

RAIC JOURNAL

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*The Institute does not hold itself responsible for the opinions
expressed by contributors*

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

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EDITORIAL

WE ARE JUST RECOVERING from the reading of some thirty essays which have prompted us to write this editorial. After a similar bout some years ago, we beguiled our members with quotations which indicated a rather hazy understanding of the English language including spelling and sentence construction, as well as some startling misconceptions of the purpose and practice of architecture. Many of them were funny because they came so obviously under the heading of "howlers". This year's crop showed a greater facility in writing with no improvement in spelling, few howlers of the school boy variety and a great deal of nonsense that passes nowadays for architectural criticism or analysis. We noticed, also, a tendency to think of buildings as abstractions, of plans in terms of Mondrian — all unrelated to people. One favourite, and justly famous house is always examined on a high aesthetic plane in which the reader becomes enthralled with pattern and hovering planes, and free flowing space. We know all these things to be true, and may even have been guilty of demonstrating them, but what disturbs us is the students' unwillingness, because it cannot be inability, to discuss the same house in human terms of privacy, convenience and comfort. By the time the student has finished with the house as an abstraction, he is floating himself in an architectural ether in which his soul rebels at any discussion of every day things. In fact, at this point, we hesitate ourself to say of the same house that the bedroom is separated from the living room by a cupboard, and that the cook in the kitchen is visible above her waist from the living room. We admit that practical considerations of this kind once weighed too heavily over considerations of aesthetics, but we have not yet reached a stage where we can ignore them. Nor does the student ignore them as a designer. On the contrary, the habits and needs of man are studied today with a thoroughness that can only be described as scientific. We hesitate to generalize with an experience of only one school, but much architectural criticism in the press, and our own reading of essays would lead us to believe that there is a widening gap between the student as designer and the student as critic.

It may be that when the student sits down to write an essay of a thousand words or more, he becomes "inebriated" like many before him "with the exuberance of his own verbosity", and words, rather than clarity of expression, carry him away. He is also trying to impress the reader, and rhetoric seems like an easy and attractive solution. The language of A. E. Housman or Mumford is neglected for one that is nothing, if not polysyllabic, and meaningless. The greatest spate of words is used to describe the words of a master who expressed his own work in the simple words "less is more". Our young Miesians forget that those magic words go back to the very origin of the English language, and it is because of their simplicity that they sent a clarion call to the architects of the world. Had Mr van der Rohe said "If one could only induce architects to envisage a minimum in material, the end product would result in a maximum spacial (sic) experience", his words would have died as a whisper, not in Rome, but at the other side of his desk. We are told that "he stands diagonally opposite the organists", but does he not stand for something more than that? Is there a not a parallel somewhere between the beauty which arises out of simplicity, clarity of construction and elegance of proportion, and the same qualities in thinking and in writing?

As we read, and failed to grasp, the full horror of the statement that "man has lost his vegetative relationship to his native soil," we took courage from the lines of W. S. Gilbert —

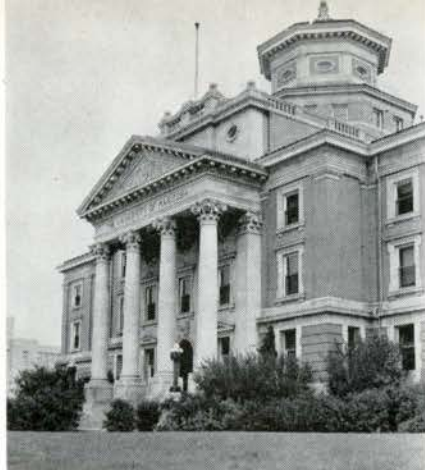
"If you're anxious for to shine in the high aesthetic line as a man of culture rare,
You must get up all the germs of the transcendental terms, and plant them everywhere.
You must lie upon the daisies and discourse in novel phrases of your complicated state of mind,
The meaning doesn't matter if it's only idle chatter of a transcendental kind.

And every one will say,

As you walk your mystic way,

"If this young man expresses himself in terms too deep for *me*,
Why, what a very singularly deep young man this deep young man must be!"

Architectural Education at



The University of Manitoba

1913

1953

THE SCHOOL OF ARCHITECTURE has just celebrated the fortieth anniversary of its establishment in 1913 as a department within the Faculty of Engineering and Architecture and under the direction of Dr A. A. Stoughton, now professor emeritus of architecture. Commencing with five students under the one instructor and reduced to one student during World War I, the numbers have steadily increased reaching an all-time high of four hundred and four in the recent post-war period. Today, registration stands at one hundred and nine architects, sixty-seven interior designers and six postgraduate students, with a staff of eleven instructors devoting full time to professional instruction within the School itself.

Between 1929 and 1946, while Milton S. Osborne, FRAIC, was director, many changes were instituted in the program of study; graduate study in architecture was introduced and, in 1938, Canada's first university course in interior decoration was established within the School. 1948 saw the introduction of completely revamped curricula in architecture and interior design and, in 1950, graduate work in the field of community planning was added.

Like the City of Winnipeg, the School is a truly cosmopolitan one with students from all parts of Canada, as well as the United States, England, China, India and Trinidad. Its staff includes members from England, Germany and Czechoslovakia, as well as Canada and the United States. The mixture and fusion of these many environmental patterns and interests enrich and stimulate the life of students and staff alike.

During its comparatively short lifetime, the School has graduated three hundred and ninety-two students in architecture and two hundred and eighteen in interior design. These are practising their professions in the four corners of the globe—England, France, Italy, Colombia, Australia, China, Mexico and the United States, as well as from coast to coast in Canada.

Although the work of the School is, at the moment, decentralized among six buildings on the campus, it is nevertheless welded into a unity of purpose and achievement by a well-organized student body which co-operates splendidly with the staff in a very full program of study, creative endeavour and extra curricular activities.

This happy association of students and staff, plus a closely integrated curriculum which involves co-operative endeavour with specialists and students in engineering, the arts and the sciences, sharpens our focus on the university ideal, that of creating for the student a rich and full life with training for leadership.

We welcome the opportunity afforded by the Editorial Board of the *Journal* of the RAIC to present in this issue a cross section of the program of work and activity at Manitoba.

John A. Russell, Director



Program for Architectural Education


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- 1 ENGLISH PROSE
- 2 URBAN SOCIOLOGY GEOGRAPHY
- 3 HISTORY OF ART I ECONOMICS
- 4 HISTORY OF ART II HISTORY OF URBAN DEVELOPMENT
- 5 HISTORY OF ART III URBAN DEVELOPMENT


 D E S I G N S T U D I E S

	1	2	3	4	5
	FUNDAMENTALS OF DESIGN ARCHITECTURAL DRAWING	DESIGN I THEORY OF DESIGN I GRAPHIC PRESENTATION COLOR I FURNITURE DESIGN SEMINAR I SUMMER WORK	DESIGN II THEORY OF DESIGN II GRAPHIC PRESENTATION COLOR II SEMINAR II SUMMER WORK	DESIGN III THEORY OF DESIGN III GRAPHIC PRES. ELECTIVES INDUSTRIAL DESIGN I SEMINAR III SUMMER WORK	DESIGN IV INDUSTRIAL DESIGN II ELECTIVES BACH. ARCH. THESIS THESIS RESEARCH SEMINAR IV

	1	2	3	4	5
	ANALYTICAL GEOMETRY & CALCULUS TRIGONOMETRY MECHANICS MATERIALS & PROCESSES SURVEYING & FIELD-WORK	PHYSICS STRENGTH OF MATERIALS GRAPHICAL STATICS BUILDING CONSTRUCTION	STRUCTURAL DESIGN FOUNDATIONS LANDSCAPE MATERIALS BUILDING CONSTRUCTION	REINFORCED CONCRETE MATERIALS TESTING LAB. MECHANICAL EQUIPMENT ILLUMINATION PROFESSIONAL PRACTICE & SPECIFICATIONS	STRUCTURAL PLANNING ARCHITECTURAL ACOUSTICS PROFESSIONAL PRACTICE PROFESSIONAL EXPRESSION


 T E C H N I C A L S T U D I E S

In these times when the art, the science and the business of building are becoming increasingly complex, we feel that it is unwise to define a rigid pattern for architectural education. The following statements, however, indicate the direction of our approach to the education and training of the student of architecture.

- The architect as the artist-builder cannot remain isolated from the arts, the social sciences and engineering if he is to attain his full stature.

- The boundaries of architecture are both flexible and far-reaching, encompassing many diverse, though related, fields of creative activity. The architect's training period as a student must afford him the opportunity of understanding the inter-relationships of these disciplines. While this training will prepare him for the general practice of architecture, his special interests may conceivably lead him into practice or research within one of the allied fields of planning, industrial design or construction.

- Awareness of the importance of these allied fields is meaningless unless they are so co-ordinated and utilized as to further the growth of architecture as a whole. Furthermore, the co-ordination of the art, the business and the science of building is implicit in the successful practice of architecture. Therefore, it is necessary to organize a program of integrated studies in which co-ordination and balance are emphasized and their application is clearly demonstrated.

- Within a co-ordinated framework of studies (design, technology and culture) freedom must exist in order to promote uninhibited and creative architecture. It should be demonstrated to the student that there are varying approaches to the analysis and the solution of any given problem. In fact, we require the student to investigate and present several variants on most projects in order that he may become more fully aware of the latitude of selection and his freedom of choice.

- The success of the teaching program in any school depends on the mutually co-operative effort of students and staff. Working as a team, each learns from the other through precept and discussion. Programming must stimulate instructors and students to the discovery of their solutions together. Essential to the success of this approach is the avoidance of preconceived solutions on the part of all concerned.

- To enable the student to exercise his freedom of choice wisely, his training period must include a series of well-integrated experiences, participation in which will develop his analytical faculty and critical attitude. In this way he will be able to avoid the confusion which frequently arises in the undisciplined approach, and his work will thereby achieve the desirable clarity in content and meaning.

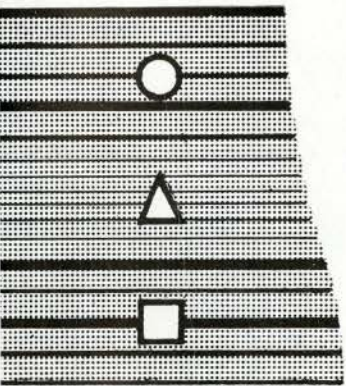
- Although we are primarily concerned with the training of the professional architect, there must be sufficient flexibility in the teaching program and methods to allow for individual specialization. The student does not necessarily need to acquire a completely thorough knowledge in all fields but rather should develop a sensitivity for the broad aspects of his subject as it involves those fields.

- Environment being a controlling factor in design, it should not limit or determine the pattern of instruction or the capacity of the individual student. Our School, therefore, does not train for its particular region but, through problems programmed for varying localities, it seeks to produce graduates capable of analyzing and planning under widely diverse conditions.

- Basic outline of course (see diagram opposite): *The Design Studies* are directed toward the service of social utility through the creation of space and form that are both expressive and significant. *The Technical Studies* are closely integrated with the design studies and, as such, are focussed toward the achievement of the structural fitness of form, as well as toward the mechanical control of heat, light and sound in space. *The Cultural Studies* provide the broad background, the understanding of which correlates form and space to man and society.

- Such a pattern of studies obviously does not aim at the creation of the star performer nor at the production of a special type of architect in quantity. Our objective is to give impetus and guidance to the student in his climb towards the professional level and thus to enable him to become an architect of individual quality capable of fulfilling his professional obligations.

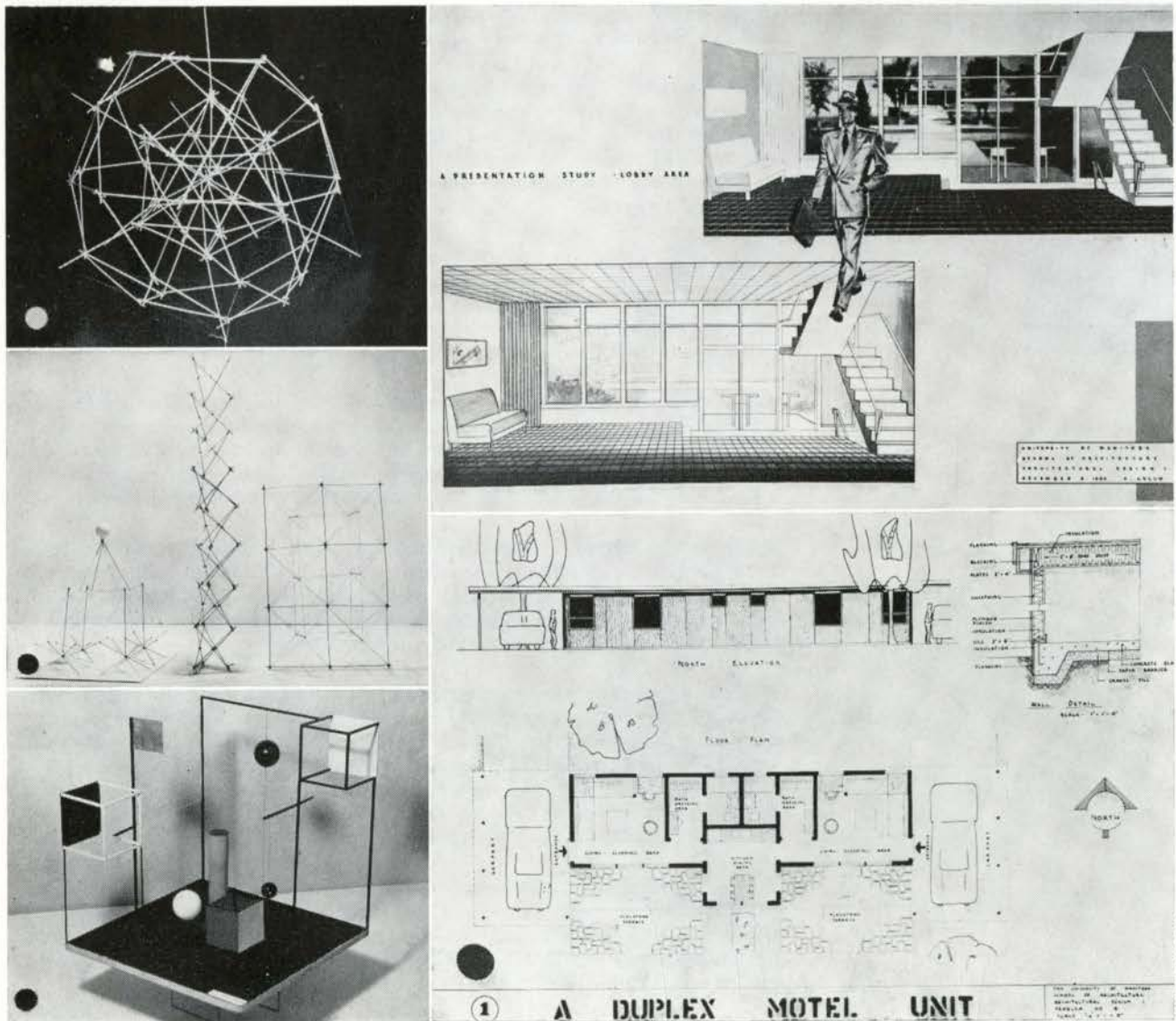
The Staff



AT THE UNIVERSITY OF MANITOBA, design forms the backbone of the student's architectural education. Broadly speaking, this education involves an analysis of the basic elements which the designer uses in all the creative arts, and results in a synthesis of these elements into their final state, whether they be manifested in architectural design, community planning, interior design or industrial design. Into this broad philosophy of design come many other components which enable the student to cope with the social and technical problems of his age. Modern architectural philosophy has elevated the human element of design to a place of great importance. Any school which sent its graduates into the field without making this aspect an integral part of their equipment would do a disservice to both the graduate and the profession as a whole. For this reason, the education of the architect includes: a history of the principles of architectural, sculptural and pictorial design in relation to the culture producing it, an examination of the principles of sociology and social patterns, of economics and the natural sciences.

The first step in the student's development comes in the course Fundamentals of Design and Materials. These courses provide opportunity for sensory familiarization with texture, colour, volume and space with the emphasis on the aesthetic qualities of these elements. These elements of expression are presented in orthographic and isometric projection and in various graphic media and involve simple studies in mass composition. A series of specially prepared exercises are performed with no special stress on design or practical results. The student is required only to observe the limitless variations and characteristics of the many elements.

From such basic exercises, the student of Design I is led to problems involving larger scale, usually beginning with a



Design II

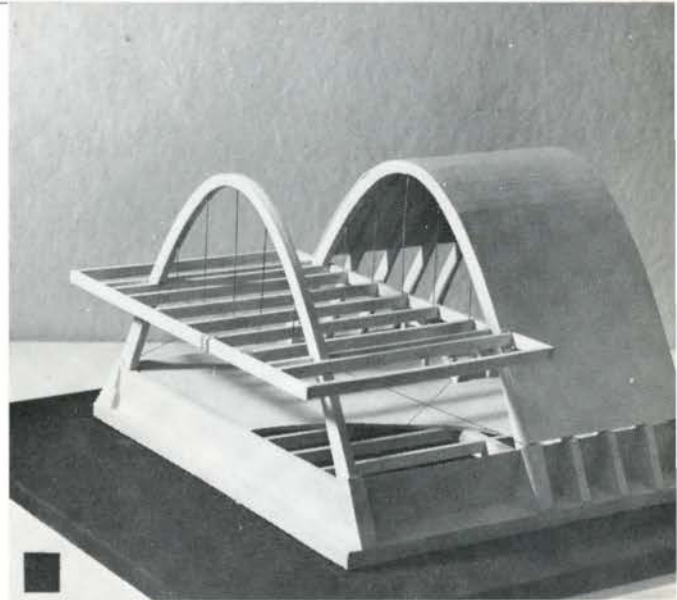
single cell unit and leading to the final synthesis of all his design training, the fifth year thesis. The study of elementary structures, properties and uses of building materials with emphasis on good practice in detailing is introduced. The student thus becomes conscious of the significance of structural elements in architectural design and each student is responsible for scale models of various structural systems in wood, concrete and steel. (The importance of a thorough understanding of structure in architecture is discussed separately in this issue). Design II consists chiefly of thorough investigation into structural joint problems and the theory of framing. The final problem of the year is carried to an advanced stage analysis to give the student an opportunity to develop a simple building. Landscape and colour in architecture are considered an integral part of every design project.

At the end of every year a solo problem is given to develop the student's sense of design without supervision from the design staff. This problem is usually of short duration and is graded for the original thought and rational approach rather than detail and presentation shown. In the senior years, major problems may be of one or even two terms duration so that the student develops a real insight into the problem rather than a superficial treatment. Design III leads the student into problems of layout like the University Campus or the Musicians' Co-operative Centre shown here.

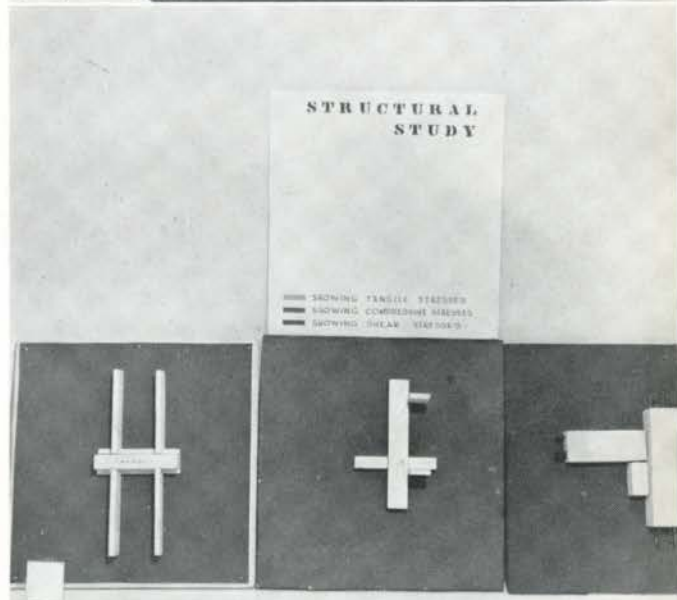
Co-ordinated with design courses are the lecture courses in mechanical equipment, heating and ventilating, and electrical illumination. In conjunction with these, a series of lectures and discussions with engineers, consultants and advisers in the building trades is arranged. These lectures always stimulate interest and impart solid, practical knowledge of products and techniques to students. In addition to this, field trips to every new local building project, from housing developments to large scale structures like hospitals, are organized. These trips impart a visual experience of architectural techniques which the student can never gain at the drawing board.

At this stage in his development, the student has a good grasp of the visual elements of design. The next step logically takes him into problems of industrial design and community planning. Through lecture courses, the student is given a survey of the history of the development of the city as an expression of the requirements of the age. He is acquainted with basic social and physical aspects of the planning of an urban community, the organization of planning bodies, Canadian housing policies and the requirements of the master plan. The practical adjunct of this course is a collaborative problem in neighborhood planning. Problems of land densities, family groupings, and

1



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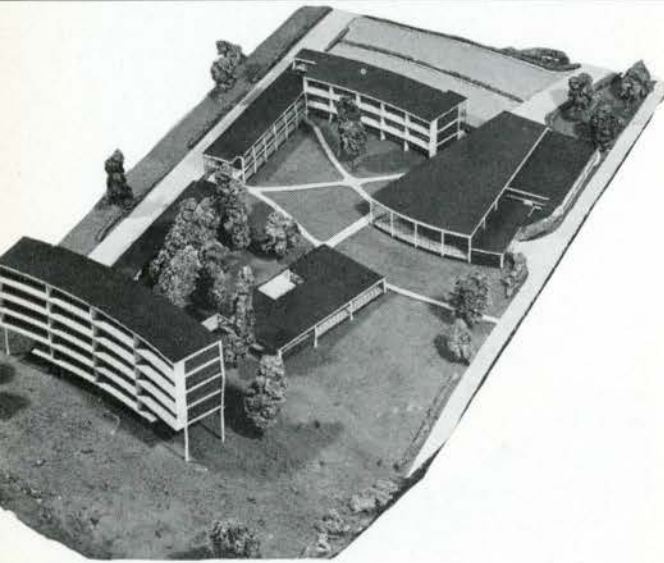
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FREDRIC PERRY

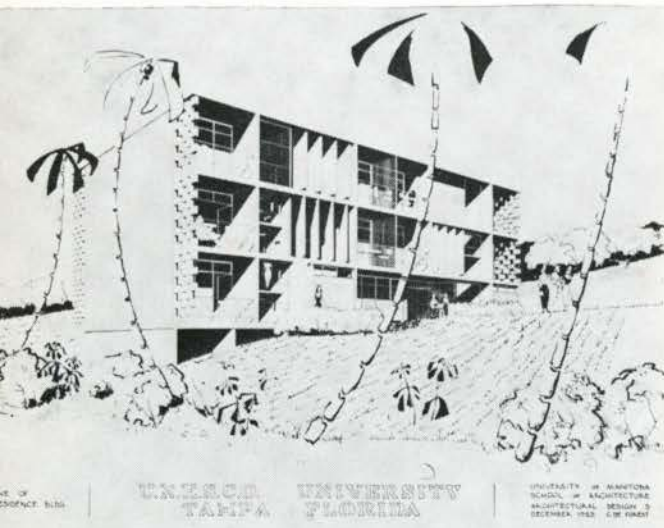
1 and 2 Group problems in second year design.

3 Architects' Collaborative A. Mudry

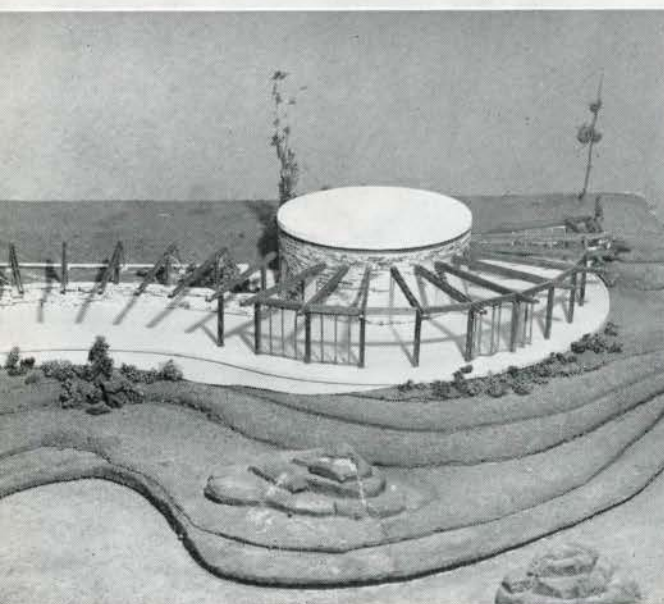


Design III

Musicians' Co-operative: This group was designed to serve the needs of professional music teachers and students. This scheme includes living apartments for teachers and families, day studios, classrooms, library, concert hall and small restaurant. C. H. Pfister



UNESCO University, Tampa, Florida: A study of buildings in different climates involving site planning, design of residential buildings and structural studies, taking into account the conditions of the region in which the building is erected. C. de Forest



A Summer Restaurant: The problem was to design a demountable structure, with permanent kitchen and service core, for a rolling site on the Winnipeg River. Working drawings and outline specifications were presented with this model. K. R. Webber, A. M. Nixon, R. D. Gillmor and R. F. Ackermann

Design IV

the various physical factors of the site must first be solved. Teams of students with a similar site but various housing conditions and types carry the problem to a final model stage.

At various stages throughout the year, sketch problems of a week's duration are given to encourage quick independent thinking. The university chapel shown here is a week's problem, the site chosen being on our campus. This chapel was conceived as a component in the cultural, technical and spiritual composition of The University of Manitoba.

A recent innovation in the fifth year is the structural planning seminar. This course is a symposium discussion conducted by members of the staff in engineering and architecture for the purpose of co-ordinating the materials and methods of construction with the process of architectural design. Emphasis is placed upon the creative possibilities resulting from collaboration of the engineering consultant and architect throughout the design stage. Typical structural systems are evolved and reduced to

their unit costs for purposes of critical comparison. These cost figures are actual figures based on local conditions and material prices and, as such, constitute a very real approach to building costs for the student.

The thesis is the culmination of five years of design training. The student must program his requirements in an extensive thesis report, detailing the background, site relationships and planning data. The thesis is carried through preliminary to advanced stages of analysis and synthesis. The final presentation includes all essential plans, perspectives, working details and models and is presented by the student graduand to a jury composed of practising architects, staff and engineering consultants.

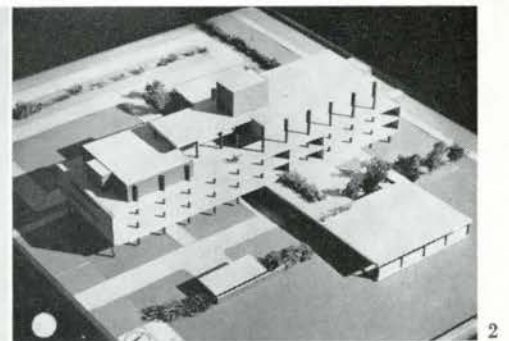
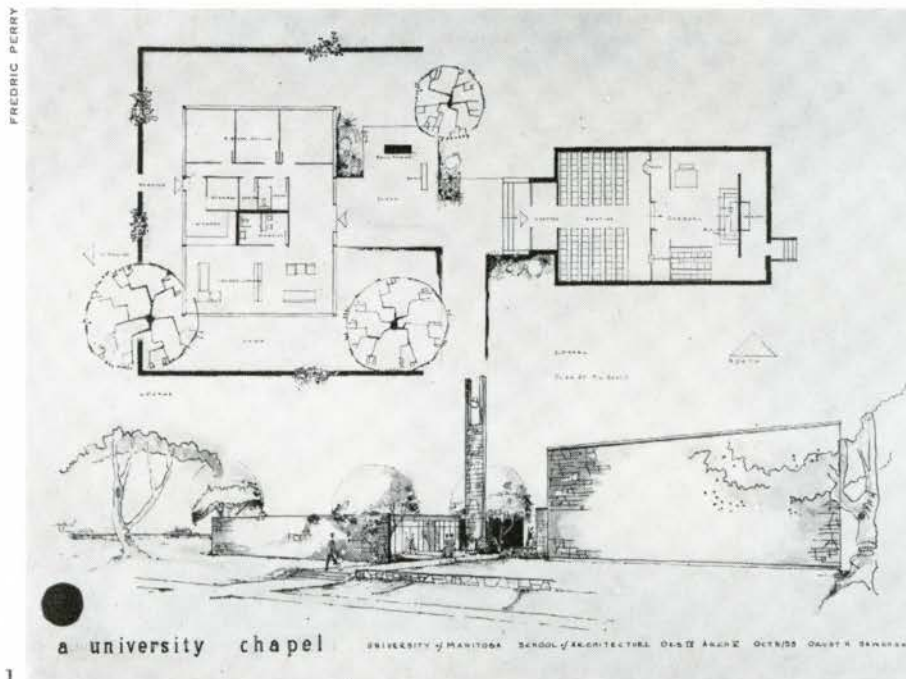
At no time during the student's training is he taught to emulate the great architecture or architects of the past or present. The student is encouraged to understand the principles that the modern masters have demonstrated. It is the obligation of this generation to arrive at its own synthesis of the truths which the modern masters have distilled from the chaos of our times.

compiled by R. D. Gillmor

1 *A University Chapel: A one week sketch problem on a university campus site. This chapel was conceived as a component in the cultural-technical-spiritual composition of The University of Manitoba. O. H. Sawchuk*

2 *Orthopaedic Hospital for Western Canada: Three floors of patients' wards with service core and surgical suites split on the fourth. Designed for vertical expansion to three hundred beds. M. P. Michener*

3 *Arena, Red River Exhibition: Structural model of sports arena for the Red River Exhibition. Capacity six thousand. S. M. Pauch*



Thesis



A Communication Centre for the Winnipeg Free Press: The program was based on material obtained in conference with the publishers and is composed of newspaper plant, radio station, and services to be situated on an extension to the existing facilities. Roy Lev



A Resort Centre for Saskatchewan: Actual requirements include central dining and recreational units; site planning for all program components. Boyle Schaefer



House of Representatives, Kingston, Jamaica: An actual site and specific requirements for the House, the secretariat and archive units were obtained from the Government of Jamaica. Mr Vayden R. McMorris was awarded the Pilkington Traveling Fellowship for 1953.

FREDRIC PERRY

A City Hall for Winnipeg

RELATED ASPECTS

LANDSCAPE

OBJECT OF LANDSCAPING
 TO GIVE THE RICHEST, MOST PLASTIC & SATISFYING FORM TO THE SPACE WHICH IS BEING ORGANIZED
 TO CONCENTRATE ALWAYS ON THAT SPACE AS AN AREA, VOLUME, BACKGROUND & SHELTER FOR HUMAN LIFE AND ACTIVITY

THE FOCAL POINT
 THE TERNAL FEATURES THE FORMAL, VITALITY TO ANY SPATIAL ENCLUM
 ALL FORM MUST RELATE TO THE FORM OF PEOPLE TO THEIR SIZE, THEIR SHAPE
 THE WAY IN WHICH THEY MOVE & RELAX
 THEIR REQUIREMENTS AS TO AIR, SUN, SHADE
 THE WAY IN WHICH THEY PERCEIVE THEIR SURROUNDINGS

PRACTICAL SOLUTIONS OF LANDSCAPING PROBLEMS TAKE THE FOLLOWING STEPS—

SURFACING
 IS ESSENTIAL TO ELIMINATE SUMMER DIRT, SEASONAL MUD, & FACILITATE CLEARING SNOW

ENCLOSURES
 STILES (PRIMARY)
 - INORGANIC
 PAVES OF ALL SORTS ON TERRACE, WALKS & DRIVE
 TERRACING
 PERENNIAL PLANTED COVER, LAWNS AND OTHER MAT FORMING, TRAILING OR SPREADING PLANTS
 CULTIVATED FOR GROWTH OF CHANGING GROUPS OF FLOWERS ETC. THROUGH SEASON IN TUBES OR CONTAINERS GROWTH IS CUT DOWN

ENVIRONMENT
 NEED TO CONTROL OF VIEWS INTO THE GARDEN FROM OUTSIDE
 AREAS OF SCREENING AND FRADING
 NEED FOR PROTECTION SHELTER AND SHADE

FLOWER BORDERS
SPECIAL PLANTS
SPECTRUM TREES & SHRUBS
ROCKS
SCULPTURE
MURALS
LEGAMINES

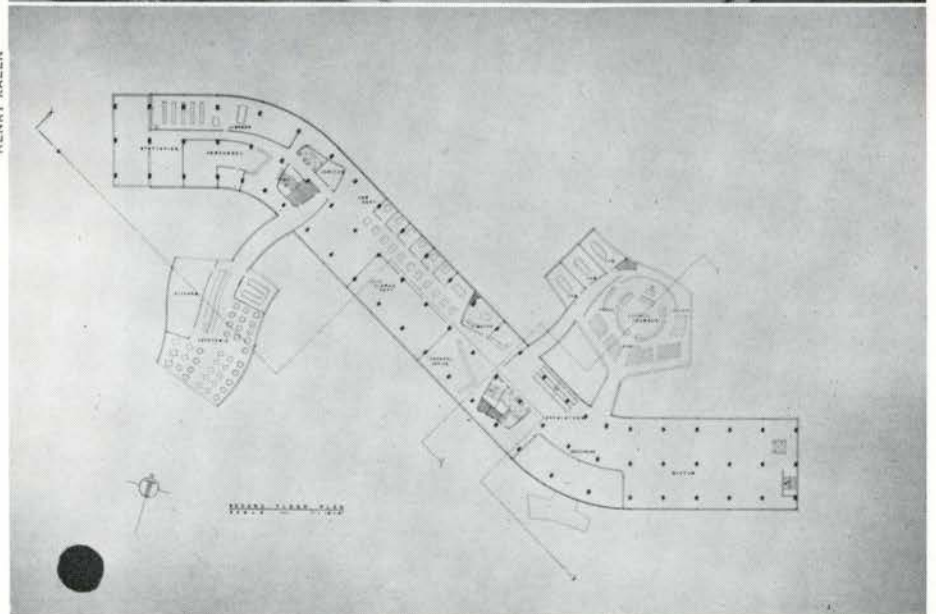
BASIC ELEMENTS OF THE LANDSCAPE - EARTH, ROCK AND WATER
 CONDITIONS BY SOLOVAL, TEXTURE, PREFERENCE AND LIGHTING

Related Aspects: One of a series in the pre-design research for the City Hall Competition. O. H. Sawchuk

City Hall for Winnipeg: A problem well-received by the awards jury. It was praised for its originality and freshness of concept. Arthur Peach



HENRY KALEN



City Hall for Winnipeg: Second floor plan of above scheme showing restaurant, council chamber, offices of the mayor, city clerk and city solicitor. Arthur Peach

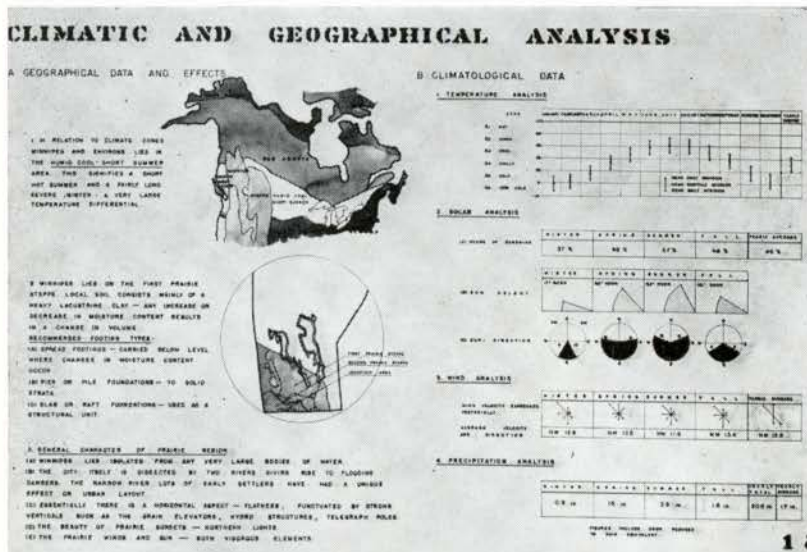
A City Hall for Winnipeg

FOR THE PRE-THESIS TERM in fifth year this session, the senior design staff chose a very cogent problem — a new city hall for Winnipeg. Although the existing city hall undoubtedly possesses an air of intimacy in its small forecourts and a certain quality of Victorian staidness, it has ceased to function as a total administrative unit for Metropolitan Winnipeg. Aside from meeting an urgent need, the problem was given further stimulus by the Indiana Limestone Institute of Bedford, Indiana, who offered \$500 in cash prizes to the three best solutions.

The problem resolved, then, into two basic considerations: what type of structure is best suited to house the civic administration, and, how can a traditional mass material like stone be adapted to modern theories of lightness and space?

Before attacking the problem on the design board, the class participated in an extensive program of preliminary research. This pre-design stage included research into every conceivable phase of civic planning from local geographical and climatic data to municipal organization — in short, all the physical and social aspects influencing civic design.

This material was presented in mounted form for use of the class group throughout the problem. During this phase of the problem, the students were privileged to hear guest lecturers speak on sociology, political science and civic adminis-



Climatic and Geographical Analysis: Another of a series in the pre-design research. A discussion of climate, soil conditions, solar analysis. K. R. Webber and R. D. Gillmor



City Hall for Winnipeg: Perspective across plaza showing office tower and council chamber. R. D. Gillmor

tration. City aldermen outlined municipal organization. Eric W. Thrift, director of the Metropolitan Planning Commission, discussed the urban aspects of the selected site. The city architect and chief engineer spoke on the physical aspects of civic design. The program gradually rounded out and the design stage was reached.

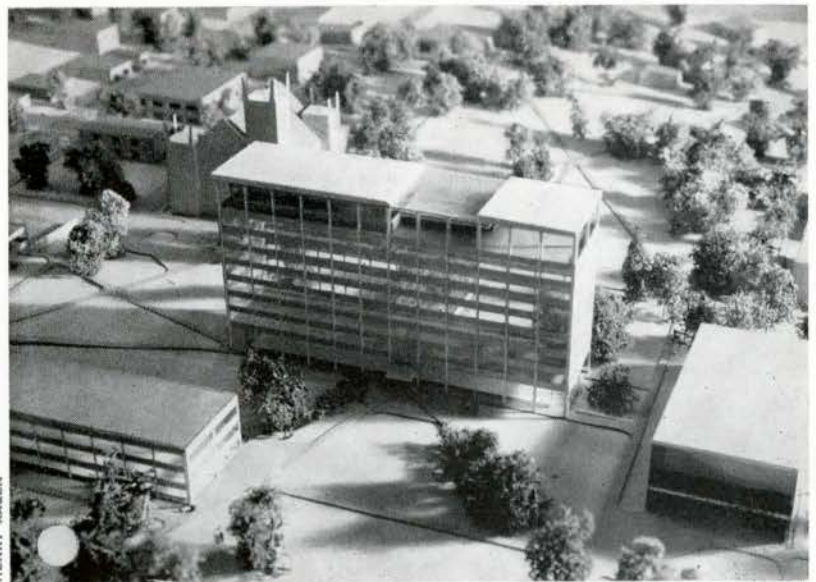
The city hall was conceived as one of a group of civic buildings on an area comprising three city blocks. The area included an historical museum, a civic playhouse theatre and a health and welfare building. For this reason, the next stage involved preliminary studies both in site model and in graphic form.

The final solutions generally showed divergence in two directions, that of the block office building type incorporating all the administrative offices in one structure, and, conversely, a Mumfordian approach tending to disperse the administration into smaller but related connecting units. Both approaches were given full consideration by the awards jury.

The ten top solutions have been publicly exhibited by the T. Eaton Company retail store in Winnipeg. Thus, the School of Architecture continues to play a part in the creation of informed public opinion on contemporary design.

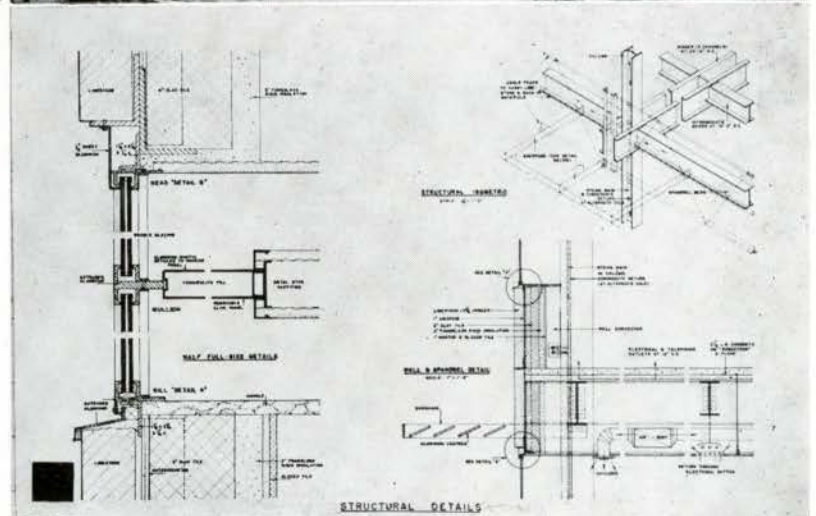
R. D. Gillmor

City Hall for Winnipeg: Another scheme showing the city hall and related buildings in the civic setting. C. H. Pfister



HENRY KALEN

City Hall for Winnipeg: Structural details (walls and spandrel section) showing the use of Indiana limestone. J. B. Sutherland



Merchant Builders' Houses

THIS THESIS attempts to investigate some of the problems facing the merchant builder in his subdivisions. It also tries to show what can be done when an existing problem is taken and re-analyzed. Although we realize the shortcomings of the final solution, it may indicate some possibilities in layout and construction and in an integration of the two. In my original thesis I was going to deal with the houses only and use a standard subdivision of land fitting the houses on the allotted sites. However, during the process of study I became more and more aware of the inadequacy of present-day lot subdivisions so that, in the final solution, the site was resubdivided.

The Problem

To subdivide the property in such a way as to give the houses space around them rather than just a front and back yard with minimum side yards. This had to be done without appreciably altering the number of families proposed to be housed in the subdivision, to overcome the objection of "uneconomical development."

To design a number of homes suitable for erection by merchant builders, the houses to be such that they can be sold to families of moderate incomes.

To take into consideration the problem of the short building season in western Canada.

To provide a house that could be expanded with a minimum number of construction problems.

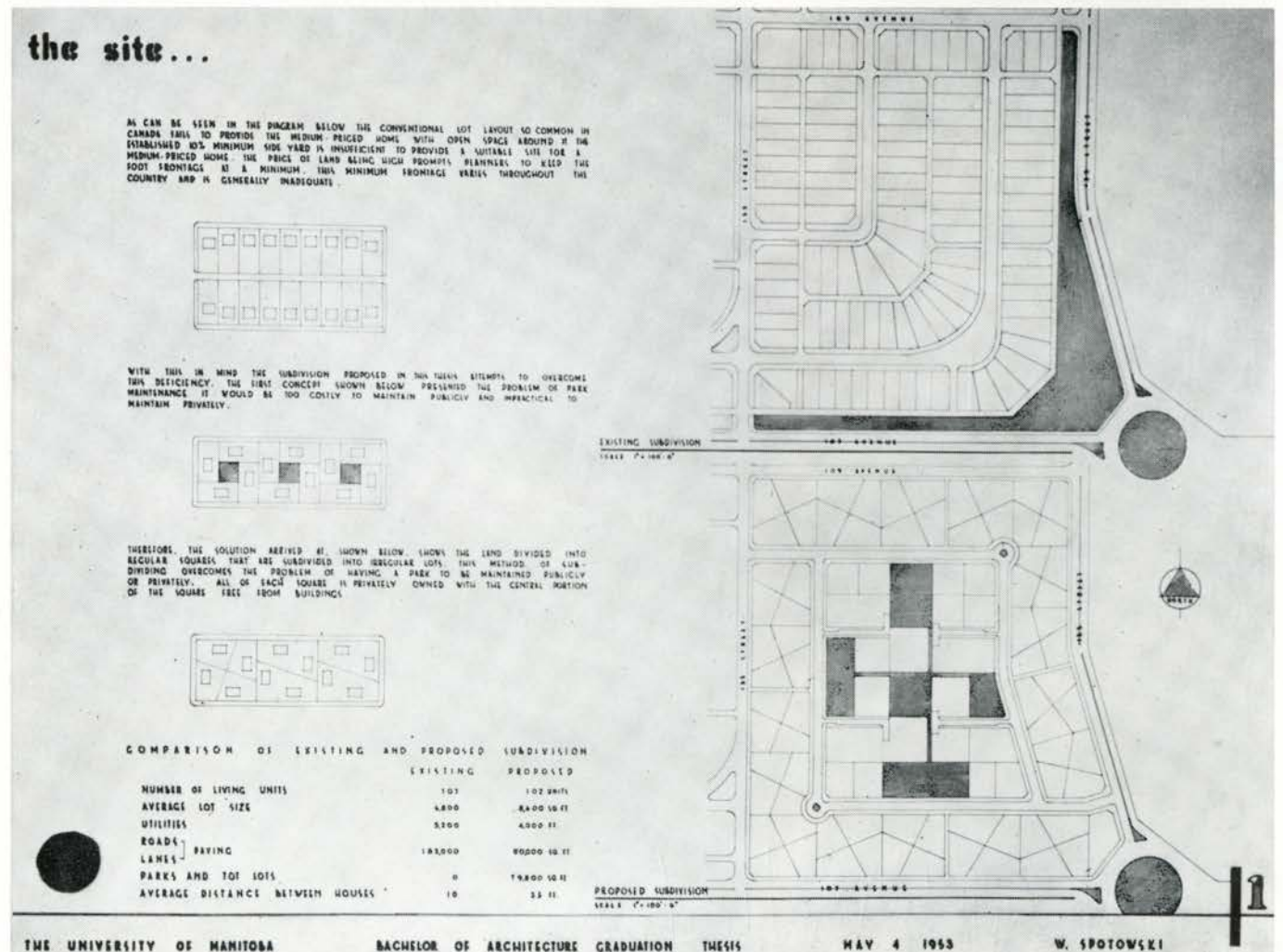
To integrate each house with the site and neighbouring houses.

To plan the planting and other landscape material.

At every point to keep in mind that the family is the centre of home and environment.

The Site

The site chosen was subdivided using lanes and standard blocks. The lots were of poor proportion and there were no usable open spaces provided. The lots along the east and south boundaries were badly laid out in that the lane serviced but one side. At present, lanes are used throughout all the subdivisions in Edmonton. There is a

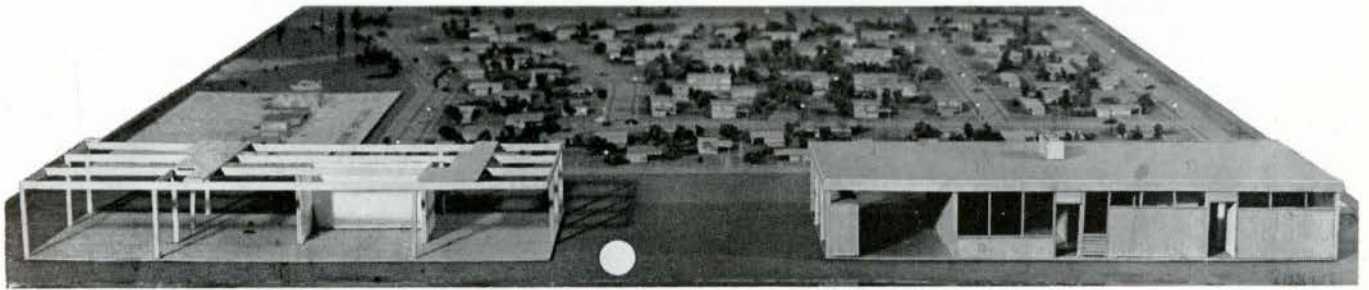


good possibility though that lanes will be eliminated with the utilities being run along the boulevard strip. In resubdividing, I eliminated the lanes. The long narrow lots also were discarded because of the limitations they set on house design. Instead of these lots, I used a system of squares. Each square was subdivided into four interlocking lots as shown below.

The difficulty with this method was that of park maintenance. To overcome this, each square was divided into four irregular lots. Where this type of lot arrangement is used, by-laws governing setbacks must, of course, be adapted to the particular type of layout. The centre portion of each square must be kept free from buildings and as a result the four homes would get more benefit of open space around. In trying out variations of this grouping of lots in fours I also found that it afforded the designer much greater flexibility for the design of homes and their rela-

houses. Panels can be interchanged as the need arises. After some study, I arrived at a 15' 4" bay on the long side of the houses and 8' 4" bay on the short side. These sizes allowed for one doorway opening plus multiples of 4' 0" plywood sheets. Where no doorway is needed a window with louvre is used. The 8' 4" dimension makes maximum use of a 2" planking roof. The wall panels are fastened to the post and beam frame by means of angles located around the frame and countersunk into the panel as well as the frame. These panels are made up of 2" x 4" studs with $\frac{3}{8}$ " plywood on both sides. Insulation specified is a 2" blanket type.

The glass is reduced to three standard sizes to simplify the use of double glazing and reduce cost. All houses are laid out to have a central plumbing and heating core so that piping used is reduced to a minimum. The combining of all plumbing might also allow for prefabrication of a



FREDRIC PERRY

Typical House: Structural framing model and finish presentation model; overall view of subdivision model in the background. W. J. Spotowski

tionship to each other.

On my plot of land I decided to set all the four-bedroom houses into the central portion close to the park areas. The larger homes would have a larger number of children living in them and this arrangement would afford the children the opportunity to go to the park without crossing any traffic routes. Of the five small park areas, four were developed as totlots and the fifth as a quiet park that might be used by the parents and older people. The landscape materials were chosen because of their hardiness and availability in Edmonton. It might be stated that the conditions for planting are worse in Edmonton than in most other larger Canadian cities, because of its northerly location. All planting indicated is only basic stock put in by the contractor. The detail landscaping around individual houses will be done by the eventual owner of the house.

The House Construction Outlined

A frame and panel system was used for the walls of the

plumbing tree if the development was large enough to warrant this. I have also suggested the use of a perimeter hot air radiant heating system with ducts in the slab which is now being used in some developments in western Canada.

Architect-Builder Relationship

The increasing interest and understanding of the benefits obtainable through the application of architectural talent to builders' houses has done much to further the relationship between the architect and the builder. On the other hand, we still find the architect considered an interloper whose seal may be required but whose activities must be curbed.

Today, the home builders' most severe criticisms of architects are:

1. The architect does not talk a language instantly understandable to builder or buyer.
2. The architect's schedule of fees needs revision.
3. The architect makes no attempt to understand the

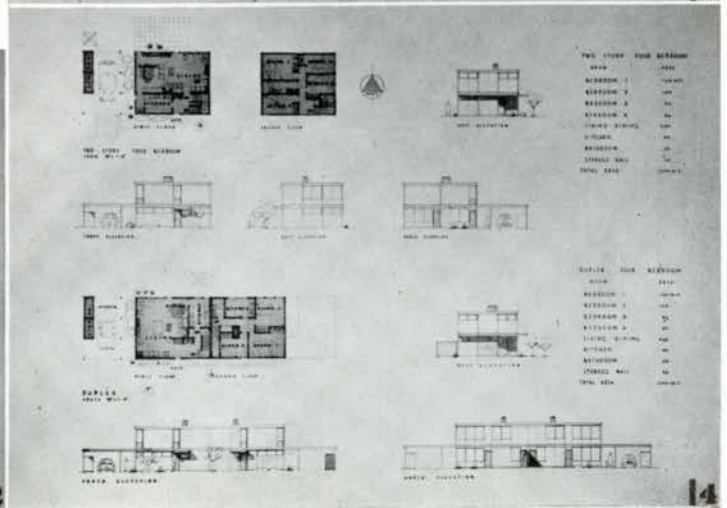
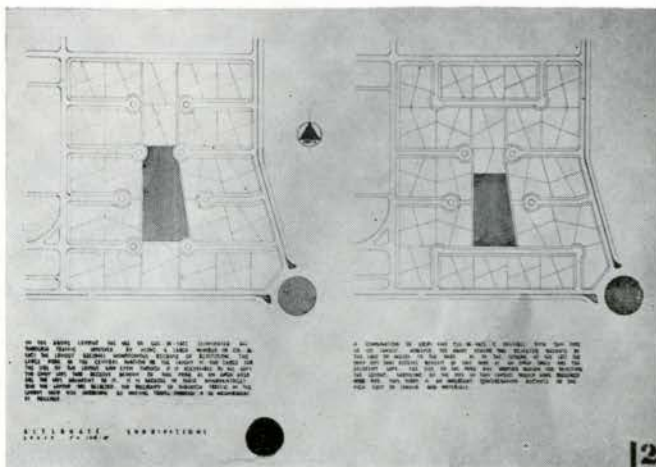
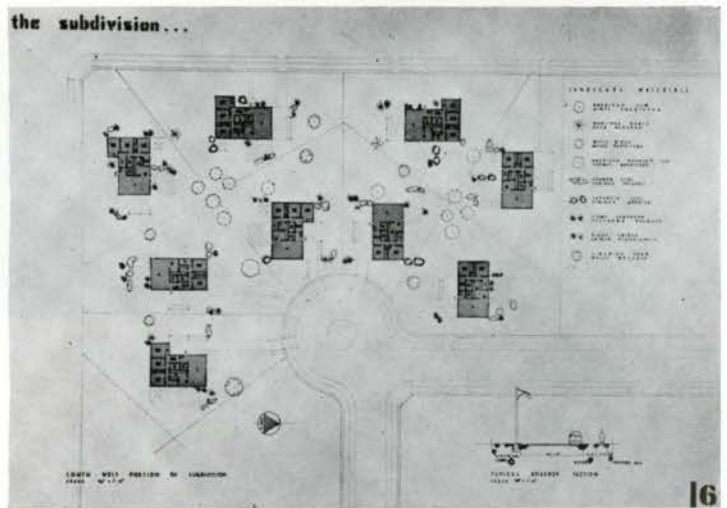
builder's problems and is often not familiar with the builder's reasonable "tricks of the trade."

It may be of interest here to note the statement of Thomas P. Coogan, president of the National Association of Home Builders in the U.S.A.: "The field of small homes needs the best architectural services it can secure and at the present time it is not available. The fault lies on both sides. It is easy to understand when the past history of each group is studied. The architect has been accustomed to specialized design for the individual family and has taken great pride in fitting the design to the specific needs of the family and the building site. Most of the architectural effort has been expended in the large homes. This

has left the small house in an undeveloped stage. The merchant builder on the other hand has been faced with fixed problems. He must build a house that will meet mortgage loan requirements; it must be economical to construct; it must fit a small lot; down payments and monthly payments must be within buying public's ability to pay; the design must lend itself to variation at reasonable cost."

Ralph Walker, former president of the American Institute of Architects, replied to this statement: "It is true that a great deal of exploring must be done to convert architectural services, which have traditionally been done on a customs basis, to the mass market."

From a Bachelor of Architecture Thesis by W. J. Spotowski



STRUCTURE AND CONSTRUCTION and their position in the architect's training appear to be one of the principal problems concerning all schools. Modern structural techniques are so wide and varied that their wealth and the new-found freedom that comes with it tends to blind us to the real meaning of good structure. Today, the term nouveau riche of structure may sometimes justifiably take the place of the functionalist bogey, and instead of art for art's sake we now have structure for structure's sake. The work of many schools has shown the extremes of the varying attitudes towards structure, at one time ignoring it, at another worshipping it. In teaching, to forget that it is part of design leads to a meaningless exercise; to over-emphasize it in terms of dictatorship of structure in the architectural design process tends to lead to dullness or superficial playfulness with structural form. The meaning of structure as a contributing factor to good architecture must be understood by teacher and student alike.

To clarify our own and the student's thoughts on this problem of relating structure and design and to co-ordinate building construction with building engineering in a co-operative effort of members of the engineering staff and the staff in architecture, we have introduced some of the following exercises in our course.

Studies of Joint Problems

Joints of various types are a basic problem of structural design. The importance and the principle of their design can be stressed and explained to the student by means of models on to which forces can actually be applied. The students build these models from balsa wood with colour applied to show the actual forces as they exist within the joint after various loadings are applied. This also helps to show a simple application of pure and applied engineering, in their relationship.

Joint problems of the following kind are studied:

(See illustrations of examples on pages 78 and 79)

1. Joints made from found objects, such as matches and rubber bands, etc. This is the type of exercise done at the Institute of Design in Chicago, and it seemed useful to introduce it at our School.
2. Standard structural joints.
3. Mountable and demountable joint.
4. Connector type joint.
5. Joints in one and the same material.
6. Joints of dissimilar materials.
7. Joining load-bearing to nonload-bearing materials.

Studies of Total Frames

Taking into account joint, form and material. Again these are studied in model form, with each student working on a different type of frame.

Structure as Related to Social and Environmental Problems

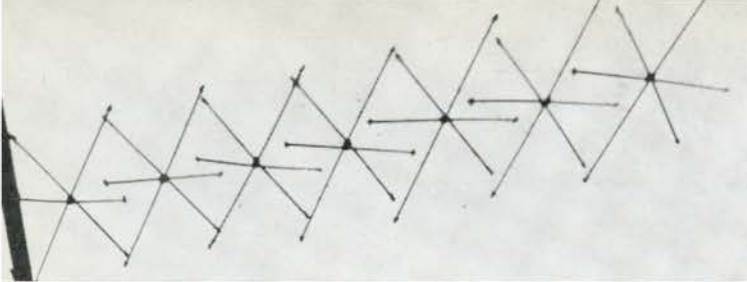
All these studies are made on simple and easily comprehensible structures to give the student a sense of total completion.

1. Building with specified materials.
2. Mobility studies.
3. Prefabrication studies.
4. Typical buildings with conventional local materials.

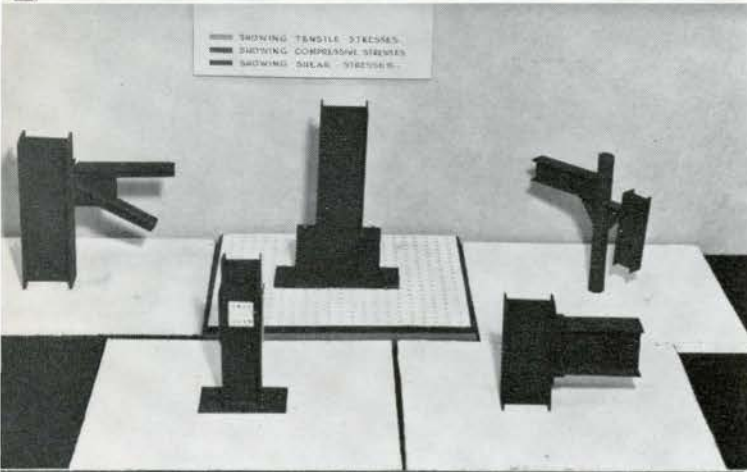
Exercises Emphasizing Sensitivity to Structure and Construction

Detailing as visual aesthetic elements in design (profiling, texture, shadows cast, colour of materials, applied colour, etc.).

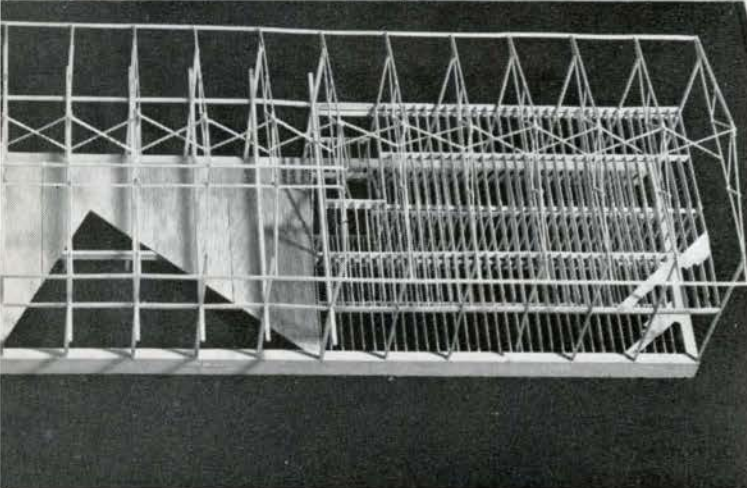
A. J. Donahue
W. Gerson



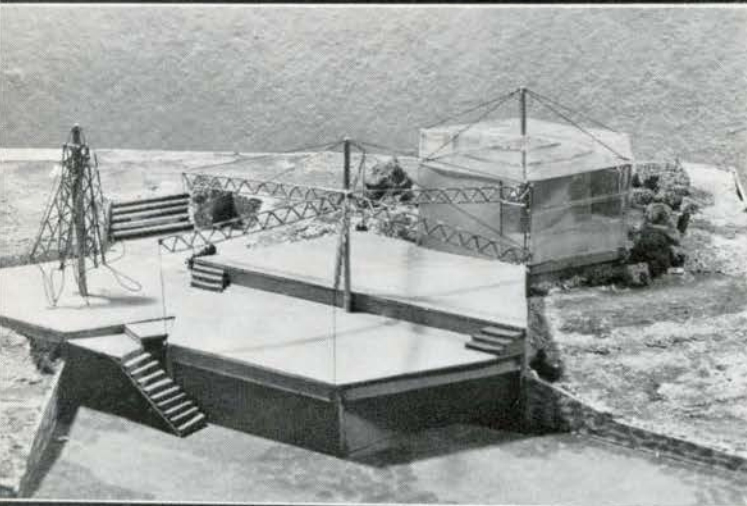
Joints with Found Objects: Cantilever construction; stress deformation seen from applied loads.



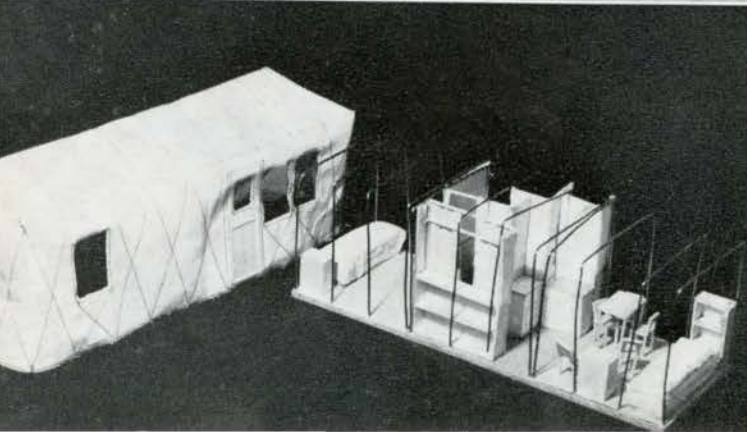
Conventional Steel Joints: Taken from the total frame; colours clearly indicate shear-tension-compression.



Conventional Framing in Wood: All joints shown in large scale models as above. Detailed scale working drawings accompany this exercise.



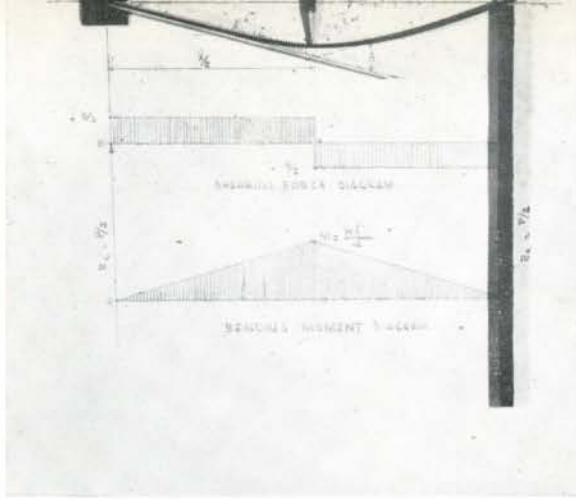
Experimental Structure-immobile: A demountable summer restaurant. A study of environmental aspects in design. Unconventional building material. All joints and material connections fully detailed in drawings.



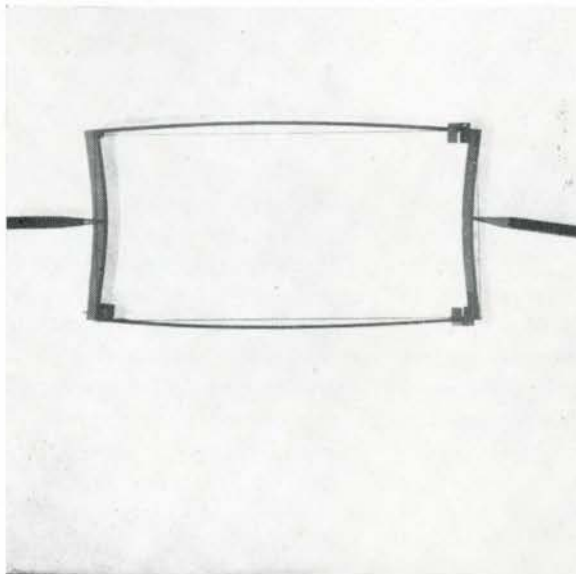
Experimental Structure-mobile: A demountable teachers unit for far northern climate mass-produced unit; mechanical means of production. All parts of structure and furniture detailed and costs of raw material obtained.

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Structural model showing deflection

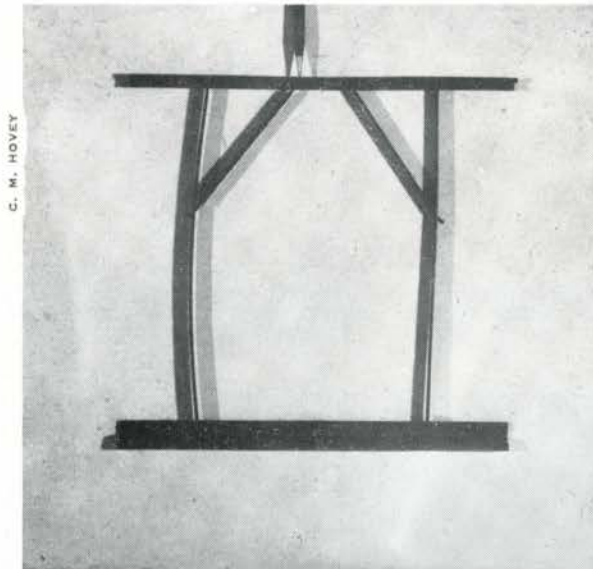


Stress distribution in closed rigid frame



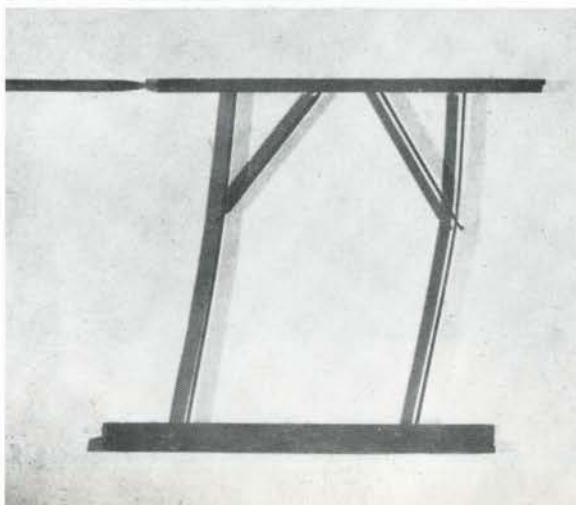
The four models shown are a study of the deflections and joint actions with varied loads applied. The types and joints used are taken from the conditions existing in the framing models built by students. In this way, the forces in the members as well as the force diagrams are clearly related and the correlation of pure and applied studies is accomplished. The work was done by students with architectural and engineering participating.

A braced bent



C. M. HOVEY

A braced bent



THROUGHOUT HIS TRAINING, the architectural student is made aware of the vital importance of the interior in architecture, the space defined by the space-enclosing forms and elements and developed for human use through the arrangement of furniture and accessories against backgrounds of colour, texture and pattern. Interior architecture cannot be separated from architecture itself.

"Clothing and housing are the things most directly concerned with man's body, encasing him as a protection from the uncertainties — often perils — of the outside world. No matter from what angle the problem is approached, clothes are the things which stand closest to man's body, they are accurately accommodated to each individual and follow his movements: from a material point of view they are 'functional' . . . "The house as such has a more objective existence — it stands on its own foundation, its occupants change from time to time. Those who are in a position to erect their own homes according to personal requirements are today almost negligible. The actual interior equipment of the rooms in which man lives should take its place somewhere between clothes and houses, as it constitutes the most immediate setting of his daily existence; it covers both practical necessities and personal tastes."¹

Today, in an age of specialization, an interior designer

¹ From the Introduction to "Furniture and Rooms" (Möbel und Wohnraum), Verlag Für Architektur Ag, Erlenbach-Zürich, 1946.

is a vital adjunct to an architect's staff, just as are the heating, plumbing, lighting and structural specialists. As indicated in the quotation above, the interior designer translates and co-ordinates the architectural surroundings with the individual needs and desires of the occupants. The interior designer must be equipped to analyse the requirements of the client and to interpret them in a planned arrangement of integrated spaces designed for use. Further, he must be able to create interiors whose line, form, texture, pattern, colour and light will be so co-ordinated into an harmonious whole as to create the most appropriate setting for specific activities.

At Manitoba, the students in architecture have the distinct advantage of close association with a group of students pursuing a professional four-year course in interior design. Many of the basic courses (drafting, graphic presentation, history of art, building construction, colour, furniture design, industrial design) are common to both programs of study, while the creative work in the design studios and the professional discussions therein are mutually shared and observed. Working side by side, each group learns the importance of the other's professional field and comes to understand the possible and essential co-ordination of purpose and effort which will produce the ideal space for human occupancy and use, tailor-made to meet individual or collective requirements.

A. M. Nixon

Interior: This room was arranged by the senior students of interior design as one portion of the "Good Design" show at the new Exhibition Centre at the University. All articles shown were purchased in Winnipeg.



Interior: Living-dining area of a house in a typical recent builders development in Winnipeg. All furniture shown is available in Winnipeg. C. G. Marshall



Red River Skyline

THE DEVELOPMENT OF ARCHITECTURE in the Winnipeg area during the last one hundred years is perhaps typical of the growth and change in nearly all of the western and mid-western cities of North America. As far as we know, its history has not been written. This historical review attempts to make a beginning in its assembly of some of the interesting facts.

The early pioneer structures in this area were not concerned with what is known as "style in architecture", for necessity was the dictating factor. Where wood and stone were not available on the prairie, sod became the building material. The sod house was usually square with a heavy pole across the centre to carry the roof rafters. The roof of earth often produced a luxuriant crop of weeds.

Where logs of suitable length were available, or were floated down the Red River, the cabins were of typical squared log construction (Fig. 1). The frame was of square timbers grooved to receive tenoned logs of ten-foot spans. A similar type of construction existed in the colombage style in the north of France, where the space between the vertical posts was filled with stone or clay, rather than wood. Fireplaces of limestone provided the only means of warmth. Both of these dwelling types are believed to be authentic regional products.

The early nineteenth century builders in the Red River area were Scottish, English and French, but we find that examples of their works assume a new and distinct character in this local environment. The native limestone provided these builders with a material having all the qualities desirable in a good building stone. Its ease of quarrying and cutting, its resistance to weather, and its ready availability gave it a rare combination of qualities. Its mottled surface produced a beautiful tapestry effect and its range of warm colouring gave it a pleasing variation of tone quality in large wall surfaces.

Hebridian Scots masons used this stone in the building of Lower Fort Garry begun in 1831. Governor George Simpson inspected Upper Fort Garry at the fork of the Red and Assiniboine Rivers in 1831, and found the fort to be in such a dilapidated state of disrepair that he penned his intention to abandon the "tottering wooden buildings, and set about erecting a good, solid comfortable establishment . . . of stone and lime in such a situation as to be entirely out of reach of the water." And so Lower Fort Garry was built twenty miles north of the old fort.

Lower Fort Garry (Fig. 2) is the only group of early buildings in the whole of western Canada that is completely intact today. One approaches the fort today across the flat plains, and in its surroundings of a modern green golf course it is vaguely reminiscent of the legendary fortresses of medieval England and France. Moreover, the heavy encircling walls, seven and one-half feet high and three feet thick, of solid limestone, loop-holed for rifle fire, indicate that the intention of the builders was to create a fortress against human enemies.

Several miles south of Lower Fort Garry, at Grand Rapids on the Red River, the Venerable Archdeacon Cochrane built St. Andrew's Church in 1844 (Fig. 3). The inspiration is English Gothic, and the dignity of the early Norman work in England is reflected in the large square entrance tower. Its simple plan and form are honestly expressed in native limestone. Over the years the limestone has taken on a rich colouring giving a marked contrast to the white mortar. The graveyard within the churchyard wall tells the sad tale of the frontier days, when plagues and epidemics wiped out whole families.

Across the river from Winnipeg, as a result of Lord Selkirk's invitation to Fathers Provencher and Dumoulin to set up a mission, a settlement grew and was in the main French speaking. An imposing edifice, St. Boniface Cathedral,



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HENRY KALEN

Red River Skyline



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was erected in 1833 of limestone, and was a simple and sane product of its environment. The bells of the cathedral were cast by the famous Mears of White-chapel, who also cast London's Big Ben. John Greenleaf Whittier felt the impact of the cathedral on the settlement, and was inspired to write his famous poem, "The Red River Voyageur" . . .

"Is it the clang of the wild geese?
Is it the Indian's yell,
That lends to the voice of the north wind
The tones of the far off bells?

The bells of the Roman Mission
That call from their turrets twain,
To the boatman on the river
To the hunter on the plain!"

The bells alone were retrieved from the disastrous fire of 1860, and they exist in the present cathedral built on the site of the old one in 1906. The French Romanesque façade of the present structure (Fig. 4), reflects an eclecticism apparent in certain of the other buildings in this church group. The explanation lies in the coming of the railroad in 1870, resulting in a closer tie with eastern Canada and the United States, so that by 1900 the revival movement in the east began to be felt even here.

This effect, however, was not immediate. At first we find the railway bringing in new materials and the builders using these materials sensibly. An addition was made to the Bishop's Palace (Fig. 5) in the St. Boniface Settlement in 1885; it was as simple and honest an expression with its brick bearing walls, dormer windows and mansard roof, as was the original limestone structure built in 1864.

Edmonton Place (Fig. 6) in Winnipeg, is an example of a vain attempt to copy the elaborately overdecorated style of architecture, which had been used by Visconti on the additions to the Louvre. Picturesque and romantic seem to be the best adjectives to describe this little gem of wood, with its mansard roof, cupolas, porches and oriel windows, porte cochères, bays, and ornate iron crestings.

In Government House (Fig. 7), built in 1884, the French tradition seems to have been followed with greater understanding and certainly with more pleasing results. Perhaps economy became an ally in simplifying an over-ornate style, adding a dignity which is seldom associated with extravagance.

A typical residence (Fig. 8) belonging to the new aristocracy of the 1890's is a true expression of contemporary romanticism, with its machine-like ornamentation in thin cast iron imitations of hand carvings of the past.

Schools of the 1900's (Fig. 10) were all built in the Richardsonian Romanesque style. Here was a style that could be expressed in masonry construction and was characterized by circular arches and arcades (to which wood was not particularly adaptable). The brick walls of these structures were load bearing; no steel was used.

It is extremely difficult to identify the prototypes of many of the buildings of this unusual period. In many of them there is a hint of the Venetian, the Lombardic, and even the Germanic influences. Many structures were disguised by veneers and architectural ornament, their true structure never being revealed. Office buildings were clothed in the Italian Renaissance style. This was typified

by heavy cornices and heavily rusticated stonework. The façades, of course, did not express the steel frames beneath. This criticism is academic in principle, but has certain value in analysing building types of the period.

The McIntyre Building (Fig. 11) attempts to convince us that there is stability in the thin stonework veneer, made to look like a bearing wall by the carrying of heavy stonework and belt courses across the building at the floor line.

In the Whitlaw Building (Fig. 12) built about 1900, we see a more straightforward structural expression resembling the Richardsonian tradition of the early Chicago School. The element of rustication is restrained and the vertical element is expressed in a rhythmical series corresponding to the structure behind. The belt courses and spandrels are subordinate, but clearly define the floor lines at the various floors.

The next fifty years (1900-1950) have been referred to as the "Grand Detour" in Winnipeg's architectural history. Designers appear to have travelled a circuitous route through phases of imitation, of shallow speculation and experimentation. Earlier directions were submerged and architecture became conglomerate collections of the revival of all periods from the classic Greek, Roman and Gothic, to the Renaissance in Italian, French and English versions. This period was not peculiar to Winnipeg, but was perhaps typical of development from coast to coast. In contrast, building done before the twentieth century had displayed comparative honesty in planning and construction and had been, as well, an expression of the people and the times. Today, with the turn of the mid-century, are these qualities beginning to reappear?

The detour was perhaps a reflection of events of the time, for it was a period of immaturity, showing the inability of the people to assimilate a profusion of industrial invention. The turn of the century saw the development of the internal combustion engine, the high speed elevator, the radio, the telephone, the airplane, the depth bomb, the tungsten lamp, coca-cola, and the aspirin. Further, houses of this period reflected the amassing of large personal fortunes. There was a new aristocracy of wealth with resultant dreams of grandeur already foreshadowed by the nineteenth century.

Among the new materials, steel was beginning to be used extensively for all the main structural elements, but cast iron was not forgotten. Instead, along with wrought iron and bronze, cast iron was now being employed for elaborate ornamental work for marquees, elevator enclosures, stair panels, grillwork and doors. Metal panels were pressed to resemble pilasters, pediments, and quoins for the front of buildings, as well as for the coffered ceilings.

The Empire Hotel (Fig. 9), of an earlier period, 1884, is typical of this use of metal in the treatment of the façade. Even with its wealth of unnecessary detail this façade is satisfying because of the repetition of similar motifs and the simplicity of the roof line.

The tendency to associate the heavy dignity of the classic orders with the design of bank buildings and government buildings led to the use of the classic orders on the Bank of Montreal (Fig. 13) and the Parliament Building (Fig. 14).

The Parliament Building is at its best when it is seen silhouetted against an evening sky, and the applied classic detail cannot be seen. The building then takes on a most impressive monumentality with its large simple mass, horizontal in character, climaxed by the dominant verticality of the tower.

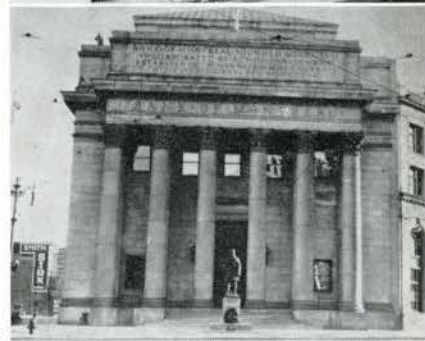
The Tribune Building (Fig. 15) and the Paris Building (Fig. 16) are perhaps the best examples of cage frame construction in Winnipeg, and are typical of the



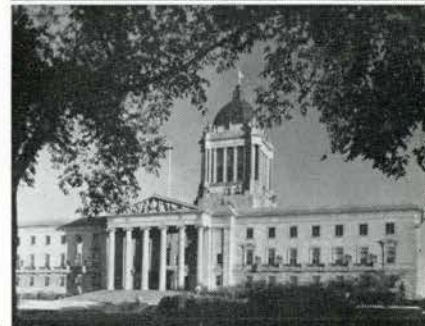
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Red River Skyline



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enterprising spirit of this peak boom period in 1913. These examples are strongly reminiscent of the Chicago School of architects and the Sullivan approach to design and structure. Some critics maintain that the vertical lines represent the Gothic tradition of verticality. However, the vertical lines also logically express the vertical supports of the structural framework. In any case, these examples proved that new approaches were possible within the discipline of the traditional thinking.

This pre-war era saw craftsmanship in brick construction achieve one of the highest standards in western history. Terra cotta was also a popular medium because of its ease of manufacture, its lightness, its wide colour range and its adaptability to many styles and imitations.

At the same time, there were some architects making an effort to find an appropriate style significantly expressive of plan, structure and materials. The façade of the Canada Building (Fig. 17) frankly reveals the structure of the building frame with the Chicago window filling the voids.

The First World War caused a halt in building, but furthered technological advances. In the post war boom, a new series of building types was introduced as the result of residential housing needs and office and retail store requirements, seen in the new Hudson's Bay Store. The long rows of builders' houses stacked together on narrow frontages within grid-iron street patterns were typical of western residential suburbs at this time. Although not architect-designed, these honestly framed houses should stimulate architects' interest in this field.

1931 saw the advent of apple sellers and the bread line, and relatively little construction. The decade of the thirties made pavement pounders out of hopeful draughtsmen, and many architects were closing their doors. This was a period of professional shake-up. Architects learned that survival lay in creating simple, straight-forward, efficient architecture, and that the profession had social responsibilities.

The cessation of building in the first years of the depression gave everyone a chance to think about these things. When construction started again, a new approach was evident. For every eclectic solution there was a contemporary one. Buildings represented many points of view in the search for contemporary expression as well as honest architectural expression.

The Civic Auditorium (Fig. 18 and 19) was built in 1935 as a depression project. This was an architecture with a different direction. The characteristic features of this style were the plain wall surfaces, large simple masses, large scale and little or no detail. Although to many critics this represented monumentality with little form, to other critics it was a true expression of a country where the horizon is unbroken and where the distances are so great that small scale and needless detail are incongruous.

Divergent and conflicting types of architecture were still appearing on the scene. Cynically commissioned public works were frankly dull and without conviction of any sort. The cleaned-up classic design lacked personal expression and degenerated rapidly into an anonymous public works standard. Monumental stairways as entrance features to schools, hospitals and government buildings seemed to nullify their usefulness for those who were paying the bills. It would be unfair to say that the results of this period were entirely the fault of the architects. The general public's understanding of new forms, new structural possibilities and new aesthetics was sluggish in its development.

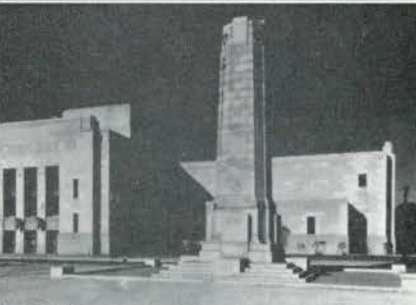
It is interesting to note that the expressive architecture of the modern movement in Canada appeared first in the grain elevators (Fig. 21). To Le Corbusier



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and other European critics, the grain elevator represented the magnificent first fruits of a new age, making use of the new elements resulting from the engineer's calculations. With their simple, unadorned and functional forms, they became characteristic of a new direction.

In Europe, this new direction created the international movement in architecture, the leaders of which were Gropius, Breuer, Le Corbusier, Mendelsohn and Mies van der Rohe. While in only a few cases did a sense of original and regional form in the making appear, the ideal was to create form and expression consistent with both modern technology and social advancement.

Can we expect to find an expression of the prairies, of the dignity and the progressive spirit of its people, through the use of local building materials? Materials such as tyndal stone, most handsome when used in the broad wall surfaces of The University of Manitoba engineering building (Fig. 23) or the Shaarey Zedek Synagogue (Fig. 22), possess the character and dignity of the early buildings of the pioneer period.

Along with the new structural systems, many new materials have been developed to make buildings more economical, stronger and more comfortable. The harmony of structural relations, the rhythm of column spacings, the floating structural planes of "Lift-Slab" (Fig. 24), for example, and the acceptance of new technical materials and their expressive use go hand in hand with the development of the language of form. What are some of the parts of that language? Can we illustrate them clearly perhaps in The University of Manitoba's new library (Fig. 25)?

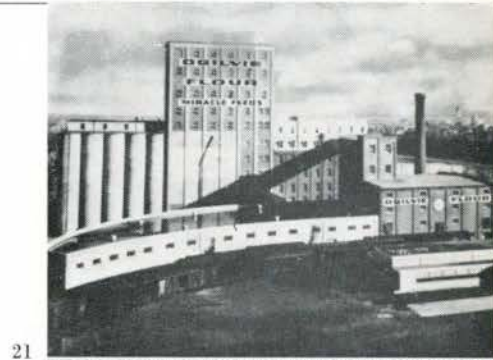
First, we note the open plan and inter-flowing free space — through the elimination of strict separating walls and the stressing of passage or connecting areas. This we see in the exhibition space which flows through the entrance lobby and up or down into the reading spaces of the library, thereby creating a continuing space-volume (see cover photo). We can enjoy, if we will, a pleasant feeling of expansive openness, even on the coldest day outside. We are tempted to move about, to see new vistas from one space to another. Scarcely interrupted by great glass areas, the inner gallery space seems to flow on outdoors to fuse with the terraces and the Manitoba campus landscape.

Second, we note the library is designed as a grouping of light-enclosing volumes rather than of heavy masonry masses, the result of a clear distinction between primary and secondary structures, between the supporting skeleton and the filling or thin skin-like enclosing envelope of glass.

Third, we note the use of materials in new ways, as well as in old ways, the latter to preserve a sense of continuity with the older traditions, as evidenced in the library's masonry stone enclosure. Finally, we note the related content, forms, colours and textures of the other visual arts of mural painting, sculpture and industrial design as they have been integrated into the whole design.

We would like to feel in Winnipeg that we, too, may have a part in bringing a maturity of architectural expression into being. While it may seem presuming on our part, we would like to mention the remark made by Mr Basil Spence, ARA, ARSA, architect for Coventry Cathedral, who toured Canada recently. When asked if he saw any hopeful signs in Canada, he replied quite candidly that he did, that "they were becoming apparent here in Winnipeg, for instance, in the University library building", one of the latest additions to the Red River skyline.

*R. F. Ackerman, B. H. Green, M. R. Johnson,
D. A. McQuaig, K. R. Webber in consultation
with H. A. Elarth*



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HENRY KALEN

WE AT THE UNIVERSITY OF MANITOBA are proud of the spirit of friendly comradeship that exists between the staff of architecture and the student body. The liaison between staff and student is maintained by the Students' Architectural Society, the official student body of the School of Architecture. Unofficially, a stronger link is forged between staff and student by the two groups in their hours of work and play. 'Crit' sessions are generally informal, and there is a fine spirit of equality between professor and student. This same spirit prevails at lectures and seminars. More informally, the two are apt to get together away from school, with profs and wives entertaining classes in their own homes, or vice versa.

It is not too surprising, then, that under these conditions the ambitious program of the Students' Architectural Society is unusually successful. The chartered duties of the SAS administer to the needs of business, social and athletic functions of the faculty. Equally important (if not more so) is the role played by its program of public relations and education. Annual publications, such as *Perspective*, the faculty year book, and the architects' edition of *The Manitoban* (The University of Manitoba newspaper) keep the whole university body well informed as to what the architects are doing. The biggest SAS undertaking in the realm of public education, however, is the annual Open House, an event which is greeted with enthusiasm by the whole university body, from president to freshmen, as well as by the general public. It is a tremendously comprehensive display of student work and explains in detail the entire curricula of architecture and interior design.

Another SAS annual, but on the lighter side, is the Beaux Arts Ball, the faculty dance. If any student has any artistic inhibitions, he soon loses them when he works on the wild and wonderful decorations and costumes for this classic event. Many of our readers may recall the Beaux Arts of 1950, when the SAS played host to the RAIC convention. It was on this occasion that The Royal Winnipeg Ballet presented the world première of its now famous ballet "The Shooting of Dan McGrew."

Mention of the Ballet brings into light another phase of faculty life — stage design. Sets are designed and executed by the School not only for the Ballet but for several drama groups in Winnipeg, especially the University Dramatic Society and The Glee Club. Often the student even acts as stagehand, so that he is able to follow through the program of stage design from the first rough sketch to the changing of a set in fifty-seven seconds. This busy course in stage design is offered as a graphic presentation option.

All members of the profession understand the importance of graphic presentation and will understand our enthusiasm when we speak of the School of Fine Arts and the facilities it offers to the architectural students. Here is one place wherein the student can really 'let his hair down', and he usually does! Excellent instruction is available in all media, and the courses, to name just a few, include sculpture and ceramics, print-making, art for architects, figure drawing and oil painting. Even the atmosphere is educational!

This particular type of education is put to good use in the School's program of public exhibitions. The staff and students are constantly arranging these shows, and the service thus rendered to the University, as well as the City of Winnipeg, is invaluable. The School felt both honoured and rewarded when it was granted the only Canadian showing of the Gropius exhibition, which last year toured the United States and South America.

At the time of writing, there are two School-sponsored exhibitions now open to the Winnipeg public. One is a Museum of Modern Art travelling exhibit, telling the story of contemporary design in Italy. It was arranged collaboratively by staff and students. The other show, the topic of which is "Good Design for Everyday Living", is a student project, and was prepared as a type problem by the class in Industrial Design II. The show was designed, written, and arranged by the senior classes in architecture and interior design and is presently enjoying a good reception in the Exhibition Centre of the new library.

Industrial design on the campus is given in the last two years of the course. It embraces theory and history, non-objective experimentation and practical design. As such it is felt to be important in giving the student basic experience in a field closely associated with architecture.

This thought is carried through also in another allied field, community planning. The calendar indicates three theory subjects dealing with community planning and regional development — theories used by the student in solving the community planning problem given in design to all senior students. In addition to this, there is a graduate course offered in community planning, which leads to the degree M. Arch. (C.P.).

Perhaps the reader now understands what a well-knit unit the School of Architecture is at The University of Manitoba — how we teach and learn, see and do, work and play.

D. J. Russell



World première of the Royal Winnipeg Ballet's "Shooting of Dan McGrew", Beaux Arts Ball, 1950.

Woman and Cat, blue salt block, by W. M. Ruryk — a problem given in sculpture for achitectural students at the School of Art.

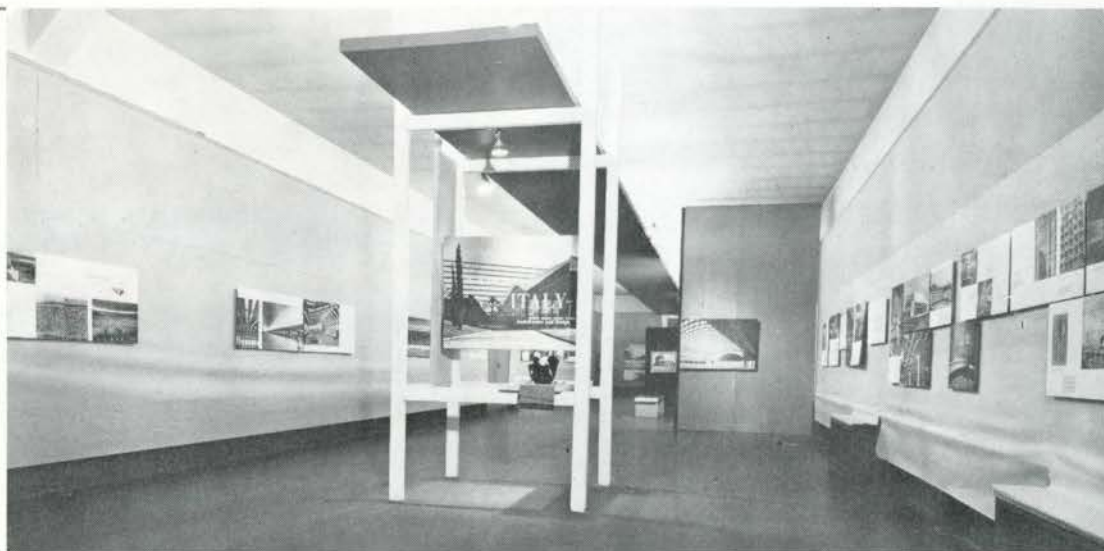


FREDRIC PERRY

Senior students in architecture and interior design, as their final project in Industrial Design II, collect and arrange in the university's new Exhibition Centre, a series of objects demonstrating good design.



FREDRIC PERRY



FREDERIC PERRY

The Modern Movement in Italy : A public exhibition, presented at the Winnipeg Art Gallery and featuring contemporary architecture and design. This display, prepared and circulated by the Museum of Modern Art, New York, was arranged by students of the School of Architecture.

The School of Architecture on the Manitoba campus, a masterpiece of decentralization.



IN A REVIEW of Rudolph Whittkower's 'Architectural Principles in the Age of Humanism' published in the *Journal*, November, 1953, Professor Adamson suggested that "... the erudition of architectural historians leaves too many a North American architect whose interest in ratios is limited to the well-known 6:100 — more satisfactorily expressed as 6% — with a glazed look. For the common, or garden, type of 'architetto' this book is good escapist reading..."

While the tone of this review may engender the opinion that Professor Adamson wrote with tongue in cheek, it might be said that if this statement were reprinted in some of the older European journals, it would lend weight to the theories held by our European colleagues that the North American professional man is a shallow fellow who throws overboard the principles of an erudite profession in favour of those of a common tradesman. Not that this disapproval is levelled at the North American architect alone: similar malfeasance is attributed to the North American professional musician, lawyer, surgeon, etc. Is this view a slanderous fallacy, conceived in years of restricting hardship and born of a senile jealousy which lacks the courage to emigrate? Or, to re-examine the aforementioned review, are there indeed some of us who would miss the professor's satire and would nod approving heads? Is it true that "too many a North American architect" is either forgetful of, or has never studiously applied himself to the fundamental principles as laid down by Vitruvius, Palladio, da Vinci, and the Schoolmen? In short, do such principles constitute "escapist reading" or are they essential reading? If we discard them, what shall take their place?

None but a cloud-dreaming idealist would pretend that universal avarice (the desire for more and more money) has, does, and will take precedence over altruistic ideals in the majority of people. We have to earn our living by exploiting practical things and displaying a practical ability, consequently many of us fail to see how the theories of the aforementioned fathers can be converted into practical everyday use: and yet none but a fool would deny himself access to the means whereby he may increase his ability. After all, the theory of design and the ability to employ materials in accordance with those theories is the essence of our business. As Plato says in the 'Republic', "... Are not the excellence, beauty and correctness of every manufactured article or living creature or action, to be judged only by a reference to the purpose intended in

their construction or in their natural constitution?" ... In other words, we have aesthetics and we have technical processes; the two should go hand-in-hand, but if we have one without the other, the result will not be architecture.

Maritain, writing of the precepts of the 'summa' of St. Thomas, maintains that manual dexterity, although a requisite condition "... is extrinsic to art. It is even, though a necessity, a perpetual menace to art, inasmuch as it runs the risk of substituting the control of the muscular for the control of the intellectual habit and withdrawing the work from the influence of art. For there is an influence of art which, *per physicam et realem impressionem usque ad ipsam facultatem motivam membrorum*, proceeds from the mind, where art resides, to move the hand and make an artistic 'formality' shine in the work..."

In a mechanical and scientific age, all this will read as decadent heresy to which some will exclaim "Nuts!". Nonetheless, unless our artists (painters, poets, architects, musicians) lead the way back into a serious study of humanities and to that sane logic of the mediaeval Schoolmen, art will cease to be a habit of the practical intellect, but instead will degenerate into a habitual manual skill, divorced from spirit, logic, reason and personality which can and do endow man's works with beauty and individuality.

The duty of the architect, primarily, is not to himself but to his art. The prime function of the architect is to relate natural laws of design to social usages: it is not to relate social requirements to pocket books, he should leave that to the tradesmen and the salesmen. For the architect is not in business to "sell" utilitarian ideas at 6%, any more than he exists to eulogize the beauty found in classic proportion. He does exist to relate those proportions to utility (and to the six per cent) and, if one were to take Professor Adamson seriously, we should resist all temptations to regard the study of architectural principles as escapist reading; for in that direction we are cutting the ground from under our foundations. Ironically enough, this is the very danger of our position in this mid-twentieth century. We are in danger because we are afraid of too much theoretical study.

We fear because we realize that our work is judged by the skill with which we direct materials to be handled, not by our own hands, but by the hands of the craftsmen and tradesmen; thus we become lackeys to the tradesmen. This fear is expressed by the catchphrase, "We must keep up

to date”, which is a dangerous slogan for the professional whose business is “the art of building beautifully”. It is dangerous because it is a reversal of the natural order of our function – the professional mind and the artistic mind should keep ahead of the contemporary mind; never should it allow the tradesmen, technicians, manufacturers, craftsmen or labourers to set the pace for aesthetics and for creative architecture. But, in the right order, the artist-architect creates the demand for the skills of the other fellows – he provides the challenge and the incentive to the hands of the tradesman and the inventiveness of the technician. Surely, therefore, we should cease getting frantic about “up to date materials” and should concentrate more on the fundamentals – the principles of design.

It begins in the university schools of architecture, where symptoms of this fear are apparent. In certain schools an appreciation and understanding of materials and methods, together with the social and economic aspects of architecture, are well developed: this is very excellent but out of all proportion to time spent in the study of basic design and the universal laws of proportion, rhythm, dynamics, symmetry, etc. The fever to “be up to date” creates a vicious pattern which begins as follows:

“The student must have a thorough knowledge of the materials and methods of his art”

“It is therefore essential that he should find opportunity to handle these materials for himself and

He should practise the methods wherein these materials are used”

“His vacation and part-time employment should therefore be in the role of the craftsman or tradesman in order that he shall “speak their language” and “intelligently apply his theoretical knowledge . . .” and so forth, ad lib for four or five years. Thus we produce stripling architects who know not what a watt is and who would not recognize a groined vault if they saw one.

To the average student, such a program is much fun – much more fun than the dubious and un lucrative employment of brainwork and reading Vitruvius for “Much study is a weariness of the flesh”, so the student applies himself to the role of tradesman with keenness and zest and his pocketbook is much fattened thereby. In former days this kind of knowledge was gained in the years following his thorough theoretical schooling, or during the course of being articulated to an architect; and it was gained in a different way, not by *doing*, (O dreadful heresy! Everyone knows that “We learn by doing”!) so much as by closely watching the experts with their individual mannerisms and tricks-of-the-trade, which same were learned by the tradesmen in a severe apprenticeship system. Before the Golden Age of da Vinci, the architect was, of course, the Master Builder – the practical man with the artist’s gifts. In that age of the Gothic builder there was much excuse for this position; at the present rate of progress we may find ourselves back in the same position if we allow our stock-in-trade to become lopsided.

The Gothic builders (architects) were lopsided. They gave primacy to the intellectual and spiritual conception of their work; their material correctness suffered or was inexact. Technically ill-equipped, lacking paper plans, blueprints and slide-rules, the solution of their building

problems had to be sought and won on the site: they thus became the most remarkable inventors and perfectors our age has seen, displaying an intellectual power, energy and talent which has not been equalled since the days when gunpowder blasted chivalry from the field of battle. Their secrets cannot be recaptured with compass and set-square for they were never geometrically correct; when we attempt to reproduce Gothic work on paper the result is too perfect. Their labour in material things expressed their intellectual and spiritual condition; yet they knew their materials with an unerring instinct, calculating stresses and strains, whether in stone or timber, without the magical aid of slide-rules or books of tables; so close was their life to the natural materials in which they worked.

But the quality of and the motives behind the Gothic workmanship are far far removed from ours, nevertheless there is a parallel to be drawn between them and us. For in the present state of affairs we neglect the art and geometry and the classic excursions into geometric mysteries as exemplified in Vitruvius et al, we shall draw closer to the age of the Neo-Hun (or Neo-Gothic) when we shall perforce disregard geometry and draftsmanship and find ourselves working out our problems on the site.

In that day, the Neo-Hun architect will be subservient to the high priests of technological science and industrial chemistry, whose experts are their salesmen and whose worshippers are the architectural students of today. The sales-representative shall have the final word in all technical questions, his advice and his solutions shall be heard with open-mouthed awe and the architect shall become a mere 6% commission-man, a super-liaison officer. Are we so blind that we cannot see this already happening?

“Divide and conquer” is being applied to our profession. We are becoming divided into three groups: specialist mathematicians, specialist administrators and specialist building-material-technicians, (the latter group in the majority, being a specie of a human Sweet’s Catalogue and the envy of the other two groups). We are dividing by reason of pressures from the materialistic world in order that we may be conquered and devoured by the tradesmen.

The alternative is not confined solely to the study and research into classicism. Some re-examination of the fundamentals (some “escapist reading”) will be necessary, but it must be transmuted into habitual practice. This will begin in the habit-forming student days. Begin with more geometry, give them more geometry and less freehand drawing (or less “materials and methods” if curricular restrictions demand it). (Some readers will be familiar with a booklet by Karl Menger, published by the Chicago Institute of Technology – ‘Geometry is Fun.’ We have to instil that fact into our students).

Let the student learn to handle and respect geometric forms and to recognize them in natural objects: let him use them in his architectural problems down to the smallest detail, for here it will be proved that “we learn by doing”. In this way the student will not only sharpen his architectural perception but will become quickened to appreciate the otherwise dryness of Vitruvius, Palladio, Vignola – to say nothing of increasing his appreciation of Le Corbusier

(Continued on page 96)

NEWS FROM THE INSTITUTE

CALENDAR OF EVENTS

47th Annual Assembly of the RAIC, Mount Royal Hotel, Montreal, Quebec, May 11th to 15th, 1954.

Annual Convention of The Royal Australian Institute of Architects, Sydney, New South Wales, May 9th to 15th, 1954.

Annual Meeting of The Engineering Institute of Canada, Chateau Frontenac, Quebec City, May 12th to 14th, 1954.

British Architects' Conference, Torquay, May 26th to 29th, 1954.

86th Convention of the American Institute of Architects, Statler Hotel, Boston, Mass., June 15th to 19th, 1954.

ALBERTA

The 43rd Annual General Meeting of the Alberta Association of Architects was held at the Macdonald Hotel, Edmonton, Alberta, January 29th and 30th, 1954, with over fifty per cent of the Association's total membership in attendance.

The President's report summarized the year's activities of the Association. Highlights of the Association's accomplishments are the establishment of a permanent office and the creation of an architectural library for the use of all members. Such endeavours on the part of the Council have aided in our recognition as a permanent professional group.

The meeting moved that a "Guide to Professional Practices and Charges" be published and made available to all members.

In that Alberta has no school of architecture, it was moved that action be taken on the revision of the present system of examinations, with the possibility of progressive examinations being established, and candidates becoming enrolled as students of the Alberta Association of Architects.

Guest speaker for the convention was Mr Vernon DeMars, professor of architecture at the University of California. Mr DeMars has had wide experience in housing projects, schools, clinics, hospitals, etc., and was, while associated with M.I.T. an associate architect on the Eastgate Apartments, Cambridge, Mass. Much of Mr DeMars work has been published in leading architectural magazines. Mr DeMars spoke at the Friday evening banquet on Architecture at Mid-Century, and conducted a most informative seminar on Saturday morning. This seminar was illustrated with many slides of pictures Mr DeMars had taken in Europe and in the United States. Several of Mr DeMars own works were illustrated in this latter group.

The election of Council members for 1954 was as fol-

lows: President, K. C. Stanley; 1st Vice-President, V. F. R. Burton; 2nd Vice-President, G. W. Lord; Honorary Treasurer, G. R. Ascher; Honorary Secretary, H. L. Bouey; Members-at-Large, Miss M. Imrie, J. B. Bell, C. S. Burgess and H. A. Henderson.

The President's address is as follows:

In reviewing the work it is interesting to note that much of it was started early in the year by the appointment of committees, or more specifically, of committee chairmen to investigate and later report on the various items. Finally, within the past month or so we have received their reports and recommendations. Not all projects have been reported on, even within the year's time. This is the nature of the beast, and since the practice of architecture is so busy these days, we are fortunate indeed to have accomplished anything. Some time in the late spring we obtained suitable office space, and then little by little through the efforts of our Treasurer, Mr Howard Bouey, we have obtained furniture, a handsome conference table, chairs, desk, etc., even drapes. Some had to be paid for in total, some items we had donated, and for others we paid part of the cost. It has ended up a fairly large expenditure for this Association, but it is now what our auditors call an asset — capital assets. Capital it is, and I hope that many members will be able to see it and use it.

Our library committee headed by Miss Mary Imrie and composed of Miss Imrie, Miss Imrie and Miss Imrie, has done an excellent job as a review of her report indicates. Library shelves are on order, and will be installed soon. We have one book, a donation of Wallbridge and Imrie, and are now in a position to receive donations from other firms.

Financially, we have become business-like. We have now had our accounting system set up by a firm of chartered accountants, B. C. Tanner and Company. This firm is vaguely connected to architecture by marriage. We are now able, for the first time, to present the members with an audited statement. With our large membership, now at one hundred and four, and the increased amount of money handled, this step was essential.

Several times during the year representatives of the Association have met with officials of both the cities of Calgary and Edmonton to endeavour to iron out certain difficulties. We have also met with officials of the Association of Professional Engineers of Alberta. These meetings were mainly concerned with enforcement of the Act, especially respecting large buildings being erected which were not designed by a registered architect. Apart from this, meetings were held with Edmonton officials over a proposed competition for a new city hall. The result of these is now well known.

On the 23rd of November, 1953, the revised by-laws were given governmental approval, with certain major changes. These will be discussed fully later on today. Of the various committees in our Association, that of public information should be the most vigorous and effective. Unfortunately, ours is not. The committee cannot be criticized too harshly for this lack, as it is composed of a very few men whose first interests are, naturally, their own work. The task of educating the public is a large one and should not be left to one or two men.

The Ontario Association has employed a part-time director of public information for some time; British Columbia has embarked on a rigorous campaign, both with success. Manitoba has recently formed a public relations committee with eleven sub-committees consisting of at least one, and in most cases two sub-chairmen for each sub-committee. These sub-chairmen are responsible for looking into and initiating action in their various fields such as display, radio, newspaper, etc. The services of a public relations counsel have been secured to assist in the carrying out of the actual projects. With the experience gained by these Associations, we should be in a good position to further our own efforts. A larger committee should be formed, and possibly the employment of a professional public relations counsel should be considered in order to fully exploit the various media of disseminating information and to give direction and advice to the committee.

The economy of Canada has changed within the past two or three decades from an agricultural one to that based on highly skilled industrial activity. Alberta's, too, is becoming more industrialized through the greater exploitation of her natural resources. The construction industry of necessity is keeping pace with this great change. Architects should be leading this. However, sad to relate, there are a great number of people, including leading industrialists, who have only the vaguest idea of what comprises the architect's function. We are often confused with that of builders and makers of blueprints. This is not our purpose. Granted, architects across the country are busier than they ever have been. With such prosperity in the profession, and a confidence of greater development yet to come, we may lose sight of our primary function, that of service to the public. We must take time now to inform them of that service, and see that our achievements and efforts are kept before their minds. There may come a time when we will need that public confidence and understanding: we should prepare for it now. At the same time, we should reflect on the present path of architecture and see where it will lead. We should be directing that course, and must not lose sight of our duty in contributing to the welfare and culture of our nation. We must solve our own problems and meet our own conditions and put forth clear thinking and honest effort and research to obtain the best in building. Out of this will develop a truly Canadian architecture. We will then be giving our best possible professional service and the public, whose servants we are, will thereby benefit greatly.

I leave the office of President with some regrets, all personal. I have appreciated your confidence in electing me for the past two years, and thank you for it. I hope the new President will not hesitate to call on me for any small

jobs he may wish me to do. It has been a pleasure working with the members of Council who are very fine people, indeed. Before closing, I would like to thank all members of Council and committee chairmen for the work they have contributed throughout the year. Especially, I thank Kelley Stanley for his excellent job in running our affairs. The position of Honorary Secretary is still demanding of a great deal of time and effort. We are indeed fortunate to have so capable a secretary as Mrs Grant. By making use of her capabilities, the work of the Association flows along smoothly. Again, it is my pleasure to thank Professor Burgess for all he has done this year, from the Alberta issue of the *RAIC Journal* to the various reports he has ready at each Council meeting. We are indeed fortunate in having so wise and generous a man with us. The affairs of the two local chapters are in good hands. I am sure they will continue so and continue to have regular monthly meetings to meet together and to discuss our mutual problems.

As we meet in convention today, we are guests of the Edmonton Chapter. Jock Bell, its Chairman, and his committee have worked hard to foresee the comfort and entertainment of us all. I am sure you will all enjoy yourselves.

George W. Lord, President

QUEBEC

The Annual Meeting of the Province of Quebec Association of Architects was held at the Chateau Frontenac, Quebec, on Friday and Saturday, the 5th and 6th of February last. The officers elected at the closing session on Saturday were: President, Lucien Mainguy, Quebec; 1st Vice-President, Edward J. Turcotte, Montreal; 2nd Vice-President, Henri Mercier, Montreal; Honorary Treasurer, H. A. I. Valentine, Montreal; Honorary Secretary, Gerard Venne, Quebec. Members of Council: R. C. Betts, R. E. Bolton, S. A. Cyr, G. E. deVarennnes, C. Davis Goodman, P. Morency, F. J. Nobbs, P. J. Savard, all of Montreal, and J. Ed. Fiset and M. Mainguy of Quebec. Delegates to the Royal Architectural Institute of Canada: P. C. Amos, J. Bland, H. Mercier, M. Payette, E. J. Turcotte, H. R. Wiggs, all of Montreal; Lucien Mainguy, Quebec; L. N. Audet of Sherbrooke, and A. J. C. Paine of Montreal, Ex-Officio.

The attendance at Friday and Saturday sessions averaged seventy-five members, of which thirty-five were from Montreal and forty from other parts of Quebec. Mr Bland stated that the Association has a total membership of four hundred and eighty-three, of which one hundred and sixty members reside in the City of Montreal. It is to be regretted that a great many more members, from Montreal particularly, did not take advantage of the proximity of good old Quebec to arrange their affairs well enough in advance to enable them to attend the annual meeting and take part in its deliberations.

The business end of the convention was carried out with dispatch and sufficient time was found for discussion of the various reports submitted by the Standing Committees. The annual reports of the Associations' affairs for the year 1953 were not sent out in sufficient time to enable the members at large to be cognizant of what had taken

place during the past year. We hope the situation will be rectified during 1954 when it is hoped the members will be kept fully informed from month to month by newsletter reports of the Association's activities. Money was allotted last year for the purchase of three-ring binders which will, in the next few days, be forwarded to the members and it is hoped they will keep a complete file of the Association's activities, and refer to them frequently.

During and after the business sessions, Mr Gerard Venne, chairman of the entertainment committee and his aides, arranged for luncheons, dinner and dance, which were greatly enjoyed by members and their wives. A delightful buffet luncheon was tendered by our President, Mr Lucien Mainguy, at his home, for the officers and members of Council and their wives. At the luncheon held on Saturday afternoon, we were fortunate to have as our guests, the Hon. Antoine Rivard, Solicitor General of the Province of Quebec, Msgr Ferdinand Vandry, Rector of Laval University, Mr R. Schofield Morris, President of the RAIC, A. J. C. Paine, J. Roxburgh Smith, Gordon McL. Pitts, and representatives from other professional bodies.

The guest speaker, Hon. Antoine Rivard, spoke on the state of church architecture in the Province of Quebec and expressed a sincere hope that those responsible for the designing of churches in the future would bear in mind the heritage that exists in the Province of Quebec, and make every effort to retain the traditions that were handed down by our forefathers. Mr Roxburgh Smith thanked the speaker for his most interesting paper. Msgr Vandry spoke briefly on matters relating to the University of Laval and was thanked by Mr Lucien Mainguy, the President.

The presentation of the Medal of Merit to Dr E. I. Barott, past President of the PQAA, was postponed to a later date on account of Dr Barott's inability to be present at the annual meeting.

Mr Maurice Payette, past President of the Association, advised the outgoing President, Mr Bland, that he will be retiring from active participation in the affairs of the Association, but that they can, at all times, call on him for his advice and experience. Mr Payette was thanked by the members for his long and loyal devotion on behalf of the Association. It was also learned with regret that Mr Randolph C. Betts has relinquished his position as honorary news editor of the Association's affairs. The members expressed their deep appreciation for his untiring efforts and it is hoped that the incoming Council will make every effort to secure a professional publicity and public relations director, on a permanent basis.

To those members who were present and had the opportunity of listening to reports and entering into their discussion, the officers and Council would welcome hearing from them further, either verbally or in writing, on any matters that would enable the Standing Committees to follow through, and to those members who were not able to attend the meetings, the chairmen of the various Standing Committees would indeed welcome hearing from them after they have taken time off to read and digest copies of the minutes forwarded to them.

Speaking as a member of the Council, and I am sure I voice the opinion of the executive and other members of the Council, that the majority of members appear to be

satisfied with having their name placed on the register, (approximately 60% vote), making sure they pay their annual dues, and call it a day. It would be enlightening to hear from the members from time to time during the year, on any matters that would in any way enhance the good and welfare of the Association. My reason for writing at length on this subject is owing to the fact that the Association has, in the past number of years, been kept on the qui vive, and I am not so sure whether the members are aware of the reasons why; I refer to the matter of the Engineers' Bill. The last attack took place on January 20th last, and was reported in the January 26th issue of *The Gazette* of Montreal, an extract of which follows this report. This will make it clear to the members just what has taken place and what is liable to take place again, if the Association does not fortify itself in the near future by more effective publicity and public relations.

A formidable committee is working at top speed, preparing for the RAIC Annual Assembly which will take place in Montreal next May 11th to 15th inclusive, under the Chairmanship of Mr John Bland, with Messrs R. Schofield Morris, President; A. J. C. Paine, Treasurer (RAIC); Maurice Payette, Chairman of Program Planning Committee with C. Davis Goodman; R. E. Bolton, Chairman, representing interests of the RAIC with B. Wright; F. J. Nobbs, Chairman of Manufacturers' Exhibition and Allied Events; Henri Mercier, Finance and Budgeting; R. C. Betts, Chairman of Publicity and Promotion of the Convention with N. Fellowes; C. J. G. Carroll, Secretary of the RAIC; V. E. Traversy, Exhibition Manager; Forster McGuire, Public Relations; Bernard M. Deschenes, Executive Secretary.

C. Davis Goodman

Engineers' Bill, Province of Quebec

A Bill amending the Professional Engineers' Act, subject of wide-spread interest in the province, "died" in the legislature on January 21st with the result that engineers are still without the authority to plan and design industrial projects and buildings.

The Bill was killed after representatives of the four hundred and fifty architects of the province had bitterly opposed it in the Public Bills Committee of the legislature.

The engineers represented by lawyer Jacques Dussault of Montreal claimed they were being ham-strung by lack of clarity in a 29-year-old section of the Professional Engineers' Act. Mr Dussault claimed the act is interpreted as limiting the skill of professional engineers to the designing of railways, canals, harbors, roads, bridges and lighthouses.

The Bill asked that engineers be granted the right to supervise, direct, prepare and execute plans for industrial projects and buildings. They enjoyed this right in all the other provinces of Canada and in forty-eight of the fifty-two United States and territories.

Mr Dussault said the Bill had the support of such bodies as the Canadian Pulp and Paper Association, Canadian Construction Association, Canadian Manufacturers' Association, Montreal Board of Trade, the Builders' Exchange and others.

The architects were represented by veteran lawyer Camille Noel, a former member of the law firm of Prime Minister St. Laurent, who argued that the engineers were trying to encroach on a domain which has belonged exclusively to architects since they were first grouped together in 1890.

"Only an architect is trained in the planning of industrial projects and buildings," Mr Noel argued. "The engineers have not the training and furthermore are inadequate, unqualified

and incompetent in this field of endeavour.”

Mr Noel contended that the Bill, if passed, would rob the architects of the province of at least 50 per cent of their work and earnings. He saw the measure leading to package deals by engineering firms with the architect slowly being squeezed out of the picture.

Walter Johnson, Q.C., who also represented the architects, said that if the Bill were passed, the planning and designing of industrial buildings and projects would be taken completely out of the hands of the architects. This, he said, was provided under article 17 of the Engineers' Act.

Mr Dussault said the engineers did not want the field exclusively. All they wanted, he declared, was the opportunity to give the public a chance to choose between architect and the engineer. As it now stands, there is no choice.

The Bill was sent to the assembly where it was defeated on a motion of Gerard Thibault, N.U. member for Montreal Mercier. A second bill, by which the licensed cullers of the province sought a closed corporation, experienced a similar fate.

Allocution de l'Honorable Antoine Rivard

C'est la troisième fois que votre association me fait l'honneur de m'inviter à prendre part à ses assises annuelles. Cette constance de votre considération et de votre hospitalité me touche profondément et cela pour plusieurs raisons.

L'une des premières est que l'architecture appartient à une profession qui est vieille comme le monde et qui a laissé à travers les âges les signes permanents de l'évolution et des progrès de la civilisation.

Dès l'époque pré-glaciaire, on remarque par des indices de foyers creusés dans le sol avec des traces de charbon, de cendre et d'ossements, que l'homme a eu besoin de se construire des abris. L'effet architectural n'est évidemment qu'ébauché, mais par le choix de l'emplacement, on se rend compte que l'oeuvre dont le but premier est d'abriter l'homme, cherche déjà à s'associer avec la nature, et c'est, suivant l'expression d'un historien, "le premier balbutiement monumental".

C'est en Egypte que commence à proprement parler l'histoire de l'architecture. Jean Charles Moreux, dans son "Histoire de l'Architecture" écrit que "Grâce à la conjugaison d'un sol riche en argile, en calcaire, en grès et en granit, mais pauvre en bois avec un ordre humain d'exception, les Egyptiens, d'emblée, créèrent un art savant, tandis que le reste du monde restait encore au stade préhistorique".

En Chaldée, en Assyrie et en Perse, l'architecture continue à avancer. Elle connaît les voûtes et les coupoles. L'Inde, pays de forêts, utilise la première, sous les formes de charpentes savantes l'ossature de ses édifices. La Chine et le Japon suivent le même mouvement. Le Mexique, le Guatemala et le Pérou connaissent également une architecture qui leur est particulière et qui s'ajoute encore à cet art universel.

Continuant à travers l'histoire, on traverse l'âge de bronze, l'âge de fer, l'architecture grecque qui nous donne des ordres dont on retrouve encore aujourd'hui l'influence et les lignes, le dorique mâle sévère, raffiné et raisonné, l'ordre ionique imagé, élégant, svelte et gracieux, puis le corinthien que les Romains adoptent et transforment en un symbole de majesté et de fierté.

La noblesse de votre art et l'authenticité de vos origines

lointaines nous permettent de trouver dans les profondeurs de l'histoire des règles qui sont encore à la base de la solution des problèmes que vous avez à résoudre.

Pythagore avait déjà remarqué que non seulement tout fait géométrique avait comme correspondance un fait, une loi arithmétique parallèle, mais que tout harmonie, à commencer par l'harmonie musicale en y comprenant l'harmonie architecturale, dépendait d'une proportion, d'une relation numérique. Ce n'est donc pas dans la substance des phénomènes, mais dans leur structure que les disciples de Pythagore situaient et cherchaient la réalité.

L'histoire du monde se continue, les civilisations se succèdent et l'architecture nous permet d'en retrouver à chaque période le caractère et l'esprit. Nous connaissons les églises byzantines, les églises arméniennes, l'architecture musulmane, l'école provençale, bourguignonne, poitevine, normande, rhénane, l'architecture romane et l'architecture gothique où les constructeurs du Moyen-Age, pour satisfaire leur idéal de fervents chrétiens, voulaient que leur église montât vers le ciel comme une prière. Une profession dont les origines remontent aux sources de la civilisation et dont l'évolution s'associe au progrès même de la culture en est une qu'il est particulièrement honorable de rencontrer.

J'apprécie comme il convient ce privilège, bien que, appelé à vous parler, je réalise à l'avance mes déficiences et mon infériorité pour traiter de matières qui exigent un art et une technique que malheureusement je ne possède pas. C'est donc comme un profane que je me permettrai de vous apporter quelques considérations sur l'oeuvre qu'il est de votre devoir d'accomplir dans notre province.

S'il est vrai de dire qu'aux origines mêmes du monde, on retrouve la nécessité de l'architecture, avec la nécessité de construire, il faut également dire qu'aux origines de notre pays, et plus particulièrement de notre province, on retrouve cette même nécessité. Et, écrit Gérard Morisset, pour peu qu'on examine notre architecture d'autrefois, on constate qu'elle est l'oeuvre d'un peuple sédentaire et terrien. C'est, le croirait-on dans le pays des coureurs de bois, un art essentiellement statique. Nulle recherche d'équilibre artificiel, nulle hardiesse et nulle virtuosité dans la mise en oeuvre des éléments architectoniques. Evidemment cette architecture primitive, née de la nécessité de structure pour s'abriter contre les rigueurs du climat et du pays s'est inspirée de l'esprit des connaissances et de la culture de ceux-là qui venaient s'établir en Nouvelle-France et c'est probablement pour cela qu'on retrouve alors l'esprit du style romain dans nos vieilles demeures. Morisset écrit que cette tradition romane mâtinée de style Louis XIV est celle qui s'implante en Nouvelle-France dès la première moitié du 17ème siècle. Cette architecture qui doit se modifier suivant les conditions de vie particulière au pays de Québec subira également l'influence des matériaux divers et nouveaux que le constructeur canadien aura à la portée de sa main.

Il est clair que la maison canadienne a été conçue et construite pour résister à un climat particulièrement rude et variable. Elle est dès son origine, saine, d'atmosphère plaisante, solide, et elle demeure encore, surtout à la campagne, un abri où loge habituellement une famille nom-

breuse qui vit tout le jour dans une seule et grande pièce. On a distingué dans sa construction un caractère permanent: la justesse de ses proportions. Il est bon de se rappeler que la plupart des vieilles maisons canadiennes qu'on retrouve encore trop rares le long de nos routes, sont cependant l'oeuvre pour la plupart d'artisans qui semblent avoir eu l'instinct de l'harmonie et des proportions.

Morisset écrit que dans les environs de 1840, les maîtres-maçons du pays ne sont plus les seuls dans la construction domestique. Depuis quelques années, des architectes et constructeurs britanniques travaillent dans le même sens, spécialement pour leur clientèle anglaise, et introduisent en Nouvelle-France des modèles d'habitations importés d'Angleterre. Ce sera la maison anglo-normande et la maison monumentale à plusieurs étages.

A côté de cette architecture née spontanément du caractère, des goûts et du degré de civilisation des premiers habitants de la Nouvelle-France, se trouve nécessairement une architecture qui est l'oeuvre des hommes de l'art. L'architecture religieuse remonte dans notre pays aux tout premiers temps de la colonie. Couvents, hôpitaux ou maisons d'enseignement requièrent les services des premiers architectes de ce pays. Les experts de votre profession affirment que notre architecture religieuse vient de la province française, qu'elle a ses origines dans le style romain et qu'elle tire une part de ses décors du style Louis XIV.

Avec le 19^{ème} siècle, commence en Amérique le début de l'exploitation de la grande industrie. Cette époque apporte nécessairement des modifications importantes dans l'exercice de la profession de l'architecte. "D'un côté demeure encore dans l'esprit de certains bâtisseurs la tradition française devenue canadienne, avec ses formes affinées par l'usage, avec la majestueuse lenteur de son évolution, avec ses qualités profondément paysannes, avec ses artisans consciencieux formés à l'antique formule de l'apprentissage, filtrant avec prudence et assimilant les éléments de toute nouveauté. De l'autre côté, ce sont les styles et les modes architecturales de l'Europe, ses engouements plus ou moins légitimes et viables, ses demi-créations et ses variantes des styles d'autrefois, qu'apportent au pays les immigrants et les livres illustrés, et que comprennent fort mal et les artisans et les amateurs". On a écrit "que c'était en somme un vulgaire esprit de nouveauté qui s'accommodait parfois de camelote, forme arbitrairement choisie dans le catalogue de l'histoire et servie sans discernement à la clientèle éberluée; décoration postiche et mensongère; matières de qualité inférieure camouflées en matières précieuses; surtout médiocrité des proportions, des ornements et du dessin. Cet esprit se laisse deviner chez nous, surtout dans la construction des églises dès le début du 19^{ème} siècle. On veut imiter le style gothique qui est dangereusement altéré et l'on s'applique dans plusieurs cas à mélanger religieuse et dans un même édifice le byzantin, le romain et le gothique".

Il semble bien que durant une période assez longue qui n'est peut-être pas complètement terminée, notre architecture tend surtout à être spectaculaire et ostentatoire. L'exemple le plus déplorable que je trouve de cette tendance est la cathédrale de Montréal à laquelle en 1885, deux hommes de talent ont attaché leurs noms: Victor Bourgeau

et le Père Joseph Michaud, Monseigneur Bourget voulait témoigner de son attachement au Saint-Siège en rebâtissant un modèle évidemment réduit de la basilique St-Pierre de Rome. Il est évident que le pastiche est ici déplorable. En réduisant de moitié les dimensions, on a réduit de beaucoup plus que de moitié la majesté, la beauté et la grandeur du modèle.

Si j'ai tenté de souligner de façon bien imparfaite certaines caractéristiques de l'évolution de l'art architectural chez nous, ce n'est sûrement pas pour porter un jugement sur l'oeuvre accomplie dans ce domaine par les membres de votre profession. Je n'aurais ni la compétence, ni l'audace de tirer semblables conclusions. Ce n'est pas non plus pour poser le problème que certains se posent aujourd'hui en se demandant s'il existe actuellement une architecture canadienne. Pour apporter à cela une réponse adéquate et satisfaisante, il faut avoir des connaissances artistiques et techniques que malheureusement, je ne possède pas.

C'est à un autre point de vue que je veux me placer devant vous. L'architecte ne construit pas pour lui. Il est le mandataire d'un client dont il doit exécuter les volontés. Il est facile de concevoir qu'ici comme ailleurs, l'architecture n'a pas été seulement l'oeuvre scientifique et technique des architectes à toutes les périodes de l'histoire, mais qu'elle a été également le témoignage du degré de culture, de goût et de connaissance de l'ensemble de la communauté. S'il a été vrai d'écrire que le style c'est l'homme, je crois qu'on peut dire que le style architectural c'est l'expression de la culture d'une société. Le goût, la mesure, la passion pour la beauté et l'harmonie sont des qualités qu'on ne retrouve peut-être pas suffisamment marquées chez nous. Nous sommes peut-être plus impressionnés par une imitation spectaculaire que par une oeuvre vraie originale et moins tapageuse.

Je sais que plusieurs d'entre vous ont dû à regrets mettre de côté leurs idées, leur goût pour accepter les exigences de clients qui refusaient d'admettre votre compétence en ces matières, et je ne suis pas prêt à faire peser sur les membres de votre profession certaines laideurs qui se sont érigées et qui défigurent déplorablement le profil de notre province. Dans bien des cas, on a accepté de vous que les connaissances techniques, refusant d'admettre les conseils artistiques que vos connaissances, votre formation et votre expérience suggéraient.

Il est donc à souhaiter que se développe chez nous de plus en plus le sens du beau véritable qui comporte celui de la mesure, de l'harmonie des lignes, des proportions, en tenant compte de l'usage auquel est destiné l'édifice qu'on construit et du site où il s'élève. On ne devrait jamais oublier que l'architecture est l'art de construire sous le signe de la beauté.

Il est également à désirer que se perde peu à peu cette prédilection que plusieurs chez nous semblent avoir pour tout procédé d'imitation et de faux qui permet de faire croire à la présence de matériaux de grande valeur. Dans un pays comme le nôtre où les matières premières sont nombreuses, caractérisant notre sol et notre richesse, je crois qu'il est préférable de s'appliquer à les employer plutôt que de trouver des substituts qui donneront l'impression qu'on s'est servi de matériaux étrangers qui n'ont chez nous au-

cune caractéristique particulière.

Je me demande par exemple pourquoi on préfère importer du marbre italien pour la décoration de certains de nos temples plutôt que d'utiliser le granit de chez nous qui une fois poli et travaillé donne la même impression de beauté et de richesse et qui a cet avantage d'être un produit véritablement canadien.

Je me demande également pourquoi dans la décoration de cet édifice on se sert de motifs empruntés à une flore étrangère alors qu'il devrait être possible d'utiliser pour ces fins des motifs empruntés à la flore canadienne et québécoise.

Ce sont là évidemment des suggestions qui viennent d'un homme de la rue et que je ne vous communique pas comme conseils et comme reproches, mais que je voudrais voir suivis par ceux-là qui sont vos clients et vos mandats, étant convaincu qu'ils vous faciliteront la tâche de faire des constructions suivant vos goûts, votre volonté et les données de votre science et de votre art.

Je crois également que pour diriger le goût populaire, l'architecte a une responsabilité, et qu'il lui appartient plus qu'à tout autre de faire dans ce domaine le travail d'éducation nécessaire. Je crois qu'une association comme la vôtre doit s'appliquer à répandre dans ce domaine des doctrines et des idées qui, étant donné l'autorité qui les émet, feront heureusement leur chemin dans la population.

On juge une civilisation à son architecture et c'est pourquoi, je me permets de vous laisser ce mot d'ordre que Gérard Morisset a placé dans la préface de son livre "L'Architecture en Nouvelle-France": "Faire connaître, comprendre et aimer l'architecture, surtout cette architecture honnête, simple et sensible que nous ont léguée nos pères et que nous avons abandonnée avec une inconcevable insouciance pour nous lancer dans l'aventure stérile et sans gloire de l'architecture archéologique".

EXHIBITION

An exhibition of paintings, drawings and puppets by Harry Mayerovitch, architect, is being held at the Montreal Museum of Fine Arts, March 26th to April 11th, 1954.

THAT GLAZED LOOK

(Continued from page 90)

et al! From estimating and calculating to the rendering of shades and shadows, a thorough grounding in architectural geometry will prove its worth. It will do more: it will release us from sterility, from the fear of becoming "out of date" and remove all inferiority complexes which give rise to "that glazed look". It was such a training which produced Wren (and in this respect Wren was not so much a genius as a well-trained geometrician with a healthy respect for the rules of the game), and it was for lack of it that so many Victorians failed.

But this argument is not aimed at the university schools alone where, it must be admitted, the fundamentals are often approached with fresh minds; but as "we learn by doing", so also 'Docendo discimus' and it would be interesting to know whether the professors would agree that all augurs well for the future. The people who seem to neglect their geometrical training and their springtime

flirtations with Vitruvius et al are the mature practising architects. A study of the notebooks of Leonardo da Vinci, of Roger Bacon's essays, or of Bach's art of fugue will remind us that it is no accident but the wisdom of a Greater Architect whereby art is governed by rules beyond which emotion and craftsmanship cannot go without producing non-art.

All thanks to Professor Adamson for drawing timely attention to the dry bones of our valley, even if he did so with a deft touch of humour. "Shall these dry bones live?": not without a return to primary principles. Without them we are as powerless as painted apostles — ornamental relics divorced from life. We shall lose our place in the ranks of the vanguard of the humanities and be swallowed up into the rearguard or — even worse — overrun by the very enemies against which all art strives. The architectural principles of the age of humanism are good for all ages: the age of humanism explored and exploited them perhaps a little better than we do today — admittedly they had more time but they were no more intelligent than we and had none of our advantages.

A principle is a principle: it is coexistent with moral laws and is therefore indestructible and good for all time. Let us get rid of that "glazed look" by dusting off the neglected volumes; for these principles may be used with greater advantage in this age of science.

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FUTURE ISSUES

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June	Industrial
July	Landscaping and the University City of Mexico
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