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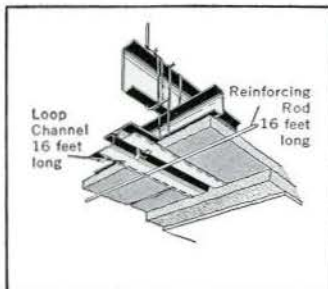
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March 1966/mars 1966
486 Volume 43 No 3

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Architects' Association of New Brunswick 1966 Council, seated, left to right: H. P. J. Roy; Alfred Chatwin, AANB President; Gérard Venne (F), President RAIC; H. Claire Mott (F), John R. Myles. Standing are John R. Disher, Cyrille Roy, D. W. Jonsson, Peter Siemers.

W. J. Abra, FRAIC (1882-1965)

It is with a great sense of loss that I record the passing of W. J. Abra on December 23, 1965, at the age of 83.

William James Abra was born in Ayr, Ontario, and during his early years lived and was educated in Galt, Toronto, and North Bay. After a colorful series of experiences (during which, at the age of 19, he was given six months to live), he commenced his architectural career in 1905 by being articled to Col C. P. Meredith in Ottawa. He became a practising architect in 1910 in association with Alan Keefer and Hugh Richards. After a short period the partnership became known as Richards and Abra. This relationship carried on until the death of Hugh Richards in 1944. Mr Abra retired from practice in 1951.

During his busy life he was known for his human qualities and his devotion to the service

of his profession. He became a member of the OAA Council in 1943 and served in this capacity until 1948. He was vice-president during 1943 and president in 1944-45. During his term on Council he initiated much of the Legislation which is in effect today and the profession is the better for his tireless effort on its behalf. In recognition of his service he was elected an Honorary Member of the OAA in 1960.

In 1941 Mr Abra was elected to Fellowship in the Royal Architectural Institute of Canada and was invested by the Hon Albert Matthews, Lieutenant-Governor of Ontario. He served the Institute on committees for many years and was a member of the RAIC Council in 1942-46-47. He was a charter member of the College of Fellows.

At the personal level, I owe a great deal to W. J. Abra. His advice and encouragement over the years have been invaluable to me.
Watson Balharrie

AANB Annual Meeting

Acceptance of the School of Architecture of the Nova Scotia Technical College as the seventh recognized School of Architecture in Canada; and completion of revision to the Act and By-laws governing the practice of Architecture in New Brunswick were noted by the president, Alfred Chatwin, in his presidential report to the annual meeting of the Architects' Association of New Brunswick at Saint John on January 28-29.

The President RAIC, Gérard Venne, of Quebec City, attended the meeting and addressed the architects and staff dinner.

Neil M. Stewart (F), Fredericton, and John R. Myles, Saint John, were appointed to the RAIC Editorial Board. New members welcomed were J. H. Collyer, Fredericton, Franklin L. Hillman, Fredericton. Denis A. Bird, Saint John, was appointed as a student member. Total membership is now 31.

The Experience Record Book has been adopted by the AANB and all candidates for registration must present it with their application.

Alfred Chatwin was re-elected president for 1966-67.



Dennis Carter (F), MAA President; James E. Searle (F), A. J. Diamond, Associate Editor Journal RAIC, Gerald Macdonald, Manitoba Journal Board Representative at the Manitoba Annual Meeting, held January 22, Winnipeg.

This month's cover is a typical tower floor plan, Toronto City Hall, Associated Architects and Engineers Viljo Revell and John B. Parkin Associates.



NSAA 1966 Council, seated, left to right: Allan F. Duffus, J. Philip Dumaresq, President. Standing: F. Harrington, Vice-President; M. Byrne, Secretary; O. Biskaps, Robert J. Flinn, Treasurer; John Way. (T. W. Bauld not present)

Nova Scotia Association to Re-submit Revised Act to Legislature

The Nova Scotia Association of Architects at their annual meeting on January 29 decided to submit their revised act for approval of the Provincial Legislature again in 1966. The Act was first presented to the Legislature in February 1965, but was not passed. The new Act was drawn up by a committee composed of Douglas Shadbolt, chairman, and C. W. Wright, R. J. Flinn, L. J. Page, with Allan Duffus, president, ex-officio.

J. Philip Dumaresq succeeded Mr Duffus as Association president for 1966-67.

BCI, the New Product Literature Filing System, is now Available

The long awaited Building Construction Index, the new 16 Division product literature filing system which replaces the old RAIC-AIA Standard Filing System, has been completed by a Canadian committee and copies are now available from RAIC Headquarters, Ottawa, at \$2.00 each. The new system is compatible with, and is actually an extension of, the format for building specifications devised by the CSI in the US in 1963 and subsequently adopted by the RAIC and the AIA.

Great credit is due to the Canadian group who devised the new filing system over the past year when production of the system by the industry — profession liaison committee in the US was held up. The Canadian group was composed of R. E. Briggs, Toronto, representing the RAIC; Robert Halsell, P.Eng., representing the Association of Consulting Engineers of Canada; D'Arcy Helmer, MRAIC, Ottawa (chairman) president of the Specification Writers' Association of Canada; E. L. Mahoney, secretary of the Canadian Joint Committee on Construction Materials; G. S. Patterson, secretary of the Canadian Institute of Quantity Surveyors; Frank Spangenberg of Sweets Catalogue. The secretary, and responsible for much of the actual production, was Russell Cornell, Toronto, Executive Director, SWAC.



1966 Executive Committee, Ontario Association of Architects, Hamilton Chapter. Seated, left to right: Martyn Dabner, Chairman; Arthur Taylor, Secretary. Standing: Denis W. Pitt, Treasurer; Norman W. Dobell, Vice-Chairman; Mervin Jones, Past President; Anthony Butler.

1966 Barott Awards Competition for Building Product Literature

The fifth annual competition for the Peter Barott Awards for Excellence in Building Product Literature will be conducted in April by the Canadian Joint Committee on Construction Materials, sponsored by the Royal Architectural Institute of Canada, the Association of Consulting Engineers of Canada and the Canadian Construction Association. The awards, instituted by the Joint Committee in 1962 to encourage improvement in building material literature used by architects, engineers and builders, are now identified with the late Peter T. M. Barott, FRAIC, of Montreal, a leading spirit in the Committee and in the Awards organization.

Closing date for entries by manufacturers, advertising agencies and producers of technical literature is April 16, and judging will take place in Ottawa on April 23. The 1966 Certificates of Award will be presented to the winners at a dinner to be given by the Joint Committee in Ottawa on June 21.

The fee for each entry is \$25.00, and entry forms and conditions of the competition are available from E. L. Mahoney, secretary, Canadian Joint Committee on Construction Materials, Construction House, 151 O'Connor Street, Ottawa.

Members of the Jury for the 1966 Competition are James A. Girvan, MRAIC, Montreal, chairman; Roy LeMoyné, MIRAC, Montreal; W. A. Ramsay, MRAIC, and Earle B. Ingram, MRAIC; J. Klassen, P.Eng., ACEC; A. B. Doran, representing the construction industry, all of Ottawa; and A. McDonald Robertson, Toronto, international vice president, Association of Industrial Advertisers.

1966 Structural Steel Awards

The Canadian Steel Industries Construction Council, in co-operation with the National Design Council and the Department of Industry, have announced the 1966 structural steel design awards program. Pending publication of the full details of the program, architects, consulting engineers and owners of current steel building and bridge projects are urged to plan their entries and presentations now. Awards will be officially announced and exhibited in December.

Request for Streetscape Slides

The RAIC, with other interested national organizations, has endorsed the Centennial Commission's Community Improvement and Beautification Program, which might be said to have as its objective the application of the "Norwich Plan" to improve the appearance of the Canadian town and countryside.

Hazen Sise, Montreal, is RAIC representative

on the Advisory Committee working with the Centennial Commission staff on the program and Roderick Clack, Victoria architect, is the Commission officer in charge.

As a first step, the Commission wants to obtain a slide collection of examples, and architects are asked to send to the RAIC Executive Director at Ottawa 35 mm color slides showing "less than satisfactory existing visual environment" — signs, street furniture, overhead wiring, ribbon development, historic buildings neglect or "modernizations", commercial and residential buildings neglect, characterless and often ugly "main street" of smaller communities, etc. Also required

are good examples of streetscape, conservation, signs, etc.

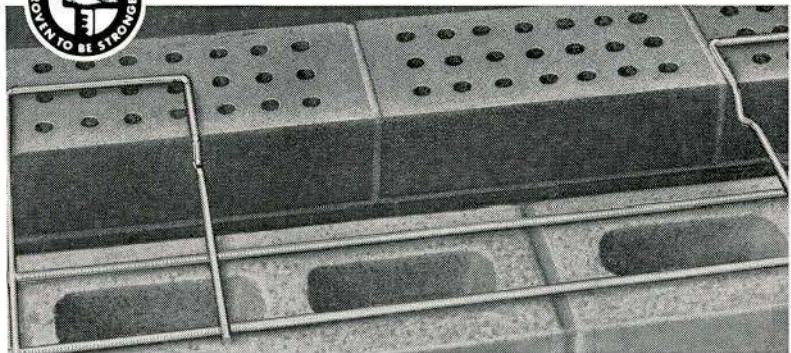
The Centennial Commission will have the slides copied and returned to their owners. Please put name, address and identification on each slide.

Campus Planning Conference

"Architecture and the College" will be the topic of the second North American Conference to consider the critical issues in campus planning and college building design at the University of Illinois, Urbana, Illinois, April 17-21, 1966.

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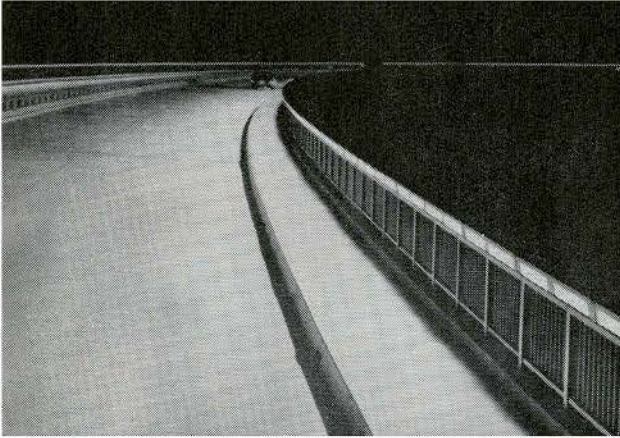
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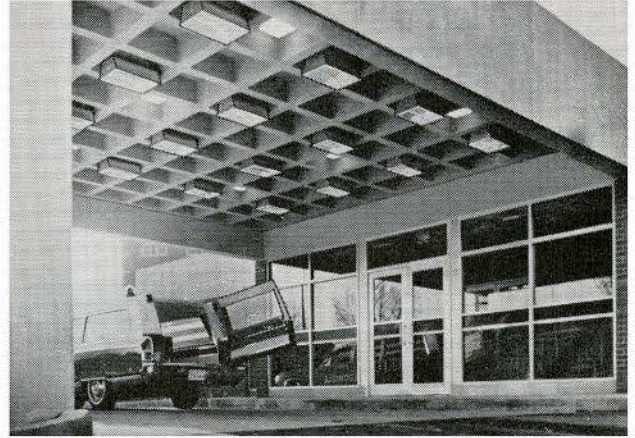
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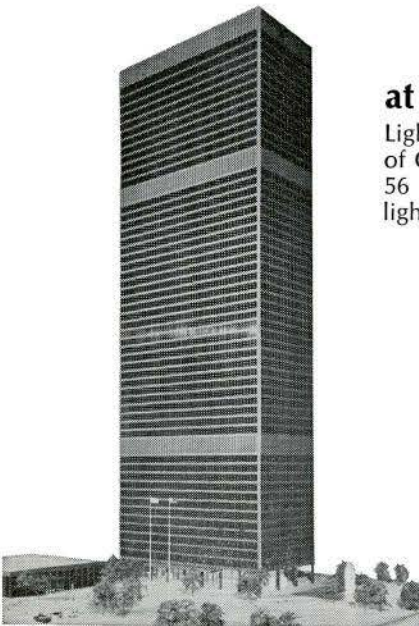
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From Institute Headquarters

A famous Irish theatrical director will be the honored guest and speaker at the 1966 gathering of Canada's architects. Sir Tyrone Guthrie, who guided the Shakespearean Festival at Stratford, Ontario, in its early years, has accepted the invitation of the Institute to give the keynote address at our 59th Annual Assembly.

President Gérard Venne has announced that Sir Tyrone and Lady Guthrie will be guests of the Institute throughout the four-day convention at Jasper Park Lodge, Jasper, Alberta, from June 1 to 4.

Sir Tyrone's wide interests in the theater are bringing him to Canada again as planner and director of the Pageant of Confederation, which is to take place on Parliament Hill in Ottawa next year. He has recently completed his engagement at the Minneapolis theater named in his honor.

The 1966 Assembly is the first to be held at the famous mountain resort in Jasper National Park. Design of cultural and recreational facilities across Canada will be the focus of discussion on the keynote theme: "Leisure Time and Human Values". It is expected that the development of the national parks will come under scrutiny, with particular reference to the Olympic Games for Canada.

Major item on the agenda is the final report of the Survey of the Profession, which should be released just prior to the Assembly. The report culminates a two-year nationwide study by eight senior architects, based on interviews, statements and a full questionnaire completed by 75% of the members of the Institute. Its purpose is a frank appraisal of the profession's course of development, with recommendations for action in the period ahead. Survey chairman Herbert H. G. Moody will present the report.

The host committee of Alberta architects is led by co-chairmen Kenneth L. Bond, Calgary, and John McIntosh, Edmonton. They are making preparations to welcome 400

members of the Institute and their families, from all provinces, with a program full of architectural interest and Western hospitality.

The January feature on outstanding citizens, in *Maclean's* magazine, again includes some RAIC members. The team of Affleck Desbarats Dimakopoulos Lebensold Sise made it last year. This year, Arthur Erickson and Geoffrey Massey of Vancouver are "in".

It has been estimated that within the next 40 years many of our Canadian cities will be completely rebuilt. And, in this rebuilding process, there will be a transformation that will change the entire function of the city core. Previously the downtown area was our warehouse and shipping area, which required quantities of semi-skilled labor. But now the city centre is being taken over by large office structures, apartment houses, public buildings, and theatres; and is becoming once again the educational and cultural heart of the metropolitan area.
Honorable J. R. Nicholson, MP

The AIA has appropriated \$100,000 for 18 months' initial research on architectural educational programs, to be conducted at Princeton University. Purpose is to test new educational approaches and curricula to improve the capacity of the architectural profession for its expanding role in designing the nation's physical environment.

It is reported that emphasis will be on educational methods which may lead to development of more reliable and creative design procedures, including more effective techniques of stating and solving design problems and of evaluating building performance.

The project will also study the relationship between education, architecture, and related fields devoted to creation of the human environment, methods of professional internship, and continuing education for practising design professionals.

Fred W. Price
Executive Director

Du siège social de l'Institut

Un célèbre directeur de théâtre irlandais sera année l'invité d'honneur et l'orateur à la réunion annuelle des architectes canadiens. Sir Tyrone Guthrie, qui a dirigé le Festival shakespearien à Stratford (Ontario), a accepté l'invitation que lui avait lancée l'Institut de prononcer le discours-thème à sa 59e assemblée annuelle.

Le président de l'Institut, M. Gérard Venne, a annoncé que sir Tyrone et lady Guthrie seront les invités de l'Institut durant les quatre jours, soit du 1er au 4 juin, que durera le congrès au Jasper Park Lodge, Jasper (Alberta).

Le vif intérêt qu'il porte au théâtre conduit de nouveau sir Tyrone au Canada, cette fois comme organisateur et directeur du Pageant de la Confédération qui aura lieu sur la colline du Parlement à Ottawa l'an prochain. Sir Tyrone a récemment terminé un engagement au théâtre de Minneapolis nommé en son honneur.

L'Institut tient cette année, pour la première fois, son assemblée annuelle dans le fameux décors montagneux du Parc national de Jasper. Les délibérations, sous le thème "Loisirs et valeurs humaines", seront centrées sur la forme et le modèle des établissements culturels et récréatifs canadiens. Il sera aussi question, sans doute, de l'aménagement des parcs nationaux, surtout en vue de la tenue des Jeux olympiques au Canada.

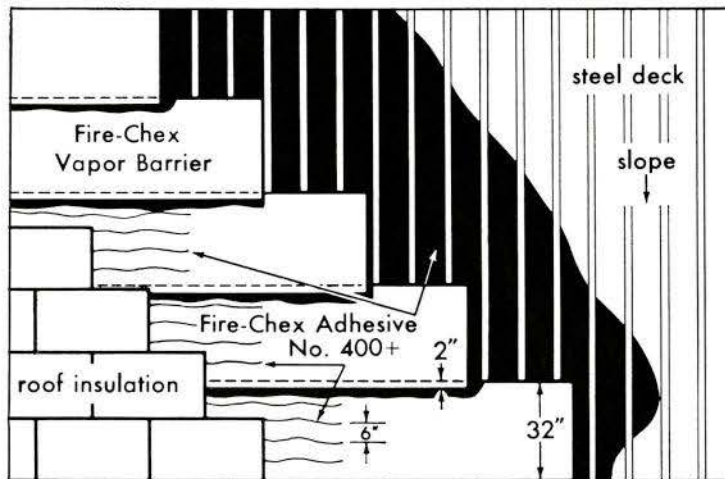
Le point principal de l'ordre du jour sera la présentation du rapport final d'un relevé de la profession dont on attend la publication à temps pour l'assemblée. Ce rapport est l'aboutissement de deux années d'études, d'un littoral à l'autre du Canada, de la part de huit architectes éminents qui ont eu des entretiens personnels avec les intéressés, obtenu des déclarations et fait circuler un questionnaire complet auquel ont répondu 75 p. 100 des membres de l'Institut. Son objet est de présenter une appréciation franche de l'évolution de la profession et de recommander une orientation pour les années à venir. Le rapport sera présenté par

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M. Herbert H. G. Moody, de Winnipeg, président du comité chargé de ce relevé.

Le comité d'accueil des architectes albertains a pour présidents M. Kenneth L. Bond, de Calgary, et M. John McIntosh, d'Edmonton. Il se prépare à recevoir 400 membres de l'Institut et leurs familles, de toutes les provinces du Canada. Il organise à leur intention un programme qui répondra tout à fait à leurs intérêts professionnels tout en laissant une large place à l'esprit d'hospitalité caractéristique des "gens de l'Ouest".

La liste des citoyens éminents publiée dans le numéro de janvier du magazine *Maclean's* comprend encore cette année des membres de l'Institut. L'an dernier, les membres du bureau Affleck, Desbarats, Dimakopoulos, Lebensold et Sise y avaient trouvé place. Cette année, c'est MM. Arthur Erickson et Geoffrey Massey, de Vancouver, qui ont mérité cette distinction.

On prévoit que d'ici quarante ans un grand nombre de nos villes seront entièrement reconstruites. Au cours de ce procédé de reconstruction, le rôle du centre des villes sera complètement transformé. Jusqu'ici, les centres de villes ont été nos entrepôts et nos zones d'expédition, et ont exigé un grand nombre de travailleurs mi-spécialisés. Aujourd'hui, ces zones sont envahies par de grands immeubles à bureaux, des maisons de rapport, des édifices publics et des théâtres; de nouveau, elles deviennent les centres éducatifs et culturels de nos régions métropolitaines.

L'hon. J. R. Nicholson, Ministre de Travail

L'American Institute of Architects a affecté \$100,000 à un programme initial de recherches de 18 mois sur un programme de formation des architectes à l'Université de Princeton. L'objet de ces travaux est d'examiner la valeur de nouvelles méthodes et de nouveaux programmes d'études destinés à "accroître la capacité des architectes en vue du rôle de plus en plus important qu'ils seront appelés à jouer dans la conception du milieu préparé pour la population".

La recherche portera de façon spéciale, dit-on, sur les méthodes d'enseignement pouvant conduire au développement de procédés de composition plus sûrs et plus créateurs, y compris des techniques plus efficaces pour exposer et résoudre les problèmes de composition et déterminer les qualités fonctionnelles des bâtiments. Les études porteront aussi sur les rapports entre l'enseignement, l'architecture et divers domaines connexes à la création du milieu humain, les méthodes de stages professionnels et la poursuite des études chez les professionnels de la composition.

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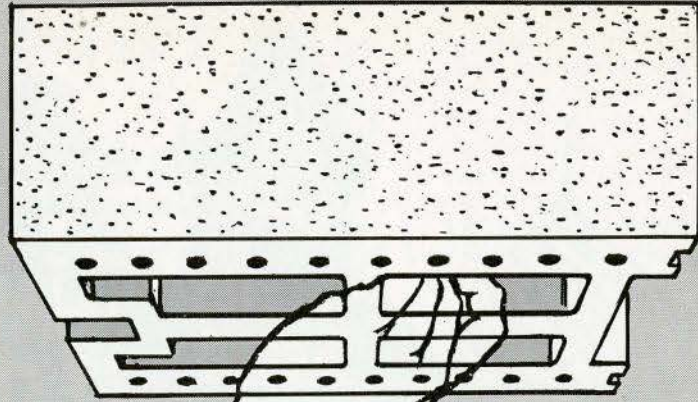
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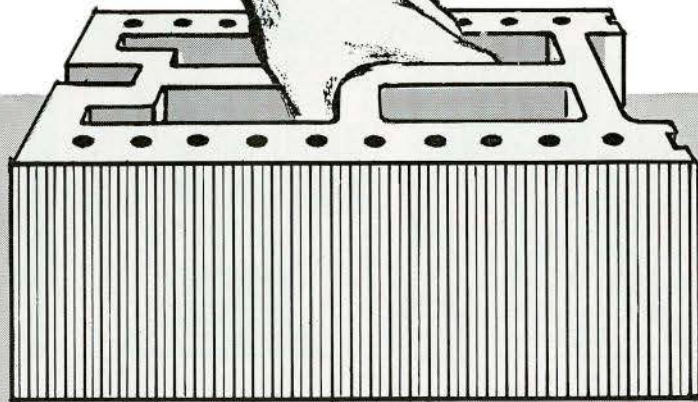
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THE "DOUBLE-DUTY"
LOAD BEARING
STRUCTURAL CLAY TILE

FOR SINGLE WALL
CONSTRUCTION

MADE IN CANADA

RUG-TEX
EXTERIOR FINISH



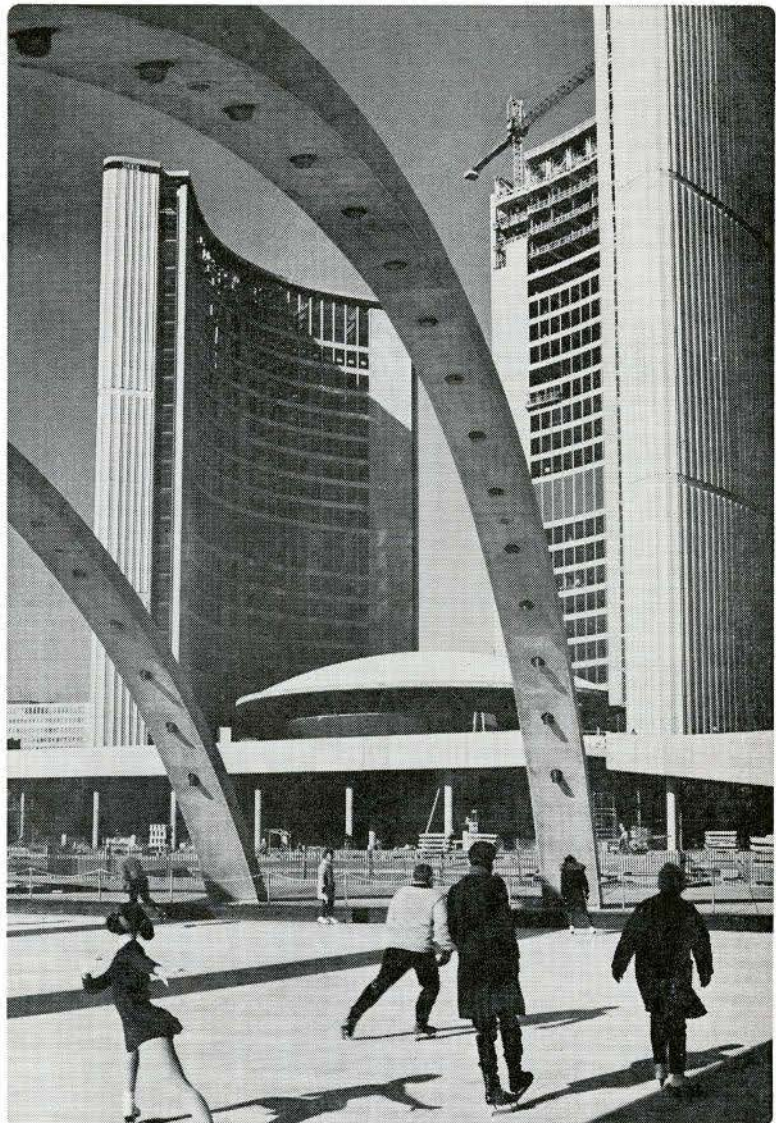
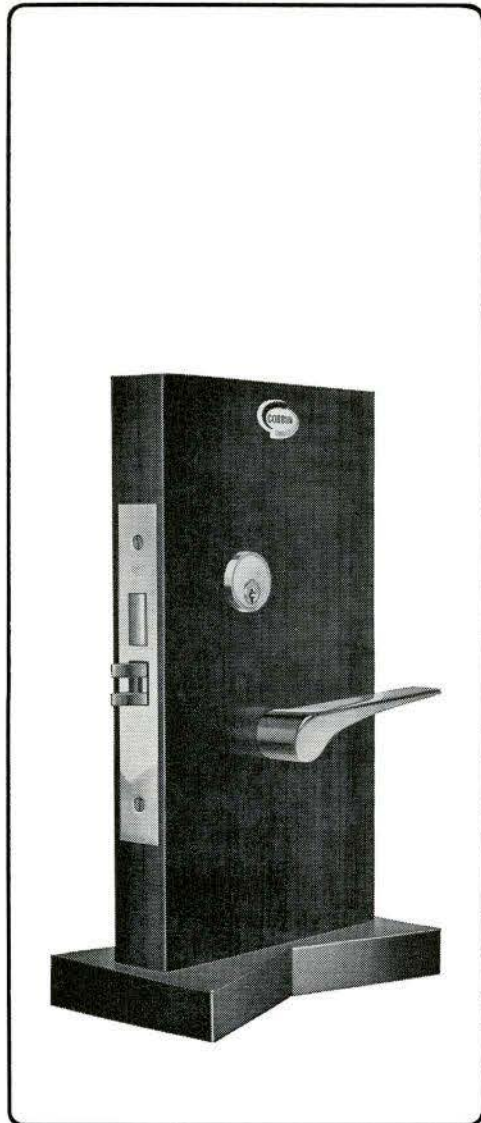
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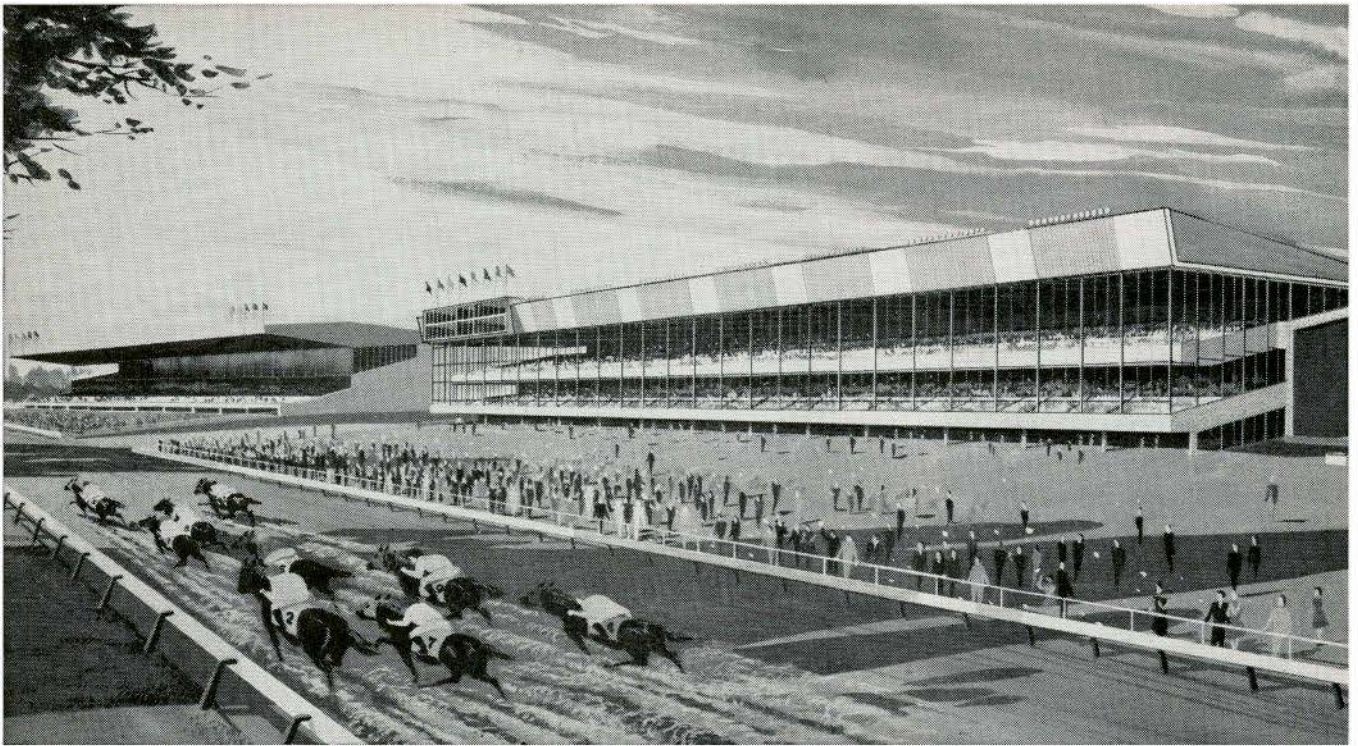
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The *Journal's* Allied Arts Department is now in its second year. Begun as an experiment in January 1965, it has, as a result of wide interest and reader response, widened its scope and added to its activities.

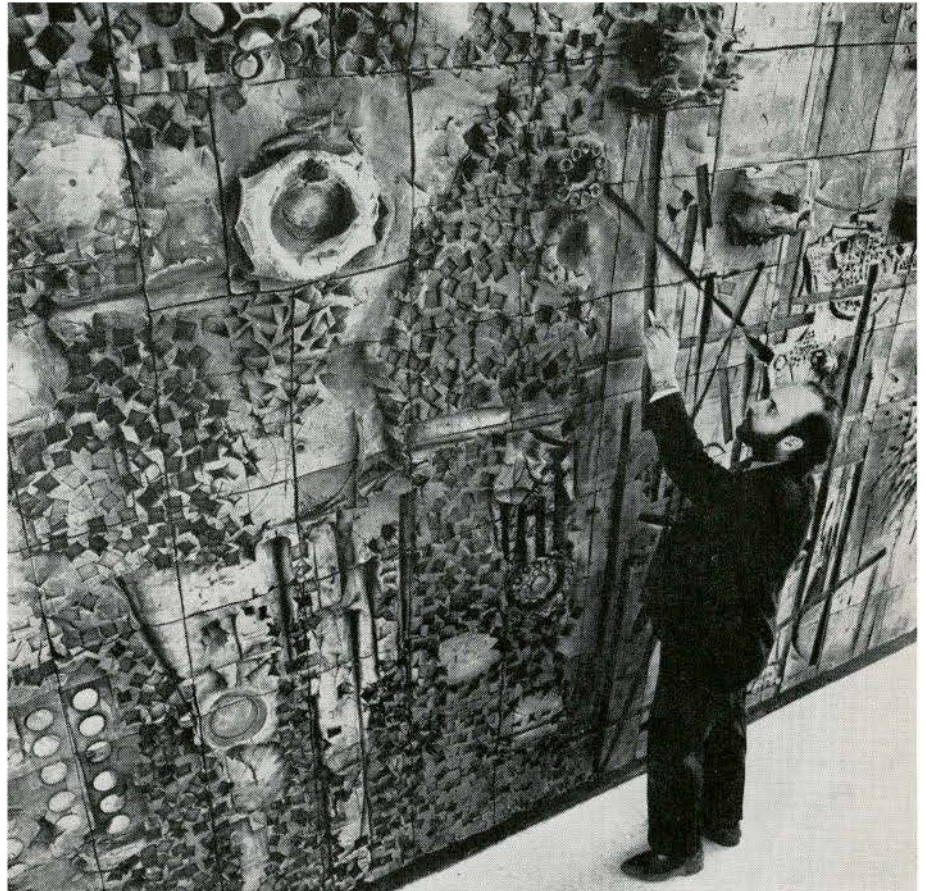
An editorial policy of free expression of opinion on national and international work and activities in the field of the arts allied to architecture, coupled with a number of tours and with participation in chapter, provincial and national activities, has given the editor room to promote interest, explore problems and weaknesses and assess potential talent. The opportunity was also provided to find out if there is a real desire by both Canadian artists and architects to improve future collaborative efforts.

The findings are, happily, genuinely positive. However, in spite of good will and good intentions certain hard facts must be faced.

Needs

There is a real and urgent need for a good, central, liaison organization of unquestionable integrity to keep available current information and data for both architect and artist. There is also, at times, a need for a neutral artist to act in liaison and consultant capacity, even before a commission is offered. A subtle and complex requirement, this may disappear as education and experience improve relationships.

Files of photographs already lie dormant in galleries and art centres, often biased or restricted in the area they cover. Appointed advisers often are out of touch with contem-



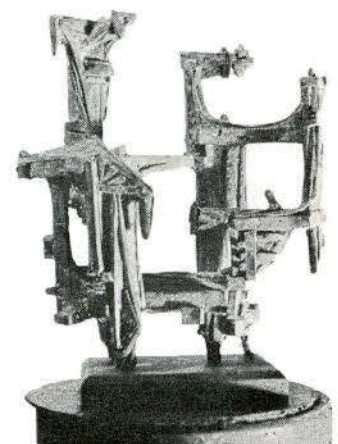
1

1
Jordi Bonet installs his new mural at Olympia Square, Toronto
Jordi Bonet installe son nouveau mural dans le bâtiment Olympia Square à Toronto
2
Bronze Sculpture by Sarah Jackson, Halifax
Sculpture en bronze par Sarah Jackson, Halifax



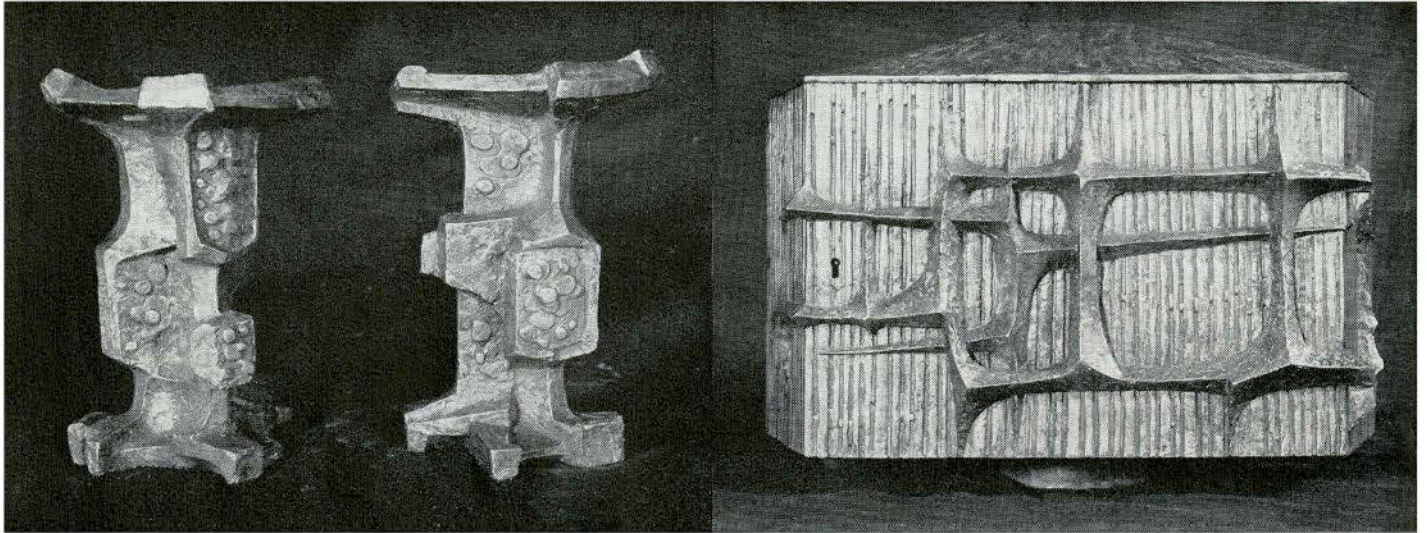
2

3
Maquette for large sculpture group
Artist P. Fulford, Newmarket
Maquette pour un grand groupe de sculpture, artiste P. Fulford, Newmarket



3

*Bronze tabernacle and candlesticks
Sacred Heart Church, Chippawa, Ont.,
Architect W. Cunningham
Artist Raymond Spiers, Newmarket
Tabernacle en bronze et chandeliers
Artiste Raymond Spiers, Newmarket*



4

porary practice, unadventurous in outlook, or do not hold the confidence of either artist or architect in support of their judgements when conflicts arise with the lay public. The lamentable debacle on the various aesthetic problems of the new Toronto City Hall are enough evidence to this effect. The present issues are the outcome of bad thinking at the early conceptual stage and argument becomes specious at this time. The voices of the art world are mute, testifying to an uneasy uncertainty about the whole affair.

However, more serious and far reaching is the weakness in training in Canada in artist-architect collaboration. This often is evident in the architects' lack of knowledge of contemporary art forms, in contrast to his knowledge and practice of architectural forms. As for the client, he is more often unconvinced than ignorant.

Rarely does the architect fail to "sell" the client a fancy new surface texture or modern appliance, if *he* wants it. General exposure to contemporary art for architect, client and his office staff (who incidentally have to live with this art) is something less than their familiarity with "Batman" and his

antics. The whole sorry business is a sad reflection on our art teachers at all levels. The aggrieved artist is similarly unaware of architectural problems. His normal studio maximum scale is no more than a modular item in an overall architectural complex. His painfully achieved 12- to 20-foot monument in traditional bronze or wood is quite incapable of dominating structures where mere fenestration elements exceed this scale. He is, in general, inept, inexperienced and unskilled in working contemporary materials and in direct production techniques, and thinks of architectural integration in terms as backward and outmoded as his architect colleague with art forms.

Art and architectural schools must seriously re-examine their courses at graduate or near graduate level. It may be preferable, for a beginning, to start at a stage where acquisition of basic skills is no longer an immediate preoccupation, and there is a more mature desire to understanding problems of future professional life.

Well meaning attempts at solving the problem by teaching architects "a bit of life drawing" or some such thing; benignly providing a "resident" artist with house

room, or having architects lecture to artists, is not an intelligent answer to the problem. What is needed now is a real and tough analysis on both sides, followed by a dynamic mutual integration program. Incidentally, any program, even at an earlier training level, if creative, should not differ too much for artist or architect. Our art schools and, indeed, some of our architectural schools, need to realize that dropping the English Academic 19th century background of training is long overdue in Canada.

Economics

It is not true that cost is the main deterrent to art integration. We get what we want. Big business is beginning to see art as a status symbol. What it basically fears is ridicule. The purchaser needs to feel confident that work commissioned will not only be noticed but will withstand adverse criticism and overcome prejudice by sheer quality of production.

In the matter of economics, the introduction of the plan to spend one percent or more on works of art for Federal public buildings finds us all unready. England failed so badly in this well meaning type of promotion

of the arts. I hope Canada will not repeat old mistakes and acquire only safe and undistinguished work, for in England this was neither desired nor intended.

However, fear of consequences should not inhibit this kind of government sponsorship of the arts. The works which will result will form the "living galleries" and should provide exciting and though-provoking experiences. This can be the only valid reason for the acquisition of such works. The "dead" museums have acquired enough safe and proven pieces to surfeit public appetite for the next thousand years.

Self Help

As first step in liaison improvements, the *Journal's* Allied Arts Department plans periodical publication of an illustrated catalogue of examples of allied art and architecture. All media will be covered, sculpture, murals, tapestries, artifacts, ceramics etc. The whole compendium will have additional service pages of new talent, new techniques and craftsmen-manufacturers, such as bronze casters, glass manufacturers etc.

At the same time a reference slide collection is being made for personal examination at head office, or for liaison lecturers to architectural groups. Forms and literature are at present being distributed. Enquiries may be directed to the *Journal* office.

Book Review

Timely enough for comment is the publishing of a handsome catalogue item by the American Craftsmen Council for the "Craftsmen of the Southwest". A directory of 151 artist craftsmen residing in Arizona, California, New Mexico and Hawaii with data and illustrations of each artist's work. It should be of use to those interested but as a general criticism this handsome spiral bound volume is more of a library piece than a day to day useful piece of documentation. High cost of production and at times paucity of material (one item per page barely gives more than a hint) defeats the nature of the catalogue. I believe it took two years to compile and such a task will not be repeated too often. Material will become outdated and the nature of the contents on the whole is not suggestive to be used in architectural decore. Congratulations on a beautiful art production but I wish for the sake of the craftsmen concerned a slightly more earthy approach had been taken.

Incidental News

Another Bonet has been installed in Toronto . . . two large perambulating murals covering an area of 13,200 and costing \$50,000 for Olympia and York Industries. A symbolistic conjunction of non figurative and figurative motifs on the theme of Life and

Death envelops both corridors at the entrance lobby. The client and architect are proud possessors, and rightly so. However the staff complaints and prejudices only too audibly voiced I heard in the elevator on the day of inauguration, would seem to call for a little enlightenment by public relations in the form of an introduction by the architect to the content, or by some competent friend of the artist – for these are the people who have to live with it daily. I would that their reaction was tempered at least with curiosity and interest rather than angry ignorant prejudice. These young

people so enthralled by the new in other fields are the constant reminder of educational faults.

Is this the shape of things to Come? The architectural students of the University of Toronto have purchased the work carried out at the school by Ron Baird during his term of office as resident sculptor for the external entrance to the architectural buildings. I can hardly wait for these boys to move out into professional practice.

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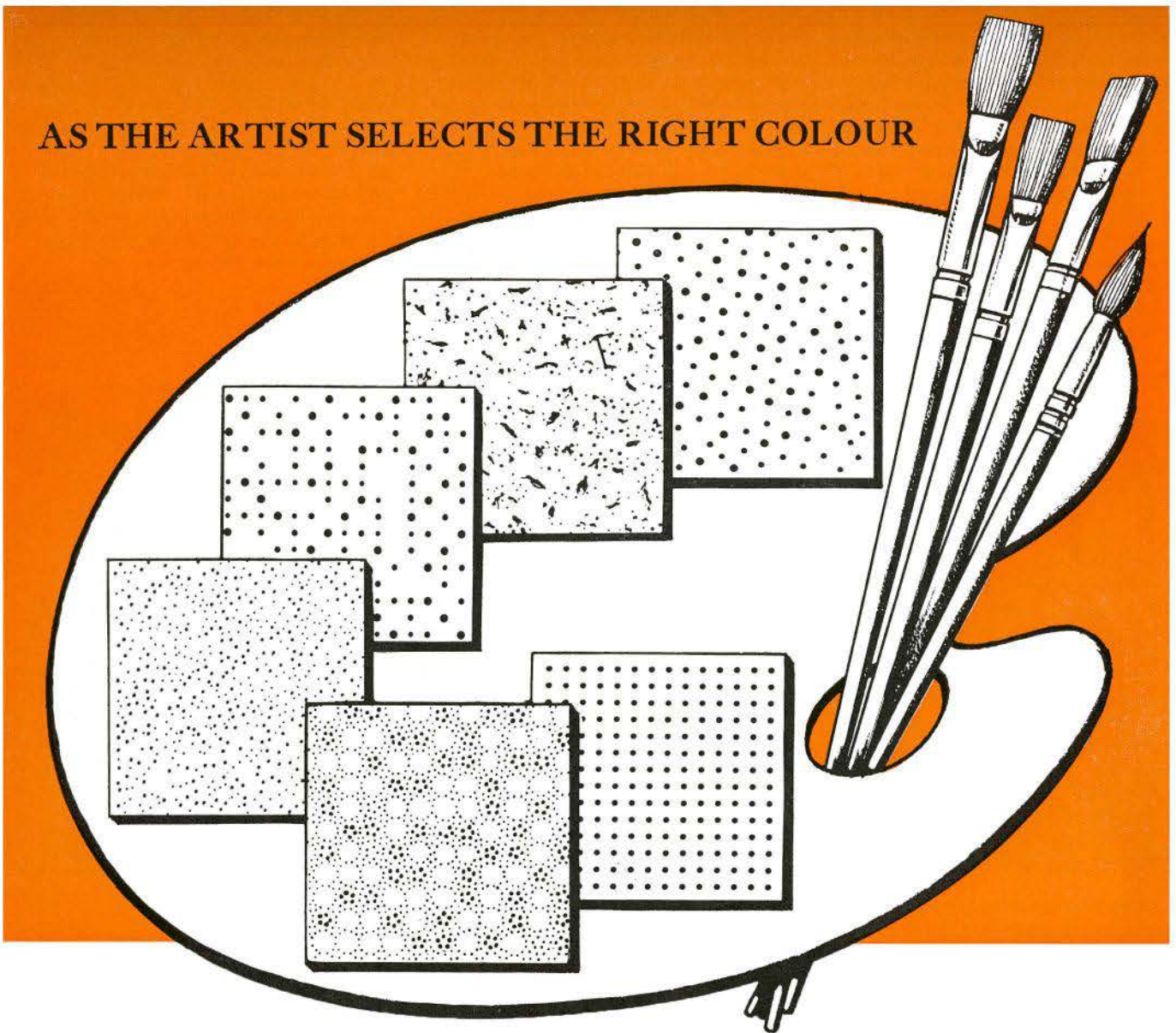
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Holy Trinity Roman Catholic Church, Calgary, Alta. Architects: Cohos — Delesalle & Associates. Consulting Structural Engineers: Lamb, T. McManus & Associates Ltd. General Contractor: Commonwealth Construction Co. Ltd. Concrete masonry units & ready-mixed concrete by: Consolidated Concrete Ltd.



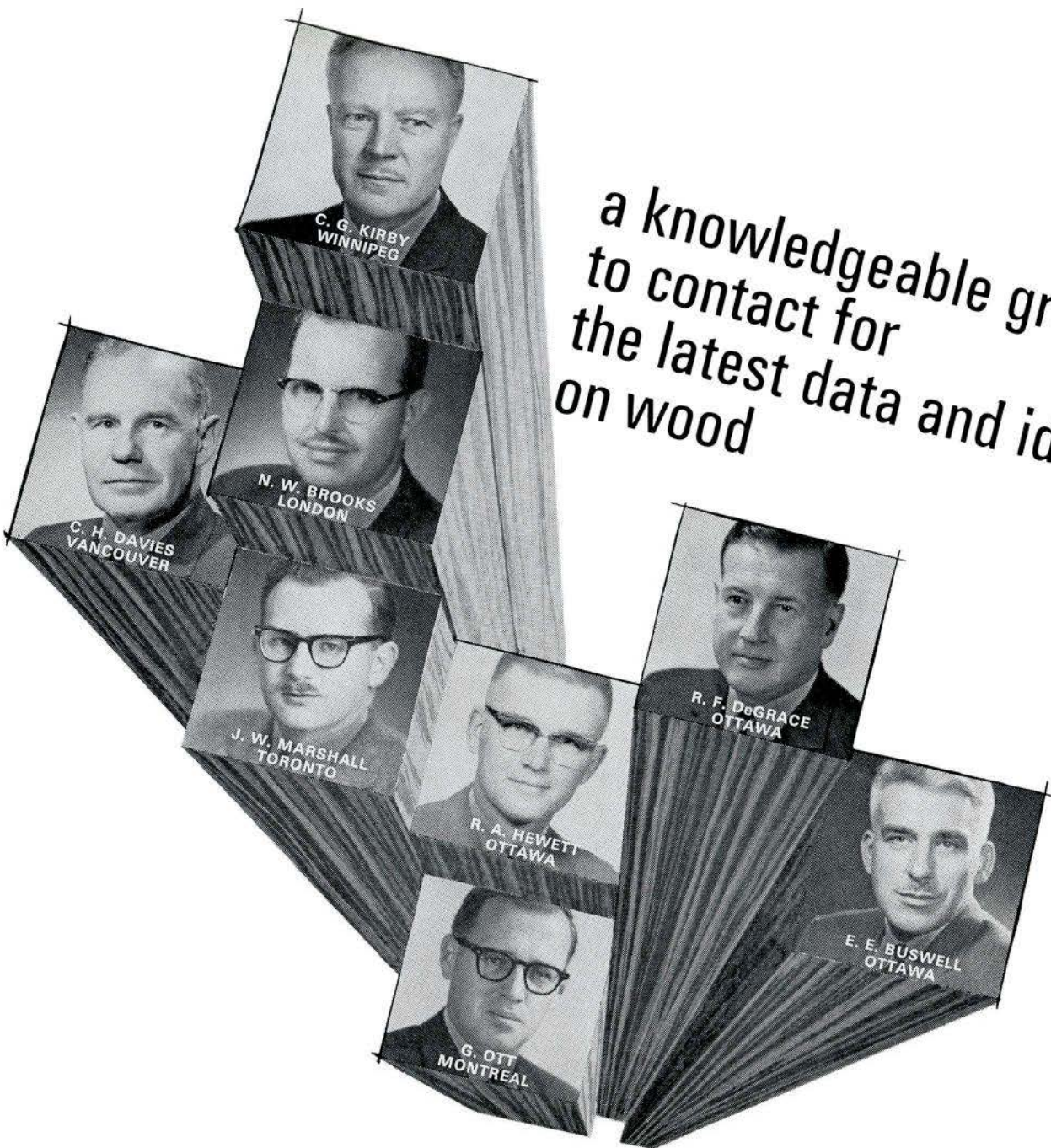
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Toronto, Ont.
Architect:
Viljo Revell
(Deceased)
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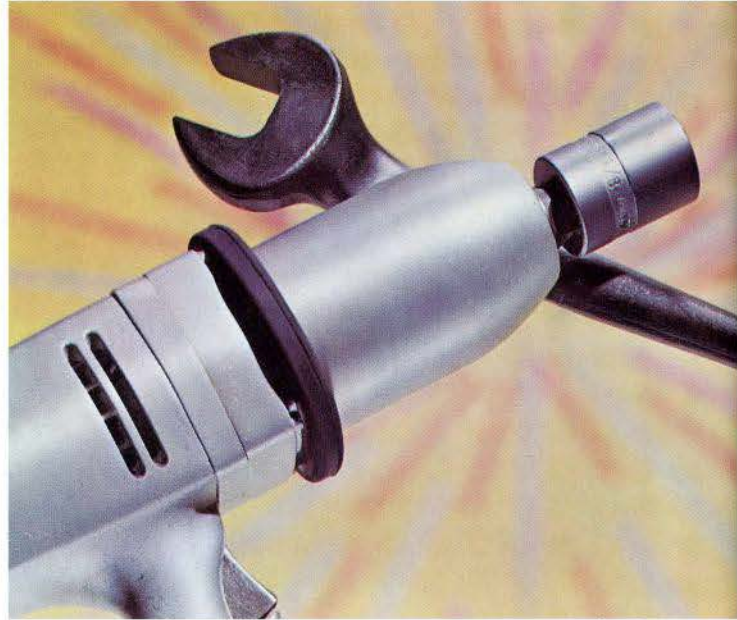
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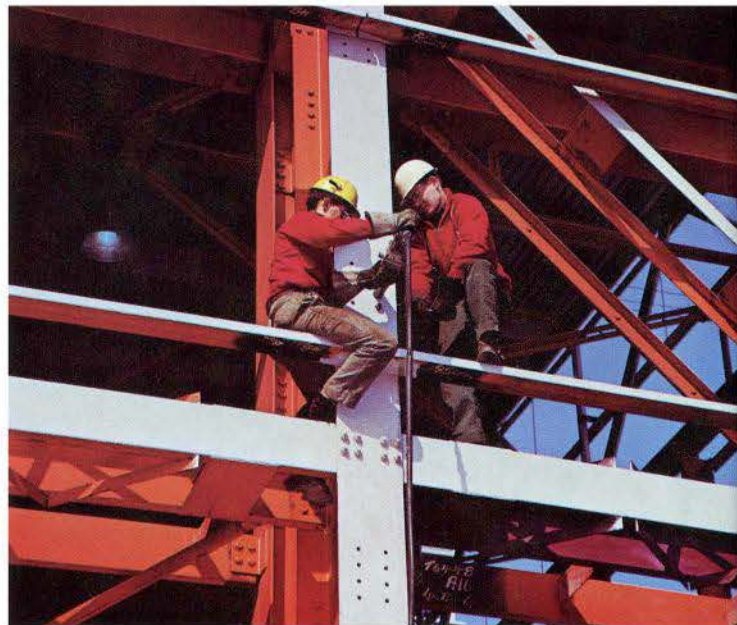
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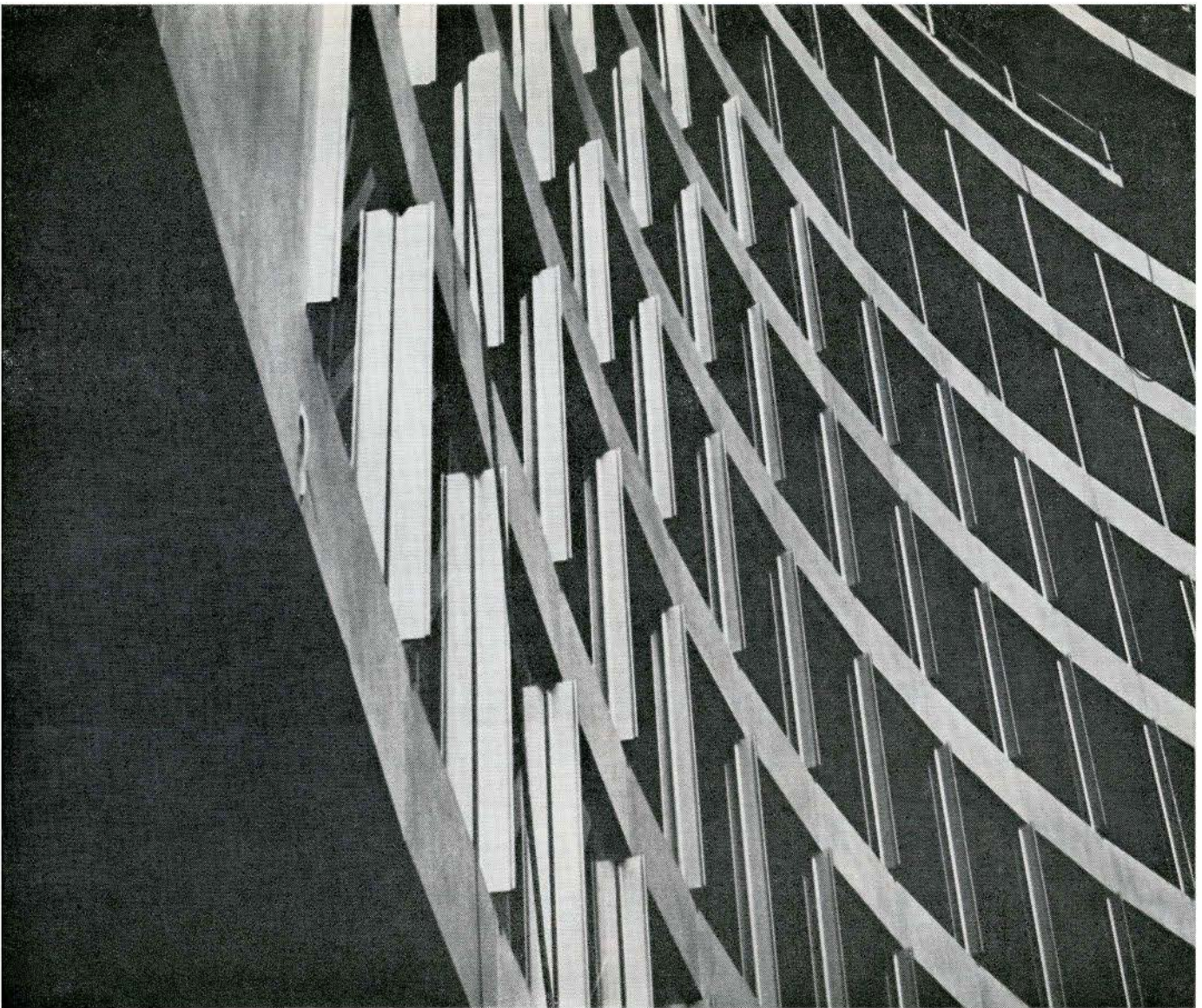


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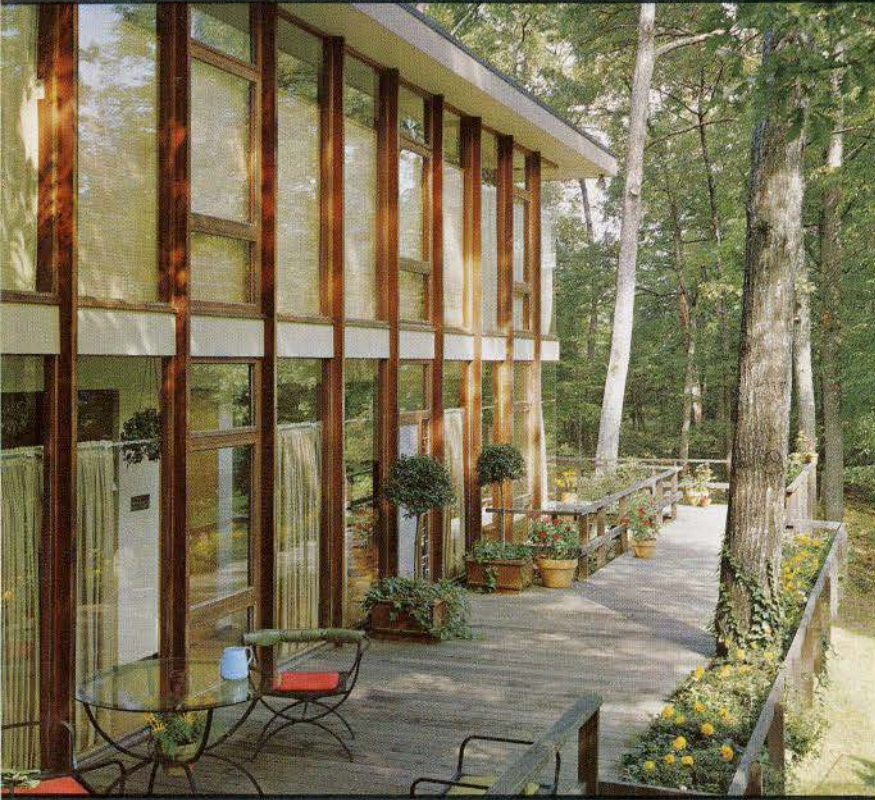


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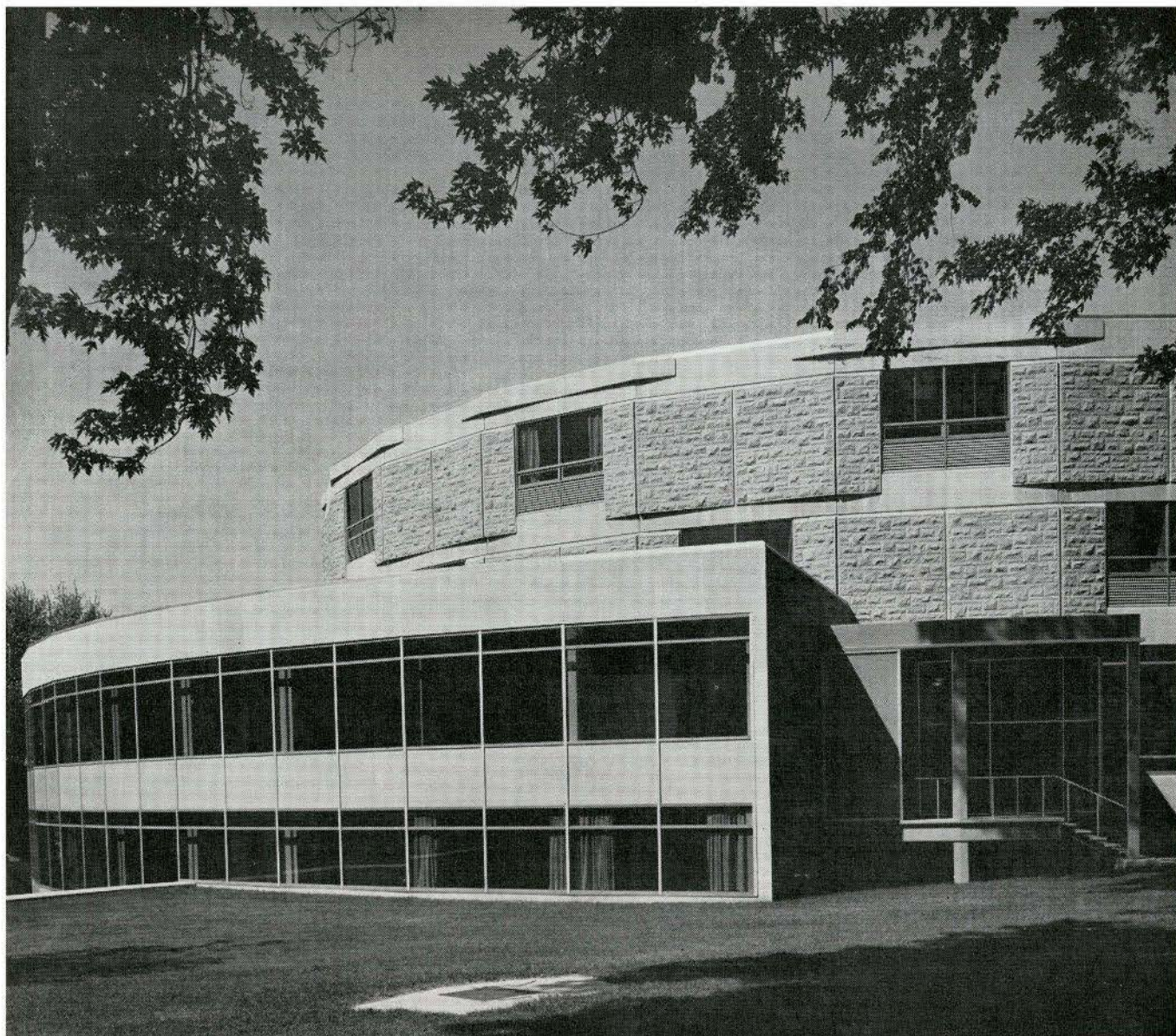
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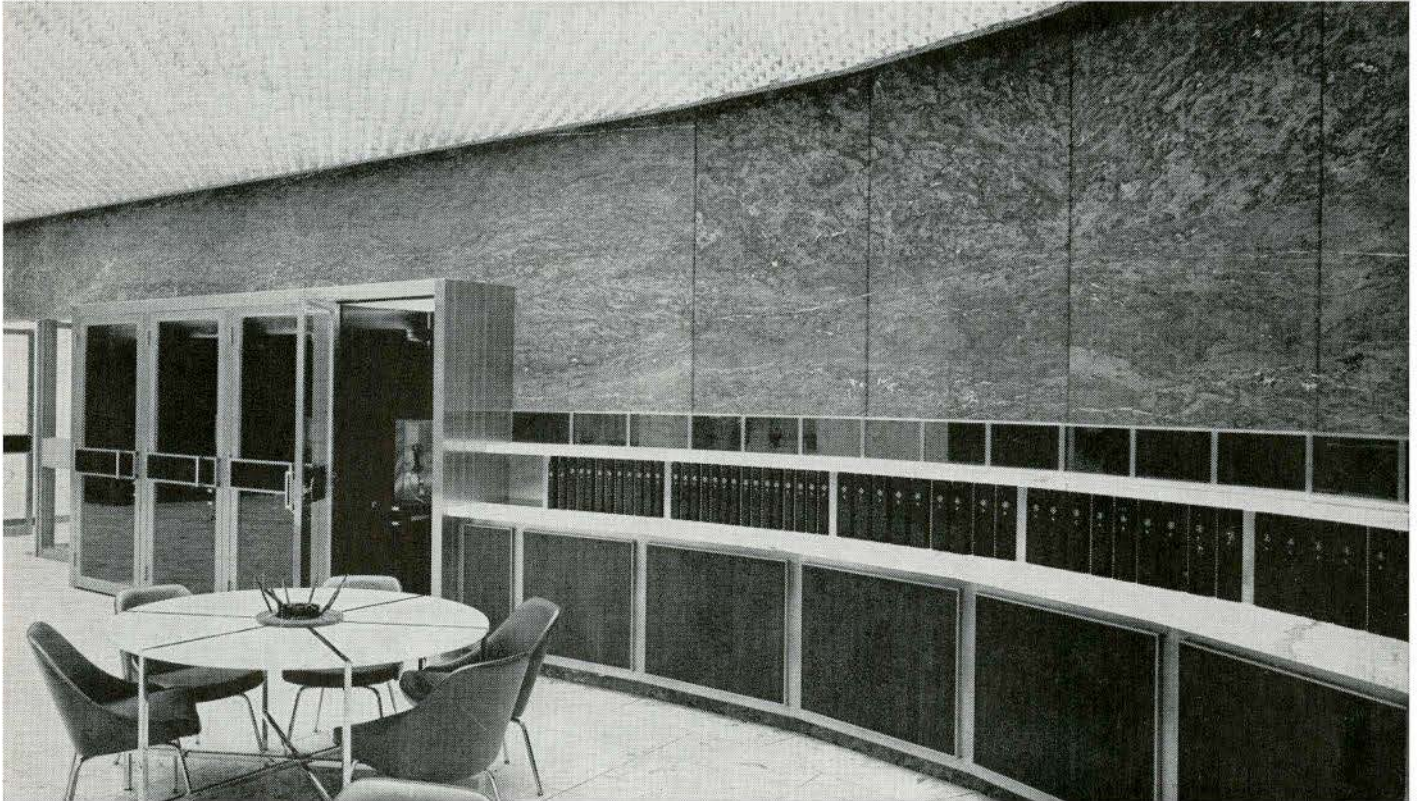


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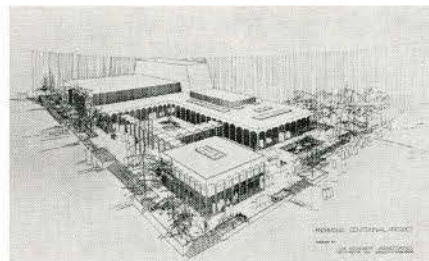
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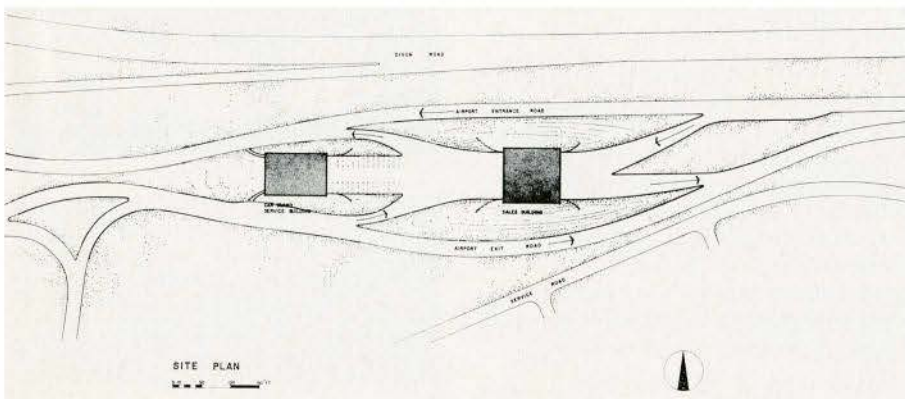


3

Apartment building, Winnipeg, by Waisman, Ross Hanna Coop and Blankstein (Fig. 1) Elegant use of concrete, and forceful expression of differentiation of apartment types, and elements of the building, in this recently completed project. The building sensibly turns away from the busy road.

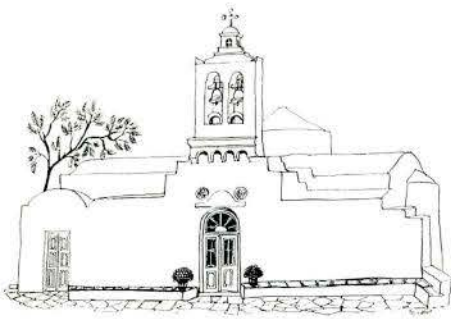
A survey of recent three dimensional structures *Architectural Design* (January 1966) by Professor Z. S. Makowski. (Fig. 2) shows the interior of a plastics garden at Strathcona Park, Canada. One of the reasons for the rapid acceptance of space frames and their general development within the last decade has been the introduction of electronic computers. The advantages of space structures were known to engineers for many years, but their analysis has been extremely tedious and time-consuming. Design in the past has been based on high factors of safety because of the many approximations and simplifications used in analysis and these approximations rarely lead to economical use of material. The introduction of the electronic computer is now rapidly changing this picture.

Preliminary drawings for Richmond, BC, Centennial Arts Centre and Municipal Library are now complete (Fig. 3) shows a rendering of the complex. The false polemic of prestige and non-prestige buildings is evidenced here – this one it seems is treated as a special: The thin arch forms are used to prettify and unite the diverse activities.



4

A service station, near Toronto International Airport, by John B. Parkin Associates (Fig. 4) is one of the rare examples of an automobile service building designed as a function of the road, and part of a motor age.



5

The medium is the message, according to Marshall McLuhan. This seems true in architecture: the drawings (Fig. 5) found in *Apxitextonikh* (December 1965) have a simplicity and clarity that is a direct reflection of the buildings themselves.

A rendering of Reid Centre, Vancouver, to be the tallest concrete building in the British Commonwealth. (Fig. 6)



6

Canadian Art, January 1966, published a revealing survey of pop artists in an article by Ellen H. Johnson called "The Image Duplicators"! The article is exceptionally well illustrated (Fig. 7) the medium in which the pop artist works of course lends itself to duplication, itself perhaps a factor in the art form.



7

The American Institute of Architects have published a pamphlet "No Time for Delay" subtitled "We Don't Have to be Ugly"! (Fig. 8) They point out that major community improvement is a four stage operation – Awareness, commitment, planning, and action. For architects action is the first, something the Manitoba Association has embarked upon with an excellent brief to the city on the necessity for orderly redevelopment.



8

The Provincial Museum and Archives of Alberta (DPW) pseudo Beaux Arts planning in "modernistic" clothing. (Fig. 9) A close examination of the plan shows the most wretched planning – differing volumes stuffed into the same masses presumably in an effort at "composition" with superficial differences expressed (sic) in façade. A stated objective is growth, in a sense this is possible, as anything added would not upset this hodge-podge collection of forms.



9

1

D. Shadbolt, Director, School of Architecture,
Nova Scotia Technical College.

2

G. Desbarats, Doyen, Ecole d'Architecture,
Université de Montréal.



1



2

Résumé par D. Lamarre de l'article du Professeur Shadbolt sur l'Hôtel de Ville de Toronto (page 35)

Pendant que la controverse continue parmi les architectes, le grand public a porté son jugement et il n'y a aucun doute que l'Hôtel de Ville est un grand succès populaire. Dans ce sens, le concours a rempli son rôle.

Le procédé de la composition architecturale est tel que l'esquisse qui n'aura pas tenu compte de ces facteurs ne survivra pas aux procédés compliqués de l'élaboration des plans de l'édifice où quelques centaines de personnes seraient appelées à travailler,

chacune ayant la possibilité de la modifier ou de la transformer radicalement.

L'Hôtel de Ville de Toronto nous fournit une occasion unique d'étudier ce procédé. L'examen de l'esquisse, de la maquette et de l'édifice complété révèle que des modifications majeures ont été apportées au système structural, ce qui affecte la forme de l'édifice et ses volumes architecturaux.

Notre intention n'est pas de juger la cause et de déterminer s'il y a eu une erreur de conception ou une erreur de transmission.

Les Tours

Le concept initial des tours prévoyait des planchers en porte-à-faux sur les murs courbes. Ces murs devaient être évidés et contenir la mécanique. En principe, ce système dégageait les planchers de toutes colonnes et donnait une forme très étroite aux extrémités et plus profonde dans la partie courbée du centre. De plus, deux surfaces planes sur la face concave des tours dépassaient et donnaient à l'édifice une tranche très mince.

Dans l'édifice construit, on aperçoit l'addition d'une rangée de colonnes et une modification importante à la forme de l'édifice. Celui-ci prend maintenant beaucoup plus une forme créée par deux segments de cercles parallèles ayant pour centre la chambre du conseil. Le mur arrière a été retourné aux extrémités, ce qui a pour effet d'épaissir considérablement la tranche du bâtiment. La proportion des tours en a été sensiblement modifiée, surtout la plus petite des deux. Le changement le plus important, cependant, est sans doute la forme du volume entre les tours ; ce volume est maintenant cylindrique. Dans l'esquisse, il devait être en losange arrondi, légèrement asymétrique. Il n'était d'aucune façon parallèle à la chambre du conseil.

De plus, un élément entièrement nouveau a été ajouté. Une corniche termine l'édifice alors que sur la maquette les murs arrière des tours dépassaient les toits et étaient crénelés.

La Chambre du Conseil

La structure de la chambre du conseil a été entièrement modifiée.

Alors que cette forme devait être supportée par des colonnes au tiers de la portée, elle repose maintenant sur un piédestal central. La forme du toit n'a pas été modifiée, mais la moitié inférieure a dû être complètement modifiée et a perdu l'élégance du concept d'origine.

Le changement le plus important apporté par cette modification structurale l'a été dans la partie de l'édifice située sous la chambre du conseil. Le concept initial y prévoyait un grand hall avec une mezzanine. Cette rotonde devait être convertie par le dessous de la chambre du conseil, c'est-à-dire, par une forme courbe suspendue dans l'espace par ses extrémités.

Toute cette partie de l'édifice y a perdu à la suite de cette décision.

Bien que nous devons discuter ici surtout de structure, nous devons aussi parler de matériaux. Le sens de ce parti a toujours été une structure de béton armé, les formes découlent de ce matériau et on ne pourrait pas imaginer le cacher ni utiliser trop de matériaux en plus.

Sur ce point, l'Hôtel de Ville de Toronto est décevante. Bien sûr, il y a du béton exposé, mais par contre, on voit des colonnes enduites de plâtre et même de plâtre acoustique. Les bois vont du teck au cèdre et les planchers du ciment et du terrazzo au tapis. Il y a cinq ou six métaux utilisés à divers endroits, le bronze, l'aluminium naturel, l'aluminium anodisé en deux ou trois couleurs, l'acier inoxydable. L'ensemble est plaisant, mais ne donne pas une impression de permanence.

Quelle leçon devons nous tirer de tout ceci ? C'est sûrement qu'on ne peut faire volte-face au milieu d'un projet. Le changement d'un élément majeur de l'édifice exige qu'on repense le parti au complet et quelquefois, qu'on l'abandonne.

Le jury avait émis l'opinion que "des révisions importantes pouvaient être effectuées, des économies d'espace et de structure réalisées, *sans affecter le concept original*" dans le but de réaliser l'édifice à l'intérieur du budget fixé. Architecturalement ce compromis ne s'est peut-être pas avéré heureux, mais les Torontois sont fiers de leur Hôtel de Ville.

Résumé by D. Lamarre of Prof. Desbarats' article on the Toronto City Hall "Education and Symbolic Architecture" (page 41)

Mr Ron Thom, in an article published in the article published in the November issue of *Canadian Architect* has already given all the usual information and a very good appreciation of the architectural and symbolic value of the building.

If we add to his comments, it is to examine the results of a pedagogical analysis that might be helpful to the reader. To date, the critics have described Mr Revell's symbolic work of architecture but none has shown the conflict between the lyricism of a formal concept and a *processus* marked with technical and human problems. The Toronto City Hall is a good example of the difficulties arising from the nature of the concept. We agree with Mr Revell's concept but regret that it was not developed progressively in the detailed realization. I even think that the final development was guided by a concept hostile to the original concept which was voluntarily romantic and curvilinear. This is particularly noticeable by the absence of a guiding thought in the final concrete structure. On this point, the original scheme was clear and poetic.

The same weakness of poetic feeling has allowed an industrial and linear esthetic to mingle with a graceful and curvilinear scheme. We wonder if the forms were not too numerous to be resolved by a systematic detailing.

Parkin and Associates are renowned for their impeccable organization and they have

produced refined works which leads us to seek for the causes of an administrative disintegration which has allowed, in the City Hall, such a number of metals and finishes and the illogical use of many materials. The architect who intends to give to society a symbolic building rather than a functional one will bear the pressure of the budget and of industrial conformity. He will be able to complete his work only with a strong organization which recognizes the merit of the standard systems and their acute and laborious application to such a building.

From a pedagogical point of view, once the growing size of architectural projects is accepted, new imperatives emerge to prepare architects for the production of symbolic architecture :

- 1 The development of conceptual creation and its visual or verbal expression.
- 2 The habit and methods of team work for the integration and coordination of services and environmental control.
- 3 The habit and methods of team design.
- 4 The development of general technical knowledge in industrial production of architectural units.

Extracts from a Lecture by Werner Ruhnau—Projects for the Ford Foundation (see page 59)

45 years ago Gropius originated the idea of the theater as a versatile implement that would not hamper the director's creativity. Ceilings, walls and floors should be movable to answer the staging needs. The stage and the pit should be invertible to enable the author and the director to choose where the actors and the audience will be. The theater should be openable to the outside scenery and must be designed as a playhouse rather than as a monument.

The eight designs in the article "Le Théâtre Idéal" on page 59 are to be viewed in this respect. They have been estimated according to :

- 1 Degree of movability of the proscenium

- 2 Relationship with the outside scenery
- 3 Versatility in the stage-pit relationship

A 2,000 seat theater by Paul and Rudolph and Ralph Alswang

Pit and stage are two separate elements ;

- 1 good
- 2 overlooked
- 3 no

B Double theater by F. J. Kiesler

(a) Main room (1,422 seats), reasonably versatile proscenium ;

- 1 good
- 2 overlooked
- 3 no

(b) the small central arena theater (342 seats) is included in the building.

- 1 negligible
- 2 no
- 3 no

C Single space theater by Ben Schlanger and Donald Oenslager

Stage and pit in one space. They can not be switched.

- 1 good
- 2 neglected
- 3 no

D Projects by P. Schweikher and G. Izenour

(a) 500 seat theater, multiple possibilities

- 1 no
- 2 overlooked
- 3 excellent

(b) Studio theater. Classic Italian style theater

- 1 good
- 2 no
- 3 no

(c) Experimental Theater. Small podiums scattered over the room can be raised or lowered

- 1 good
- 2 no
- 3 excellent

E Mobile theater by W. Ruhnau and J. Polieri

No pit, no stage, no proscenium –

These duties are rendered equivalent and can be assigned to any section of the room.

Toronto City Hall Structure and Materials A Lesson in Design

Features Projets

5

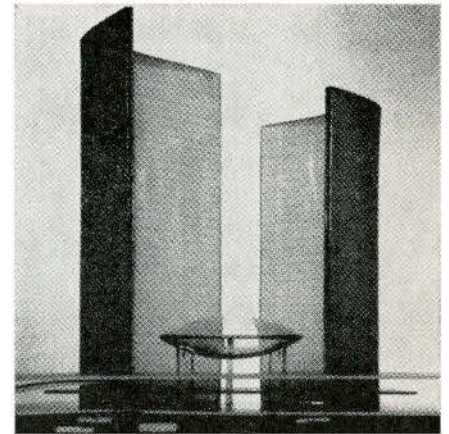
As one of the several hundred participants in the competition for the Toronto City Hall who submitted designs in April, 1958, I have watched the announcements of different stages in the saga of its development with great interest over the past few years. It has certainly become one of the most controversial buildings built in this century. While architects will continue to debate the validity of the concept, there is absolutely no doubt of its enormous popular success as a focus of civic pride for the city of Toronto. This can be attributed to the strong identity of the building as a focal point in the city, the easy informality of the building in use (particularly in the public access areas), the joy of discovery of what a "square" means in a city, the sense of "arrival" into the league of "big" cities, and the enormous cost (anything that cost that much must be terrific). The building then achieves all the big and important things that the competition set out to do. It is a bold concept that has been vigorously carried out.

In looking at a building that has resulted from a competition one is always fascinated by a comparison of the final result with the original competition solution as publicized. The fascination lies in the revelation of the design process, and this is of particular interest to those of us who teach.

The design concept, which is a translation of a verbal abstraction (the program) into a visual representation of a building (the preliminary design), must carry within it the complete makings of the whole building, that is, it must contain a clear structural idea in principle, it must have taken into account the necessities of mechanical services and so on, it must have a clear attitude about light and shade and lighting, it must make the clear statement of spatial organization, and must also contain the clear sense of the materials that are to be used throughout. It does not have to resolve all the final details of internal planning. Inherent in the choices that are made and contained in the concept is the basic consideration of realistic cost relative to budget. Because the design process is necessarily sequential, a design concept which does not resolve these factors

will not survive the complicated stages of translation involved in the development of the building whereby several hundred people, each dealing with only part of it, have the opportunity to modify and water down the original solution or drastically transform it. In addition to the strong concept, there must also be a powerful driving force with the ability to communicate coupled with the authority to direct the process through to completion.

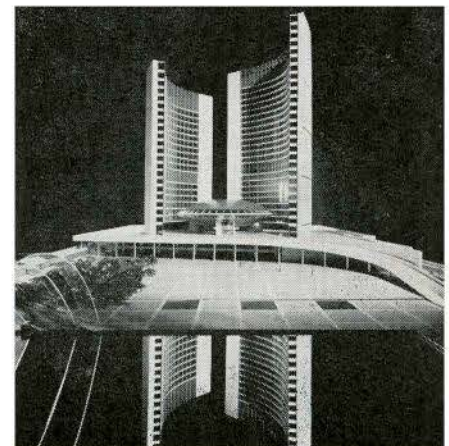
The Toronto City Hall presents us with a unique opportunity to study this process. As a result of a two-stage competition, we were shown the initial very first conceptual ideas of the designers in the form of a plastic model, and then shown the developed design at the end of the second stage of the competition in a second model, and then again a third model was shown after the project was underway. We are now able to see the final result and to determine the degree of correlation between the initial and final stages. Close examination of the plans and the model with those of the built scheme, and of the building on the site, reveals that major changes were made in the structural system which have had far-reaching effects on the shape and form of the building and on its spatial organization. It is my understanding that these changes resulted from practical and economic considerations, and that without them, it would not have been possible to complete the building within or near the budget figure. I have heard arguments that suggest on the one hand that the changes have destroyed the concept and that it should have been built in its original form at any cost, and on the other that the concept was irresponsible as it could never have been built within the budget figure. It is not my purpose here to sit in judgment and determine whether there was an error in concept or an error in translation. The discussion which follows can be dismissed as academic, but I believe it is enormously instructive to examine the result of the decision to change the structural system.



1 Model 1



2 Model 2



3 Model 3

4
Competition Drawing
Dessin pour le concours

5
Council Chamber and Typical
Tower Floors as built
Salle de Conseil et
étages typiques de la tour
comme construits

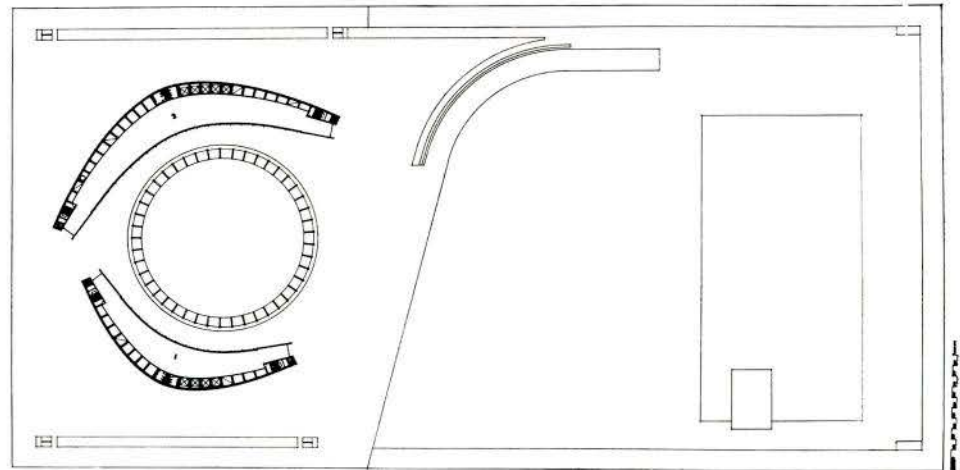
6
City Hall from Civic Square
Hôtel de Ville vu de la place publique

The Towers

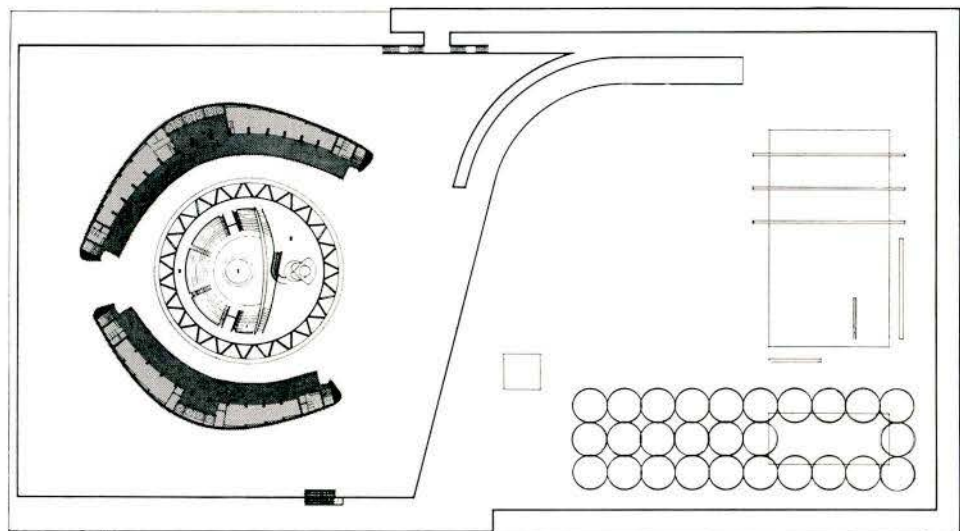
The tower concept originally called for a structure of cantilevered floors reaching out from the curved back wall of the building. This, I believe, was to be achieved with a double floor slab, one horizontal, the other sloping below it forming a sloping ceiling continuous from the back wall out to the window edge, with stiffener beams between at regular intervals. The back wall was to be a great cellular structure capable of carrying this cantilever and containing within it spaces for ducts, air conditioning, elevators, etc. In principle, this left the typical office floor clear span open space, and the typical floor plan had a characteristic boomerang shape which was very narrow at the ends and deep in the curved middle section. Such a concept would require that no partitions went solid to the ceiling and that they be light and non-structural in character. In addition because of this slope, such a ceiling suggests that indirect lighting rather than direct lighting should be used.

It is not clear from the model as it appeared at the end of the second stage of the competition just what allowances had been made or what was planned for the mechanical services. There is no indication of mechanical service floors or their location as expressed on the façades. However, there are two slab-like areas at the inside or concave face of the towers which extend as fins beyond the ends of the building giving the building a very thin and sharp end. The skin of the back wall reads as a rather thick but definitely planar element which does not return around the end, because of the very narrow configuration of the plan. These two planes are separated by a thin slot of windows presumably in a stair.

On the third model to appear, the fin-like extensions beyond the end of the tower floors had been detailed, and the back wall appeared thicker at the ends. On this third model the mechanical service floors were shown.

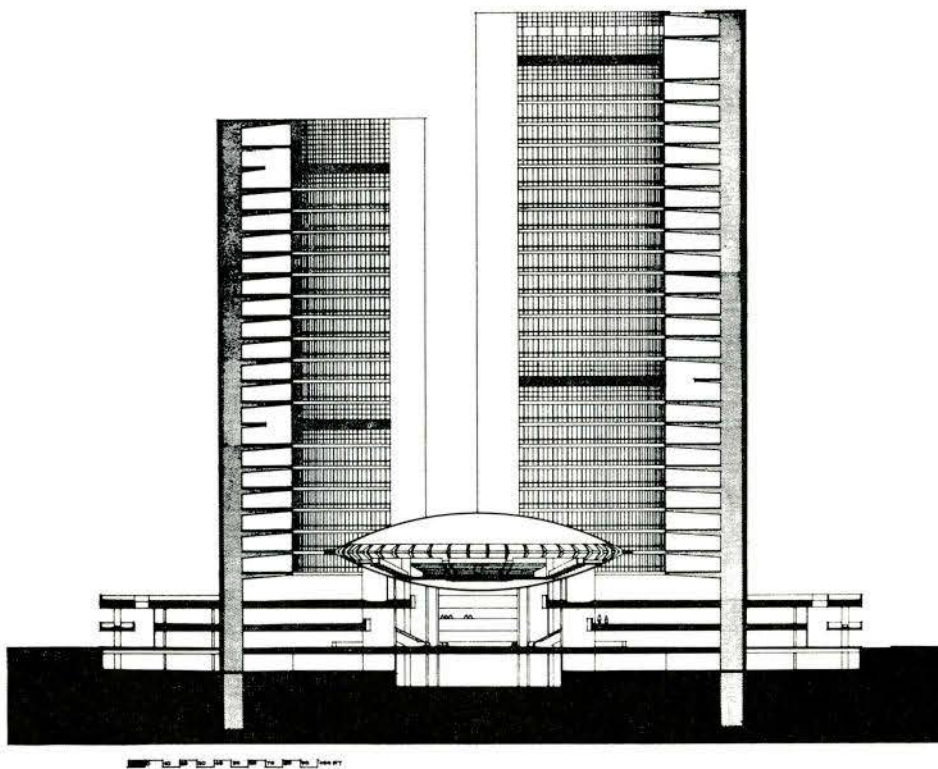


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A comparison of the tower floor plans of these early models with a plan of the towers as built shows the introduction of a row of columns, and considerable alteration to the shape of the floor plan of the typical floor. The introduction of columns has created two distinct kinds of spaces, those between the columns and the back wall and the continuous space between the rows of columns and the glass wall on the concave side. This space has been fattened up at the ends (presumably to be more useful) and has taken on more of the configuration of a parallel-walled segment of a circle generated from the centre of the Council Chamber. The net effect of these changes is to give the building the configuration of a normal rectangular office building that has simply been bent. To solve the problem at the ends, the back wall has been wrapped around the stair, and returns in a curved form to reach the narrow slot at the ends of the corridor. The wall areas which were finned planes on the original scheme have become fat duct spaces for the risers for the air conditioning system which feed horizontally into a free-standing, continuous spandrel duct. Thus a radical change in the proportions of the structure has been effected which increases the bulkiness or chunkiness of it. The west tower particularly, as it is lower, assumes quite squat proportions. With the enormous surface area of the solid back wall increased by the way it wraps around the ends, it takes on the appearance of a cylindrical tank when seen from some outside streets.

The biggest change, however, is in the shape of the space between the towers. This has become a cylindrical well concentric with the circular Council Chamber. None of the earlier schemes had this character. The shape was to be a rounded, roughly diamond but asymmetrical shape, never parallel to the rim of the Council Chamber.

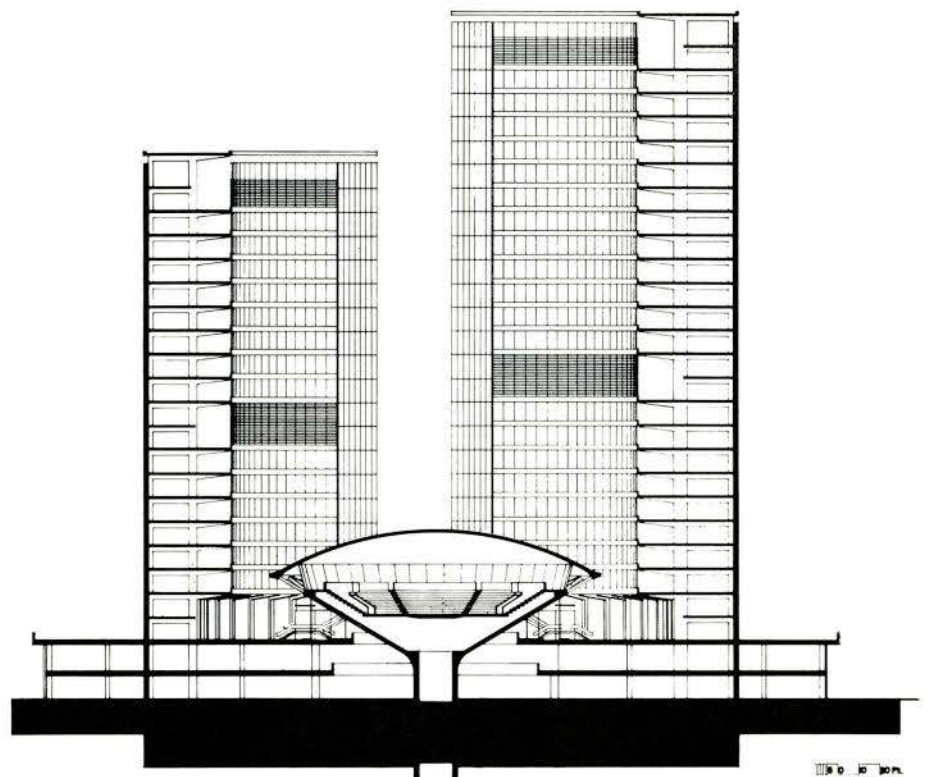
Finally, a completely new feature has been added in the form of a distinct cap on both of the towers, a strongly articulated cornice. All the models show the fluted walls of the back of the towers continuous to parapet height above the roofs so that the fluted

edge forms a crenillated sky line and silhouette. This lid looks well on the closed back sides of the towers, but looks very weak from the inside concave face particularly because of the open work of the observation deck level and the mechanical floor.

The Council Chamber

The fundamental structural change which was made on the Council Chamber building was the decision to support it on a central pedestal rather than hang it from the planar slab-columns at the third-points in plan. This very basic change has been followed through with complete re-thinking of the shapes involved. There is a considerable change in the sense of the curvature. The shell dome remains the same for the upper half, however the bottom half becomes a completely conical element springing from the central tubular shaft. This conical shell on its inner surface contains four ring beams which support a radial beam arrangement and the floors of the different levels of the Council Chamber and the galleries. The conical bottom element is smaller in diameter than the spherical shell of the upper element and the distance between them is spanned by a beam arrangement in a diamond shaped pattern. The glass wall is then tilted up completely under the upper dome which then extends in effect to form a long over-hang over the continuous windows around the circular element. This new structural concept has resulted in a totally different building, but while it has been thoroughly developed and consistently followed through, the new detailing that has been introduced and the general effect of it is less elegant than the original concept. A nearly vertical fascia-like edge to the ring beam at the edge of the upper shell puts the emphasis on the lid or upper shell, which is a radical change from the initial concept of the matching upper and lower double-shell form with its razor edge.

However, by far the most important change which this structural decision has produced is in the spatial configuration of the main public spaces of the building below. The initial concept called for a great hall, a



8

two-storey building with mezzanines and with a large circular hole up through the two storeys. This great rotunda was to be roofed by the under side of the Council Chamber, that is by a curved bottom shell which hung down into the space and appeared to be suspended from its edges, literally sitting on the glass clerestory between it and the roof of the hall. The public space would have been open horizontally through this great circular skylit well. This would have been a marvellous space indeed particularly as one approaches it from the lobby and working areas with the very low ceilings (less than eight feet). The radical change in structure has produced instead an enormous tree trunk which springs right through this space, which completely dominates the interior space of the building. No matter where one looks, one is always conscious of this great mast. It has been further accentuated by the hollowing out of the floor to create a pit around the base of the column for the memorial functions of the lobby. In my opinion, this decision was a fundamental error in spatial composition. However, assuming one had to accept this structural solution as a practical economic necessity, surely the structure itself could have become a virtue. When one recalls the curved tracery developed from radial geometry that Nervi has used on so many occasions, one cannot help but ask whether or not this is not the right location for some more refined concrete shapes. It is very difficult, under any circumstances, to rationalize acoustic plaster as the right surface material for this great structural element.

While my main concern here is to discuss the effect of structural changes on the design concept, it is important also to discuss materials. The essence of this scheme has always been a reinforced concrete structure. The shapes are derived from this material and having chosen it, one cannot imagine that the designers would do other than expose it, and use in addition, a minimum of other materials, all with a consistent handling particularly at the joints and intersections.

The City Hall building is a great disappointment in this regard as there appears to be considerable confusion about material requirements in different areas. Some reinforced concrete is used and exposed. Other obviously concrete columns are covered with plaster and in some cases acoustic plaster. Woods vary from teak in some locations to red cedar in others. Floor materials vary from concrete to a striped marble terrazzo, to carpet. The most extreme example of inconsistency occurs where a concrete column, which is a major structural element supporting twenty odd storeys up above, passes through a mezzanine floor, yet it has a recess cut into it to receive a teak base board at the edge of a carpet. Partitioning surfaces are covered in cloth. There are four or five colors of metal at different parts of the building, from bronze to aluminum to anodized aluminum in two or three colors, to stainless steel. It is this aspect of the building which does not stand up to close examination. The net color effect is pleasant, warm and inviting and even rich, but it does not impress one as being a durable interior.

What then is the lesson in design that comes from the Toronto City Hall? Surely it is simply that you cannot change horses in mid-stream. A change of such a major component as the basic structure of the building is so drastic that it requires a complete re-thinking of the earlier concept, and perhaps even abandonment of it.

It is interesting to note here the position of the jury on the factors which I have mentioned in this article. The jury selected the scheme on the basis of the boldness of its concept and the clear imageability of it. However, particularly at the second stage, it became obvious that the project could not be resolved within the budget. At this point the jury split. One group, in endorsing the scheme, obviously had the opinion that it should be built anyway, and urged the city to stretch itself and the architects to find a way. Two jurors turned in a minority report in which, among other things they dwell on the subject of structure and cost. They

specifically recommend the introduction of the columns in the tower as a means of reducing the cost and they conclude that "by considerable revision, economies in space and structure could be made *without changing the main effect* of the composition". Well, the compromise was put into effect, the building is built today, and the people of Toronto love it. What do you, the reader, think?

It is interesting to note that in Sydney, Australia, a similar international competition was held a year earlier than the Toronto one, for the design of a Concert Hall, with one of the same jurors, and a similarly bold concept was premiated. The decision there was build it at any price and that is what is happening. It is still not finished and the cost is more than three or four times the budget so far. Civic pride in that city centres around fund raising, again and again, for this opera house. One cannot help but wonder when so much civic unanimity of effort has gone into a great work of architecture whether it will have a more lasting effect on the people of the city.

Douglas Shadbolt

De nombreux articles, dans les revues professionnelles comme dans les journaux, ont accueilli l'ouverture du nouvel immeuble de l'Hôtel de Ville de Toronto.

Aux lecteurs de langue française que cela intéresserait, je recommande l'adaptation de J. Varry, dans la livraison de décembre 1965 de la revue *Architecture*, d'un article de M. Thom, d'abord publié en anglais dans la revue *Canadian Architect* de novembre 1965, qui fournit tous les renseignements d'usage, ainsi qu'une appréciation très juste de la valeur de l'édifice, tant symbolique qu'architecturale.

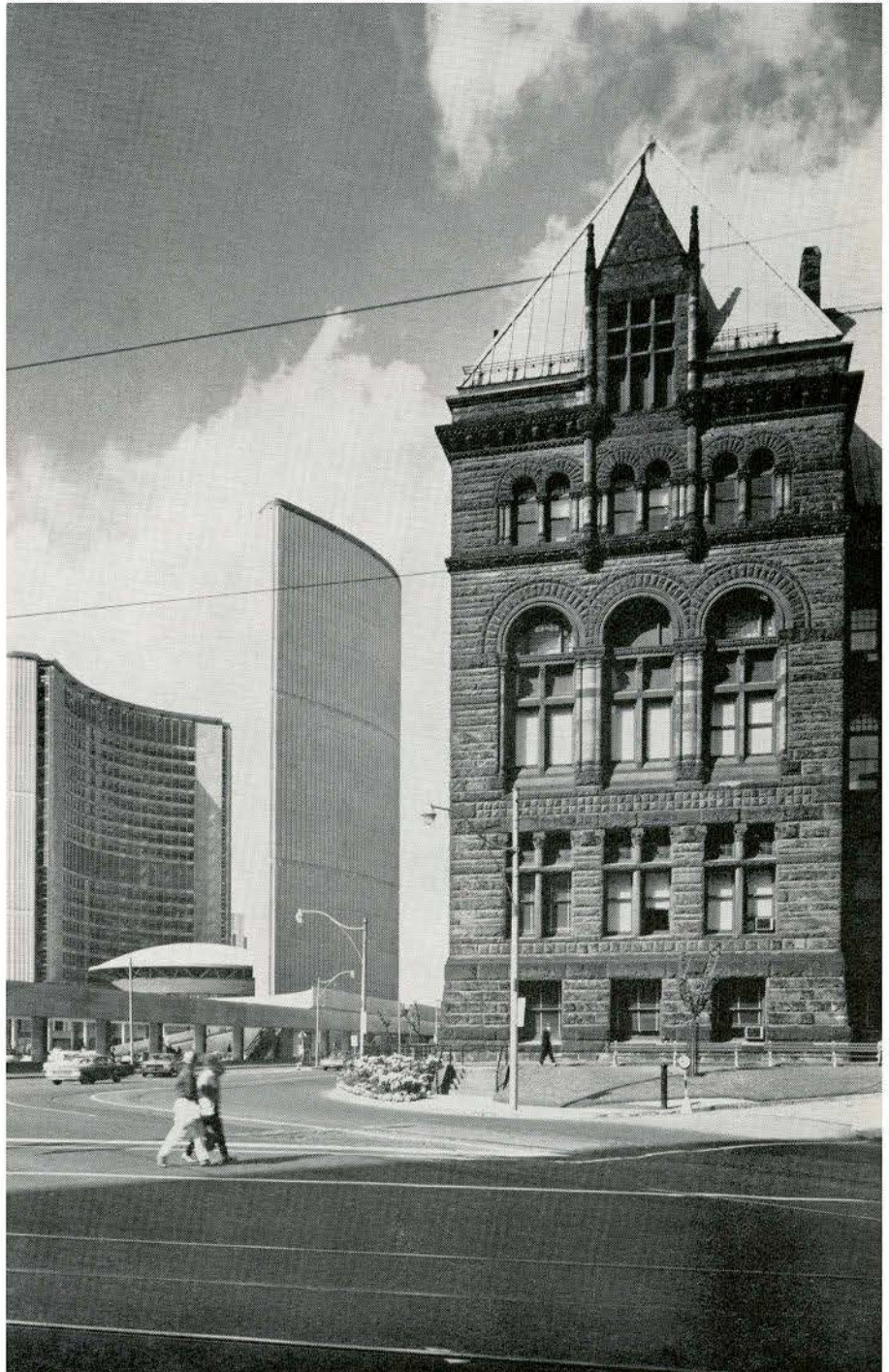
Si j'accepte d'ajouter au poids des commentaires déjà enregistrés, c'est que j'entrevois que les résultats d'une analyse à orientation clairement pédagogique servirait peut-être le lecteur patient, s'il en est encore ; jusqu'à date, les critiques se sont évertués à saisir l'élan du grand geste d'architecture symbolique de M. Revell, mais d'aucun n'ont fait ressortir le drame évident d'un dialogue rageur entre le lyrisme d'un concept formel de l'ensemble et la dissonance d'un processus d'incarnation tout enchevêtré de problèmes techniques et humains.

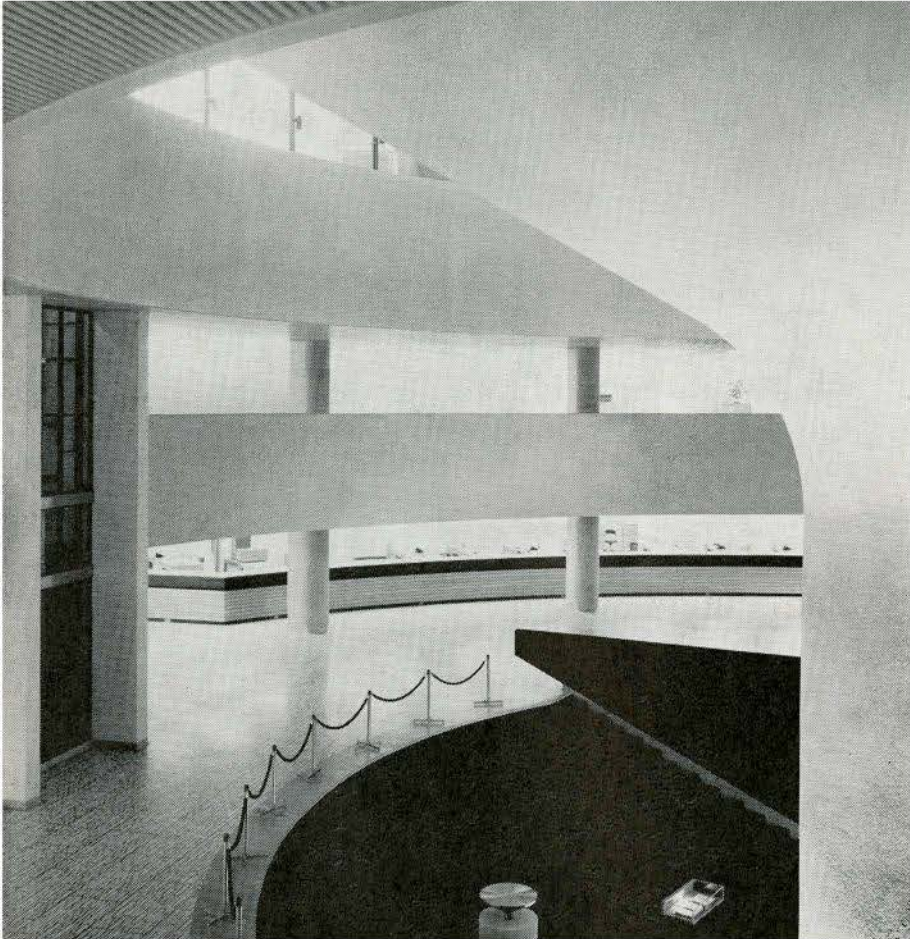
Le professeur se doit d'avertir l'étudiant des difficultés que peut soulever le choix d'un parti quelconque, même si ce parti paraît à tous la digne solution d'une nécessité symbolique de la cité !

L'Hôtel de Ville de Toronto présente, il me semble, un exemple utile des difficultés de réalisation qui surgissent de la nature même du concept.

Dans la critique citée plus haut, M. Thom nous avoue que . . . *l'hôtel de ville, tel qu'il a été réalisé finalement, avec autant d'imperfections et autant de détails mal définis, est une cible facile pour la critique architecturale. Et pourtant, il ne faut pas croire que ces imperfections . . . diminuent la valeur de l'édifice, mais elles déçoivent dans un ouvrage de cette importance.*

L'impression que l'hôtel de ville a produite sur les habitants de Toronto donne la mesure de son importance. . . .





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Du point de vue de l'enseignement architectural, qui est celui que je vise par cette critique, l'appréciation de monsieur Thom aurait certes quelques dangers ; je craindrais pour une génération d'architectes formée à l'expression de grandes idées, et dont la technique afficherait le décousu de l'aspect final de l'Hôtel de Ville de Toronto. Je craindrais que le choix des concepts même se fit à partir de connaissances insuffisantes, retombant ainsi dans le formalisme isolé qui briserait à tout jamais le principe d'unité entre la technique d'une oeuvre et son esprit.

J'accepte le bien-fondé et la grandeur du concept de l'oeuvre de Revell (avec les mêmes réserves que d'autre au sujet de la passerelle qui encadre la place), mais je déplore l'absence d'un développement uniforme et progressif du concept dans la réalisation détaillée. Je crois même déceler qu'un concept hostile à l'ensemble volontairement romantique et curviligne a guidé l'élaboration finale des volumes internes autant qu'externes.

Cette hypothèse ressort d'abord de l'absence évidente de pensée maîtresse au déploiement final de l'ossature de béton, dont l'intention première m'a paru fort poétique. Il faut souligner surtout :

— l'impression visuelle d'écrasement créée par le poids des deux tours reposant sur le podium transparent, qu'elles ne pénètrent pas ;

— les nuances variées des finitions de colonnes et de murs de béton, parfois peinturées, parfois plâtrées, parfois brutes, sans aucun rythme ou séquence ;

— le triste ordinaire de la surface de plâtre acoustique revêtant le socle, majestueux d'intention, de la salle de conseil. Contraste malheureux au coeur symbolique de toute l'oeuvre : la perle précieuse dont l'écrin est recouvert d'enduit terne et bon marché ;

— le jeu de cacher les structures dès qu'elles devraient devenir le centre d'intérêt d'après la composition ; pensez au socle de la salle de conseil si Nervi l'avait réalisé.

La ligne poétique de l'oeuvre demandait ici un déploiement de grande richesse visuelle, une clarté impeccable des efforts de structures.

La même faiblesse du souffle de l'esprit poétique a permis le rapprochement, dans toutes les finitions intérieures, d'une esthétique linéaire, industrialisée et rectangulaire, au parti curviligne et gracieux. Le détail rectiligne des plafonds et des planchers tranche avec souverain dédain les courbes souples, ainsi que les recoins imprévus des espaces déterminés par le parti d'ensemble. Le mariage de la géométrie rectiligne et préfabriquée de ces plafonds crée un nombre sérieux de mauvaises rencontres architecturales dans le détail, tel un corridor légèrement incurvé déchirant son plafond, résolution diagonale. L'effet s'avère étourdissant.

Ces deux points graves de la critique : le manque d'unité et de suite dans le traitement de l'ossature de béton, et l'absence d'un déploiement sympathique, aux espaces curvilignes, de toute la gamme des finitions, nous rappellent avec insistance la leçon des grandes réussites : chaque ligne, chaque rythme, doit participer, en le rehaussant, à l'esprit de l'ensemble !

Dans le cas de cet hôtel de ville, peut-on se demander si les formes n'étaient pas un peu trop riches, trop nombreuses, pour en trouver

la résolution systématique au niveau du détail ? La salle de concert de Sydney, en Australie, s'inspire elle aussi d'une esthétique curviligne d'allure très romantique ; à partir d'un estimé de \$8,000,000.00, elle s'achemine au 60e million après huit ans de chantier !

Le bureau de M. Parkin, associé de M. Revell à la réalisation de l'hôtel de ville en question, à force de chercher des solutions économiques aux finitions, a peut-être dû adopter l'esthétique rectiligne et propre à toute l'industrie ; les politiques du budget sont une exigence assez intransigeante !

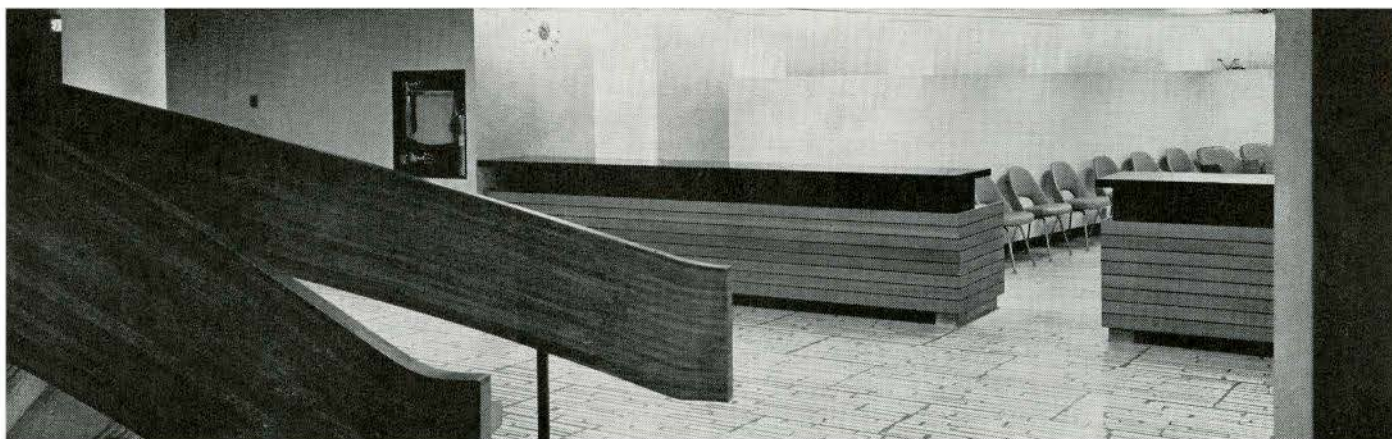
Le conflit que je soulignais plus haut était-il donc inévitable à partir du choix des juges qui primèrent le projet de M. Revell, tout en acceptant qu'il doive réaliser le projet de construction pour une somme raisonnable ?

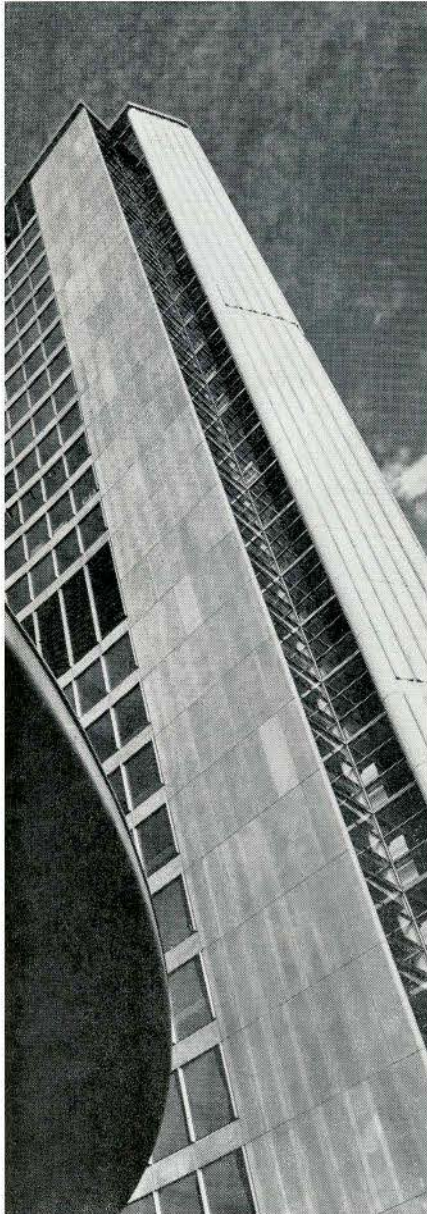
Les juges et conseillers professionnels associés au concours d'architecture pour l'hôtel de ville, en associant M. Revell au bureau de J. C. Parkin, auraient-ils inconsciemment partagé les responsabilités esthétiques et financières ?

Le bureau Parkin est reconnu pour son organisation impeccable, qui nous a donné des oeuvres aussi raffinées que l'aérogare de Toronto ; ce qui nous porte plus que jamais à chercher les causes d'une évidente désintégration administrative telle qu'elle ait permis que les mélanges de finis de métaux

de bronze, d'aluminium, de fer peint, se cotoient dans le détail intérieur, sans aucune raison apparente ; telle qu'elle ait admis une surveillance négligente au point de situer au petit bonheur les plaques de commutateurs, les stations des boyaux de sécurité ; au point également qu'elle ait pu admettre un fini de toile de lin (déjà en lambeaux) sur la contremarche d'un important escalier public.

Au bilan des indices d'une composition de détail hâtive, ressortent particulièrement : l'indiscrétion de l'emplacement des salles d'aisance publiques ; des escaliers conduisant de la place publique aux garages inférieurs et du détail grossier de leurs balustrades ; la logique absurde du choix de verre fumé pour le pare-brise de la toiture en terrasse, obscurcissant le point de vue magnifique, afin d'appareiller le mur écran de chacune des deux tours ; l'inéptie du placage de travertin sur l'escalier courbe reliant des foyers de la salle de conseil à la promenade supérieure, dont la pauvreté de détail contredit le luxe du matériau ; les courbes en sont dessinées à traits d'équerre ; le mélange d'expériences tactiles, désagréables par leur manque d'harmonie : la rampe de l'escalier ci-haut, par exemple, doublant d'une main courante à section rectangulaire de bronze froid et lisse, aux arêtes aiguës, en contradiction violente de l'esthétique pneumatique des dossiers entièrement tapissés des banquettes de la salle de





PANDA

12

conseil, ou des pare-chocs capitonnés de cuir des ascenseurs publics.

L'accumulation de ces malheureuses peccadilles, que tous s'accordent à éviter de l'oeil par respect de l'élan de l'ensemble, nous rappellent tout de même l'énorme difficulté de réaliser l'oeuvre intégrée. L'architecte, l'homme seul, Revell, n'a plus de nos temps le souffle pour créer une oeuvre de la dimension de celle-là. Le bureau Parkin apparemment, n'a pas su en épouser l'esthétique profondément individualiste, se refusant l'analyse patiente des formes quasi-accidentelles découlant du concept, préférant lui imposer des solutions à répétitions d'éléments standardisés et linéaires.

Il se peut que le dilemme de l'Hôtel de Ville de Toronto soit que la société d'aujourd'hui rêve de s'incarner dans un monument expressif d'un civisme dynamique et particulier, mais que son organisation économique tend surtout vers un conformisme pratique et niveleur.

L'étude d'architectes qui s'engage à fournir à la société qu'il dessert l'immeuble symbolique, plutôt qu'utilitaire et sérial, peut s'attendre à subir l'énorme pression économique du conformisme industriel dans la composition de détail, une fois le grand geste accepté en principe.

Il ne saura compléter son oeuvre qu'au prix d'une organisation forte dont la discipline saura reconnaître autant le mérite de la standardisation par systèmes, que l'application sensible et laborieuse aux problèmes inédits du monument civique et symbolique. C'est là l'un des problèmes les plus évidents qu'aborde l'architecte vraiment contemporain, qui ne se réfugie ni dans le romantisme artisanal, ni dans l'engouement de la systématique industrielle.

Le problème se pose le plus clairement au niveau du projet de grande envergure, lorsque l'architecte concepteur ne peut plus humainement tenir le fil de toutes les décisions de composition dans son propre

cerveau, comme il se peut pour l'habitation individuelle, ou l'église, par exemple.

Donc, du point de vue pédagogique, en acceptant l'inévitable croissance de l'envergure des projets d'architecture, j'entrevois les exigences suivantes en réponse aux problèmes de l'éducation pour la production d'une architecture symbolique.

- 1 Le développement de la puissance conceptuelle et de sa rapide communication verbale ou visuelle ;
- 2 Le développement de l'habitude et des méthodes d'équipe en composition architecturale ;
- 3 Le développement et l'habitude des méthodes d'équipe en intégration et coordination des services et du climat artificiel ;
- 4 Le développement de la connaissance générale en techniques de production industrielle des pièces architecturales.

Michel-Ange, lorsqu'il monta le dôme de St-Pierre de Rome, su tirer parti du rythme lent et de la simplicité numérique des moyens techniques d'alors.

L'aspirant virtuose d'aujourd'hui doit dompter l'accélération universelle et la magie des industries. Tout d'abord, j'insiste surtout sur la clarté des concepts : un parti architectural qui ne se définit pas clairement ne se communique pas facilement : le déploiement spatial, l'organisation des éléments de structure, la circulation des services, doivent répondre à une série d'équations verbales et graphiques, susceptibles de rayonnement rapide, tout au moins parmi les initiés.

Ce rayonnement est sujet à son tour aux techniques du travail d'équipe. Le travail de composition architecturale en équipe a ses exigences particulières, différentes en période d'analyse et en période de synthèse. L'analyse d'équipe permet l'accumulation d'une quantité d'informations qui dépasse la capacité d'un seul individu ; la dialectique qui accompagne cette accumulation favorise la recherche et le choix d'un équilibre bien compris, c'est-à-dire transmissible. Le choix de cet équilibre, c'est le début de la synthèse.

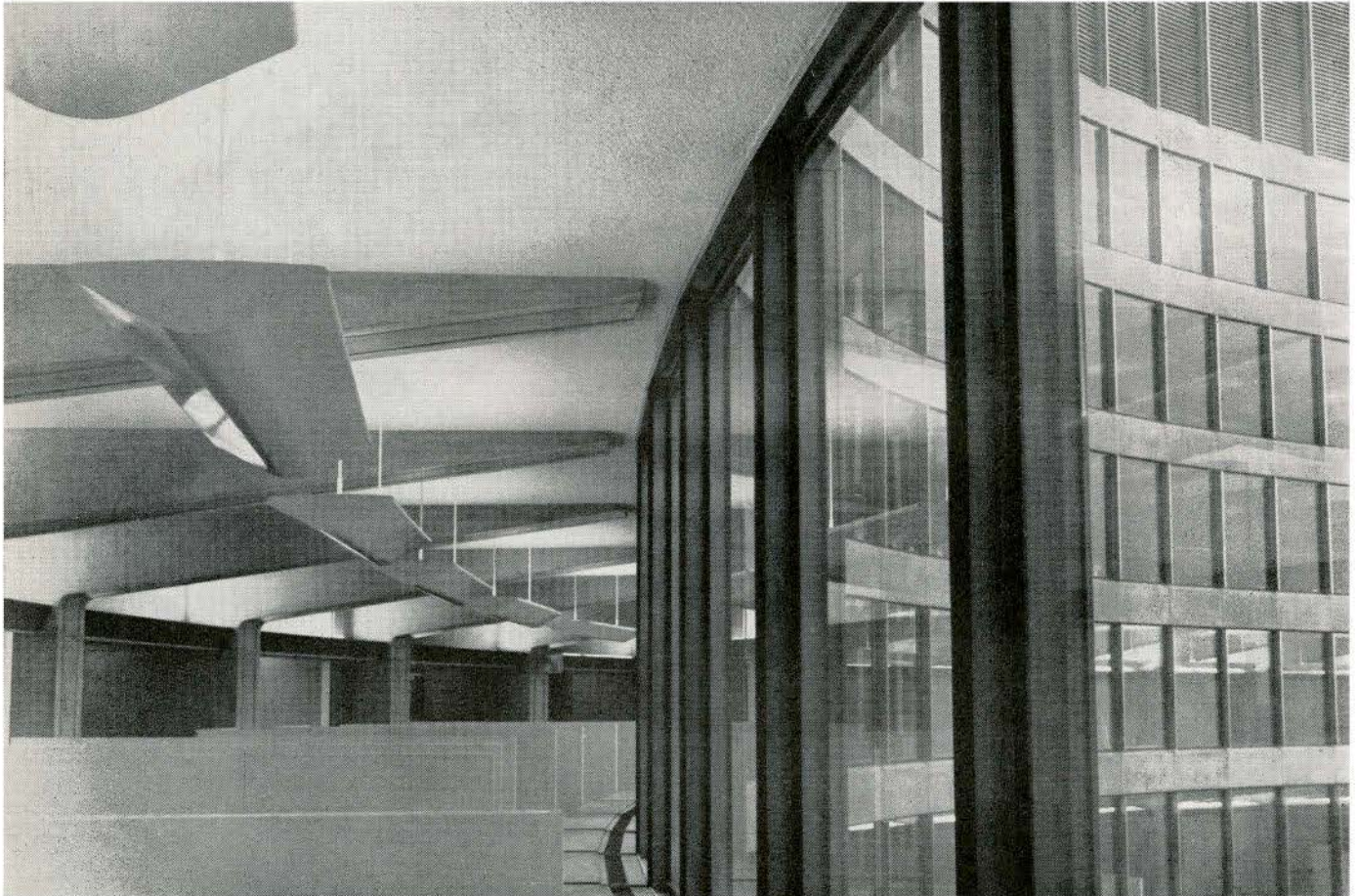


Et c'est avant le début de cette synthèse que doit s'amorcer le jeu plus large de la grande équipe qui transforme services et moyens de climat artificiel en architecture proprement dite. C'est ici que se situe le plus grave des problèmes en communication : c'est-à-dire que le consensus acquiert à ce stage une limpidité telle qu'elle puisse inspirer jusqu'à l'emplacement des infimes commutateurs et des stations de boyaux de sécurité!

N'atteindront se niveau du paradis que ces architectes qui sauront se renseigner à temps, dans le processus de synthèse, sur les exigences matérielles des données de performance qu'ils désirent intégrer dans l'âme même de leur composition. Il leur faudra même comprendre, une fois pour toute, les secrets de la production industrielle, qui permet de bénéficier de la flexibilité extraordinaire qui existe au coeur même des méthodes de production.

J'aborde ici le coeur même du problème, la 4^{ème} exigence que je soulignais plus tôt, celle qui pose la plus grande difficulté pédagogique en architecture et en génie de nos jours ; c'est le choix du dosage de l'enseignement scientifique qui permette à l'architecte d'avoir voix au chapitre dans le développement de ses propres moyens, et comme la roue qui tourne, lui laisse la création de concepts à la taille de ses moyens.

Guy Desbarats



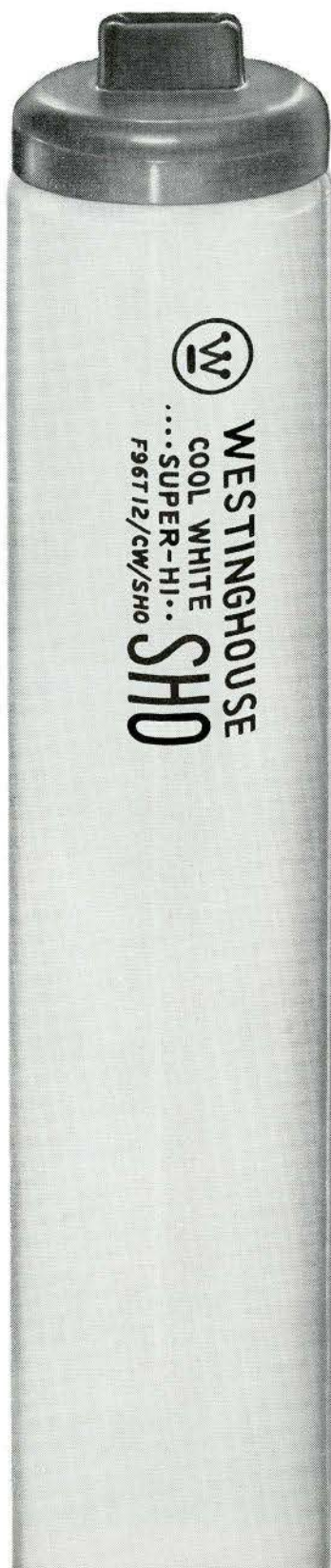
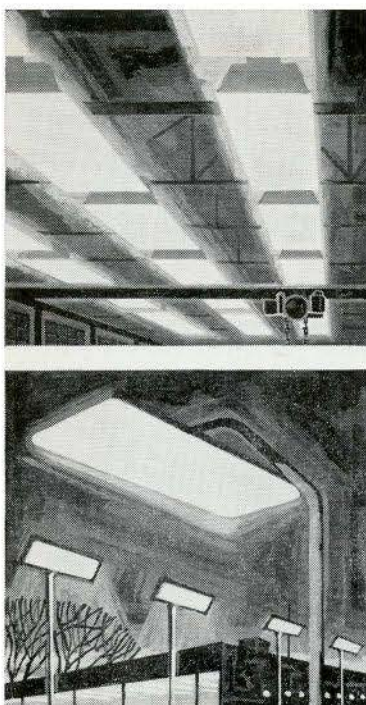


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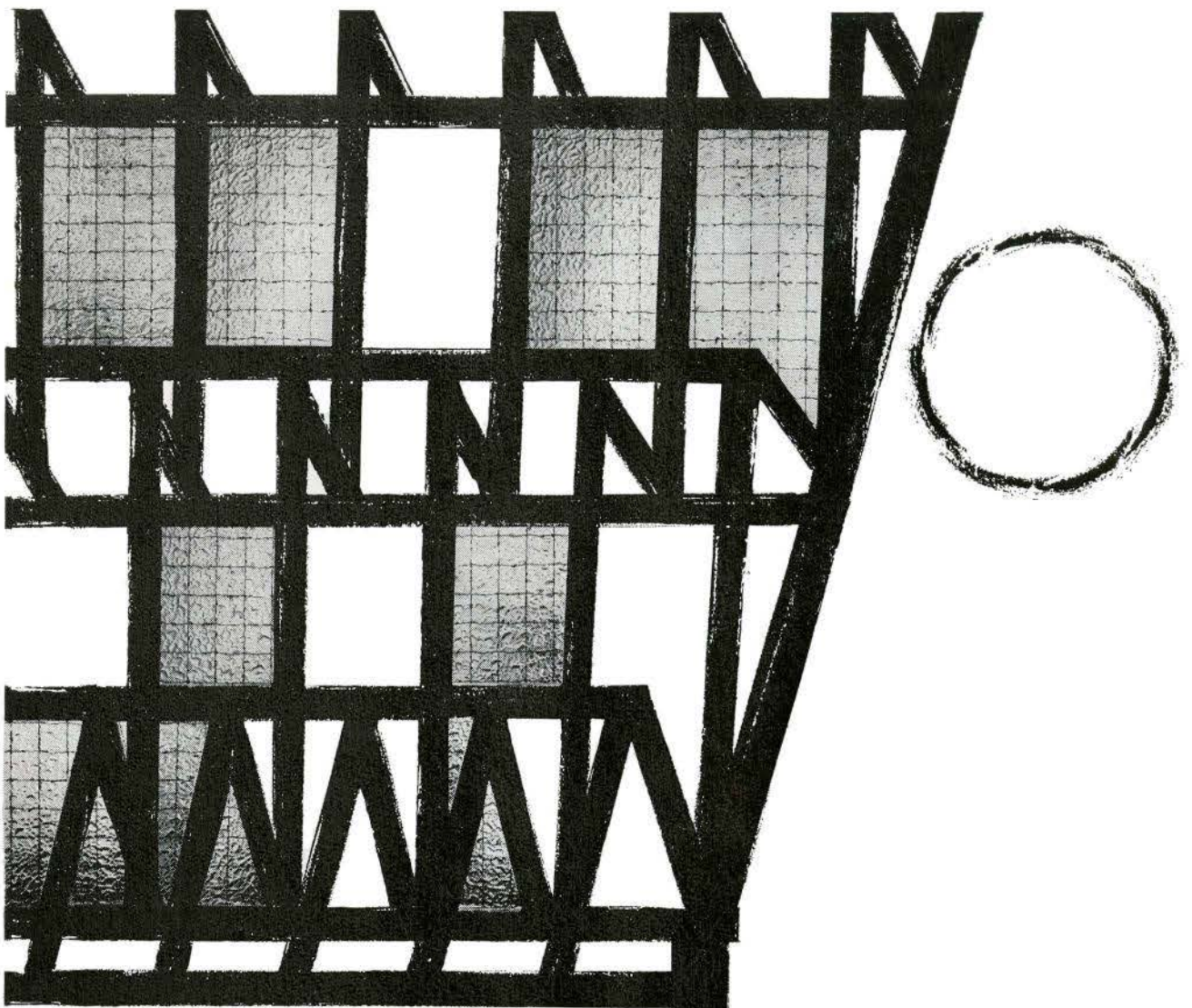
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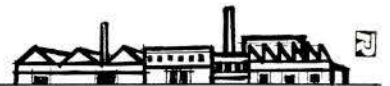
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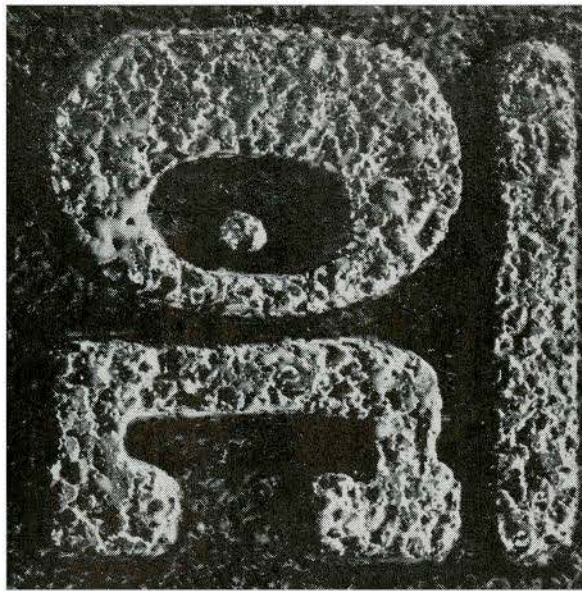
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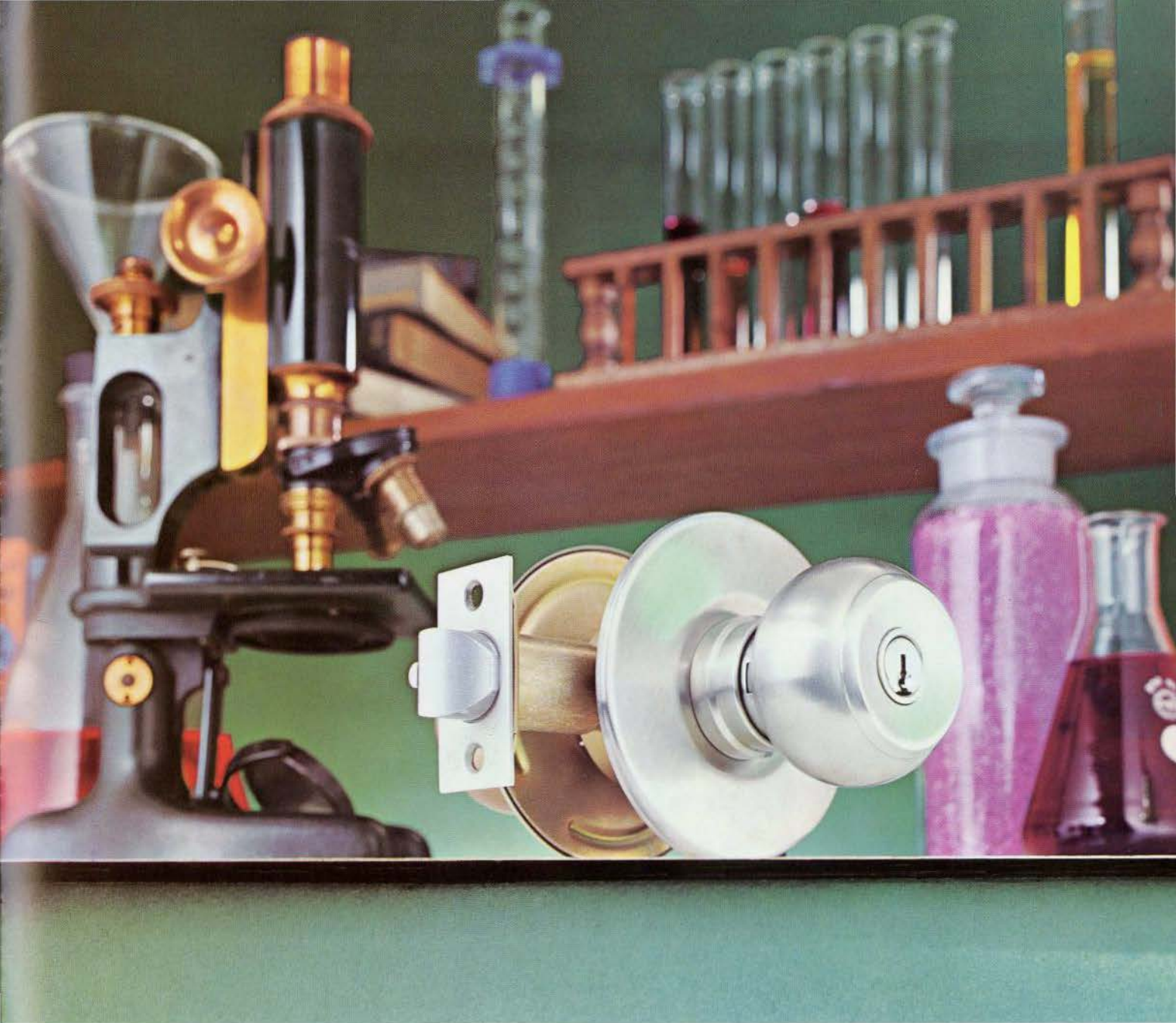
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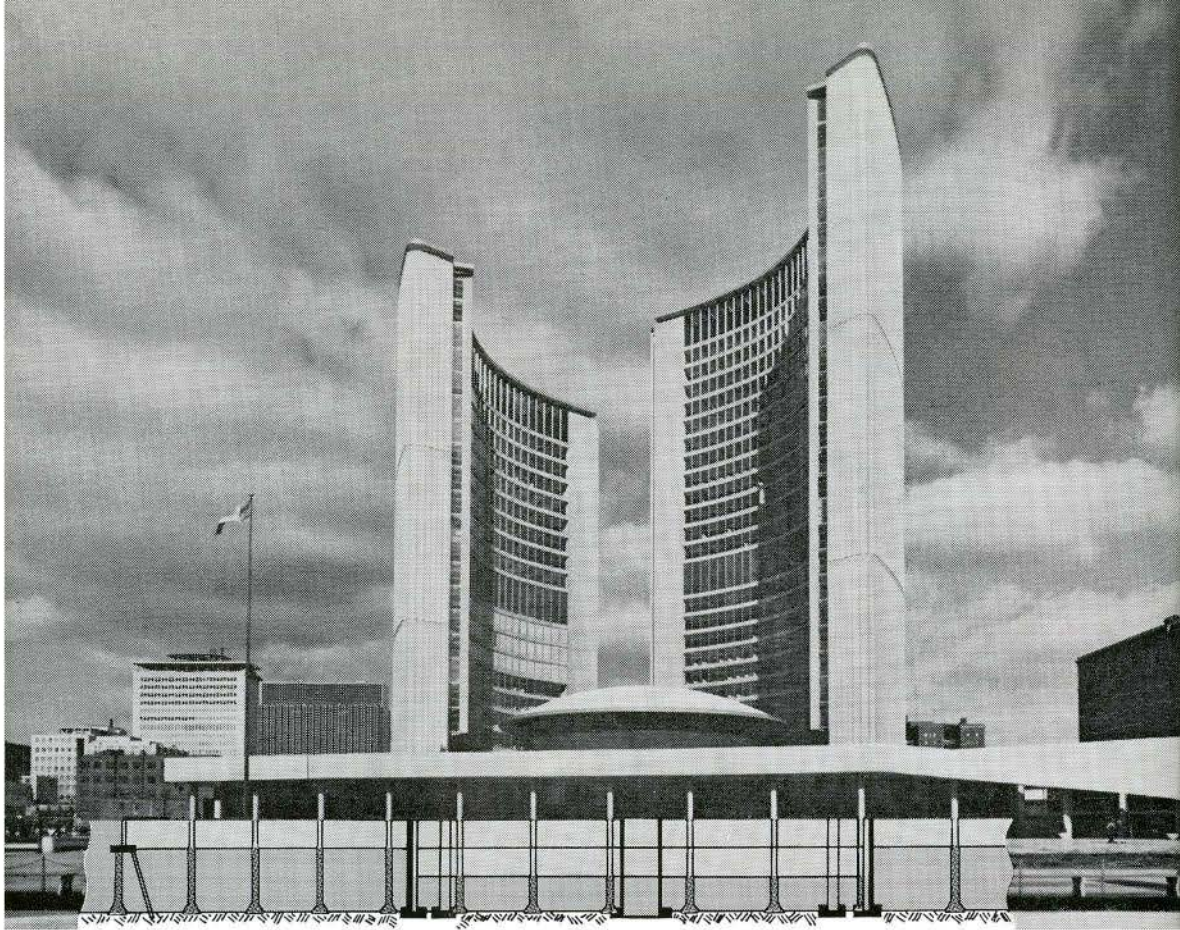
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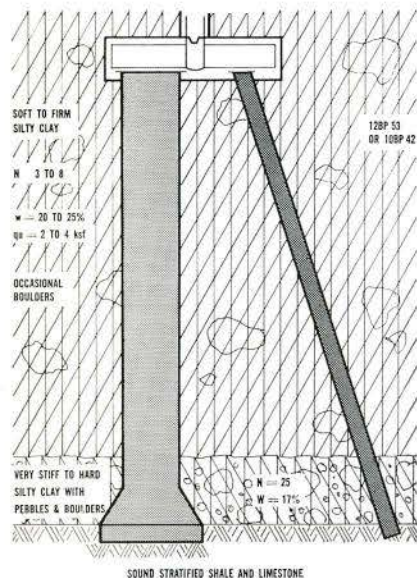
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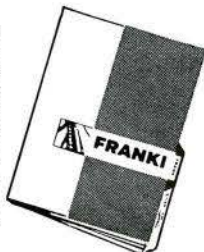
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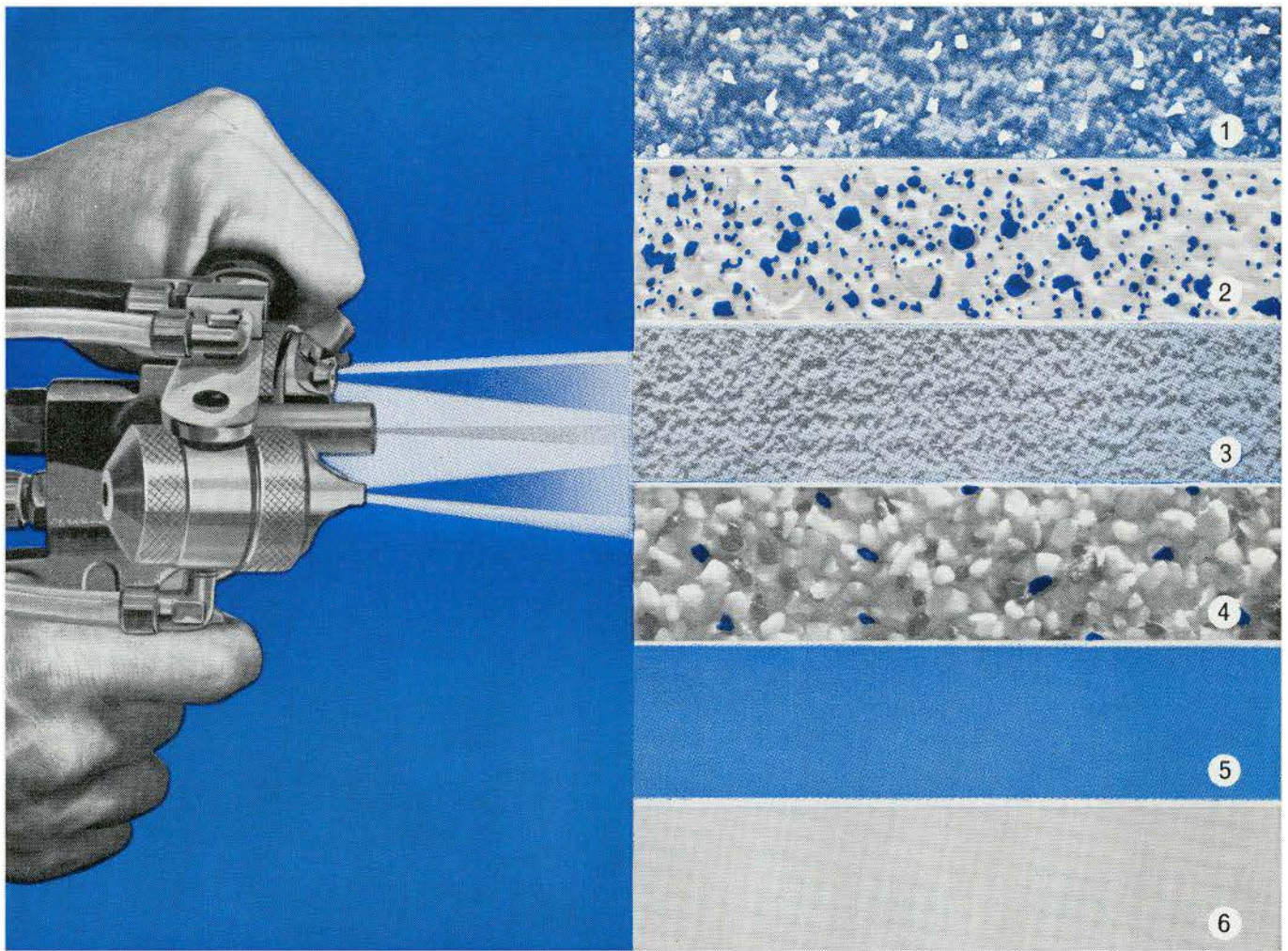


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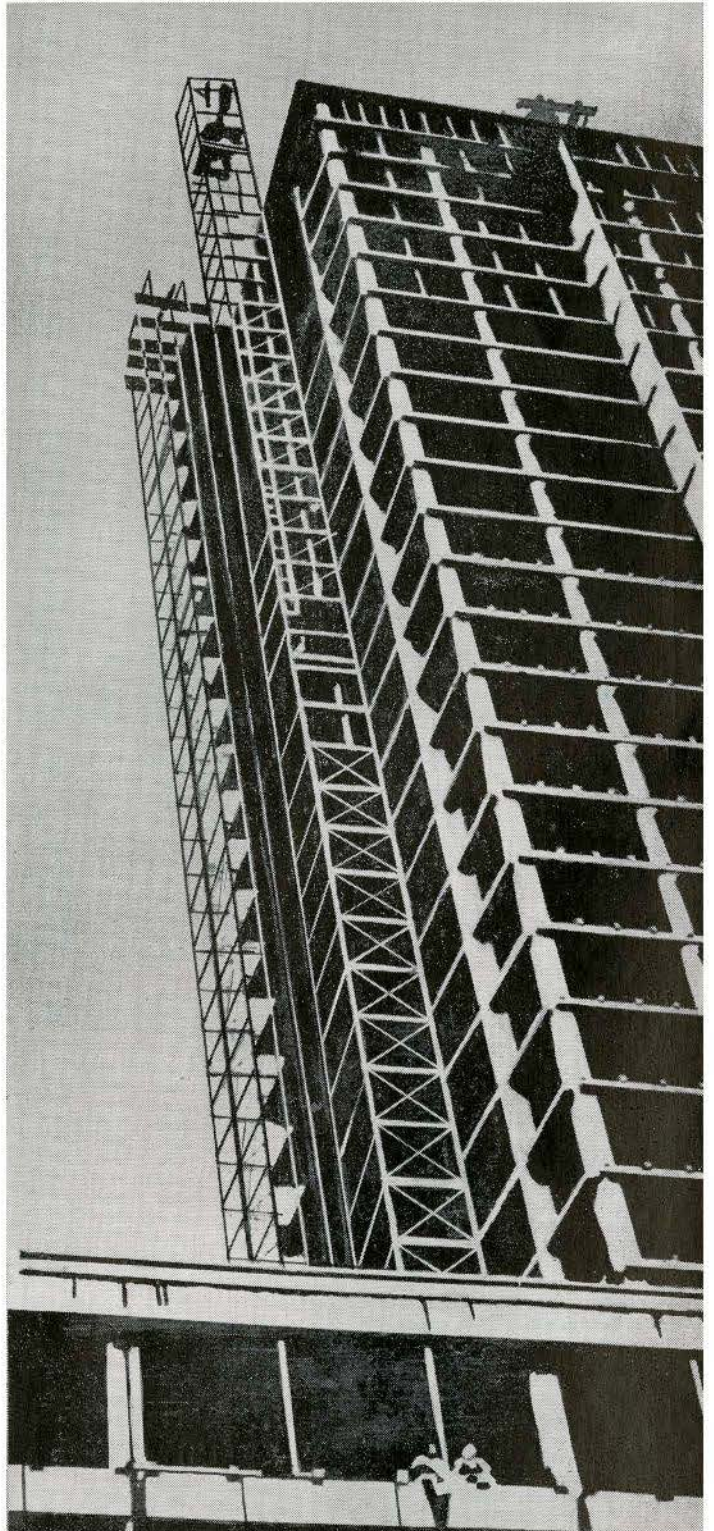
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Until the late eighteenth century horizontal members were either wood or masonry. Wood structures had limited spans, and masonry structures that required large spans needed mass to support the lateral thrusts set up by the heavy spanning superstructure.

It is interesting to note that the comparatively wide spans which may be achieved with wood trusses made up of small members were not developed until the fairly recent past. In any case, parallel with the advances in wood structural techniques, were those made in the use at first of cast iron, then steel and subsequently reinforced concrete. Because the properties and strengths of these manufactured materials can be closely determined and controlled, technological and structural techniques have made substantial advances in manufacture, design and construction.

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Reinforced concrete was at first used in structures in the form of load bearing beams

and slabs, then in slab and mushroom column, and subsequently in a plethora of forms and structural modes. Because of the all purpose strengths the material possesses, no stringent disciplines determine form and use; it is therefore not surprising to find the misuse of the material in in-appropriate means of transferring loads and moments. However, this apparent freedom is partly circumscribed by the nature of the forms used to mold or cast concrete. Formwork can either be removable in which case there is an economy in repetition, or become an integral part of the structure. Precast concrete has also, perhaps more appropriately, been used for beam-and-slab construction.

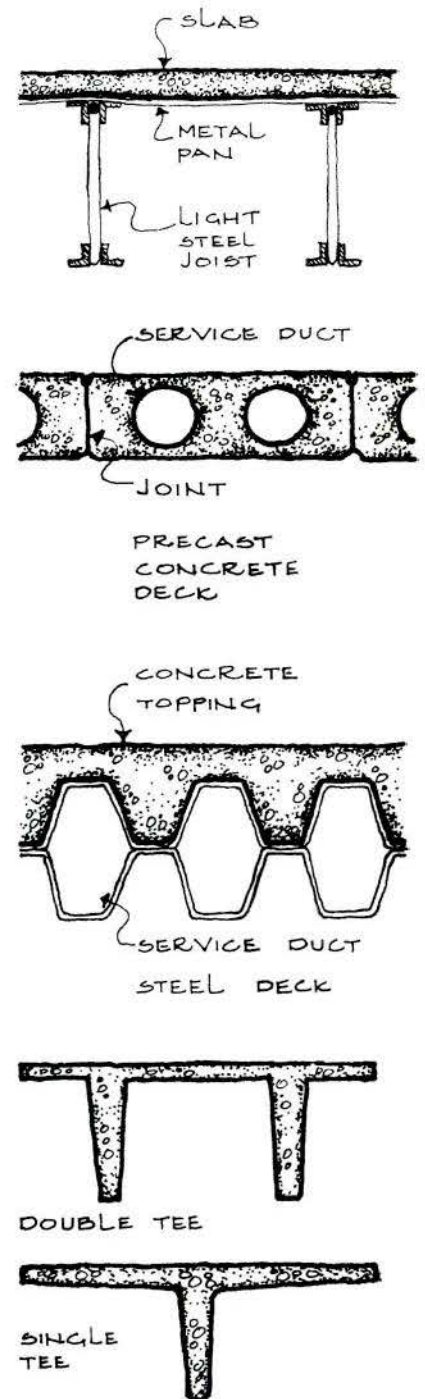
The following are some of the types of horizontal construction normally encountered in practice, with brief notes on their properties.

1 Floor on grade.
Concrete on granular base. Subject to segregation failure due to leakage of water and fines into base material; this can be prevented by inclusion of a waterproof membrane over the base material. Subject to failure due to shrinkage cracking; this may be prevented by pattern pouring and carefully designed expansion joints.

2 Suspended floors.
Wood. Braced wood joist floors of traditional construction.

Steel. Light steel bar joist supports bearing on steel or concrete beams or masonry walls. A one way system. Deck composed of concrete slab on permanent metal or cement asbestos formwork and having minimum thickness determined by fire ratings and requirements of buried services. Deck can be of normal one way slab construction formed with re-usable formwork or may be of precast units having a flat or concave underside.

Steel beam and girder constructions. These can be used with concrete slab, precast concrete decks or heavy steel decks with concrete topping. Both precast concrete and heavy steel deck construction are available



with integral ducts for power, communications and lighting services.

Steel construction generally requires fire protection. This may be achieved by spraying the members directly with a fire protective treatment or by creating a fire resistant membrane ceiling below the steel.

Concrete. Flat slab floors may be of normal or lightweight concrete; they are most economical using two way reinforcement; thickness derives from the largest span. Therefore the spans should be similar.

A variation of the two way slab, for long spans, is the waffle slab. Square recesses are formed in the underside of the slab by the use of metal, paper or reinforced plastic pans as formwork. In the vicinity of columns the recesses are not formed in order to provide a greater thickness for shear resistance. When using concrete rib or waffle slab construction with an exposed undersurface care must be taken that the top slab thickness and cover on reinforcement meet the requirements for fire separation between floors.

Considerable spans of light construction can be obtained using a technique of applying stresses through the tightening of bolts to longitudinal reinforcing after the pouring of concrete.

A wide variety of precast flooring elements are available ranging from simple flat or channel slabs for short spans through cored slabs to single and double tee sections which may be pre-stressed and able to span considerable distances. Considerable problems are encountered in the use of pre-stressed units for floors, however, since these are calculated to deflect under load. This produces difficulties in the connection to partitions below, and floors require varying thicknesses of topping due to the residual camber after initial deflection.

The choices of structural systems for horizontal elements of a building are many and increasing. Often the choices that are made are for economic and efficiency reasons, only.

It must be remembered that the qualitative objectives and the problems of appropriateness of spatial enclosure must be satisfied as well.

R. W. Anderson

Estimating

There are three components to be included under the heading of Horizontal Structural Elements, slab on grade, suspended floor slabs, and roof construction.

Measurement of these elements is quite simple, and for the slab on grade and suspended floors, is identical to the measurement of the gross floor area. That is, measurements are taken to the outside face of the exterior walls with no deductions for stairwells, duct shafts or other similar openings and the area of the slab on grade together with the area of the suspended floors will equal the total gross floor area. The roof is measured in a similar way, to the outside perimeter of the roof.

There is sometimes confusion as to what constitutes a roof slab. The best way to define it is to say that it is any slab covering any part of the building which does not have a structure above it. For example, a building which has a basement larger on plan than the upper floors will have a roof slab over part of the basement at ground level. Although such a roof has to be constructed to take pedestrian or vehicular traffic, it is still performing the function of a roof.

The slab on grade is the lowest floor in the building, whether it is on grade or not. Where there is a crawl space provided under the lowest slab, the slab is still defined as a slab on grade although it would have to be priced as a suspended slab. Similarly on a sloping site there may be a choice between providing a suspended slab or providing fill under the lowest slab. In the latter case the cost of the fill is included in the estimate for the slab on grade.

The price for normal slab on grade includes

the cost of the slab, a rough finish to it, and the stone fill under.

The prices for suspended slabs include the cost of the slab, a rough finish to it, and the cost of the beams and columns supporting it.

Prices which can be applied to these elements when preparing a preliminary estimate are as follows:

1 Normal slab on grade .60-.75 per square foot

2 Suspended floor slabs:

(a) Wood floors for house construction – .70-.80 per square foot

(b) Light steel bar joists with metal pan and concrete wall bearing 1.10-1.40 per square foot

(c) Steel beam and girder 2.80-4.60 per square foot

(d) Concrete flat slab 2.50-3.00 per square foot

(e) Concrete beam and slab 2.60-3.25 per square foot

(f) Concrete waffle slab 2.70-3.30 per square foot

3 Roof construction:

(a) Wood roof for house construction .70-1.00 per square foot

(b) Light steel bar joists with metal pan and concrete wall bearing 1.00-1.30 per square foot

(c) Steel beam and girder 2.55-4.50 per square foot

(d) Concrete flat slab 2.25-2.75 per square foot

(e) Concrete beam and slab 2.50-3.20 per square foot

(f) Concrete waffle slab 2.60-3.25 per square foot

F. W. Helyar

Réflexions sur quelques projets de théâtres exécutés par des architectes américains à la demande de la Ford Foundation. (See English résumé p. 34)
Tiré d'une conférence de Werner Ruhnu, ingénieur diplômé, architecte, Gelsenkirchen, Allemagne, et Professeur de l'Université Laval, Québec.

Il y a déjà 45 ans, Gropius demandait aux constructeurs de théâtres de créer de grands instruments de lumière et d'espace si modifiables et si impersonnels qu'ils ne limiteraient en aucune façon l'imagination du metteur en scène et pourraient se plier à toutes les exigences de son invention *. Un tel instrument théâtral permettrait aussi, il va sans dire, la réalisation de toutes les formes de jeu du passé.

Bien plus, un tel "outil théâtral" incite la présentation d'oeuvres diverses. Un soir, par exemple, on pourrait interpréter une pièce exigeant un amphithéâtre, le lendemain soir, une oeuvre demandant un théâtre "spatial", après avoir donné, dans l'après-midi, une pièce appartenant au répertoire du théâtre introverti du Baroque. Dans l'édifice en béton du théâtre à l'italienne, une semblable diversité de représentations est irréalisable, d'autant plus que l'oeuvre exigeant une arène centrale ne pourra jamais être jouée.

A Ulm, un groupe de jeunes artistes a dû abandonner ses expérimentations de formes nouvelles de jeu à cause des murs et du cadre scénique du théâtre local. Voici un autre exemple démontrant à quel point l'architecture théâtrale conventionnelle peut entraver la réalisation de certaines oeuvres dramatiques : en hiver 1963-64, à Essen, un autre groupe d'artistes fut obligé de déménager dans les halles de la ville pour pouvoir exécuter la pièce *Gilda appelle Mae West* de Michel Parent ; de même qu'à Ulm, le théâtre local, avec sa rampe et sa boîte scénique ne permettait pas la réalisation de ce mode de jeu nouveau. Auteur et régisseur placèrent les spectateurs au milieu de la salle et construisirent autour d'eux plusieurs scènes aménagées sur un plateau annulaire. L'action de la pièce se déroulait en même temps sur la plupart de ces scènes. "A l'interprétation de la simultanéité des événements est indispensable un théâtre à scènes multiples", expliquait l'auteur.

Un autre écrivain, Arthur Miller, commente ce problème de la façon suivante : "Je ne doute point que des pièces de théâtre restent sans auteur parce que les théâtres de New York n'offrent que des moyens limités. Pour

ces boîtes à souliers, on ne peut guère écrire avec la même portée d'idées et de sentiments que pour un théâtre plus adaptable. Le théâtre new-yorkais est une limitation du poète déjà du seul fait qu'il ne lui fournit aucune inspiration – la moitié du temps, l'écrivain le traîne sur son dos."

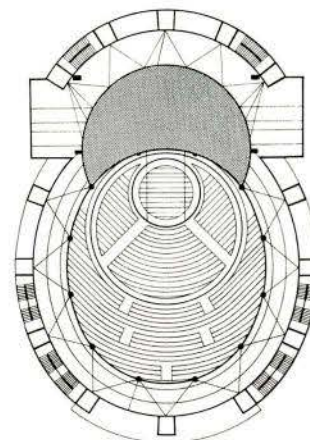
Le type idéal d'édifice de théâtre doit, à mon avis, remplir les conditions suivantes :

1 Toutes les parties architecturales de l'édifice (plafond, murs, planchers) devraient être mobiles. Le seul élément fixe serait la situation du théâtre dans le milieu urbain. Ici, c'est-à-dire à l'endroit où le jeu scénique doit prendre place, l'espace serait à chaque fois fonction de l'événement théâtral lui-même, dans un rapport salle-scène toujours vivant et toujours changeant.

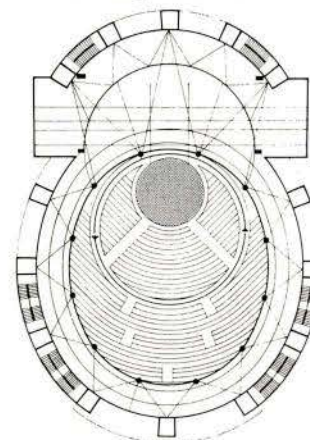
2 Dans la construction du théâtre idéal, la scène et le parterre devraient être rendus équivalents au point de devenir interchangeables. Ce n'est pas l'architecte qui détermine une fois pour toutes où sera la scène et où sera l'assistance. Idéalement, il appartient aux auteurs, aux metteurs en scène et aux acteurs de décider chaque fois à nouveau de l'emplacement du plateau et de celui de l'auditoire. Le théâtre est un lieu transformable, et non un espace délimité par les architectes.

3 L'édifice de théâtre, ou, mieux encore, le lieu de l'événement théâtral, devrait à l'avenir s'ériger, libre et ouvert, dans le paysage urbain. Ouvert, surtout, parce que seulement un édifice ouvert peut se fermer – tandis que des murs de béton des architectes ne peuvent être ouverts qu'à l'aide de marteaux pneumatiques.

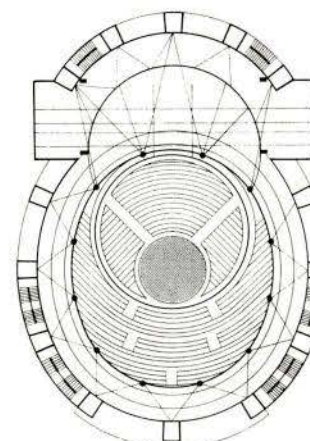
* *Walter Gropius, dans Berliner Tageblatt, no 158, 2 novembre 1920: "La tâche de l'architecte d'un théâtre est, à mon avis, de rendre l'instrument scénique si impersonnel, si maniable, si transformable, qu'il ne limite en rien le régisseur, qu'il permette l'épanouissement des conceptions artistiques les plus diverses (. . .) C'est la grande machine 'spatiale' qui permet au metteur en scène de créer une oeuvre personnelle à la mesure de sa force créatrice."*



1 Scène en profondeur



2 Proscenium



3 Scène centrale ou arène

Possibilités de transformation du "théâtre total"; exécuté en 1927 par Walter Gropius.

4
Auditoire de 2000 personnes Maquette
de l'ensemble

5
Coupe longitudinale

1 Les groupes de sièges sont séparés par
des cloisons rembourées 2 Des écrans
transparents et mobiles sont utilisés pour
l'éclairage de la scène et de la salle

3 Combinaison d'éléments à trois dimen-
sions dans la tour volante pour fins
d'éclairage et de projection de films 4 et
6 Cabines de projection 5 Portes à
coulisse sur la scène 6 Plates-formes
amovibles 7 Fosse d'orchestre 8 Con-

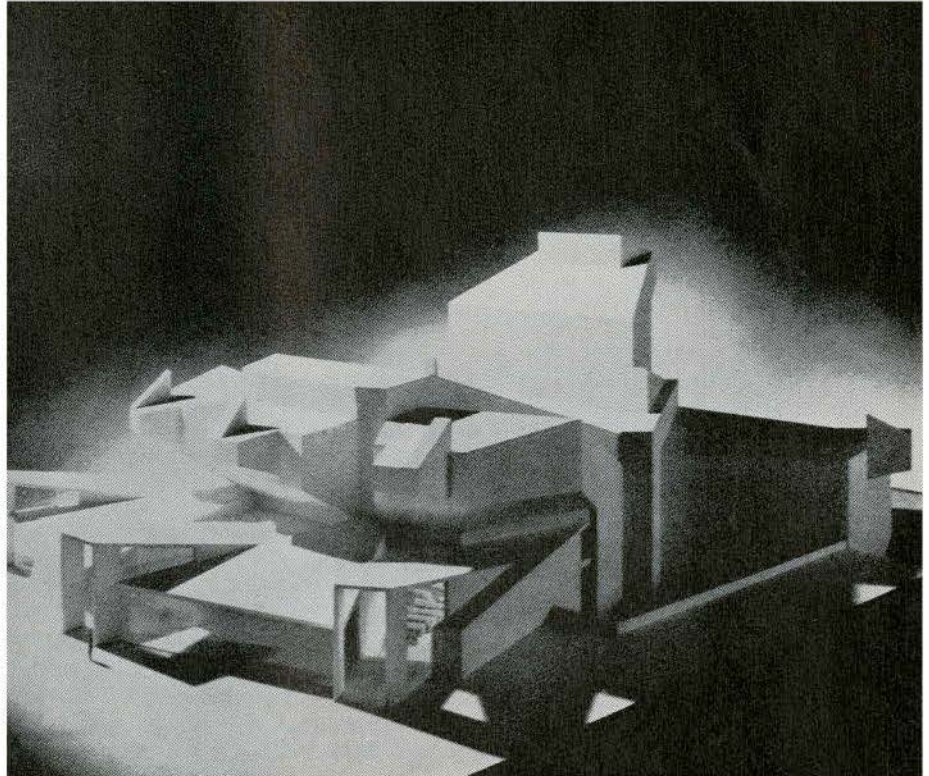
trôle de son et d'éclairage 9 Entrée des
spectateurs, du foyer, entre le parterre et le
balcon 10 Atelier 11 Eclairage
12 Balcon 13 Rangées de côté du
balcon à proximité de la scène 14 Cintre
pour les écrans volants et les décors
15 Eclairage latérale 16 Eclairage d'en
avant 17 Toilettes 18 Loges des
artistes 19 Contrôle de la température

La disparition des éléments usuels de l'architecture théâtrale peut-elle, par ailleurs, entraver la liberté de l'interprétation ? Dans les années 20, lorsque les acteurs se trouvèrent soudain sur des scènes dépouillées de décors, il se plaignirent de cette nudité et prétendirent qu'elle les privait de soutiens psychologiques indispensables à leur jeu. Mais ils ont dû reconnaître très vite que cet espace scénique nouveau offrait aussi de nouvelles libertés de jeu, et ils commencèrent à en tirer profit.

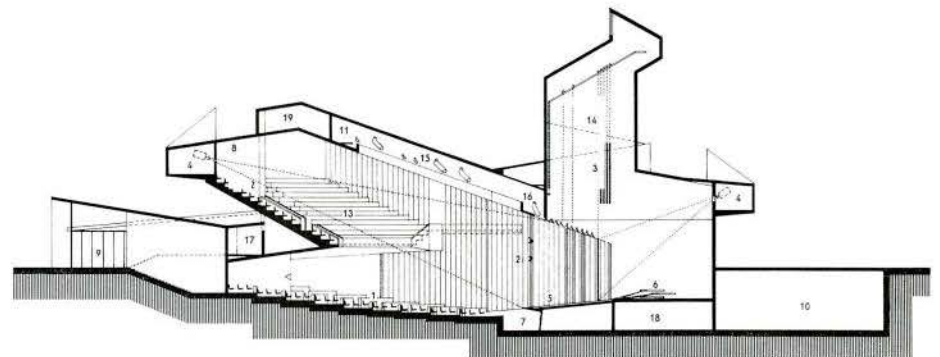
Pour cette raison, je suis convaincu que chaque metteur en scène qui serait appelé à travailler avec un "outil théâtral" constaterait rapidement que l'absence des parties architecturales fixes ne fait pas s'écrouler, mais libère le théâtre vivant. Les régisseurs, qui ne seraient plus limités par l'arrangement de la scène, apprendraient très vite à profiter des libertés offertes par un tel instrument théâtral, instrument qui leur permettrait de bâtir chaque soir le théâtre approprié à la représentation.

Le théâtre idéal est un atelier de jeu et non un monument d'architecture. Inutile de préciser ici que lorsqu'un opéra de 3000 places doit être construit, la transformabilité idéale se trouve diminuée et doit se limiter à la mobilité du proscenium. En dépit de cette dernière restriction, la demande toujours renouvelée adressée au constructeur de l'instrument de jeu, savoir l'architecte, est la suivante : qu'il crée l'optimum de flexibilité, qu'il crée de l'espace ouvert pour le jeu. Exprimée en une formule, cette exigence se lit : "de la liberté pour le jeu par l'architecture instrumentale".

C'est en tenant compte de cette formule que doivent être appréciés les huit projets exécutés par des architectes et ingénieurs de scène américains à la demande de la fondation Ford et traitant le sujet du "théâtre idéal". Le souci d'unir en un espace unique la scène et la salle des spectateurs est commun à tous ces projets. Dans un développement plus élaboré de ce thème, on a tenté d'introduire dans cet espace un proscenium mobile permettant toutes les ouvertures de scène. Certains projets vont



4



5

6

Plan du parterre

- 1 Les groupes de sièges sont séparés par des cloisons rembourrées
- 2 Fosse d'orchestre
- 3 Portes à coulisse sur la scène
- 4 Ecrans transparents et mobiles pour l'éclairage de la scène et de la salle
- 5 Entrée latérale du foyer au balcon
- 6 Cabines de régie (son, éclairage)
- 7 Entrée principale du foyer au balcon
- 8 Cour

7

Plan du niveau du balcon

- 1 Rangées latérales à proximité de la scène
- 2 Centre du balcon
- 3 Entrée principale du foyer au balcon
- 4 Entrées latérales du foyer au balcon
- 5 Couloirs

pour échelles 6 Ecrans transparents et mobiles pour l'éclairage de la salle et de la scène 7 Combinaison d'éléments à trois dimensions dans la tour volante pour fins d'éclairage et de projection de films 8 Cabines de projection

Plans, échelle 1 : 500

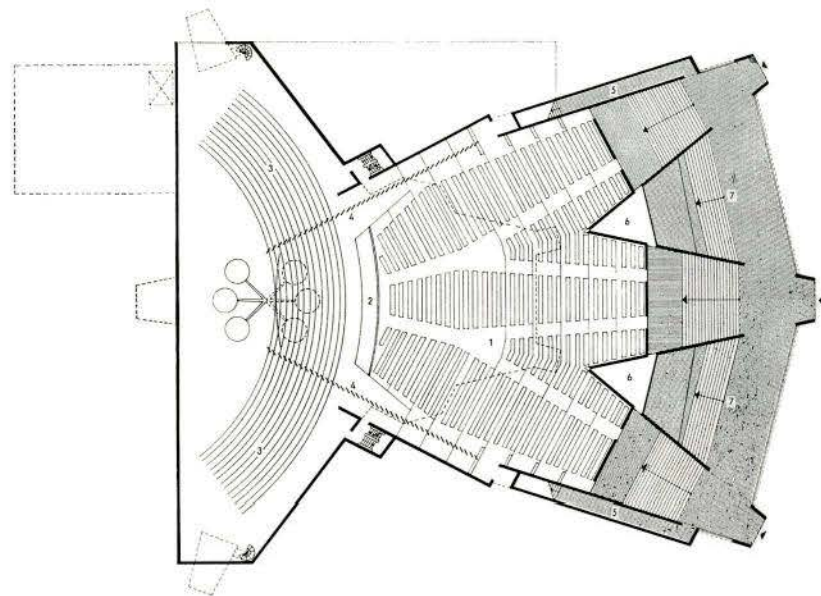
plus loin : on essaye d'ouvrir le théâtre sur le paysage. Enfin, on tâche de rendre équivalentes les deux parties principales du théâtre, savoir la scène et le parterre, au point de les rendre interchangeable.

Etant donné que l'unité de l'espace assigné à la scène et à l'auditoire est commune à tous les projets, il n'y aura pas lieu d'en tenir compte dans l'appréciation de ces derniers.

Suivant le degré croissant de difficulté technique, il faudra comparer, à l'intérieur de l'espace unique et ouvert, les données suivantes :

- 1 Proscenium plus ou moins transformable ;
- 2 Rapport théâtre-paysage urbain ;
- 3 Flexibilité des rapports scène-salle.

Par "théâtre", il faut entendre les portions d'espace destinées au jeu et aux spectateurs.



Auditoire de 2000 personnes

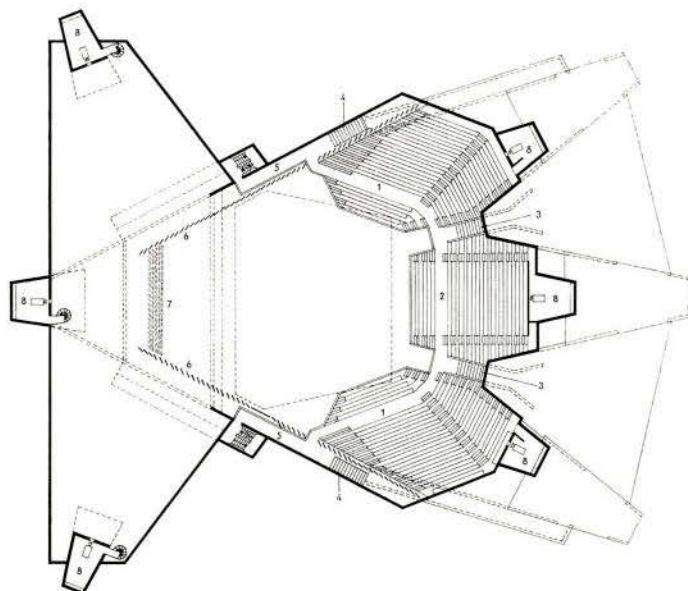
6

Projet : Paul M. Rudolph, architecte, et Ralph Alswang, scénographe

La salle des spectateurs et la cage de la scène forment deux corps séparés. On essaye d'établir l'unité de l'espace par l'emploi d'une texture particulière dans les murs de l'avant-scène. La mobilité de ces murs permet d'obtenir diverses ouvertures de scène.

Appréciation :

- 1 Oui
- 2 Visiblement ignoré
- 3 impossible



7

8
Théâtre double
Coupe longitudinale de l'ensemble

9
Maquette
 10

Plan du niveau principal
échelle 1 : 500

1 Cage scénique 2 Théâtre de 599 places 3 Entrée 4 Tour satellite supérieure 5 Entrée des voitures 6 "L'Universelle", comprenant 1422 places 7 "La Mer Rouge", comprenant 342 places 8 Stade inférieur de 464 places 9 Stade supérieur de 314 places 10 Tour 11 Tour de projection 12 Entrée de la

scène 13 Sortie vers les loges des artistes et l'atelier 14 Sortie de secours 15 Palier supérieur 16 Palier extérieur 17 Montée vers le balcon 18 Cocktail-Lounge 19 Sortie vers le café 20 Montée vers le niveau intermédiaire 21 Sortie vers le "Superclub" 22 Espaces à louer 23 Vitrines 24 Caisse centrale 25 Puits supérieur de l'escalier 26 Entrée principale 27 Renseignements 28 Ascenseur de l'entrepôt inférieur 29 Entrepôt 30 Atelier et entrepôt 31 Régisseur 32 Assistant du régisseur 33 La chambre verte 34 Sortie vers les loges des artistes 35 Cabine de régie 36 Cabine de projection

Théâtre double

Projet: Frederick John Kiesler, architecte

Au petit théâtre, avec cage scénique séparée, bonne possibilité de transformer le proscenium.

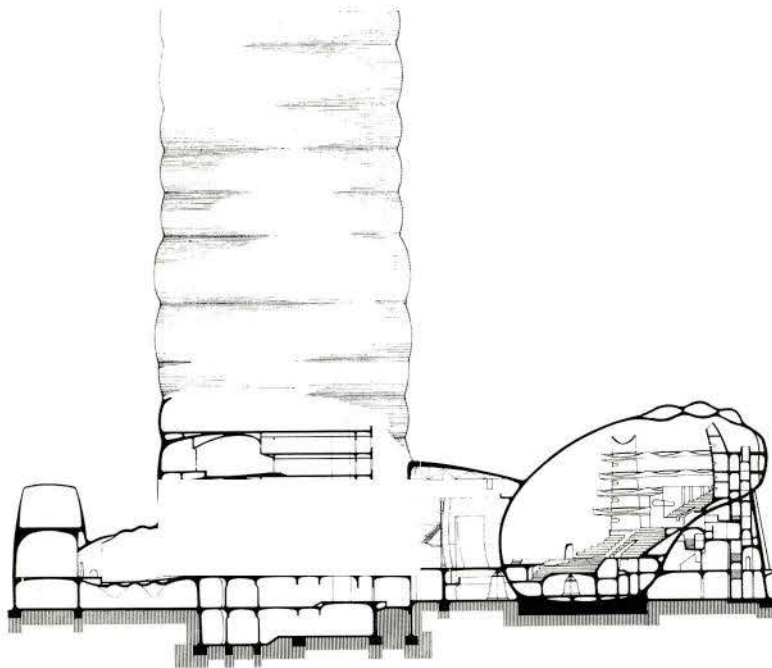
Appréciation :

- 1 Bien
- 2 clairement ignoré
- 3 non

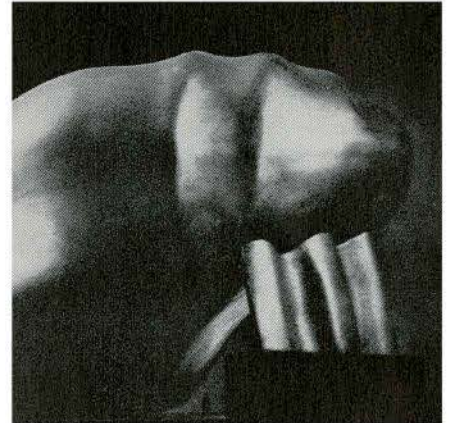
Un petit théâtre spécial à arène centrale est incorporé à la construction. Dans le grand théâtre, dont la scène est partiellement située dans une autre partie de l'édifice, on essaye de créer l'impression d'un espace continu par l'emploi d'une enveloppe extérieure aux lignes coulantes. A l'intérieur de ce grand espace sont placées librement les constructions des escaliers et des balcons.

Appréciation :

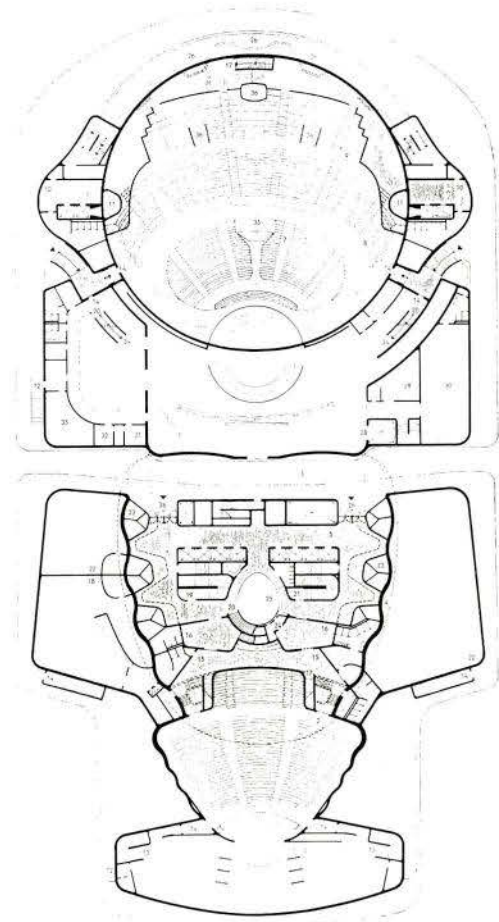
- 1 possibilités insignifiantes
- 2 non
- 3 non



8



9



10

- 11
- Théâtre de l'espace unique*
- Maquette de l'espace théâtral*
- 12
- Coupe transversale AB*
- 13
- Plan*
- Echelle 1 : 500*
- 1 Scène 2 Fosse d'orchestre 3*
- Parterre 4 Cloisons latérales mobiles*

Théâtre à espace unique

Projet : Ben Schlanger, architecte, scénographie de Donald Oenslager

Salle et scène dans le même espace, non interchangeables, mais de très belles possibilités pour le théâtre "spatial" et le théâtre à l'italienne ("boite d'optique"). Excellentes recherches de visibilité et d'acoustique.

Appréciation :
 1 oui
 2 non recherché
 3 disparaît

Projet

de Paul Schweikher, architecte, et George Charles Izenour, Designer Engineer

1 Théâtre d'environ 500 places

Ce théâtre offre des possibilités très diverse comme montrent les illustrations. Un mur sépare la scène de la salle des spectateurs. Lors d'un organisation en arène, une partie des spectateurs est placée sur la scène. La "boite d'optique" sera difficile à éliminer. Malgré cela, il s'agit d'un excellent exemple de théâtre où scène et salle sont interchangeables. (V. illustrations à la page suivante)

Appréciation :
 1 non
 2 non recherché
 3 oui, grâce à d'excellents moyens

techniques qui toutefois sont diminués par l'ouverture de la "boite d'optique".

2 Théâtre de studio

Arrangement classique du théâtre à l'italienne ; un mur sépare le parterre de la scène. (V. aire no 6 sur le plan à la page suivante)

Appréciation :
 1 Bien
 2 non
 3 non

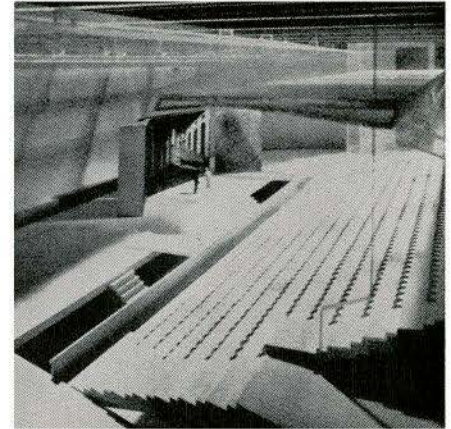
3 Théâtre expérimental

Sections du plancher (petits podiums) uniformément distribuées à travers toute la surface du théâtre pouvant être mues verticalement. Sur les podiums plus grands peuvent être placées des estrades plus petites. Ainsi peut être créée une grande variété de planchers. Il manque la scène supérieure qui, logiquement, devrait être en mesure de couvrir l'espace en entier. Hauteur insuffisante.

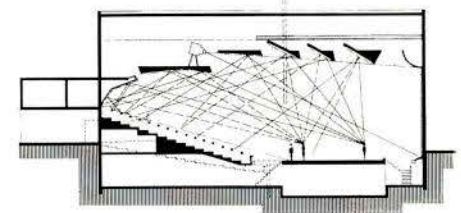
Eisenhower a créé à l'université Yale un merveilleux petit théâtre expérimental. L'espace théâtral est entièrement noir. On peut jouer partout dans l'espace sur des échafaudages mobiles ; les spectateurs peuvent être placés n'importe où. Vous reporter aux projets de théâtres de l'année 1959 pour Bonn et Düsseldorf de l'auteur. (V. aire no 7 sur le plan à la page suivante)

Appréciation :
 1 oui
 2 non
 3 oui, excellente

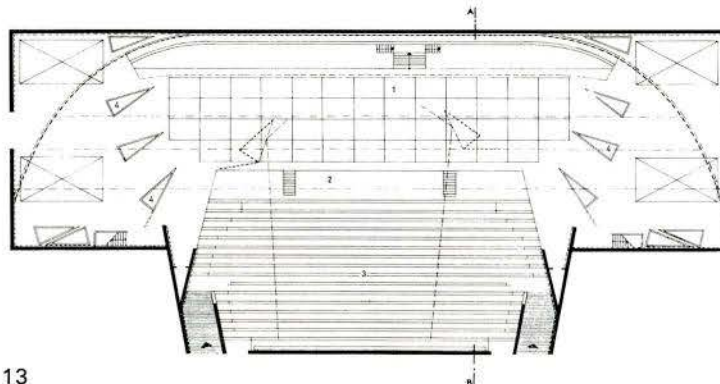
Ces projets permettent de mesurer les difficultés que rencontre celui qui essaye de créer des moyens architectoniques et techniques qui permettraient de satisfaire aux besoins du théâtre contemporain.



11



12



13

14

Proscenium

15

Arène centrale

16

Arène de trois quarts

17

Plan du rez-de-chaussée

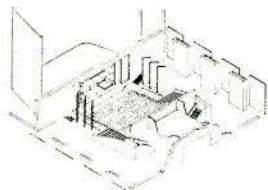
1 La chambre verte 2 Auditoire

3 Atelier 4 Ecole 5 Tour du bâtiment

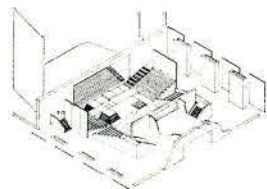
de la faculté 6 Scène (théâtre de studio)

7 Cour ouverte (théâtre expérimental)

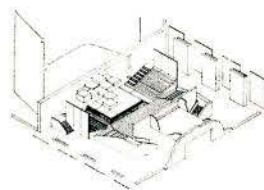
8 Réception



14



15



16

Théâtre mobile (1958)

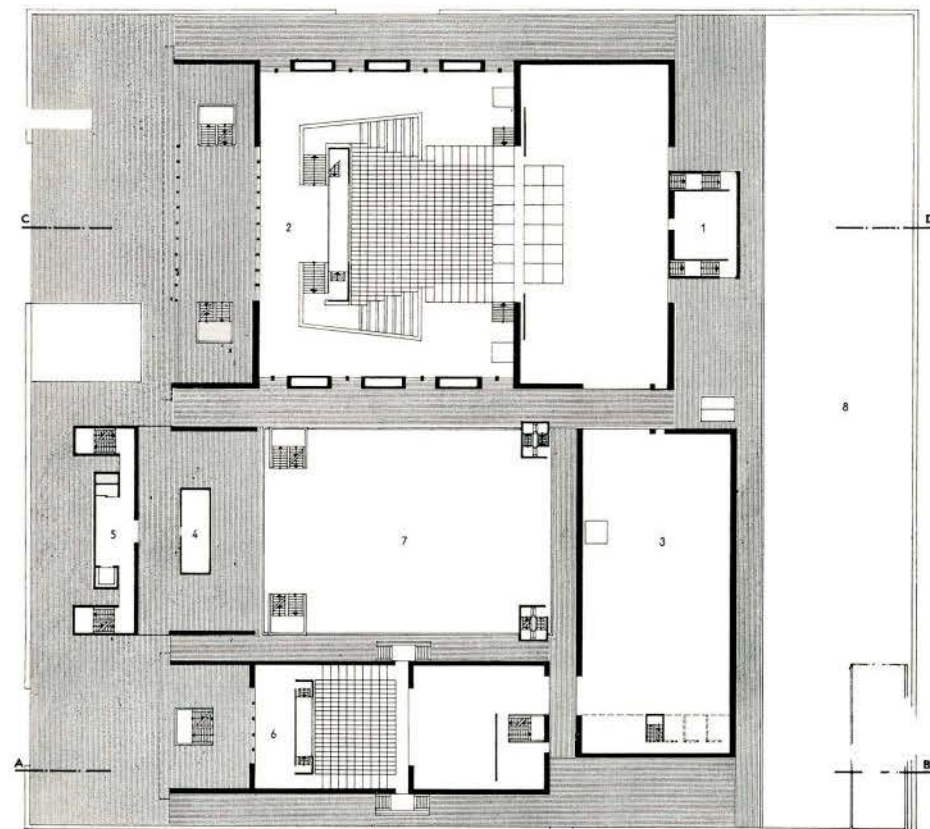
Extraits de l'article *L'architecture instrumentale dans un espace climatisé* de Werner Ruhnu, architecte, publié dans la revue *Der Architekt*, 1965.

Projet : Werner Ruhnu, architecte,
Gelsenkirchen.

Scénographie : Jacques Polieri, Paris.

Le théâtre mobile est une aire de jeu flexible à l'intérieur de laquelle il n'y a plus de boîte scénique, plus de salle des spectateurs, plus de proscenium. Toutes ces fonctions "spatiales" sont équivalentes et interchangeables. On peut y réaliser toutes les formes de théâtre de l'histoire aussi bien que le théâtre libre, "spatial", contemporain. Cet instrument théâtral rend possible l'épanouissement d'une dramaturgie dynamique et "spatiale". Idéalement, le théâtre mobile constitue une partie ouverte du site urbain, une zone flexible, située dans un espace climatisé – ouvert sur le ciel – où acteurs et public participent ensemble à l'événement théâtral.

La scène supérieure s'étend au-dessus de l'espace théâtral entier parce que la scène peut être partout. En plus des rampes de jeu, constructions roulantes en aluminium, le plancher est entièrement mobile. Il s'étend uniformément sous l'aire de jeu comme sous l'aire des spectateurs de façon à permettre partout la création de dépressions et d'élévations. Les changements peuvent être exécutés très rapidement. Ainsi peut-on procéder à plusieurs réarrangements de l'espace théâtral dans le cours de la même soirée. Le système des podiums qui composent le plancher est régi par un contrôle central électrique. Des matrices peuvent retenir les arrangements de plancher nécessités fréquemment. Les chaises sont rentrables, chaque siège est tournant, toutes les chaises peuvent être enlevées, et les spectateurs peuvent alors s'asseoir sur le gradin supérieur suivant. Le plancher peut être modifié pendant le spectacle. A l'intérieur du système des podiums, on peut jouer simultanément à plusieurs endroits.



17

18

Théâtre mobile, arrangement pour des jeux scéniques simultanés, avec plusieurs aires de jeu et de spectateurs.

19

Théâtre mobile, détail du système des podiums mobiles avec sièges : coupe, plan.

20

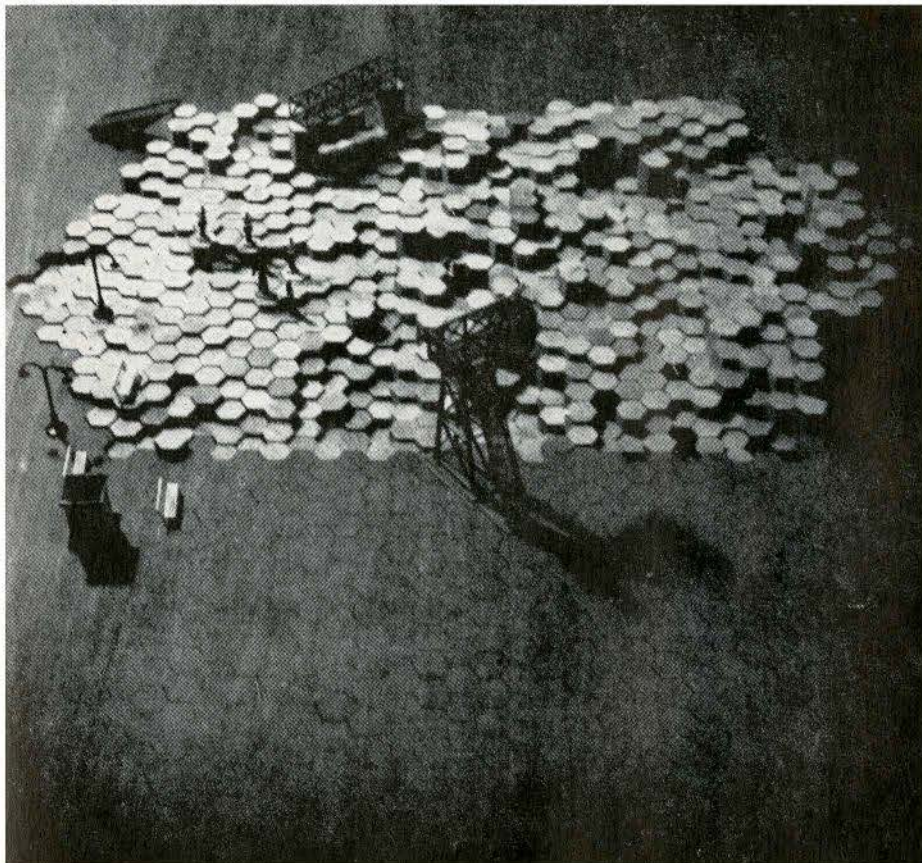
Variante du théâtre mobile. Le plancher se compose de podiums carrés. Arrangement à l'italienne ("boite d'optique").

21

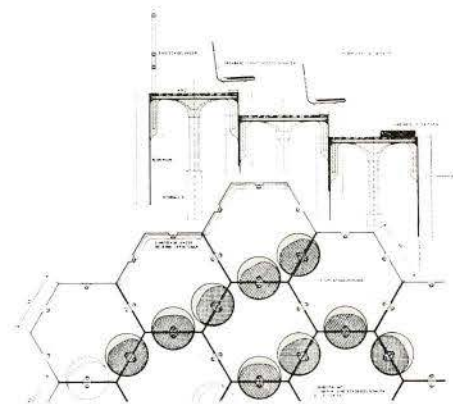
Théâtre mobile, arrangement – scène "spatiale".

22

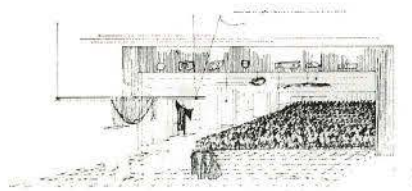
Théâtre mobile, scène centrale (arène).



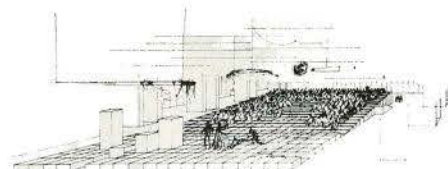
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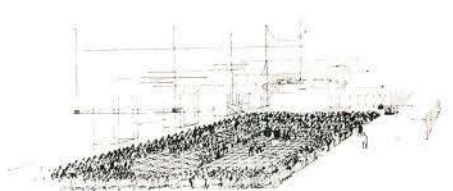
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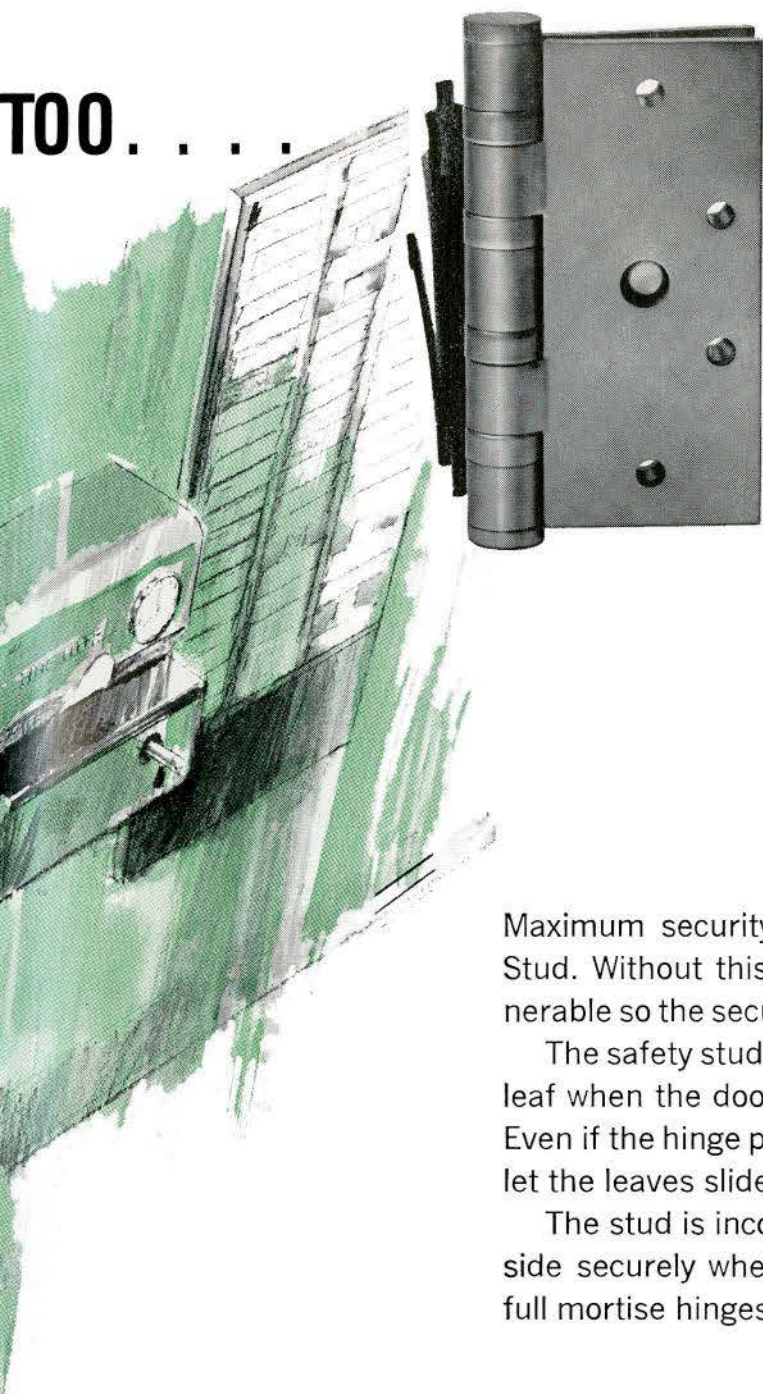


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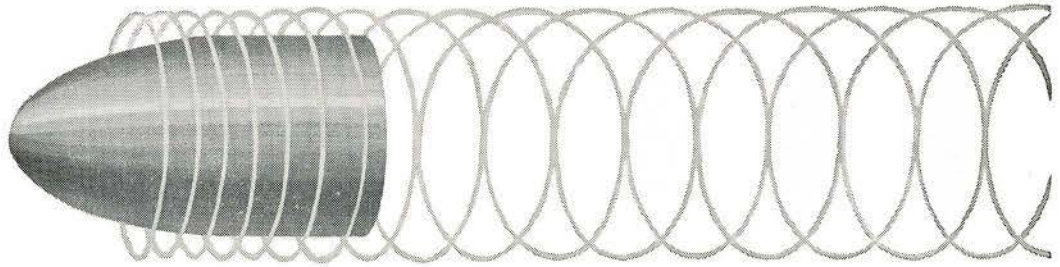
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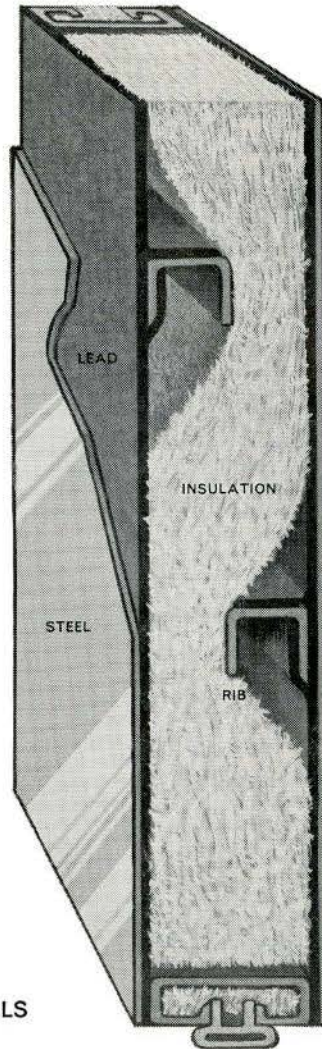


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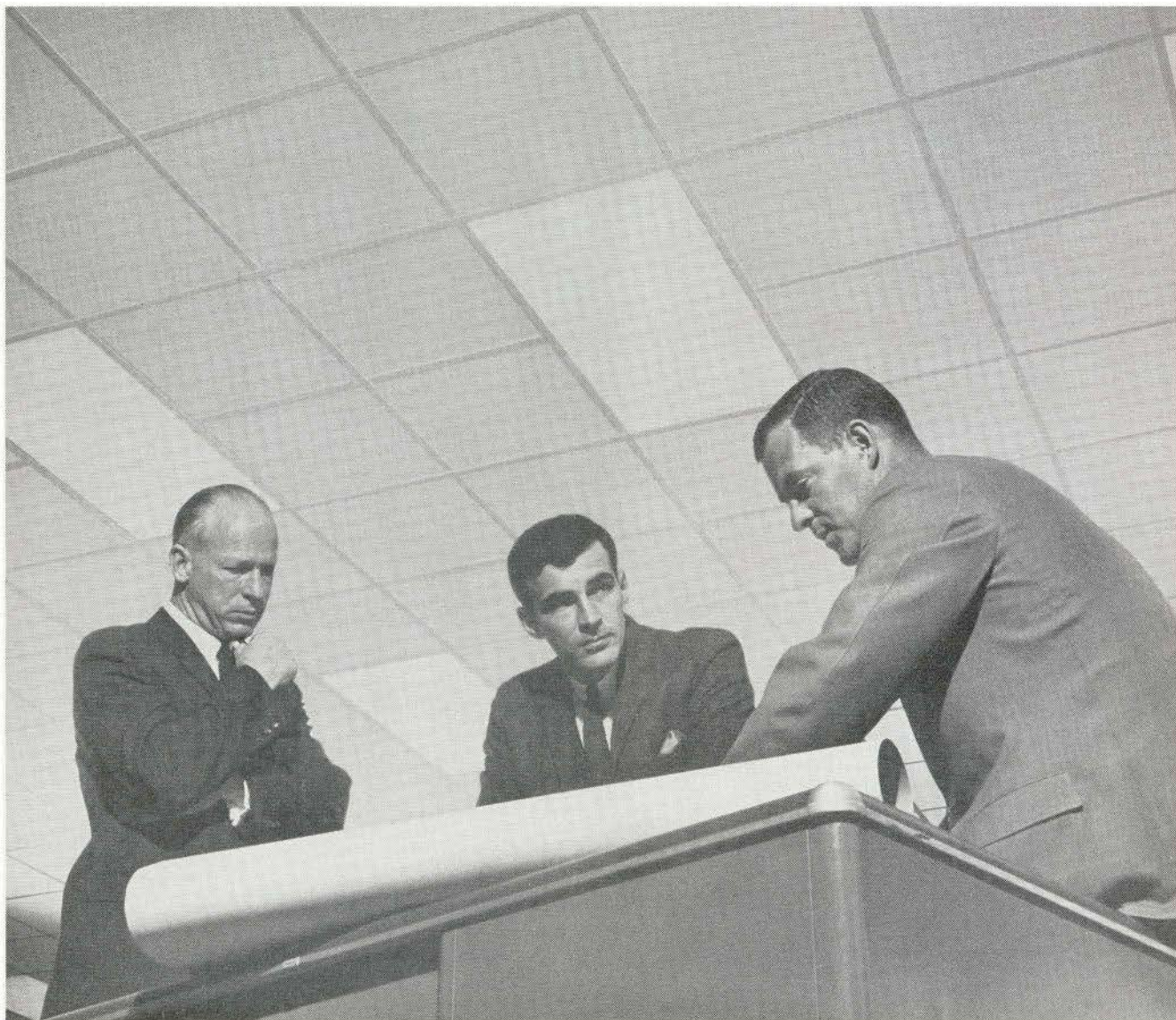
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Advertisements for positions wanted or vacant, appointments, changes of address, registration notices, notices of practices including establishment or changes in partnership, etc., are published as notices free to the membership.

Practice Notes

Frank J. Nicol, MRAIC, ARIBA, has resigned from the position of Director of the Division of School Planning, Ontario Department of Education, and has opened an office for the practice of architecture at Regency Row, 12 Berryman St, Toronto 5.

Walter Agius, B.E. & A., MRAIC, has opened an architectural practice in Toronto as of the 1st of January, 1966. He will be pleased to receive manufacturers' literature at 49 Wellington Street East, Suite 28, Toronto 1, Ontario.

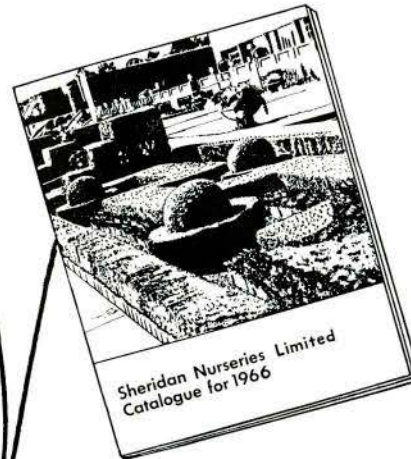
John B. Parkin Associates announce the opening of California office at 1801 Avenue of the Stars, Los Angeles, California 90067.

C. A. Fowler and Company Architects and Engineers, 5244 South Street, Halifax, N.S., announce that the partnership will henceforth be known as C. A. Fowler, Bauld, Mitchell, Architects Engineers. Members of the partnership are C. A. E. Fowler (F) B.Sc. B.Eng. B.Arch. MEIC, T. W. Bauld B. Arch., J. D. Mitchell, B.Arch. Admitted to the partnership in January 1966 are Vernon G. MacFawn B.Arch., George W. Rogers B.Arch., Peter W. Evans. J. S. MacDonald withdrew as a partner effective December 1965.

John Gallop, B.Arch., MRAIC, has opened private practice at 2459 Queen Street East, Toronto, as consultant in interior design, architectural graphics, color and related industrial design. Since 1959 he was with John B. Parkin Associates, responsible for interiors, graphics and product design.

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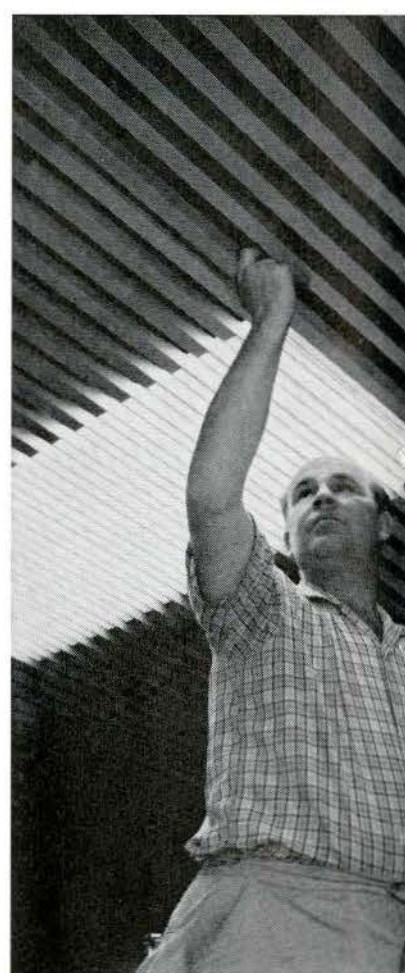
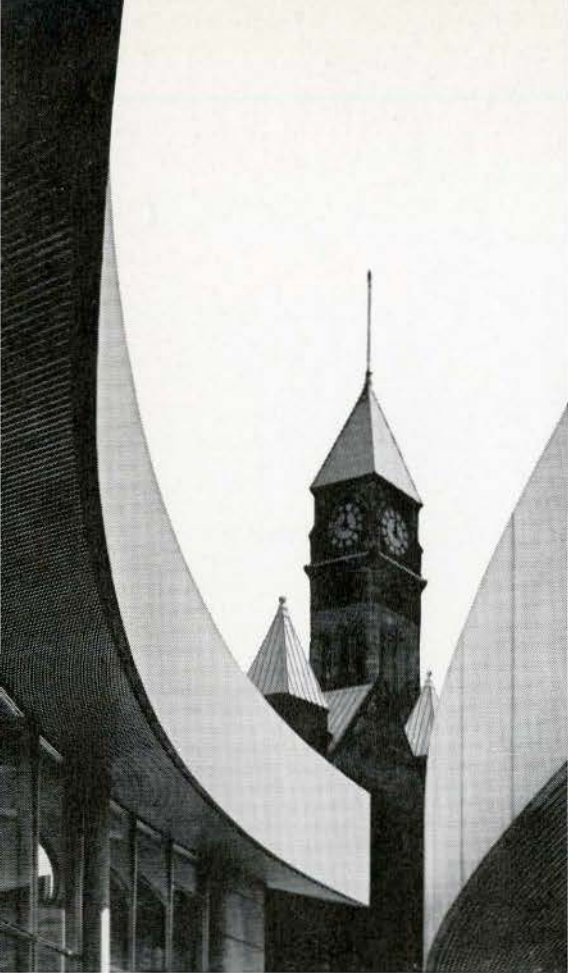
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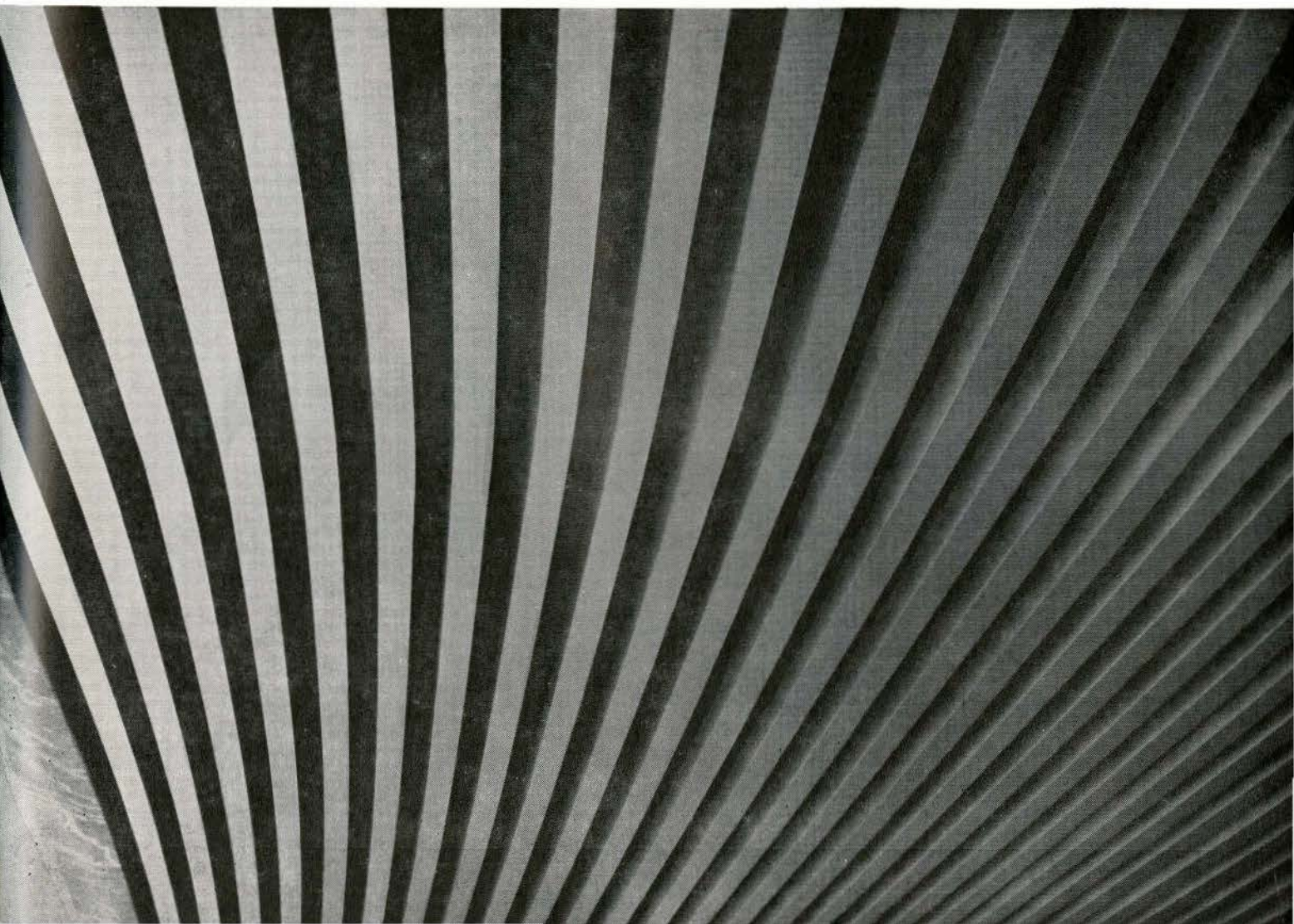
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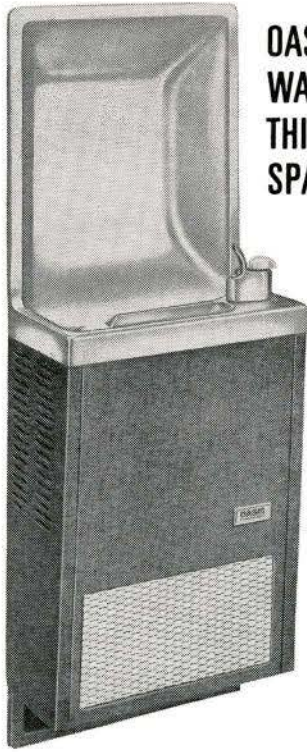
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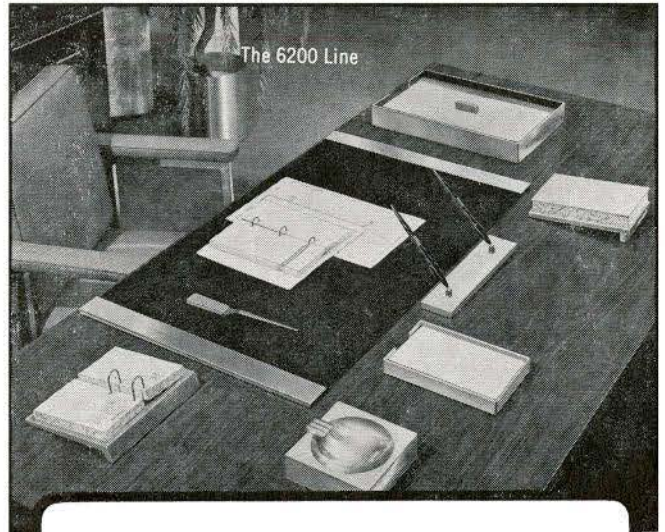


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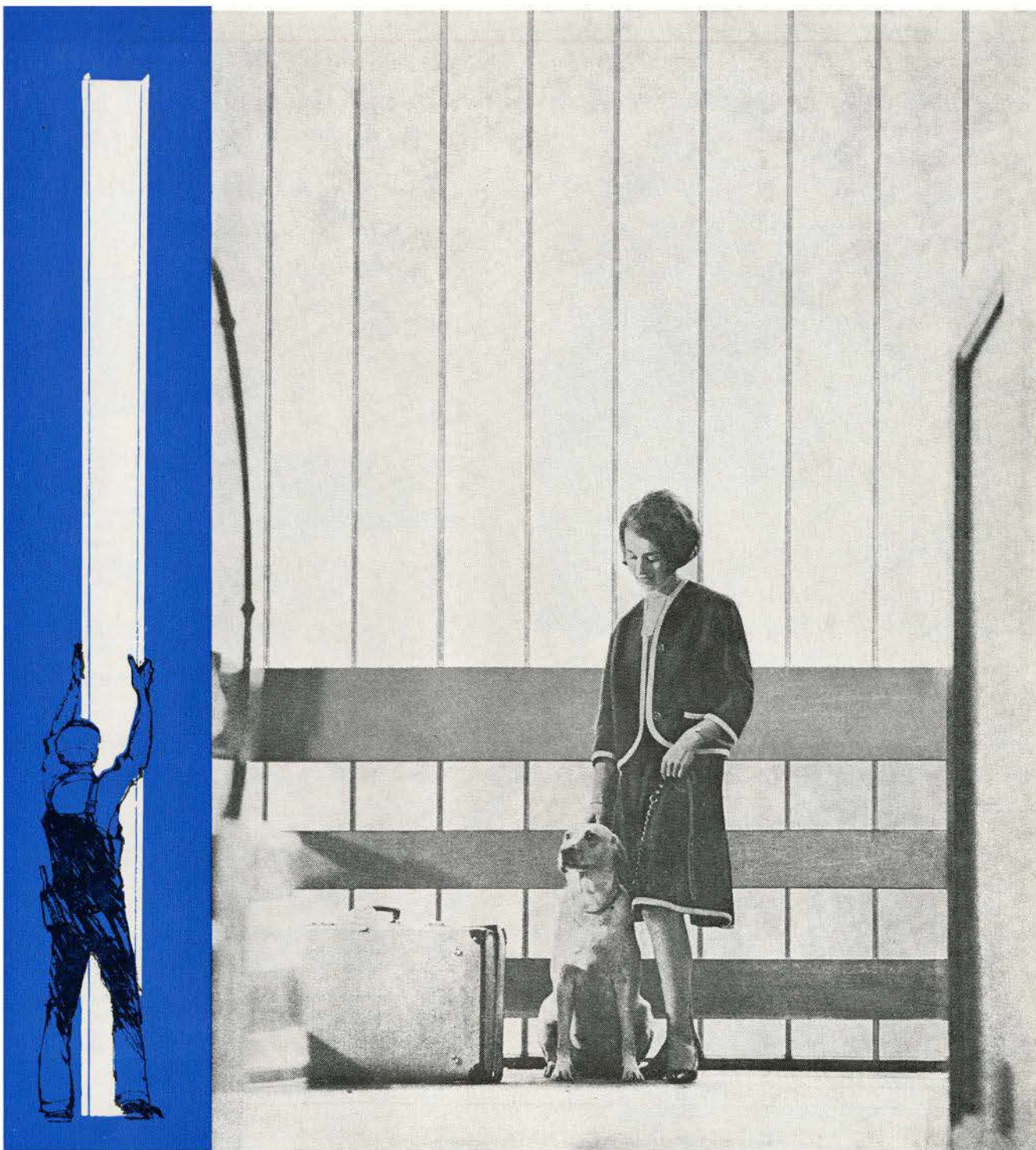
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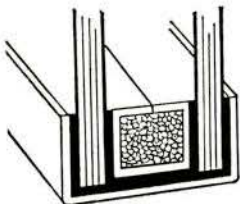
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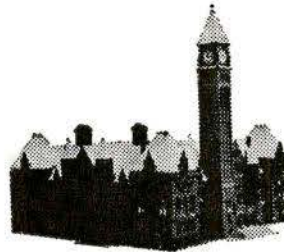
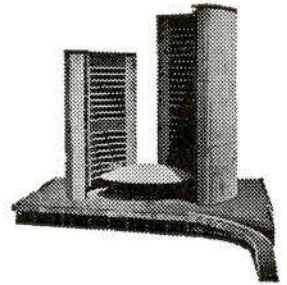


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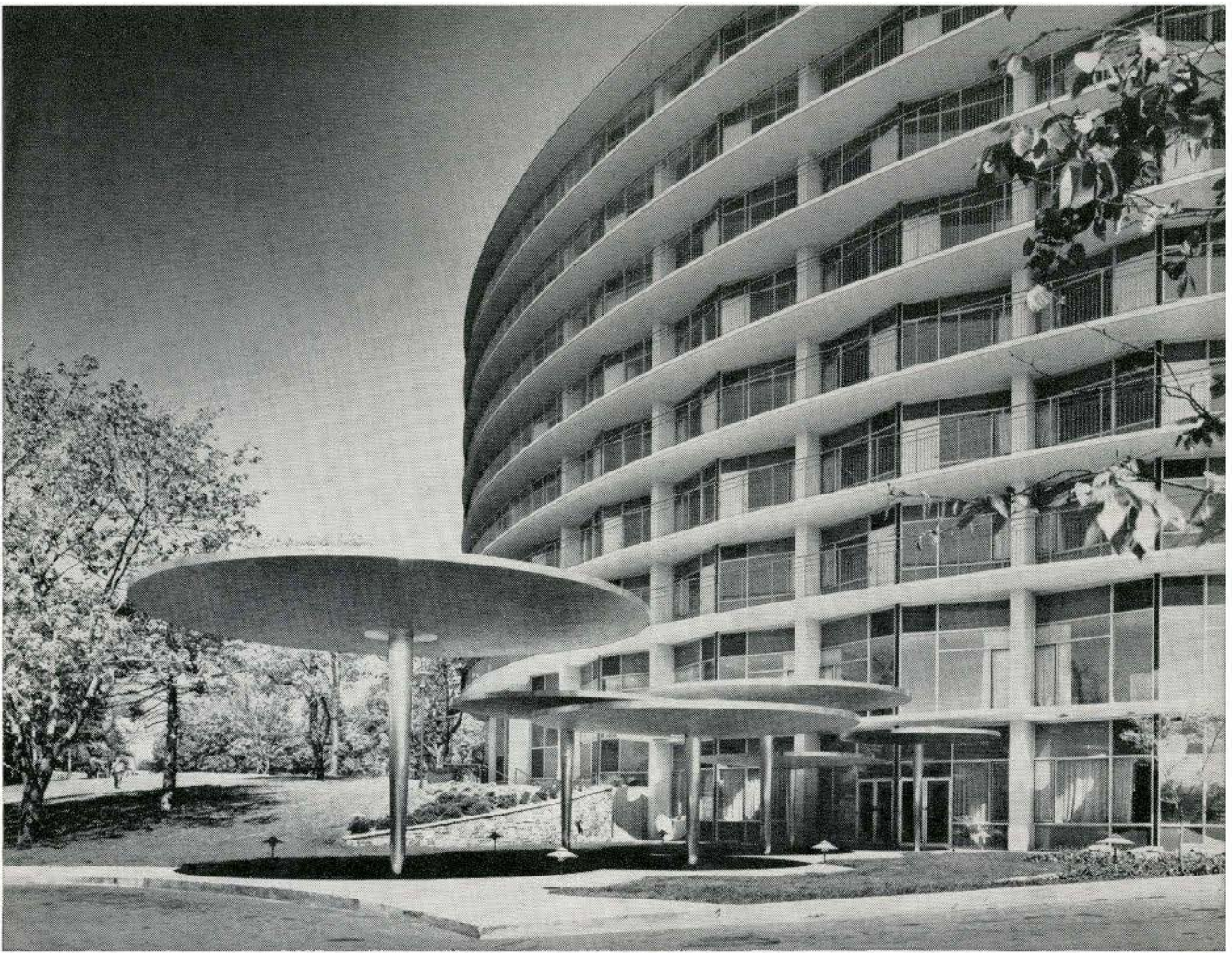
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L'Université de Montréal —dynamique institution de haut savoir—pare sa nouvelle bibliothèque de fenêtres CLERK.

Les Architectes ont spécifié des fenêtres capables d'étancher la tour de 714 pieds d'altitude contre des tempêtes de 100 milles à l'heure.

Leur devis exigeait une menuiserie métallique colorée et inoxydable encadrant un triple vitrage hermétique en verre anti-soleil luté avec un calfat imperméable, élastique et imputrescible.

L'entrepreneur, de son côté, stipulait que le fabricant produise et pose ces fenêtres dans un délai contractuel de trente jours.

Les Fenêtres CLERK ont entrepris et complété ce contrat à la satisfaction de tous.

Le même service est offert, à des prix très étudiés, aux architectes et entrepreneurs désireux de se procurer des fenêtres dignes des édifices dont on leur a confié l'exécution.

LES FENÊTRES CLERK LIMITÉE
Montréal, Canada

Architectes
Jodoin, Lamarre, Pratt et Carrière
Entrepreneurs
Cité Construction Limitée
L'Université de Montréal
Service des Bâtiments et Terrains
Normand St-Pierre, i.r.

