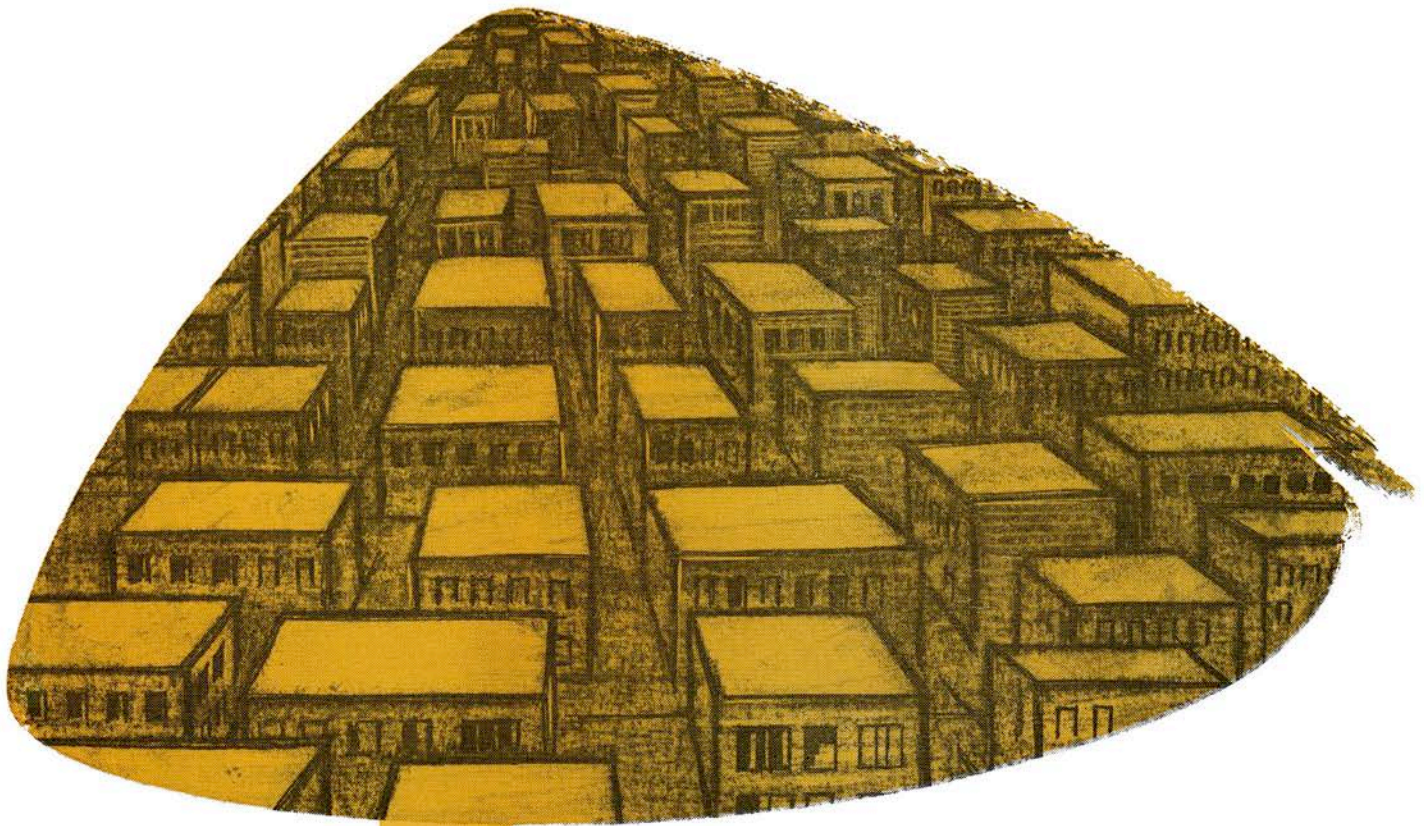


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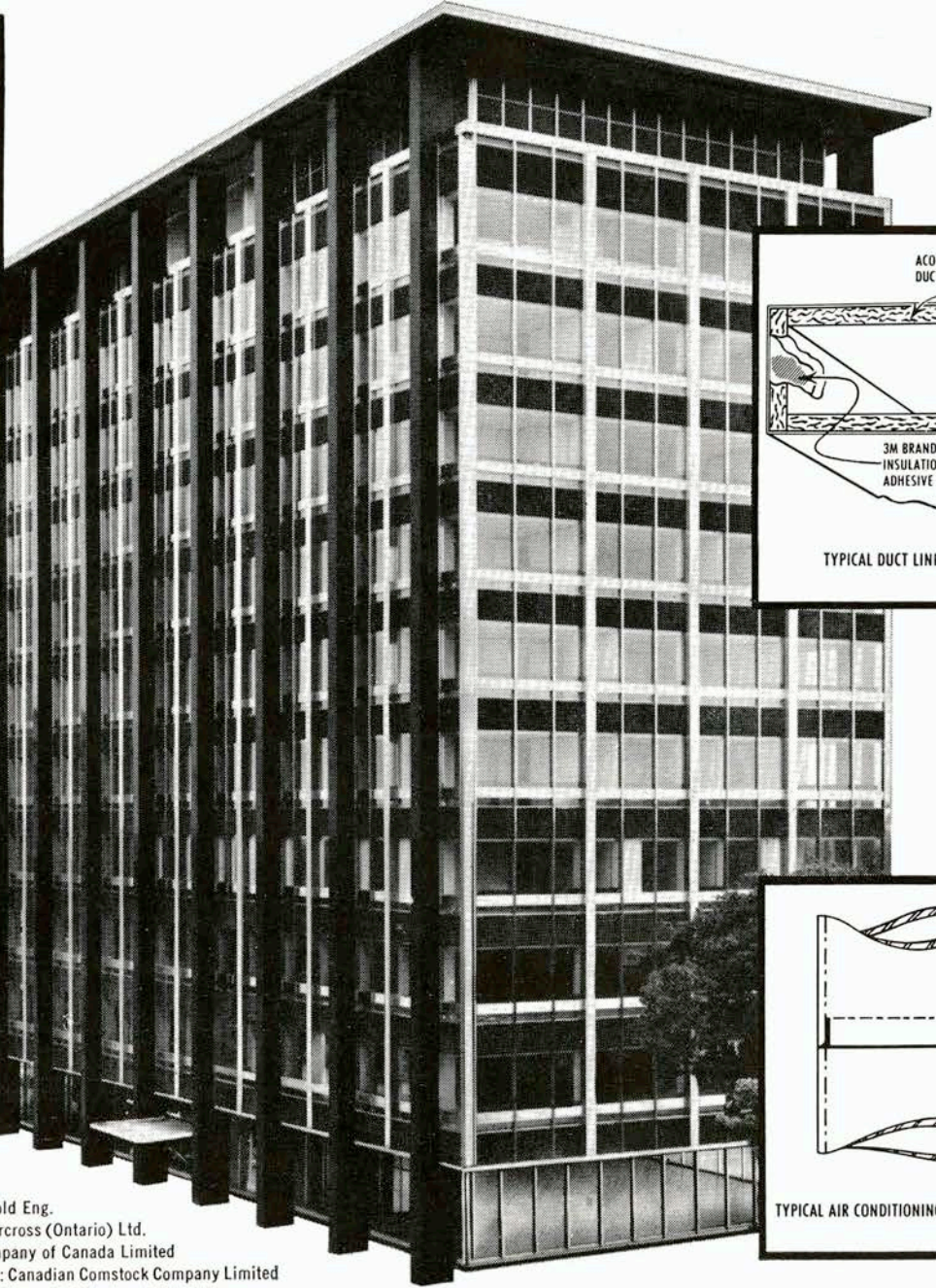
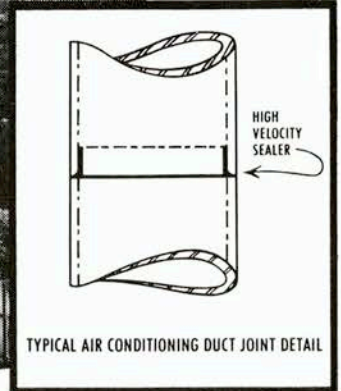
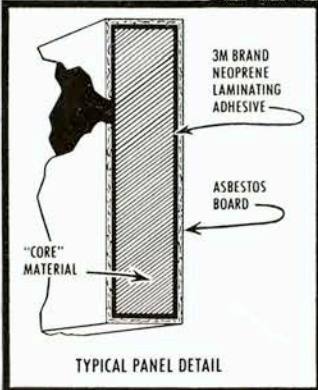
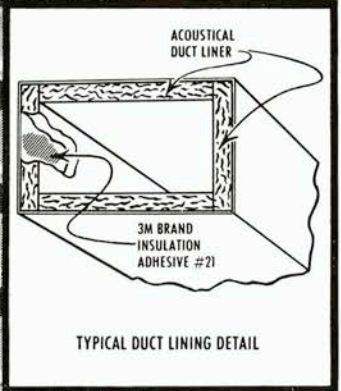
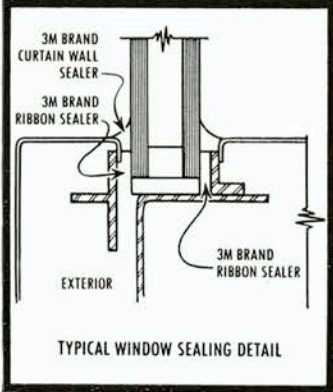
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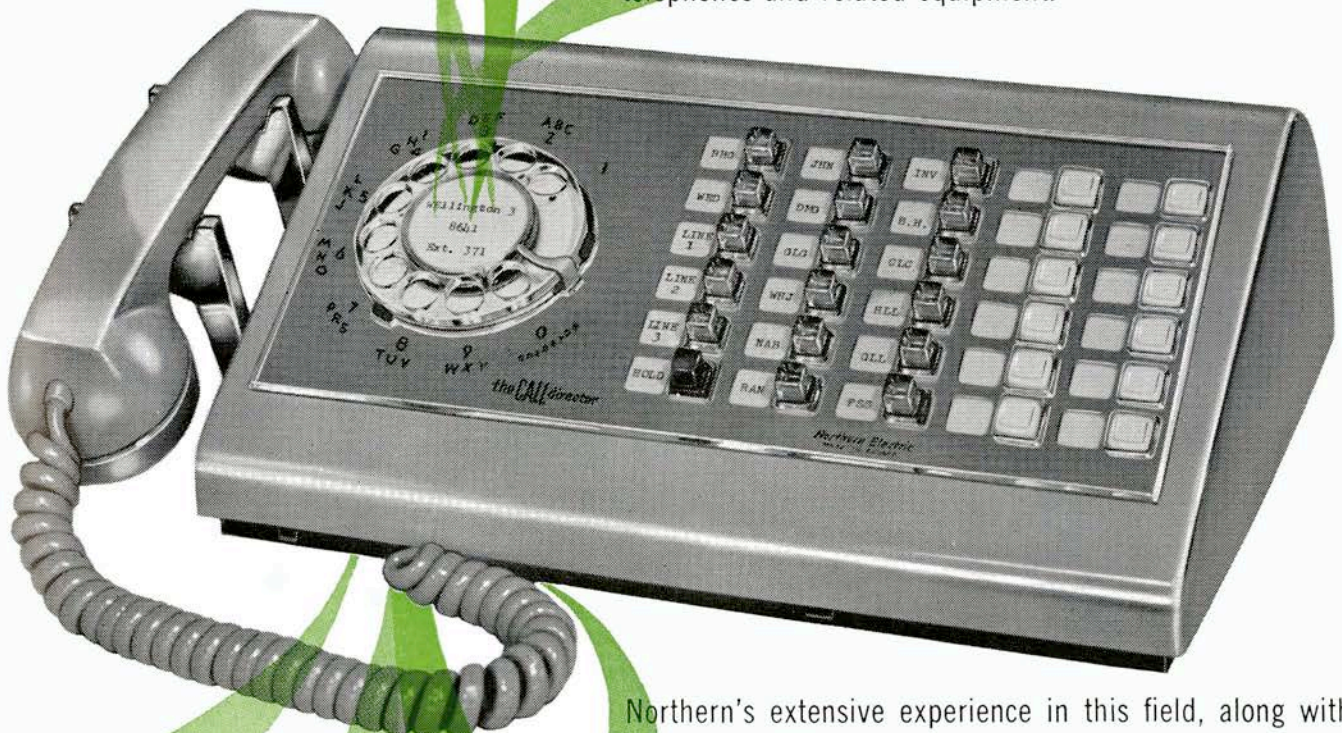
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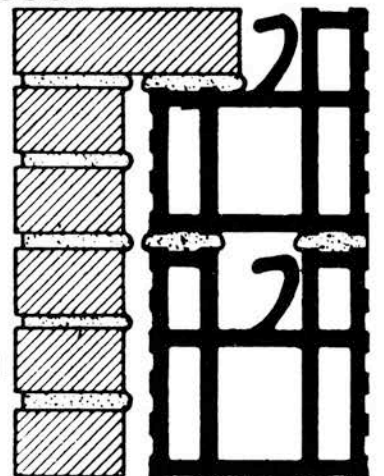
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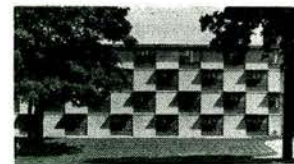


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THE PROFESSION AND THE CENTENARY

THE CELEBRATIONS MARKING THE CENTENARY of Confederation in 1967 may seem a long way off, but the occasion is of such importance in the history of Canada that five years may be little enough time to prepare for it. No doubt great plans are already afoot in Ottawa, but the press is curiously silent, and, as one chairman of an Architectural Centenary Committee, we have to confess to have not yet named its members. Admittedly, the problem is different, but, as the decades go by without a decision on a Canadian flag, how long will it take to obtain agreement on the Symbol which will, doubtless, be a significant force on the design of all street decorations, and may, itself, be a minor flag in the general scheme of things. If its design is to be part of a national competition, when should it be started? Is it a field in which we, as architects, may make a contribution?

It seems to us that the competition technique could be of tremendous value in preparation for a national centenary. Periodically, a competition could be held for a variety of items that would, cumulatively, add tremendous popular interest to the celebrations. If the design of stamps of several denominations were the subject of a national competition followed by the centenary symbol, many thousands, who did not compete, would have a feeling of participation in the great event, and the papers could make much of it.

If buildings, either temporary or permanent, are to mark the occasion, they might be the subjects of competition, and if permanent, procrastination, on the part of those responsible for decisions, could be serious. Even the writing of the program outlining accommodation and use will take time, and strikes and other annoyances may prove that building in the nineteen sixties is slower than it was in 1867.

In these, and in many other matters, we feel confident that the contribution of the Architects of Canada could be tremendous. A field in which we hope that professional skills will be called upon is in street decorations. Some of us can remember Canadian city streets that were brightened up for the Coronation of our present Queen. They were not all good. Perhaps, too often they were the creation of someone in a municipal department of public works. London, with more experience chose an architect, Sir Hugh Casson. The results fully justified the choice.

We are inclined to agree with Professor Nobbs, that the British, and probably, the Canadian temper does not permit us to enter wholeheartedly into these artificial expressions of national rejoicing. One would think that the French would be masters in the art of street decoration, and perhaps they are, but Professor Nobbs gives the palm to the Russians. He has personal recollections of pomp and pageantry at the Coronation and the marriage ceremonies of a Czar (our memory is at fault, not his) that make anything he has seen since fade into insignificance. We recall his own splendid scheme of decorations for McGill on more than one occasion, and we would like to think that, even in 1967, his advice and criticism would be available to the RAIC.

E.R.A.

LA PROFESSION ET LE CENTENAIRE

L'ANNEE 1967 PEUT PARAÎTRE encore loin mais pour la célébration du centenaire d'un événement aussi important dans l'histoire du Canada que la Confédération, cinq années de préparatifs n'est pas trop. Ottawa a sans doute de grands projets mais les journaux gardent un silence étrange et, en qualité de président d'un comité d'architecture pour la circonstance, il faut avouer que les membres de ce comité ne sont même pas nommés. Disons que la question est différente mais puisque, après des dizaines d'années, nous attendons encore un drapeau canadien, combien faudra-t-il de temps pour convenir d'un symbole qui, sans aucun doute, servira de thème à la décoration de nos rues et pourra devenir en quelque sorte un drapeau d'ordre secondaire dans l'ensemble des célébrations. Si le dessin de ce symbole doit faire l'objet d'un concours national, quand celui-ci devra-t-il être lancé? Est-ce un domaine qui se prête à la participation des architectes?

La formule du concours nous semble extrêmement précieuse dans la préparation d'un centenaire national. Pourquoi ne pas en organiser périodiquement pour divers points particuliers du programme? Ce serait un excellent moyen d'intéresser le grand public aux célébrations. Si on le faisait pour le dessin de timbres de diverses valeurs puis pour le dessin du symbole, des milliers de Canadiens restés en dehors des concours auraient quand même l'impression d'avoir participé à ce grand événement et les journaux pourraient en tirer un grand parti.

Songe-t-on, pour l'occasion, à des bâtiments, temporaires ou permanents? Le sujet se prête bien à un concours. S'il s'agit de constructions permanentes, une décision tardive peut avoir de graves conséquences. La seule rédaction d'un programme exposant le genre et l'emploi prévu des constructions exige du temps et, avec les grèves et autres ennuis, on constatera peut-être que la construction d'un immeuble est encore plus lente de nos jours qu'elle ne l'était en 1867.

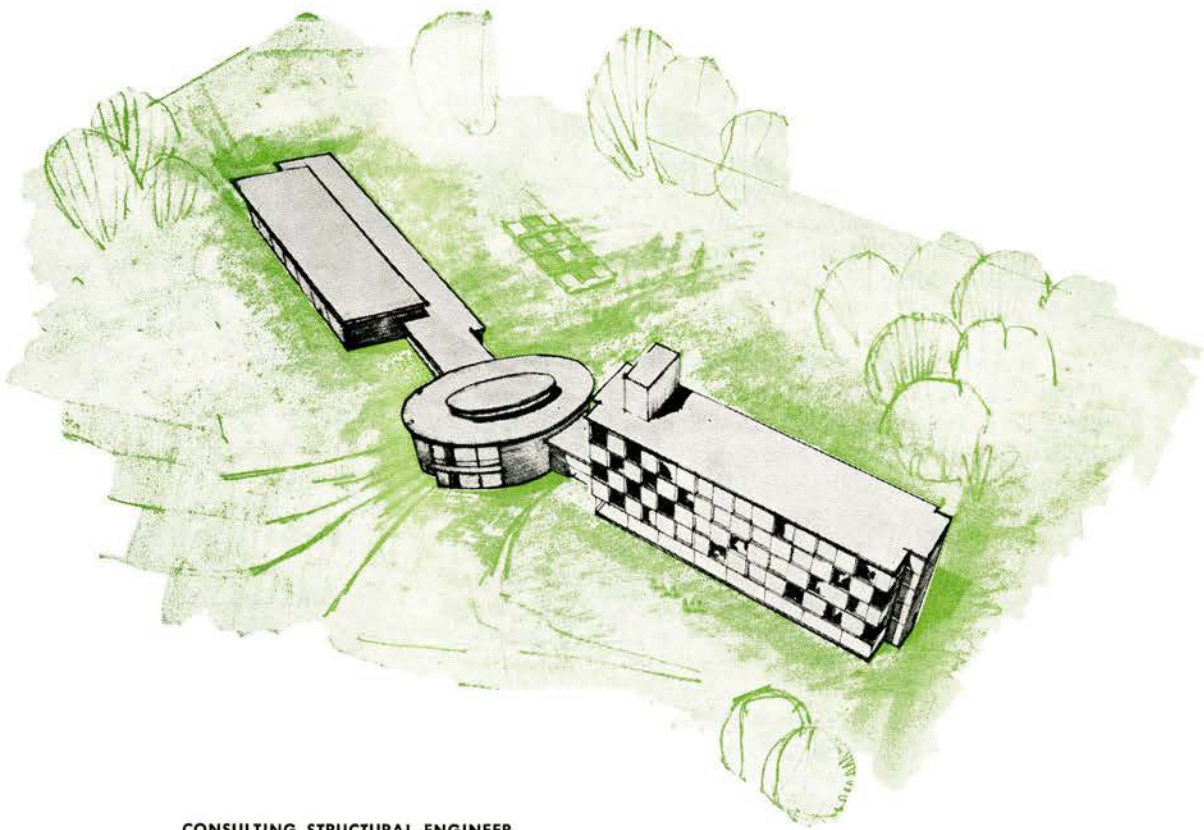
Dans ce domaine comme dans bien d'autres, les architectes pourraient sans doute rendre de très grands services. Espérons aussi que l'on fera appel à leurs talents pour la décoration des rues. Plusieurs d'entre nous se rappellent les décorations à l'occasion du couronnement de la reine actuelle; toutes n'étaient pas de bon goût. Trop de municipalités peut-être avaient confié la tâche à des fonctionnaires de leurs services des travaux publics. Londres, plus habituée à ces célébrations, avait eu recours à un architecte, sir Hugh Casson, et les résultats ont pleinement justifié ce choix.

Il est sans doute vrai, comme le dit le professeur Nobbs, que les Britanniques, et probablement les Canadiens, n'ont pas le caractère voulu pour se livrer de tout coeur à des expressions artificielles de réjouissances nationales. Dans l'art de la décoration des rues, on pourrait croire que les grands maîtres sont les Français et c'est peut-être vrai mais M. Nobbs accorde la palme aux Russes. Ses souvenirs remontant plus loin que les nôtres, il se rappelle la pompe qui a marqué le mariage et le couronnement d'un tsar et qui fait pâlir tout ce qu'il a vu par la suite. Nous nous rappelons les merveilleux succès qu'il a remportés à McGill en diverses circonstances et il faut espérer que l'IRAC pourra compter sur ses critiques et ses conseils en 1967.

NURSES RESIDENCE

Guelph General Hospital

Architects: Craig & Zeidler, Peterborough and Toronto



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The residence and school accommodates 100 students, and provides an environment where the changing patterns of study, work and leisure can be integrated.

The design presents a multi-storey residence, linked by connectors to a two-storey social centre and a one-storey school. The division of each section allows for different building techniques. Reinforced concrete flat slab construction was used for the residence; load bearing masonry and light steel framing for the centre and school. The new unit is connected to the existing hospital by a tunnel, which also houses the mechanical services.

RESIDENCE

Single rooms were chosen in order that privacy for study and facilities for rest could be provided for the students, who are conditioned to three rotating work periods. Each student's room is self-contained and there are 25 rooms on each floor. Services, common to all, include kitchenette, breakfast room, bath and shower rooms and toilets.

Three apartments for supervisory staff are provided, each self-contained and connected to the underground tunnel.

SOCIAL CENTRE

The social centre is an oval building, joined to both sections by connectors. This separation eliminates noise that would normally disturb the residence and school sections if they were all in one building.

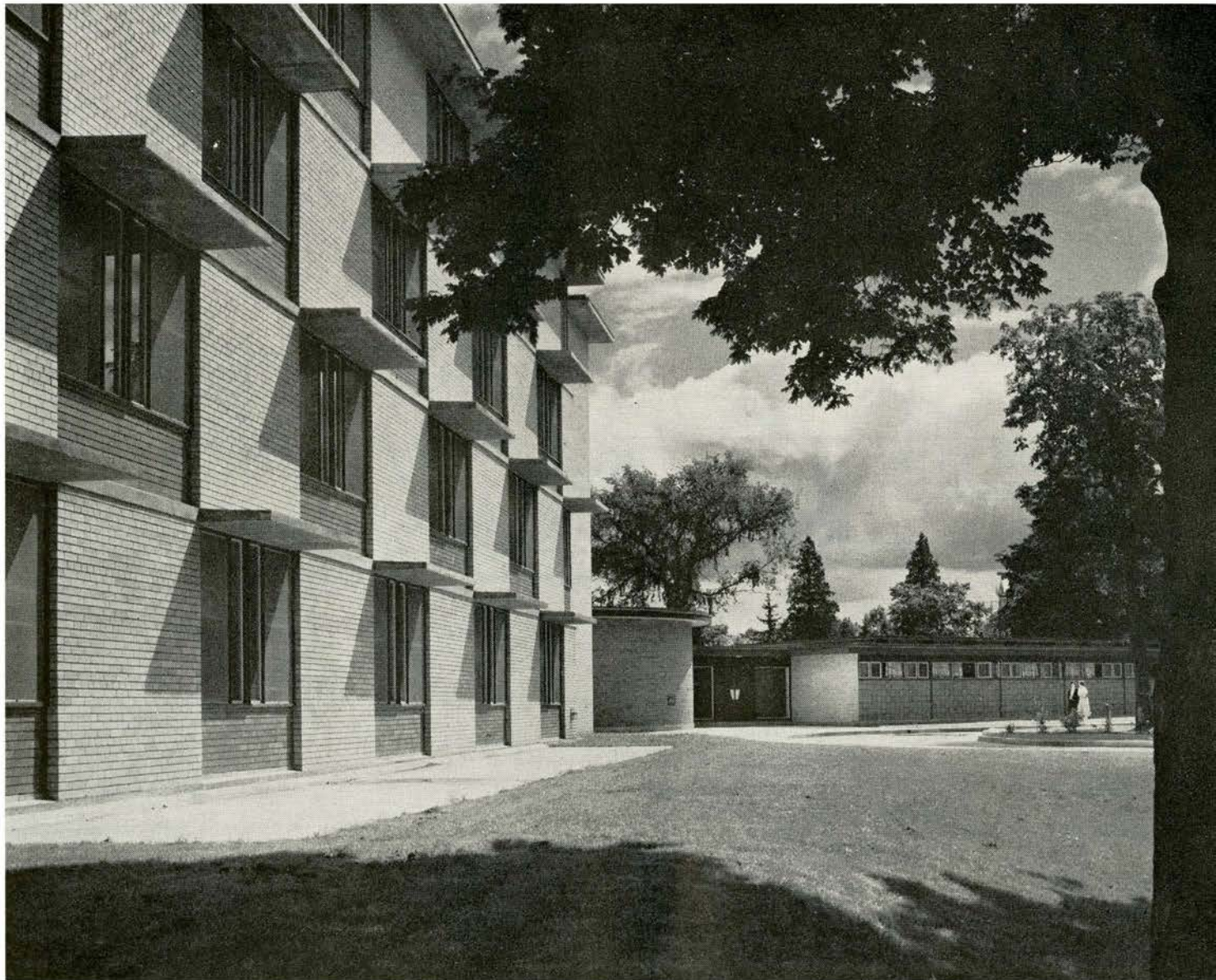
On the ground floor is a large classroom or auditorium suitable for seating 150 students. There are two front entrances, one adjacent to the school, the other adjacent to the residence, and both controlled from the reception area.

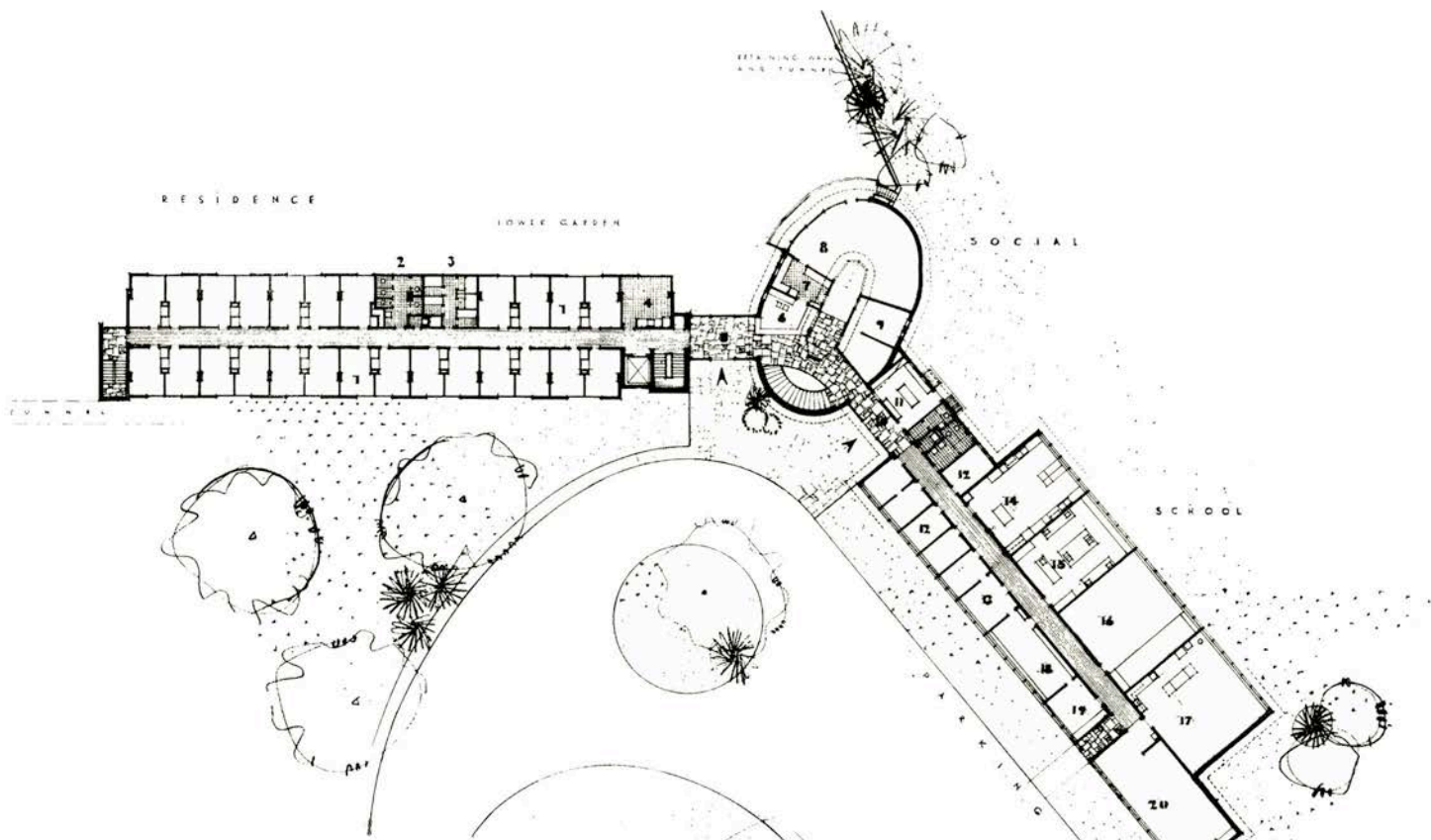
The lounge on the first floor has floor-to-ceiling windows, which take full advantage of the view on the hillside. It is large enough for group entertainment by the students. Two conversation rooms opening off the lobby provide privacy for individual students to entertain their families or friends.

SCHOOL SECTION

The school section is a centre corridor building with rooms on each side. It contains five offices for instructors, a secretary's office, health service unit, library and seminar room, as well as a classroom and demonstration room each capable of seating 50 students. Three laboratories — nursing, science, and dietetics — are each designed for a group of 16 students.

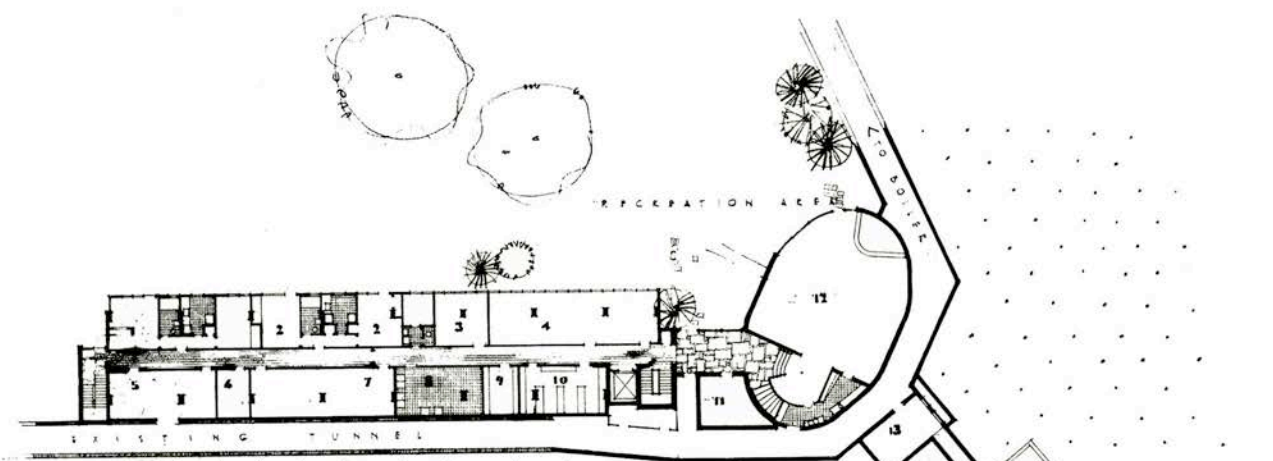
South West view. School entrance





GROUND FLOOR

- | | |
|---------------------------------|---------------------|
| 1. MATRON'S APARTMENT | 7. TRUNK STORAGE |
| 2. APARTMENTS FOR STAFF MEMBERS | 8. LAUNDRY |
| 3. SEWING ROOM AND MAID'S ROOM | 9. CENTRAL CLEANING |
| 4. RECREATION ROOM | 10. LINEN ROOM |
| 5. MECHANICAL ROOM | 11. STORAGE |
| 6. TRUNK STORAGE STAFF | 12. LECTURE HALL |
| | 13. FAN ROOM |



FIRST FLOOR RESIDENCE

1. NURSES' ROOM
2. TOILETS
3. BATHROOMS
4. BREAKFAST ROOM AND KITCHEN
5. MAIN ENTRANCE RESIDENCE

SOCIAL WING

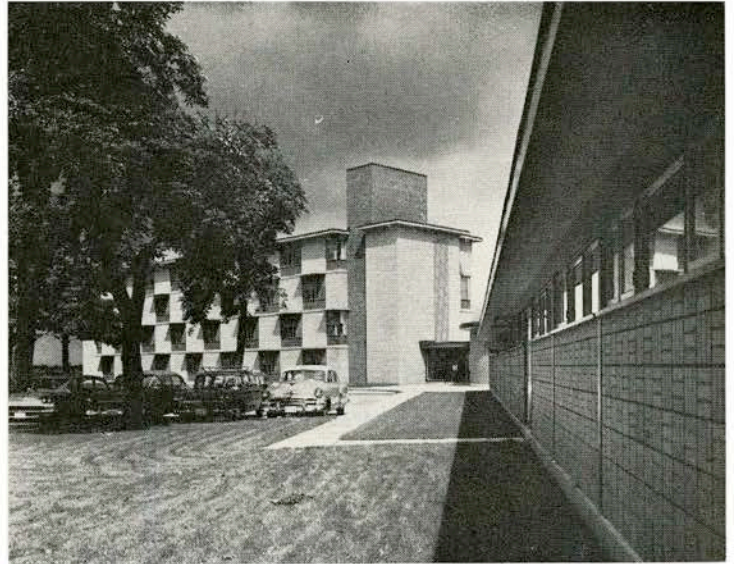
6. RECEPTION
7. PANTRY
8. LOUNGE
9. CONVERSATION ROOMS

SCHOOL WING

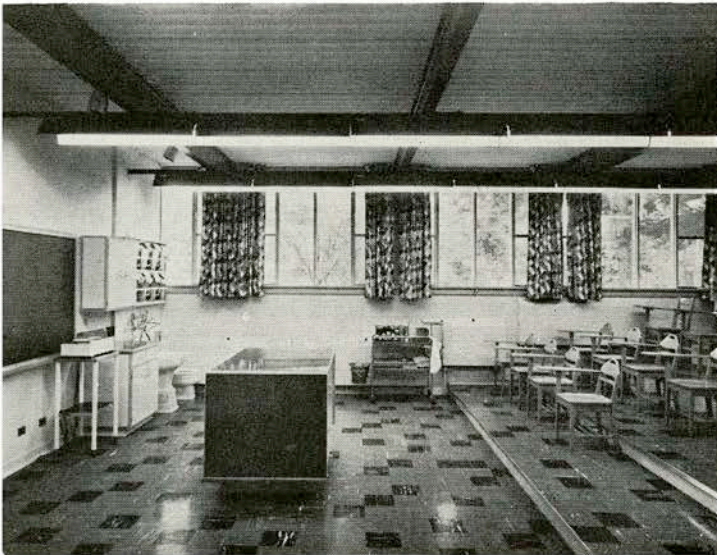
10. ENTRANCE SCHOOL
11. CLOAKROOMS
12. STAFF OFFICES, HEALTH OFFICE AND DIRECTOR
13. SECRETARY
14. DIETETICS LAB.
15. SCIENCE LAB.
16. CLASSROOM
17. DEMONSTRATION ROOM
18. LIBRARY
19. SEMINAR ROOM
20. PRACTICAL NURSING



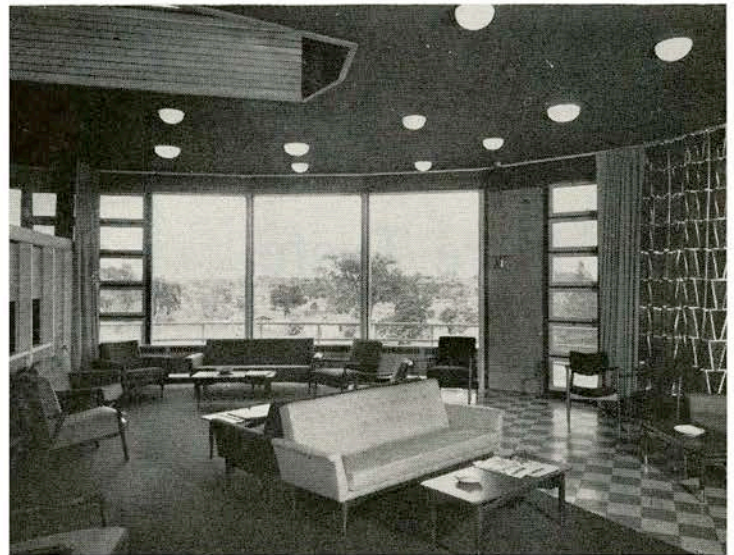
Above: North East view



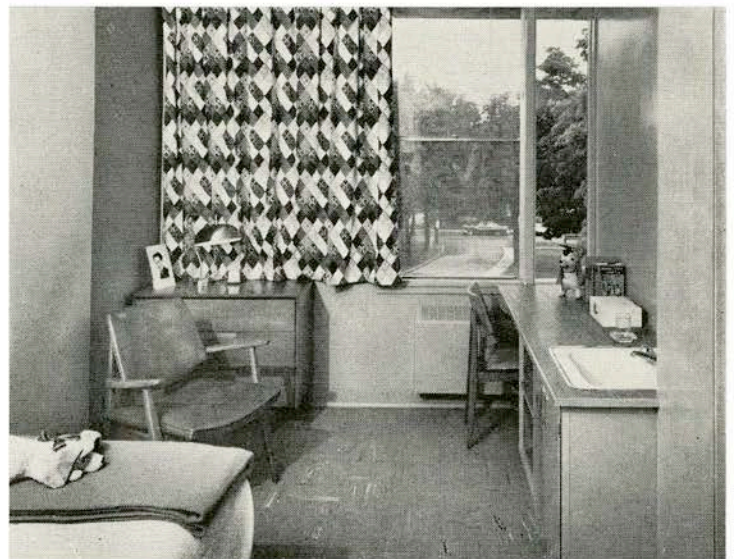
Right: Residence entrance



Above: Demonstration room



Above right: Main lounge



Right: Nurses room

*Architecture
and Gastronomy*

The Architectonics of Pure Taste

by
Peter Collins

IN a lecture on “The Principles of Design in Architecture”, given on 9th December, 1862, to the cadets of the School of Military Engineering at Chatham, James Fergusson, the architectural historian, explained to his astonished audience that the process by which a hut to shelter an image is refined into a temple, or a meeting house into a cathedral, is the same as that which refines a boiled neck of mutton into *côtelettes à l'Impériale* or a grilled fowl into *poulet à la Marengo*. “So essentially is this the case”, he continued, “that if you wish to acquire a knowledge of the true principles of design in architecture you will do better to study the works of Soyer or Mrs Glass than any or all the writers on architecture from Vitruvius to Pugin.”

No other architectural theorist, either before or since, seems to have used this analogy; a very curious fact when one considers the general cultural significance attached to the word “taste”. “Taste”, as early dictionaries make clear, meant originally only “the sensation excited in certain organs of the mouth”, and its metaphorical adoption in the seventeenth and eighteenth centuries as the standard term for what we now call “aesthetics” (a neologism invented in Germany in 1750) implies a clear recognition of the importance of this faculty as a key to understanding the nature of human discernment. As Addison pointed out in *The Spectator* of June 19th, 1711, “we may be sure this metaphor would not have been so general in all tongues, had there not been a very great conformity between mental taste and that sensitive taste which gives us a relish of every different flavour that affects the palate.” Yet few of the various treatises on aesthetics published in the second half of the century even discuss this parallel, and the most exhaustive of them, namely the *Essay on Taste* published by Archibald Alison in 1790, does not mention food and drink at all.

One reason for this curious omission (apart from another, more important reason, which will be discussed later) may be that gastronomy was then in its infancy. Until the end of Louis XIV's reign, eating habits were extremely coarse, and it was not until the middle of the eighteenth century that modern refinements in cooking were widely adopted. The word “gastronomy” itself was not introduced into the French language until about 1800, and we are told by Brillat-Savarin, the first modern writer on the subject, that even in 1825 it was still sufficiently novel to bring “a smile of hilarity to all countenances”. The general appreciation of fine cooking was due mainly to the establishment of restaurants, the first of which was founded in Paris in 1770, and it was not until the Napoleonic era that these had multiplied sufficiently to give French cooking its universal and popular prestige. But it is still difficult to explain why the analogy between architecture and fine cooking should have been so persistently neglected during the last century, considering the urge experienced by so many architectural theorists to justify their ideas analogically with reference to other sciences and creative arts.

There is no doubt that if one wishes to demonstrate the distinction between architecture and plain, ordinary, straightforward building (and this is clearly what Ferguson was trying to do), the distinction between gastronomy and plain, ordinary, straightforward cooking possesses many close similarities not displayed by music, literature, biology, mechanical engineering, or any of the other arts or sciences with which architecture has so often been compared. Firstly, it is concerned, as Brillat-Savarin observed, with the conservation of mankind, and is thus, unlike the other arts, a necessity rather than a luxury. Secondly, unlike all those analogies just listed, it concerns something which is both a science and an art. Scientifically, gastronomy demands the combination of a number of prepared materials of known strength, arranged according to an ideal sequence or plan, the efficacy of which can be analysed and tested. Artistically, it goes far beyond the dictates of scientific analysis, for gastronomy, like architecture, requires intuition, imagination, enthusiasm, and an immense amount of organisational skill. Gastronomy is also more expensive than plain, honest, straightforward cooking, since it usually involves lengthier preparation and richer ingredients. It seems reasonable to suppose that there may also be other, more subtle, similarities between gastronomy and architecture, and that these may help us to visualize what the essential virtues of architecture ought to be.

Perhaps the most instructive way to seek out these similarities is to compare gastronomy and modern architecture in the age in which they both originated, namely the mid-eighteenth century, and then compare them as they are today. This first era, according to John Steegman, can only be fittingly described as the era of the Rule of Taste. This title is most appropriate, he says, because it implies a régime in which taste — the only word expressing both an immutable quality of discernment, criticism and perception, and an active sensitivity to temporary fashions — is paramount, and a time when fashions in taste are governed by universally acknowledged rules. These rules were not in fact very easy to determine, but there is no doubt that the leading architectural theorists of the period were constantly trying to formulate them, and that they did this by studying not only the buildings of antiquity, but the best buildings of their own day. The first regular meeting of the French Academy of Architecture began its discussion in 1672 with the question: "What is good taste?", and although the problem was never satisfactorily resolved, it was generally agreed that "the true rule for recognizing things which display good taste is to consider what has always been most pleasing to intelligent persons, whose merits are known by their works or their writings". In other words, the supreme rule of the classical artist was that his work should please.

This desire to please was also, and still is, the principle aim of a good chef, but it is doubtful whether it is the aim of all the leading painters, sculptors and architects today. For whereas a good chef is concerned only with the whims of his clientele and the appreciation which his artistry will receive, artists like Henry Moore boast their refusal to fulfil commissions requested by connoisseurs they respect. A good chef does not, after competitions,

write abusively of experts who prefer some other artist's work. He does not feel that he is prostituting his art by creating something which resembles a work created two centuries before. If ever he says to a client: "take it or leave it" (and there are ways of saying this in French with considerable force), it is because he realizes that his client has no standards of taste, not simply because the person's tastes differ from his own. On the contrary, it is in the vicarious adaptation of his own tastes to each different customer's appetite that his supreme artistry resides; hence his art is always essentially human, because it keeps in the closest contact with the subtly varying moods of mankind.

Today, taste is no longer synonymous with aesthetics, because the modern theoretical approach to art takes no account of the public at all. The eighteenth century philosophers, though fully aware of the distinction between what they called "active taste" and "passive taste", were essentially concerned with the latter, i.e., with art from the point of view of an observer's reactions. Today, however, as a result of the influence of Benedetto Croce, aesthetic theories are usually only concerned with the act of artistic creativity itself. Art is considered to be essentially a form of expression, and it is now irrelevant to enquire whether or not it gives pleasure, since this is not its aim. It is as if an omelette were judged simply by the genuineness of the chef's passionate urge to go around breaking eggs.

The architectural theorists of the mid-eighteenth century tried to establish classical recipes for good architecture in much the same way as the chefs of that period were trying to establish classical recipes for *haute cuisine*, and the criterion of both was that the results should be widely enjoyed. Not just enjoyed by other architects and other chefs, or by the editors of the *Almanach des Gourmets* and *l'Architecture Française*, but by all persons of cultivated taste. Now this very word "cultivated" implies that taste can not only be trained, but should be trained according to certain universally accepted standards. If those who teach the arts do not believe in such standards, or if they claim, like Paul Rudolph, that they are still searching for such standards, it is clear that whatever the merits of their instruction, they are concerned essentially with fashion, not with taste.

The standards of gastronomy have remained unchanged for two centuries, and are uncontested. The standards of architecture would also be uncontested if romantic influences had not, for two centuries, vitiated its theoretical basis, and spread the germs of its debilitating criteria like phylloxera throughout the western world. It is no coincidence that anglo-saxon cooking is proverbially bad, for bad food and bad architecture both derive from the same philosophical disease.

This disease is, quite simply, romanticism, or the refusal to accept the fact that, in the highest art, sensation must be subordinate to reason. For two centuries, western art has been divisible into two antagonistic categories, which may be described either as romantic versus classical, or emotional versus rational. Now the essential

nature of the revolution which took place in French cooking in the mid-eighteenth century was that the coarse and purely sensual methods of Roman, Mediaeval and Renaissance eating were *rationalized*. "Gastronomy", explained Brillat-Savarin, the father of the new art, and whose only defect was an over-fondness for improper jokes about sausages, "is the rationalized knowledge of everything which relates to man in so far as he nourishes himself". "Only intelligent men", he continued, "honor fine food, because the others are not capable of an operation which consists in a sequence of appreciation and judgements".

In conformity with Brillat-Savarin's philosophy, the leading French architectural theorist of the mid-eighteenth century similarly defined taste as "the fruit of reasoning", and added, in words which almost paraphrase Diderot's definition of a true philosopher, that "taste founded on reason accepts neither ready-made systems nor the authority of private opinions". But in England at this time, the writers on Taste were already rejecting classicism in favour of romanticism, and it is doubtless mainly for this reason that Alison, in his *Essay on Taste*, did not mention food at all, since gastronomy clearly did not fit into the romantic aesthetic theory of "the association of ideas".

According to this theory, man's awareness of the beauty of proportions is due entirely to a mental association of the relationship between form and function, and the appreciation of the beauty of buildings is due entirely to the stimulus given man's imagination by (in the case of Gothic Revival, Greek Revival or Classical designs) the evocation of the lost glories of the Middle Ages, Greece or Rome. Today, we also seem to consider that architectural beauty is based on the idea of functionalism and romantic associations, although nowadays we romanticize the future, rather than the past. In both instances architectural appreciation, being subjective, is primarily governed by fashion, which to the classical theorist was "the tyrant of taste". "Taste, once acquired, should exclude every kind of fashion from architecture as so many obstacles to its progress", the professor of architecture at the French Academy told his students two centuries ago, and went on to criticize young architects for neglecting sound principles in favour of new inventions, which must inevitably be superseded by other novelties in their turn.

Novel recipes for preparing food are, of course, frequently invented, but the old recipes still retain the same authority and prestige which they had before, because they are, literally, what Frank Lloyd Wright called "in the nature of materials", and thus their aesthetic properties never become stale. The recipes in Viard's *Cuisinier Royal* (a book already printed in ten separate editions by 1820) are all to be found in the latest edition of *L'Art Culinaire Français*, and the latter only supersedes the former because in the latter, there are three thousand recipes more. In gastronomy, there is no prestige attached to novelty *per se*, and nobody asks a chef if he can be guaranteed always to provide something "contemporary". Nor would any gastronome ever refuse *filets*

de volaille à la Bellevue simply because they were invented by Madame de Pompadour, or angrily ask why he was not getting the latest recipe from the *Ladies' Home Journal* instead. In cooking, as in any art which really flourishes, the only values recognized are those concerned with degrees of excellence, and the decline in architecture occurred when architects forgot this, and started worrying about whether they were being "contemporary" or "reactionary", instead of whether their work was good or bad.

There are several factors which encourage this attitude, but there is one which is particularly obvious, namely the fact that whereas the eighteenth century recognized the rarity of a creative artist, the twentieth century, convinced of the operation of some universal law which equates supply and demand, and deluded by a combined faith in the virtues of a college education, and an equally solid faith (fostered by exhibitions of Action Painting and juvenile art) in the virtues of no artistic education at all, is convinced that everyone is potentially some kind of an artistic genius, and that anyone can become a creative architect once he can use a set-square and pass the technical exams. Yet it must be obvious that in architecture, as also in gastronomy, drama, and music, there are two kinds of artist; those rare spirits who can create original compositions, and those, less gifted, whose vocation is to adapt, interpret or assist.

Creative genius is in fact extremely rare in all the arts, but it is demonstrably rare in gastronomy, drama and music because it is the general public, rather than a few avant-garde connoisseurs or magazine editors, which decides whether the artist's originality is worth anything or not. Any contemporary musician can get his compositions broadcast, but with rare exceptions, the only public auditorium in which he has a chance of hearing his work twice is, according to Sir Thomas Beecham, the Albert Hall in London (the echo of which has long been notorious). Theatre-goers and music-lovers, as well as gourmets, know from hard experience that even the most favourable conjunction of circumstances rarely produces more than half-a-dozen original geniuses in each generation, however generously they may be subsidized by the Ford Foundation or the Fulbright Fund. Most artists are condemned by Fate, whatever their ambitions, to be executants who adapt and re-interpret (with greater or lesser sensitivity and appropriateness) the basic ideas created by someone else; yet all young architects regard themselves as creative artists, because our whole system of architectural education is specifically organized to give them this idea.

In English, the word "chef" is synonymous with "cook", but this title, like that of "architect", should belong by right to those who have not only fully mastered every known aspect of their art, but were endowed at birth with the divine gift of the Muse. "On devient cuisinier, mais on naît rôtisseur", wrote Brillat-Savarin, in Aphorism No. XV. "On devient ingénieur, mais on naît architecte", wrote an equally distinguished compatriot a century later, and listed it as Aphorism number one.

ARCHITECTURAL SCIENCE

AN AUSTRALIAN DEVELOPMENT

By

R. F. Legget (Hon F)

*Director, Division of Building Research
National Research Council, Ottawa*

The above title is not an exercise in semantics as an alternative description of building research, but a term that is now widely recognized by architects in Australia, due to an interesting development initiated at the University of Sydney. The expression appears first to have been used in Australia when a Professor of Architectural Science was appointed a little time after the end of the second world war to the staff of the University of Sydney in the Faculty of Architecture. The term was next used in describing some lectures initiated by the holder of this new Chair. It was therefore natural for the same name to be used for the published records of these lectures; it has now been used as a part of the title of a new journal established in Australia. Full particulars of these publications are given below.

When the writer had the privilege of visiting Australia in 1956 (in order to attend a meeting of the Directors of Building Research of the English-speaking world) he naturally made inquiries about the liaison between architects and engineers in this sister Dominion. It was a pleasure to hear good reports of the liaison that did exist. These were confirmed when the writer met Professor Henry J. Cowan, whose title of Professor of Architectural Science naturally attracted the interest of the writer as soon as he was introduced to him. In the ensuing discussion reference was made to the first course of lectures on Architectural Science that had been sponsored by the University of Sydney between September and November 1954 and to a second series held in the same period of the year in 1955. Professor Cowan advised that a record of the lectures was to be published and the writer promised to bring this to the attention of Canadian architects in due course.

Discussions with architects and engineers in Sydney revealed a surprising unanimity as to the value of these lectures initiated by Professor Cowan. Sponsored by the

University of Sydney, through its Extension Board, in association with the New South Wales University of Technology and in close liaison with the New South Wales Chapter of the Royal Australian Institute of Architects, the lectures have now become an annual event. Attendance has had to be limited by the capacity of the only suitable lecture room in the city, more applications being received than could be accommodated. About three-quarters of the audience are architects, the remainder being generally civil engineers.

Records of the first two series were published in a well printed brochure entitled "Lectures on Architectural Science 1955" (1). This contained the texts of the first two series of lectures, most of which are accompanied by useful lists of references. The third series (given in 1956) were published in a similar brochure (2) but with the addition of abstracts of the discussions, even the printed record of which shows that the comments at the end of most lectures must have been lively indeed.

The success of these two brochures has led to the establishment of the "Architectural Science Review" published in the same form but now with the addition of advertising (in its proper place, at the front and back of the editorial matter), presumably in order to place the publication on a sounder financial basis. Five issues of the journal have now appeared (3). It is planned to issue the Review three times each year. Presumably it will depend for its contents largely, if not wholly, on the lectures given in these stimulating extension courses on Architectural Science at the University of Sydney.

The first of the brochures mentioned includes a group of papers on recent developments in architectural science, the first lecture significantly being on the design of buildings in relation to fire. Structural matters are treated, such as the use of steel and prestressed concrete. Other lectures deal with aspects of design such as lighting and acoustics. The second group of lectures in this first brochure deals with building materials; it constitutes an excellent review of modern practice in relation to various aspects of concrete, paints, etc., as well as to the use of newer materials such as laminated timber, aluminum, and plastics.

The second brochure deals entirely with Structure and Architecture, this broad subject being treated in three parts — first structural design, upon which four lectures were given by Professor Cowan himself; then four lectures on the aesthetics of design in relation to structures, three of them being given by practicing architects; and finally four lectures on the constructional aspects of the subject, mainly from the point of view of structural design but including one lecture on building codes.

Contents of the first three issues of the Architectural Science Review are rather more varied. Almost one half of the lectures deal with various phases of comfort in buildings, associated with both inside and outside climate, three papers being devoted to special aspects of tropical building design. Four lectures deal with structural engineering and design, and two with concrete as

a material. One of these is by Professor Mrs Rahel Shalon (Director of Building Research for Israel), this being apparently an invited contribution and not a record of one of the lectures. Other papers deal with the weathering of buildings, the fire resistance of buildings and lifts and escalators, together with three papers on daylighting — a subject which the writer found to be of great interest to Australian designers.

Each issue of the Review contains at the end a carefully selected bibliography, compiled by Professor Cowan, as well as a list of publications recently received by his Department together with short abstracts that appear to be of special interest to Australian architects.

It will be seen that, despite the remoteness of Australia from Canada and the rather different climatic conditions with which Australian architects have to contend, many of the topics considered in these Australian publications on Architectural Science are of direct relevance to Canadian practice. The publications then can therefore be commended as worthy of attention by Canadian architects.

This activity at the University of Sydney is not unique. The University of Melbourne now gives similar attention to Architectural Science. In Great Britain there has been a corresponding development in the last few years with Chairs of Building Science recently established at the Universities of Sheffield, Manchester, and Liverpool. The Chair at Liverpool was the first of these British developments and is of special interest since the title of the Chair is that of Professor of Building Science, the Professor being Head of a Department separate from the Faculties of Civil Engineering, Architecture, and Science but having close links with all three Faculties. This device seems to have much merit in view of the wide scope of Building Science, its service to and demands upon all three disciplines.

The idea of extension lectures in Architectural Science, designed primarily for architects and therefore treating technical subjects in specific relationship to their application in the practice of architecture, appears to be an admirable means of bridging the gap between the information that is now available on building science and the practice of architecture. This has recently been demonstrated in a somewhat specialized field by the response given to the extension lectures delivered by Professor S. R. Kent of the School of Architecture at the University of Toronto on modular coordination, in association with the National Research Council's Division of Building Research. The idea of sponsoring such lectures for practicing architects in the major cities of Canada, naturally starting with those in which Schools of Architecture are in existence, appears to be an idea well worthy of careful study by the RAIC Committee on Research.

There may be some architects to whom the idea of combining the words "architecture" and "science" represents a terminological impossibility. The term is, of

course, not new, having been used by the RIBA for more than half a century. It appears also to have been used, many years ago, at one Canadian university. All who appreciate the complexities of modern building design will appreciate that Architectural Science, or Building Science if the term be preferred, is an essential part of the practice of architecture today.

As is so often the case, this current situation is merely a reflection of what master builders of many years ago realized intuitively. It may therefore be appropriate to complete this brief review with a quotation from Professor Cowan's first editorial introducing the series that has been described in this note. The writer begs leave to indicate in this way his full agreement with the views of Professor Cowan, to whose work this note is a real personal tribute.

"It is sometimes said that the predominantly artistic outlook of the architect and the outlook of the scientist are incompatible; but this is more the result of our educational system than that of temperament or innate ability. One need only go back two or three centuries, when the extent of human knowledge was very much smaller and specialization unnecessary, to find many eminent architects who were also distinguished scientists. The career of Christopher Wren is a good example. He first made his mark as a professor of astronomy, and he was one of the pioneers of vivisection; later he was the President of the Royal Society at the same time as he was building St. Paul's Cathedral. His contemporary, Robert Hooke, is today remembered as a scientist; but he was also one of the commissioners for the rebuilding of the City of London, and a number of the drawings for the City churches are in his hands.

"The complexity of life in the twentieth century and the specialization which it forces on us has made it very difficult for a creative architect to master enough scientific knowledge and technique to engage in original scientific research; nor would any modern research scientist be able to undertake successfully the design of a major architectural project. This need not, however, prevent them from understanding one another's work and ideas; indeed, if scientific research is to make a significant contribution to architectural practice, it is essential that they should do so."

(1) Lectures on Architectural Science 1955. University of Sydney, Extension Board. 1956, 94 p., 21s.

(2) Architectural Science. No. 2. Symposium on Structure and Architecture. University of Sydney, Extension Board. 1957. 200 p., 21s.

(3) Architectural Science Review: Vol. 1, No. 1, 56p., November 1958; Vol. 2, No. 1, 66p., March 1959; Vol. 2, No. 2, 50p., July 1959; Vol. 2, No. 3, 62p., November 1959; Vol. 3, No. 1, 45p., March 1960. (Each issue 15s; annual subscription 42s.)

All inquiries regarding copies and subscriptions for all the above should be addressed to Academic Press Pty Ltd, 310 George Street, Sydney, New South Wales, Australia.

The view below is from a vantage point in the driveway entering the civic square at the corner of Queen and Bay streets. The podium roof, on ceremonial occasions, becomes the place of entry to the council chamber and the car ramp can be seen in the foreground leading up to that level. The council chamber can, of course, be reached also from below, through the public access area, and the main entrance to this can be seen on the level of the civic square. To the left, in the picture, the reflecting pool is to be seen. This can, during the winter, be transformed into a public skating rink. The reinforced concrete arches provide the essential means of lighting the rink and pool. On the left side of the picture, just in front of the podium, the location for the new Cenotaph is planned.

A few changes in the detailed designing of the new Toronto City Hall have resulted from the second, or working drawing stage. The height of the towers has been adjusted, the length of the cantilever projections within them reduced, and a single line of columns introduced while the original rear wall fins are excluded. The overall length of the tower floors has been reduced, while increasing the curvature, as well as the dimension from front to back wall at both north and south end of each tower. The original narrow slit ends have been re-designed and these tips are now curved and clad with precast panels also. The colonnade on the civic square now terminates on both sides of the building. The tree planting area has been increased by a reduction in the size of the reflecting pool.

TORONTO CITY HALL

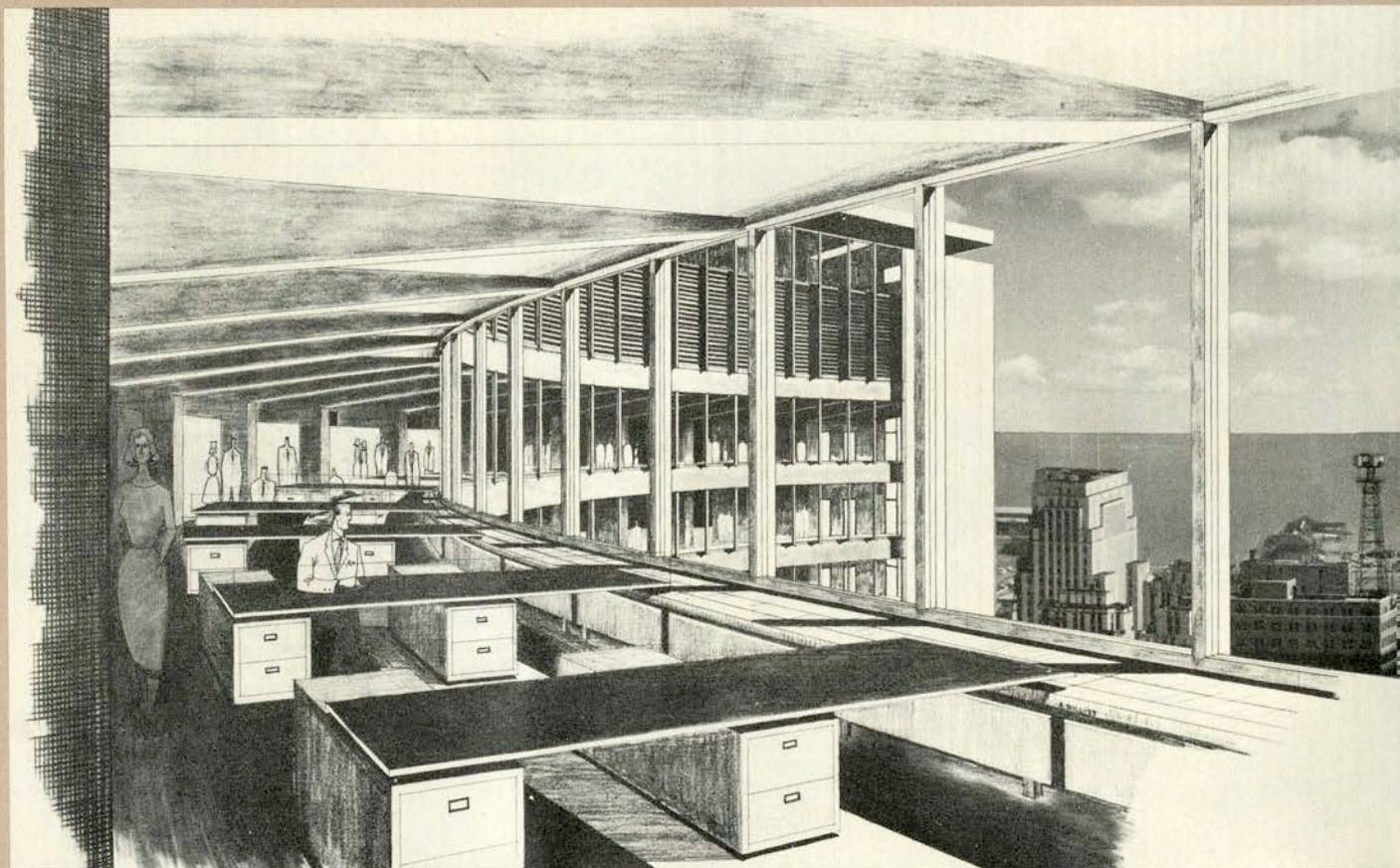
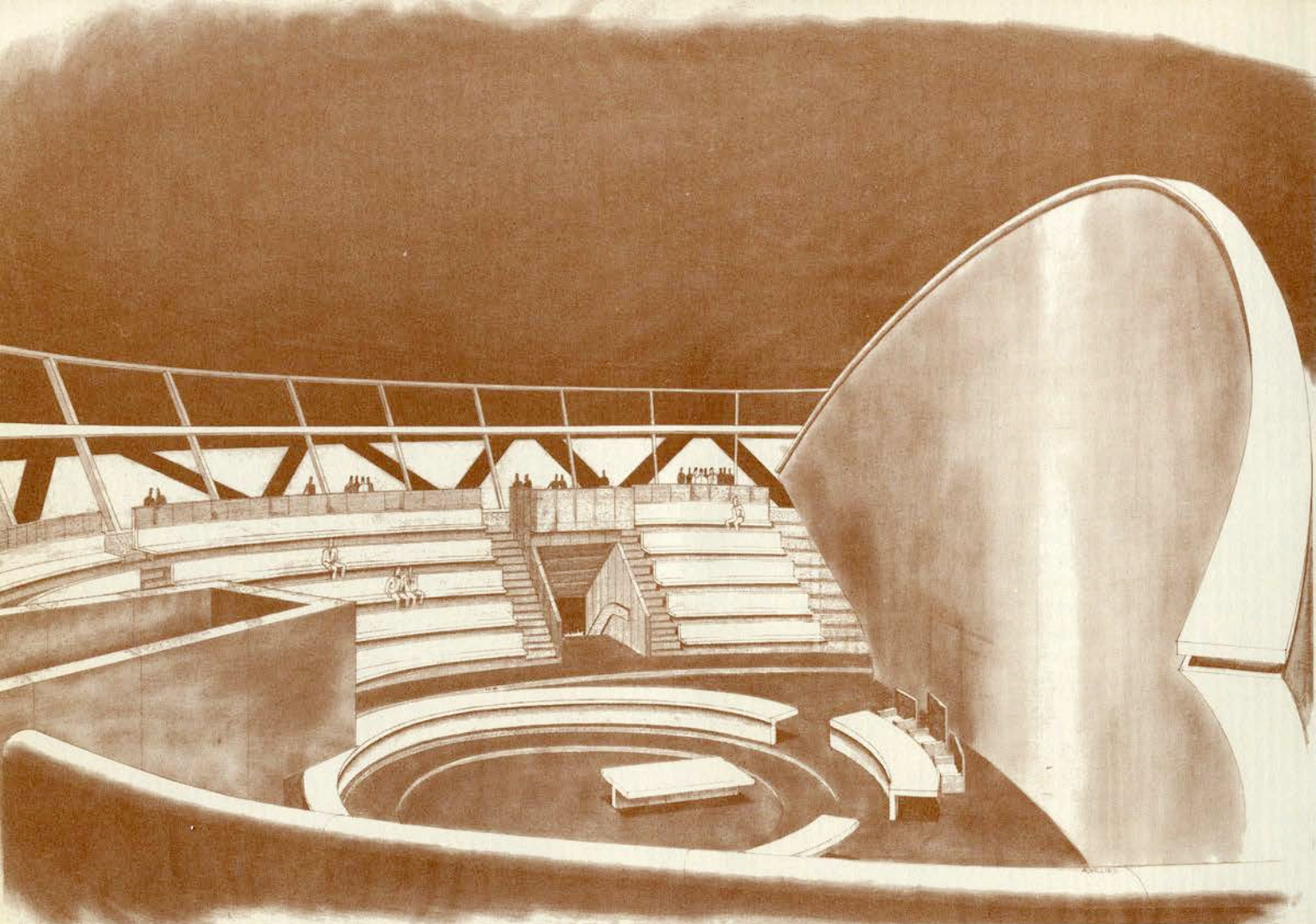
Architects and Engineers

VILJO REVELL

In association with

JOHN B. PARKIN ASSOCIATES





COUNCIL CHAMBER, INTERIOR

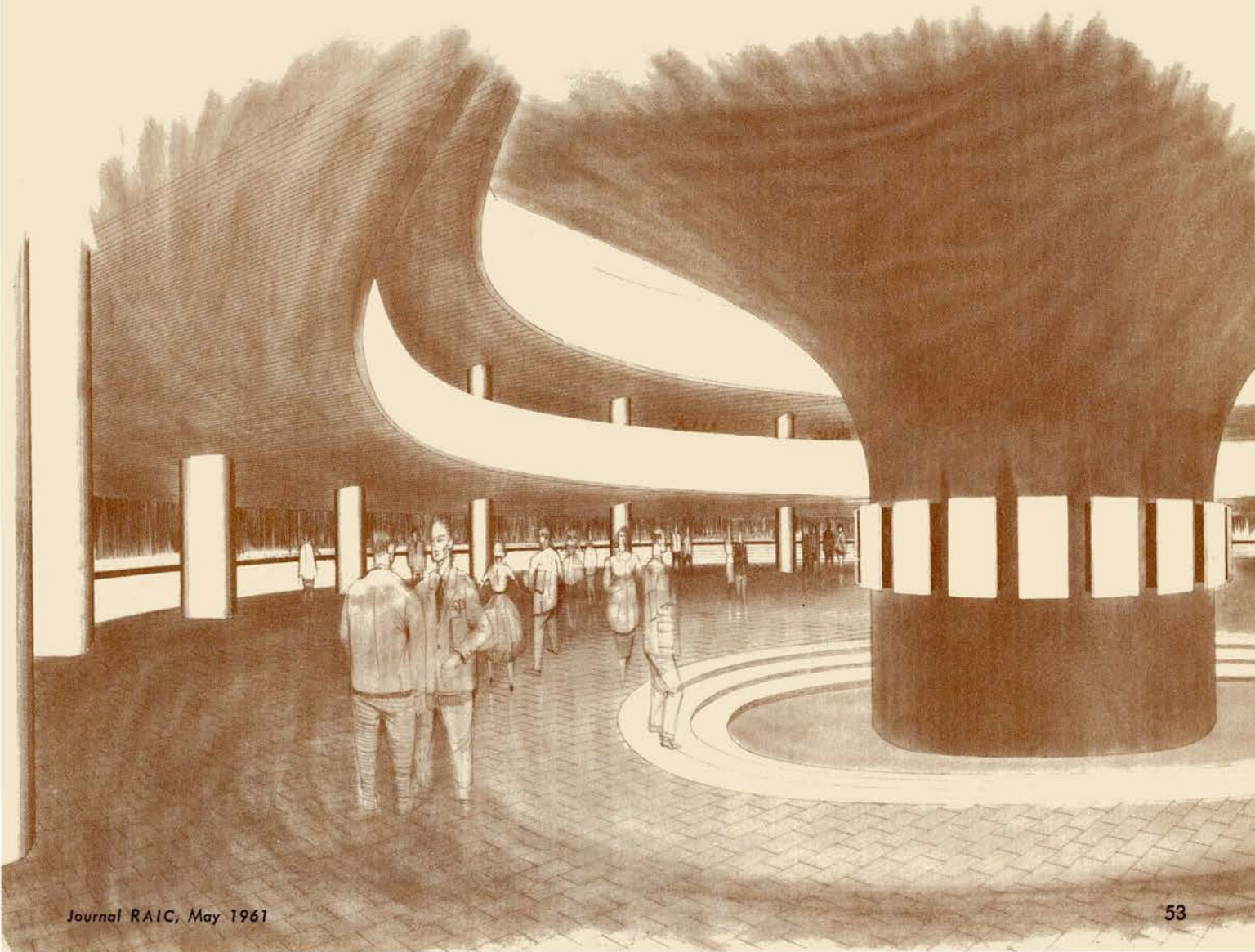
The circular space is divided by the curving screen wall at right. The council chamber is at the front and behind is the main members' lounge. Beneath the members' lounge is an ante-room leading to the chamber. The council members' seats are in a ring in the middle of the chamber, surrounded by public seating behind them. Around the latter a gallery walkway can be seen, from which level the view is taken. From the gallery there is a view to the podium roof and the civic square beyond. The whole space is covered by an acoustically treated reinforced concrete dome, lit by dome lights and downlights.

TYPICAL OFFICE FLOOR

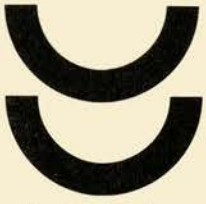
Private offices, adjacent to the open general office space at the front, look out through the glass walls. There are 20 such floors in the east tower and 14 in the west, but technical, observation and podium floors bring the total heights to the equivalent of 28 and 22 storeys. The office floors resemble galleries around a huge central open area, with the council chamber forming the focal point, and, as they are so much a part of this monumental entity, it is intended that their external expression, by day and night, will conform to the whole conception.

THE PUBLIC ACCESS AREA

The view is from within the main circulating area on the first floor, where the public has access to the counters and serving wickets forming a huge circle around the 20-foot central column supporting the council chamber. The public access area can be reached on foot from the Civic Square or by car from a lower level. The rotunda also serves as a place of entry, by means of elevators, to the council chamber and the civic departments within the towers. The centre of the rotunda will include a Hall of Memory in which will be located the Golden Book of Remembrance.



PROJECT

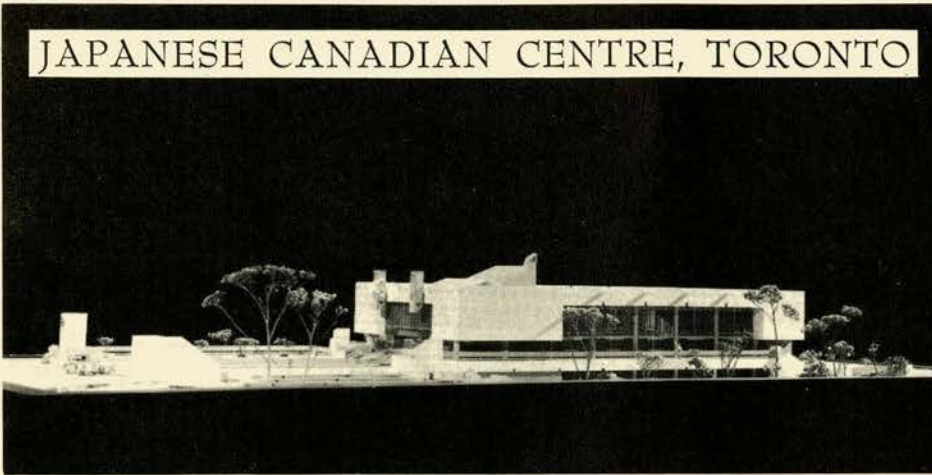


Symbol for Centre
designed by Mr S.
Shikatani, Toronto

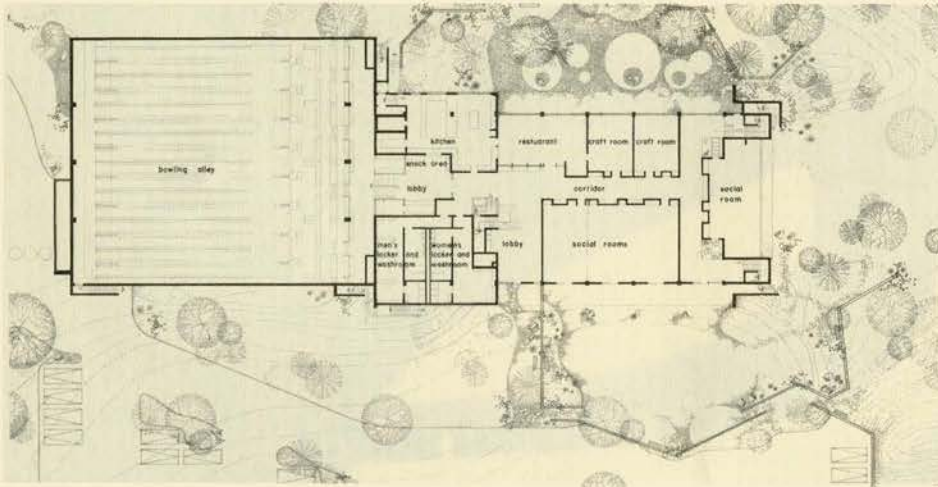
The Japanese Canadian Centre is intended to provide a social and cultural link between the Oriental and Occidental as well as expressing the vitality of the Canadian Japanese Community.

The design is neither Canadian or Japanese. It is the representation of an energetic, imaginative and progressive Japanese-Canadian as I see him. The garden is indicated in principal only and relates directly to the rooms adjacent to it. At the front of the Centre is the piazza for special functions such as the summer dance festival, bazaars and receptions. On the East of the building is the "Active participation" garden. On the South will be the serene "Meditation" garden with possibly a pool in the future. To the West is the "play" garden for children and adult parties, dances etc.

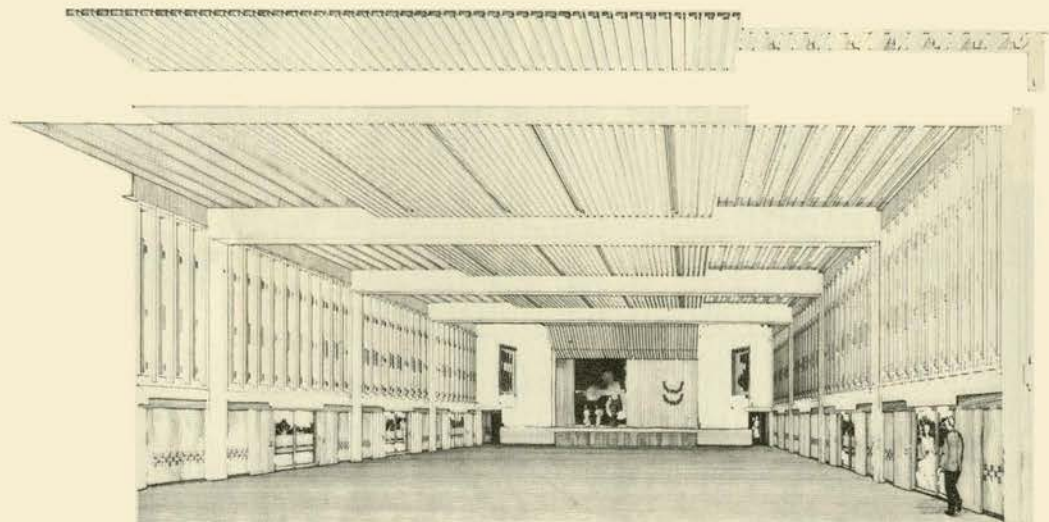
JAPANESE CANADIAN CENTRE, TORONTO



Architect: Raymond Moriyama and Associates, Toronto



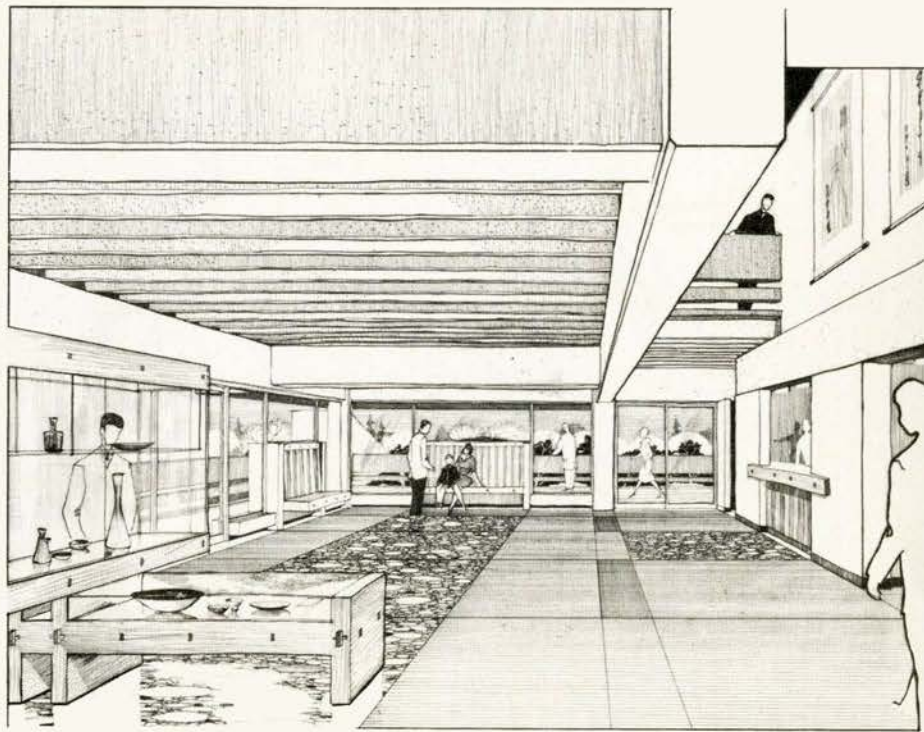
BELOW: MAIN AUDITORIUM.
The stage is planned to Western principals although Japanese Traditional Theatre can be performed. Apart from stage and group activities, the hall is designed for badminton and other indoor sports.



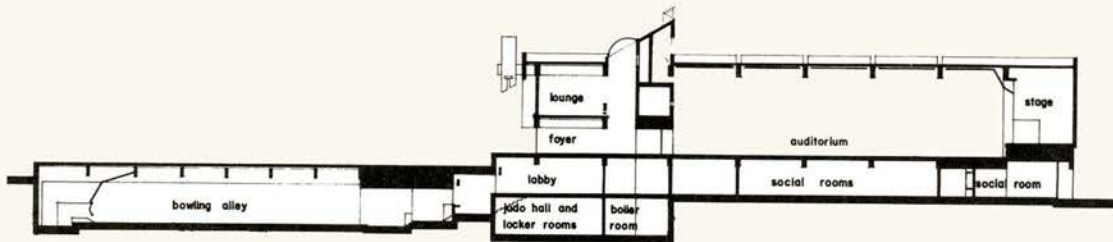
The main building is on several levels, the lowest of which is the bowling alley. This is separated from the centre, although access is gained from the main lobby. The roof of the alley forms the piazza, and is reserved for pedestrian circulation. At the same level as the bowling alley and below the main lobby, is the judo hall, with approximately 56 tatami for active Judo area. Camera and Printing rooms may be added later. From the lobby, the main corridor leads to the social and craft rooms, restaurant and wash rooms as well as to the central stair well. This is the heart of the centre, where horizontal and vertical traffic is routed.

Immediately above is the auditorium which will accommodate 800 people and which has a separate foyer leading directly onto the piazza. On either side of the auditorium is a balcony overlooking the gardens. Above the foyer is a lounge overlooking the Main Gate, a library and conference room.

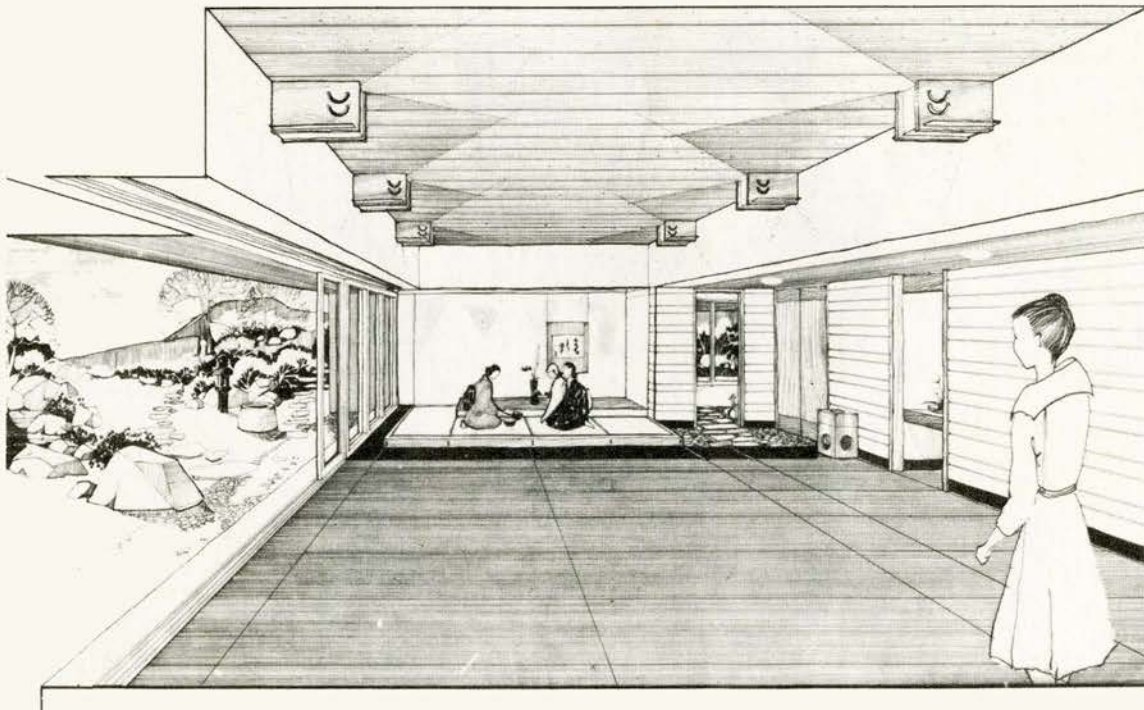
Raymond Moriyama.



ABOVE: ENTRANCE FOYER

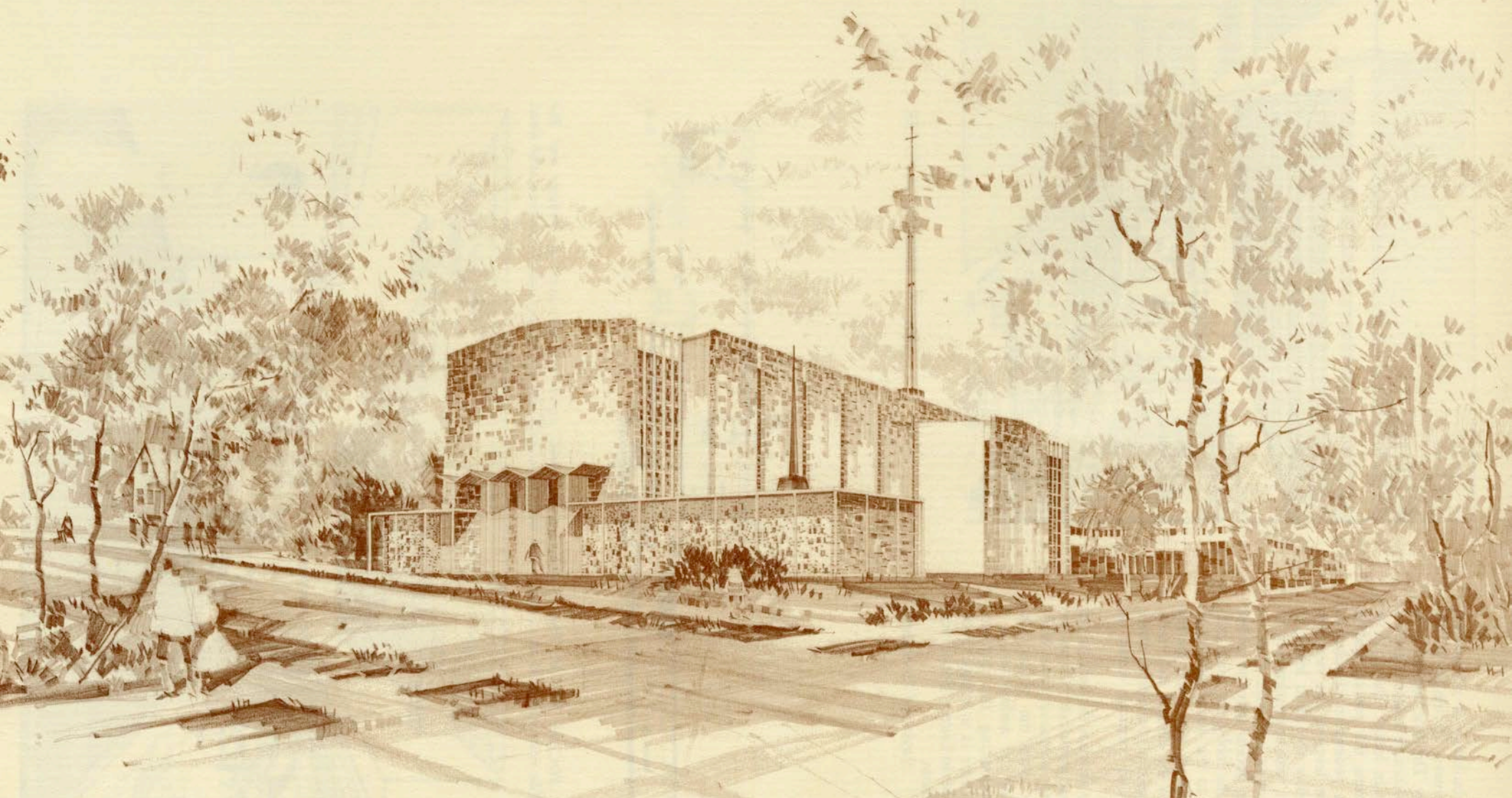


BELOW: A SOCIAL ROOM. This is designed for small group activities such as Ikebana and Tea Ceremony. The rear wall will be covered with traditional gold leaf wall paper which mellows with time.

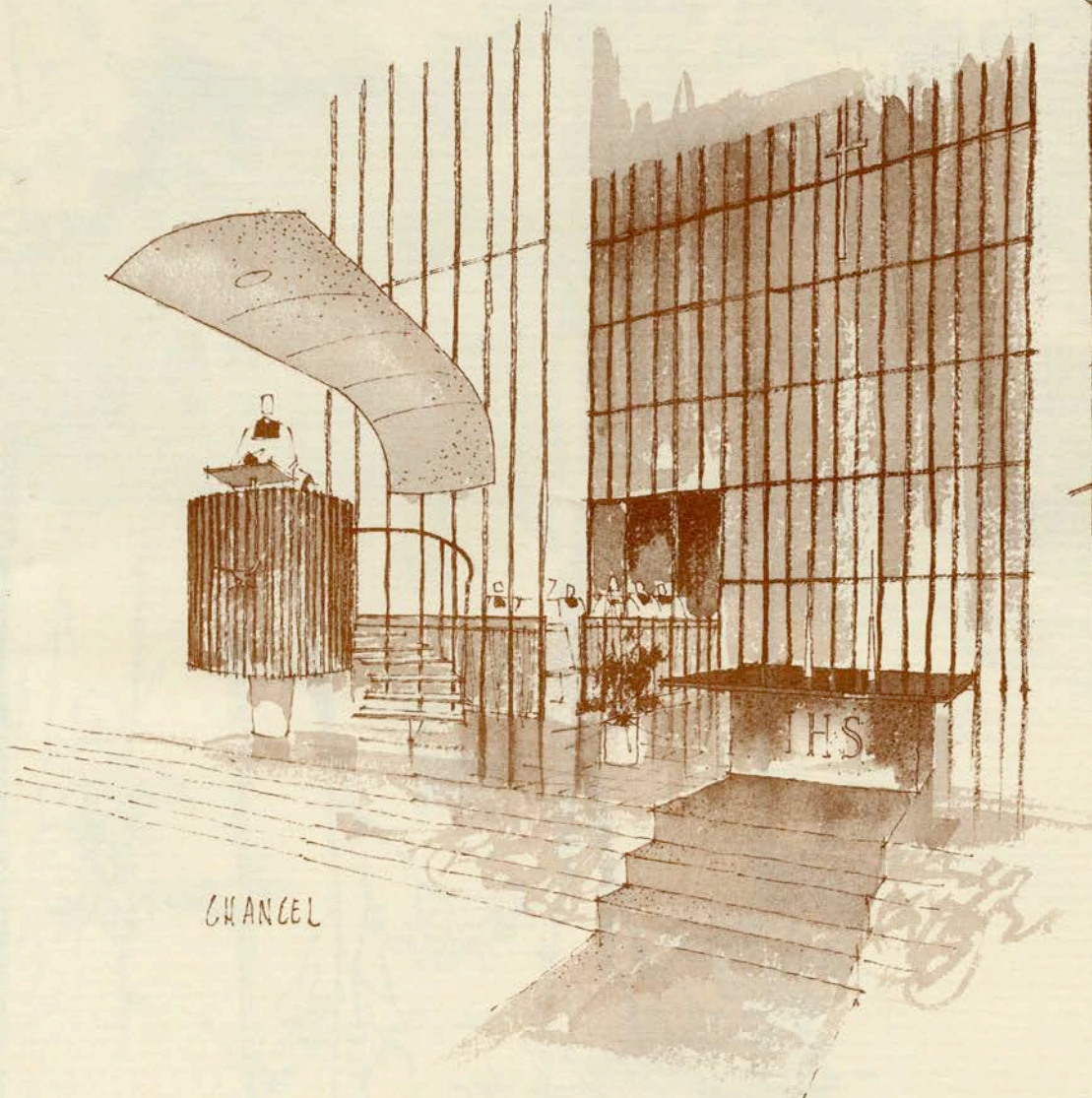


PRESENTATION DRAWINGS FOR TWO CHURCHES

Architect: William Wilding, Vancouver

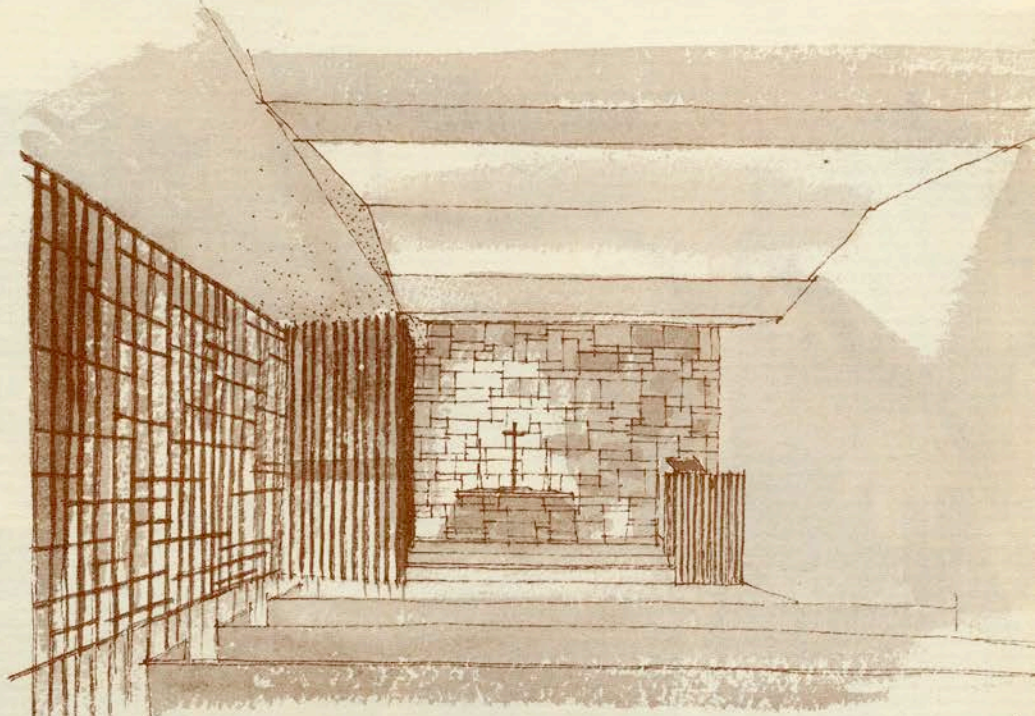


QUEENS AVE. UNITED CHURCH
NEW WESTMINSTER

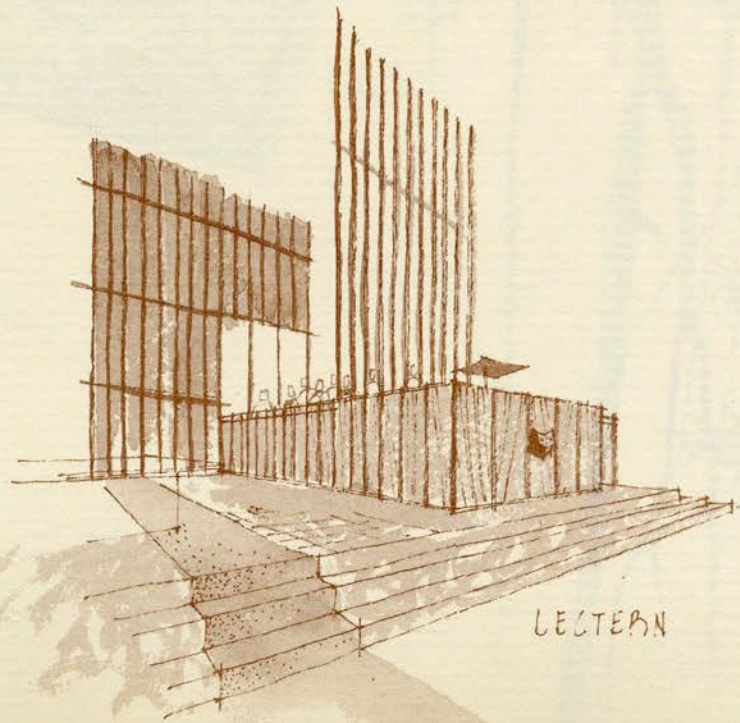


CHANCEL

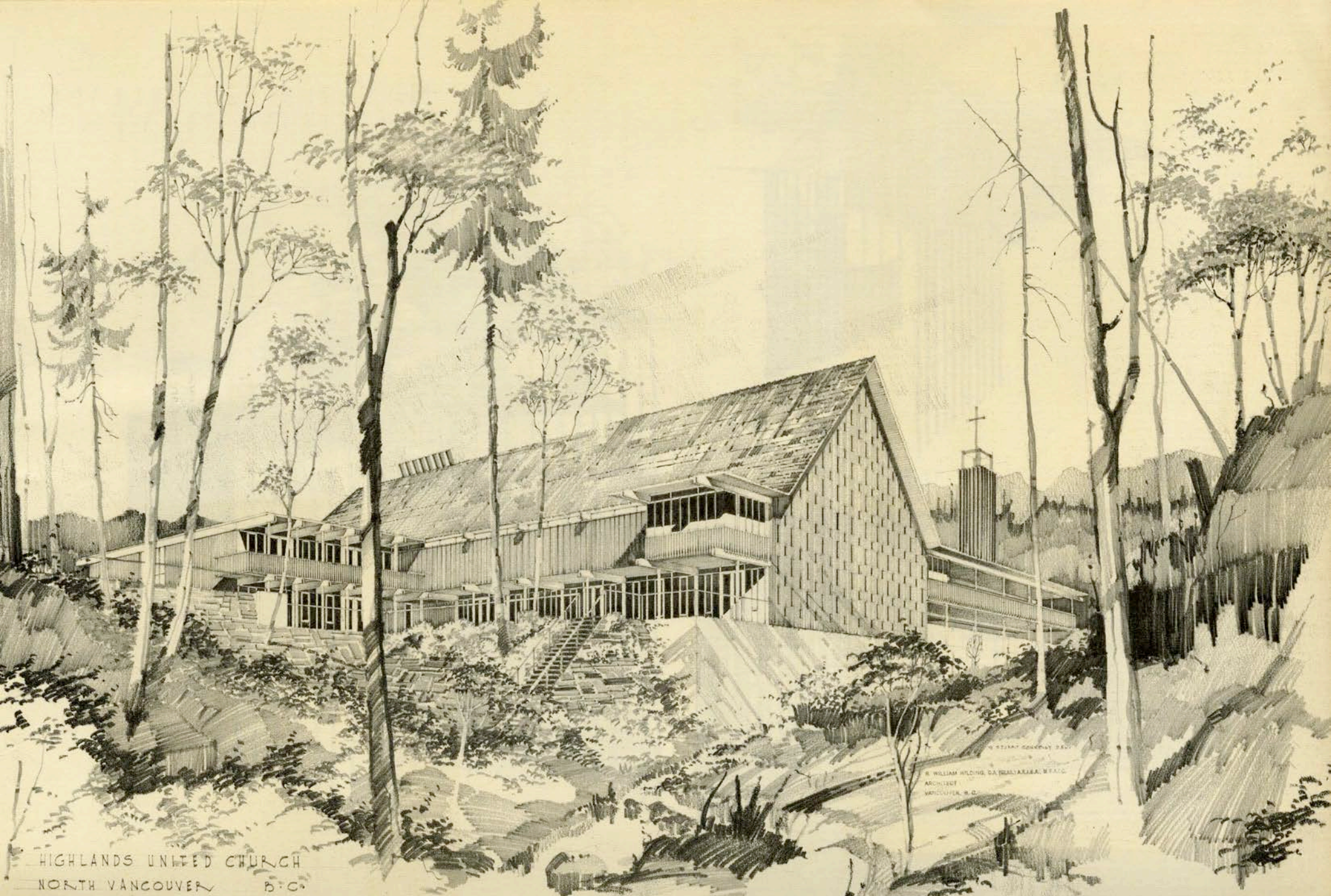
CHANCEL FURNITURE
QUEENS AVE. UNITED CHURCH



CHAPEL

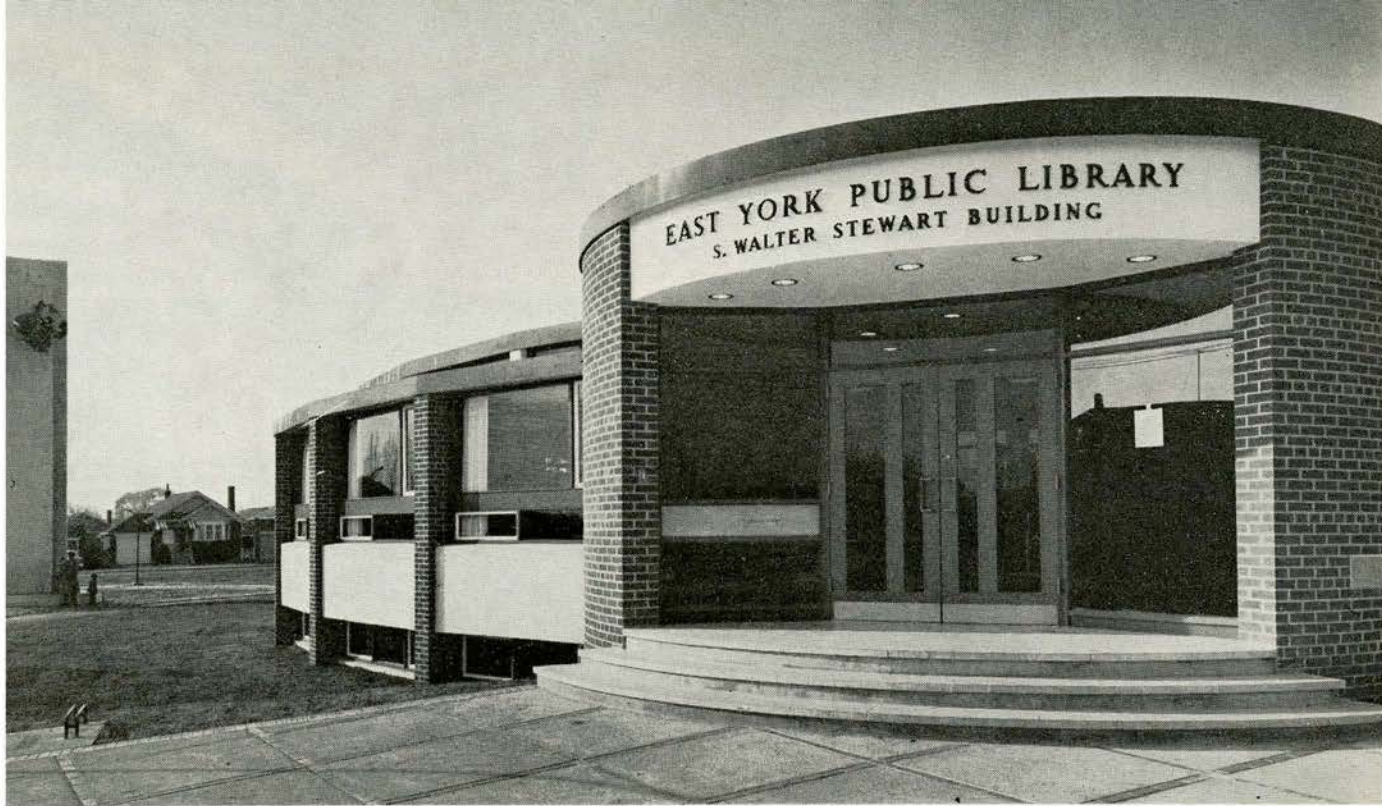


LECTERN



HIGHLANDS UNITED CHURCH
NORTH VANCOUVER B.C.

W. WILKINSON
ARCHITECT
VANCOUVER, B.C.



EAST YORK PUBLIC LIBRARY, ONTARIO

ARCHITECTS

Parrott, Tambling & Witmer, Toronto

Architect in Charge

John S. May

Sculpture

Gerald Gladstone

STRUCTURAL CONSULTANTS

C. D. Carruthers & Wallace, Consultants Ltd

MECHANICAL CONSULTANTS

R. P. Allsop & Associates Limited

CONTRACTOR

Bennett-Pratt Limited

PHOTOGRAPHY BY PANDA

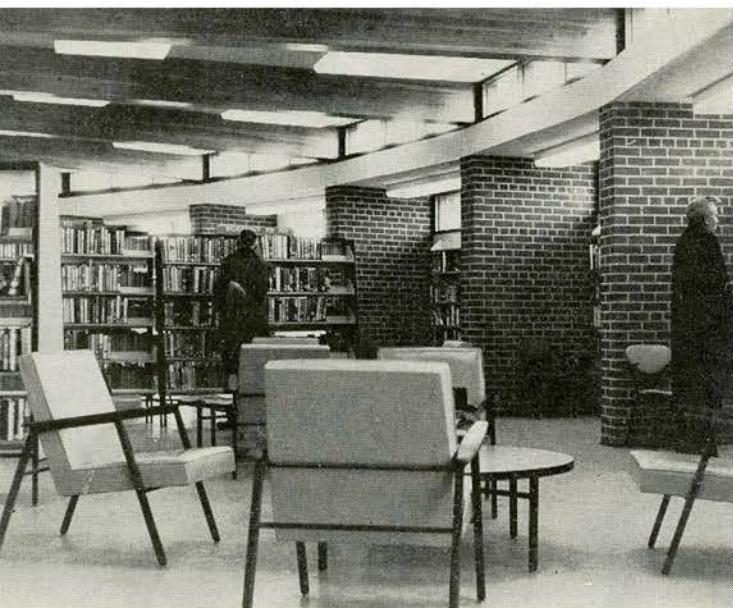
The library is located in the south half of a park site and every effort has been made to preserve the quiet and domestic atmosphere of the neighbourhood. Traditional materials, brick, wood, stone and copper, have been used.

In plan the building is a circle of 120' 0" diameter with three small circular rooms on the perimeter. The control hall, in the centre of the library, is designed for maximum visual supervision. Opening directly off this area the public washrooms, adult reading rooms, reference and student sections. The central space is occupied by a semi-circular charging desk. Most of the shelving is free-standing. Permanent shelving separates adult, student and reference areas but preserves the open appearance. At the north end a semi-circular alcove forms the music area, with related books lining part of the wall and record display and browser bins the remainder. A large circular bench unit occupies the centre of this area and is equipped with record players. To the right of the control hall is the boys' and girls' reading room with furniture scaled to children's size. Another circular room at the north end is the story hour room. Daylight is admitted through a plastic dome directly over the story-teller's position. The floor is tiered down in five levels. Children select their own brightly colored cushion on entering the room and arrange themselves on the steps around the speaker.

In the basement is a small auditorium, seating 200. With seats removed it becomes an exhibition hall. The auditorium has kitchen and washroom facilities, and may function independently of regular library hours. The library interior has been designed to create a warm and homelike environment. Natural colors and materials are used wherever possible. Splashes of bright color are confined to furniture and doors.

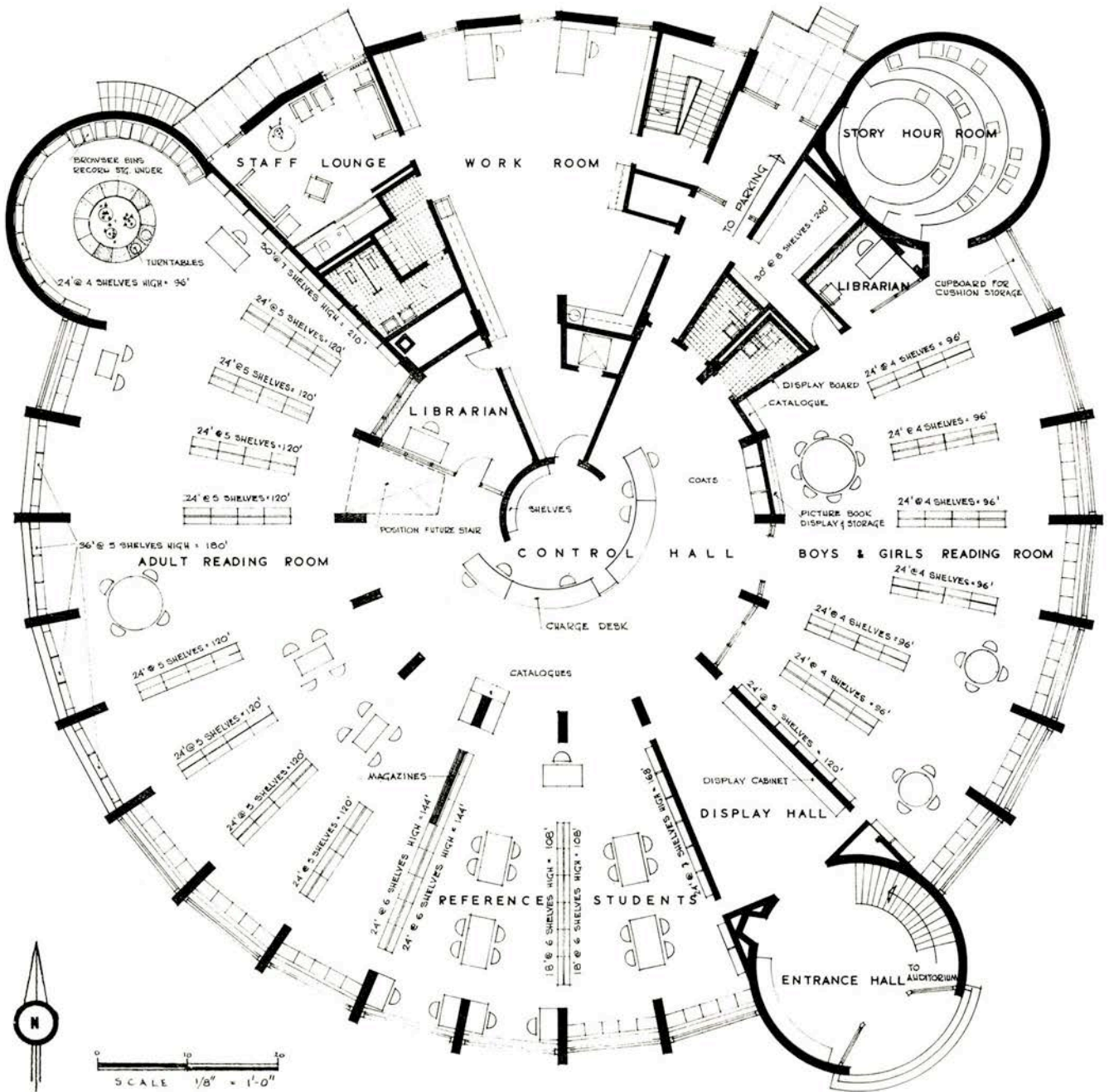
The building was not designed for expansion, as the municipality plans to use it as a central library and build branch libraries for future needs.

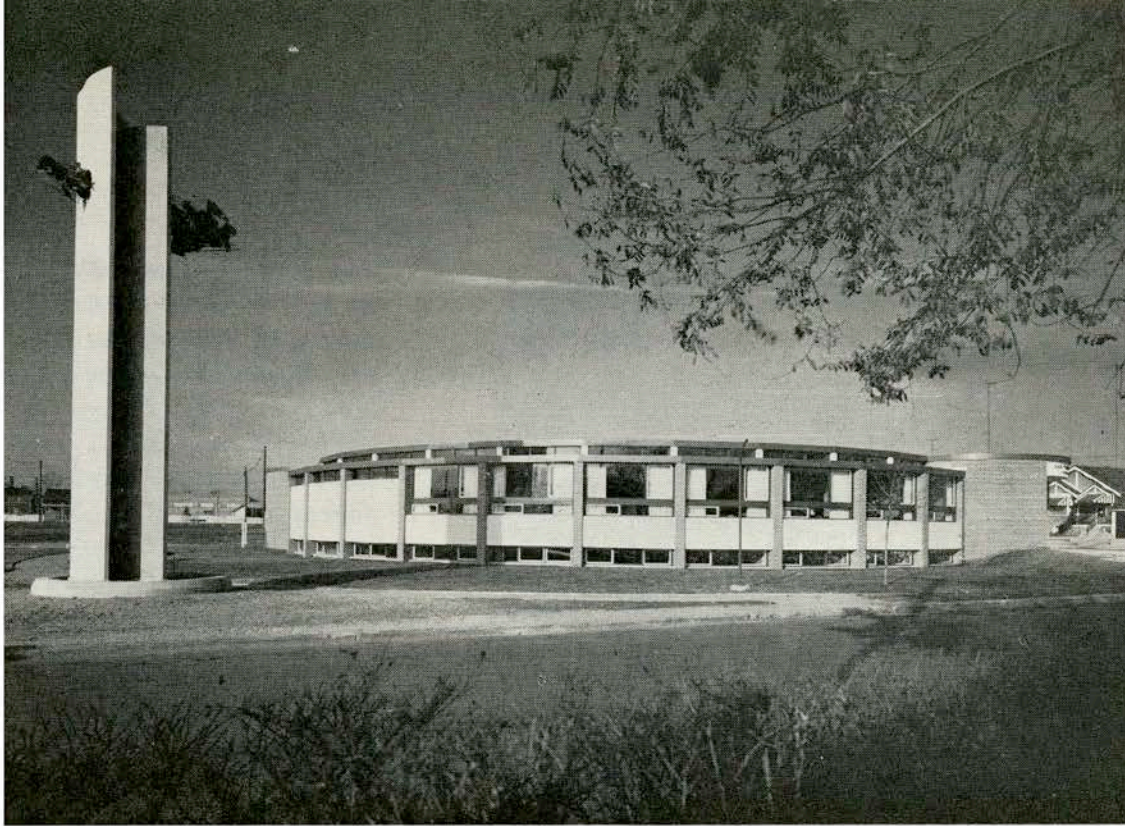
Reading room



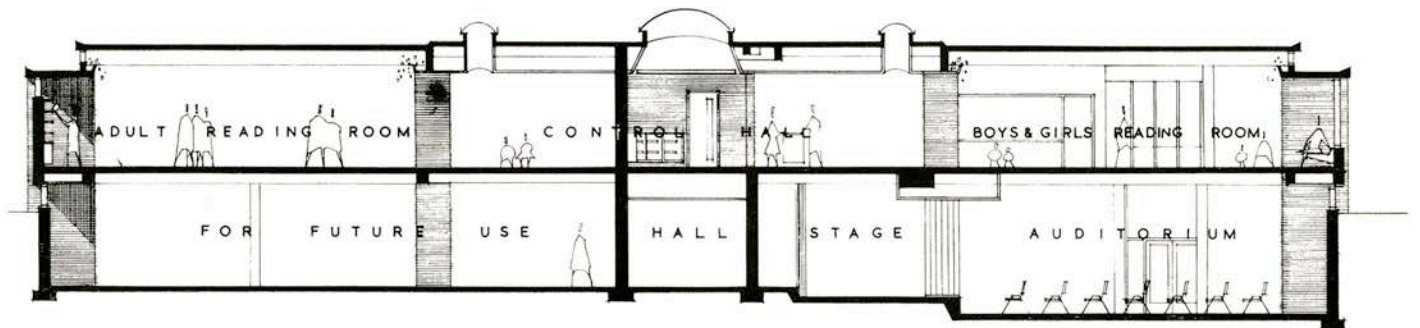


Control Hall through to reading room

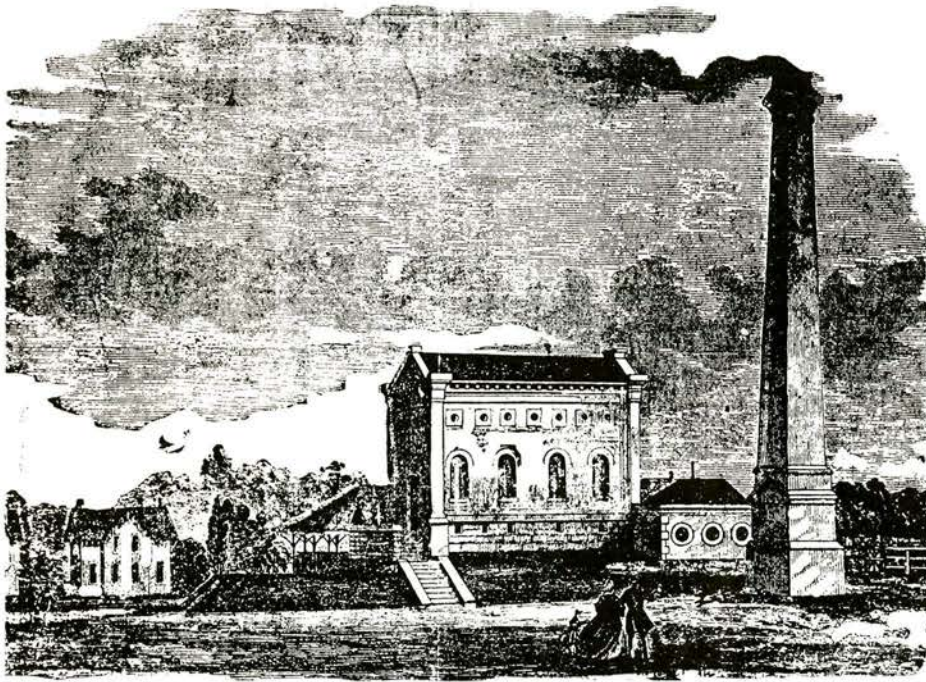




*South west elevation
Pylon by Gladstone*



The music circle



Still standing today, the old Beach Pump House is shown in a wood cut from the Canadian Illustrated News of 1863. It was described at the time as "a gigantic enterprise" and newspapers claimed "the chimney of the works looms up to a height of 150 feet and can be seen by sailors leagues away across the lake".

The Old Pump House in Hamilton

A CENTURY AGO this remarkable old building must have been a rather isolated landmark far removed from the city that it served. Today, it stands on a mound that lifts it above its dull red pressed brick successor as the pumping station for Hamilton. Where once it could be seen for miles around, it is now surrounded by miles of industrial and commercial buildings. I would suggest to the visitor that it is best approached from the Burlington cut off at its Niagara end from which the House and chimney stack are clearly visible.

It is the interior that makes the Pump House so important, but the exterior is of considerable significance as an example of architecture of the mid-nineteenth century. Over the entrance door, and, beneath the handsome cast iron coat of arms of the City of Hamilton, is a tablet which reads — "Thomas C. Keefer, Esq., Chief Engineer 1859. Hamilton C.W." and, in another place, "John Gartshore, Contractor and Builder, C.W. Dundas Foundry". Mr. Keefer must have had quite a reputation as an engineer because he not only designed the Hamilton waterworks but Montreal before 1856 and Ottawa about 1872. I am indebted to Mr. J. D. Herbert, Chief of the National Historic Sites Division in Ottawa, for this information. The walls, generally, are of ashlar as weathered and mellowed as any temple of antiquity. A smoother ashlar is used for gables and the trim of windows.

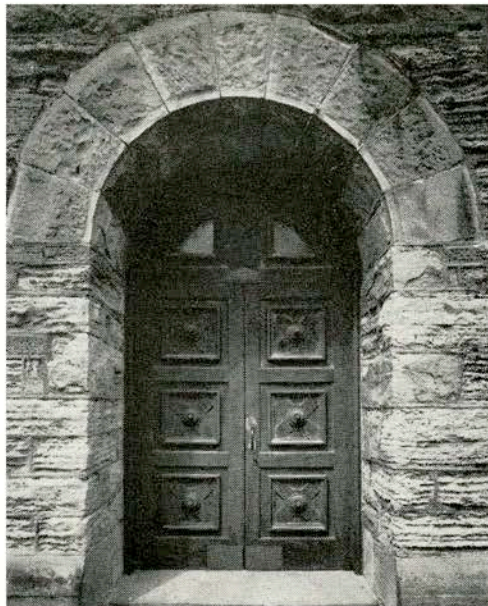
Fine as is the architecture, it is the mechanical equipment within that makes the Pump House unique in Canada and perhaps as complete pumping equipment of a century ago under one roof, unique in North America. Largely by good fortune and the devoted care of generations of engineers, the mechanical parts are in as good condition as when the Prince of Wales declared the building open in 1860.

The pump, which was operated by a walking beam, was capable in its day of circulating 2,250,000 gallons of water a day, and, I am told, could do so again with one hour of preparation. It has not been used since 1929, but, even in retirement, its steel and brass have been kept polished and its moving parts oiled. The floors which can be seen in the photographs are of oak and three inches in thickness.

Some two years ago, the writer drew the attention of the Hamilton City Council to the value of the Pump House as an historic monument. Council acted promptly in asking for a survey of the property, and in permitting visitors to inspect the building. This year, with the most commendable foresight, Council let a contract for \$17,000 for necessary repairs to walls and roof.

The Committee of the RAIC which is concerned with the preservation of historic buildings of architectural distinction has made a formal request to the National Historic Sites Division of the Department of Northern Affairs for the designation of the Pump House as a national monument.

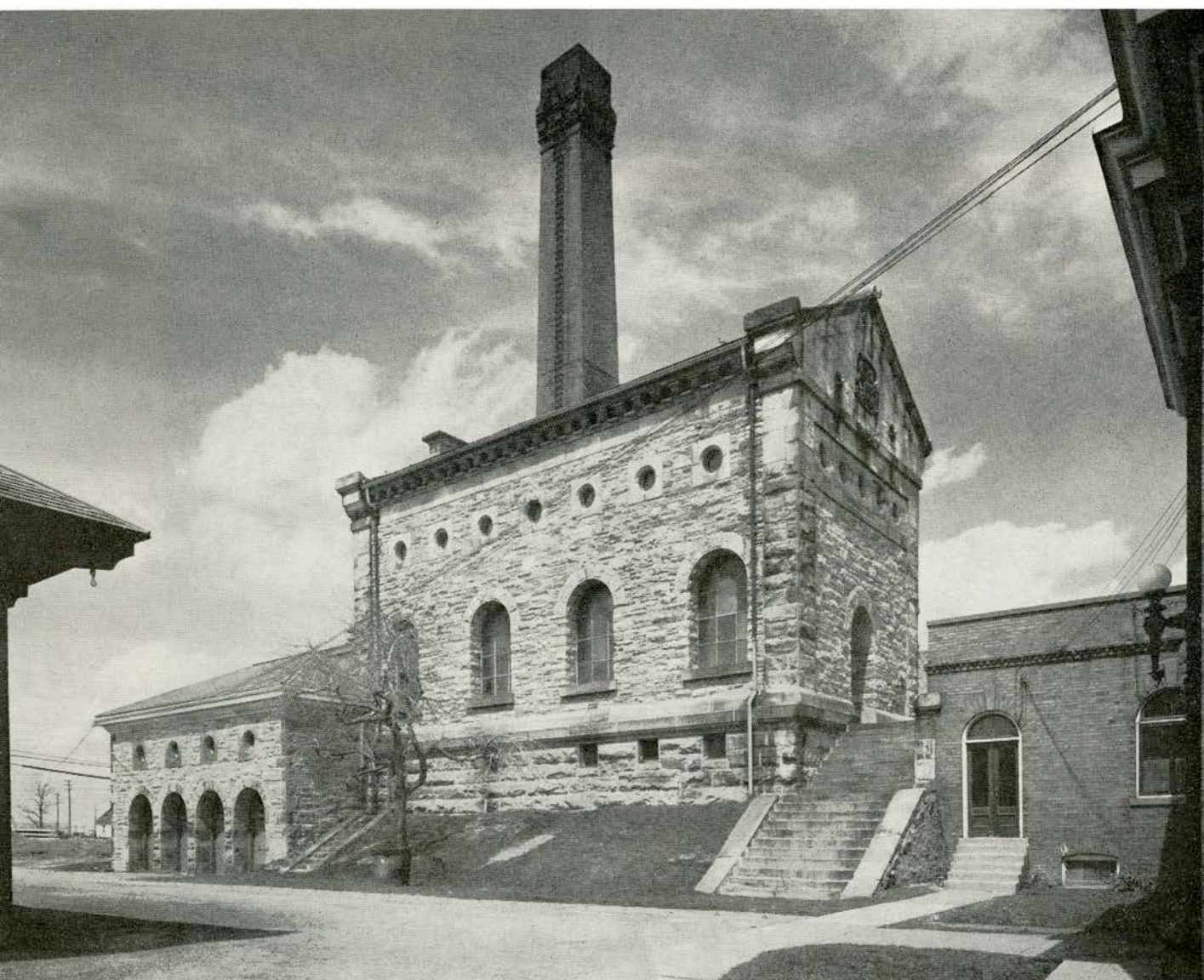
E.R.A.

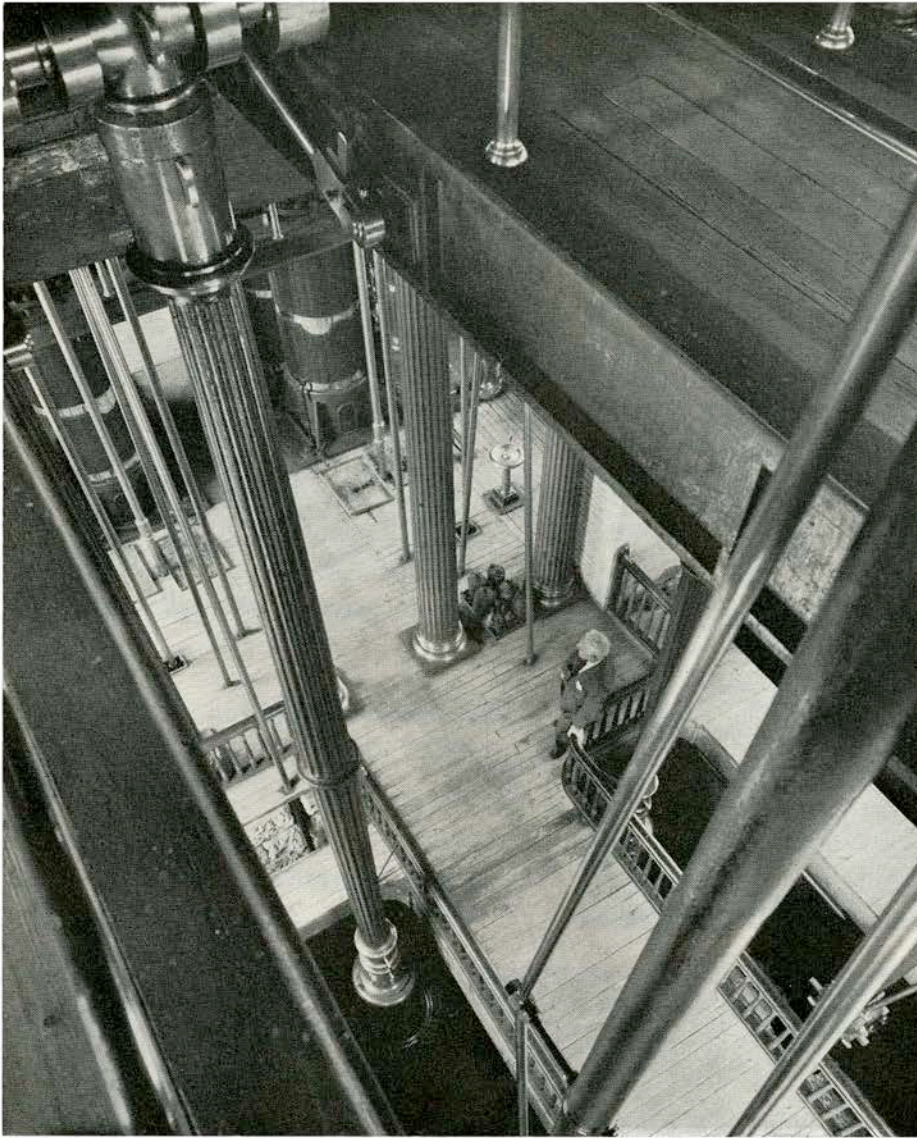


...ashlar as weathered and mellowed...

*... the handsome cast iron
coat of arms ...*

*... stands on a mound that lifts it above
its dull red pressed brick
successor ...*



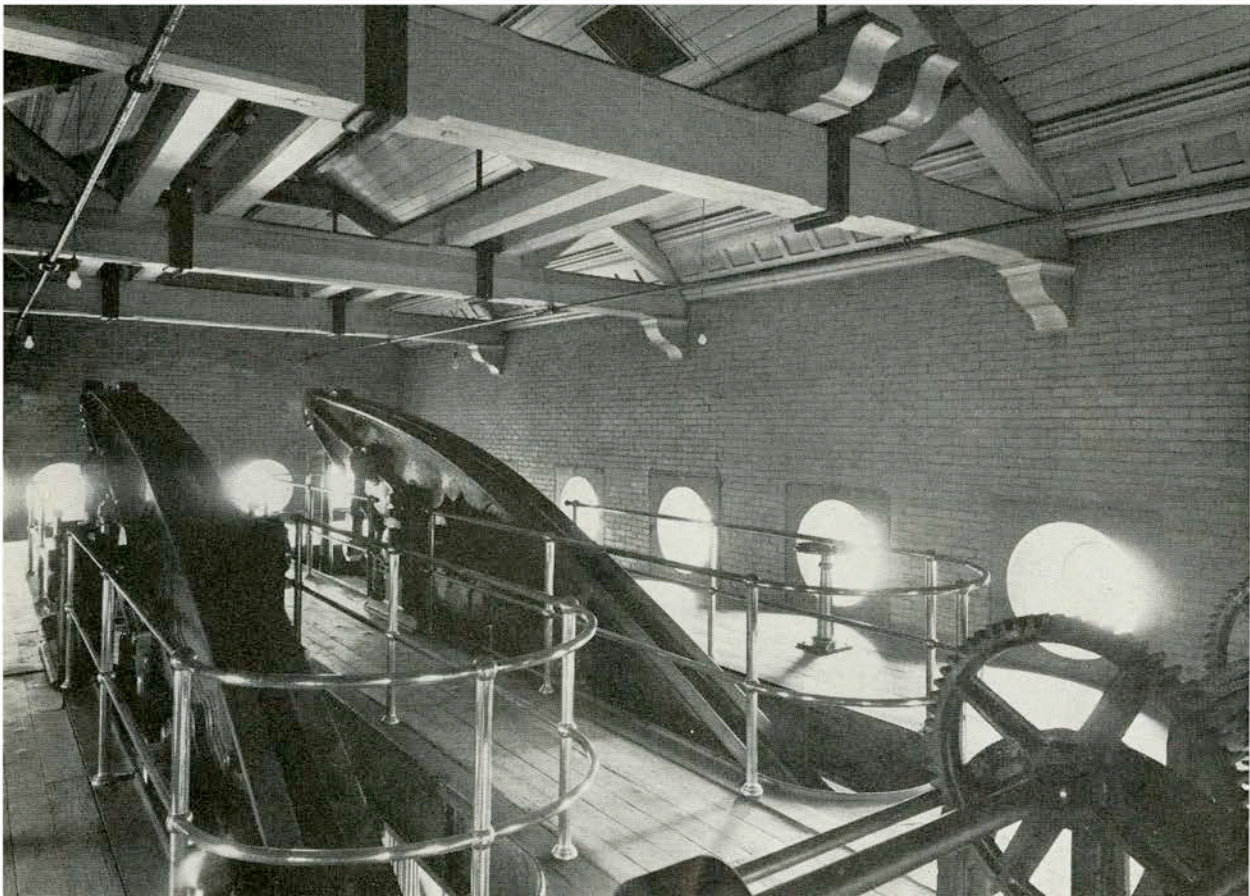


*... the pumping equip-
ment of a century
ago ...*

(GROUND FLOOR)

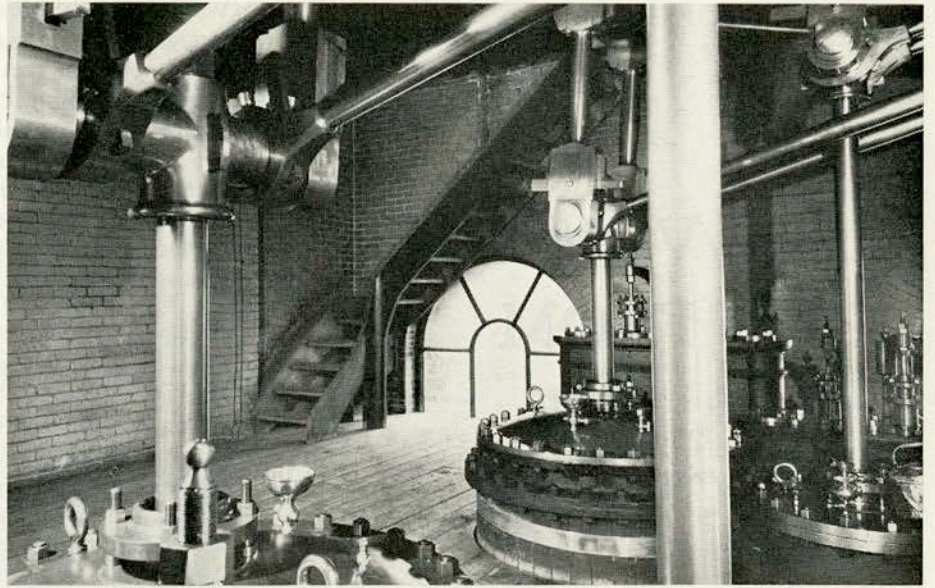
*... was operated by a
walking beam ...*

(THIRD FLOOR)



*... steel and brass
have been kept
polished and its
moving parts
oiled ...*

(SECOND FLOOR)



*... fine as is the
architecture ...*

(GROUND FLOOR)

PHOTOS BY PANDA

A VOICE FROM THE CELLAR

Address to the
Ontario Association of Architects

by

IAN MACLENNAN

*Chief Architect and Planner
Central Mortgage and Housing Corporation*

ERIC TRUSSLER



WHEN I WAS INVITED to speak to you at this luncheon my first thought was to refuse, and we may all end up stirring our coffee, reflecting that first thoughts are often best thoughts. I told the committee "I'm not the man to deliver that smooth, civilized after-luncheon speech which the architects of the province, and their ladies, so richly deserve." They agreed with me and told me to talk about anything I wanted, but above all to be myself and not to be inhibited. This was madness and I'm going to take them up on it. I may never get another chance.

They did tell me to keep it simple and I'm sorry about that. I had thought of touching on the inter-acting relationship between the Gross National Product, fluctuating interest rates and gross debt services on short and long term mortgages. You are familiar with the classic view that fixed rebates on debenture issues with sliding returns depress market activity on the Consolidated Revenue Fund generally. The contrary view expressed so that even our Financial Advisers can understand it: "not necessarily a tight money policy . . . but a tight money policy if necessary," can be defended, but I must leave this subject now with real regret.

The temptations have been tantalizing — but I felt that in front of my peers, I must be conventional and do the "Right" thing and therefore propose to follow in the great tradition of criticizing the profession. I don't want to do this, I'm very proud of the profession. However, as an architect in the public service, detached from the general warfare of private practice, my innocence qualifies me as an expert and we cannot afford to miss this opportunity.

The title of my talk, "*A Voice from the Cellar*," has no significance at all, unless it reflects my position in the hierarchy of architectural endeavour. It does suggest a previously prepared position to which I might well have to retreat when I have finished. I only gave a title because John Miller was hounding me and I threw him a slightly used bone belonging to Robertson Davies. I'm going to talk briefly about housing, package dealing, city building and the profession, with stress on the profession's collective responsibility rather than the architect's personal responsibility, and here's how it seems to me:

It seems to me that the profession is getting a little more aggressive lately and many architects are becoming more critical of the profession's negative role in the building of our cities. They are concerned that the profession has not forged ahead with imagination, conscious of civic responsibility, over the past years. Our incomes may have gone up and our numbers grown, but our real comparative influence has declined, just when it needed to grow — with Canada.

Many realize now that while the profession was indifferent and stood aside, housing in this country grew into a great industry, the largest in Canada and the biggest package deal in our history. While it was happening it wasn't considered "U" to work with housebuilders, and it was very difficult for good architects to make satisfactory arrangements with the growing industry. A housing package deal offers a convenient "take it or leave it" package with gimmicks added as necessary to promote sales. Of course, some builders gimmicks have always included tame, pet architects, care-

fully caged — they squeak when you touch them. I mean — the architects, not the builders. They're in Florida at this time of the year.

Now the package deal is recognized, it is growing and moving into other fields. Industry and Commerce are shifting to new business methods, bringing new requirements to be served. The profession has not kept pace with these requirements, nor understood them. There has been little research undertaken to delineate the problem. And so, while the package deal grows and diversifies (sometimes providing a convenient and efficient service), we appear to be pre-occupied with fee cutting and other problems, and less concerned with the standard and extent of professional services provided to the public.

With respect to city building it's even worse. (Please be patient with me, I'm going to be encouraging at the end.) It is quite apparent that the profession is making no real effort to understand the city's problems. We have been indifferent, and yet arrogant with criticism, and into the vacuum created by our indifference has come a new profession — the town planning profession.

Now this isn't strictly accurate and it sounds as though this might be, in my opinion, the greatest evil to have sprung from our indifference. I hasten to assure any town planners present that no such thought was intended. It is natural and inevitable that this profession should grow in importance and strength. I wouldn't mind if one of my sisters married a town planner. What is not natural and inevitable is that there should be so few architects in town planning in this country.

Town planners are coming into the field from the disciplines of surveying, engineering, traffic analysis, law, economics, sociology, transportation, geography, political science and the arts but not architecture. *What do all these people do?*

Well as an illustration: the surveyor lays it out, using a mental 66 foot chain, the engineer builds the roads and the traffic expert snarls them up, the lawyer makes it legal and the economist says we can't afford it. The sociologist says, "That's too bad — that's what people want." About this time the transport expert sends a D.C. 8 over the sleeping town, waking everybody up; and the geographer, bringing a sense of scholarship to town planning, says, "I think they put this whole deal in the wrong place." The Political Scientist says, "Actually, this country isn't ready yet for democracy", and the Bachelor of Arts, realizing he's in the wrong profession, goes off to read the Tamarack Review.

Where's the architect? He's at home having a martini saying to his wife, "Those bastards are really making a mess of Toronto," and she replies, "Darling, I wish you wouldn't use that word — it's not professional and it's bad for the children."

You may think this a bit critical and you must forgive this pun, but I do get impatient and burned up, while, so to speak, Rome grows and you guys fiddle around . . . with your Cadillac convertibles and mink tracing paper.

Well, with or without the architect's help our cities are getting built. We must decide if we are going to play a more effective role when the decisions are made which affect our physical environment and our way of life. At the present moment architects do not have an effective voice in the

shaping of our communities and, because of our indifference up to now we haven't earned it.

We have been content to set our buildings down into the general mess and squalor and look at them with blinkers on. We photograph them carefully to exclude the ugliness all around and we try to keep the overhead transformers from appearing as Coats of Arms over our main entrances.

We accept the common nonsense decisions of our common sense society, and the latest decision of the bureaucrats: establishing Building Appearance Committees to protect the community from architects and other wild life, is in the great mad cap tradition, which Alice would have approved. It's neat, by gentle inference the mess is all your fault — and by keeping you architects in line, everything will be O.K. (Notice how I've changed suddenly from "we" to "you". I'm on the Ottawa Committee. I want to be there on judgment days, when the saints come marching in.)

It may be necessary to start making some long range plans, soon, before the profession becomes neurotic.

We can follow the practice and precedent of our English colleagues. Their long term solution to the problem appears to be infiltration of the British government by architects, and final overthrow from within. They are not far from their goal, only 44% of them remain in private practice, the rest work for the government, or train others in preparation for it.

This may not be the solution for us, we are too few in number. And anyway, we must be careful to analyse our own problems and find our own solutions. You can't apply British methods directly to Canada. Only the other day I was thinking, or reflecting, on reflection pools. This was the first one in five years and I wanted to be careful. The British Information Service has a film available called, "POOL OF CONTENTMENT". I looked it up and the blurb reads, "*Some light hints on making the best use of a typing pool in a government office.*"

The Americans are no better. They have taken the lovely word "Lagoon" and made a sewage treatment plant out of it.

We must be fair about the British. They are intellectually more active than we are. Recently a new magazine has come out over there called, "The Townsman". It is the official organ of The Society for the Preservation of Urban England. This is a classic example of the British sense of fair play — fielding a team against "The Society for the Preservation of Rural England." I thought you might be interested in the contents of the first issue of "The Townsman". It's reassuring to think that there will always be an England.

Here are some of the articles:

"Rare London Smells"	by Sir Banstead Whittiers
"The Romance of Soot Accretions"	by William Budoni
"Why Not Live in a Tram?"	by Lidia F. Pring
"Hands Off Umbrella Design"	by "Londoner"
"Current Cranes and Where to See Them"	by D. W. Mouse, M.I.C.E.

The final item is a weekly bulletin on those streets in the city which may be safely used. It is called, "Road Up — Round Up" by "Tarmac". Those who are interested in the publication may obtain their copies from "Punch", the English "New Yorker" magazine.

What should we do then about our ineffective role in city building, in city planning; what should we do about housing, and the package deal? Some of us still want to practice architecture — how can we protect the profession and what should our long term objectives be? Now of course I don't know what should be done but I have a few comments to make, and some suggestions.

Certainly the architectural profession is facing a crisis of serious problems, though I have discussed only a few of them. It would seem reasonable to have more discussion of these problems; some important decisions will have to be made about the future and there is not enough thoughtful discussion here in Canada. Surely it is possible and necessary to make these decisions deliberately, in pursuit of well defined goals.

In spite of my remarks about the British, their Royal Institute does provide an active forum for discussion and I would like to quote briefly from a paper by W. A. Allen delivered to the RIBA some months ago. It has some relevance here.

Quote:

"A professional individual is responsible personally for giving good advice to his clients, but his profession as a whole has parallel responsibility to give sound advice to the community on affairs which are within its sphere of interest and competence."

"To justify public comment . . . a profession must have built into itself from its education a set of aesthetic and economic values, and the papers which an Institute reads and discusses must reflect this. These are simply the logical requirements."

"The fact is that professions are great and esteemed in accordance with the sense of responsibility which their members possess individually, but also collectively."

End of quote.

Except for the recent RAIC Committee of Inquiry, our profession has not been giving sound advice to the community. It hasn't been giving any. It reads and discusses few papers on matters of significant interest to the community, and is esteemed accordingly. And this is not a matter of Public Relations.

Here are five suggestions, respectfully submitted:

(1) It may be that we should seriously consider a small private committee of inquiry of our own, into the state of the architectural profession in Canada. This inquiry would attempt to define the existing nature of the practise of architecture and its relationship with certain other professions and the public. It would be conducted by an eminent architect, assisted by a legal adviser and the best management consultant available. It would take advice and evidence in camera. It would make recommendations concerning the future of a profession which was at "the crossroads," if you will recall several years ago, and which, if it doesn't get off the tracks soon may get hit by a train of events, not entirely to its liking.

These recommendations might suggest that the professional nature of the practise of architecture would be strengthened, in the long run, by a broadening of activities and by some changes in practice, allowing more flexible and varied professional arrangements. This may come as a shock to some, but there is, after all, nothing sacred about our existing

man-made arrangements. Times change and architects through the ages have adapted themselves to change. It's silly to stand on dignity when events pull the pre-stressed concrete plank out from under the profession.

Of course, I don't think the profession will disappear if it doesn't follow my suggestion. This is a civilized country, requiring architects. When nearly all of us are working for the government, and only a small handful of architects remain in private practice, in their so-called natural state, legislation will be passed to preserve the species. As with The Whooping Crane, steps will be taken to protect their breeding grounds. Only the perfect males, of course, will be allowed to mate; there are not enough women in architecture to go around.

And that brings me to suggestion number (2).

There should be more of them. Women are fun, and I don't propose to debate this point. I hold that certain fundamental truths are self evident.

I should say here that these suggestions are not necessarily in any order of importance.

Suggestion number (3).

There should be more architectural design criticism in this country. The public is beginning to discuss and criticize architecture more than the profession. This is a change and we should do everything we can to encourage the trend. We have been too namby pamby about this in the past. We must drop our blushing, Victorian reticence. It is out of character with our age. We should start with more unsigned articles in our architectural press (I mean the three of them — Macleans Magazine and the other two as well). We cannot start discussing design too soon. Now that Williams and Williams Wallspan is no longer available, many of us need to know where we're going.

Suggestion number (4). This is about housing, and will naturally, take a little longer.

The distinguished trio of architects, Dobush, Parkin and Pratt, who produced the RAIC Report on the Residential Environment have all been made Fellows of the Institute. They have been saluted by Canadians in all walks of life and I would like to add my own personal tribute. They have produced a report which is brief and to the point. Their recommendations are specific and specifically addressed. All of their recommendations, if followed, would lead to improvements in housing — and many are capable of realization. The report represents, in my opinion, a notable example of public service contributed by the profession; there is no question that these men have conferred great distinction on the Royal Architectural Institute of Canada. It will be for us to decide if the report is to gather dust.

The President of the RAIC has made an appeal to us all to suport the programme of implementation. There is new life in the RAIC and I believe that part of the credit belongs to Mr Robbins Elliott who has been carrying out his duties in an energetic and decisive manner. A special administrator has been appointed to assist him. The main work, of course, will have to be done by the Provincial Associations, and most of them, including our own, are organizing for the task. The OAA is blessed with John Miller and his staff and although I have already paid my annual tribute to him (\$85), I think I can still afford a general observation.

Busy professionals are usually preoccupied with their own affairs and necessarily rely a great deal on the permanent administrative staff of their professional organiza-

tion. We are all conscious that ours are already working full time on our behalf. It may be, that from time to time, as the profession sets itself new tasks, we may need additional staff to ensure co-ordination and continuity in our efforts. This is the price we must pay for efficiency and effectiveness.

I suggest therefore, that the OAA give consideration to the hiring of a full time administrator to assist the various committees concerned with implementing the report. It might be appropriate for the OAA, as the richest Provincial organization, to take the lead.

While I'm still on housing I would like to mention CMHC – splendid outfit! Please remember I'm speaking as a private citizen. They think of it as "*My Mortgage Company*" – to millions of Canadians, and I am reminded of Winston Churchill – "*Never have so many owed so much . . .*". You may recall it was Mr Stewart Bates who suggested the formation of the RAIC-CMHC Joint Committee on Housing. On another occasion, in an address before the Royal Institute at Montreal, he suggested the idea of the RAIC Committee of Inquiry. He gave Alan Armstrong and \$40,000 to the Institute to get it going. He is not an Honourary Member for nothing. Recently he gave Armstrong away again, this time to the State of Ghana, and we expect him to be made a prince of that state any day now.

On other fronts the Corporation is active, offering more bursaries, scholarships and fellowships for research and study. The Canadian Housing Design Council and the Community Planning Association of Canada, both children of the Corporation, are flourishing. You are aware of the Smyth Road Competition, the first of its kind in Canada. Doctor Arthur, our distinguished professional adviser, has things well in hand and we are hopeful that it may produce the best housing of its kind in this country.

Now having whitewashed our own activities, leaving out the gamey bits, I would like to go on to my final suggestion which has to do with planning.

Housing and Planning go together but planning deals with city building in its entirety and this brings me to the School of Architecture. Because fortunately, the schools of planning in Canada are to be found in the schools of architecture. It is not inevitable that they should be. Our schools of planning must be strengthened and more architects need to attend them. Since it is our responsibility to see to it, at least at the present time, my last suggestion, number 5, is quite simple:

The present one year graduate planning course should be extended to a two year degree course and means must be found of attracting young architectural graduates to share the course with graduates from other professions. Doctor Bissell is speaking to us tomorrow night and I hope he hears an echo of this. The University is strategically situated for a good town planning course, surrounded as it is with grisly evidence of the neglect of the art of city building.

Architects cannot afford to be complacent about this matter. We must lay claim to some responsibility in the fashioning of our cities and we should decide soon, our course of action. We will never have a better opportunity than now, for it has become apparent that modern democracy, with great technical skills, and wealth, has not yet learned to build cities which can compare with the cities built by the Indians on this continent, some two thousand years ago. Even Frank Lloyd Wright, who admitted few

debts, admitted a debt to the Mayas, and when he saw Toronto he was amazed at the primitiveness of the natives.

Dean Passoneau of Washington University has posed the dilemma, and we architects stand indicted, along with everybody else.

Quote:

"At the same time that North America has produced the highest private standard of living in history, it has produced the lowest public standard of living in the western world."

End of quote.

We need to think of this. We need to go away more often only to come back and see how badly we have done, with a fresh sense of shock, and to see ourselves as others see us: through the eyes of a Doctor Howarth fresh from Europe and a North American tour. I think we can all remember his talk of several years ago.

We can sit on the sidelines, waving our hands languidly at the delicious horror of it all, or we can enter the field of battle, knowing that nothing can be accomplished by resignation. We may be surprised to find that the public have anticipated us, that there may be in fact, a general public relish at the prospect of a battle for beauty in our cities. Certainly no voice has been raised against the idea of the architects dropping their amateur standing and joining the professional ranks.

To sum up, I believe that we can no longer afford to take the traditional, narrow view of our professional responsibilities. We must broaden our activities and learn to diversify and specialize for modern times. I believe we should start now, to obtain a consensus of opinion within the profession, so that we can plan for the future a more significant role for the architectural profession, in the creation of our physical environment.

And this brings me to my story – every speech is supposed to have one. It's shaggy dog and I hope you will forgive me because it leads (gracefully I hope) to my exit:

It concerns two young architects practically rabid with frustration at the existing state of affairs in a world too rude to be borne. They had just learned that the boss was in business for money. In typical architect fashion they decided to turn their backs on the whole mess and retreated up the side of a very high mountain, vowing an oath of silence and contemplation. After ten years of silence one of them looked down over the side of the mountain and said, "Lovely new houses down in the valley." The other man looked down over the side and said nothing. Fifteen more years of silence passed and they were getting older, their thoughts were getting pure as the driven snow. One day the architect who had spoken, looked down over the mountain again and said, "Ugly new factory down by the houses, very badly planned, messed the whole thing up, Somebody should be Doing Something." The other architect looked down and said nothing. Ten more years passed and their beards were long and white, their thoughts were purer than Tide-washed socks, when suddenly one of them cracked.

It was the man who had never spoken, and he jumped up shouting, "I can't stand it any longer, I'm leaving."

The other architect said, "Why, what's the matter?"

And he replied, "I'm sick and tired of all that talk, talk, talk about housing, planning and architectural responsibility." I'm sure you are too, thank you very much for listening to me.

Architect
C. A. McCool

PROVINCIAL ARCHITECT

Consultants:

*Structural Steel and
Reinforced Concrete*
J. S. Sugiyama

*Heating, Ventilating and
Air-Conditioning*
Douglas, Michalenko & Dupuis

General Contractor
Boychuk Construction Co Ltd

Planning for the new Provincial Building, North Battleford, was begun in 1957, with the assessment of the space requirements, both present and foreseeable, of the seventeen government agencies in North Battleford.

The Provincial Building was one of the government's winter work projects. Construction began in the fall of 1958, and by making use of heated enclosures, continued steadily throughout even the coldest months of the year. The building was completed and occupied in the summer of 1959.

The building has two storeys, a full basement, and a portico, providing approximately 25,000 square feet of floor space. The masonry and steel structure achieves maximum flexibility by the use of a central service core. Vertical columns are covered with Litholite and Saskatchewan buff brick is used as the main facing material. A ramp replaces exterior stairs, and since the building also is serviced by an elevator, it is completely accessible to the handicapped.

One of the interesting features of the building is the decorative panel in the entrance portico. This colourful panel is composed of small squares of enamelled copper, fused to form a mural approximately five feet by six feet. The theme is the history of Saskatchewan, its resources and its people.

All mechanical and electrical installations are concealed beneath the suspended ceiling and the building is completely air conditioned. Windows are placed high, to permit flexibility of furniture arrangement. Office partitioning was kept to a minimum to facilitate the gradual expansion of the various government departments.

PROVINCIAL BUILDING

NORTH BATTLEFORD, SASKATCHEWAN



SASK. GOVT. PHOTO

Journal RAIC, May 1961

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The Specification Writers Association of Canada

ORGANIZATION & PROGRAM

By C. S. Jarrett, ARIBA, MRAIC.
Past President

The Specification Writers Association of Canada was founded in 1954, by a group of men interested in the promotion of improved construction specifications in Canada. Membership increased rapidly and, in 1957, a Dominion Charter was granted, whereupon the Association reorganized on a national basis and district chapters were planned, and eventually formed in Montreal, Ottawa and Toronto. National Membership approaches the 700 mark. It is hoped that, eventually, Chapters will be formed in all Provinces and steps are now being taken to this end in the Atlantic Provinces and Manitoba.

Executive officers of the organization are elected from architectural, engineering and specification members. The Board of Directors includes representation of general contractors, trade contractors and material suppliers' groups. Recent re-classification offers student and associate membership, the latter providing for inclusion of promotional trade groups and others having an indirect interest in the construction business. This is an organization representing all parts of the industry. Approximately 40% of the membership consists of specification members, the balance being, mainly, industrial members.

Some thirty-seven trade committees are responsible for production of draft specifications relative to their respective divisions of the General Specifications. All trade committees are under the direct supervision of the National Administrator, an architect and a consulting engineer. Trade committees work to a standard format, established after several years of research by the Association. The final specification produced by each committee is screened by a committee of specification writers before

it is presented to the National Administration for analysis. During analysis, impartial experts are called in to assist. Subsequent to this, the specification is edited, distributed to the entire membership for comment, re-examined to consider additions or deletions suggested by the membership, and then published for use in the construction industry. Specifications produced by the Association are guide specifications and may be altered to suit individual purpose, without loss of original standardization.

Specifications for structural steel; open web steel joists; magnesium oxychloride cement floors (plain trowelled finish); cold applied mastic underlayments; ferrous metallic waterproofing; shop fabricated plastic laminates; hollow metal doors; and linoleum on suspended concrete floors have been published to date. Metal door frames is the next specification to be released.

A further extension to the program has been initiated by which tentative specifications will be published, after they have been prepared by the trade committee and before they are processed by the National Technical Committee. With this scheme it is hoped to make available to the membership, and all other interested parties an increasing number of "temporary" specifications.

The standards committee is working with a committee of the OAA on investigation of existing standards for building materials, and testing by independent laboratories. The chairman of the SWA committee has been invited to sit with the RAIC-CCA Joint Committee on Building Materials to study improvement of methods for presentation of manufacturers' advertising literature.

Formation of a central reference library by the Association at the national headquarters, 57 Bloor Street West, Toronto 5, will make information on standards available to all members.

A system is being instituted to determine the desirable characteristics of building materials. To this end, design offices and students of a School of Architecture are being asked to cooperate so that this information may be made available to the manufacturers to determine whether the materials made satisfy present demand, or whether there is in fact a demand for new materials having different qualities and characteristics.

The SWA publishes, quarterly, the Specification Associate magazine which is distributed to many specification writers in architectural and engineering offices, Schools of Architecture and Schools of Engineering throughout Canada.

A Convention is held each year; the last in Montreal, April 28 and 29.

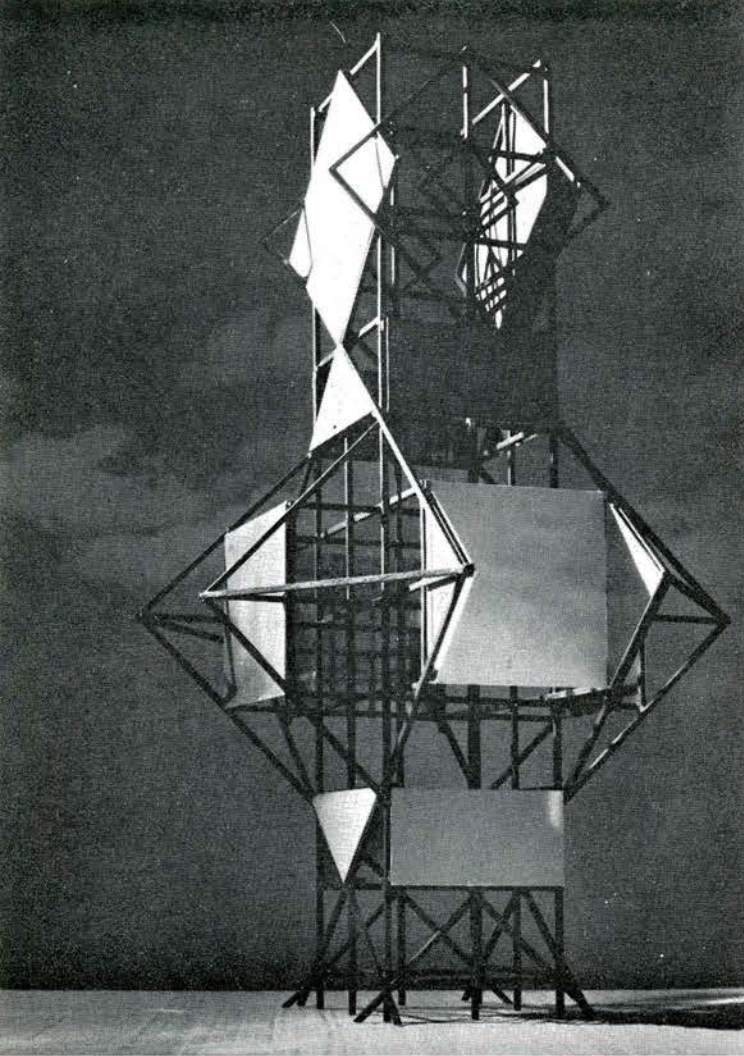
Annual membership fee of \$15.00 includes membership in local chapters, all specifications published and subscription to the Specification Associate.

Members who devote a great deal of time to the affairs of the Association, believe that the result of increased standardization will be a great improvement in the writing of construction specifications.

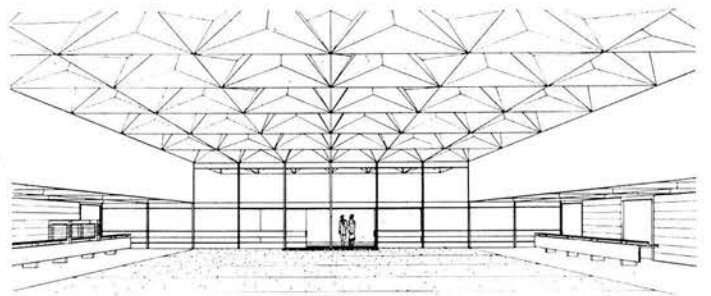
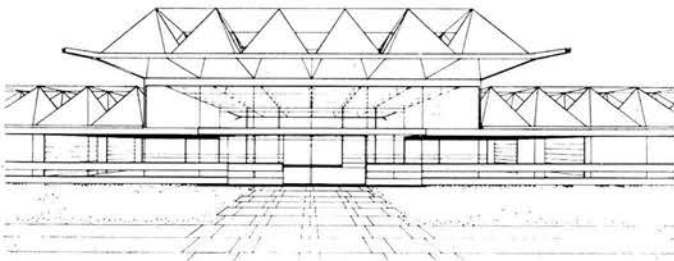
SIXTH CONGRESS OF THE INTERNATIONAL UNION OF ARCHITECTS

Some 1,500 architects from all over the world will meet in the Royal Festival Hall, London, from July 3 to 7 at the Sixth Congress of the International Union of Architects to discuss the theme "New Techniques and Materials — Their Impact on Architecture". The Congress is being organised by the Royal Institute of British Architects through the 1961 Congress Organising Committee of the IUA.

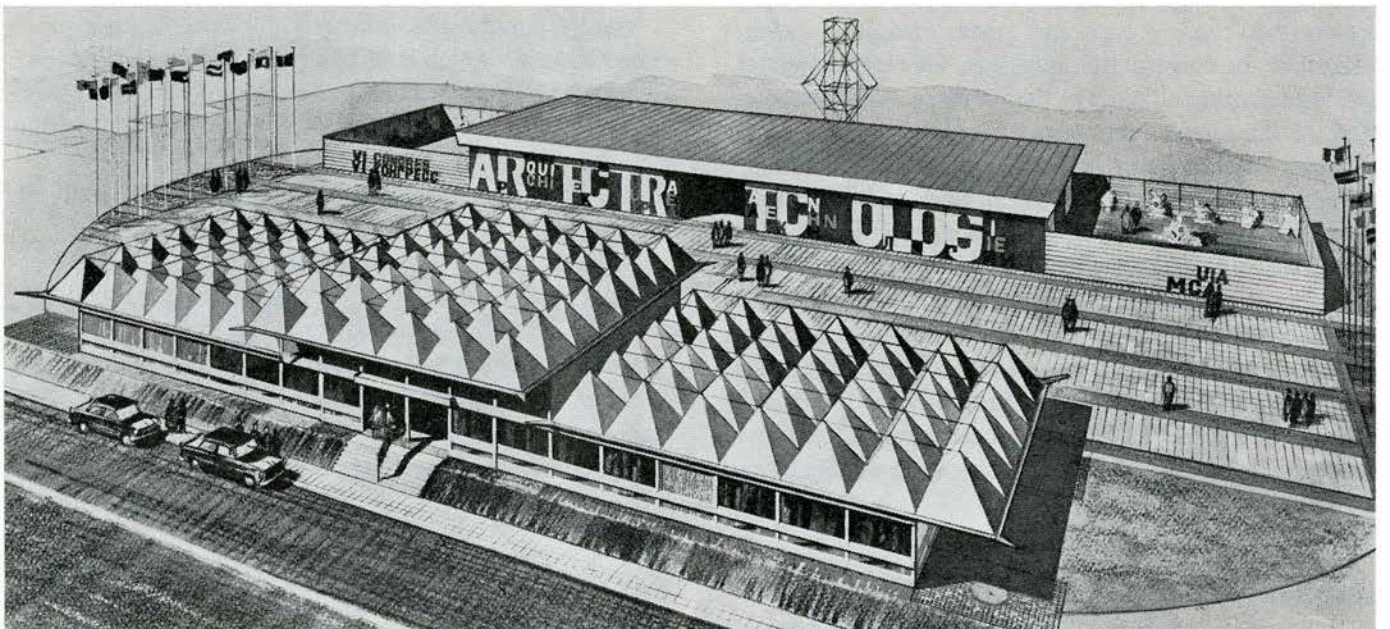
As no suitable accommodation was available to house the international exhibition that will illustrate this theme, the Congress Organising Committee commissioned Theo Crosby ARIBA, the designer of the exhibition, to design a temporary building to accommodate it on the site of the old Dome of Discovery (one of the highlights of the South Bank exhibition which introduced modern architecture to a new public in 1951). The financial problem was solved by designing the building from available materials lent or given by the manufacturers, to be put together without charge by the contractors Taylor Woodrow Construction Ltd. The building has no windows but is covered in effect by a polythene 'tent' which keeps out the elements but lets in the light.



Above: Model of the 42' high tower designed by John Ernest



Perspective drawings of the Headquarters building showing the aluminium roof and glass walls. In the centre can be seen the Court of Nations



FROM THE EXECUTIVE DIRECTOR'S DESK

REPORT IMPLEMENTATION — THE NEXT SIX MONTHS

ALMOST ONE YEAR HAS ELAPSED since the Committee of Enquiry Report was tabled at the Annual Assembly. As well, the half-way mark has now been reached in the 12 month tenure of the special group formed last November to administer the implementation program developed by the RAIC-CMHC Joint Committee on Housing. It seems relevant, therefore, to pose two questions about the Report and its recommendations. Firstly, what has been accomplished in this business of Report implementation? Secondly, where will the emphasis be in the program over the next six months?

As to the first question, it is unlikely that the end results of moving on the recommendations will be felt in any concrete way for a considerable period of time, perhaps two or three years, perhaps longer. Such accomplishments as are in evidence will be the efforts of the architectural profession and other interested and responsible bodies — both public and private — to organize and develop specific measures to deal effectively with the recommendations. The answer to the second question, then, as to what must be done in the next six months, flows logically from a consideration of the first.

As a major part of the overall program of implementation involves the activities of component societies, it is to these societies that the profession now looks for renewed and concentrated effort in the months ahead to record positive progress in carrying out the recommendations which have been referred to them. Those Provincial Associations which have moved forward the least, must rededicate themselves with renewed vigour to the common task. Other Associations must not only maintain but improve their levels of progress in these matters.

It is hoped at the same time that the recent conference of national organizations which took place on May 2nd in Toronto will result in greater participation in the implementation program on the part of many responsible groups outside the architectural profession whose responsibilities in contributing to our residential environment are clearly recognized.

The program for the next six months will be, in essence, a continuation of what was begun last fall, with strong emphasis on the work of the Provincial Associations. With firm resolve and a growing sense of purpose much solid progress can be achieved in the remaining days of 1961.

MISE EN OEUVRE DU RAPPORT LES SIX PROCHAINS MOIS

IL Y AURA BIENTOT un an que nous sommes saisis du rapport du Comité d'enquête présenté à notre dernière assemblée annuelle. Le groupe spécial formé pour diriger l'exécution du programme de mise en oeuvre établi par le Comité mixte de l'IRAC et de la SCHL sur l'habitation en est rendu à la moitié de son mandat de douze mois. Il semble donc opportun de nous poser deux questions: d'abord, qu'avons-nous accompli dans la mise en oeuvre de ce rapport et, ensuite, sur quoi va porter de façon spéciale le travail des six prochains mois?

Pour ce qui est de la première question, il est peu probable que nous en arrivions à des résultats tangibles et concrets d'ici quelque temps encore, peut-être deux ou trois ans, peut-être davantage. Ces résultats ne pourront être que le fruit d'efforts de la part de la profession et d'autres organismes, publics et privés, en vue d'établir et d'appliquer des mesures précises afin de donner suite aux recommandations. La réponse à la deuxième question, quant à ce qui doit être accompli au cours des six prochains mois, découle logiquement de ce que nous venons de dire en réponse à la première.

Comme une forte partie du programme de mise en oeuvre repose sur l'activité des sociétés constituantes, c'est de ces sociétés que la profession attend, au cours des prochains mois, des efforts nouveaux et concertés afin d'assurer de véritables progrès dans la mise en oeuvre des recommandations qui leur ont été soumises.

Les associations provinciales qui ont été les moins actives devront se consacrer à la tâche commune avec une nouvelle ardeur. Les autres devront non seulement continuer leur travail mais l'accentuer.

Il y a lieu d'espérer aussi que la récente conférence des associations nationales, tenue à Toronto le 2 mai, aura pour conséquence d'assurer une plus large participation au programme de mise en oeuvre de la part des groupes extérieurs à la profession dont la responsabilité de contribuer à l'amélioration des conditions de l'habitation est clairement établie.

Le programme des six prochains mois consistera donc essentiellement à continuer ce qui a été commencé l'automne dernier, mais en insistant surtout sur le travail des associations provinciales. Pour peu que nous y mettions assez d'ardeur et d'énergie nous pouvons accomplir beaucoup d'ici la fin de 1961.



NATIONAL ORGANIZATIONS CONFER ON IMPLEMENTATION ENVIRONMENT REPORT

On May 2nd, a one-day conference of national organizations was held at the Ontario Association of Architects offices in Toronto under the auspices of the Royal Architectural Institute of Canada. The purpose of the conference was to discuss the many important matters arising out of the Report of the Committee of Inquiry into the Design of the Residential Environment.

In convening this conference the Institute believed that a point had been reached in its program of Report implementation where a review of progress with other interested groups outside of the architectural profession was desirable. Although the Institute had met on separate occasions last fall and also in the spring of this year with a number of such groups, it had not come together at one time with representatives from a large number of organizations whose activities influence residential design, in order to discuss the Report as a whole, and to consider the implications of a number of recommendations in terms of the specific interests of those attending the meeting.

Participating in the conference were Peter Dobush, representing the RAIC; Max W. Roth, of the PQAA; Stirling Ferguson, of the OAA; Morley Blankstein, of the MAA; Bert Willoughby, Canadian Association of Real Estate Boards; Alan J. Scott, Urban Development Institute; J. M. Soules, Canadian Construction Association; A. W. McQueen, Canadian Council of Professional Engineers; Eric Beecroft, Canadian Federation of Mayors and Municipalities; Murray Zides and Hans Blumenfeld, Town Planning Institute of Canada; George Slightham, Jr, National House Builders Association; Ian MacLennan, Central Mortgage and Housing Corporation, and E. D. Fox, RAIC Special Assistant on the implementation of the environment Report.

The conference Chairman, James A. Murray, also Chairman of the RAIC-CMHC Joint Committee on Housing, opened the meeting by recounting the steps which had led to the creation of the RAIC Committee of Inquiry. Mr Murray referred specifically to addresses given at both the 1957 and 1958 RAIC Annual Assemblies by Stewart Bates, President of CMHC, in which he urged the architectural profession to participate more fully in the field of residential design. The Chairman then spoke of what might be accomplished as a result of the conference. While some of the Report recommendations lent themselves to direct action on the part of the various or-

ganizations represented, and recognizing also that other matters would undoubtedly be subject to differing views and some controversy, he hoped that there would be found some areas in which mutual agreement and joint action might result.

Following the remarks of the Chairman, Peter Dobush traced the measures undertaken by the RAIC, since the appointment of Mr Fox as special assistant in November, 1960, to carry out the Report recommendations.

Emphasis was also given by Mr Dobush on the need to establish an Institute of Urban Studies, recommendation 201 of the Report, which could bring together as an over-riding body the various measures, in a large sense fragmentary, which were being taken in many places and by many bodies, to find solutions to the great number of problems brought about by Canada's rapid urban growth and development.

During the course of the meeting other representatives made statements concerning the interests of their organizations in the Report and discussed steps which might be taken to improve residential design. Alan J. Scott referred to a report recently issued by the UDI (Ontario Division) in which were examined particular influences affecting the residential environment. Proper planning control, the necessity for creating a Tribunal of Appeal to deal with conflicts in planning approaches, the need for zoning to create more harmonious and well-integrated communities were some of the matters discussed by Mr Scott.

A. W. McQueen, of the CCPE, cautioned that one should not work to bring about improvements in the residential environment without keeping

uppermost in mind the needs and the characteristics of the population concerned.

Hans Blumenfeld, representing the TPIC, reported on the March joint meeting with representatives of the RAIC and spoke of the endeavours of his Institute to further particular recommendations of the Committee of Inquiry Report.

In outlining the interests of his organization in the Report, Eric Beecroft stated that the CFMM was pleased to cooperate in the RAIC implementation program, and referred to the Federation as a means for the transmissal of information to member municipalities on matters relating to the Report and its implementation in which they would have a particular concern.

Reference was then made to the work of a steering committee, formed in February, on which Messrs Eric Beecroft, Peter Dobush and Stewart Bates, of CMHC, served as members, to discuss the nature of the proposed Institute of Urban Studies.

At the conclusion of the conference it was agreed that a letter, bearing the endorsement of all organizations present, should go forward to Stewart Bates, President of CMHC, supporting the establishment of an Institute of Urban Studies and recommending (a) that the work of an Institute should be broadly based in both practice and theory, and (b) that invitations be sent to persons asking for their views on the nature and scope of work for such an Institute, including those individuals having a substantial background of knowledge and experience in such practical fields as business, finance and the administration of government.



The RAIC Conference of national organizations on implementation of the environment Report. Left to right, seated Messrs George Slightham Jr, Andrew McQueen, Eric Beecroft, Max Roth, James A. Murray, Chairman, E. D. Fox, Hans Blumenfeld, Morley Blankstein, Bert Willoughby; standing, Peter Dobush (F), Ian MacLennan, Alan Scott, Sterling Ferguson and Jack Soules. (Photo by Trussler)



DAYLIGHT DESIGN

by Murdoch Galbreath

UDC 628.92

Adequate lighting is an essential element in the creation of a habitable environment and the most satisfying means of attaining this is surely by the proper use of natural daylight. It is the purpose of this Digest to outline some of the technical information which is available as a guide to the more efficient use of daylight and to describe briefly the simpler of the design techniques which may be used.

Many well designed interiors have achieved the highest quality of natural lighting through the experience and imagination of the architect. Georgian architecture produced some very well balanced interior illumination because the tall narrow windows of that period contributed toward good penetration of daylight while the splayed reveals and mouldings helped to create a gradual transition from exterior to interior brightness without uncomfortable contrasts. With the technical advances made in structural design and equipment it is now possible to make a comfortable environment in even a windowless building or an all-glass enclosure. There seems to be a place, therefore, for more knowledge about the nature and function of natural daylight as interior illumination.

Much research has been done throughout the world on the study of natural illumination and on the development of methods of prediction, so that a variety of design systems are available to the architect for predicting with a reasonable degree of accuracy the quality and quantity of natural interior lighting. A committee of the C.I.E. (International Commission on Illumination) is at present preparing an international design manual which will set

out the basic principles and compare the various methods used in daylighting design. This will be of great value in bringing together in one publication information needed for the practical application of daylight design.

The task of predicting natural interior illumination is made more difficult by the constantly changing nature of the light source. There are two stages in daylighting design: the meteorological study of the quantity of light from sun and sky (sky brightness) available at an unobstructed location; the means by which the desired level of illumination can reach a specific interior location.

Sky Brightness

Estimates of sky brightness are based on readings taken at regular intervals over a number of years. Two observed sky conditions which are assumed to be typical are generally used as the basis of design. These are

1. the totally overcast sky
2. the clear sky with direct sunlight.

The Totally Overcast Sky

The brightness distribution of an overcast sky is not uniform. It is normally lightest at the zenith and darkest at the horizon and is generally not affected by the position of the sun. Observations of sky brightness by Moon and Spencer (1), working in the United States, led to the development of a formula to describe the overcast sky:

$$B_{\theta} = B_z \left(\frac{1 + 2 \sin \theta}{3} \right)$$

where B_{θ} = luminance of the sky at altitude θ

B_z = luminance of the sky at the zenith

Observations in different parts of the world

have served to confirm the applicability of the formula, at least in the temperate zones, and the "Moon and Spencer sky" has been adopted internationally by the C.I.E. as a standard overcast sky. The light distribution is such that the brightness at the horizon is approximately one third that at the zenith and one half the average sky brightness.

Though the distribution of light in the overcast sky may be expected to conform to the standard pattern, the average illumination level will vary depending on local climate. Average illumination from an overcast sky is assumed to be the quantity of light falling on a horizontal plane in an unobstructed location. The selection of suitable design figures may be determined from local meteorological records.

In Canada there are three meteorological stations measuring direct illumination at regular intervals; the total illumination from sun and sky on a horizontal plane is recorded hourly in Toronto, Scarborough and Ottawa. There are, in addition, approximately twenty stations across the country where total radiation is recorded. An approximate conversion from radiation to illumination units appropriate to overcast sky conditions can be made by assuming 1 gram calorie/sq cm/second to be equivalent to 7000 lumens/sq ft. This figure has been used in other countries in order to obtain information useful for daylight design and to supplement direct readings of illumination. The lowest recorded figure cannot, however, be used for design purposes, and a compromise has to be accepted similar to that used in design for winter heating.

In Australia design values have been established for the principal cities based on the illumination level which will be exceeded during 90 per cent of the daylight working hours, that is, from 8 a.m. to 4 p.m. This seems to be a suitable approach, although for some types of occupancy a different period of the day may be more appropriate. The design figures recommended for Australian conditions vary from 350 lumens/ sq ft in Hobart, Tasmania, to 1100 lumens/ sq ft in Darwin. In Britain, which has a maritime climate, 500 lumens/ sq ft has been used as the basis of British standard for daylighting.

Climatic variations throughout Canada may be expected to give rise to a significant range of design values appropriate to each region. Records are published in the *Monthly Radi-*

ation Summaries by the Meteorological Branch, Department of Transport (2), and may be used as the basis of appropriate design levels for Canadian conditions.

The Clear Sky with Direct Sunlight

In order to design for conditions of clear sky and direct sunlight, information is required not only of the quantity of light falling on a horizontal plane but also of light on vertical planes and planes perpendicular to the sun's rays. There are at present few records of this nature being kept in Canada, although in Ottawa readings are being taken on a regular basis of total radiation on vertical surfaces facing the principal points of the compass. Tables of daylight illumination appropriate to the United States are included in *Recommended Practice of Daylighting*, published by the Illuminating Engineering Society (3). The information appears to be of a rather general nature, giving the solar illumination as a function of latitude, and it is doubtful whether it can be applied precisely to Canadian conditions.

Daylight Factor Method

The problem in designing a building to take advantage of natural light is that of determining how much of the light available outdoors can be expected to reach a specified position indoors. The "daylight factor" which is commonly used as a yardstick in European practice is a measure of the daylight illumination at a point, expressed as a ratio of the illumination on a given plane, and the simultaneous exterior illumination on a horizontal plane in an unobstructed location. For example, if the interior illumination is 10 lumens/ sq ft and the exterior illumination on a horizontal plane 500 lumens/ sq ft the daylight factor would be 10/500 or 2 per cent.

The calculation of the daylight factor may be broken down into its component parts as follows:

$$\text{Daylight Factor} = \text{Sky Component} + \text{External Reflected Component} + \text{Internal Reflected Component}$$

The sky component is a measure of the direct light from the sky reaching the interior point under consideration; published tables and charts may be used to obtain this value. One that is relatively easy to use, and particularly

appropriate in the preliminary design of a building, is that contained in the *Simplified Daylight Tables* published in 1958 by the Department of Scientific and Industrial Research, England (4). The tables are arranged to show the proportion of sky seen from the point for which the daylight factor is being calculated, and have been modified to include the effect of an overcast sky and the reduction in light transmission caused by single glazing. Additional corrections may be made for double glazing and for the effect of dirt on the glass.

The external reflected component is a measure of the light reaching the point after reflection from exterior surfaces such as opposite buildings which probably obscure part of the direct light from the sky. The procedure to be followed is similar to that used in calculating the sky component. The area of the opposing wall, as seen from the point, is obtained and multiplied by a figure appropriate to the brightness of the reflecting wall surface. It is commonly assumed to be one tenth of the average sky brightness.

The internal reflected component is the amount of light reaching the working plane after reflection from walls, floors and roof. In many instances this can be quite a large proportion of the total light available. The magnitude of the internal reflected component is obtained by taking into consideration the average reflectance of interior surfaces and the sizes of room and windows. The *Simplified Daylight Tables* include figures for the reflectance of common building materials and a table which may be used to estimate the value of the internal reflected component in rectangular rooms.

The Lumen Method

In the United States, particularly during the last ten years, a considerable amount of study has been devoted to the problem of designing for clear skies. As a result a lumen method of design has been developed along lines similar to those used in artificial lighting design. The quantity of light falling on a window from sun and sky and reflected light from the ground and other exterior surfaces is calculated and multiplied by a coefficient appropriate to the transmission factor of the window and the reflections from interior surfaces onto the working plane. The principles involved are very similar to those used in the daylight factor design, but the end point of

the calculation is the quantity of light at the desired location expressed in illumination units.

A booklet, *Predicting Daylight as Interior Illumination*, prepared by the research workers at Southern Methodist University (5), contains a series of charts and tables which can be used to determine the interior illumination at points in simple rectangular side-lit rooms. The values obtained are restricted to three points in the room in order to simplify the calculations. The points are 5 feet from the centre of the window wall, 5 feet from the rear wall, and in the centre of the room. This is a little more restrictive than the daylight factor method which permits calculations at any point in a room. Its principal disadvantage for Canada appears to be the scarcity of reliable records of sky brightness for Canadian conditions. It is possible to use the figures for sky brightness contained in the booklet, and which are appropriate to United States conditions, to compare the relative efficiency of different building designs without being too concerned about absolute values. The lumen method can be used to obtain information on natural lighting from both overcast and clear skies.

Interior Illumination Levels

Selection of a suitable level of interior illumination is dependent on the specific task to be performed in the room. Recommended minimum values of illumination for a variety of tasks are listed in the *Lighting Handbook* published by the Illuminating Engineering Society (6). In most instances these are considerably higher than the older recommended values and are the result of a study of lighting, related to seeing efficiency, by H. R. Blackwell (7). It is desirable that the light in a room should not fall below recommended levels, but there may be occasions when the minimum may not provide adequate conditions for seeing. For example, if the contrast between a task and its surroundings is too great, as may occur when a window is in the field of view, the eye adapts itself to the prevailing brightness and objects of lesser brightness may be difficult to see. By using one of the methods of daylight analysis it is possible to estimate the relative brightness of various surfaces in a room and to make the necessary corrections. The *Lighting Handbook* of the Illuminating Engineering Society contains recommendations

on the maximum ratio between task brightness and brightness of surrounding areas for comfortable conditions. The following figures relate to schools and offices where good seeing conditions are essential:

Between task and adjacent surroundings	1 to 1/3
Between task and more remote darker surfaces	1 to 1/10
Between task and more remote lighter surfaces	1 to 10
Between fenestration and adjacent surfaces	20 to 1
Anywhere within the normal field of view	40 to 1

These ratios are recommended as maximum; reductions are generally beneficial.

The principal source of glare is direct sunlight and this should be controlled by one of the many shading devices now in common use. A clear sky without direct sunlight is seldom so bright as to cause discomfort, but sunlight reflected from adjacent walls and ground surfaces can frequently be troublesome. Light coloured interior surfaces help to create a more uniform distribution of illumination in a room, since the contribution of reflected light is greater at points farthest removed from a window. Reflection from the floor also contributes to illumination at the rear of a room, because the direct light falling on the floor is reflected to the ceiling and other interior surfaces. Increase in window area below the working plane does not affect the direct component but may make a significant contribution to reflected light.

The techniques used in daylighting design are not dissimilar to those found in related

fields of building design. They can be valuable tools in relating the design of windows to regional climates and in making more efficient use of one of our natural resources. The methods described are helpful in solving the simpler problems of daylighting design and more advanced techniques are available. A comprehensive bibliography of daylighting studies is included in *Recommended Practice of Daylighting* (3).

Bibliography

- (1) Moon, P. and D. E. Spencer. Illumination from a Non-Uniform Sky. *Illuminating Engineering*, Vol. 37, p. 707-726, 1942.
- (2) Monthly Radiation Summaries. Meteorological Branch, Department of Transport, Toronto, Canada.
- (3) *Recommended Practice of Daylighting*. Reprint from "Illuminating Engineering", Vol. 45, No. 2, February 1950.
- (4) Hopkinson, R. G., J. Longmore and A. M. Graham. *Simplified Daylight Tables*. National Building Studies, Special Report No. 26, London, 1958.
- (5) *Predicting Daylight as Interior Illumination*. Libbey-Owens-Ford Glass Co., Toledo, Ohio, 1960.
- (6) *IES Lighting Handbook; the Standard Lighting Guide*, 3rd Edition 1959. Illuminating Engineering Society, New York, 1959.
- (7) Blackwell, H. R. Development and Use of Quantitative Method for Specification of Interior Illumination Levels on the Basis of Performance Data. *Illuminating Engineering*, Vol. 54, No. 6, p. 317-53, June 1959.

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BOOK REVIEWS

"STRUCTURAL MECHANICS", by Samuel T. Carpenter. Published by John Wiley & Sons, Inc. 538 pages. Price \$9.50.

Structural mechanics is a relatively new term, employed recently by some authors to embrace the same topics, which more commonly go under the label of Theory of Structures, namely the static solution of various "ideal" structural systems. Maybe this is done to give, at least by a different title, a new ring to the field, where except for minor variations in methods and procedures, not much is to be added in material and problems, especially if the elastic behaviour is assumed.

Prof Carpenter's volume is a competent and thorough presentation of various, well established, classical methods for the analysis of a rather limited group of structural types, the two dimensional, statically undetermined systems, like continuous beams, rigid frames, arches, etc. A few extra topics were added, cables and their application in bridges and as guys, outline of approach to dynamic loads and a classical treatment of elastic stability of columns and column-beams.

An analytical approach is stressed. However, the mathematical tools are kept within the limits of undergraduate engineering levels, with some of the more recent approaches included, e.g. finite differences and numerical analysis methods. The book deals with basic principles and methods of analysis of ideal, pure-bred systems leading to what one might call "a flow of forces" through the structure. Stress analysis, safety or economy, effects of properties of actual materials are outside of its scope, and no attempt is made to relate the theory to the problems of design of actual structure, or to explain the limitations of the assumptions of the underlying theory. Neither is there any mention of the different philosophy of analysing the performance on basis of ultimate loads.

In effect it is rather limited in scope, but clear, thorough and precise in details and should serve well as *one* of the texts for undergraduate engineers majoring in structures and a refresher in basic theory and methods for structural analysis. It will likely encounter a stiff competition because in the last ten years or so a large number of books on the same subject have appeared. Many of them are equally thorough and frequently cover a greater variety of types and assess critically the different routines.

B. P. Wisnicki, Vancouver

LETTERS TO THE EDITOR

Editor, RAIC *Journal*:

The tragic death of Fred Lasserre leaves an emptiness in the hearts of all who knew him. His students most deeply know the loss, for theirs has surely been the greatest gain.

From nothing but determination and a group of army huts, he founded a school of architecture equal to the finest schools in North America. His students knew him for his extremes of quiet patience and unlimited vigour. They sensed his pride of purpose and felt compelled to equal his dedication.

He showed them his energy to stimulate them, offered them his knowledge to work with, lent them his enthusiasm to build on and gave them his confidence until they could find their own.

Seldom does a man leave an inheritance which may even spread beyond his lifetime to be shared by those privileged to have learned from him.

David Earnest Horne

The following letter to the Governors of the University of Toronto is an historic one and should be treasured among the archives of the OAA. These members of the Eighteen Club, point out to the Governors that architecture, one of the great educational and refining influences in life was being taught in the School as a Science and not as an Art, or a combination of the two; and go on to say, in words that could not be improved on today, that fine buildings on the campus are not sufficient in themselves—their grouping and the spaces formed by them are of even greater significance.

They asked for prompt action as the matter seemed to them, in 1905, as one of very great urgency, but these things take time.

E.R.A.

THE UNIVERSITY OF TORONTO COMMISSION:

SIRS:—

When we appeared before you we brought to your attention the need, first, of a special course in Architecture; and, secondly, of a comprehensive plan for grouping of the University Buildings.

Our position rests upon the broad ground that Architecture is one of the great educational and refining influences in life; it is therefore entitled to a place in the curriculum of the University, and also to consideration when the buildings of the University are being designed and given their place in the University property.

First. "A special course in Architecture." This is required, as there are now within reach of the University a considerable number of Architectural students, who having started in offices, are unable to leave them and give four years to University work; indeed for some time to come, students in Architecture will find their way into offices before awakening to the value of an academic course of study.

In Toronto, Architecture has not been studied hitherto as an art but rather as a science. This is very forcibly illustrated by the University of Toronto Calendar for 1905-6, page 239. In contrast we quote the following from Columbia College Calendar:—

"The University thus recognizes that Architecture is primarily a fine art, although requiring for its practice a considerable amount of scientific training." Page 9, Bulletin, June 3rd, 1905.

Columbia, Pennsylvania, Cornell, Harvard, and other Universities have special courses in Architecture for students who have spent some time in Architects' offices. The University of Toronto might inaugurate such a course, so arranged that students could attend lectures early in the morning and late in the afternoon as do those now attending Osgoode Hall.

These Universities have also ateliers or studios. We cannot too strongly recommend the establishment of a studio at the University of Toronto. The studios at the Universities mentioned are in a measure independent of the University course in Architecture, they are generally in charge of a practising Architect, who sets problems that the students study under his criticism and guidance.

In the course proposed here the student should have Junior Matriculation in Mathematics, should have spent two years in an Architect's office, and should be eighteen years of age. He should attend early morning and late afternoon lectures on subjects which are best taught in this way, and in the evening he should work in the studio.

In Toronto today there are more than sixty-five students in Architecture, whose only opportunity for study is the mathematical classes conducted by the Joint Committee of the Ontario Association of Architects and the Toronto Architectural Eighteen Club. In the offices they simply do the routine work, which might be called the craft of Architecture, while the art of Architecture is left to the mercy of chance. The result of this state of affairs is deplorable, and can be rectified by the course we suggest.

Second. "A comprehensive plan for the grouping of the University Buildings." Since Architecture is admittedly an educational and refining influence, the University is the place above all places where the greatest effort should be made to maintain a high standard of it.

European Universities have never failed to recognize this truth, and Oxford has given the inspiration to the men who have recently erected the buildings of high Architectural merit at Pennsylvania and Princeton.

The University of Toronto is extremely fortunate in having as its original building a recognized achievement in Architecture. Unfortunately this model has not been followed.

The Hon. Mr Edward Blake, when Chancellor of the University, in his address at the opening of the so-called course in Architecture, referred to the original building as an inspiring example, and to the School of Science building as "An example of what not to do."

It is not sufficient that each building in connection with the University should be in itself a creditable Architectural structure, but that it should also harmonize completely with its fellow buildings; moreover, the same economy should be shown in the arrangement of all the buildings on the University property as is shown in the design of each.

The importance of prompt action in the systematic arrangement of the University grounds cannot be too strongly emphasized at the present moment, since the proposed residences may be placed so as to cause greater difficulty in carrying out a comprehensive scheme.

It is essential to the University in preparing its members for well ordered and beautiful lives to show order and beauty in its external appearance.

Respectfully submitted by,
W. FORD HOWLAND,
A. H. CHAPMAN,
J. P. HYNES,
Committee of
Toronto Architectural Eighteen Club

OBITUARIES

CHARLES JOSEPH THOMPSON, LLD, ARIBA, HON FRAIC, died at his home in Vancouver on April 16, 1961. Mr Thompson was born in London, England, September 13, 1878, educated at Emanuel School, Wandsworth, and passed as Associate of the Royal Institute of British

Architects in 1905. He came to Canada in 1906 and was appointed to the Architectural Staff of Canadian Pacific Railway, becoming Assistant Chief Architect in 1907. During that time he designed Mount Carmel Wing, Chateau Frontenac, the layout of Banff Springs Hotel and the original Chateau Lake Louise, as well as other projects and Railroad depots.

Late in 1908 Mr Thompson came to Vancouver and formed partnership with Mr G. L. Thornton Sharp, the firm being known as Sharp & Thompson. They were architects for Molson's Bank, which was later absorbed by the Bank of Montreal, and the appointment in British Columbia has been retained. In 1912 Messrs Sharp & Thompson entered and won an international competition for the University of British Columbia, as a result of which the firm was appointed official architects for the permanent buildings.

Mr Sharp retired from the firm in 1939 and Messrs Berwick & Pratt became associates and full partners in 1946. In 1953 the name was changed to Thompson, Berwick & Pratt and now consists of seven partners — R. A. D. Berwick, C. E. Pratt, F. S. Brodie, J. M. Dayton, D. A. D. Hickman, R. Jessiman and R. J. Thom. Mr Thompson was senior partner until the time of his death.

Mr Thompson was elected an Honorary Fellow of the RAIC in 1951 and in 1958 was honored by the University of British Columbia when he was awarded the honorary degree of Doctor of Laws. He will be greatly missed by all who were privileged to know him.

C. E. Pratt.

FREDERICK PRACK, of Hamilton, died suddenly Thursday, April 14, 1961. His passing has left his legion of friends stunned and with deeply saddened hearts. The senior member of the architectural firm of Prack and Prack, he was active in his practice to the end. Attending a meeting of his beloved 'Jesters' in Toronto on Wednesday, he was early at his desk on Thursday morning. The shock of his passing has laid a heavy burden on those whom he left to carry on.

The original firm came to Canada and to Hamilton from Pittsburg back in the early years of the century and was known as Prack and Perrin, Architects and Industrial Engineers. In partnership with his brother Bernard H. Prack until 1936, the firm was joined by Mr Alvin R. Prack (F) and established as Prack and Prack, from which the work carried on by this office has broadened widely.

The firm has been responsible for numerous buildings throughout the City of Hamilton and the Province of Ontario in the field of industrial, commercial, institutional, and other work of a varied nature, including such outstanding structures as the Wentworth County Court House; Atlas Steel Office building, Welland; Joseph Brant Memorial Hospital, Burlington; new addition to St. Joseph's Hospital, Hamilton; Pigott Office building; numerous High Schools for the Hamilton Board of Education; and a great number of building units for the Bell Telephone Co Ltd.

Mr Prack was widely experienced in the construction industry; possessed remarkable powers of observation; was as keen as a steel blade, and was particularly res-

pected for his fairness with all trades as the arbiter between Owner and Contractor.

He has left a priceless heritage for his three sons, a daughter, ten grand children, and sixteen great-grand children.

His untimely passing has left a void in the community which he served and loved so well. He is deeply mourned as one, who having passed this way, has journeyed on to that quiet bourne from which no traveller returns.

W. Bruce Riddell

RAIC Secretary Dies Suddenly

With deep regret, the *Journal* announces the sudden death in Ottawa on April 25 of Mr Leonard E. A. Fallis, 50, the Secretary of the Royal Architectural Institute of Canada.

Mr Fallis joined the Institute in July, 1960, after completing 28 years of service with the Royal Canadian Air Force. Although he was Secretary for only a relatively short time, his administration capabilities and pleasant personality had earned him the respect and confidence of his colleagues at RAIC Headquarters and of the membership at large. The *Journal* joins the profession in extending its deepest sympathy to his family.

INSTITUTE NEWS

Canadian Conference of the Arts

The Canadian Conference of the Arts was held in O'Keefe Centre for the Performing Arts in Toronto on May 4th, 5th and 6th.

This was an historic occasion on several counts: It was the first time that the Conference had held a general gathering (open to the public as well as to members of Component Societies); the Conference itself proved to be an organization unparalleled anywhere in the world; the calibre of the audience no less than that of the active participants was staggering to contemplate; the physical accommodation of the O'Keefe Centre proved itself for the first time to be, for a gathering such as this, as nearly perfect as one could want. It was only unfortunate that a very late spring went against the full development of the beautiful planting arrangements in the surrounding plazas and terraces.

If one disregarded the names of those taking part in the Plenary Session or opening exercises it would be difficult to anticipate a duller program. Nevertheless, about a thousand people, eminent in all the various branches of the arts, were assembled in the main auditorium to do their duty. They were emotionally captivated for over two hours by the brilliance of the speakers and the Conference was well launched. The crystal-clear thinking, the excellence of the oratory and the sparkling wit of these speakers was a joy to experience.

It is perhaps indicative of the feeling pervading this meeting that one member of the audience was a young man who had hitch-hiked his way from Regina especially for it; he is studying physics.

The RAIC should feel very proud that it was one of the founding members of this energetic and now flourishing organization. Mr John C. Parkin, who played a most active part in the present conference was one of the

staunchest and most persistent members in the early days of the group. It is undoubtedly true that a large measure of the success of this conference is attributable to him.

The exhibition of books, painting, sculpture and liturgical arts was brilliantly selected, conceived and executed. Most, if not all, of the works shown were those of recipients of grants from the Canada Council and gave tangible evidence of the wisdom and knowledgeability of this most worthy organization.

To summarize the results of the conference would require much more space than is available here. Already tremendous covering has been allotted to the various events by the daily press and undoubtedly more detailed reports will appear in this and other journals.

Perhaps, however, a few random notes here would not be amiss:

Architects were conspicuous by their absence; not more than a half-dozen were noticed — this was a pity because, according to a large and very voluble portion of the assemblage the present sad state of Canadian art, buildings and cities is all the fault of our wretched architects.

It was not to be expected that any startling action would come immediately from such a conference, but there were very strong representations made that the artist societies should organize themselves strongly into lobby groups to provide articulate pressure towards good design on all fronts.

There was some general satisfaction that owners of buildings in this country are becoming increasingly aware of and providing at least some funds for the allied arts. This was countered by complete dissatisfaction that architects did not consult with the artists at the preliminary design stage and only in the last minute told them to throw in a piece of sculpture here or a mural there.

Architects should realize that they are becoming the targets of a gradual mobilization of severely critical forces from within the ranks of the thinking public.

G. D. Gibson and P. D. Wilkes

New National Building Code Published

"National Building Code 1960", the new edition of the building code which replaces the 1953 issue, has now been published by the National Research Council through its Associate Committee on the National Building Code. A French edition is in preparation. Copies are available, bound or in loose leaf form, at \$4.00 each from the Secretary, Associate Committee on the National Building Code, c/o NRC, Ottawa. Remittances should accompany orders.

New Minimum House Building Standards

Central Mortgage and Housing Corporation and the National Research Council, through its Associate Committee on the National Building Code, have announced jointly that new minimum building standards for housing financed under the terms of the National Housing Act will comprise Part 9 (Housing) of the National Building Code (1960), and additional material consisting essentially of a completely revised version of the existing "Housing Standards".

The new housing standards, as prepared by the Associate Committee on the National Building Code, will probably be available by the middle of 1961. At least three months notice will be given to the house building industry and lending institutions when the standards are prescribed by CMHC for National Housing Act use. The estimated effective date is January 1, 1962.

Canada Council Grants

A short term research grant to study the use of wood in construction in Scandinavia has been awarded by the Canadian Council to Ronald Whiteley, of the faculty of the School of Architecture, University of Toronto, who will be in Europe this summer to attend a seminar in Sweden sponsored by the World University Service.

RCA Client-Artist Form of Agreement

The Royal Canadian Academy of the Arts has prepared a Standard Form of Agreement Between Client and Artist, to be used as a guide only, as the circumstances of the work require. The Secretary of the Academy, Mr Harold Beament, writes that the forms are not yet in production, but until they are printed the *Journal* will be pleased to make available to architects copies of the mimeographed example received from Mr Beament.

COMPETITIONS

A Branch Bank and its Furnishings

A competition in two categories, the first for the architectural concept of a branch bank; and the second for the design of the wide range of components and accessories for such a building, is announced by the Stainless Steel Design Award Committee, whose members include Atlas Steels Ltd, International Nickle Co. of Canada, Ltd, and Union Carbide Canada Ltd.

The competition for the bank design is in one stage, and is open to members of the RAIC, graduates of the schools of architecture at the Universities of British Columbia, Manitoba, McGill and Toronto, and of the Ecole des Beaux Arts, Montreal; and members of the RIBA and graduates of any Commonwealth school of architecture. All competitors must, however, be resident in Canada. Prizes are: first, \$5,000; second, \$1,500; third, \$750 and fourth, \$250. The jury is composed of E. R. Arthur (F), chairman and professional adviser to the Committee; G. Everett Wilson (F), Toronto; Paul-O. Trepanier, Granby, Que.; James Searle, Winnipeg, and H. Dodgson, Toronto, representing the Canadian Bankers Association.

The second category, for the design of the components, etc, is open to designers, artists, manufacturers and architects, and the prizes are: first, \$1,500; second, \$500; third, \$300 and fourth, \$200. Judges are E. R. Arthur, G. Everett Wilson and Joanne Brook, Toronto, designer.

Registration for Category One closes June 15; and for Category Two, August 1. Last date for despatch of entries is September 25.

Copies of the conditions may be obtained, without fee, from E. R. Arthur, School of Architecture, University of Toronto. The competition is approved by the RAIC.



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A major feature of the D. B. Long Span Joist is the ease with which the details can be adjusted to meet special conditions. The illustration here shows joists of both top and bottom bearing design that have been altered from the standard to meet the builder's special needs.

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PROVINCIAL NEWS

PROVINCE OF QUEBEC

Quebec

Henri S. Labelle (F), Montreal, was elected president of the Specification Writers Association of Canada at the annual meeting held in Montreal in April. Paul-O Trepanier, vice president of the PQAA and the *Journal's* assistant editor for Quebec, was elected president of the Montreal Chapter of the SWA.

ALBERTA

BANFF SESSION 62

The Alberta Association of Architects have appointed a committee to begin preparations for Session 62, which will take place as usual at the Banff School of Fine Arts. The dates are January 28th - February 3rd. The latest news from the Committee is that Prof John A. Russell, Director of the School of Architecture at the University of Manitoba, has agreed to act as co-ordinator and director of the Session.

ARCHITECTURAL PANEL

At the Annual Meeting of the Alberta Association of Architects, Robert Duke, the Edmonton city architect, asked the Association to present its view on the Architectural Panel, set up as advisory to the city planner on designs submitted for restricted residential areas and such other designs presented for consideration and advice by the city planner. The panel is made up of the city architect, city planner, the chief assessor, a real estate man, an engineer and two architects.

It was felt in some quarters of the profession that designs by registered architects should not be subject to criticism by such a panel, and the Association formed a committee, whose findings supported the objection. The Edmonton Chapter supported the Committee report also.

The Association Council in turn forwarded the following views to the City Architect:

1. That the Architectural Panel should be retained, but designs by registered architects not be subject to control by the City Planner nor submitted to the panel.
2. In certain commercial and industrial areas there should be some architectural control aimed primarily toward a more co-ordinated development.

3. The Panel's most constructive service might be directed toward non-architect designed projects, such as large tract developments.

4. In the case of City owned land, the Panel might offer advice on the co-ordination of the whole design before the land is offered for sale.

ONTARIO

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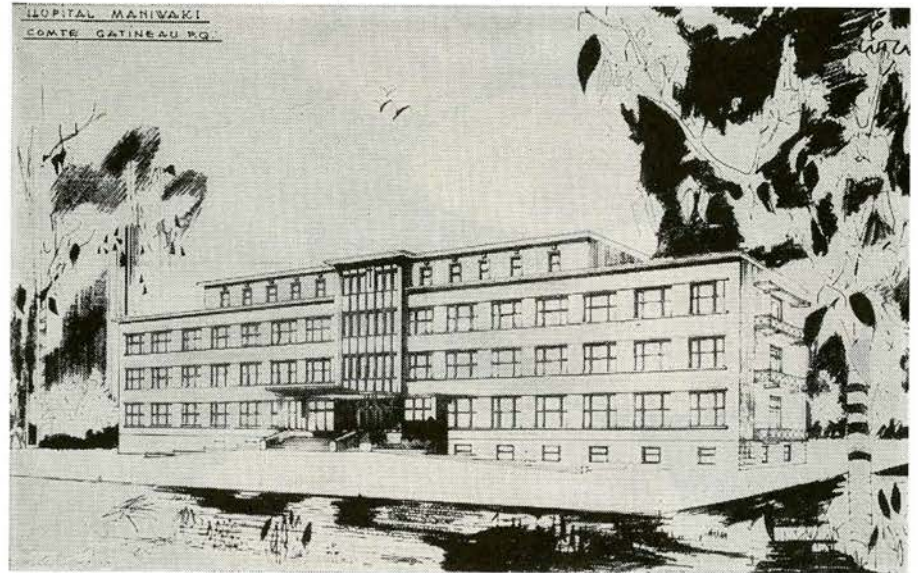
In summarizing the three-day course held recently at the School of Archi-

ecture, University of Toronto, Chairman Stanley Kent referred to the words of advertising agent Ruben Blazer, 'Know Your Audience' as the dominant theme of the course.

The course, sponsored by the Canadian Joint Committee on Canadian Construction Materials of the RAIC and the CCA to assist the technical sales representatives of building material manufacturers in developing a closer relationship with architects, was the first of its kind held in Canada. It was attended by thirty-nine representatives.

The 'Owner Audience' was discussed

At Maniwaki Hospital, Gatineau, P.Q.



Architect: Germain Chabot, Quebec City

PLIBRICO BREATHES FIRE DEVOURS ALL WASTE ON THE SPOT

Here at Maniwaki, a Plibrico incinerator plays the key role in assuring the ultimate in sanitary waste disposal. Four different kinds of hospital waste — including dry rubbish, garbage, pathological and kitchen waste — are burned quickly and safely on the spot without smoke or objectionable odours.

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by Harvey R. Self, P.Eng., of the City of Toronto Board of Education and 'Contractor Audience' by Peter Dalton, Dalton Engineering and Construction Co. Ltd, and Frank O'Toole clerk-of-works of Page and Steele, Architects.

As a background for knowing the architect, illustrated lectures were given by Prof. J. A. Murray on architectural design philosophies and Dr T. Howarth on the training of an architect. G. Everett Wilson spoke on architectural

practice. This was followed by papers on the architect's method of communicating technical information — specifications, working drawings, standards, tests, samples and trade literature — presented by architects R. E. Briggs and Prof. W. G. Raymore and by R. B. Blazer of Goodis, Goldberg and Dair Ltd., Advertising agents.

Two lectures on building completed the program. Dr Neil Hutcheon, Division of Building Research, NRC, dis-

cussed the need of knowing the environment of building, and the performance of materials especially their stability and durability. Prof. Kent spoke on coordinating the dimensions of building components by the four-inch module.

The Joint Committee was very encouraged by the response of the participants and proposes to hold similar sessions in other cities.

COMING EVENTS

July 3-7, 1961
Vith Congress
International Union of Architects
London, Eng. (Registrations, RIBA)

July 17-18, 1961
Massachusetts Inst. of Technology
Special Summer Program
City & Regional Planning

August 30-September 2, 1961
Conference on Shell Structures
Civil Engineering Dept,
Technical University,
Delft, Netherlands

September 25-28, 1961
1961 Industrial Building Exposition
New York Coliseum, New York

INDUSTRY

Kawneer Wall Panels

A unique wall system with panels and windows that "zip" into a pressure-tight self-sealing neoprene track, designated "Series 2500 Zipperwall", is being marketed by Kawneer Company Canada Limited.

"Zipperwall" is a factory-fabricated, field assembled system of aluminum mullions, head and sill runners and adapter angles, and extruded rubber structural gaskets which also provide the weathering. Mullions are factory cut and provided with identical standard copes at each end. Runners and angles (identical for base and head) come in stock lengths, for field cutting. All metal parts are specially anodized.

According to Kawneer, "Zipperwall" performs well in any low-rise installation. Insulating quality and weather resistance is of high standard. The resilient mounting should minimize in-service glass breakage and re-glazing is easier.

Write to Kawneer Company Canada Limited, 1460 Don Mills Road, Don Mills, Ontario, for further information.



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Dur-O-wal Technical Study

Dur-O-wal Division of Cedar Rapids Block Co., Cedar Rapids, manufacturer of masonry wall reinforcing systems, announces a new study on wall reinforcing entitled "Investigation of Continuous Metal Ties as a Replacement for Brick Ties in Masonry Walls."

The study was prepared for Dur-O-wal by the Armour Research Foundation Institute of Technology of Chicago to compare the relative merits of the brick header course in wall construction with continuous wire reinforcement. Studies were made of flexural strength vertically, compressive strength and water permeability.

A 44-page, liberally illustrated book, containing complete engineering information is available from Dur-O-wal without charge on request.



Courtaulds Contract Carpets

Manufacture of a new group of made-to-order contract grades of carpeting is announced by Courtaulds Carpets Limited.

Known as the Cornwall Group, the new carpeting is manufactured from Courtaulds Corlaine yarn, a blend of Courtaulds own solution dyed viscose, virgin wool and nylon.

Courtaulds Cornwall Group is available in four types, "A", "B", "C", and "D" according to pile height and weight and are distributed in Quebec by Courtaulds Carpets Limited; in Ontario and the Maritimes, by Wellington Carpet Imports Ltd; in Western Canada, by Arthur C. Weeks Ltd.



Dormitory Wardrobe Brochure

A brochure, "Wardrobes for Residence Halls" has been issued by the Architectural Woodwork Institute. It contains perspectives of typical installations for colleges and institutions. Related traceable details of each installation are provided together with scale elevations and sections showing construction details.

A specifications guide is included covering: species selection, recommended joinery techniques for case bodies, face frames, drawers, drawer frames, and hardware and counter tops. The specifications also cover such matters as door construction and recommended dimensions for appropriate "thickness-size" relationship, assembly, sanding, and installation.

Single copies available free on request to the AWI office, 332 South Michigan Avenue, Chicago 4, Illinois.



Glazing Specifications

Brochure F-5795B is available from The Tremco Manufacturing Company, Cleveland 4, Ohio. It is designed to provide a sound basis for the evaluation of all significant factors bearing on the requirements of the glazing sealants to be used on any given job, to insure adequate security of performance.

This twelve page brochure reports the principal causes of glazing failures, factors governing sealant selection and placement, minimum standards and basic glazing recommendations for aluminum, steel and wood sash.

Door Control Mechanisms

Rixson No. 27 and No. 28 floor installed door control mechanisms feature five separate built-in door controls, each conveniently adjustable at any time after installation.

To accommodate for variations of wind and draft conditions, separate adjustments change the door's closing speed from slow to fast and the latching pressure from firm to gentle. Back-check resistance may be increased or decreased at will. Selector hold-open permits switching from non-hold-open to automatic hold-open. Although en-

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Additional information is available from the manufacturer, The Oscar C. Rixson Co., (Canada) Ltd, 43 Racine Road, Rexdale, Ontario.



"Space Saver" Quiette Switch

Arrow-Hart & Hegeman (Canada) Limited announces the addition of a new "Space Saver" model to its line of Quiette Switches. Designed to fit 1 1/4" boxes and allow ample space for wiring, this new switch is only 3/8" deep from face to back. In addition, the new "Space Saver" model offers all the advantages characteristic of all Arrow-Hart Quiette Switches. These include: Quiet mechanical operation without mercury or other fluids; continuous operation in any position; and construction designed to insure long, dependable service.



Masonry Water Repellent

"ARIDSIL", a transparent silicone water repellent for external applica-

tion to all kinds of masonry, is discussed in a folder available from Anti-Hydro of Canada Sales Ltd.

Besides providing a protective, water repellent covering for masonry against rain and dampness, this coating reduces efflorescence, prolongs the life of masonry and keeps it clean, it is claimed. It does not affect the natural color or texture and, if desired, oil base paints may be used over it.

Copies are available in English or French from Anti-Hydro of Canada Sales Ltd., 2070 Favard Street, Montreal 22, Que.



Dow Introduces new fabric Rovana

Dow Chemical Company of Canada has introduced into Canada a new synthetic fabric of exceptional qualities. Known as Rovana, the new material, which is suitable for drapes, etc., is available in a wide variety of weaves, patterns and colors. Special patterns and weaves may also be ordered. While resembling in every way natural fabrics, the new material can be washed or dry cleaned, is highly resistant to fading and, most important, is fire retardant. Further information may be obtained from the Company at Sarnia, Ontario.

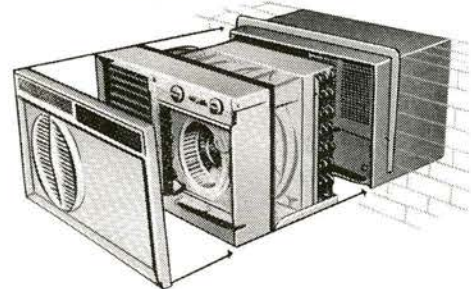


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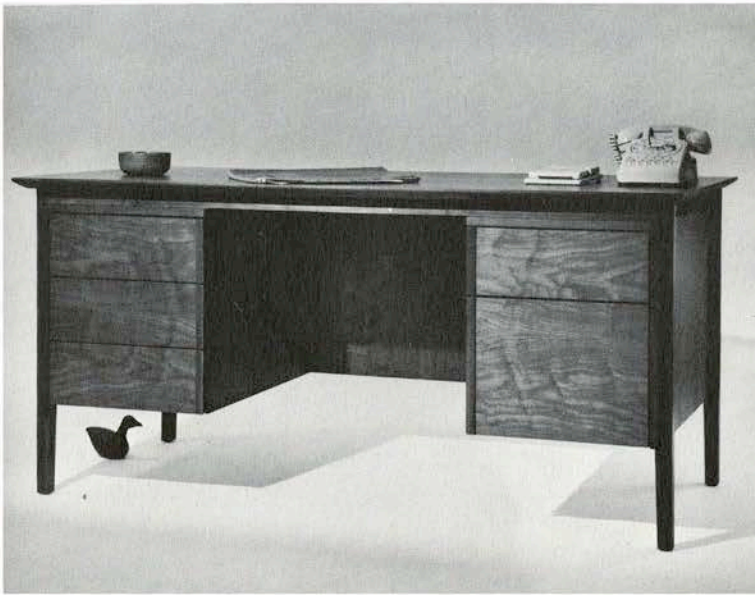


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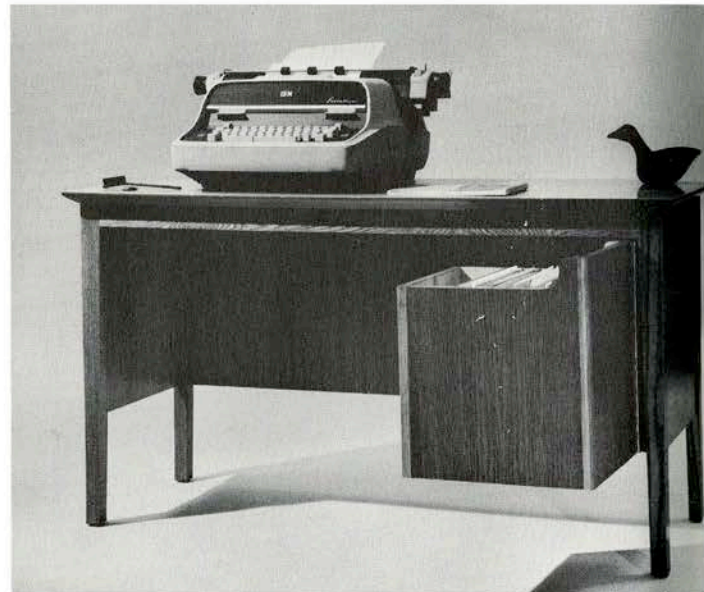
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1702 Desk with 1712 Side Unit



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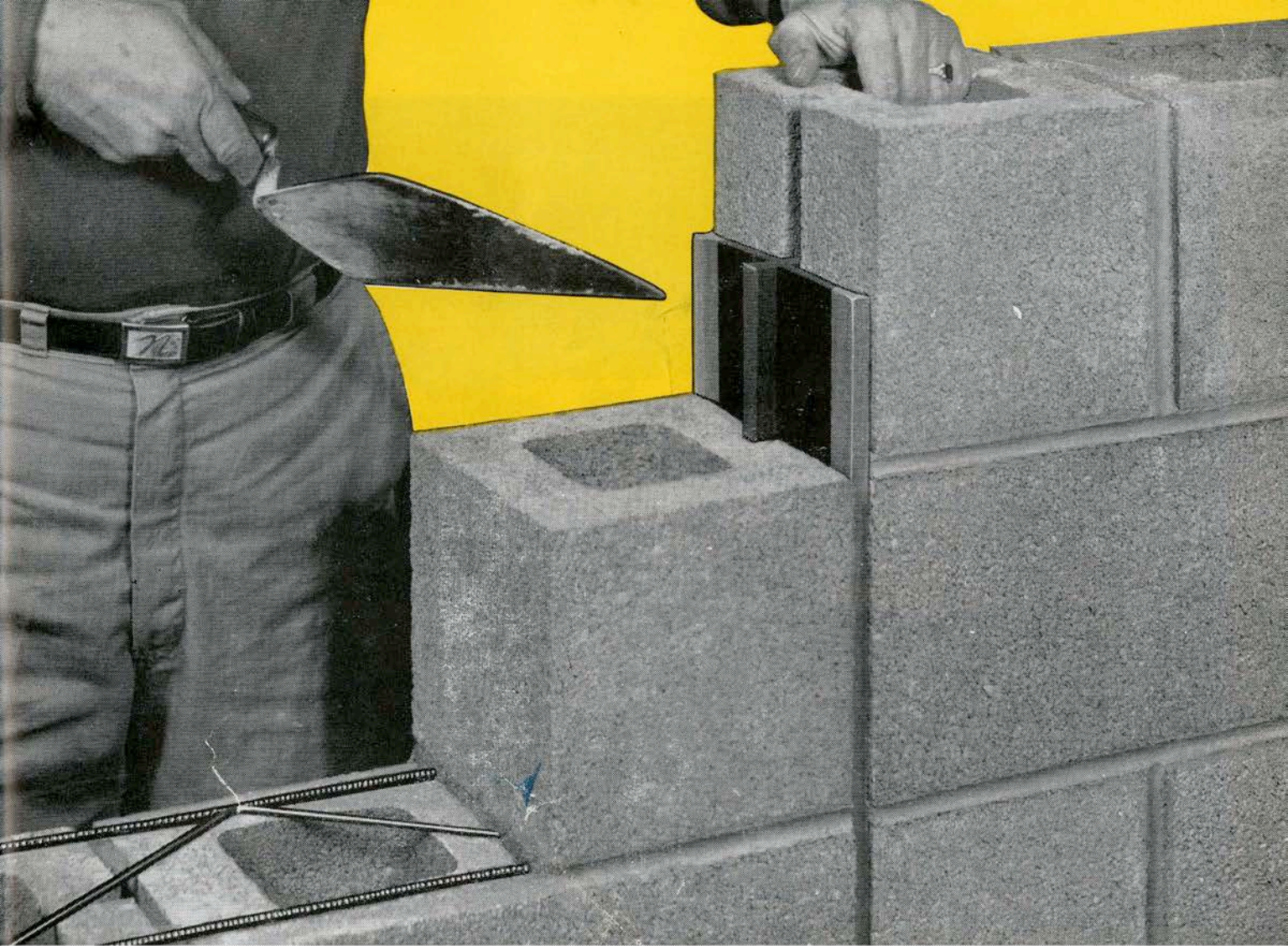
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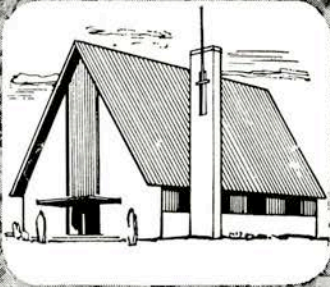
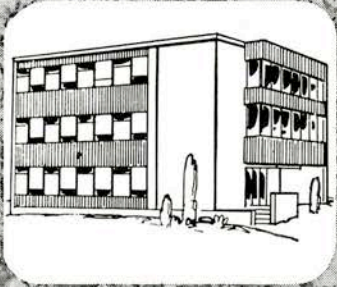
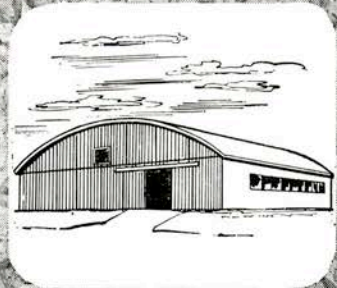
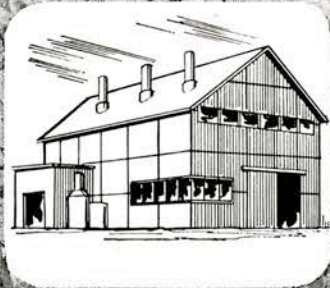
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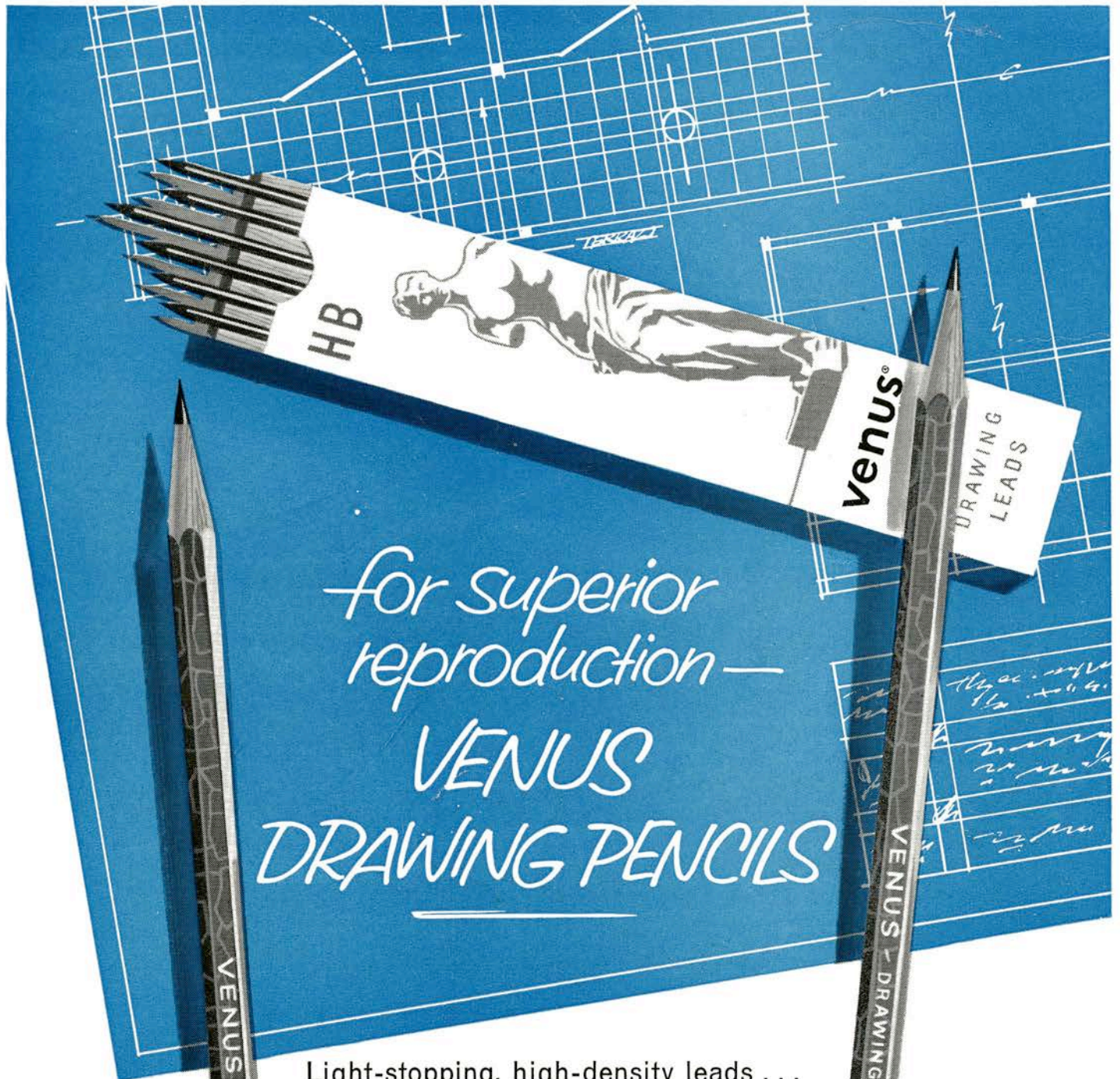
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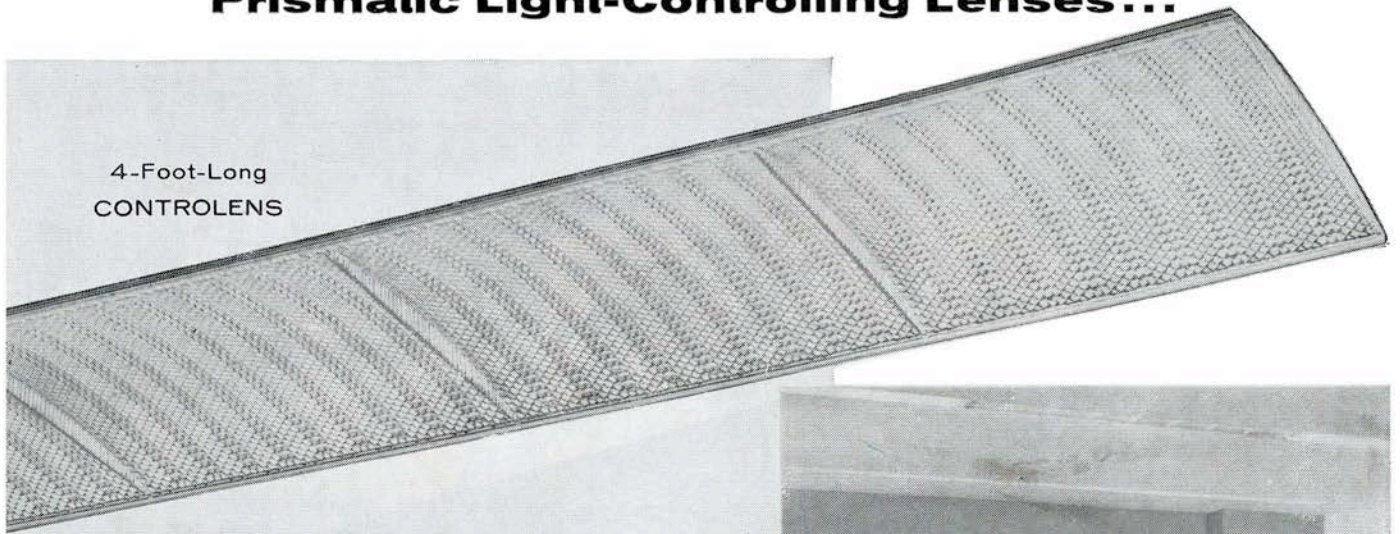
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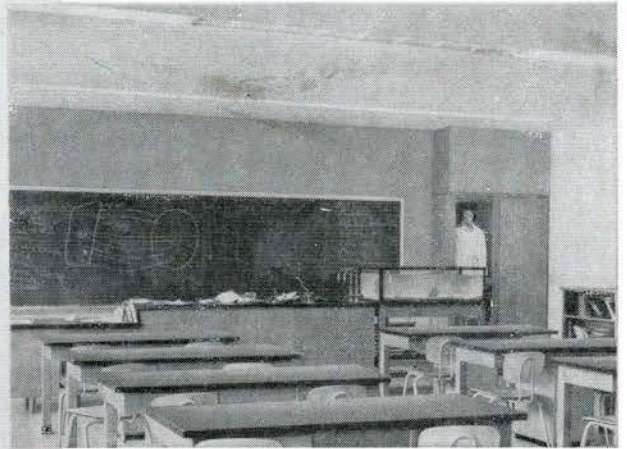
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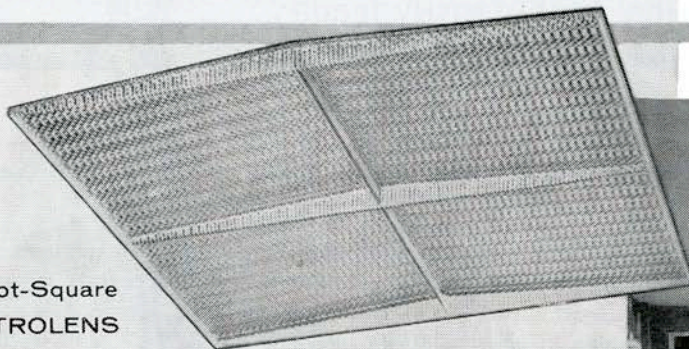
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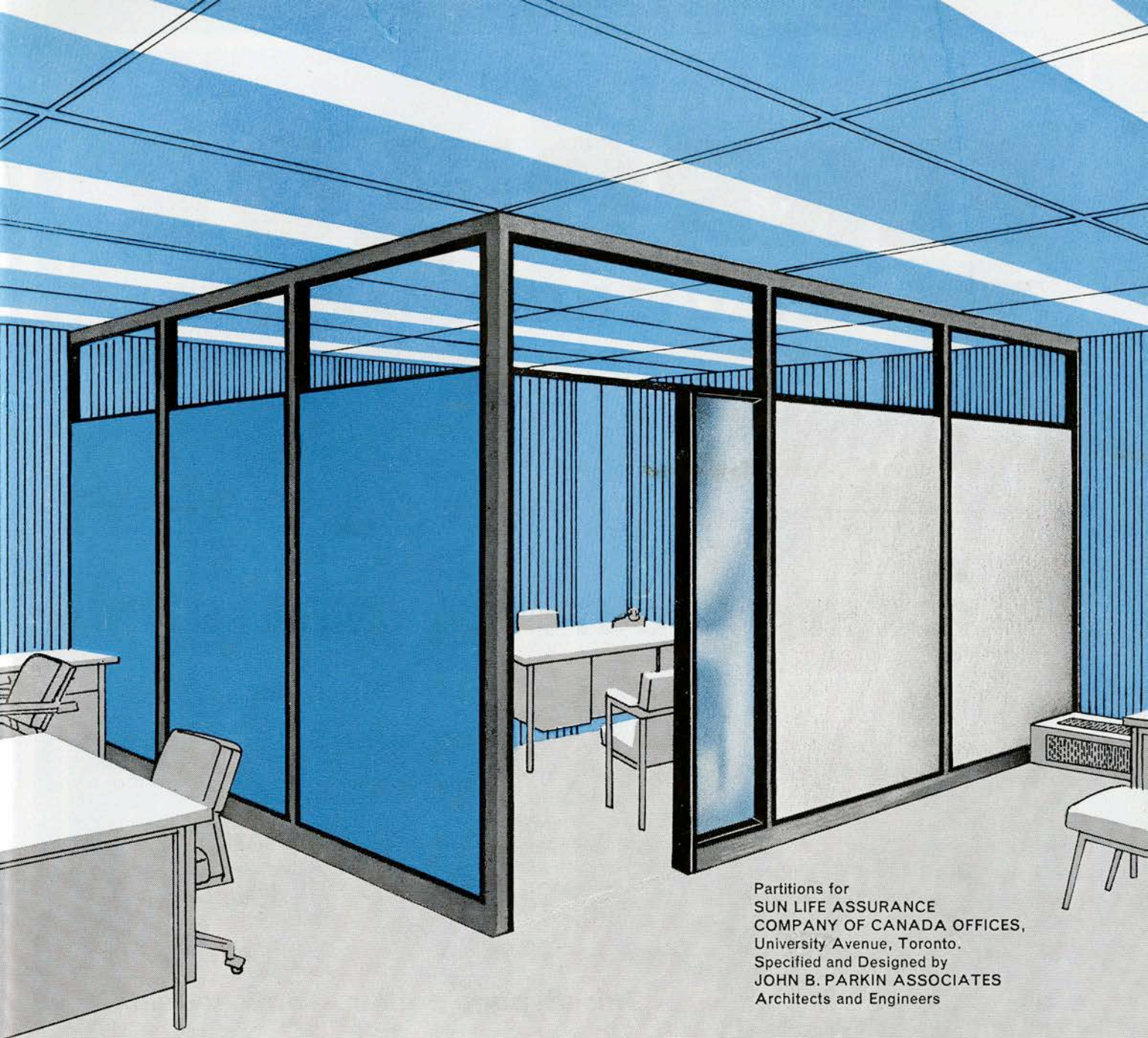


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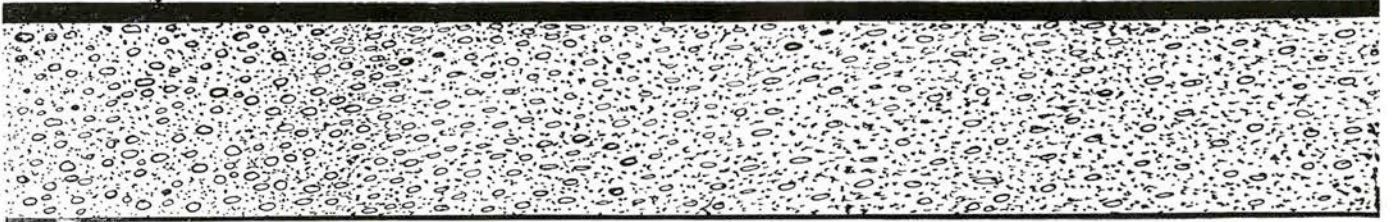
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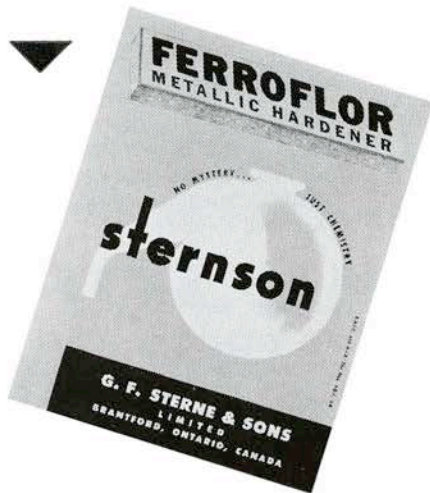
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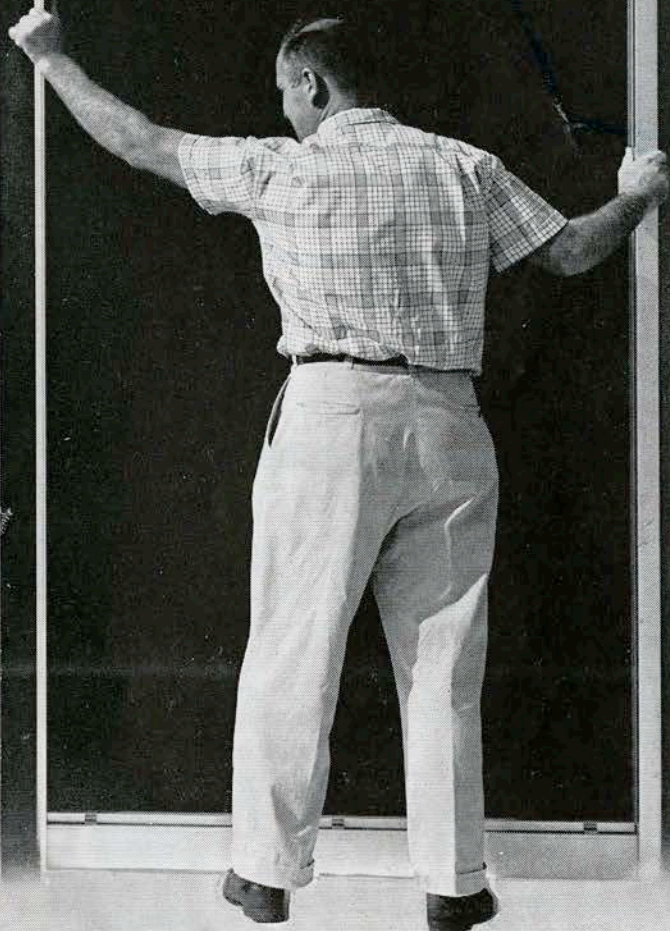
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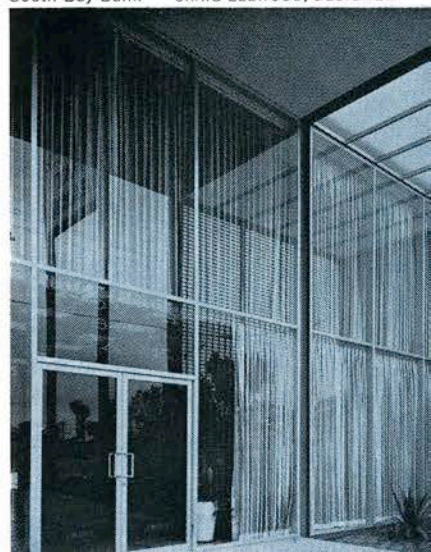
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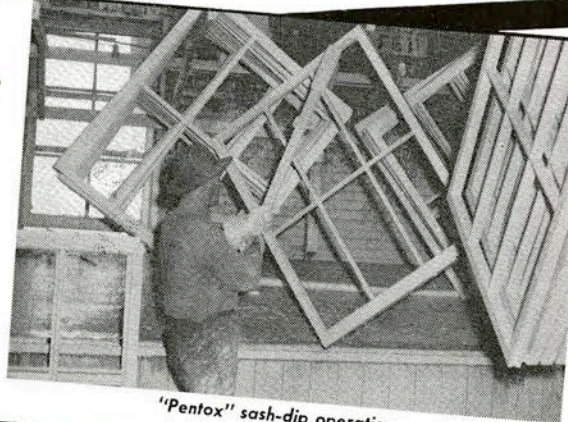
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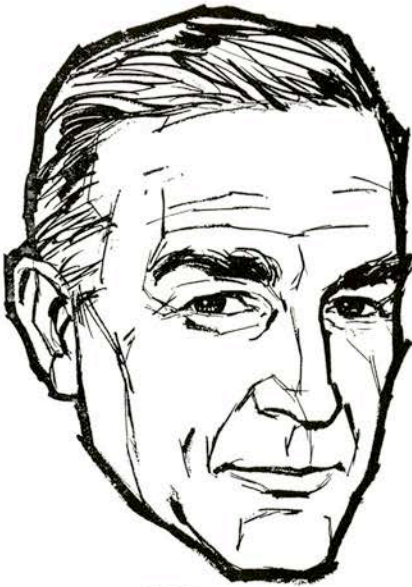
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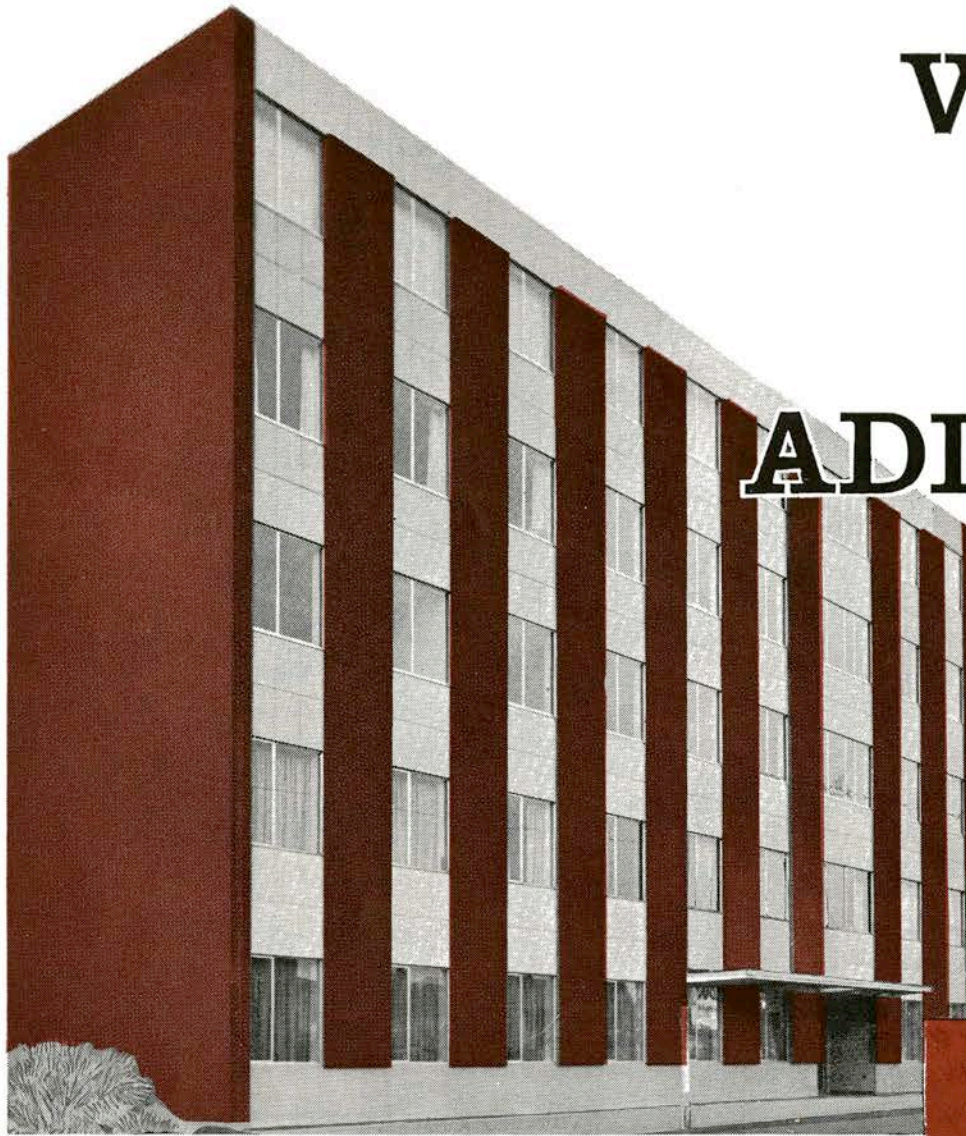
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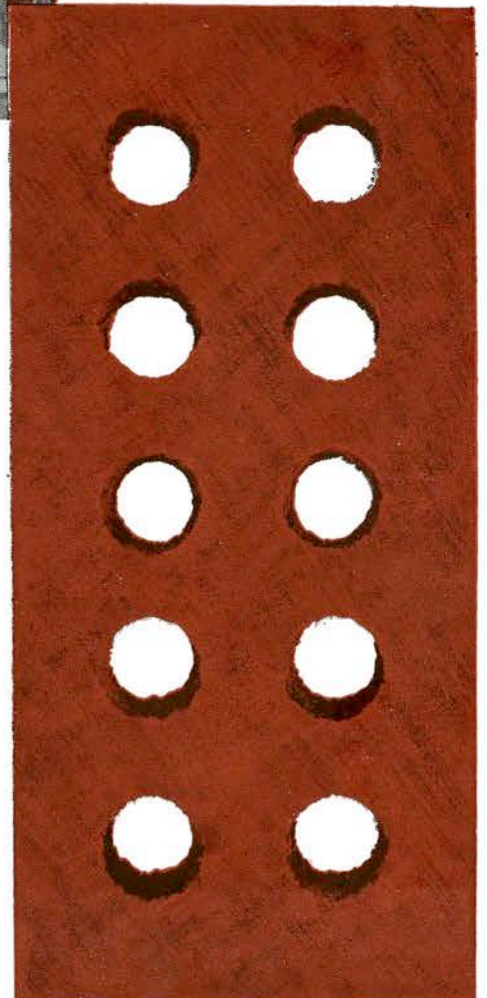
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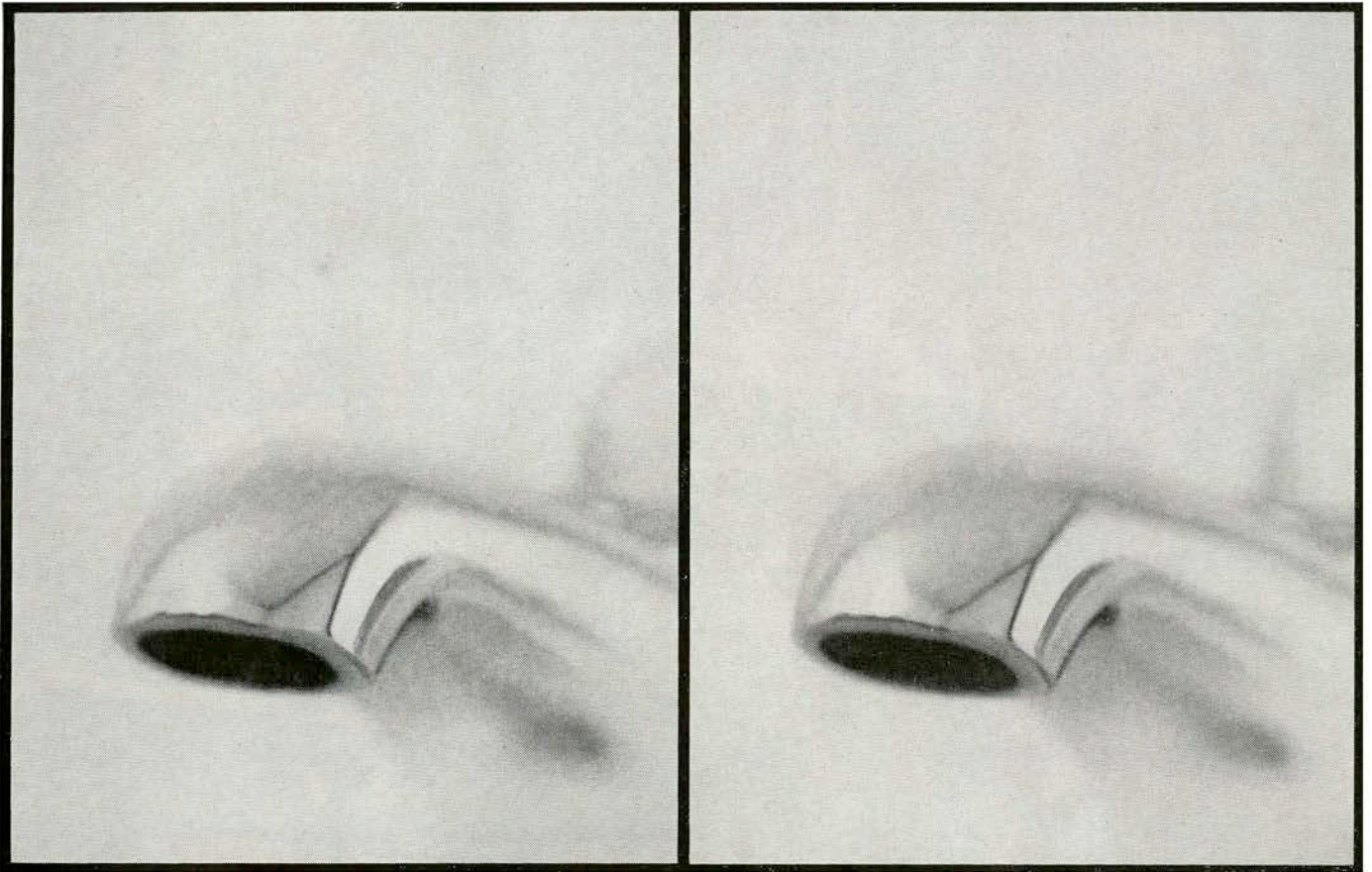
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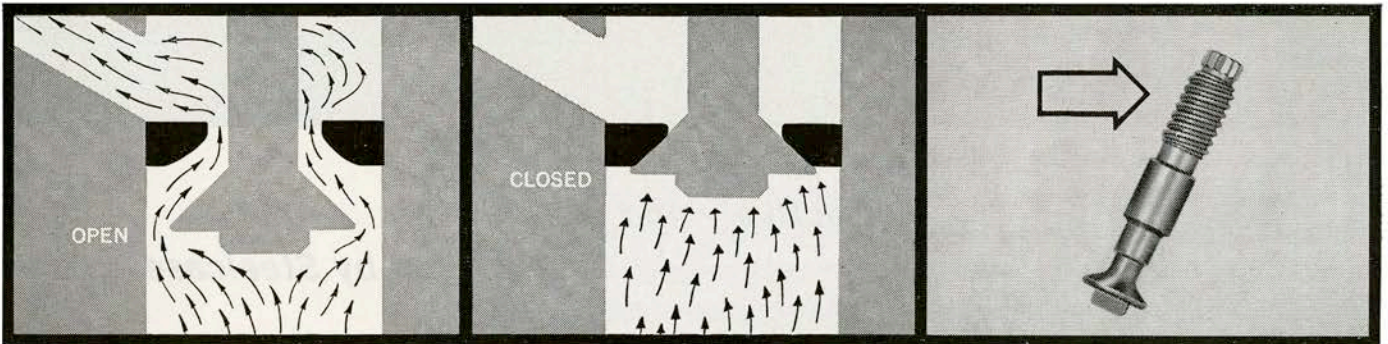
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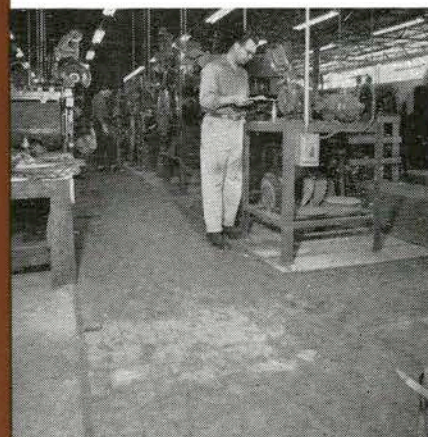
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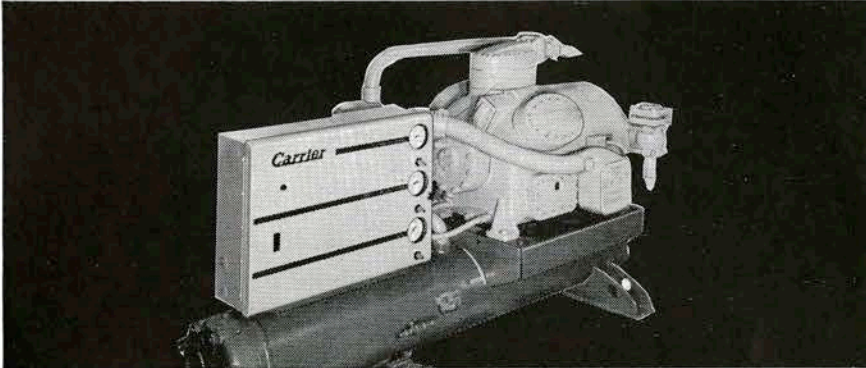
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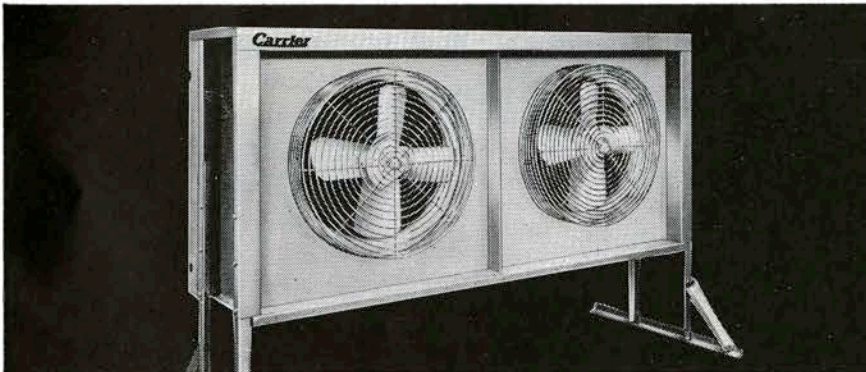
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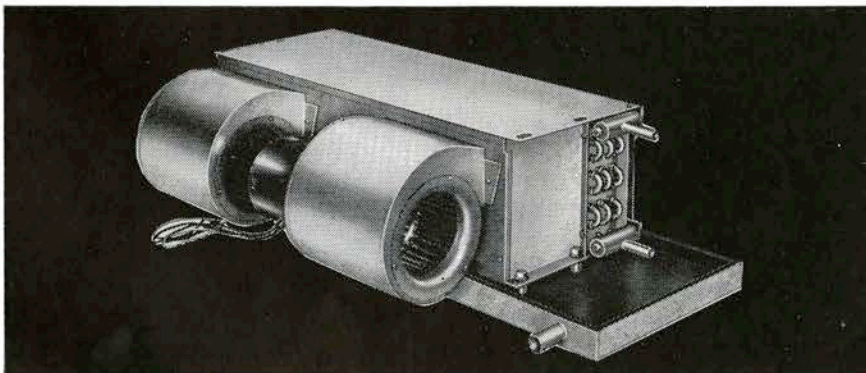
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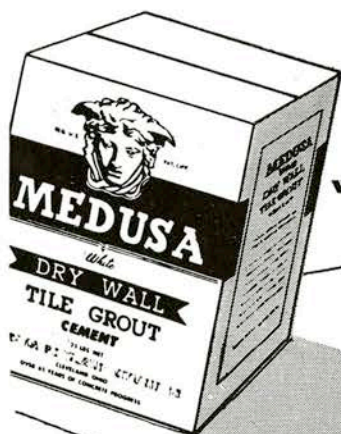
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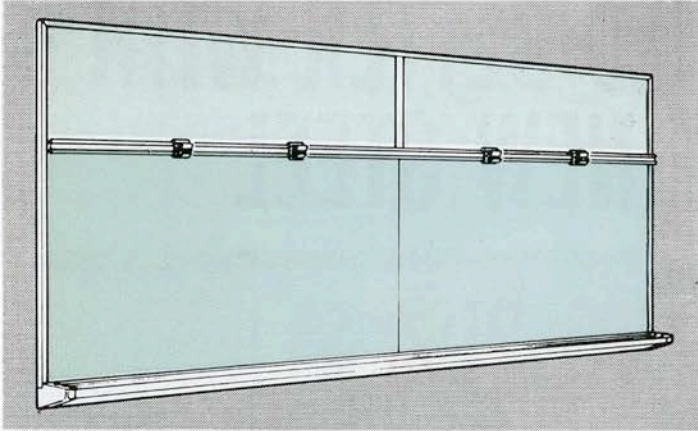


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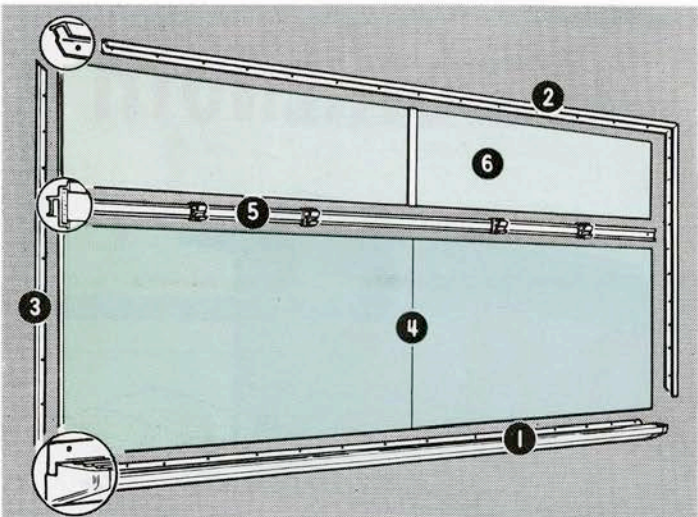
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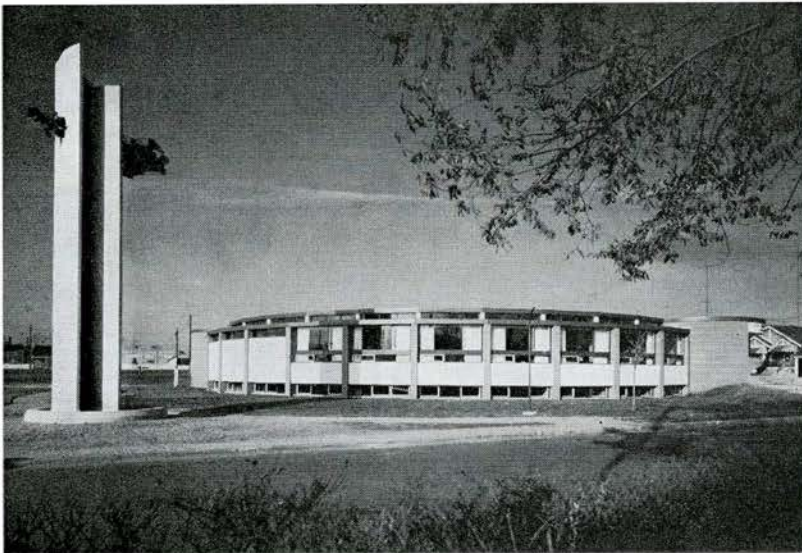
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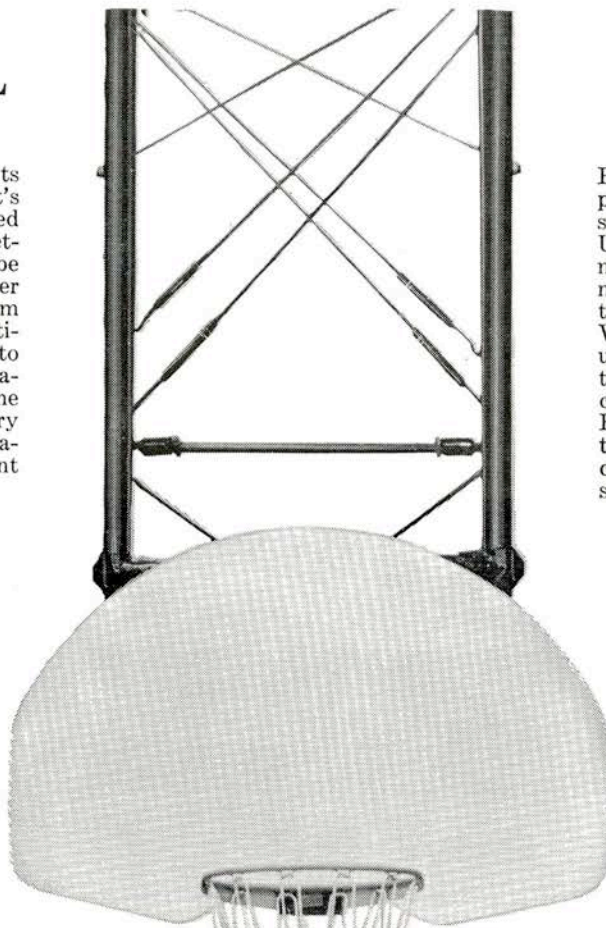
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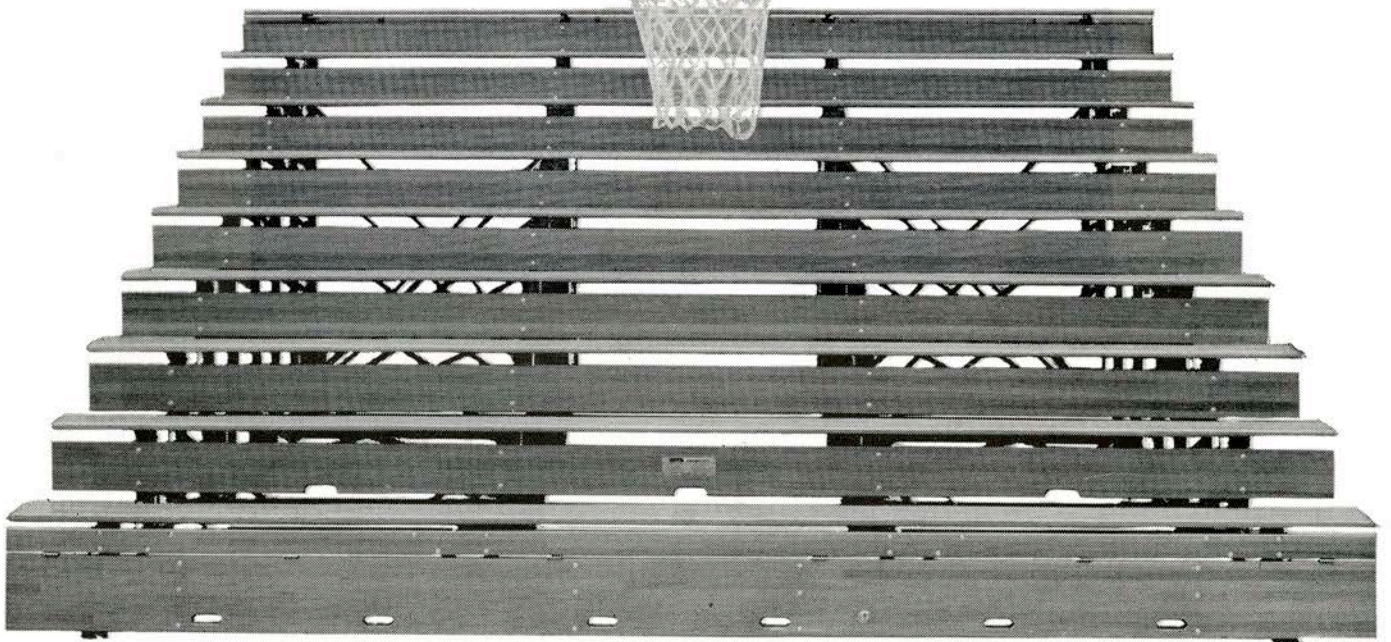
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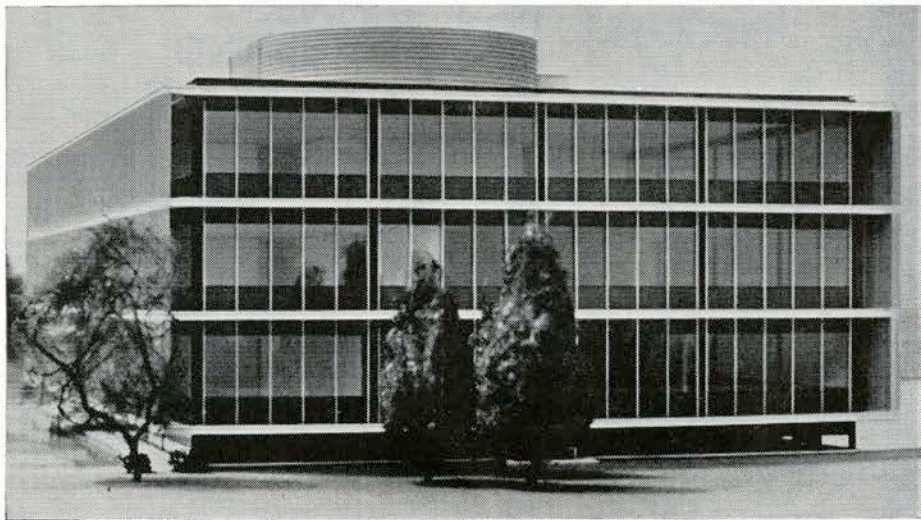
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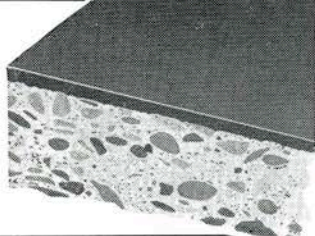
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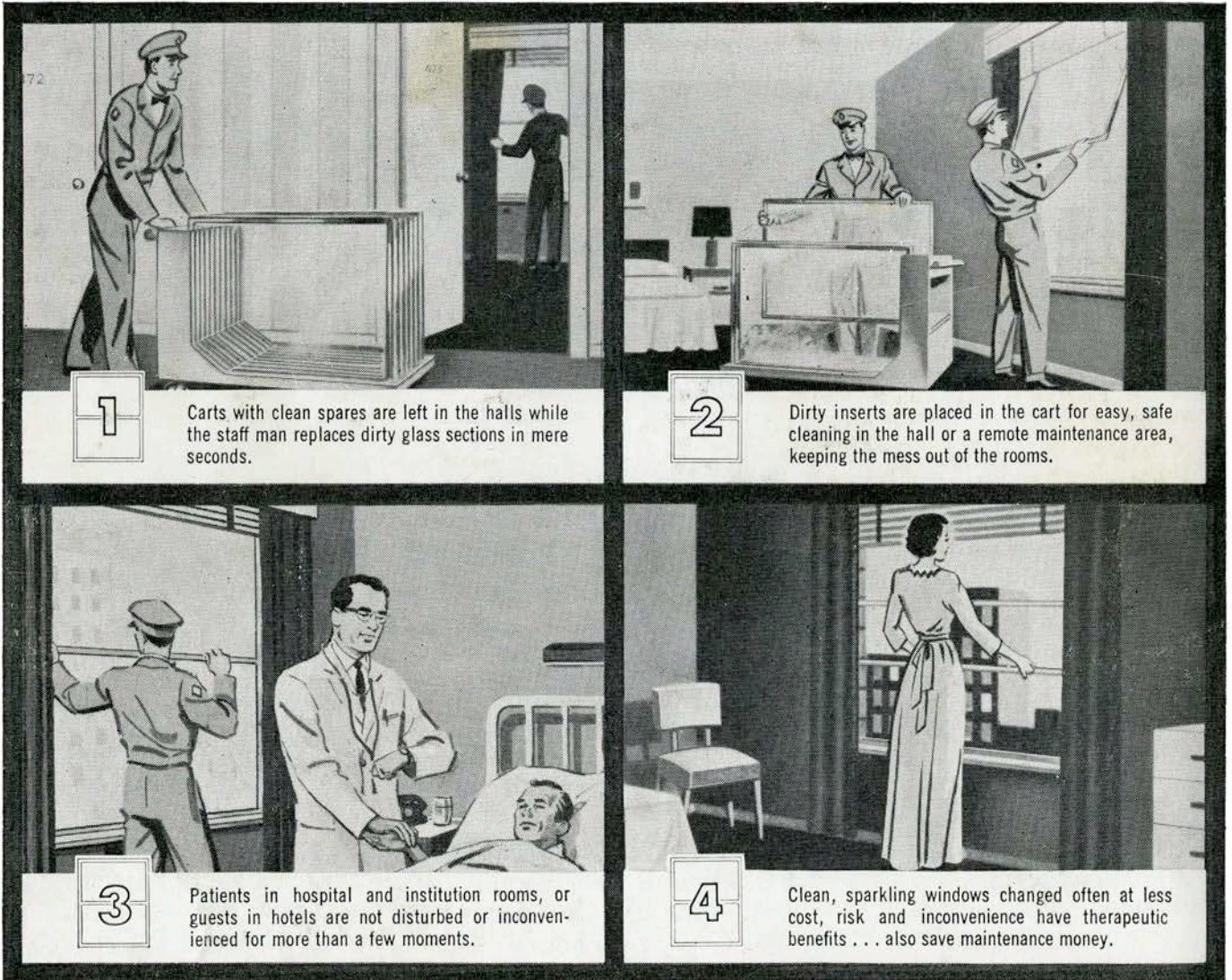
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1

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2

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3

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4

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