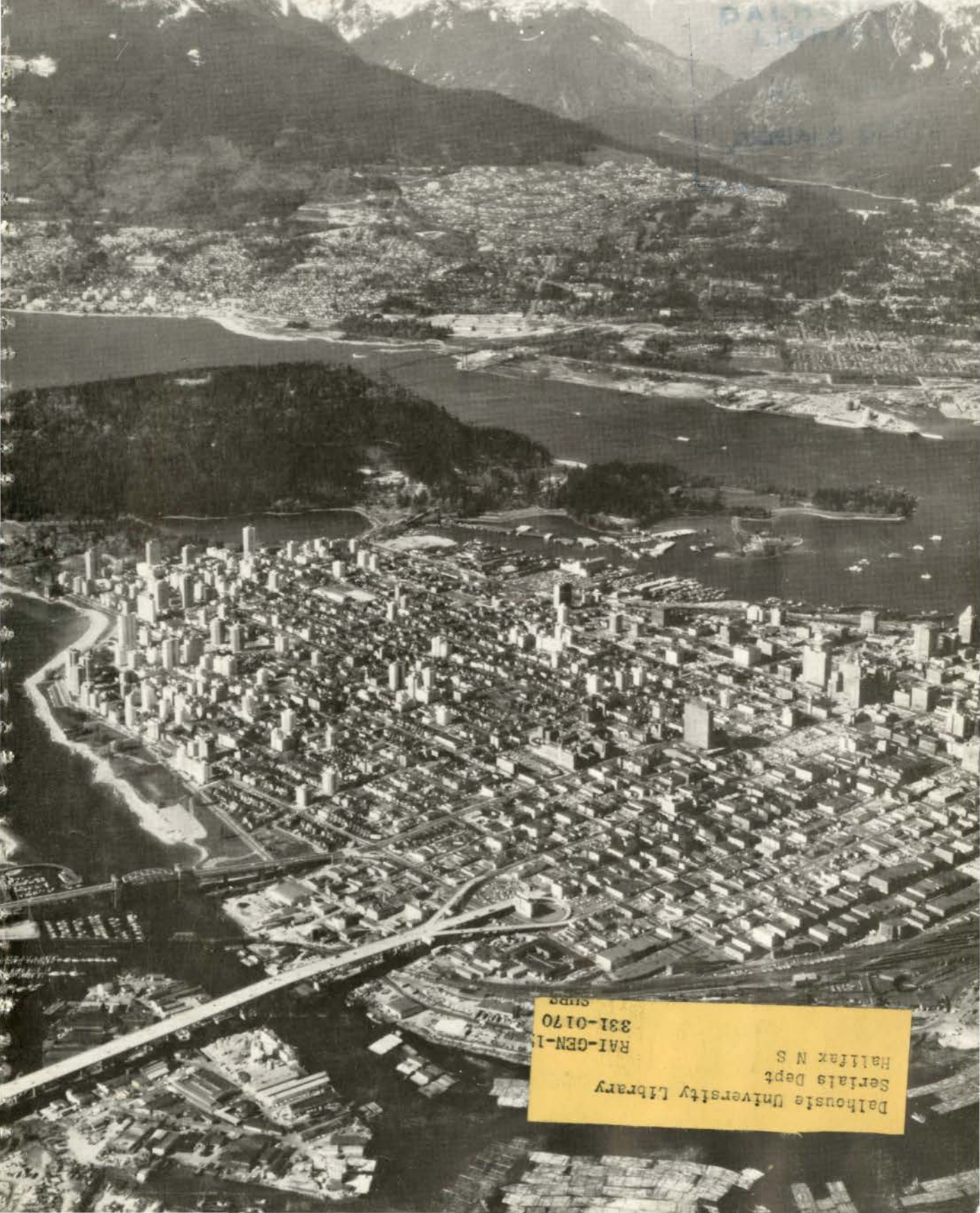


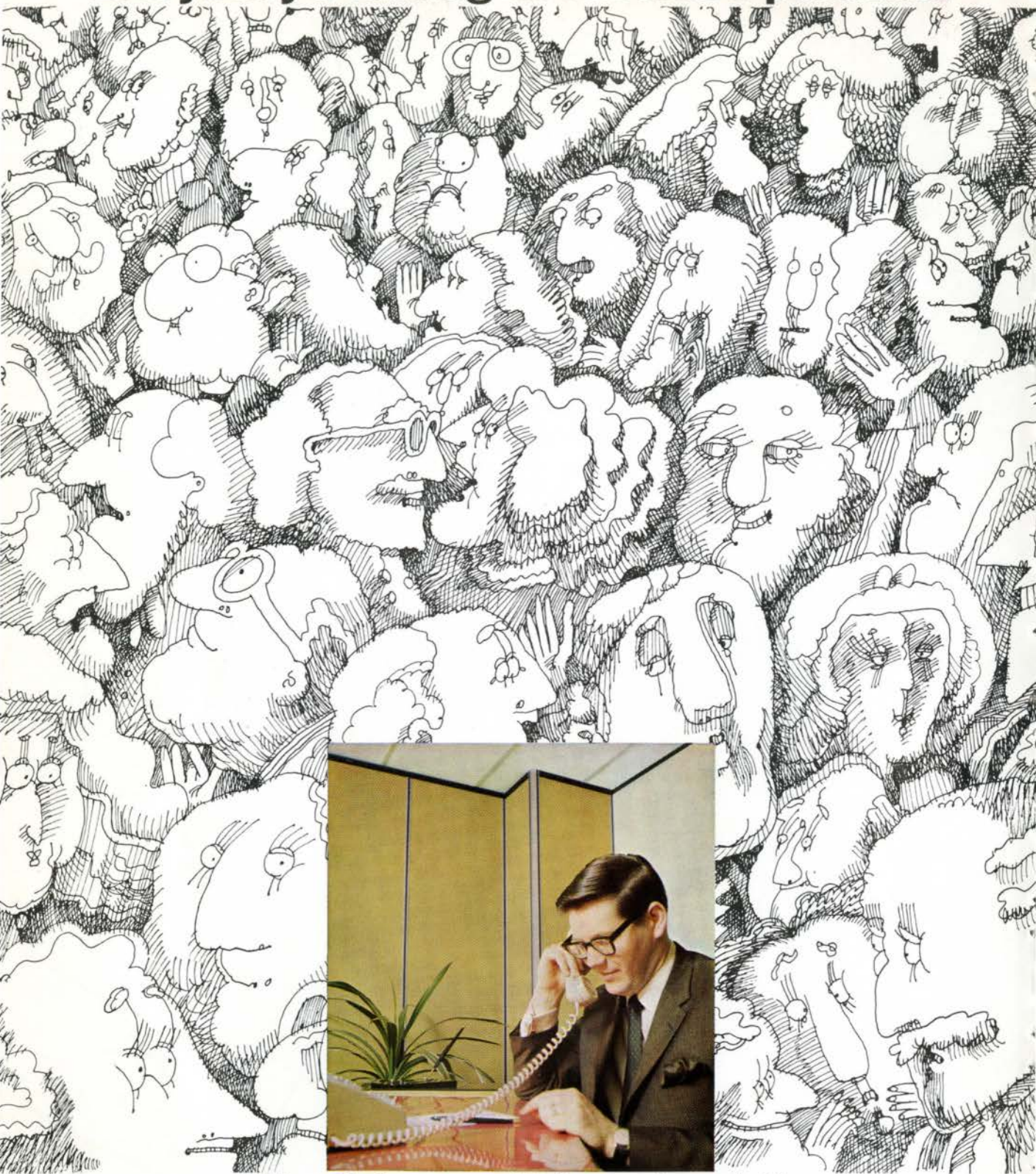
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June 1988 Juin - Number 6 Volume 16 - Journal RAIC | La Revue de l'IRAC



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**Trenton RCAF Memorial First Stage Winners**

Results of the first stage in the two stage competition for the RCAF Memorial at Trenton have been announced by the Professional Adviser, Dr Eric R. Arthur, FRAIC. The four finalists are Cohos-Delesalle & Evamy, Calgary; Victor Prus, FRAIC, Montreal; Michael Kopsa, Toronto; and Henri Brillon, St-Lambert, Que.

Judging of the second stage will be August 25. Dr Arthur reports that 460 registered for the competition and there were 99 entries. Members of the jury, who were unanimous in their election of the four finalists, are Charles Elliot Trudeau, MIRAC, Montreal; Brigadier General D. R. Adamson representing the RCAF; and Professor Charles Moore, head of the School of Art and Architecture at Yale.

**1969 Pilkington Award**

With only three out of seven eligible schools of architecture represented in the Pilkington Scholarship Award Competition this year, the 1969 jury has recommended that the sponsor should begin to consider the growing practice at most universities of thesis projects being the product of groups rather than of individuals. This year only McGill, Toronto and Manitoba had entries; British Columbia, Nova Scotia, Laval and Université de Montréal operate on the team basis and their possible thesis entries therefore were not eligible.

On the other hand, says a spokesman for Pilkington, group entries would result in changing the intent of the competition, which is to give an individual a scholarship adequate enough to enable him to advance his knowledge and experience through a year's travel. This objective, it is felt, might be defeated if the \$4,000 scholarship award were divided among four or five students. This view is shared by John Spence, FRAIC, this year's professional adviser.

This year's winner was Stanford Downey of McGill for his Youville Square, an environmental study of Old Montreal.

**CHDC Competition for Residential Design**

September 30 is the closing date for the 1969 Canadian Housing Design Council competition for residential design open to architects, builders, developers and designers. Single family houses up to 2,600 sq. ft. and any form of multiple housing development completed in the last five years may be entered. Entry folders are available from the Canadian Housing Design Council office, 250/252 CMHC Building, Montreal Road, Ottawa 7, tel. 213-746-4611. Judging will take place during October, presentation of awards in Ottawa, late November.

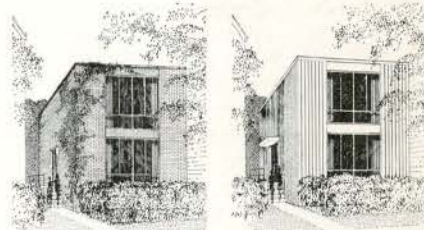
**Low Cost Housing Competition Chicago**

The results of a low cost urban housing competition sponsored by the AIA's Chicago Chapter and the Chicago Dwellings Association have recently been announced. The competition, intended to provide designs for \$15,000 or less for inner-city houses for families of four with annual incomes under \$9,000, was entered by sixty architects and students. The winning scheme (see drawings opposite) was for a 3-bedroom house by architect Joseph Burnett.

**Regina City Hall Competition**

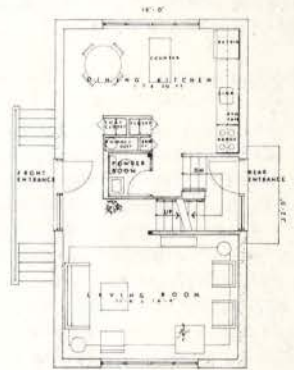
The Saskatchewan Capital may have an architectural competition for the design of its new city hall, and present indications are that entries will be limited to "architects who have practiced in Regina for some time". The idea for a competition was put forward last year by Mayor H. H. P. Baker. City Council sought the advice of the Saskatchewan Association of Architects, whose President at that time was local architect E. H. Grolle.

Mr Grolle, who continues to serve in liaison capacity between the SAA and City Council, says that Morley Blankstein, FRAIC, of Winnipeg, has been approached by Council to act as professional adviser if a competition is to be held. A decision is expected within two months. City planner

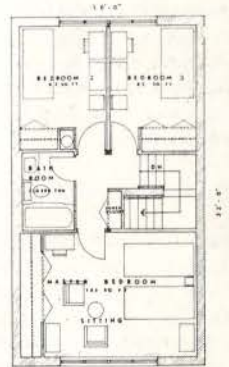


Elevation

Alternate elevation



First floor



Second floor

1 North End Library, architects Keith L. Graham & Associates

2 O'Brien Residence at Nova Scotia Technical College, architects Duffus, Romans, Kundzins & Rounsfell

3 Residence at Chocolate Lake, architect P. V. Esnouf

Résidence à Chocolate Lake

4 Extension, Nova Scotia College of Art, architects C. A. Fowler, Bauld & Mitchell

5 Miners' Museum at Glace Bay, architects C. A. Fowler, Bauld & Mitchell  
Musée de Mineurs, Glace Bay, N.S.

Harry Heinmark has examined seven different sites and reports favorably on three, all related to the civic centre site proposed in the city's 1961 master plan. This site, bounded by Victoria and 12th Avenue and Smith and McIntyre, beside the Court House, is owned by the city. A requirement study already prepared indicates that the building will be designed to accommodate City Council and the municipal offices, public and separate school boards and the police and fire department administrative services.

#### NSAA Design Awards

Five buildings have been selected for Awards of Merit in the first Nova Scotia Association of Architects Design Awards program. Eighteen entries from ten firms and one individual architect were judged February 8th in Chester, N.S. by a three-man jury consisting of Raymond T. Affieck, FRAIC, Montreal; A. J. Donahue, MRAIC, Halifax; and Alfred J. Hennessey, MRAIC, Charlottetown. Winners were: Keith L. Graham & Associates for the North End Library; Duffus, Romans, Kundzins & Rounsfell for the O'Brien Residence at the Nova Scotia Technical College; P. V. Esnouf, for a residence at Chocolate Lake; C. A. Fowler, Bauld & Mitchell for the extension to N.S. College of Art and the Miners' Museum at Glace Bay.

#### \$5,000 Annually to Schools for Research

Canadian Structural Clay Association will present annually two awards of \$2,500 each for the next five years, to Schools of Architecture undertaking research projects aimed at increasing architectural knowledge and aiding the advancement of the profession. Selection of the Schools to receive the awards is made by the Schools themselves — each project is chosen on the basis of suggestions submitted by the Schools to a three member Review Committee comprised of one member appointed by the Schools, one member of the profession and a representative of the Canadian Structural Clay Association. Waterloo and Nova Scotia Technical College will receive this year's award.



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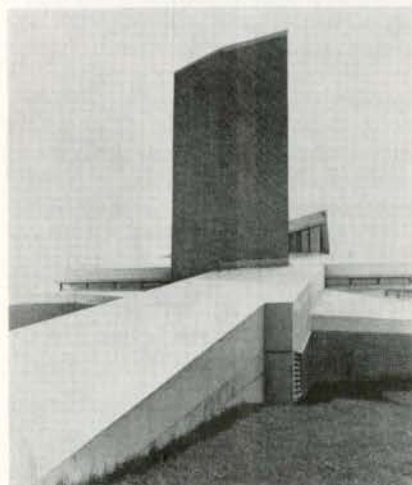
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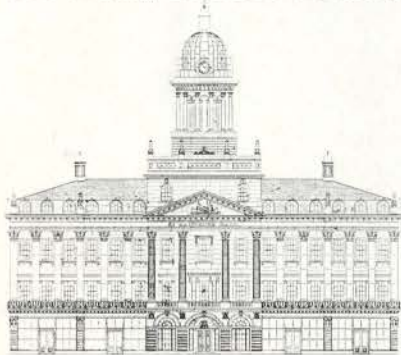
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5

Jowett

## St Lawrence Hall



### St. Lawrence Hall

Published by Thomas Nelson & Sons,  
Toronto, 1969; 186 pages, \$8.95.

History, architecture and human interest are combined in this delightful book based on Toronto's historic cultural centre. Saved from demolition in 1966 by the Toronto Chapter of the Ontario Association of Architects and the Toronto Construction Association who made its restoration their centennial project, the St Lawrence Hall was in 1967 adopted as Toronto's official centennial project (when city fathers found that all their other plans had fallen through). With this book the Toronto Chapter and Toronto Construction Association have once again contributed to the preservation of Toronto's past, as it was through their encouragement that this tribute to the Hall, and documentation of the struggle to save it, was published. W. E. Barnett (*F*), a driving force behind the decision to restore the Hall and largely responsible for the publication of the book, provides the introduction. Articles follow by Eric Arthur (*F*), who as chairman guided the Restoration Advisory Committee through many difficult times, Celia Franca, director of the National Ballet, and journalists Harry Bruce and Ken Smith. Of special interest to architects are the historical articles by Eric Arthur and Ken Smith's account of the restoration. The graphic design of the book by Paul Arthur, in his usual style except for the choice of a decorative type face, is generally pleasing. A.S.

### Urban and Research Council Grants

Among recent grants awarded by the Canadian Council on Urban and Regional Research went to Larry S. Bourne and John R. Hitchcock, University of Toronto and Gilles Giguère, of the University of Ottawa. Professor Bourne will study recent findings on Metro Toronto's physical and social structure, Professor Hitchcock, leisure time activity patterns in two Ontario planning agencies. Mr Giguère is concerned with the locational impact of urban parks in Ottawa.

### Hospital Construction Cost Registry Report

Cost data for all new general hospitals started in Canada in 1967 is now available

upon request to the Health Facilities Design Division, Department of National Health and Welfare, Brooke Claxton Building, Tunney's Pasture, Ottawa. Requests for copies may also be filled by telephone to 613-996-3859.

### Coming Events

1969 Athens Ekistics Month, July 7 – August 1.

1969 Joint Engineering Management Conference, Hotel Bonaventure, Montreal, October 9-10, 1969.

19th Olympiad Program for Meeting of Young Architects, Mexico City, October 7-10.

## The CANADIAN HOUSING DESIGN COUNCIL offers

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# A Voice for the Small Office

One of the great differences of opinion to develop among architects in recent years is the place, now and in the future, of the small and the large office. Last February *Canadian Building* published a series of articles and interviews under the general heading of "The Changing Face of the Building Industry", which included the views of a number of architects, among them Norman H. McMurrich, the President RAIC, C. F. T. Rounthwaite (F), John Spence (F), OAA Past President, James E. Searle (F), RAIC Past President, L. E. Shore (F), Ben Kaminker and Ray Affleck (F).

Strong exception to their views was taken by Roger Kemb'e, who conducts a one man practice in Vancouver. The questions raised are important, and while it may be unusual for one magazine to publish letters to the editor commenting on something published in another magazine, we do so in this case because of the nature and importance of the subject. In a second letter Mr Kemb'e says: "My reason for sending these comments to you is that I feel this type of dialogue *must* be expressed for the sake of the profession and I would prefer that it be kept in the family. We must always remember that *Architecture Canada* is a forum for *all* the members and we must be courageous enough to sustain that philosophy."

There follows Mr Kemb'e's letter, Mr McMurrich's reply to it and, with the kind permission to reprint of *Canadian Building* and its Assistant Editor, Mr Brian A. Kilgore, who wrote it, the interview with Mr McMurrich.

## From Roger Kemb'e

### The Editor:

I am writing this letter after ruminating for some months on an article that appeared at the beginning of this year in *The Canadian Building*. The article featured the professional views of a number of distinguished and senior members of our Institute, including our President, Mr McMurrich.

It was the remarks of our President that has caused me some concern, especially the remark to the effect that it is only possible for the larger offices to handle the more important architectural commissions in the modern world and that the smaller offices will – and in fact have – become interested only in artistic work (does he imply of no social significance?).

The article was supposed, I gathered, to represent the forward thinking views of our President as an opening forecast to the new year. It is regrettable that the worn out postulate that "biggest is always best" is the only tub that can be thumped by the President of the RAIC this year.

I think it is becoming vital at this stage in the progression of our society to emphasize diversity. Large and small, all textures and all colours have a vital part to play in today's complex world – even the business world. This unsatiable urge for architectural firms, or for that matter any organization, to become bigger and bigger until everyone is merged into one huge passive, "efficient-

ly" humming but deadly machine is not only out-moded now but it is a threat to our well being.

With the above in mind, and as our society becomes more and more complex, I think it is worth mentioning just a few of the advantages of the small, independent consulting firm and individual architect.

Above all the individual architect is morally responsible, personally, for what he does. As he gains experience, that experience is still useful on the work he handles because it is not relegated to the next draughtsman or junior architect who becomes available. The independent architect's decisions are made independently of other business commitments in that he is not committed to a large overhead. In the event of big planning projects independent architects may come together as a consortium, thereby bringing to the project a diversified background of experience and a fresh approach. It is worth noting that several campuses in the Eastern US have already come to this conclusion. The small office and architect is just as capable as any other larger organization of carrying out in-depth studies and research; it has available just the same source of information.'

In the small firm the architect is responsible for all work throughout its development. He works on the sketch plans, working drawings, specifications and supervision, never losing sight of the fact that his reason for being is the proper functioning of an environment in years to come. This contrasts with the big organization where the specialist is cooped up in his own narrow net completely divorced from reality. How can an architect be only interested in design? Architecture and building must respond to social forces – it is no longer only a problem of forms and pretty baubles.

It is worth remembering that bigness is neither new nor particularly efficient. It has been known throughout history in the form of armies, usually as a destructive weapon. Bigness in Architecture is not new either, nor is it proven in efficiency. It has been on this continent, at least one hundred years – remember McKim, Meade & White Burnham & Roote, etc. It may be possible to say that if, as our President points out, it has been responsible for the bulk of our architectural work, then it must be responsible for the moribund condition from which I am not at all certain urban architecture has yet emerged.

There is strong evidence to support the assertion that the treadmill atmosphere of anxiety that is fostered within the large office is responsible for alienating the more creative younger generation away from the profession. The big office exists because it is in the interests of bureaucratic management, to keep building out of the hands of the people where it rightfully belongs. It is more administratively convenient that way.

It is fallacious to forget that in fact architecture, that is the act of designing and building, is folk art and it belongs with the people and I predict that within ten years it will be returned to them.

There are, of course, opinions on both sides of the coin. No doubt

It is possible to prove anything logically depending on the side of bed one rises from. However, there is an urgent need for all forms of diversity in our profession and in our society.

This need is not going to be furthered by responsible members reiterating old wives tales that are dubiously founded on self interest. When the President speaks publicly as the President of the RAIC he must not confine his thoughts to the small group with whom he happens to lunch. When he speaks for me he must think of me also.

Roger Kemble, MRAIC, Vancouver

#### From Norman H. McMurrich, PRAIC

##### The Editor:

It is encouraging that Mr Kemble has taken the trouble to make such a full comment on the *Canadian Building* article. Let's hope that more architects in the future will be willing to spend some time in stating their view-point on important matters.

I believe that Mr Kemble's letter should be published in *Architecture Canada* as soon as possible together with a copy of the *Canadian Building* article. I also ask that this letter be published as well.

N. H. McMurrich, President RAIC

#### The Comments in Question: Mr McMurrich Interviewed by Canadian Building Assistant Editor Brian A. Kilgore

Every architect is aware that trends and changes now taking place in the construction industry could affect his profession fundamentally. Other disciplines and skills are seeking to share the pinnacle position which the architect has for so long held. In the schools of architecture, the search for wider, more applicable, perhaps more practical training is continuous.

It was against this background that we interviewed Norman McMurrich, President of the Royal Architectural Institute of Canada, and it was possibly why he confessed:

"No doubt something is happening but I'm probably more puzzled than most about what changes exactly are going on. I get to see more of the problems than the average architect, and the leader gets to see something of the complexity of the changes."

But he did have this to say:

"More and more architects are becoming employees of non-architects, instead of going into general practice. In 15 or 20 years, it is quite possible that the majority of architects will be employees of someone else, rather than self-employed."

He pointed out that some architects wish to do little but design buildings; others become involved with the financing, site selection, material choice, construction supervision and hundreds of other tasks.

"By picking his type of employment and his clients, the architect today and, in the future, can tailor his job to his own desires, instead of the traditional all-encompassing role of the past."

Mr McMurrich noted that in the United States, the AIA, with over 30,000 members, has employed a team of consultants to tell them what is happening. Preliminary results are expected by June, and they will apply in large part to the Canadian situation also.

The changes taking place in Canada seem to be centred around three areas. The schools are producing a new breed of architect, the established architects are changing, and clients are forcing new methods on the profession.

Developer proposals, temporary (single project) joint ventures, and similar recent innovations are causing architects to change their working methods. He sees these changes closely in his own firm, and more distantly with other architects across the country. How architects adapt to these ideas varies with the personality of the individuals involved, and the seeming conflict between two

forms of architectural evolution.

"Architecture," Mr McMurrich says, "is becoming more and more a business, and less and less a profession." On the other hand, "a lot of small firms are giving up business to get more involved in the art end of architecture."

In joint ventures, where more than one architectural firm shares a project, and in developer-proposals, where the architectural firm is often the employee of the general contractor, it is necessary for fees to be negotiated. This fact alone means the architect must be more of a businessman.

How much control over a project does an architect have under these circumstances? Mr. McMurrich says, "The calling of the shots is largely predetermined by the owner." Enlarging on this, he goes on to say that the architect picked for a job is chosen partly because his ideas of what he wants to control coincide with the thoughts of the owner.

In this way, an architect who demands complete project control, much like the traditional methods, would be picked by an owner who wanted little responsibility himself. In other cases, an architect who wanted little to do with the business management side of the project, and was more involved with design, could handle jobs for other owners.

Are architects specifying as much as they used to? Canadian Building asked Mr McMurrich, and got an answer he admitted was hedging, but was the most honest he could give.

"I don't know which way it's moving," he said, "why don't you ask the specification writers?"

He elaborated later, saying it depended on the architect and how much control was agreed upon between the client and the architect. In developer-proposal projects, it seems reasonable that they would most frequently be the team member best qualified to select materials in consultation with the men who have to install them, and the men who pay the bills.

The increasing popularity of the temporary joint venture concept is seen by Mr McMurrich as an important step in the changing role of the architect. Where, a few years ago, an architectural firm would hire extra staff for a project and then lay them off when the job was finished, today the architects will go into a temporary partnership deal sharing the responsibility with other architects, and splitting the fee.

The new generation of architects being trained in schools today is bringing much in the way of new ideas and attitudes to the profession. "Traditionally, 90% of the graduates wanted to go into 'general practice', now more and more are interested in 'welfare architecture'," Mr McMurrich believes.

They are more concerned with humanity and sociology than they are with the straight business oriented aspects of architecture.

This isn't as good a thing for the profession, and for society, as it might first appear, he continued. There is almost a total denial on the part of these students to consider the good things which architecture in the past has brought about, and to see and appraise the failures of the past to make sure the same mistakes aren't repeated again. Instead, many of today's students appear to feel that architecture is a profession with a good future, but only if it is changed entirely.

A lot is done by architectural school staffs to promote this view point. "These staffs are out of sympathy with the rest of their profession," he believes, although the stated desire to improve life in the country for everyone through better architecture is a tribute to the staffs and students.

Using the experiences of the past coupled with the desire to improve the future could benefit the entire country. Government aid in experimental architecture in a field that would also serve the public, such as health centres, could combine the idealism of the new breed with a tangible benefit for all of society.

**90th Annual Exhibition**  
**Royal Canadian Academy of Arts**  
**Académie royale des Arts du Canada**



**Founded by HRH Princess Louise  
and the Marquess of Lorne, 1880**

*Clare Bice, LL.D., RCA, President,  
John C. Parkin, FRAIC, FRIBA, RCA,  
Vice-President; Alan C. Collier, RCA,  
Hon. Treas., Mrs. H. T. Girard, Sec. Treas.*

The Royal Canadian Academy of Arts  
Ninetieth Annual Exhibition will be held  
at the National Gallery of Canada from  
January 29th, 1970.

**Jury**

All architects practicing in Canada are  
invited to submit work for consideration by  
the Jury of Selection — Douglas Rowland,  
*MRAIC, ARCA*, Chairman, Keith Spratley,  
*MRAIC, ARCA*, Hart Massey, *FRAIC, ARCA*,  
and Jean-Louis Lalonde, *MRAIC, ARCA*  
(alternate).

**Conditions**

- 1 Buildings submitted shall be limited to two, representing work completed subsequent to December 31, 1965, and not previously exhibited in an R.C.A. Annual Exhibition.
- 2 Photographs shall be 8" x 10" glossy, black and white or sepia. As many photographs as the architect feels are desirable may be submitted.\*
- 3 Submissions are to be accompanied by at least one interior view, and at least one sketch plan (which may be rough,) to indicate internal arrangements.
- 4 If an architect feels that an existing model of a building submitted would add greatly to its interest, he is particularly invited to include a photograph of same, but should state the dimensions of the base of the model, which he would be prepared to make available for presentation.
- 5 If accepted by the Jury, the architects shall be required to provide at their own expense, photographs (mounted) of a size to be established by the Jury.
- 6 Submissions (8" x 10" photographs) and sketch plans must be received at the Royal Canadian Academy, 11 Roosevelt Drive, Thornhill, Ontario, on or before Wednesday, Sept. 3, 1969.
- 7 The decision of the Jury shall be final.
- 8 While the greatest care will be taken at all times, works submitted for exhibition shall at all times be at the risk of the exhibitor. If the exhibitor requires insurance

\*Photography should be done to catch the best light; it is important that landscaping should be at its best and show to advantage.

to cover the work for loss, theft, accident, damage by fire or water or negligence, or other peril, while on exhibit or in the custody of the Academy or Gallery or place of exhibition, or in transit to or from the place of jurying or the gallery where the exhibition is to be held, or in transit or on tour between galleries or places of exhibition, the exhibitor shall provide his or her own insurance and the exhibitor releases the Royal Canadian Academy of Arts and the art galleries concerned and any other place of exhibition or storage and their officers and servants respectively from any or all claims.

9 It is planned to supplement the photographic presentation of the buildings with if available:

- (a) perspectives, and design evolution drawings indicating the development of the thematic idea.
- (b) photographs of examples of the allied arts commissioned for the building and integrated with the architecture.
- (c) photographs of fittings and furnishings, street furniture, etc., which would also better indicate the building's function.

**Entry form**

*Please fill in and sign the entry form on  
the reverse side and mail it to the Secretary,  
11 Roosevelt Drive, Thornhill, Ontario, not  
later than Wednesday, September 3, 1969.*

**90th Annual Exhibition**  
**Royal Canadian Academy of Arts**  
**Académie royale des Arts du Canada**

To be held in the National Gallery of Canada  
 from January 29th, 1970

To the Secretary  
 Please receive for Exhibition the following  
 works, subject to the conditions of your  
 circular:

**Entry Form**

| No. | No. of<br>Photos and Plans<br>Submitted | Titles of Works<br>Please Print in Block Letters | Year<br>Executed | Is Model<br>Available | Size of<br>Base |
|-----|---|--|------------------|-----------------------|-----------------|
| 1   |   |  |                  |                       |                 |
| 2   |   |  |                  |                       |                 |

Architect's Name.....  
 Please print in block letters

Two works only may be submitted. Please  
 fill in and sign this entry form and return it to  
 the Secretary, 11 Roosevelt Drive, Thornhill,  
 Ontario, on or before Wednesday,  
 September 3rd, 1969.

Architect's Signature.....

Street Address.....

City.....Province.....

Telephone.....

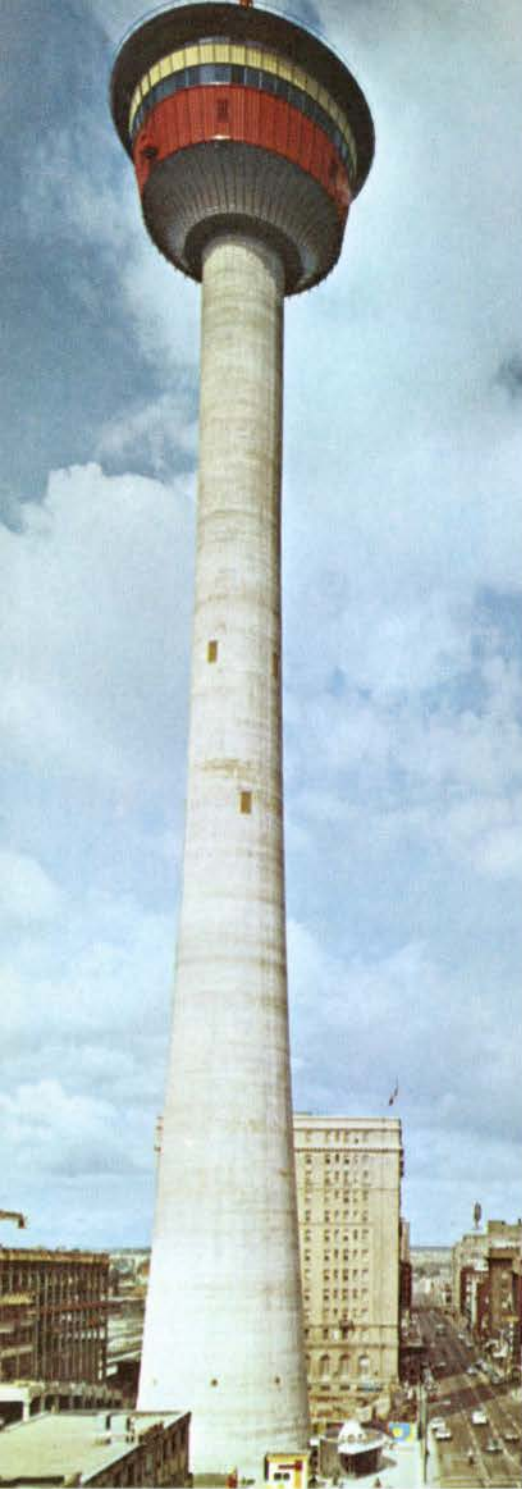


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1 The spectacular Husky Tower, Calgary, Alta.



2 War Memorial Sports Complex, Acadia University, Wolfville, N.S.



3 The rugged beauty of the Brantford City Hall, Brantford, Ont.



4 Futuristic design for the Saskatoon Centennial Auditorium.

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**CANADA CEMENT COMPANY, LIMITED — A Canadian-owned**



5 Madonna di Pompei Church, Montreal.



6 Centennial Concert Hall, Winnipeg.



7 Holy Trinity Church, Ottawa, Ont.



8 The Chateau Lacombe, Edmonton, Alta., a concrete duononagon-shaped hotel.

# CONCRETE



1. Project Architects: A. Dale & Associates  
Genl. Contr.: Poole Construction Ltd.  
Ready-mixed concrete: Gallelli Construction Materials Ltd. and South Side Concrete Mix Ltd.
2. Archts.: Shepley, Bullfinch, Richardson & Abbott Assoc. Archts.; Leslie R. Fairn & Associates  
Cons. Struct. Engrs.: D. B. Dorey Engineering Ltd.  
Genl. Contr.: V. C. Woodworth (1964) Ltd.  
Precast concrete panels: Pyramid Structural Concrete  
Pressressed beams: Strescon Limited  
Ready-mixed concrete: Maurice's Ready Mix Ltd.
3. Archt.: Michael M. Kopsa  
Cons. Struct. Engrs.: C. D. Carruthers & Wallace Consultants Ltd.  
Genl. Contr.: V. K. Mason Construction Ltd.

- Precast concrete members: Sandrin Precast Limited  
Ready-mixed concrete: Red-D-Mix Concrete Limited
4. Archts.: Kerr, Cullingworth, Riches, Associates  
Cons. Struct. Engrs.: Choukalos, Woodburn, McKenzie, Maranda, Ltd.  
Genl. Contr.: Burns & Dutton Construction (1962) Ltd.  
Precast, prestressed concrete members: Con-Force Products Ltd.  
Ready-mixed concrete: Redi-Mix Concrete Ltd.
  5. Architect: F. A. Dawson  
Cons. Struct. Engr.: Felix M. Kraus  
Genl. Contr.: Pisapia Construction Inc.  
Ready-mixed concrete: Francon Limited
  6. Archts.: Associated Architects for the Manitoba Cultural Centre

- Cons. Struct. Engrs.: Moody, Moore & Partners  
Genl. Contr.: Trident Construction Ltd.  
Precast and prestressed concrete members: Supercrete Ltd.  
Ready-mixed concrete: McCurdy Supply Co. Ltd.
7. Architect: Basil Miska  
Genl. Contr.: Aselford-Martin Ltd.  
Precast, prestressed and ready-mixed concrete: Francon Limited
  8. Architect: John A. MacDonald  
Cons. Struct. Engrs.: Read, Jones, Christoffersen Ltd.  
Genl. Contr.: Redden Construction Ltd.  
Masonry Contr.: Holm's Masonry (Northern) Ltd.  
Precast concrete members: Redden Construction Ltd.  
Ready-mixed concrete: Alberta Concrete Products Co. Ltd.

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\*T.M./3

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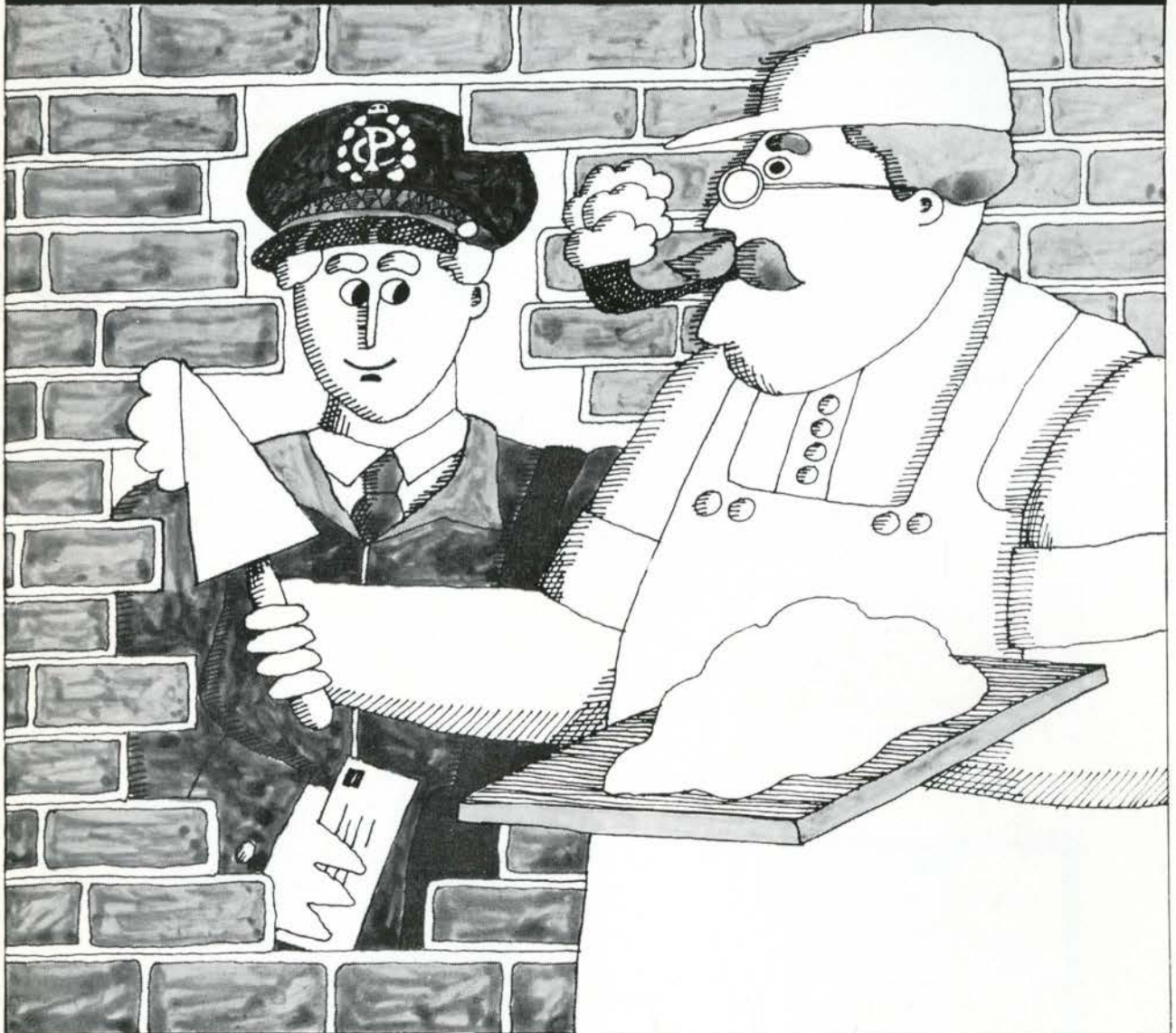
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# How to Commission a Work of Art

Some Guidelines . . . Ideal and Practical

This article has been prompted by the increasing requests directed to this office for procedural guidelines for including works of art in both government buildings and large private complexes – universities, hospitals, banks and large corporation offices. It is sincerely hoped that suggestions made will draw forth comment and further suggestions from architect readers and that together, by publishing facts, we will be able to emerge with workable procedures for both parties, artist and architect.

Experience of the last few years shows that art work for buildings falls into four categories:

- 1 Closely integrated work in collaboration with the architect which becomes part of the structural system.
- 2 Integrated adjunctive items such as murals, light walls, doors, theatre curtains, stained glass fenestrations and special artifacts which may be said to embellish the structure and which result in a more or less permanent environmental change.
- 3 Separate, free-standing sculpture or large paintings, tapestries, etc. for special settings or areas.
- 4 Work purchased for decor – furniture, pictures, fabrics, rugs, etc.

## Modus Operandi

Ideally, in all categories the attitude should be to call in the artist or artists who are to collaborate at the conceptual stage of planning. Unfortunately, most architects are still culpable (even when a percentage of the building cost is known to be set aside for art work) in leaving the choice of artist until the last stage of the building process. For example, when it is known that art works are eventually to be collected, as in university complexes, planned areas for isolation or vistas should be allowed so that a sensitive absorption of art products into the architectural complex is possible.

## Section 1 – Closely Integrated Art Collaboration

It has been the experience of those architects who with artists have planned structured modules for walls, etc., that a close relationship with the kind of artist he feels he needs must take place during the pre-natal stage of planning. Since this area of

architectural art is very much in the pioneering stage those artists and architects who have already distinguished themselves in the field will furnish the best guidelines. New relationships with other approaches will undoubtedly add to a most sensitive and gently developing practice of "art" thinking in structuring buildings, the delicate balance between pure function and art aesthetic. Artists Ted Bieler, Robert Downing, Jordi Bonet, Gino Lorcini, Mario Merola have already made distinguished contributions to architecture, and tend to work in a free wheeling association until actual visual possibilities are evident.

### Stage 1.

Stage 1 may be said then to be usually one of free verbal exploration on the usual consultation basis. Just how much "free" consultation is a matter of personal relationship but after two sessions it should be clear that the artist and the architect are employed in research and this should be budgeted as such. At this moment in the history of a new association it is wise for the architect and artist to arrive at a mutual agreement until custom establishes a sensible mean.

### Stage 2 – Preparation of visual matter (drawings, models, etc.)

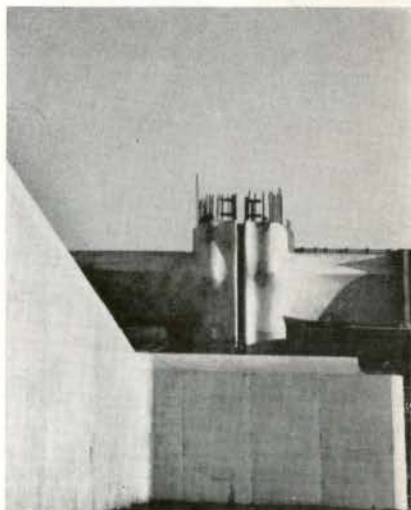
All models and drawings should be paid for with the fee if a contract ensues. Fees should be cast in relationship to the time spent and size of presentation model. A fee should also be set for the prototype experimental models for the use by the contractor.

### Stage 3 – Commitment to Contract

At this stage it will be clearly seen that a contract for the artist's services is likely to fall into two sections:

- a as designer in collaboration for the prototype forms, and
- b as advisor and supervisor to the contractor.

The artist may make a contract as a unit or for separate entities. In the case of either a separate or an embracing contract the value of the commission will obviously depend on the overall amount allocated for the total building. However, the cost structure on an



1, 2 Integrated "forms", Whitby Hospital, by Ted Bieler. Architects Craig, Zeidler & Strong "Formes" intégrées, Hôpital du Whitby

individual element rather than on a mass produced item will greatly affect the pricing of a commission. Mutual understanding of the cost problems and a clear understanding of the artist's responsibilities in the carrying out of commission must be clear if friction between parties is to be avoided. Finally this delicate new relationship will be found to require individual interpretation for each project, for those involved have revealed entirely different methods of approach.

## Section 2 – Integrated Adjunctive Items

It is in this area – the commissioning of murals, stained glass, etc. – that we have the most experience for reliable guidelines.

*Stage 1. – to misquote Mrs Beaton . . . "first net your 'bird' " . . . the artist.*

Reliable sources of choosing artists for commission exists for the architect through:

- a The RAIC Allied Arts Catalogue, Volumes 1 and 2, obtainable from the office of this publication.
- b *Architecture Canada's* Allied Arts Department and its files of artists and craftsmen.
- c Leading private galleries.
- d *arts/canada* and its published articles on contemporary artists.
- e Curators of Contemporary Art at national and provincial galleries throughout Canada. And last but not least, the architect's own familiarity with the best exhibiting artists on the local and national scene.

For government commissions the architect is free to choose his artists but must have his choices approved by a special committee (see *A/C, Commissioning Public Art, October/68, page 29*).

When the architect is not persuaded to the work of a particular artist it is wise to choose four or six artists, depending on the size of the commission, examine examples of their work and at the same time ask for their ideas or reactions to the project. This in no way obligates either party but it does open up the field for ideas.

### Stage 2

Having selected the artist or artists, preliminary sketches can be requested at a nominal figure of not less than \$20 per rough sketch.

### Stage 3

After discussion with one or all artists, presentation models or drawings along with submission of photographs, preferably color transparencies, of work (especially with public works commissions) can be requested. A fee should be set for these at a minimum of \$100 waived in favor of the contract. Where sketch models are to be retained by the commissioning party, a larger fee could be expected, especially when the presentation has intrinsic value as a separate item. At this stage it is favorable to keep more than one artist under review so that if

there is a break-down at any stage of the negotiations the commissioner is saved going over all the ground again.

When the final ideas are approved then a contract may be signed.

### Stage 4 – Contracts

A government contract exists for all public works projects. It is perhaps about time that a general contract was redesigned by the RAIC for the general use of architects and artists throughout Canada. Government contracts allow for:

- a 20% of fee on approval of preliminary study
- b 30% of fee on approval of final design
- c 40% of fee when work has been completed, inspected and approved
- d 10% or the balance of the fee to be retained and released sixty days after final acceptance of the art work and the structure to which it is affixed.

Government contracts are rather harsh on the artist in the matter of installation and insurance and ought to be well examined before costing out commissions. Architects and artists have formerly worked in a mutually beneficial manner as far as to the sharing of insurance and installation costs. Such costs are generally covered in the architect's scheme, it being most economical to all parties that way. Installation problems arising out of union rules are also best covered in the same manner.

## Section 3 – Free Standing or Separate Works

Again, the artist should be selected early in the project and become familiar with the planning and "scale" of the site, as well as the environmental "feel" of the situation. The artist should, however, be asked to design having due regard for his own image; indeed it is quite possible that an artist be selected by the architect for that reason alone.

### Stage 1

Artist or artists should be invited to respond to both the idea and the monetary allowance for the situation simultaneously. Examples of work and discussion may be asked for with no obligation to either side.

### Stage 2 – Sketch Models or Submission of a Work.

The fee for model or sketches should be on a scale of not less than \$100 for every \$5000, to be waived in favor of a contract.

### Stage 3 – Contract

On the signing of the contract at least one third of the commission should be paid as a progress payment.

### Stage 4 – Progress Payment

Progress payment should be made at the

### Stage 5 – Final Payment after Installation

At all times the architect should play a vital part in the choice of an artist or craftsman. No committee alone should be the final arbiter for commission. If there is to be a growing empathy between artists and architects, the architect's initiative must not be bypassed for any reason. His understanding of scale alone should make him a preferred advisor for the final selection, as very often committees and often even artists have a poor sense of visualization where architectural scale is concerned.

## Section 4 – Work Purchased for Decor

The practice of commissioning designers or interior decorators to select items of furniture and artifacts without consultation with the architect is a retrogressive step. It often leads to a sad divorcement of environmental intention. Worst still, "local" ladies committees and the like are often too domestic and narrow in their choice for items which belong to a broader architectural scheme. Although it may be convenient for the architect to employ such agents (some are very sensitive and intelligent intermediaries), the architect himself should always play an active part in the choice of craftsmen employed or items selected. Here, purchasing for commission, Peter can often be robbed to pay Paul when occasion demands a choice.

In many cases, the top professional craftsmen of Canada are crying out for the inclusion of their work in the best architectural enterprises. Too often, mass production items of imported origin are selected when a little more care and sensitivity in finding local craftsmen would engender the best of cultural development in day to day familiarity with unique creative artifacts. Canadian talent is ready now to take a competitive place in the field of ceramics, fabrics, stained glass, furniture design, etc.

## Pricing

Often this office has been asked for price guidelines. There can, of course, be no hard and fast rules in the commissioning of custom made work. Rough estimates too are unreliable. Murals, which were once estimated at \$30 to \$40 per square foot, have entered new technological fields of glass, metals and illumination which make costing a dynamic factor. Tapestries once quoted at between \$40 and \$60 per square foot present technical problems of weaving and hanging when over a certain size, making such methods of pricing unrealistic. The best way to "price" art is to hand the artist the budget for his ideas. Then it will be he who is finally faced with the problem of giving "value" for money. It is attention to values rather than price which, I do not hesitate to say, will shape the whole success of our ventures into art for architecture.

Anita Aarons

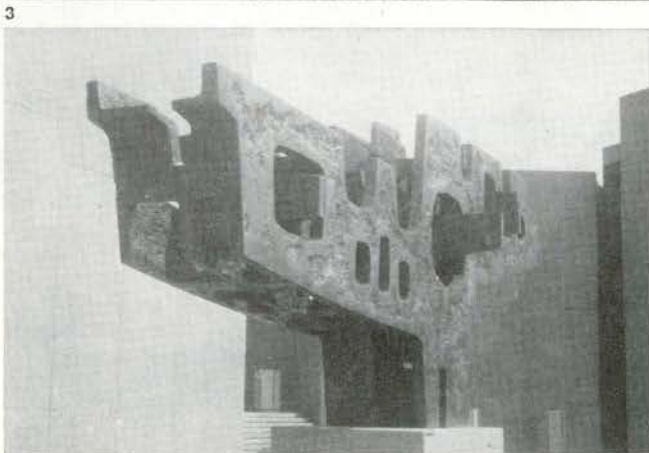
3 For special settings – John Fillion's sculpture in front of the Imperial Life Building, St Clair Avenue West, Toronto. Architects Webb, Zerafa, Menkes  
 Pour un cadre particulier – une sculpture de John Fillion devant l'Imperial Life Bldg., St Clair Ave. West, Toronto. Architectes Webb, Zerafa, Menkes

4 Sculpture by Charles Daudelin, National Arts Centre, Ottawa Commissioned under Department of Public Works Program for Art and Architecture.  
 Sculpture de Charles Daudelin au Centre national des Arts, Ottawa. Commanditée par le Programme pour l'Art et pour l'Architecture du Ministère des Travaux publics

5 Mural by Robert Downing, Faculty of Medicine Building, University of Toronto. Architects Somerville, McMurrich & Oxley: Govan, Kaminker, Langley, Keenleyside, Melick, Devonshire, Wilson  
 Sculpture murale de Robert Downing à la Faculté de Médecine, University of Toronto. Architectes Somerville, McMurrich & Oxley: Govan, Kaminker, Langley, Keenleyside, Melick, Devonshire, Wilson



Reeves



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Zvilna

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



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

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



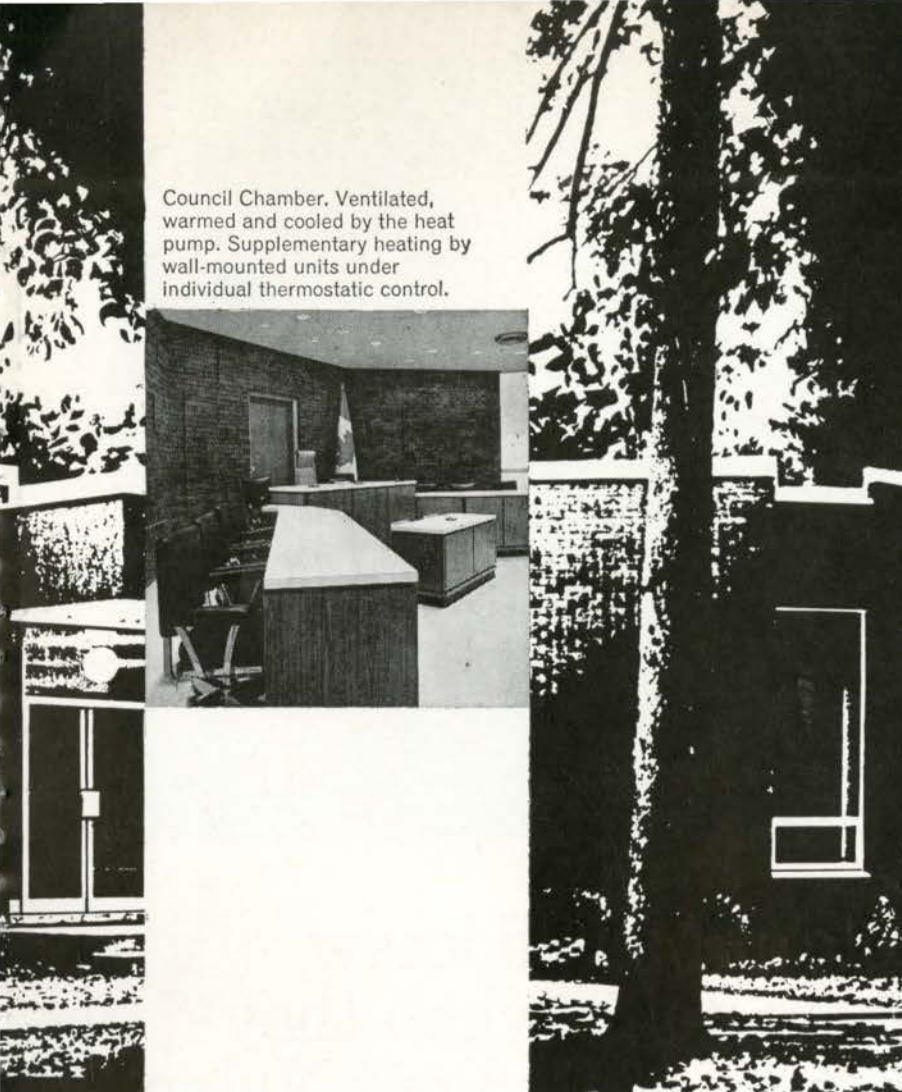
Architect William J. Hilliker of Windsor has designed two electrically-heated municipal buildings in Essex County; one at Amherstburg, the other at Essex. In each, he found the heat pump the most economical and effective way of meeting the special comfort control requirements of the building.

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

Primary conditioning air from the

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

# elect



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



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

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



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

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

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

of life for the equipment used.

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

# ically

ontario hydro 



"Cordridge", carpet by Armstrong.

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## Keeping things quiet.

The McLennan Library at Montreal's McGill University is one of the busier spots on campus. As well as a research centre and study room, the new library also serves as a meeting place for students and faculty members. When the floor finish was initially selected, carpeting was recommended by the architect because of its unique sound absorption characteristics.

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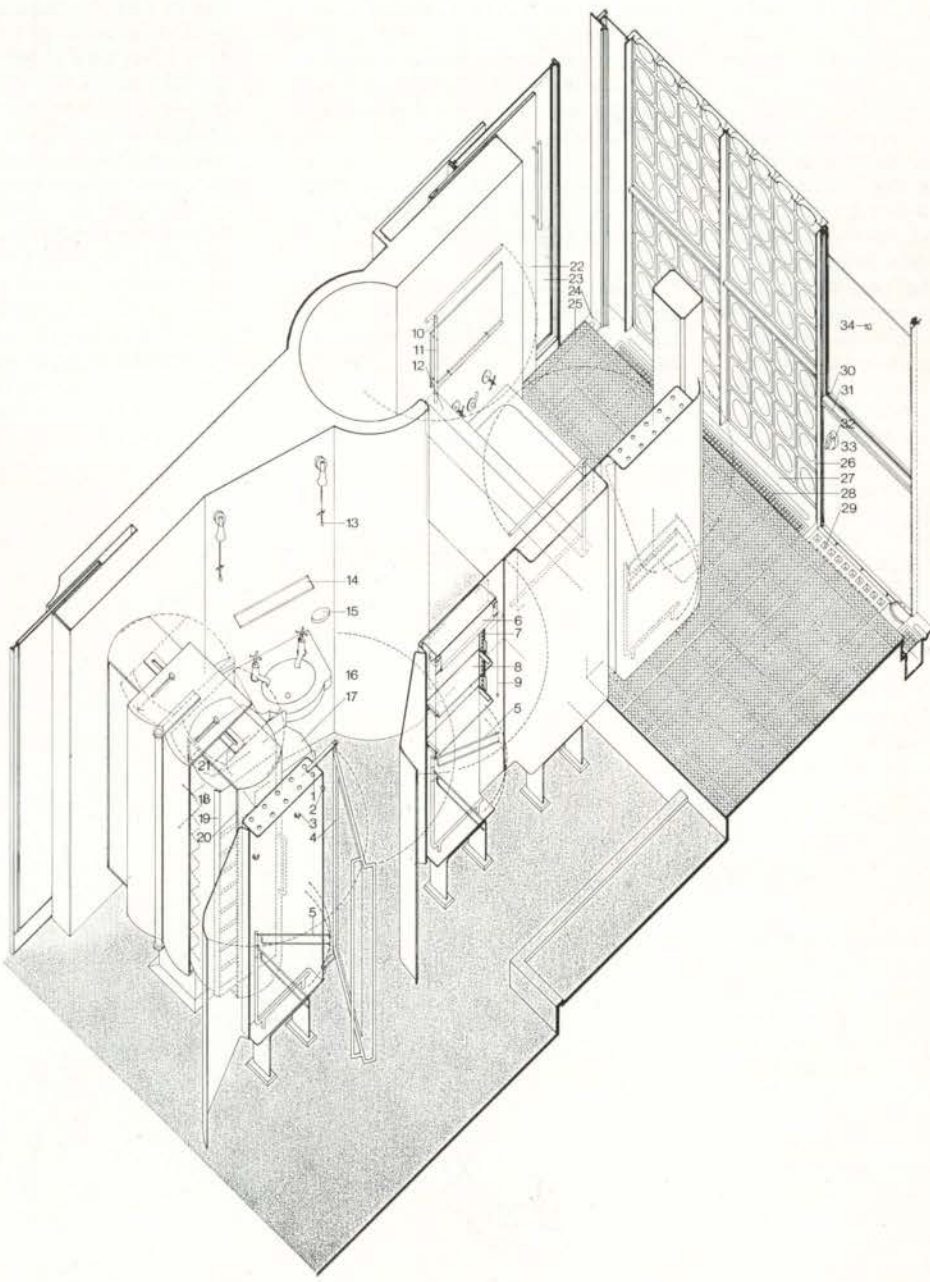


Du Pont Carpet Nylon.  
Shouldn't you be doing something with it?





## Excellence



1

Perhaps the finest publication in the field of architecture today is *Perspecta* put out at intervals by the students in the Yale University School of Art and Architecture. Started in the mid-fifties and supported by foundations such as The Edgar J. Kaufman Charitable Trust, The Plasticrete Company and The Fox Company, and by architects such as Edward L. Barnes, Philip Johnson, Louis Kahn, I. M. Pei, Roche Dinkeloo and Associates, Harry Weese, Skidmore Owings and Merrill and the alumni of Yale, it has topped itself in each new issue and more than justified the support it has received. The latest issue (12) is an extraordinary combination of enlightened content and superb graphics. *Waiting for Printout* by Shadrach Woods, *The Patrician Hang-up* by Pat Goeters, *Mass Communication on the People Freeway* by Robert Venturi and Denise Scott Brown and *Lutjens Architecture Restudied* by Allan Greenberg are examples of the content. The article, photo essay and exquisite line drawings, (1, 2) on "Maison de Verre" by Kenneth Frampton, are to architects what a great recipe and fine food photographs in *Gourmet* magazine are to food connoisseurs – intellectual and sensual delight. It was hard to imagine that the jumbo *Perspecta* 9/10 issue could be bettered – but it has. And there have been other notable issues – *Perspecta 4*, with Louis Kahn's *Order in Architecture*, articles by Vincent Scully, Ben Shahn, Henri Matisse, Anni Albers and *From his Writings and Sketches* by Eric Mendelsohn.

*Perspecta* was the first journal to give prominence in a serious way to the work of Kahn. Until the Yale Art Gallery project he was only considered a good teacher and dreamer, a philosopher. (Practical men use "philosopher" in a pejorative sense. But practical men know how to do things that often should not get done.)

The success of *Perspecta* is due to an attitude one should, but rarely does, encounter at universities – a maturity of view: a university magazine might be expected to publish only the work of the school and its alumni, or worse, of its sponsors. It has done none of these things, publishing only the best, judged by any standard. The parochial view of publishing only alumni work is often justified by claiming to serve the interests of the alumni. A less than best result is then

ensured if less than the best criteria are established. Paradoxically, the view of publishing any work, as long as it is the best, satisfies the interest of the parochial view, as the parochial view cannot establish excellence for the institution.

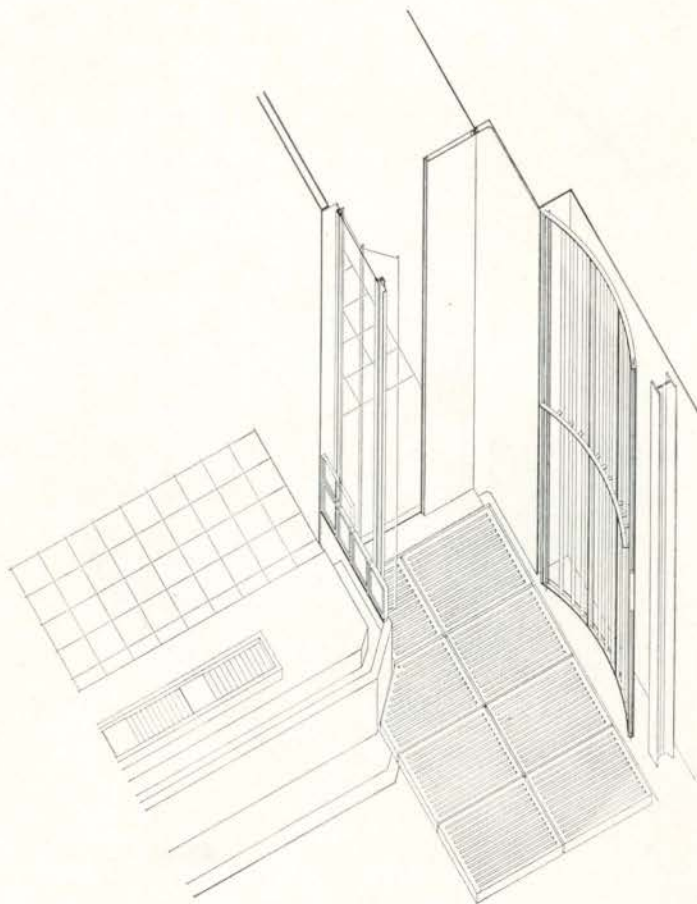
Architecture, while having regional differences that only add to the sum total, can only suffer by chauvinism.

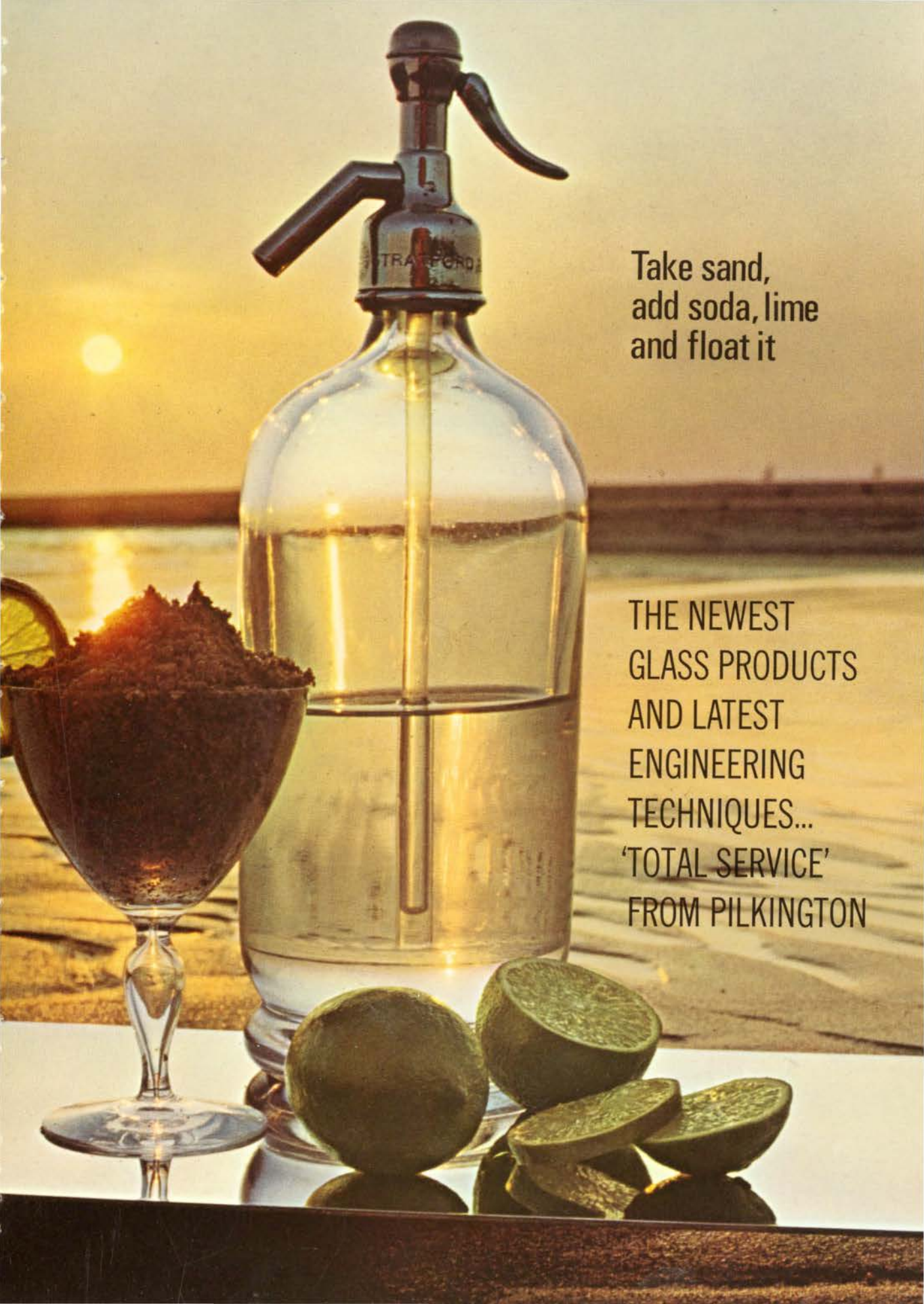
The success of *Perspecta* is also due to the same reasons that mark one building as better than the next – simply that someone cared.

The government of a country, it is said, is as good as the country deserves. The same

may be said of architecture, that it is as good as the profession deserves. And certainly it may be said that the publications of a profession are as good as the profession deserves. The success of *Perspecta* also has another moral: there were those successful practitioners who cared and supported a courageous effort. The profession in Canada, the second best paid profession in the country, gives little of its time or money to supporting education in the form of scholarships, or the profession in the form of efforts such as *Perspecta* represents. Even taken on a pro rata base and tax benefits into account, we compare poorly with, and have much to learn about giving from, our American colleagues.

A. J. Diamond





Take sand,  
add soda, lime  
and float it

THE NEWEST  
GLASS PRODUCTS  
AND LATEST  
ENGINEERING  
TECHNIQUES...  
'TOTAL SERVICE'  
FROM PILKINGTON

soda and lime. Pilkington has added ingenuity and inventiveness to produce remarkable new Float glass. A revolutionary development, it is typical of the many advances in glass technology and engineering which have come from Pilkington.

# total

## What it is. How it benefits

### At the start: design

Total Service from Pilkington begins right at the design stage—the most crucial point in the development of any project. Initial decisions affect both the timing and the overall cost of a building. Pilkington contract specialists, called in at the beginning, can show you how glass and metal can be used to achieve both aesthetic



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After all decisions have been reached, Pilkington specialists will provide a complete and detailed estimate covering all glass including architectural metal, storefronts, entrances, glass partitions, insulating window units, mirrors and related products. In

addition, they can help architects to prepare and present their submissions to the owners, developers or builders. This service includes samples of materials, technical data, price alternatives and similar aids.

### Gathering together: materials

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from Pilkington

## developers, architects and builders

the facilities of the Pilkington plants, various suppliers and the National Contract Division at Head Office.

### **Special requirements: manufacturing**

In some cases, special materials must be designed for a contract, such as custom glass and metal combinations in colour for curtain walls. Pilkington will arrange for the design and manufacture of these components and the



testing required to meet exacting performance requirements.

### **Engineering expertise: installation**

Pilkington sees to it that installation

of material requirements is handled by experts. These men have a wealth of experience in the on-site co-ordination and installation of all the materials they handle. Total Service ensures that only the proper procedures are used.

### **Experience on the job: supervision**

Pilkington contract specialists have invaluable experience gained from a wide variety of projects which helps them make the job run smoother. Supervision of all contracted work ensures that our portion of the project is completed exactly according to specifications and on schedule.

### **At the end: satisfaction**

Pilkington in Canada is backed by the reputation and the vast research and development facilities of the world-wide organization. Pilkington not only helps control your building costs, it readily acknowledges responsibility for all workmanship and materials provided for under its contract. That is what is meant by Total Service.

To find out how Pilkington Total Service can help you, contact your nearest Regional Office or the National Contract Division in Toronto.



**PILKINGTON CONTRACT DIVISION**

PILKINGTON GLASS LIMITED, 55 EGLINTON AVENUE EAST, TORONTO 12

## Page 19

### Comment Commissionner Une Oeuvre d'Art Quelques indications... idéales et pratiques Anita Aarons

Il a souvent été demandé de publier des directives pour le choix d'oeuvres d'art pour les bâtiments du gouvernement ou autres bâtiments publics. Nous espérons que les idées énoncées ci-dessous provoqueront des commentaires de nos lecteurs qui pourront servir à formuler une procédure acceptable à l'artiste et à l'architecte. Les métiers d'art dans le bâtiment tombent dans les catégories suivantes:

- 1 Ouvrages intégrés en collaboration avec l'architecte nécessitant un changement permanent dans la structure
- 2 Ouvrages en adjonction mais intégrés tels que les tableaux muraux, les portes, rideaux de scène, vitraux, etc., qui donnent une ambiance plus ou moins permanente
- 3 Ouvrages particuliers indépendants tels que les sculptures, grands tableaux, tapisseries, etc.
- 4 Ouvrages acquis pour décor – meubles, tableaux, tissus, tapis, etc.

#### Modus Operandi

En principe l'architecte devrait consulter l'artiste dès qu'il a l'idée de conception d'un projet.

#### Section 1 – Ouvrages d'Art Intégrés en Étroite Collaboration

L'expérience indique que l'artiste doit participer au projet même avant la conception d'un plan car ses idées pourraient influencer la forme d'un bâtiment et sa structure.

*Premièrement* – Exploitation verbale et discussion. L'artiste et l'architecte devraient établir un accord mutuel à ce stade.

*Deuxièmement* – Préparation des dessins, maquettes, etc.

Ceux-ci devraient être réglés par honoraires particuliers ainsi que le prototype et les maquettes d'essais à l'usage de l'entrepreneur.

*Troisièmement* – Contrat. Le contrat devrait être en deux parties: (1) pour le concepteur

en collaboration pour les prototypes, et, (2) pour les conseils et les services d'inspection rendus à l'entrepreneur. L'établissement d'un bordereau des prix sera toujours un problème qui demandera souvent des interprétations délicates.

#### Section 2 – Ouvrages en Adjonction.

*Premièrement* – *Dénicher un artiste.* L'architecte peut se référer: a) au Catalogue des Arts connexes publié par l'IRAC.; b) aux archives d'Architecture Canada, Département des Arts connexes; c) aux galeries d'art; d) à la revue Arts/Canada; e) aux conservateurs de musées d'art nationaux et des galeries provinciales à travers le Canada.

L'artiste choisi par un architecte pour toute commission pour le gouvernement doit être agréé par le comité spécial (*voir A/C Oct. '68, p. 29*).

*Deuxièmement* – Ayant choisi un artiste ou plusieurs, des esquisses peuvent être demandées à un prix nominal d'au moins \$20. par esquisse.

*Troisièmement* – Des dessins de présentation et des maquettes ainsi que des vues photographiques peuvent être demandés d'un ou plusieurs artistes à ce point-ci et réglés à au moins \$100., ce montant pouvant être inclus dans le contrat. La valeur des pièces présentées à ce stade pourrait commander un règlement beaucoup plus élevé. Il est préférable d'amener jusqu'à ce stade les oeuvres de plusieurs artistes afin d'éviter au commissionnaire de recommencer à zéro s'il y a rupture à aucun moment dans les négociations.

*Quatrièmement* – Contrats. Le gouvernement entre en contrat pour tout ouvrage de travaux publics. L'IRAC aurait intérêt à réétudier un contrat entre artistes et architectes suivant les mêmes lignes. Les contrats du gouvernement fixent les versements à 20% des honoraires à l'approbation des études préliminaires, 30% à l'approbation du projet définitif, 40% après l'achèvement des travaux, l'inspection et l'approbation définitive, et, 10% de retenue de garantie payable 60 jours après l'acceptation de l'ouvrage et la structure à laquelle il est fixé. L'artiste ne doit pas oublier de tenir compte des frais d'assurances et d'installation.

#### Section 3 – Ouvrages particuliers.

L'artiste devra être choisi dès le début du projet afin qu'il puisse se familiariser avec l'échelle du projet et se mettre dans l'ambiance. Toutefois, il doit conserver sa propre image car il est fort probable qu'elle ait été la raison pour le choix de l'architecte.

*Premièrement* – Les artistes sont invités à discuter de l'idée et du budget sans engagement ni d'un parti ni de l'autre.

*Deuxièmement* – *Maquettes d'étude ou Présentation d'une oeuvre.*

Le règlement devrait être d'au moins \$100. pour chaque \$5,000., ce montant pouvant être inclus dans le contrat.

*Troisièmement* – Contrat. A la signature du contrat un versement d'un tiers de la commission devrait être effectué.

*Quatrièmement* – *Facturation Pro Forma.* Des paiements suivant l'avancement des travaux devrait être effectués à la discrétion de l'architecte.

*Cinquièmement* – *Paiement complet après l'achèvement des travaux.* Le rôle de l'architecte est essentiel dans le choix d'un artiste et d'un artisan. Aucun comité ne devrait se permettre de commissionner un ouvrage d'art sans le conseil d'un architecte, car l'échelle architecturale d'un ouvrage est mieux comprise par lui que tout autre.

#### Section 4 – Acquisition d'Oeuvres d'Art pour le Décor.

Le choix d'oeuvres d'art par des "comités" divers semble être un pas dans la mauvaise direction car très souvent ces agents de l'architecte ou du propriétaire font, sans le réaliser, un choix abstrait de l'ambiance souhaitée par l'architecte. Le talent canadien dans les métiers d'art prend maintenant sa place dans le marché compétitif et les artisans professionnels ne demandent pas mieux que d'être inclus dans l'oeuvre architectural du Canada.

#### Estimation

Il est difficile de donner des conseils valables sur l'établissement des prix. Les peintures murales évaluées autrefois à \$30

ou \$40 le pied carré le font aujourd'hui avec une technologie plus avancée qui inclut du verre, du métal et des appareils d'éclairage donc le bordereau estimatif ne se fait plus par métrage. Les énormes tapisseries et les tissages complexes d'aujourd'hui avec leurs suspensions diverses ne peuvent plus être évalués à des prix de \$40 à \$50. Seul l'artiste peut résoudre le problème de ce qui offre au client la meilleure valeur pour le budget qu'il a à sa disposition.

### **Page 33** **Le Rapport Swan-Wooster – CBA**

*Traversée de Burrard Inlet, Voies d'accès à la Ville de Vancouver, Etudes des Alignements proposés, Antériorité et Philosophie, Evaluation des Divers Projets.*

La Commission Nationale des Ports représentant le Gouvernement fédéral a pris la responsabilité de réaliser un passage d'une rive à l'autre de Burrard Inlet. Un comité technique a déterminé qu'il faudra construire six voies dans l'alignement de Brockton Point. La CNP a désigné Swan Wooster-CBA comme conseil pour l'étude qui devait tenir compte des systèmes de transports actuels, des systèmes proposés de transports en commun, de la déviation de la circulation transitaire pour éviter le centre-ville, l'évaluation de chaque proposition sur le 1<sup>e</sup> plan esthétique et sociologique.

L'étude de la circulation urbaine par N.D. Lea & Associates pour le Conseil Municipal propose l'accès aux voitures en provenance des Routes 401 et 499 par les rues existantes, une autoroute est-ouest dans un proche avenir et deux lignes de métro. Le Conseil Municipal a choisi 6 projets dont la philosophie est d'accroître la circulation des citoyens plutôt que celle des véhicules de transports, d'éviter de faire pénétrer les autoroutes dans la ville, de conserver l'aspect naturel des rives de Burrard Inlet, d'éviter à 50% des voitures qui traversent Burrard Inlet le passage par le centre-ville. Ces données indiquent des solutions coûteuses et l'exploitation du transport en commun. Un barème de valeurs a été établi afin d'évaluer par points les qualités de chaque projet. C'est ainsi que les projets 1.1 et 2.5 ont été choisis pour études plus avancées.

### **Page 38** **Commentaire** **Ron Thom, MIRAC**

Il est évident que la réalisation d'un passage d'une rive à l'autre de Burrard Inlet et des voies d'accès à celui-ci va créer un mouvement irréversible dans l'urbanisme central de Vancouver. Heureusement, la ville ne s'est pas encore tournée le dos à la mer comme l'ont fait Toronto et Seattle mais c'est grâce non pas aux urbanistes, mais plutôt aux citoyens qui ont su crier "Outrage" aux projeteurs de constructions monstrueuses. Trop souvent les ingénieurs ont pu dire que les données du projet avaient été limitées par les administrateurs et ces

derniers ont tout enterré sous les archives pour ne plus en parler. Mais cette fois il faut faire face à un problème inévitable de la circulation. La proposition Swan-Wooster est sans doute la meilleure qui ait été avancée jusqu'à maintenant. Elle évite la traversée d'autoroute dans les quartiers historiques. Toutefois elle n'offre aucun commentaire sur le "style" de la ville et malgré quelques mentions du terme "esthétique" elle n'indique pas les "caractéristiques voulues" de la ville. Dès qu'il s'agit d'un tunnel ou d'un pont on confie aux ingénieurs la tâche de définir le tracé d'une ville. Certes, dans ce cas, l'avis des citoyens bien informés et qui semblent bien savoir s'exprimer pourra servir à l'édification des ingénieurs quant aux qualités que Vancouver désire s'attribuer.

### **Page 39** **L'Art de Bien Construire** **Norman H. McMurrich**

Vitruve a écrit que l'architecture c'est l'art de bien construire. Aldridge a ajouté en 1755 que le maître de l'oeuvre est à la fois somptuaire, projeteur et constructeur. Aujourd'hui ce maître est remplacé par le client, l'architecte et l'entrepreneur. Le but de notre réunion actuelle doit être non seulement le décernement d'honneurs mais aussi la mise en valeur et le rehaussement de la partie architecturale de ce triumvirat.

Il est difficile d'obtenir une critique valable de l'oeuvre architecturale car il est impossible de normaliser les valeurs. Toutefois, les critiques professionnels sont d'accord que les chefs-d'oeuvre ressortent d'une vraie compréhension de l'histoire du bâtiment. L'oeuvre de notre art est-elle à la hauteur de l'idéale de notre époque? Il en est loin. Nous avons grand besoin d'enseigner l'organisation de l'environnement sur un plan général au niveau secondaire afin que l'étudiant puisse atteindre avant l'âge de votre une connaissance élémentaire des fonctions des spécialistes et une compréhension de ce que produit le professionnel. L'éducation et la recherche sont à la charge de tous ceux qui font partie de l'industrie du bâtiment. Il tient à nous, les architectes, de participer à un programme actif. Il y a un manque de rapport entre le corps enseignant et le praticien. Nos universités ne font pas de pures recherches. Ceci ne doit pas continuer. D'autre part, nous devons instruire le public dans l'art de critiquer l'architecture. La solidité, le bon usage et les délicatesses de l'architecture devraient être pris en considération car le client, l'architecte et le constructeur se partagent la responsabilité dans l'art de bien construire.

### **Page 43** **L'Environnement Public** **Richard Wurman**

A Philadelphie les autoroutes, les rues, les bâtiments publics et les services publics occupent 60% du centre ville. Il va de soi que ces éléments deviennent des marques

d'identité dans une ville, que l'Hôtel de Ville, les ponts, les gares sont des points de mire dans leurs quartiers et des points de repère sur le plan de la ville. Les normes imposées par la ville pour les éléments constitutifs de l'environnement public ne sont pas une garantie d'une ambiance satisfaisante. Il faut, en plus, établir des critères de performance applicables à l'ensemble de la ville.

L'image subconsciente que le citoyen se fait des points de repère qui lui sont familiers lui donne un sens de direction même quand il est dans le métro. Cet effet pourrait être amplifié et clarifié par un système de couleurs d'identification dans les tunnels du métro, sur les grilles de trottoirs et ailleurs pour indiquer certaines zones, les distances, la direction.

Il est proposé d'améliorer le rez-de-chaussée de la ville de Philadelphie sans insister sur le dessin de produits particuliers. D'abord, il faudrait abriter les piétons par des arcades sur un côté de la rue. Ensuite la rue Chestnut pourrait avoir un muret de 3 pieds en bordure de trottoir afin de limiter le stationnement et de protéger les piétons. Ce muret pourrait incorporer les boîtes postales, poubelles, cabines téléphoniques, panneaux de signalisations, bancs publics, dispensateurs de marchandises et l'éclairage de la chaussée. Il y aurait des endroits sans muret pour arrêts d'autobus, livraisons, stations de taxis. D'autres idées: les virages de gauche et droite pourraient être indiqués par un élargissement et un retrécissement alternatifs des trottoirs; les feux de signalisation pourraient être en diagonale au centre des carrefours.

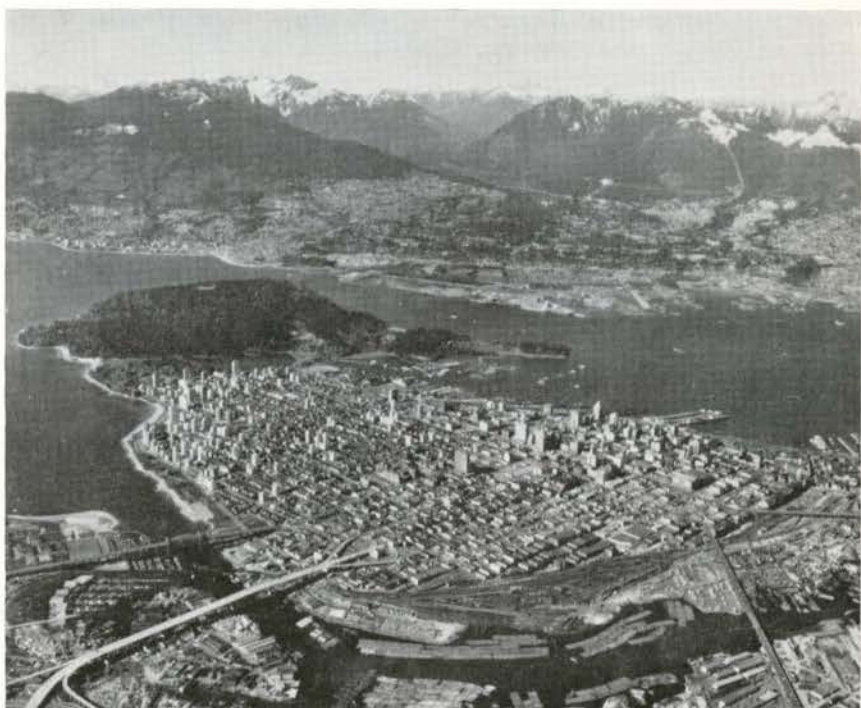
Le musée de la ville contemporaine doit exprimer la formation, la situation et les aspirations de la région. L'analyse par ordinateur des relations politiques, sociales, économiques, scientifiques et historiques à travers les temps permet l'étude du développement de ces éléments et l'effet sur la croissance de la ville que pourrait avoir les diverses permutations. L'exposition de schémas de situations recréées et projetées devrait être accompagnée des plans de la ville actuelle indiquant les maisons en vente et leurs prix, les propriétés industrielles, une description des taudis, des services médicaux, l'état du chômage et tout renseignement public. L'Hôtel de Ville, qui est un monument digne de la ville de Philadelphie, serait l'endroit idéal pour un tel musée.

# Downtown Vancouver

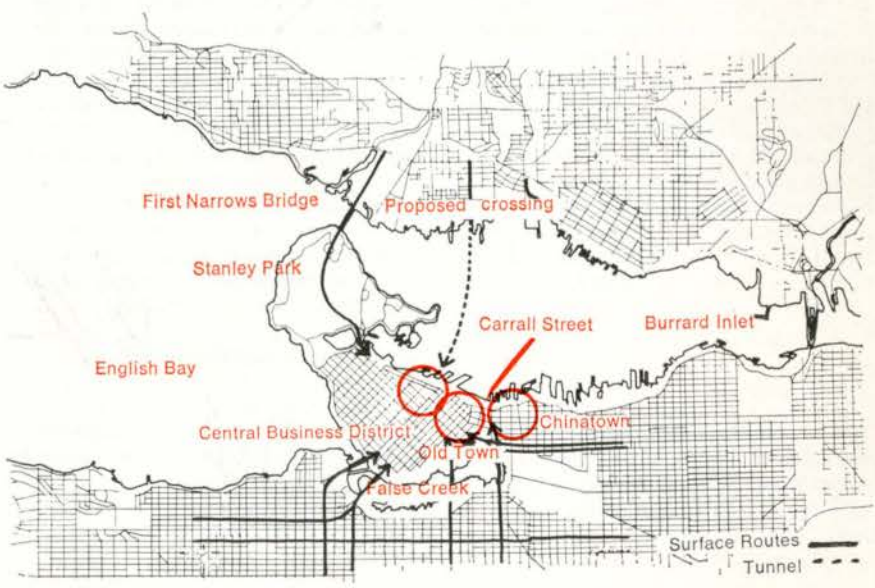
Proposals for a Future Transportation System

Vancouver, claimed by its residents to be "the most beautiful city in the world", has for the past decade been searching for the best way to satisfy its traffic circulation needs. In that time there have been over 30 traffic planning schemes proposed. A positive step was taken in 1967, when the Federal Government agreed to accept the responsibility for a crossing to assist the First and Second Narrows bridges in linking the north shore and the downtown peninsula. Its approximate location is now confirmed but whether it should be a tunnel or a bridge has yet to be decided.

To determine this and to finalize plans for traffic patterns at the crossing's south end, the National Harbour Board in 1968 commissioned a Vancouver group of architects, engineering consultants and traffic planners — Swan Wooster-CBA — to study downtown traffic patterns and methods of bypassing that area. Six schemes from the original 30 were selected by the City Council for study. These six, as presented by Swan Wooster-CBA, are described here. Following this, Vancouver architect Ron Thom, who is currently practicing in Toronto, discusses the impact of these schemes on the growth of the city.



Downtown Vancouver with False Creek in foreground





# Swan Wooster-CBA Report

**Burrard Inlet Crossing Project, City of Vancouver Approaches. Summary of the Final Examination of Alternative Alignments, Background and Philosophy, and Rating of Alternative Schemes**

In August 1967, the Federal Government assumed responsibility for the shore to shore portion of the proposed Burrard Inlet Crossing and named the National Harbours Board as the executive agency. The NHB created a Technical Sub-Committee to review all earlier reports and studies and finally confirm a 6-lane Crossing and the Brockton Point Alignment.

In May 1968, Swan Wooster-CBA were appointed Consultants by the NHB, under Terms of Reference which included the following points:

- i The Crossing shall be designed to fit into the continuing transportation system predetermined by the adjacent Municipalities or the Provincial Government.
- ii The Consultants shall consider the aesthetic and environmental implications of the various alternatives examined.
- iii The Consultants shall examine the methods by which provision can be made to accommodate any future rapid transit system Crossing Burrard Inlet.
- iv The Consultants shall study methods of providing a bypass through the Downtown Peninsula to ensure delivery of the maximum traffic volumes to the Crossing.

During early stages of the study, 12 basic scheme alternatives for the City of Vancouver Approaches were distilled from over 30 originally conceived and were presented to City Council on 3 October 1968. Council selected five, and subsequently added a sixth, for further study. These six schemes have now been developed with improved accuracy and greater detail, in order to permit the final choice of a single scheme. As soon as this decision is made, final design of the Burrard Inlet Crossing, bridge or tunnel, can

**Sub Consultants: Architectural Planning, Warnett Kennedy, MRAIC assisted by Zoltan Kiss, MRAIC, William Tong, MRAIC, John R. Kay, MRAIC; Traffic, N.D. Lea & Associates**

be completed and a cost estimate for the entire project can be prepared.

In order to obtain a policy decision on the routes to which the Crossing Approaches were to be connected, City Council authorized a separate study by N. D. Lea & Associates. This was completed on 23 December 1968 and the following recommendations were made:

- 1 Initial connections to Highway 401 and Highway 499 by existing grade streets.
- 2 Planning to be based on assumption that an East-West Freeway (following the Great Northern Cut) would be provided within a few years.
- 3 Aggressive action to be taken to develop two transit lines, primarily an East-West line close to Pender Street and secondly, a North-South line.

These recommendations have been incorporated, at the request of City Council, in the present study.

The study was a comprehensive one covering the entire downtown peninsula prepared by an inter-disciplinary group composed of planners, engineers and architects.

Its purpose was to examine the alternative ways in which a satisfactory bypass connecting to the Brockton Point Crossing could be developed through the City of Vancouver. The relevant factual information arising from this examination has been made available to Council to permit them to make a policy decision on the routing of this bypass. At the same time this may permit the City to resolve their problem of the routing of a satisfactory distributor to deliver traffic from south and east Vancouver to the Central Business District.

## "Philosophy Behind Proposals"

The six schemes selected by City Council for further examination all incorporate similar principles of environmental and planning philosophy. These include:

- 1 *Emphasis should be on the movement of people rather than vehicles.* To this end, it is

assumed that maximum possible use of rapid transit will be made, consistent with the recommendations of N. D. Lea & Associates, and the assumption that provision will be made for rapid transit on the new Crossing.

2 *There should be no freeways within the Downtown Peninsula.* Maximum use has therefore been made of tunnels to carry new highway routes under or past the Central Business District.

3 *There should be no separation of people from the use and enjoyment of the Burrard Inlet Waterfront.* All schemes therefore incorporate extensive provisions for encouraging increased use of the waterfront for recreational and scenic purposes.

4 *High-speed vehicular traffic should not be permitted on the Burrard Inlet Waterfront.* Use of waterfront has therefore been reserved for slow-speed "Distribution" traffic only and special provision has been made for the leisure user.

5 *Removal of maximum volume of Burrard Inlet Crossing traffic from Downtown Streets.* All schemes include a bypass which entirely removes nearly 50% of the Crossing traffic volume from the Downtown street network.

It must be recognized that incorporation of the above principles involves higher construction costs than would normally be incurred in the more conventional solutions to urban transportation problems, where aesthetic and environmental factors often take second place. Frequently this has resulted in fragmentation and blight of the community through which the facility passes. The current proposals assume that this situation should not be permitted in Vancouver, and that the additional costs incurred are a worthwhile investment in the citizens enjoyment of their City.

Recreational and scenic amenities are treated in two different ways:

- a Those provisions which are considered essential to the acceptability of the various schemes have been shown on the Drawings and are tabulated in the cost estimates.

b Additional amenities, which would greatly enhance the environmental and aesthetic qualities and which could be added by the City in succeeding years, have been shown separately on artists perspectives but are not included in the basic cost estimates.

The basic philosophy of the current study is to take advantage of the circumstances of a new Crossing and Approaches to meet the needs and desires of the people of the City, in addition to providing a transportation facility.

#### Rating of Alternative Schemes

In order to provide a means of comparison for the six Schemes examined, each alternative was subjected to assessment by means of a rating procedure.

*The factors involved in the rating structure are those which are considered to reflect the total benefits to the community not only from the short term functional standpoint but also from the aesthetic, city planning and sociological points of view.*

The rating structure used is the one devised by the senior project engineering staff, the project consulting architect, project traffic consultant, City Engineering and City Planning officials, for inclusion in the initial examination of the City Approaches, presented in October 1968.

The basis of the rating system is as follows:

|                                       |            |
|---------------------------------------|------------|
| Transportation and Traffic Efficiency | 20 points  |
| Flexibility and Staging               | 5 points   |
| Aesthetics and Impact on Environment  | 25 points  |
| City Planning Implications            | 30 points  |
| Costs                                 | 20 points  |
| <hr/>                                 |            |
| Total                                 | 100 points |

In order to assess the relative benefits of each scheme against its total cost, the rating system has been further used to obtain for each scheme, the ratio:  $\frac{\text{Benefit Points}}{\text{Total Cost \$M}}$

In this instance total costs include the capital cost of construction, the capitalized cost of operation and maintenance and the capitalized cost of loss in tax revenue. The following table summarizes the Benefit Points to Total Cost ratio for the schemes.

| Ratio                     | SCHEME |      |      |      |      |      |
|---------------------------|--------|------|------|------|------|------|
|                           | 1.1    | 1.2  | 1.3  | 1.5  | 2.4  | 2.5  |
| Community Benefit Points/ | +      | +    |      |      |      |      |
| Total Cost                | 0.95   | 0.76 | 0.58 | 0.57 | 0.81 | 0.86 |

+ If bypass and distributor are not constructed simultaneously additional capital costs are incurred, thereby reducing the Benefit/Cost ratio.

On this basis schemes 1.1 and 2.5 were judged to be superior to all other alternatives. (See pages 36 and 37)

#### Common Problems

a) *False Creek Distributor.* A new distributor along the north shore of False Creek is included in each scheme. This route was envisioned as early as 1946 in the Harland Bartholomew plan, included in the Vancouver Transportation Study and provision has been made for it in the design of the Georgia Viaduct Replacement. This route, in addition to serving as a Distributor from the East-West Freeway, will serve the proposed new Apartment Development at False Creek and will create a bypass route to and from the West End.

b) *Crossing Approaches in Coal Harbour.* All schemes provide direct connections to Pender/Jarvis Streets and Hastings/Bute Streets to take traffic to and from the Central Business District.

Each of the six schemes can be equally connected to either a bridge or a tunnel on the Brockton Point Alignment and to an alternative tunnel alignment under Deadman's

Island which is under consideration.

While the detailed examination of the Harbour Crossing is under the purview of the federal government, the general nature of the proposed solutions is included to assist City Council in making its decision on approach routings.

The need to preserve views of the city skyline and views from pedestrian areas along the downtown waterfront has been taken into account. The concept of design consists of the creation of new peninsula forms with the same character as the existing Brockton Point Peninsula. A scenic drive, pedestrian walks and dramatic viewpoints are included, with the ultimate objective of creating a continuous pedestrian oriented green belt from the CBD waterfront to Brockton Point.

#### The Role of the Georgia Viaduct Interchange

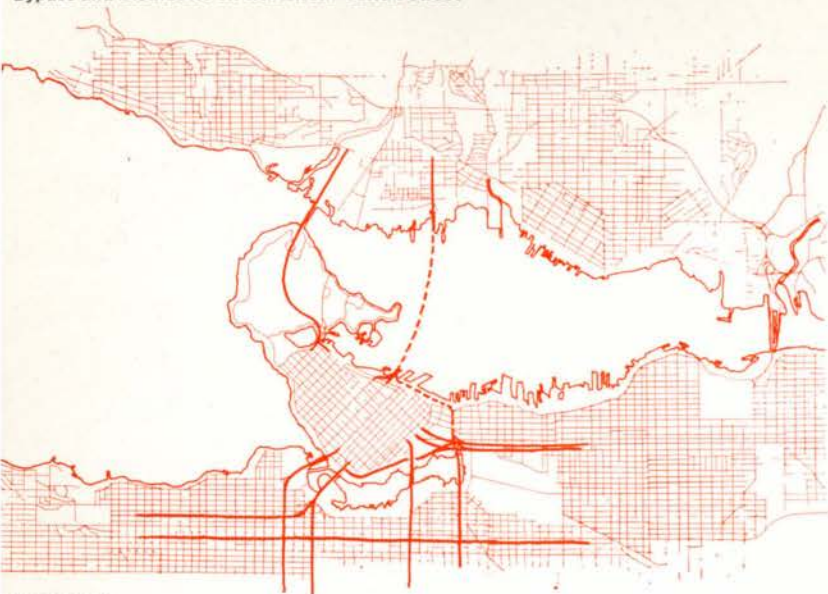
The False Creek "neck" between the head of the Creek and Burrard Inlet form a natural funnel for traffic destined to the CBD. It is already well on its way to becoming a major interchange, with construction of the Viaduct Replacement and the Columbia/Quebec Connector.

All schemes with the exception of 1.2 (Gore Avenue) and 1.3 (Clarke Drive) impinge on this area and add to some degree to the complexity of the interchange. The visual effects of this complexity have been considered, and the Viaduct itself is retained as the highest level of the system, free from overpassing structures, so that it can continue to serve as an unobstructed gateway to downtown Vancouver.

Of the remaining four schemes, two (Schemes 1.1 and 2.5) involve only moderate additions to the existing layout, consisting of ramps to the East-West Freeway from the Carrall Street Tunnel and "at-grade" connections to the Columbia Quebec Connector.

Schemes 1.5 and 2.4, in addition to the above connections, also require ramps to and from a tunnel located under Dunsmuir Street. The sum total of these requirements is an extremely complex interchange.

**Bypass and Distributor on Waterfront-Carrall Street**



The bypass, is hidden where it enters a cut and cover tunnel under the CPR tracks at Coal Harbour, along the waterfront to the east end of Project 200, and south in a tunnel under Carrall Street. It emerges at the Georgia Interchange to connect to the East-West Freeway and the Columbia/Quebec Connector.

The combined slow-speed distributor and scenic drive is built at the same level as the existing CPR Viaduct between Burrard and Granville, and connects by ramps to Burrard, Hornby and Howe. Continuing eastward, the distributor alignment drops to join the bypass tunnel under Carrall Street.

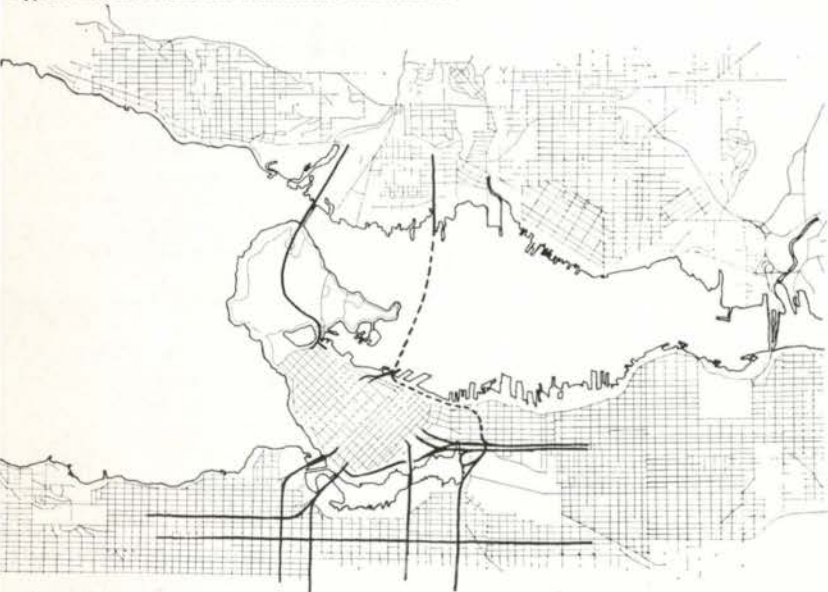
East of Pier B-C, the scenic drive branches off the distributor and runs the full length of the waterfront, one storey below the Project 200 Plaza, to Carrall Street. Parking areas are provided here and a landscaped slope extends down from the drive to a walkway along the sea edge.

Ultimate development foresees construction of a new linear park close to water-level from Coal Harbour to Carrall Street. This continuation of the scenic drive westward into Coal Harbor thus links the facade of the city to Stanley Park.

The construction of a new Maple Tree Square is included in cost estimates and a new "Gastown Mall" towards the north end of Carrall Street, which proceeds through a series of mini-parks to Chinatown at the south end is foreseen.

**Scheme 1.2**

**Bypass and Distributor on Waterfront-Gore Avenue**

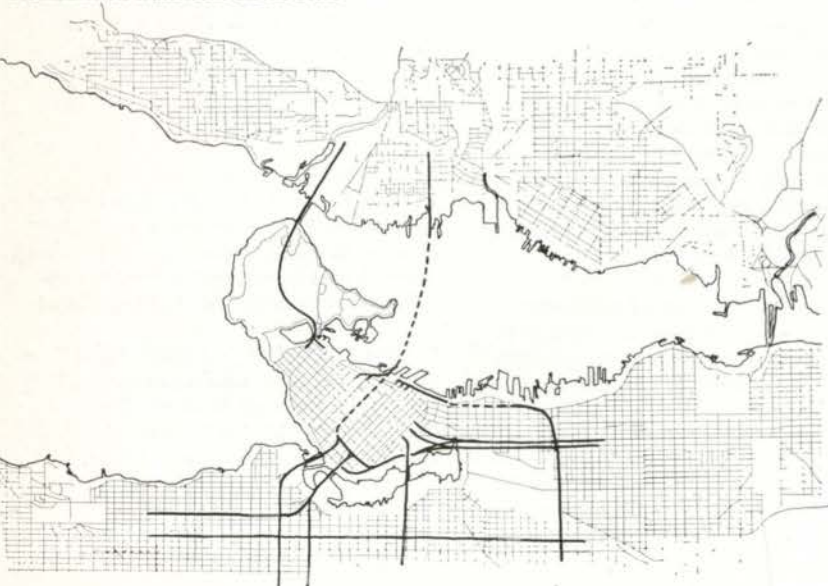


This scheme is similar in concept and layout to Scheme 1.1 except the southerly link is moved from Carrall Street to Gore Avenue. The waterfront section, including the scenic drive and landscaping is common to both but in this scheme the tunnel continues eastward under Main Street and turns south to a position under the west side of Gore. Exiting from the tunnel at Keefer Street, the route connects to the East-West Freeway and continues on an elevated structure to recross Main and connect to the Columbia/Quebec Connector. Other arrangements possible at this southern end are to be studied later. This alignment is a direct alternative to the Carrall Street route in any scheme.

The concept of redevelopment over the top of the constructed tunnel for Carrall Street in Scheme 1.1 applies equally to Gore Avenue, an area somewhat different in character although similar redevelopment opportunities exist.

**Scheme 1.3**

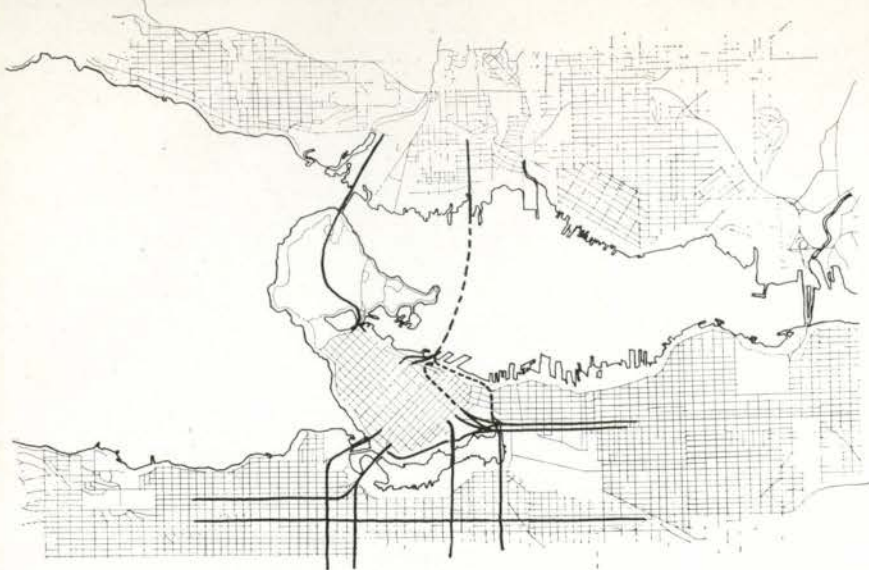
**Bypass in Tunnel to False Creek Distributor on Waterfront-Clarke Drive**



It was originally proposed in this scheme that a combined bypass and distributor extend along the waterfront from the CBD to Clarke Drive turning south to link with the proposed east-west freeway. An alternative southerly bypass identical to that in Scheme 2.5 was substituted as studies showed that this route would not function as a bypass.

The distributor commences as before at the north foot of Burrard, Hornby and Howe and continues eastward along the waterfront as far as Glen Drive. In front of Project 200, scenic and landscaping provisions are similar to Schemes 1.1 and 1.2. Further east, the alignment is part in tunnel, part in open-cut with a short section of elevated structure close to Glen Drive. Here the alignment turns south adjacent to the CNR Burrard Inlet line and follows the tracks as far as the First Avenue Viaduct to connect to the proposed freeway. Entrances and exits are provided to Powell Street and the Union-Prior one-way couplet which must continue to deliver traffic to the Georgia Viaduct Replacement.

**Scheme 1.5 Bypass on Waterfront — Carrall Street  
Distributor under Dunsmuir Street**



**Scheme 2.4** (see page 35 column two, page 38 column two)

**Dunsmuir Tunnel Bypass Waterfront  
Distributor — Carrall Street**



**Scheme 2.5** (see page 35 column two)

**Bute/Thurlow Tunnel Bypass  
Waterfront Distributor — Carrall Street**



Scheme 1.5 is the first scheme considered which moves the Distributor from the waterfront and places it in a tunnel under the Downtown Peninsula. The Bypass runs the length of the waterfront in an enclosed tunnel and turns south under Carrall Street to connect to the east-west freeway and the Columbia/Quebec Connector. The cost estimate includes provision for a linear park at ground level in front of Project 200 and the reconstruction of Maple Tree Square.

As in previous schemes, the Distributor commences with ramps to the north ends of Howe, Hornby and Burrard Streets. In this scheme, however, the Distributor roadway now proceeds west, and bends southward to enter a tunnel at the escarpment under the north end of Thurlow Street. The tunnel then swings eastward to take up an alignment under Dunsmuir Street which it then follows in shallow, cut and cover tunnel to emerge into the Georgia Interchange at the east end of Dunsmuir beyond Beatty. Emergency entrances and exits are provided to and from Pender and Hastings Streets respectively at the west end of the tunnel.

Scheme 2.4 is the reverse of 1.5, in that the bypass route is now in a tunnel under Dunsmuir Street and the distributor is placed on the waterfront. The bypass route is essentially identical to the Dunsmuir route of Scheme 1.5, except that it now joins directly to the Coal Harbor approaches of the crossing.

The waterfront distributor in front of the CBD is identical to that described for Scheme 1.3. In this case, however, the distributor turns south into the Carrall Street tunnel, instead of continuing east to Glen Drive. The treatment of Carrall Street is identical to that proposed for all other schemes on this alignment.

A waterfront/Carrall Street distributor is combined with a bypass under the city on an alignment in the vicinity of Bute/Thurlow Streets. The bypass route shown is a tunnel under Thurlow to an open-cut along Drake which feeds to the False Creek bridges and the False Creek Distributor.

At Davie Street, the alignment swings eastward and emerges into an open-cut to run parallel to and adjacent to the north side of Drake. Along Drake connections are provided for a) a southerly exit to Burrard traffic destined for the south to south-west areas; b) a northerly entrance from Hornby to serve the reverse function; c) a southerly exit to Granville to serve traffic destined for south to south-east areas; d) a northerly entrance from Seymour Street to serve the reverse function; e) a future addition of an exit and entrance ramp to and from Homer and Richards respectively to serve as additional connections for CBD traffic from the North Shore and bypass traffic crossing False Creek by the Cambie Bridge; f) and an emergency escape route to Davie Street at the west end. The remaining bypass traffic (30%) continues eastward to the False Creek Distributor, through the Georgia Interchange to the city's southeast areas. Overpasses on the existing north-south streets will have a 25-foot wide landscaped strip on either side. The sale of air-rights over the Drake Street route is a possibility.

The waterfront distributor provides opportunities similar to those in Scheme 1.1, except that the developed band is slightly narrower.

# Comment

by Ron Thom, FRAIC

Like it or not, Vancouver must face the fact that the building of a north shore crossing and of the attendant arterials through or around the city centre will begin an irreversible motion which will set the form and pattern of its downtown for all time.

Until now the physical destiny of the downtown area has not been poured-in-place. The nineteenth century street system is virtually what it was when it was built.

There is still no great, ugly concrete barrier severing Vancouver from the life and vitality of its waterfront, such as Toronto or Seattle are cursed with. There is still no concrete lined, open faced traffic ditch gouging its way through the city, cutting apart what would otherwise be contiguous communities.

But this is not because of the wisdom of Vancouver politicians or its planners. There have been some harrowing proposals over the past few years as the result of piecemeal commissions handed out by the city, usually to independent engineering firms of one sort or another. In most cases the commissions have had exceedingly narrow parameters, with the kind of question that asks "what is the cheapest way to go between point x and point y?" These invariably are published. Then there is the inevitable public outcry of "rape". Then the engineers make a public display of their innocence by exhibiting the narrow terms of reference given them by the city and say "really, what could we do?"

Then it is back to the planners, or the city engineer or the politicians, who make a few public grumps, contrive to put the whole thing, including the large consultants fee, somewhere in the city archives, and hope that somehow the problem will go away.

But now the time has really come when new and major access routes are needed, and, in particular, routes which by-pass in one way or another, the downtown peninsula. These would connect North and West Vancouver with the US border, Tsawassen, the ferry

landing from Vancouver Island, the airport, highway 401, and so on.

The need has not arisen overnight, as anyone is aware who has fought the ever increasing traffic jams on the existing north shore crossing.

There is now a surge of energy in Vancouver's downtown such as it has never seen, and it follows close on the heels of the recent spate of commercial building in block 42, block 52, and particularly block 200.

So like it or not, Vancouver is back to its least favorite sport – planning yet again for a north shore crossing.

The Swan-Wooster study is obviously the best of a dreary batch so far. It has learned some lessons from the public explosions that followed the previous scheme which proposed an elevated freeway right across the waterfront, right through historic "old town", and right through Chinatown.

It also seems to have picked up a suggestion from the public sector at that time, indicating the very real feasibility of a tunnel under the city.

In none of the documents presented, however, did I see the "style" of the city commented on. Nowhere are its desirable shape and form or its ideals laid down for the engineers. All I can find under a heading "philosophy behind proposals" is five rather simplistic engineer's dogmas, plus some funny talk about something called "aesthetics".

I may not have all the information available so I am ready to stand corrected about this.

I find it a little hard to see why so much effort was lavished on producing six schemes when really only two are capable of being developed successfully. The rest seems like academic make-work.

However, either of the two schemes, identified as 2:4 and 2:5 in the report, present reasonable methods of by-passing the city. Both make reasonable use of the False

Creek flats for multi-level interchanges. Both connect with the False Creek distributor, which is itself a long over-due bit of stuff to collect together the bridges over False Creek and lead the traffic that now fights through the city around the edge. (See pages 36 and 37)

However, both schemes have one glaringly suspicious (and unnecessary) element – the Carrall Street distributor.

One has to be pretty gullible to believe that this street would actually be torn down, an open-faced tunnel cut, covered over, and the street built back on top. Really! Would anyone believe doing that to Toronto's Yorkville Street? I doubt it and the comparison is not far fetched.

It is an appallingly expensive solution that is not required in the first place. There is no reason why the False Creek distributor and the traffic interchange in the False Creek flats cannot direct a diffuse flow of traffic aimed within reasonable distances of destination, so that once within the downtown peninsula the existing street system does the work.

Once it is relieved of the job of passing all the through traffic from everywhere to everywhere, it should be able to handle internal downtown traffic with ease.

*"As long as it involves a tunnel, a highway or a bridge, let the engineers design the city."*

Surely we have to know the kind of cities we want so we can instruct engineers to define the anatomy of traffic in concrete.

In this case is it fair to assume that enough has been said, particularly by informed and concerned citizens, to make many of the aspirations of Vancouverites quite clear? I wonder. □

# The Art of Building Well

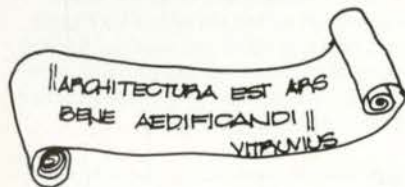
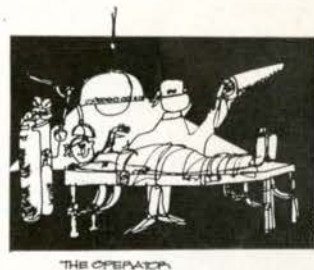
The following is an address given April 16th, 1969 by Norman H. McMurrich, 1968 President of the Royal Architectural Institute of Canada, to the 15th Annual Distinguished Buildings and Honour Awards Luncheon sponsored by the Chicago Association of Commerce and Industry and the Chicago Chapter of the American Institute of Architects.

"Architecture is the art of building well." This definition is taken from a small book entitled *The Elements of Civil Architecture* written by Dean Aldridge of Emmanuel College, Oxford, in 1755. He, it appears, cribbed the definition from the 16th Century architect Palladio, who had in turn cribbed it from Vitruvius, the Roman architect, but it is, I believe, quite appropriate to our times and to our theme – the honoring of those who practice the art of building well.

Following his definition of architecture, Dean Aldridge made this interesting observation about practitioners of his day: "The architect who practices the art may be considered in three views:

- 1 The *sumptuary*, he who furnishes the expenses of the building.
- 2 The *projector*, who designs the building.
- 3 The *operator*, or he who erects or adorns an edifice."

There could be some doubt in one's mind as to whether he was describing three individuals, any one of whom might practice the art, or whether he was considering three aspects of the practice of architecture. Regardless of the meaning one takes, it is significant that two centuries later the same elemental groups are responsible for building – the sumptuary, the projector, and the operator being semantically replaced by the owner, the architect, and the contractor. We recognize, of course, that the emergence of new development and building teams tends to obscure the traditional trio, and also that any one of the three is usually, today, a corporate group representing allied professional disciplines, financial, manufacturing, or construction interests. It is true, however, that the *production* of architecture, is today, as it has been for many centuries, an art/science phenomenon involving financial ability, design talent, and building expertise. If in the past these three attributes were embodied in one wealthy master-builder, today this is rarely the case and by and large a good building means: good client, good architect, good builder.



the real goal is to ensure that the art of building well flourishes – that we exert honest effective effort to increase the proportion of “architecture” in the total building product, to a degree that at least begins to meet the needs and projected needs of our times.

We are brought together today through the vision and generosity of the Chicago Association of Commerce and Industry and the Chicago Chapter of AIA, in order to recognize and congratulate all the entrants in this 15th Annual Awards program and to pay particular tribute to certain of these which, in the opinion of the juries, have special merits.

The recognition of excellence, and the awarding of honors are procedures as old as civilization, but like many customs which have come down to us through the ages they tend to be taken for granted and the significance of the custom is apt to become obscure. We study, we sell, we produce, we compete in sports, fight wars, support charity, support causes of every description and in all of these activities effort, not necessarily excellence, is tangibly rewarded; degrees, scholarships, diplomas, trophies, medals, certificates, and gifts of one kind or another are a part of our households and our lives. The urge to compete is the urge to live; and, I suppose, the most common award of all is the annual reward for growing old, the birthday remembrance. But we must

remind ourselves that the act of pursuing an ideal should not so engross us that we lose sight of the ideal itself. When we reach for the star our primary aim is not exercise. It is the star. In the case of architecture, we are happy and inspired to recognize merits and achievements in the art of building well, but *the real goal is to ensure that the art flourishes – that we exert honest effective effort to increase the proportion of “architecture” in the total building product, to a degree that at least begins to meet the needs, and projected needs of our times.* This is what I would like to talk to you about.

It is my intention to be constructive. If I am able to identify short-comings in our attitudes to building well, I will endeavor to suggest measures for improvement. If I am pessimistic I will at least try not to be cynical. I think building audiences are getting a little tired these days of being told that their work is sub-standard and their cause doomed, particularly by speakers from out of town. At a recent Ontario Association of Architects Convention in Toronto, a visiting panel speaker (I won't say from where), gave a very eloquent address in which he told the assembled architects they were all rotten to the core, a group of arrogant and ignorant clots creating cancers on the earth's surface; he exhorted them to mend their ways. After the surprisingly hearty applause had subsided, another member of the panel remarked “you must feel like the deep sea diver who received a message down the tube when he was at the 200 foot depth – surface at once, the ship is sinking.”

Because it involves, among many other things, the unaccountable extremes of human values and tastes, judgement of architectural merit is a very complex and elusive subject. The people, those long-suffering recipients of North American democracy, considered in the categories of “haves” and “have-nots”, will generally approach architecture and building from widely differing points of view. The “have-nots” (and let's be democratic and deal with the majority first) will tend to adopt (if any), quantitative rather than qualitative standards, and will be more

concerned with the *absence* of housing and other needed facilities, or the *disappearance* of the corner store than with the standards of excellence of what *is* built. This is not to say that majority public need is of minor importance in the formulation of building standards or that public opinion will not reflect a good measure of appreciation (conscious or otherwise) of good buildings – when they are built. My point is that this largest segment of the people is having too little built for it to be seriously concerned about quality and is given too small a part in the judgement and criticism of what *is* being built, allegedly for the common good.

The other group, the “haves” – us, a minority whose fortunes include broad education, travel, and exposure to professional thinking in the arts, will lean heavily on the critics and historians to help us mould our opinions and standards for judgement of the arts. And this has its problems.

It is difficult for us to recognize common denominators in the standards against which even the acknowledged critics of today base their evaluations. It is equally difficult to determine, from their prophecies, which of today's emerging styles and modes of building will have “timeless rightness” on their side.

One point of agreement, however, which *has* prevailed among the critics for a good many years and which has manifest itself in commentaries on recent work on this continent, is the recognition of the importance of a *real* understanding of history.

Professor W. G. Constable, former curator of the Museum of Fine Arts in Boston said – “in architecture, more than in most arts, a little learning *is* dangerous and the inventive and creative mind will find not a hindrance, but support and inspiration in a sense of the past”.

In 1938 Sigfried Giedion, writing his famous Charles Eliot Norton lectures, “Space, Time and Architecture”, said “for planning, our



There is need to teach environmental planning and design as a general and universal subject at an early age.

**Education and research within the building industry are the concerns of us all and we the practitioners must pursue a vastly stepped up program of interest and participation.**

knowledge must go beyond the state of affairs that actually prevails. To plan well we must know what has gone on in the past and feel what is coming in the future – a wider survey of the whole domain of human activity is the unmistakable need of our century. It is in this connection that history can play an important role”.

In the same year two British architects, Richardson and Corfiato, published their monumental treatise entitled “The Art of Architecture” and wrote “in his masterly design for the premises of the Chicago Tribune, Eliel Saarinen connects the work of Louis Sullivan and Frank Lloyd Wright to the present day”.

Thirty years later, in a recent critique of the new Boston City Hall, Mrs Moholy-Nagy (Aunt Sybil perhaps to some of you) said “The significance of the new Boston City Hall lies in historical continuity made contemporary. It is a next link in the chain that binds past to future . . .”.

At this point in North American history, then, where do we stand, where does the populace stand, in respect to the goal of a flourishing art-of-building-well, a golden age of architecture, which is in step with, and apace of, other scientific and social progress? We all know the answer. We are frighteningly far from reaching any such goals. What is to be done? What can owners, architects, engineers, and builders – what can you and I do about it all?

I find that *one* of the rewards for taking on the responsibilities of National President has been the rare opportunity to take a perspective look at my profession and the industry of which we are only one of many parts. From this sometimes lonely perch I have experienced the giddy-head which altitude gives to many of us, but I have also experienced the thrill of a vast aerial perspective of the scene and felt the inspiration of horizons far beyond my normal ken.

From this point of view, I see the need for certain measures which, if undertaken in the proper magnitude, can have a productive

influence on architecture and which are the appropriate concern of all of us here today.

*The first is the need to teach environmental planning and design as a general and universal subject at an early age.* By the time people are of an age to vote, to pay taxes, to purchase real estate, to produce and administer families, it is vitally important that they already have (not then start to acquire) a basic understanding of the specialists and expertise available to them, that they know something about the “products” which professionals produce, and of the problems and pressures which attend the planning and building processes. They must be introduced to the idea of planning as an attitude of mind rather than a technique, they must be taught to understand that design is, in fact, a process of discovery in which they will one day have a responsible (or irresponsible) part, either as practitioners or as their clients. But unlike some of the travelling aids which have been thrust upon our young to prepare them for the “tortuous road of life”, teaching about buildings, and streets, and cities, and how they come about would be more than popular, they would lap it up! Buildings, the inventory they house and the spaces which they create inside and out are, next to our clothes, our third skin; they are *that* personal, and as such they must be understood better and sooner if our lives are to shape them rather than the reverse.

This kind of introductory education would have obvious benefits in terms of potential candidates for the environmental professions. And this leads me to my second recommendation and an area which some of you may feel is dangerous ground or thin ice.

*Education and research within the building industry are the concerns of us all and we the practitioners must pursue a vastly stepped up program of interest and participation.* As a starting point for such a program the industry must question the relationship of its element to each other and also the relationships which exist between this industry and levels of Government. The RAIC just recently made very preliminary moves

to analyse the national organizations which exist within the construction industry and the joint committees and other forms of liaison which inter-relate these organizations. We find, already, that many of these organizations are working in parallel on educational and research topics which ought, for economic reasons if for no other, to be pooled efforts. We have found that although the constitutional aims and interests of a number of organizations, including Government bodies, are similar, they are inexplicably unrelated by joint committee or joint action. We find that, with a few exceptions, there are virtually no working relationships between the practicing and teaching elements of the construction industry – certainly not on the scale that exists between the medical practitioner and the teaching centers of medical science. It is well known in our country, and may apply in your own, that in the construction industry, in comparison with fields of endeavour of far lower priority in terms of human need, pure university-based research is marginal to non-existent. This cannot be allowed to continue and I feel that the initiative to embark on improvements in this area must come from the practitioners.





A change in attitude and a drastic increase in activity must be sought in the matter of public criticism of architecture.

A third measure which I believe must be taken to significantly stimulate improvement towards, and wider acceptance of good architecture, has to do with criticism. *A change in attitude and a drastic increase in activity must be sought in the matter of public criticism of architecture.* This change is, for different reasons, needed in the press (and I use the word in a broad and general sense) as well as in the professions. There are two interesting extremes current now in Canada. In the large circulation dailies and weeklies, there is apparently an editorial policy applying to the legal and medical professions, as well as the architectural, which says, in effect, if your codes of ethics don't permit paid advertising, don't look for it free. Net results: unless copyrighted, new building projects which apparently have news value other than authorship, frequently appear with little or no reference to the architect or, more important, no criticism of what the architect tried to do and how well or badly he did it. On the other hand, these same papers do have feature articles, particularly on domestic work, but they are almost invariably laudatory in purpose and character.

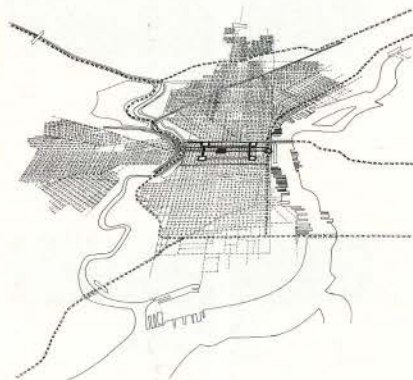
From the professional point of view the most serious deficiency related to criticism and the need for a change of attitude is the lack of performance standards. Sir Henry Wotton, a layman and critic of architecture of the late 16th Century, had something to say on this subject. Sir Henry followed the architectural profession as a diplomat (which he defined "an honest man sent to lie abroad for the good of his country"). Describing architecture, Sir Henry lists as his three standards of judgement: firmness, commodity, and delight. We badly need criticism of our works against such standards of performance. We are far too prone to judge predominantly on stability, or function, or appearance – particularly the latter, but rarely on all three. Our buildings must become the subject of consumer reports and these kinds of comprehensive standards must be applied if we hope to progress.

It has been said that our education is what we have left when we forget what we learned in school. I have tried to leave with you the thought that the Art of Architecture is not solely the domain of artists and that building is a process not exclusively the function of the builder. I short, I have tried to convince you that clients, architects and builders have a peculiar but positive joint responsibility in The Art of Building Well. □

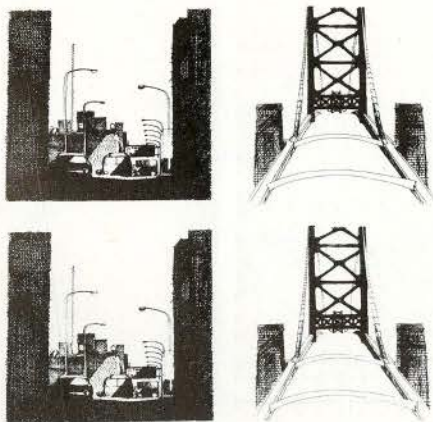


# The Public Environment

Richard Saul Wurman



The public environment is the largest single use of land in the American city  
L'environnement public occupe la plus grande partie de la ville américaine



There are advantages to be gained from people gathering together to form cities. The limited amenity the individual can afford when he lives in isolation is multiplied by thousands when he lives in a community – a collective amenity is made possible. Underlying the boasted upper crust of sophisticated city benefits – the unique theatres, concert halls, cultural facilities – lies an enormous, more fundamental stratum of collective amenities – facilities for free and convenient movement, protection, shelter, guidance, education and pleasure. **This is the Public Environment.**

Physically, this agglomeration of public facilities – the public environment – is the largest single use of land in the average American city.

Expressways, streets, sidewalks, police stations, schools, parks, rivers, occupy 43.5%

of all the land in the city of Philadelphia. They occupy 60% of all land in the city center. There are 10,000 mobile public facilities.

The elements that make up the public environment are the most pervasive, repetitious and insistent visual and practical influence on the total environment of the city.

## The City as a Message System

It is one of the functions of the city to convey information. It has been the custom, in the physical environment to interpret this as a question of products – traffic signs, direction signs, identification signs.

How does the city describe itself and make itself intelligible to visitor and resident: This is a more fundamental question than a choice of type face for a direction sign.

*Richard Saul Wurman is a partner in the firm of Murphy Levy Wurman - architects and urban planners in Philadelphia. He is currently a Guggenheim fellow and previously was awarded a Graham fellowship for advanced studies in fine arts and two Chandler fellowships.*

*This year Mr Wurman was a visiting professor at the University of Cambridge, England. He has also been on the faculties of Princeton University and North Carolina State University.*

*With Joseph Passonneau, he co-authored Urban Atlas: 20 American Cities; some of his other publications include The Notebooks and Drawings of Louis I Kahn, City, Form and Intent and Various Dwellings Described in a Comparative Manner. An article by Mr Wurman on Visual Information Systems was published in Architecture Canada March, 1967.*

**This article and its illustrations represent a small part of a full-color 80-panel exhibition of the public environment recently held at the Art Alliance in Philadelphia.**

Large scale geographic and man-made features describe the edges and articulate the sections of the city, suggest the easiest way to move into and around the city. Identifiable architectural and spatial types occur in concentrations which identify activity locations. Together, they provide the visual reference points for orientation and movement into, in and around the city.

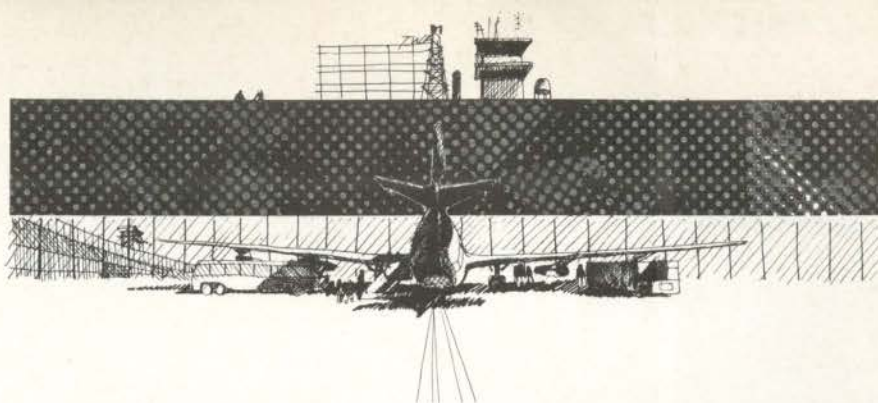
City Hall tower, the river edges, the bridge gateways to the city, the grain of buildings are colossal elements of a ready-made city-wide sign system.

The city-as-a-message-system is a proposal for a life-size route, destination and actual location map of the city – the city itself.

**Performance Criteria for the City vs Rules for Products**

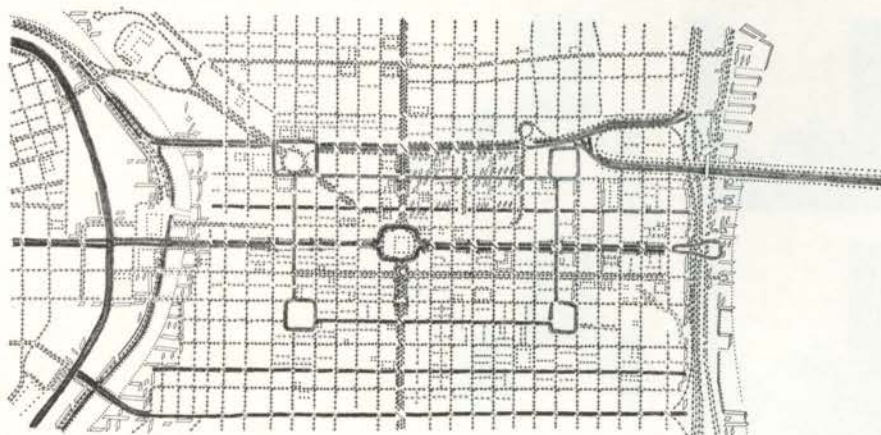
The gateways to the city are preferred locations for large scale electric signboards that provide continuous information about the fastest routes, traffic conditions, destinations, events and accommodations.

Les portes de la ville sont les endroits préférés pour les panneaux lumineux donnant des renseignements sur les meilleures routes, l'état de la circulation, les destinations, les événements et le logement disponible.



The scale of the public environment is greater than the needs of any one of us as individuals; it concerns the entire city.

Les besoins de l'environnement public sont à l'échelle d'une ville entière donc plus grands que nos besoins individuels.



It is the responsibility of the public body to establish, select and maintain the standards of performance required of the public environment. The city cannot expect to exert influence on the private environment of individuals and corporations until it has set these criteria for the public environment.

Currently, the city establishes standards for products – light poles, subway entrances, rule books for sign sizes and type faces.

Like urban beautification, this is no guarantee of a successful public environment; planting flowers and applying the limited resources of urban cosmetics to one street and neglecting the vast anonymous ranks of all streets—carefully designing performance standards for the individual street light and ignoring the question – what is the total performance one seeks in lighting the city.

The real responsibility of the city is the establishment of performance criteria for the public environment – not for the multitude of individual products contained within the city but for the city itself.

Municipal authorities have the power to set these criteria in all realms of the public environment.

#### City Gateways

The Delaware River bridges, the airport, the railroad terminals, where railroads and highways cross the city line are the gateways to the city. They are, or rather, they could be major visual reference points for movement into, in and around the city. They are preferred locations for the display of essential information about the city to the outsider – information about the fastest routes, traffic conditions, destinations, events and accommodations.

#### A Life-size Route Map

Inside the city, the street network assumes the role of a guidance system. Elements of the movement system are articulated. Streets assume graphically, spatially and by light, relative status in the movement hierarchy.

The spatial domain of the highway becomes a surface for the presentation of information – route, destination, speed, safety.

#### Streets Between the Rivers

Routes running between the rivers framing center city regularly punctuate north-south movement – orientate movement in the downtown, clarify the elements of the street grid, indicate paths to river crossings.

The repetitive blank side walls, roof-top water tanks, storage tanks and power plants predict fringe downtown areas of warehouses and manufacturing areas that are part of a subconscious message system

La répétition de murs nus, de réservoirs en toiture et de centrales d'énergie au pourtour de la ville préconnaît les zones d'entrepôts et de fabriques qui font partie du système de messages subconscients

One of the city's functions is to convey information; to describe itself. Identifiable architecture and spatial types occur in concentrations which identify activities and provide visual reference points. The city street surfaces can convey information about the movement hierarchy.

Une ville doit s'exprimer ou se décrire. Des concentrations d'éléments architecturaux identifient certaines activités et servent à nous orienter dans une ville. Dans l'enceinte de la ville les rues elles-mêmes peuvent transmettre la présence d'une hiérarchie dans la circulation

### City Edges

Large-scale geographic or man-made features describe the edges and articulate sections of the city.

Identified and given visual recognition, they are signs to destinations, routes – a framework for the visual comprehension of the city.

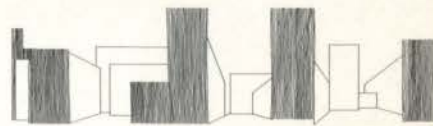
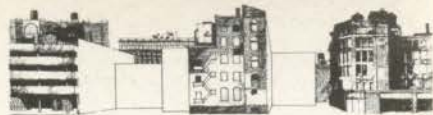
### The Subconscious Message System of the City

General architectural or spatial events throughout the city, by concentration, become significant or particular to a single area – identifying activities, uses, services. They are part of the city dwellers' subconscious pattern of associations – roof top water tanks and the fringe-downtown manufacturing district, subway stops and the pre-

dictability of a shopping concentration above the stop – a subconscious message system giving information about what sort of activities to expect, what sort of services are performed in a particular area – where it is, how to get there.

Given visual recognition as such, repetitive blank-sidewalls and water towers in the loft building district on Race, Arch, Vine and further north which predict fringe-downtown manufacturing – storage tanks and power plants that line the south Schuylkill predict the river and the edge of the city, blank sidewalls on vacant center city lots predict a parking lot – all become vital ingredients of the message system.

Where the haphazard mural painting of urban cosmetics would confuse, systematic and insistent color coding would clarify and amplify their power as elements of the sign system.



### An Idea for the Creative Use of Street Advertising Lighting

A way of giving streets their own identity and atmosphere.

The use of standard colors in advertising signs could give coherence to the whole street without changing the individuality of a sign's shape, size or design.

### Questions addressed to Southeastern Pennsylvania Transportation Authority and the City concerning Public Vehicles

*What should determine the color of public vehicles?*

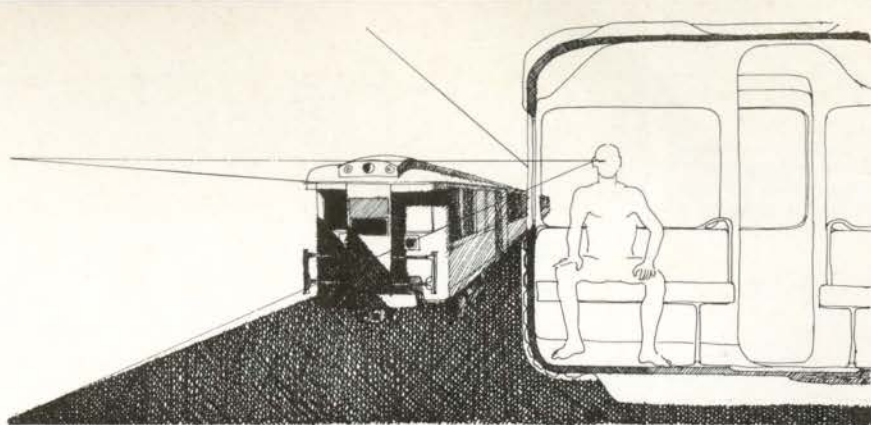
*Why is a fire engine red?*

*Which city vehicles should blend with the urban fabric?*

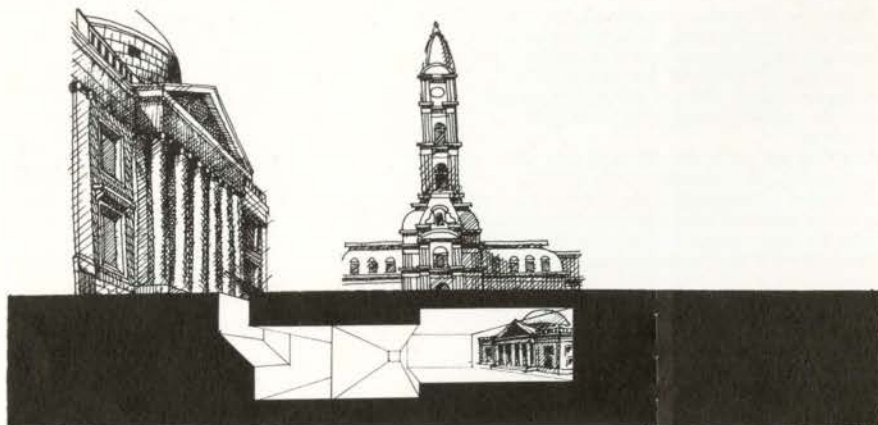
*Which vehicles should stand out and announce their purpose?*

*Should buses advertise their route or pizza?*

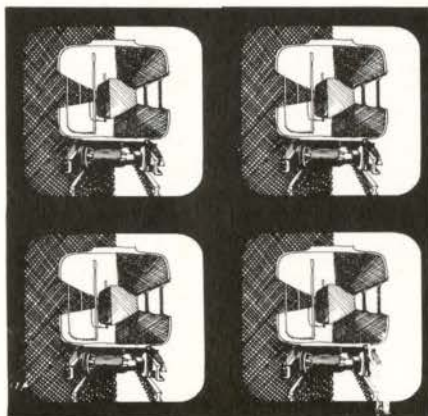
The subway is part of the message system. It also should be made into a less painful environment  
 Le Métro fait partie du système de messages. Il est temps que son ambiance devienne moins pénible



Prismatic projections of the above ground environment into subway stations could give a live sense of orientation, destination, weather conditions and relieve the dreariness of present stations  
 Des projections par prismes de ce qui se passe en dehors du Métro, tout en indiquant l'ambiance du quartier, donneraient un sens d'orientation, de destination, du temps, et supprimeraient l'ennui des stations actuelles



Use of the color spectrum in modules of city blocks above could act as a time-distance clock  
 L'usage d'un code de couleurs pour les quartiers d'une ville pourrait servir à l'indication de temps et de distance



## Answers

*The colors of public vehicles should relate to their functions within the message system of the city and answer to the performance criteria for the static public environment. Essential public service vehicles already employ a color-coded recognition system. Fire engines and police cars are red, taxi cabs are yellow. This system should be extended to public transportation vehicles.*

*Buses and street cars should clearly advertise their routes and destinations – not products. They should stand out clearly against the multi-colored background of private vehicles and streets – ideally, they should be white. The most important item of information to the traveler is his own personal destination. Route terminals are of secondary importance. Buses and street cars should carry replaceable route maps, on the out-*

*side – clearly indicating the route, all stops, major institutions, connection points with other routes – large enough to convey the essential information in a short time.*

### An Idea for Alleviating Pain in the Subway System

This is an idea for both the part the subway system plays in the message system of the city, and for what can be done with existing elements of the subway: entrances, stations, tunnels, to produce a more humane, less painful environment.

The system should be comprehensible both above and below the ground – above to identify entrances and routes: below to identify what the stop relates to above ground, a sense of direction and distance.

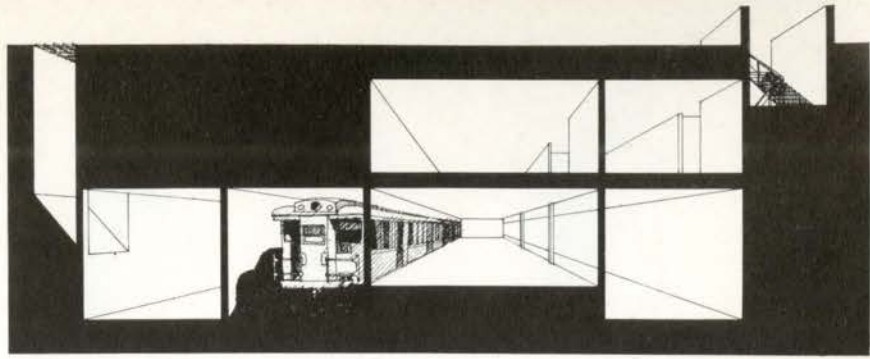
*Distance* Projection of the color spectrum along the tunnel in modules corresponding to city blocks above ground – seen from car windows as a travel-distance clock.

*Stops* Projection of the above-ground environment into the subway stations by prisms – the injection of a live sense of orientation and destination, weather conditions, into the claustrophobia and directionlessness of current stations.

*Routes* Use of sidewalk ventilation grills to code routes – north, red; south, orange; west, blue; east, green.

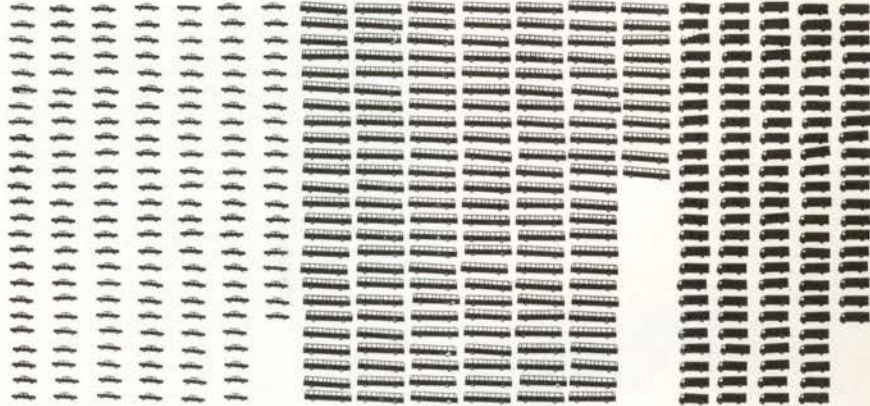
*Cars* The most important item of information to the traveller is his own personal destination. Route terminals are of secondary importance. Cars should carry replaceable route maps – on the outside of the car clearly indicating the route, all stops, major institutions, connection points with other routes – large enough to convey the essential information in a short time.

Use of sidewalk ventilation grills to code routes:  
 north-red; south-orange; west-blue; east-green  
 Un code de couleurs sur les grilles de ventilation  
 dans les trottoirs pour indiquer la direction:  
 nord-rouge; sud-orange; ouest-bleu; est-vert

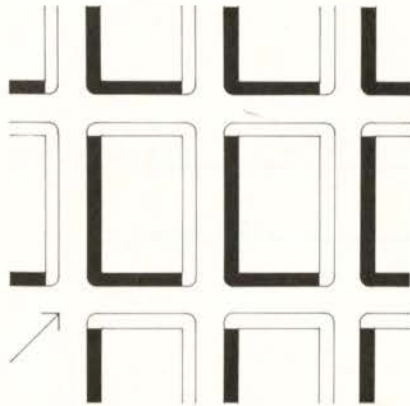


Public vehicles, including taxis, buses, subways, police, fire, sanitation and other city services cover an area equivalent to more than 30 city blocks

Les véhicules publics, y compris les taxis, les autobus, le métro, les voitures de police, des pompiers, des services d'assainissement et des autres services de la ville occupent une superficie égale à plus de 30 pâtés de maisons



Arcades could provide protection from wind, rain, snow and sun  
 Des arcades pourraient protéger contre le vent, la pluie, la neige et le soleil



**Performance Criteria for a Humane Pedestrian Domain – The Public Ground Floor of the City**

This study is going to concern itself with specific proposals for the existing components of the city – elements that are already there – the curb, the sidewalk, lighting, all the signs and advertising, all the public equipment, the city cars, the garbage trucks, ambulances and police vehicles.

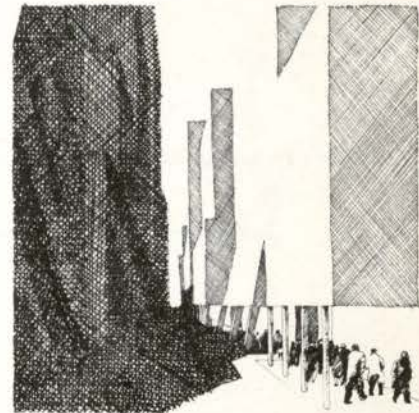
An attempt will be made to create an attitude of the right scale, to create an attitude toward what is the problem relative to the city rather than the problem relative to the designer and the designer of products within the city.

**An Idea for Arcading the City**

Performance criteria for a humane pedestrian domain must include weather protection criteria – protection from wind, rain, snow and sun. The creation of a new zoning ordinance could make this possible by encouraging developers to regard the street curb as the building line for all construction above the second floor. This would establish with relative ease a city-wide sidewalk arcade on south and west sides of the street. The additional square footage attainable would be offered as an incentive to developer cooperation.

**An Idea for a 3' Wall Along Chestnut Street**

Modification of a single street element, the curb, could have positive repercussions in four areas of concern.

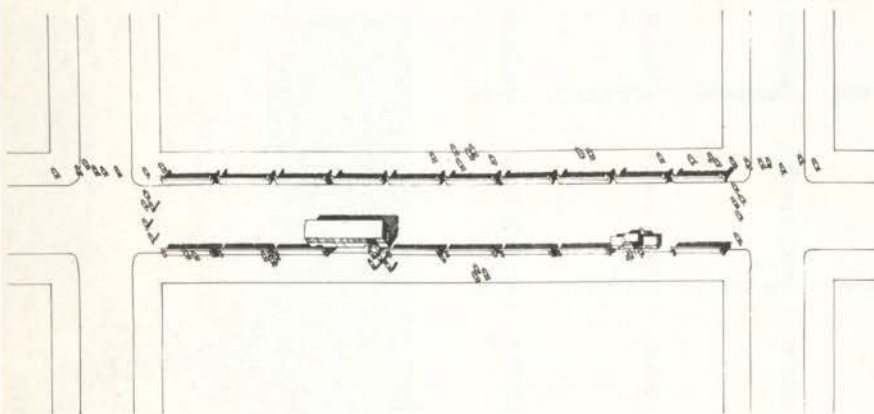
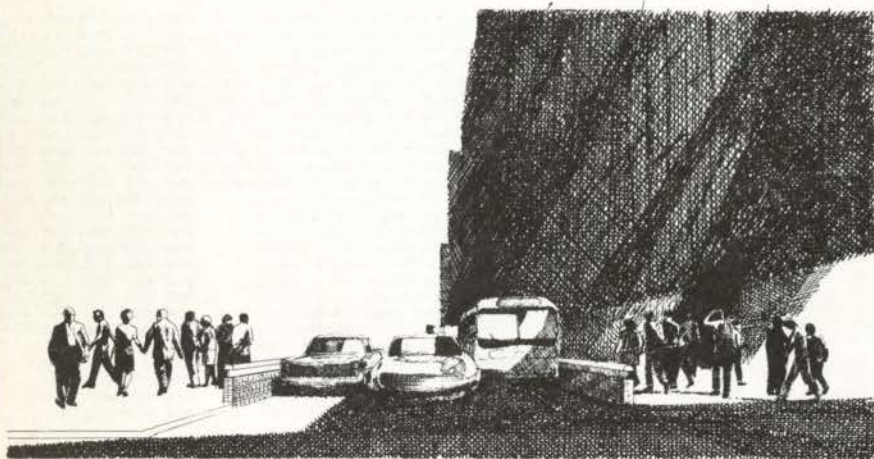
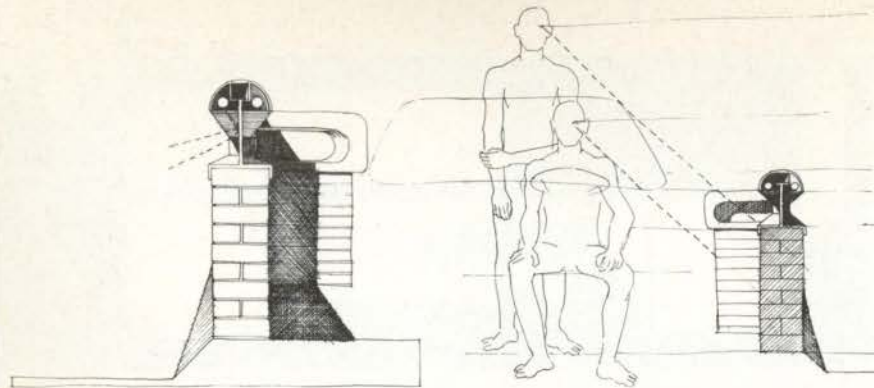


**Traffic Movement** A continuous three-foot high curb-wall along center city sidewalks would eliminate the possibility of parking along the curb except at certain locations – nearside car doors cannot be opened, it is difficult and embarrassing to climb the wall. Breaks in the wall would establish bus, taxi, and essential delivery stops. All lanes become moving lanes.

**Pedestrian Safety** Jaywalking or children straying into the street become next to impossible, No splashing on pedestrians.

**Integration of Sidewalk Elements** Trash cans, mail pickup and delivery, telephones, signs, benches and sidewalk vending are taken care of within the fabric of the wall. This does not mean standardization of these elements, simply, giving them a place, a territory within the street environment which neither inhibits their functioning nor allows them to interfere with movement.

Transforming the curb into a 3-foot wall could have positive repercussions  
 La transformation de la bordure de la chaussée en un muret de 3 pieds de hauteur pourrait avoir des répercussions positives



**Lighting** Use of the wall as a light source – throws light onto the surfaces that require light, from the shortest distance – sidewalk, road surface, the ground floor facade of the street. Currently, with lights hung on poles what is really being done is lighting the tops of cars and people's heads.

**An Idea for Diagonal Traffic Lights**

Diagonal overhead traffic lights across intersections could possibly be a better way of controlling traffic than four pole lights cluttering four corners. Or maybe they wouldn't be. The point is that there should be a better way of communicating the information to pedestrians and motorists than there is now.

**An Idea for Wide and Narrow Sidewalks in the Core**

A way of simultaneously increasing the useful size of the sidewalk and increasing the efficiency of traffic movement.

Alternating wide and narrow sidewalks would clearly and safely articulate through traffic and left and right turning movements without the use of signs. The additional width of the one sidewalk can be achieved without compromising road width for traffic movement.

**An Idea for the Museum of the Living City – the Visual Forum**

A city should describe itself to its citizenry to meet all levels and scales of comprehension. It should do this with excitement, honesty, clarity and fun. Historically, people have chosen to set aside a place for objects and information pertaining to a particular phase or aspect of their civilization. These places have come to be known as museums. Without any doubt, the most significant part

of our civilization – that which touches all aspects of our lives – is our urbanized environment. It is our cities and the man-made environment with its sociological, economic and political realities that should be clearly described to the people living within them. This should be done in a manner allowing them to sense constants of growth and change and the inter-relationships of elements.

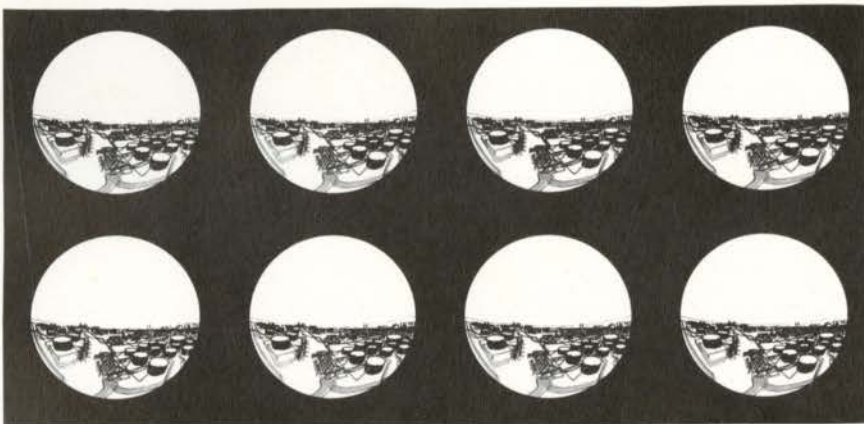
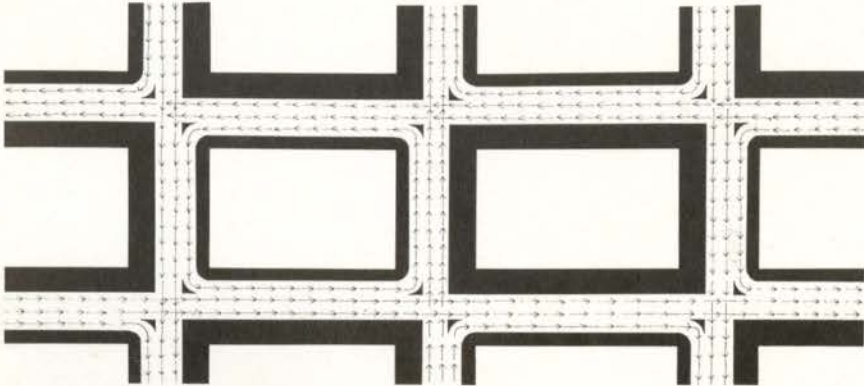
The Museum should embody three major concerns: *Formation, Situation, Aspiration.*

**Formation is the Historical Determinant of the Region**

Formation incorporates the form and make-up of the region as well as the various relationships between political, social, economic, scientific and historical events. The essential characteristics of formation are



Alternating wide and narrow sidewalks could articulate pedestrian and vehicular traffic without the use of signs  
 L'élargissement et le rétrécissement alternés des trottoirs pourraient suffire à l'articulation de la circulation sans l'usage de panneaux de signalisation



the recognition of inevitable growth and change, and the concurrent idea of time. Where time is an important factor, comprehension is aided by movies, working models and electronic devices such as cathode-ray tubes and computer print-outs.

**Situation is the Present Determinant of the Region**

Situation is the annual, seasonal and daily life of the city. It describes what is presently happening with our schools, our people, our institutions. It includes the way we use our money as well as our use of land, air and water. Situation is also concerned with the location of housing types, urban renewal areas and the movement systems which pervade the city; including tours, transit and pedestrian movement.

In this section of the museum, one should be able to "dial" certain relationships: the inter-relationship between a highway program and a residential development, or a school and the school-age population. The Department of Streets and Board of Education, as well as other city officials, should be invited to utilize this section making it an alive and working place.

**Aspiration Embodies Future Possibilities**

Aspiration embodies the long and short-range desires and plans of all institutions and departments of city government. This section of the museum becomes the public forum for the display and public testing of departmental ideas. It is a display that also can educate the public as to *What Could Be, What Might Be, What Should Be.*

**The Exhibits**

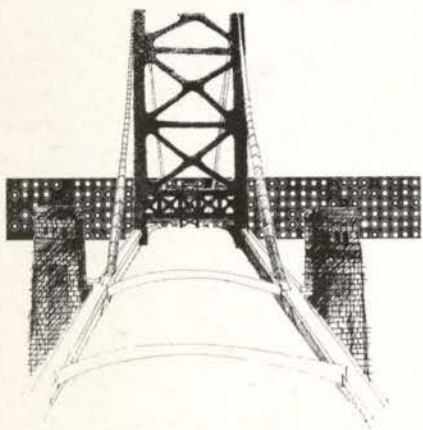
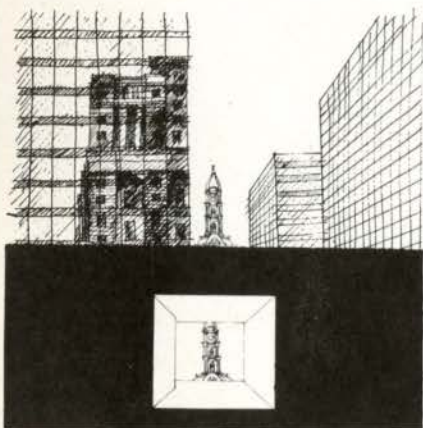
The museum of the living city, or as some prefer to call it, the urban observatory, should be the visual data center of the city and surrounding region.

Movies and models would describe the growth of the region from the 17th century to the present and postulate ten and twenty-year future growth patterns in population, land coverage, higher education and recreation facilities. The blending of this past and projected data might be called "re-creation."

Movies might allow each visitor to dial any relationship in the growth of these aforementioned elements throughout the history of the region and thereby see the various inter-relationships and correlations. Certainly the narration of such exhibits or



sidewalks parking lots parking garages piers jetties  
 subway tunnels platforms entrances stairs escalators  
 signals traffic signs direction signs notice boards pools  
 light poles fire hydrants parking meters sidewalk shelters  
 curb markets police alarm boxes utility poles squares  
 parks playgrounds rivers vest pocket parks walks  
 swimming pools public booths clinics hospitals tracks  
 nursing homes elementary schools junior high schools  
 high schools colleges administration buildings libraries  
 museums historic shrines convention hall stations  
 harbor facilities fountains monuments taxi stands  
 recreation centers prisons auditoriums fire stations  
 police stations fallout shelters junk yards tow trucks  
 wrecking yards airport sports stadiums trash cans  
 litter baskets ambulances city cars police cars buses  
 subway-surface cars trailers tankers elevated tracks  
 subway cars motor cycles garbage trucks fire engines  
 utility trucks trolley cars overhead power cables



growth should be steeped in the history of the region so that school children might be able to sense the context of the times. There should be current maps and models of all kinds describing quickly, clearly, and tangibly things like all houses for sale and their price ranges so that someone moving into or about the city can comprehensively and freely choose a place to live.

There should be similar displays to show industrial land and plant facilities; their magnitude and cost. The location of the unemployed and bad housing should be described. As in the case of slum dwellings, this description should relate the total amount of personal income, its tax assessment, age and population density. There should be descriptions of the availability and location of all public amenities, medical facilities and social help.

The museum should act as the catalyst center for all public information as well as a working center for education, inter-disciplinary and inter-departmental projects. This should be a place where proposed expressway routes and major roads could be shown so their effect on the social, economic and physical face of the city might be assessed in advance. It would be the visual forum for all physical improvements to the city and the initial site for all public announcements to the city of such plans.

**The Place – City Hall**

Philadelphia has the unique situation of having a building at its center which bounds a significant plaza, which is at the cross-roads of major vehicular, pedestrian and mass transit movement, which is symbolically and actually the most prominent structure in the city. City Hall is owned by the city and based

on recent studies, has enormous amounts of unspecified space soon to be available. It is this building which combines the urban spatial characteristics of the Campo di Siena, the governmental symbolism and bulk of the Kremlin, the movement foci of Grand Central Station and the physical prominence of the Eiffel Tower.

The museum would fill the enormous gap in public relations and public education now existing in the region, a gap felt strongly by the Chamber of Commerce, the Office of the City Representative and the Philadelphia Industrial Development Corporation. Simultaneous to the attraction of valuable people and valuable industry, the uniqueness and correctness of such a city demonstration would serve to once again establish the leadership of Philadelphia nationally in urban thought and development.

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**Basic facts about the new Kirsch Ripplefold system.**

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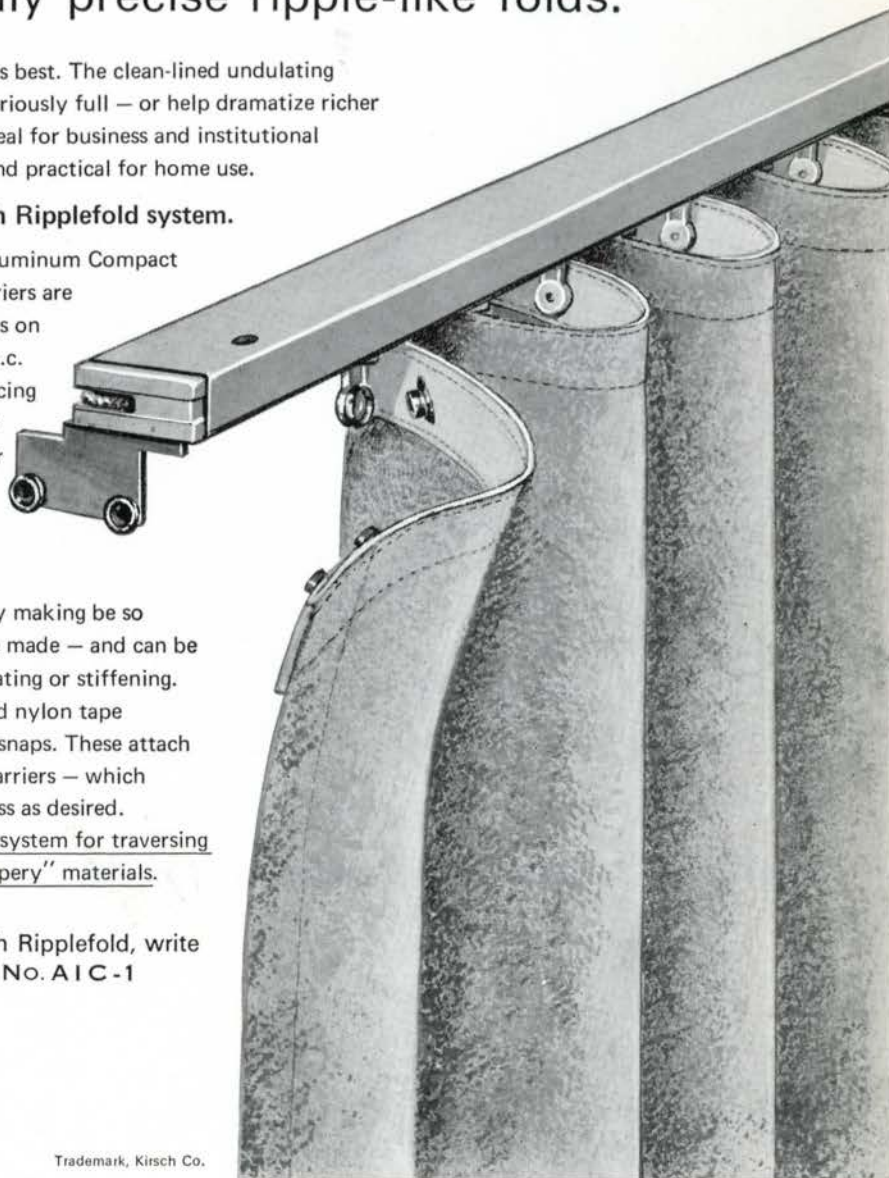
Ripplefold is an especially successful system for traversing bamboo, matchstick and similar "drapery" materials.

For full information on new Kirsch Ripplefold, write Kirsch of Canada, Limited, Dept. NO. AIC-1 Box #488, Woodstock, Ontario

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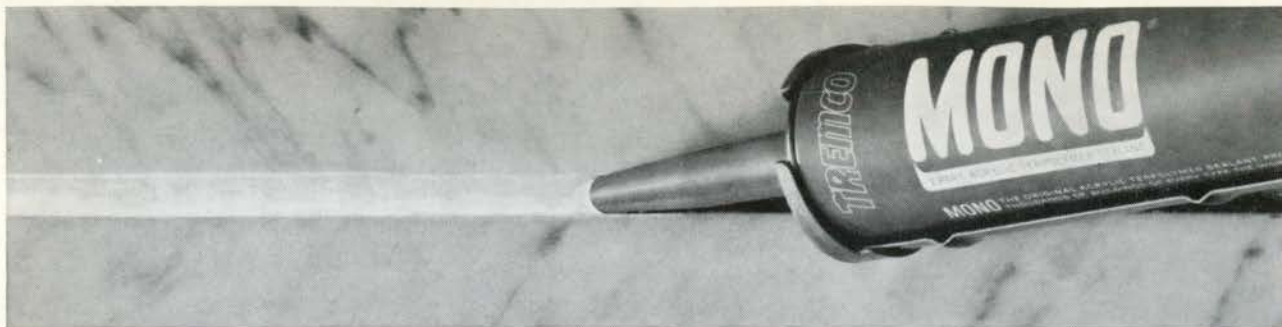
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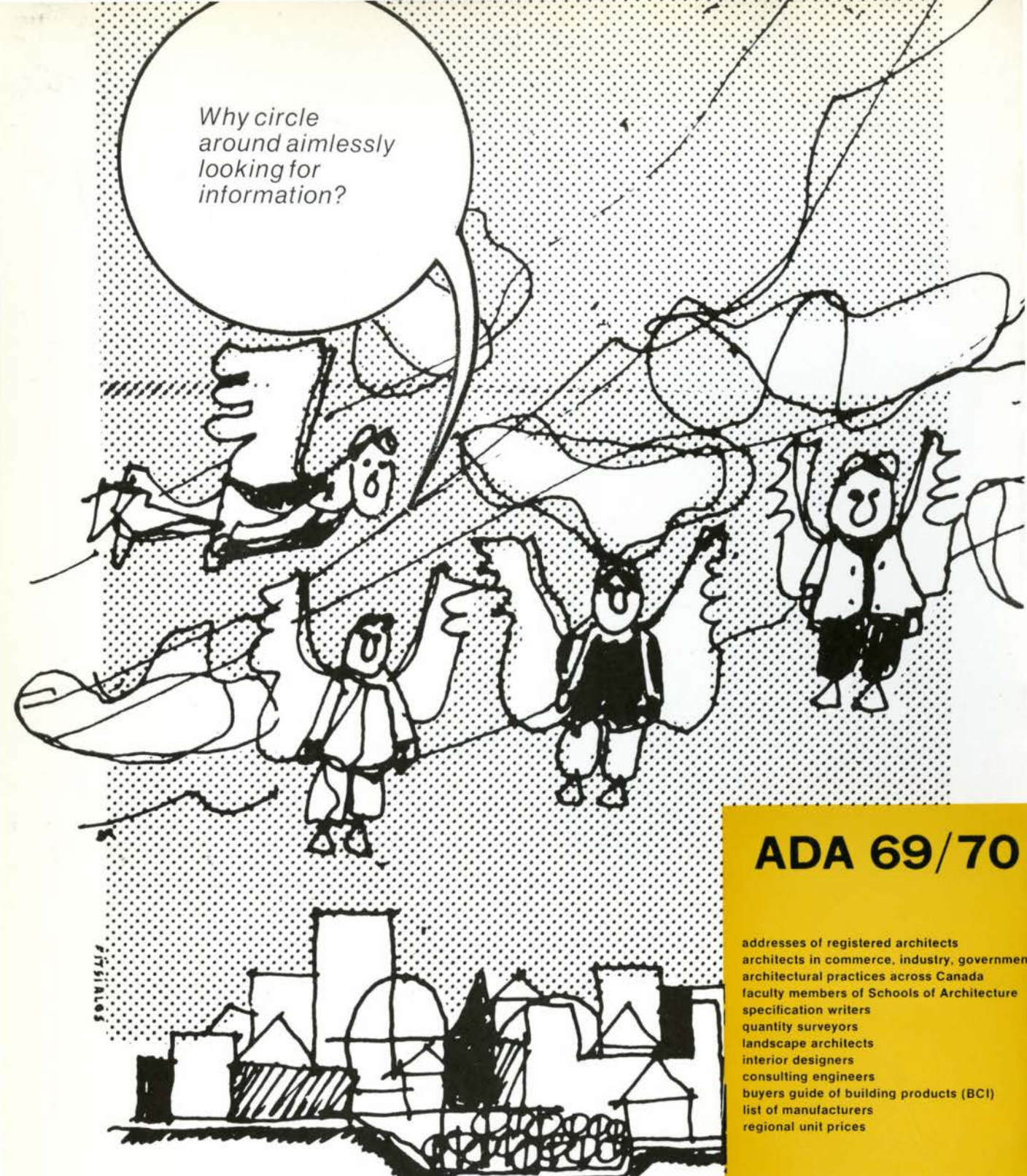
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# A Canadian National Building Specification

R. W. Marsh

**The Economic Development Council of the Building Industry, with the support of The Royal Institute of British Architects, has endorsed the preparation of a "National Building Specification" in Great Britain. Britain will join three other European countries who have National Building Specifications and proponents of a similar document for Canada have been encouraged by this news. Such a document in Canada would have importance far beyond its immediate application as a time saving device and would be a most significant document for the unification of the Construction Industry since the adoption of a Standard Form of Contract. A.W.C.**

A news item in the April '69 edition of the *RIBA Journal* announcing that Great Britain is now going to develop a National Building Specification has given encouragement to proponents of the idea here in Canada. The British "National Building Specification" as it will be called, will be ready by September, 1971, and at that time Britain will join Scandinavia, West Germany and France as countries with National Specifications. More and more people within the Canadian Construction Industry are coming to the conclusion that a nationally accepted master specification would be an important step forward in our continuing drive to greater efficiency and standardization. Each and every building designed by an architect or engineer requires a specification. Buildings designed and built by "package dealers", government authorities, large corporations, and others who use their own staff, prepare specifications. Mortgage companies require specifications before financing new construction.

Thousands of man hours are spent writing, proof-reading, revising and correcting substantially the same sets of words and phrases over and over again. Contractors must carefully read these documents, all of which are variations on a standard theme, to make sure that *this* specification is substantially the same as the last. Although the wording, format, typing and presentation are radically different, the intent is often substantially the same, but to be sure every line must be carefully and methodically read. The need, simply stated, is for a master building specification which covers most construction conditions. As a fully accepted and understood document, it would not need reprinting for each project but could be referred to, together with any special job conditions for each job. We are currently doing this with all manner of documents, standards and references. For example many architects and engineers quote RAIC/CCA Document 12, and then add a list of Supplementary General Conditions. Standards like CSA, CGSB and ASTM Specification references are used without citing the Standard in full. It is therefore, a simple extension of this thinking to conceive of the idea of a Master Building Specification in which we could say, "The NBS will apply except . . ." and then list all our modifying clauses. While it would not dispense with specifications, it should greatly facilitate their production and interpretation. Sweden has used a master specification for over 30 years and their technique and experience is worth comment.

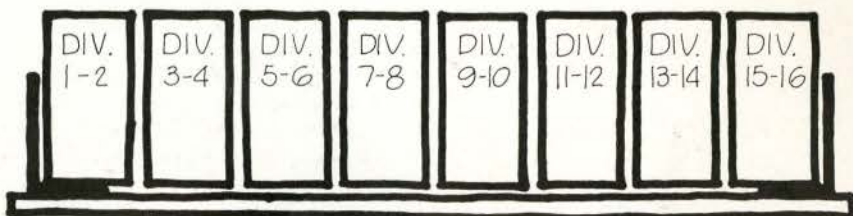
## Swedish Master Specification

Called the Bygg AMA (literally translated "Master Building Specifications and Standards"), it was first prepared in the mid

1930's as a popular but unofficial national specification. In 1940 the Swedish Government, in order to economize on wartime construction, called together the architectural, engineering, construction, financial and "Housing Co-operative" interests of the country and directed them to expand and complete the Bygg AMA "forthwith". With industry and government support the Bygg AMA flourished. Standard details were developed as were standard methods of testing, pricing and measuring. A respectable body of legal opinion and judgments grew up which complemented the technical interpretation.

Eventually a separate company was formed, with industry and government as "shareholders" and directors. A permanent staff, headed by a chief specification writer, now continuously works on the Bygg AMA. This staff includes six section heads, each responsible for a part of the specifications. They meet with builders, architects, engineers, manufacturers, tradesmen and home owners, in a continuing drive to update and improve the documents. The books themselves are sold through retail book-stalls and the latest edition sold 50,000 copies (in a country of eight million people). It is republished in updated form every five years, with supplements available each quarter, much like our own National Building Code. Income from the Bygg AMA insures that the Company is profitable and enables it to underwrite the cost of preparing other master specifications, notably electrical, plumbing and drainage works. The Swedes now view with incredulity our complex, sophisticated, technologically oriented society, still working with individual, uncoordinated specifications of a wide range of quality and soundness.

*Mr Marsh is currently retained by Page & Steele Architects as Project Manager of the Toronto Commerce Court project. In 1963 he formed the firm Marsh & Associates Consultants Ltd, specializing in specifications and construction procedures. In 1967 his firm developed a model computerized information retrieval system and subsequently an automated specification writing system.*





### The Time is Now

In Canada, the situation is far better than in Sweden in 1940. We now have in the CSI/BCI an accepted specification framework. Both the Construction Specification Institute in the United States and the Specification Writers Association in Canada have even developed section formats.

With increased and more widespread use of automated typewriters and computers, specwriters are looking for a master specification as the data base with which to work. With the Presidents Consultative Committee, a sound working relationship between the major professional and construction bodies has long been operating. The federal government is showing great interest in assisting the construction industry in solving its chronic problem of low productivity and marginal profitability.

The format of the Canadian National Building Specification might well be a series of technical sections, following the CSI "Uniform System", complemented with an "explanation" part which advises the user on how to use each section. The "writer" prepares a specification by referring to the applicable NBS Section and then lists the applicable and modifying clauses. Regional differences, if any would be included in the "explanation" part, thus helping specifiers, estimators, bidders or designers in other localities. We have the need, the means and all the parts. It would seem timely that we start putting these factors together and prepare a National Building Specification for Canada. □

## Library Review

### Site Planning

*Kelvin Lynch, 169pp, \$11.00, General Publishing Co. Ltd., 30 Lesmill Road, Don Mills, Ontario.*

Intended as an introduction to the principles of site planning, but makes good general interest reading for architects. Several interesting chapters concerned with the design of streets, utility systems, soil, plants and climate.

### Cost Control in Building Design

*Ministry of Public Building & Works, 419pp, 30s, HMSO, 49 High Holborn, London, W.C.1.*

The fourth in the Building Management Handbook Series, aimed to teach cost control at the design stage. Intended for quantity surveyors, architects & engineers, this may provide direction for similar Canadian programs.

### Prefabrication of Houses

*Burnham Kelly, 466pp, \$13.75, General Publishing Co. Ltd., 30 Lesmill Road, Don Mills, Ontario.*

Progress in this rapidly developing field tends to make this book mainly of analytical and historical interest. Recommended background reading for prefabricated or systems building.

### Canadian Building Contracts

*Immanuel Goldsmith, 216pp, \$13.75, The Carswell Company Ltd., 145 Adelaide Street W., Toronto.*

This Canadian publication contains essential information on contract interpretation, performance & remedies. Also well documented are law & review of bonds and arbitration.

### Manual of Precast Concrete Construction

*Vol. 1, T. Koncz, 297pp, \$17.50, Bauverlag GmbH, D-62 Wiesbaden 1 (Postfach) W. Germany.*

Published in English, this is the first of three volumes, an excellent primer with comparisons between various structural systems & details of structural connections.

### Specifications 1968

*Vol. 1 - 489pp, Vol. 2 - 600pp, \$10.95, Dex Harrison, Editor, General Publishing Co. Ltd., 30 Lesmill Road, Don Mills, Ontario.*

These publications by the Architectural Press, London, England, are a combination of technical papers & advertisements which are updated annually. Although not of direct application in Canada they are an excellent source of information.

### The Rehabilitation Planning Game

*Langley Carleton Keyes Jr, 253pp, \$11.00, General Publishing Co. Ltd., 30 Lesmill Road, Don Mills, Ontario.*

Describes the attempt to overcome public suspicion and hostility to urban renewal by negotiation with residents to conserve neighbourhood character by restoring buildings and leaving the population intact.

### World Timbers

*B. J. Rendle, Vol. 1 - Europe & Africa, 191pp, \$15.25, University of Toronto Press, Toronto 5, Ontario, Canada.*

This is the first of three vols. which will describe and illustrate in color 200 woods used throughout the world. Intended for architects and the Timber Trade & Industry. Vol. 2 will contain woods of North & South America and Vol. 3 Asia & Australasia.

### Building Contracts for Design & Construction

*Harold D. Hauf, 342pp, \$10.95, John Wiley & Sons Inc., 605 Third Ave., New York, NY 10016.*

The book is based upon American practice and use of standard AIA forms. It contains, however, excellent chapters on Building Industry Relationships, Bonds and Construction Insurance, bidding and award procedures & cost plus fee construction contracts. Excellent reference as a background to contract administration.

### Building Failure

Report of Inquiry into Collapse of Flats at Ronan Point, Canning Town, London, England. 72 pp incl. plates. J. M. Stationery Office, 1968 9s.6d. or British Information Service, U.K. High Commissioner, 80 Elgin Street, Ottawa.

# Architectural Education

– The Place of Economic Analysis

**The following letter on the need for training in the economic analysis of buildings has been received from a member of the profession. The subject may be of interest to many students and open discussion is invited.**

*The Editor:*

Two vitally important questions are posed in the Schools Section of the January 1969 issue of *Architecture Canada*:

Are architecture students adequately trained to face the economic aspects of practice, and what is the future of the architect as he becomes less and less involved with building.

I believe these questions are related. A fundamental weakness in the understanding of economics as applied to buildings is generally prevalent both in the schools and in the profession. I believe the weakness stems from the fact that students are not and have not been adequately trained in the field of economics. I further believe that this deficiency is one of the principal reasons why architects are not keeping pace in our economically oriented environment.

Too many practicing architects today are not qualified to forecast realistically the economic consequences of their buildings, either from a capital or operational standpoint. They are therefore not sufficiently qualified to invest the newly graduated student with a respect for, and understanding of economics. Schools of architecture are not yet, it seems, willing to recognize fully the fact that a good working knowledge of economics is an essential part of building development. The cycle appears to be repetitive. Both student and architect remain somewhat deficient in knowledge that should be considered fundamental.

Some of our schools appear to believe that by offering a course in elemental cost analysis they are preparing graduates for further training in economics by practicing architects. Yet in the majority of cases architects themselves require further training! Recently I suggested to the Director of one of the Schools that perhaps economics should be a requirement for graduation. He replied that the first step would be a series of continuing education lectures for practi-

ing architects. Presumably the architects would train students after graduation.

It would appear the academics consider the problem of economics too involved and complicated for student consumption. They seem to believe seriously that exposure to economic considerations curtails the creative ability of the students, and this belief is actually shared by some professionals as well. Personally I can find no viable reason why cost studies should not be a creative challenge in the design process. I suggest students must be prepared to accept realism. No building is built without capital. Money is the governing force in a cost planning program. It is also a major factor in the consideration of recurring costs. It must therefore be classed as a fundamental and necessary part of the design process. Its practical employment should therefore be well understood by the graduate architect.

There appears to be a great deal of complacency that a knowledge of simple cost analysis will give the student a basic understanding of economics. Actually it is but a very small part of the problem.

The average architecture student can be trained to prepare an economic feasibility study. He can be taught to forecast a net return on invested capital after taxes and depreciation. He can be taught the significance of operational costs and the comparative effect of systems design on such costs. Other factors such as maintenance, obsolescence, insurance, etc., can also be dealt with in an elementary manner.

It is no secret that governments and corporations are today bypassing the architect in an alarming manner. They do so by soliciting competitive architectural services through a contractor-developer. Or they protect their capital involvement, as they say, "by appointing a project manager" who will ensure that "practical aspects" will be recognized and respected. One businessman told me recently "I deal directly with the contractor because he is more practical. He speaks my language" – a rather disparaging attitude, yet one shared by an increasing number of clients.

I believe that architects should learn to speak the client's language. A good way to

begin would be to give a training in economics to students in our schools of architecture. So long as practicing architects remain somewhat remote from serious consideration of the economic implications of their buildings, so long will the contractor or developer retain – in fact, increase – his position of superiority over the architect, and the profession as a whole will continue to suffer the consequences. Young people graduating in architecture today are entitled to practice their chosen profession with dignity and confidence. It is up to the universities to assure them of this right.

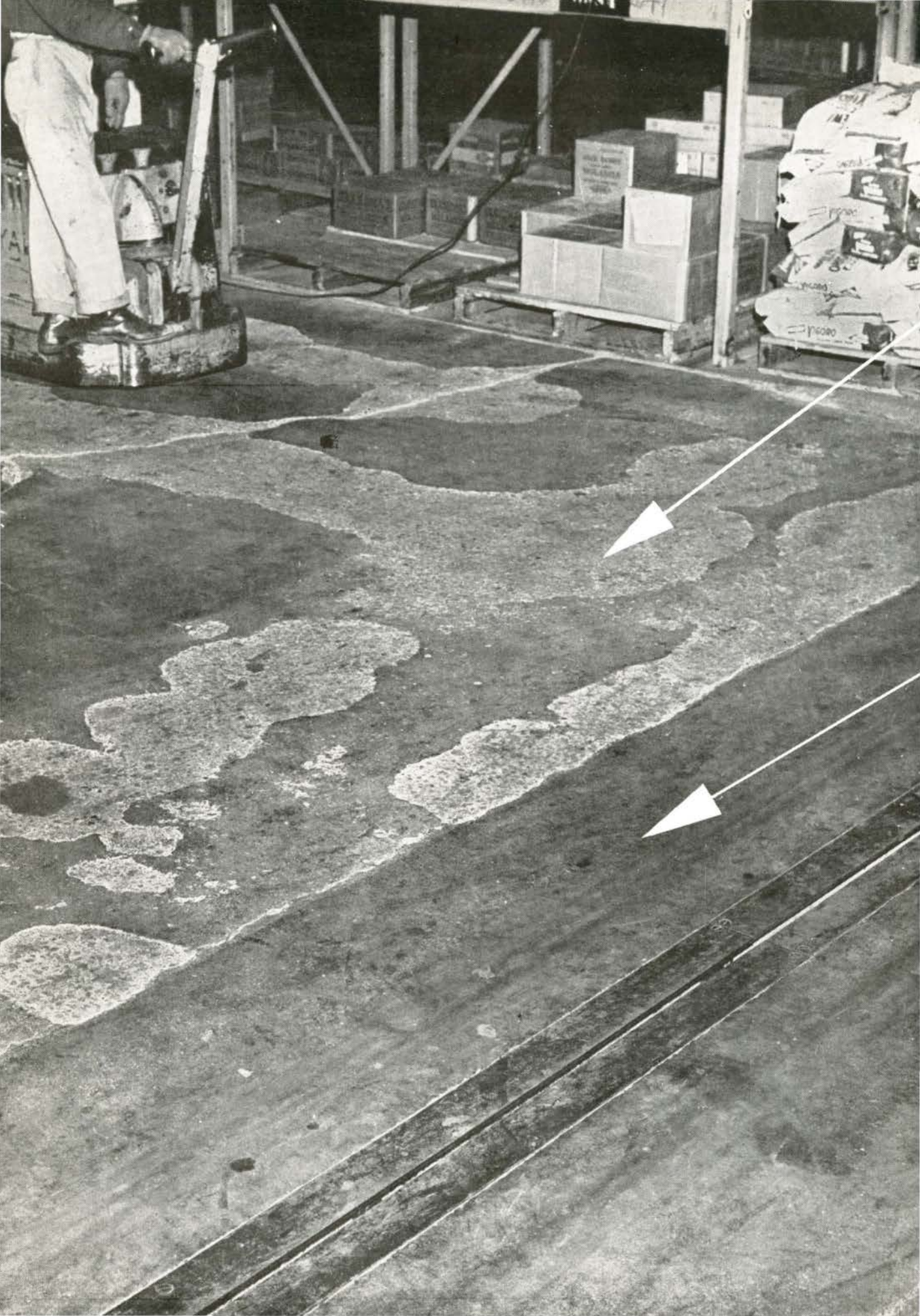
*Robert Ross McKee, MRAIC, Vancouver*

## Student Participation at the Xth World Congress of the UIA

A request has been received for student participation at the Xth World Congress of the International Union of Architects, to be held in Buenos Aires in October 1969.

The student program is planned for October 11 - 16, prior to the World Congress, which takes place October 19 - 26. The main topic is "Housing of Social Interest", and there will be discussions in work groups, round tables and seminars. The hope is students and young architects from all over the world will meet with their counterparts in Argentina, and by exchanging and discussing matters of common interest will be able to coordinate action in areas of mutual concern.

Further information may be obtained from Suipacha 1111, 27th Floor, Buenos Aires, Republica Argentina. The student secretary is Ricardo H Luna.



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**Registrations**

**The Ontario Association of Architects, April, 1969:**

Axel Fischer Andersen, William E. Bennett, John W. Gorham, Peter Williamson Hamilton, Malcolm Byerley Reed

**Practice Notes**

F. W. Beck, Architect, has relocated his office at 276 Merton Street, Toronto 295, 489-9872

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and Prefabrication in the Building Industry at the Technische Universität Hannover since September '68. Fluent Portuguese, German, reasonable English, Spanish, French. Reply G. V. Wickert, Dorotheenstr. 5A Zi 405, 3 Hannover, W. Germany.

English student, 4th year at Hull School of Architecture, seeks position in Canada, preferably part-times, from July 1969 to August 1969. Qualified to Intermediate and Final (Part I) standard, probationer of RIBA. Reply Neil M. Summers, Hull School of Architecture, Anlaby Rd., Hull, England.

Indian, 31 years, B. Arch Bombay 1963, Dipl.-Ing.(Arch) Technical University Aachen 1969, speaks English & German, three years


office experience (two New Delhi, one Aachen), first prize winner Students TP Competition, Bonn, seeks appropriate position. Arriving Canada August 1969. Write Shanti Garg, Kirchberg 16, 1501 Walheim b. Aachen, W. Germany.

Architectural assistant with three year's training from School of Architecture, Cape Town, and one year's office experience in the preparation of design, detailed and working drawings for houses and apartments seeks employment for one year from mid-September prior to continuing studies at Carleton University School of Architecture. Hull-Ottawa area only. Reply to Jeannette Brooker, 40 Dupuis, Hull.

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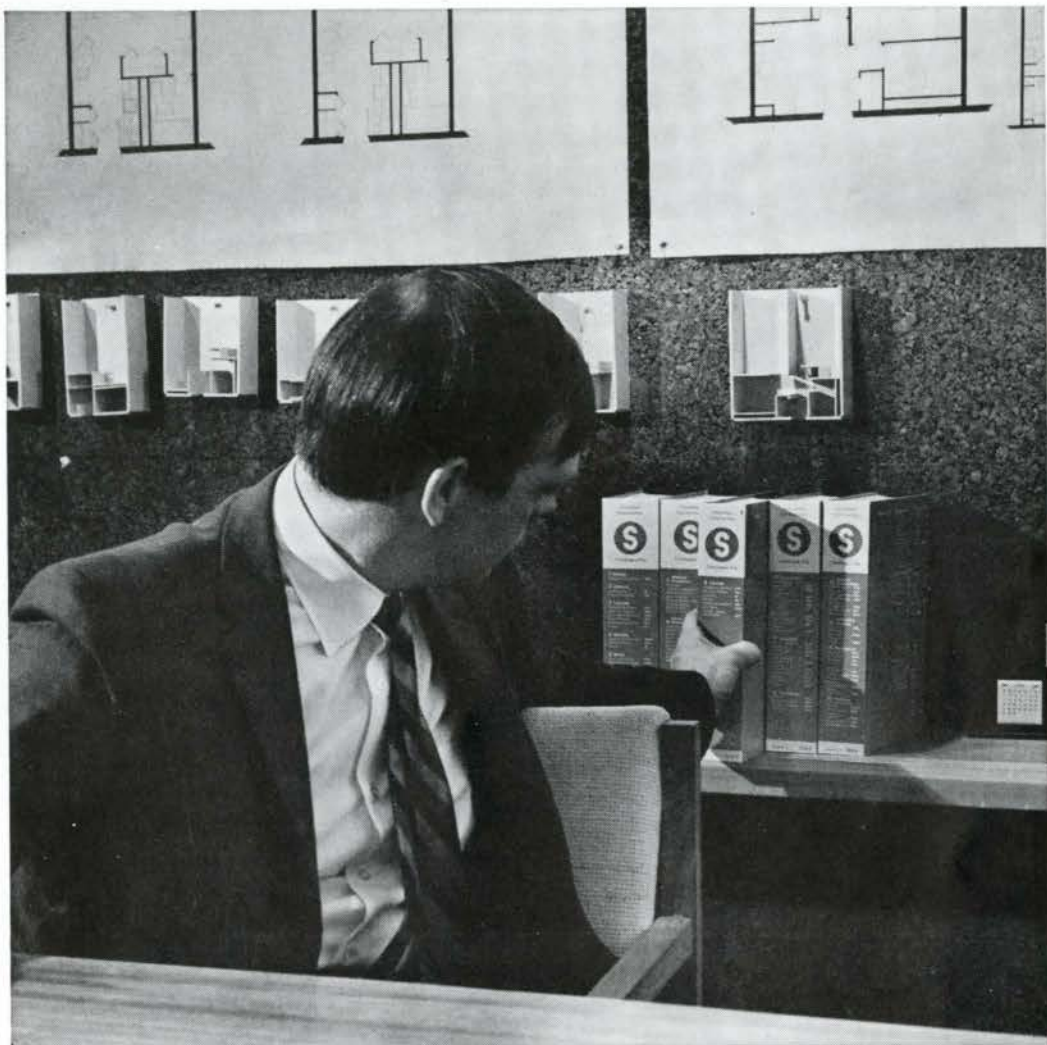
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