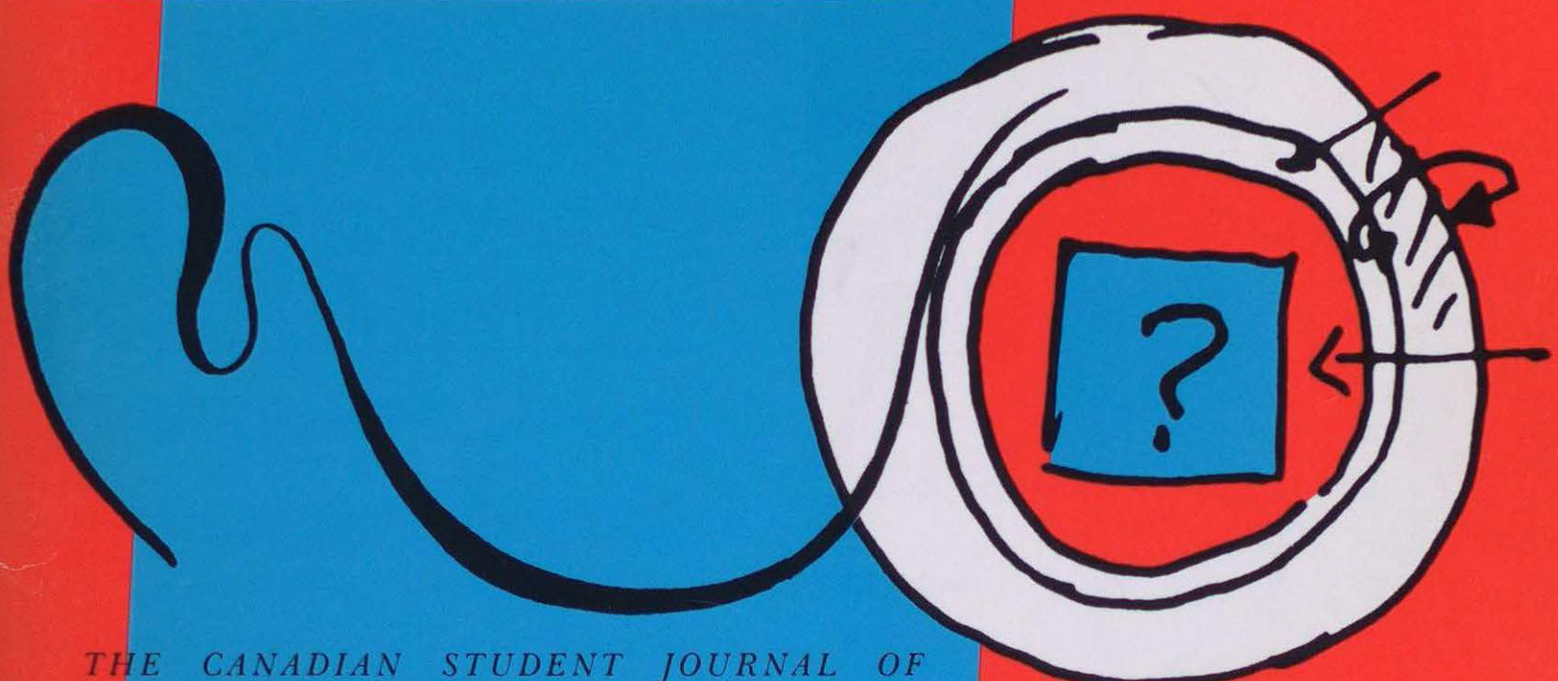
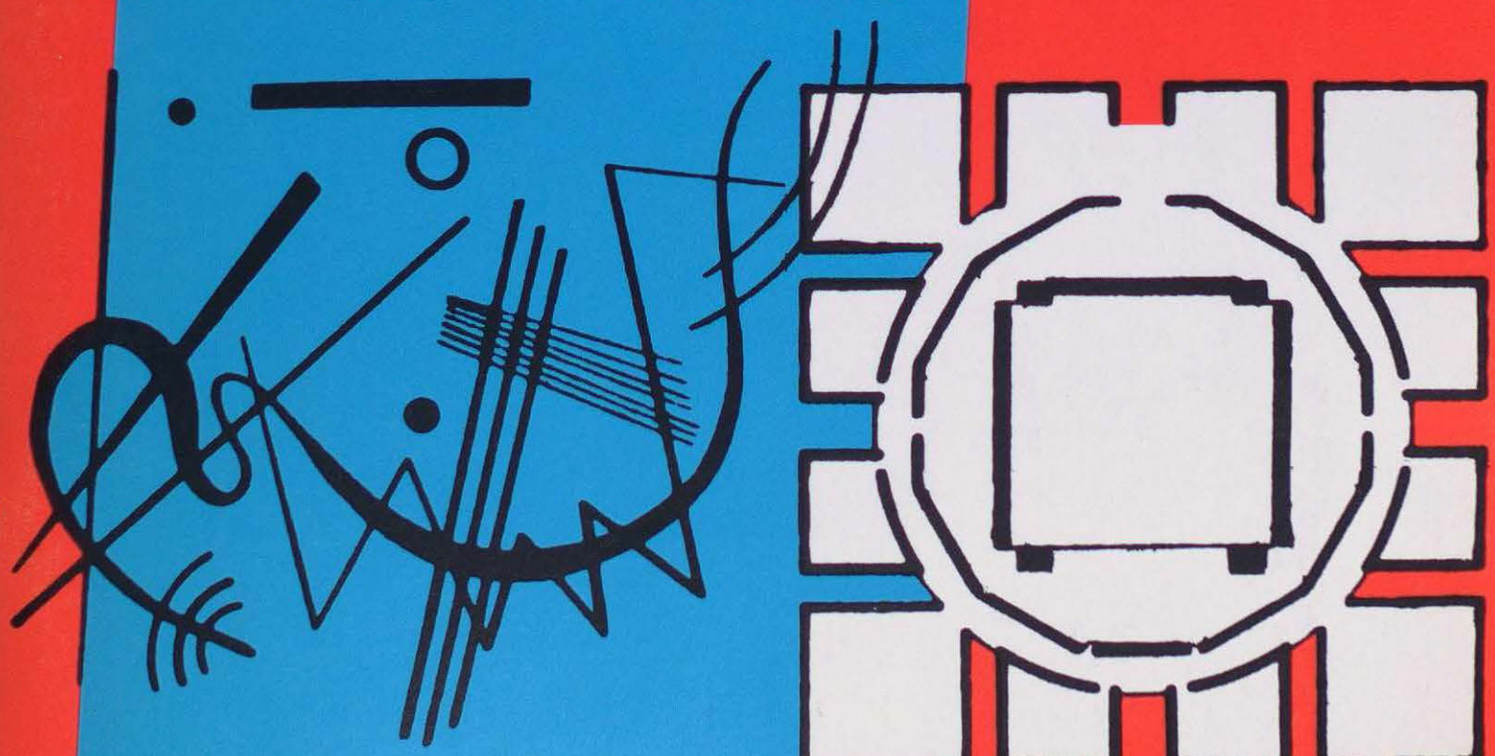
THE FIFTH COLUMN



THE CANADIAN STUDENT JOURNAL OF ARCHITECTURE • LA REVUE CANADIENNE DES ETUDIANTS EN ARCHITECTURE



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THE FIFTH COLUMN
The name of the Canadian Student Journal of Architecture, THE FIFTH COLUMN, is intended to be interpreted in a number of ways. First, there is an architectonic reference; the preoccupation with the development of a comtemporary order of architecture that is at once respectful of antiquity and responsive to new conceptions of architecture. Second, there is a reference to journalism and the printed column of text. Finally, there is the twentieth century political connotation; an organized body sympathizing with and working for the enemy in a country at war.
These three references essentially define the role of THE FIFTH COLUMN. The magazine promotes the study of architecture in Canada at the present in terms of both the past and the future. It attempts to stimulate and foster a responsible critical sensitivity in both its readers and its contributors. Finally, THE FIFTH COLUMN provides an alternative forum to established views not for the sake of opposing them, but to make it possible to objectively evaluate them.

Objectives:
To promote the study and the appreciation of a sensitive architecture within the architectural and wider communities, thereby positively influencing the development of architecture in Canada;
To promote a forum for and to encourage the dialogue between students, academics, professional architects and interested members of the 'lay' population;
To provide a critical alternative to the commercial trade magazines by publishing a journal that originates from the Schools, traditionally the vanguard of architectural thought.

Editorial Policies:
1. To publish articles by students, academics and professionals and by other interested parties that would otherwise find little opportunity for expression and publication.
2. To publish a series of articles in each issue exploring a specific and relevant theme which contributes to an understanding and a greater awareness of current architecture.
3. To publish articles on the diversity of Canadian architecture as a means of promoting an understanding of these local traditions and their influence on current architectural thought.
4. To publish articles discussing historical influences on the development of architecture.
5. To publish student projects from the various Schools in order to stimulate architectural debate.
6. To publish critical reviews of current works of architecture in Canada, as well as outside the country, in order to reflect on and positively influence the development of architecture in Canada.
7. To publish critical reviews of activities, publications, lectures and exhibitions of interest to our readership.

Montreal
October 30, 1985

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Front Cover Illustrations

1. Frank Whitford, *Bauhaus.* London, 1984. p. 100. Kandinsky's "free, wavelike line, with emphasis on the horizontal".
2. *Louis I.Kahn, Complete Works 1935-74.* 1977. p. 172. Unitarian Church, Rochester, New York, 1955-67. Transition from first to final concept.

Cover designed by: Tina Nuspl

Erratum

The Fifth Column extends its apologies to Peter Trépanier regarding changes made to an illustration entitled "Forming a pitched roof over my head", appearing in his article, "Self-Houses". Mr. Trépanier disclaims any association of his name with the illustration.

The Editorial Board wishes to extend its apologies for the omission of Zeidler Roberts Partnership as a sponsor of Vol. 6, No. 1, the issue on The House.

. Vol. 6, No. 2 .

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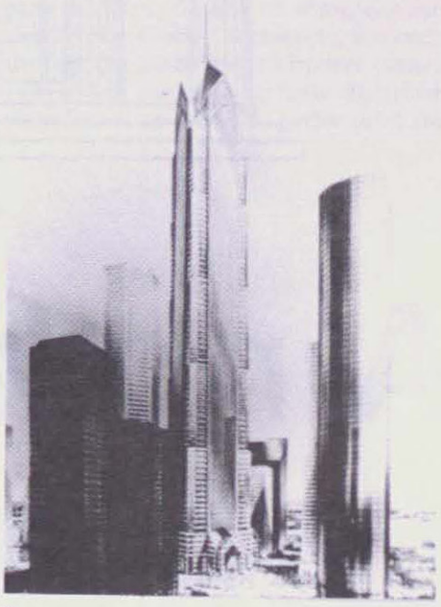

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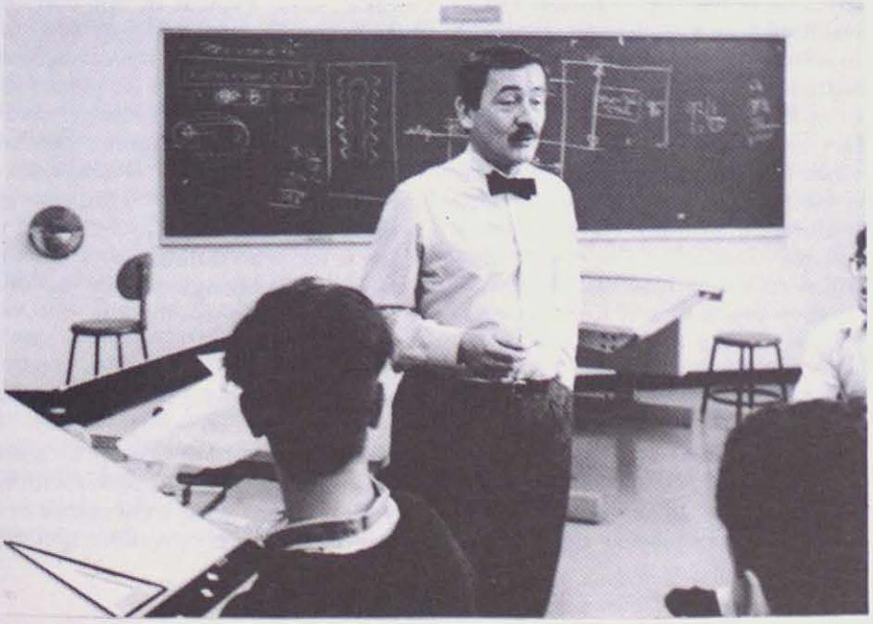
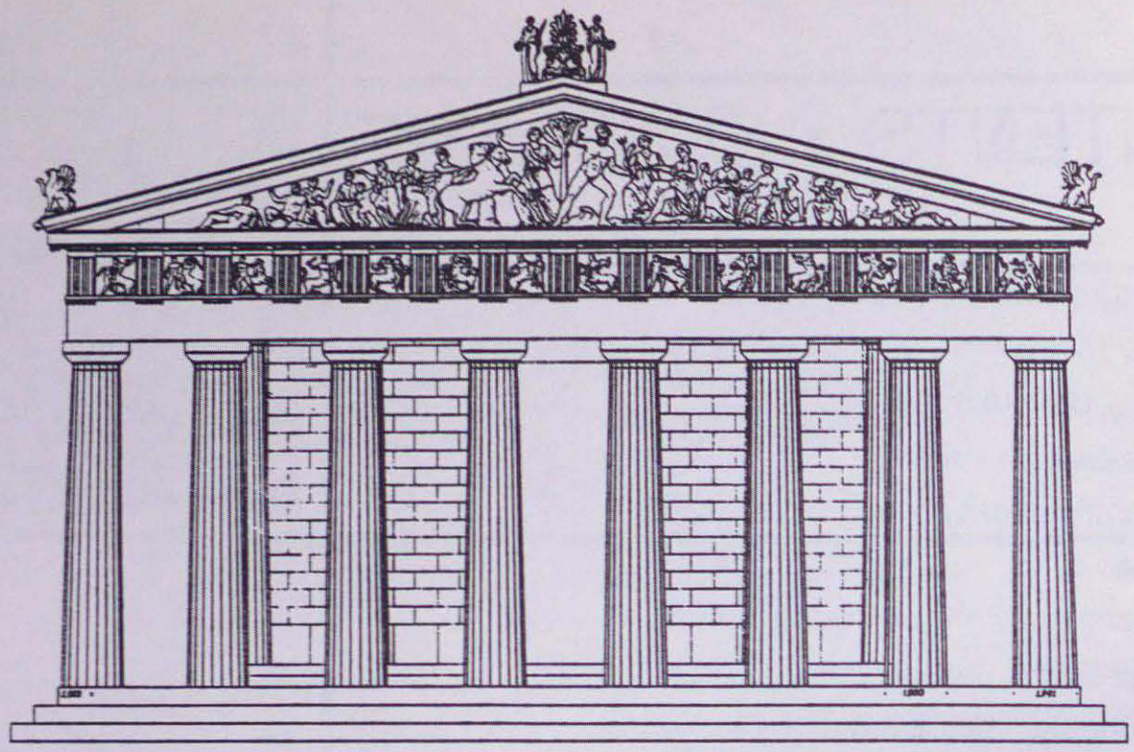




Parthenon — Architecture's most precious possession; timelessness.

Architecture

Au delà du pluralisme et des modes actuelles, l'auteur a entrepris une recherche des fondements de l'architecture. Cet essai étudie les facteurs qui ont façonné l'architecture dans le pass aujourd'hui et dans le futur.

There is much deliberation these days as to the course that architecture should proclaim for itself. At times, the search appears to be more an exercise in coining *style-isms* than formulating deeply rooted convictions. Having dashed from Modernism to Late-Modernism to Post-Modernism in a mere two decades, architecture is obviously in a state of transition. This state of continuous change implies the lack of a comprehensive theory. More importantly, it demonstrates the fragility of frivolous attitudes.

Attitude and architecture! It may be argued that architecture is initially set on a distinct course by an attitude which moulds its conception into being. If so, what then is the appropriate attitude for architecture? Several possibilities come to the fore: to be subservient to fashion or to fashion an architectural truth; to merely reflect society or to bestow upon society a purpose for existence; to quietly acquiesce to what is acceptable or to rise up in the pursuit of ideals; in essence, to be a follower of fancy *or* a pursuer of purpose.

The significance of these three issues lies in their far-reaching implications for architecture. History provides vivid illustrations of this significance. A closer examination of the contrasting attitudes within each will hopefully reveal the intention of architecture while attempting to shed light on the direction it should take.

The first issue is that of submission to fashion's momentary pleasures. By definition, fashion is the prevailing custom, taste, craze, or mode. It carries with it a temporal air of vogue, seeking novelty for its own sake. Hence, fashion denies architecture its most precious possession; timelessness.

By subjecting that which should be noble and timeless to fanciful whims, fashion transforms serious work into a commodity, or rather, disposable packaging, as is evident in our contemporary society. Is architecture to be merely skin-deep, to retreat behind an appealing mask, or to be placed in the realm of decal-labelled shirts? As Peter Smith, a current writer on aesthetics, points out, fashion "is transient and has immediate appeal of shine and pristine freshness. The movement of fashion is more an indication of the human appetite for change than for the deeper experience more usually associated with aesthetics."[1] In short, the concerns of fashion abandon for the sake of vanity the underlying purpose of an eternal architecture.

The second attitude deals with the relationship between architecture and society. Many view architecture as a reflection of society or, more specifically,

Layout by: Constantina Tsetsos

as a reflection of a particular age. Out of this arises a question concerning the extent to which this premise is true. Obviously, the answer is bound by our visions in a given society. As long as we seek truths beyond ourselves (as had been the case for centuries), our society and our architecture inherit a deeper significance. However, being content to merely accept the arbitrary, the superficial and the trivial (as has been the practice of our modern materialistic age), we are destined to a meaningless and purposeless existence. So, too, will our architecture be meaningless and purposeless.

Finally, there is the question of conformity. There is a tendency, for most, to flow with the mainstream. At the same time, there are those who prefer to deviate from the norm simply to attract attention. Both attitudes are as evident today in society as they are in architecture. Homogeneity is induced, whether consciously or not, by the many instruments within society which guide the majority to think and act alike, while divergence primarily reflects a wish to disassociate from the status quo. Both attitudes are equally shallow for neither is concerned with the wholistic fulfillment of human ideals.

It becomes imperative that one of the fundamental aspirations be to achieve the ideal through an adherance to universal principles. One must search within and without to discover and understand the purposes which shape one's existence and which, in turn, find their expression in every act, in every creation.

While this search remains only a matter for reflection in our day, history portrays it as a quest whose fruits have very much been realized. The human race has consistently set its vision on the attainment of the ideal, believed to exist within a *universal order*. This abstract notion, however different the interpretation from age to age, has become an unrelinquished attempt to explain and understand all; an attempt by the created to comprehend the creation. It is a search for a metaphysical truth, a truth of ultimate reality, wholly transcendent of actuality and experience. Albert Einstein once profoundly stated that "human nature always has tried to form for itself a simple and synoptic image of the surrounding world."[2] Thus, in order to place existence in perspective, humanity has set its sights on a greater vision, a vision bestowed with a sense of purpose.

During periods in which relevance was found in concepts of universal meaning, several analogies were developed to explain them. They became the basis for rational and creative intentions , especially in architecture since it was the most public of all artistic endeavours. Three such analogies — the universe, nature, and the human being — will be briefly discussed here.

The *universe,* of course, represented the highest level of order imagined, as it was believed to be a creation of God. This was in part due to Plato's influential claim that the body of the world was created by "The Ordering One through the action of Ideas and Numbers."[3] Not surprisingly, he had envisioned a perfect Creator whose creations were also perfect. Plato philosophically implied that any creative act, albeit an intellectual one, should reflect such perfection so as to be in complete harmony with the universe.

Since *nature* was perceived as the first tangible reality of this harmony of the universe, it was granted the same significance as that of the contemplated ideal of the universe. As such, nature became subject to imitation by way of abstraction. The capital is but one example of this. Ancient Egyptians, for instance, looked to the papyrus bud, lotus flower and palm branch to create their column capitals. And then there is Vitruvius' account of the origin of the Corinthian capital based on the story of a young girl from Corinth who died and whose possessions were placed in a basket then, unknowingly, set over an acanthus root. As the plant grew, its leaves are said to have sprung into volutes around the basket's outer edges. Seeing this one day, the artisan Callimachus was inspired to imitate the natural pattern.

A most cherished belief, advanced for centuries, was that the presence of the *human being* was an essential part of the composition of the heavens. Within the grand scheme, one considered oneself as representative of perfection, in keeping with the belief of having been created in the image of God. As the *micro*cosm epitomizing the *macro*cosm, humans sought to build according to the relationships established by their own physiogomy. Witness, for example, Vitruvius' association between man and the design of temples, and that of the Gothic architects, between the human body and cathedral plans.

Without question, artistic doctrines were based on a higher order until the Renaissance. The search for harmony in all that is created led civilizations to formulate a concept of order founded on clearly defined *principia* derived from a pervasive purpose. Indeed, there existed an underlying notion of artist as co-creator with God, thereby establishing complete union between the universe and human being. Such beliefs were likely understood by the public at large at once endowing the creations of an age (architecture being one) with meaning, making them symbolic of a people's interpretation of a universal vision.

In this century, Le Corbusier echoed this metaphysical/actual relationship when he declared: "Architecture is the first manifestation of man creating his own universe, creating it in the image of nature, submitting to the laws of nature, the laws which govern our nature, our universe."[4]

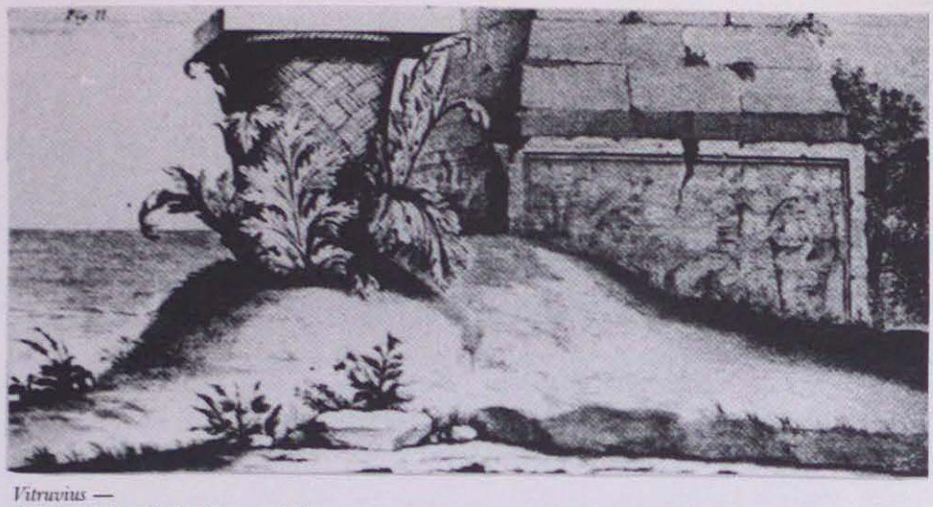
With few exceptions, after the Renaissance the desire to represent the metaphysical in human creations was

with Purpose

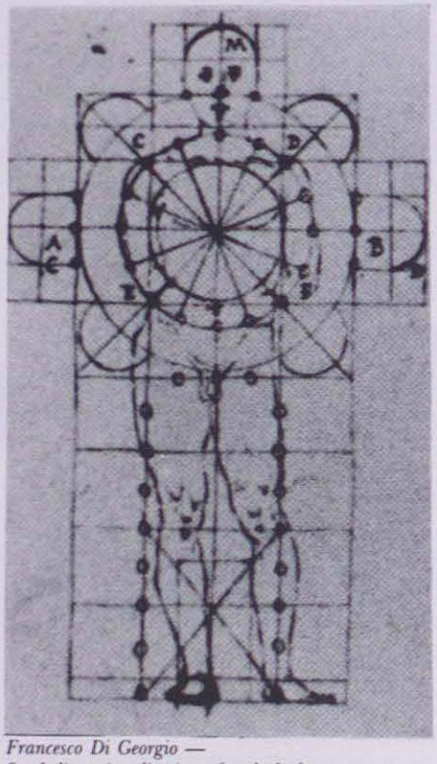
diminished or even abandoned, the outcome of which is the predicament of architecture today. Put simply, prior to the Middle Ages, the concept of an ordered cosmos and ultimate universal truth was believed to be a result of divine revelation. During the Renaissance, a transition took place in which mortals, conceiving themselves symbolic of God, became the focus.

This move from the divine to the mortal was further characterized, in later centuries, by the desire for freedom from all metaphysical concepts, whether divine or secular. As Christian Norberg-Schulz remarks, there was a longing "to be free to explore reality unrestricted by dogmas and traditional ideas. Instead of belonging to the world, man put himself rationally and critically opposite to it... The real driving force undoubtedly was the dream of one day being able to face the world 'as it is'."[5] Collective ideals, which had been of indisputable significance prior to the fifteenth century, were questioned not so much during the Renaissance as afterwards. They were consequently replaced by increasingly personal views which then enabled creators to immerse themselves in empirical and emotional attitudes. In time, most would become no more than followers of fancy.

Architecture, as a notion of timelessness, cannot subject itself to fanciful whims; timelessness, by its very nature, requires the realization of ideals which exist universally. The interpretations may differ yet the essence of each creative act will remain. Kahn, Le Corbusier and Wright were notable examples of this; for, although varying in style, they shared a common conviction that *architecture emanates from the very essence of life, which itself emanates from the purpose of eternal existence.* And herein perhaps lies the foremost intention of architecture, namely, the manifestation of fundamental truths.



Vitruvius —
Origin of the Corinthian capital.



Francesco Di Georgio —
Symbolic rationalization of cathedrals.

If we are to accept Friedrich Achleitner's assertion that, "every generation has to live (with) the buildings its predecessors have left,"[6] then our task is clearly one of establishing universal beliefs. This will enable architecture to once again, rightfully and in all its splendour, be re-established as a visible realization of a universal vision. Only through the attainment of a world view — that profound embodiment of the metaphysical and the actual — will we restore our dignity as pursuers of purpose. ■

NOTES:

1. P. Smith , *Architecture and the Human Dimension* (London: George Godwin Ltd., 1979), p.178.
2. A. Einstein, in R. Wittkower, *Idea and Image: Studies in the Italian Renaissance* (London: Thames and Hudson, 1978), p.123.
3. Quote from Plato's *Timaeus* by Matila Ghyka, *The Geometry of Art and Life* (New York: Dover Publications, Inc., 1977), p.ix.
4. Le Corbusier, *Towards a New Architecture*, trans. by Frederick Etchells (London: The Architectural Press, 1946), p.69-70.
5. C. Norberg-Schulz, "Meaning in Architecture", in *Meaning in Architecture*, ed. by C. Jencks & G. Baird (London: Barrie and Rockliff, The Cresset Press, 1969, p. 215-229), p. 216.
6. F. Achleitner, in *Rob Krier on Architecture* (London: Academy Editions, 1972), p.6.

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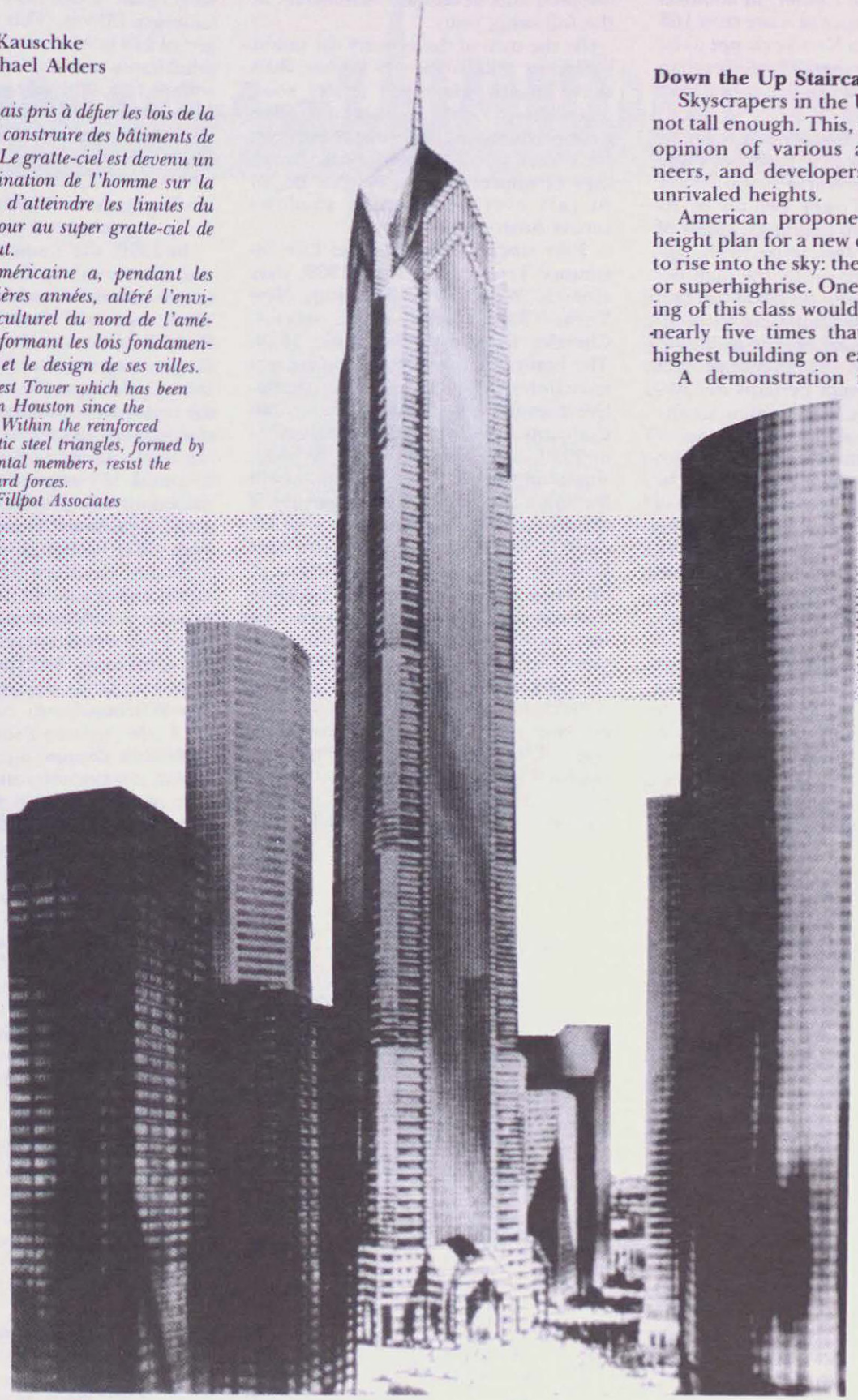
Le Corbusier —
Creating architecture in the image of nature.

Rafel H. Aziz is a recent graduate from the School of Architecture at Carleton University.

Down the Up Staircase

Hans-Gerhard Kauschke
Translator: Michael Alders

L'homme est à jamais pris à défier les lois de la gravité en voulant construire des bâtiments de plus en plus haut. Le gratte-ciel est devenu un symbol de la domination de l'homme sur la nature. Le besoin d'atteindre les limites du paradis a donné jour au super gratte-ciel de 150 étages de haut.
Cette tradition américaine a, pendant les quatre-vingt dernières années, altéré l'environment social et culturel du nord de l'amérique tout en transformant les lois fondamentales de la nature et le design de ses villes.



Bank of the Southwest Tower which has been under construction in Houston since the beginning of 1985. Within the reinforced tubular frame gigantic steel triangles, formed by diagonal and horizontal members, resist the windward and leeward forces.
Photo: Lloyd Jones Fillpot Associates

Down the Up Staircase?

Skyscrapers in the United States are not tall enough. This, at any rate, is the opinion of various architects, engineers, and developers in this land of unrivaled heights.

American proponents of increased height plan for a new class of buildings to rise into the sky: the superskyscraper or superhighrise. One projected building of this class would achieve a height nearly five times that of the current highest building on earth.

A demonstration model designed

Layout by: Daniel McGean and David Morin

for construction-boomtown Houston calls for a structure to exceed one mile and some 500 stories. In Chicago there are plans for a 210 story, 2500 foot high World Trade Center, in addition to another skyscraper of more than 168 stories. Builders in New York, not to be outdone, have presented no fewer than four plans for buildings of more than 135 stories.

In light of these proposals it seems certain that a new generation of high-rises will leave the World Trade Center and the Sears Tower behind in its shadow. These two buildings, giants of 1,352 and 1,453 feet respectively, apparently no longer satisfy the high demands of America's architects. Their response, the traditional concept of height as quality, of bigger as better, will take American architecture another step upward, though perhaps not forward.

An American Tradition

The American love of the superlative has often spurred developments of technological pre-eminence in architecture as well as in other fields. It is in architecture though, that development and innovation in methods of construction are discernable to all in the skyline (see fig. 1).

A century ago, the tallest buildings were constructed of massive, six foot thick masonry walls. Then, in 1885, engineer William Le Baron Jenny had the ingenious idea of diverting the gravitational forces of the Home Insurance Building into the ground by means of a steel, or at that time iron, framework. He hung the exterior walls upon the resulting metal frame skeleton. This principle of skeleton frame construction with a suspended facade was adopted and developed extensively in the following years.

By the turn of the century the tallest buildings still stood no higher than thirty stories. Municipal rivalry soon engendered fierce architectural competition however, particularly between New York and Chicago. Thus, buildings of unprecedented heights began to cast ever lengthening shadows across American cities.

Fifty stories, Metropolitain Life Insurance Tower, New York, 1909; sixty stories, Woolworth Building, New York, 1913; seventy-seven stories, Chrysler Building, New York, 1929. The battle for the tallest building was sometimes conducted in a wily deceptive manner. The Bank of Manhattan Company Building, under construction in 1929, was planned to rise 928 feet, surpassing the 791 foot-tall Woolworth Building. However, a former partner of the Bank of Manhattan project developed a secret plan for the Chrysler Building, also under construction at the same time. The Chrysler Building was officially to be approximately two feet lower than the Bank of Manhattan, that is until the famous spire was unexpectedly added, enabling the building to hold the height record of 1,047 feet for two years following its construction. The Empire State Building deposed it with 1250 feet and 102 stories in 1931 and remained unchallenged for the following forty years.

World War II brought peace to this war of altitude, and it was not until eleven years after the war's end that Frank Lloyd Wright was daring enough to propose a one mile high tower for Chicago, Illinois. This unrealized project of 528 stories was to house 130,000 inhabitants within its seventeen million square feet. Fifty-six atomic powered elevators with top speeds of sixty mph were to have satisfied internal accessibility, while four-lane garage entrances and exits, 15,000 parking spots, and landing pads for 100 helicopters were to have guaranteed external access.

In 1970, the Empire State Building was dethroned by the two 1,352 foot towers of the World Trade Center. That was a hard blow for Empire State Building fans, and it moved Robert Wagenseil Jones to call for the Empire State Building to be levelled down to the eighty-first floor, with an additional thirty-one floors then to be added, giving the building a new height of 1,493 feet and 114 stories. This much discussed idea died in the 1970's after the 1,453 foot Sears Tower was built and even taller buildings were expected.

Today, the Sears Tower is still unrivaled, and if the proposal of engineer William J. LeMessurier were accepted, Chicago's tower would remain the tallest building on the planet as a memorial to its designer, the late Fazlur R. Khan.

American Dream

But everywhere in America, and even in Asia, there is sprouting ambitious plans to surpass the Sears Tower.

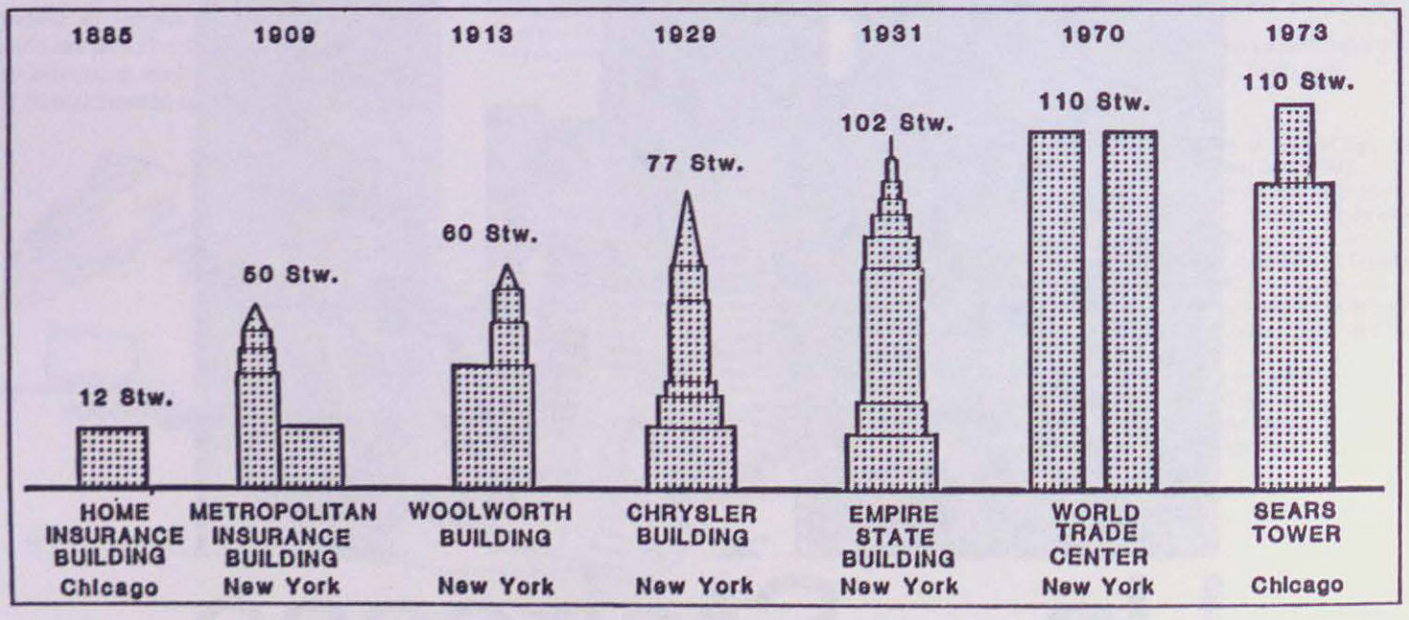


Fig. 1

SITE PLAN

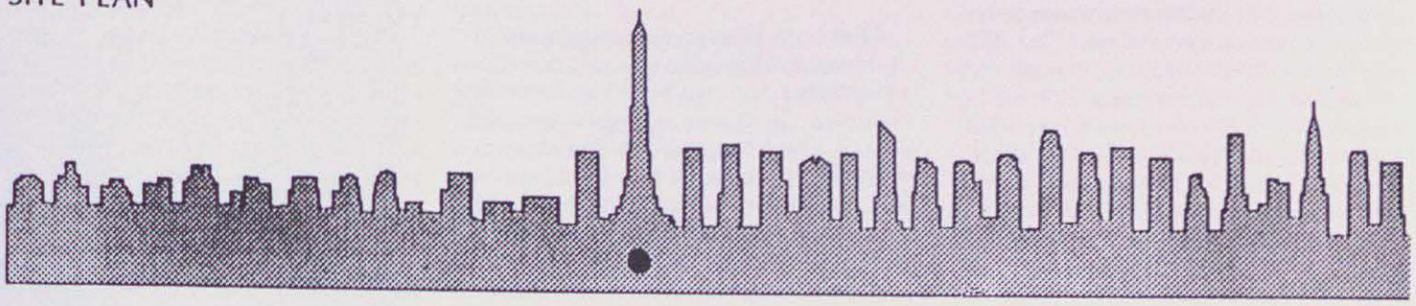


Fig. 3

There are rumors in New York that Mayor Edward Koch is disappointed that the World Trade Center is no longer the world's tallest building. In February of 1985, Kenneth Lipper, the city's deputy mayor for finance and development, called for a new highrise project to be built in Manhattan.

Lipper has even gone as far as to suggest the 150,000 square foot Coliseum as an ideal site for the new project. With the completion of the new convention center in 1986, the Coliseum, located on Manhattan's Columbus Circle, is now available.

New York architect Eli Attia has already designed a 1,600 foot, 137 story tower for this project. Together with the well known developer Donald Trump and a third partner, Mr. Kalikow, Attia proposes a 2.7 million square foot mixed-use complex, as well as improvements in local infrastructure that such a project will require (fig. 2).

The building's five story base of stone plates establishes a continuity with the sidewalk, while the slender tower rises 1,600 feet to take its place in the skyline as a new symbol of the city (see fig. 3). Proportioned in a series of seven setbacks according to the Golden Section, the facade will break the characteristic down-winds which develop at the front of a building. The 135 foot filigreed crown of open weave metal emphasizes the New York City's Gothic tradition.

Eli Attia developed an entirely new principle of construction for this project. Some maintain, however, that the parcel is too small for such a building, although the most vocal opponents protest out of a desire to see their own plans for such a project realized elsewhere.

In April of 1984, without naming an architect, the First Boston Corporation announced plans to construct a 140 story building in Midtown Manhattan. The building is to occupy an entire city block at Madison Avenue and 46th Street. To make it more believable, the groundbreaking has already been scheduled for 1988, the completion for 1990.

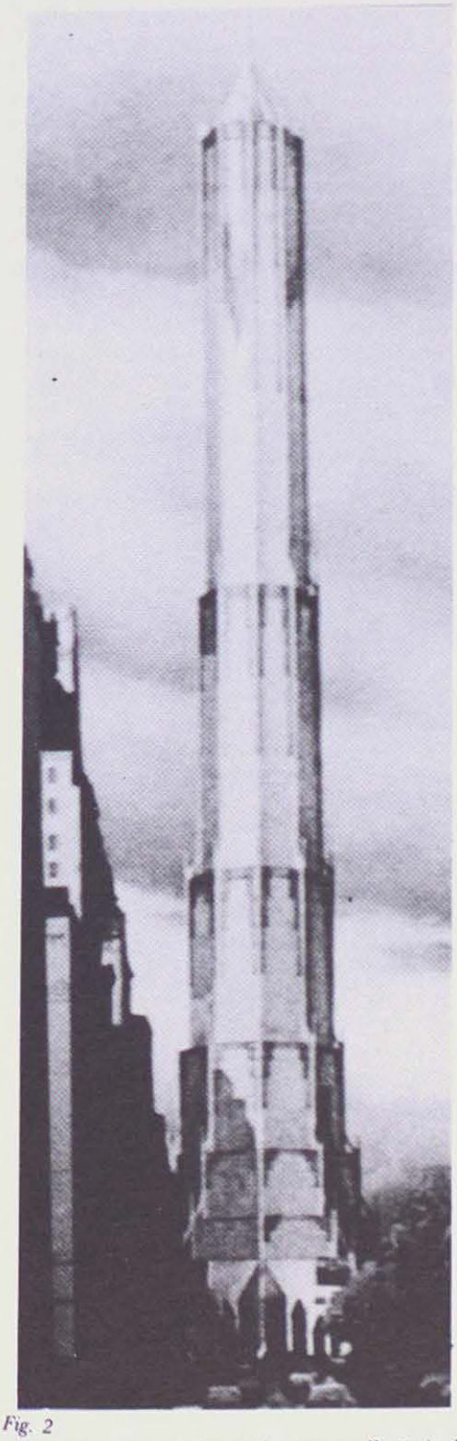


Fig. 2
A proposal for a 488 m high, structurally "mixed" complex flanking Columbus Circle in New York City. *Photo: Lee Dunnette*

Since millions are at stake, Donald Trump has announced yet a second project in addition to Ten Columbus Circle, the even more controversial East River Landing. Presumably for tactical reasons, he has declared a second site, a twenty six acre underwater parcel in the Hudson River (a one minute walk from Wall Street) to be particularly well suited for a superskyscraper (fig. 4). Here he wants to construct, in his own words, "The largest building ever". The bottom sixty floors of the 140-150 story building are to contain office space, and the next forty are to be luxury hotel rooms, with fifty storys of super luxury apartments featuring the spectacular view of the upper reaches of the building.

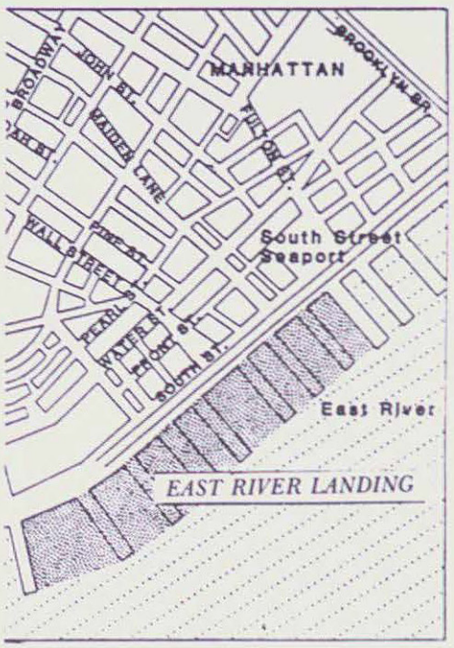


Fig. 4

Trump maintains that the 2,624 foot long parcel also has enough room for an attractive pedestrian concourse. He counters reservations about the 137 foot water depth with the statement: "It will be built at the highest level of the bedrock." He further declares that his project will finally establish an architectural equilibrium to the World Trade Center, and will also allow New Yorkers to enjoy having outdone the rival Sears Tower by an additional 485 feet.

Lack of Space Gives Rise to Innovation

The New York engineering firm of De Simone Chaplin and Associates offers another concept for 150-200 story buildings. With increasing height the base of a building must increase exponentially. This condition became the decisive factor in the design of the firm's braced towers, for most urban parcels which are of inadequate area to deal with this requirement. Vincent De Simone's idea is to connect different towers together by means of bracing walkways at various heights (fig. 5).

While structurally these walkways help the building to redirect horizontal wind forces into the ground, they also serve to divide sections of the building into staggered safety zones which will allow quick evacuation in case of emergency. The projected height for this project is given at 2,000 to 2,600 feet.

In Chicago, the architectural and engineering firm of Skidmore, Owings and Merrill (SOM) is working on a hypothetical study dealing with equally tall structures. For many years Fazlur R. Khan, as head of the engineering department, worked on the research and development of tubular and frame construction systems. Today, under the direction of his successor Hal Iyengar, a group of specialists is working on refining these techniques. Three years ago SOM unveiled a demonstration model of a 168 story super frame construction (see fig. 6). The great advantage of this scheme is that all the gravitational forces are directed into the frame, so that core walls and bracing are not needed in the building's interior.

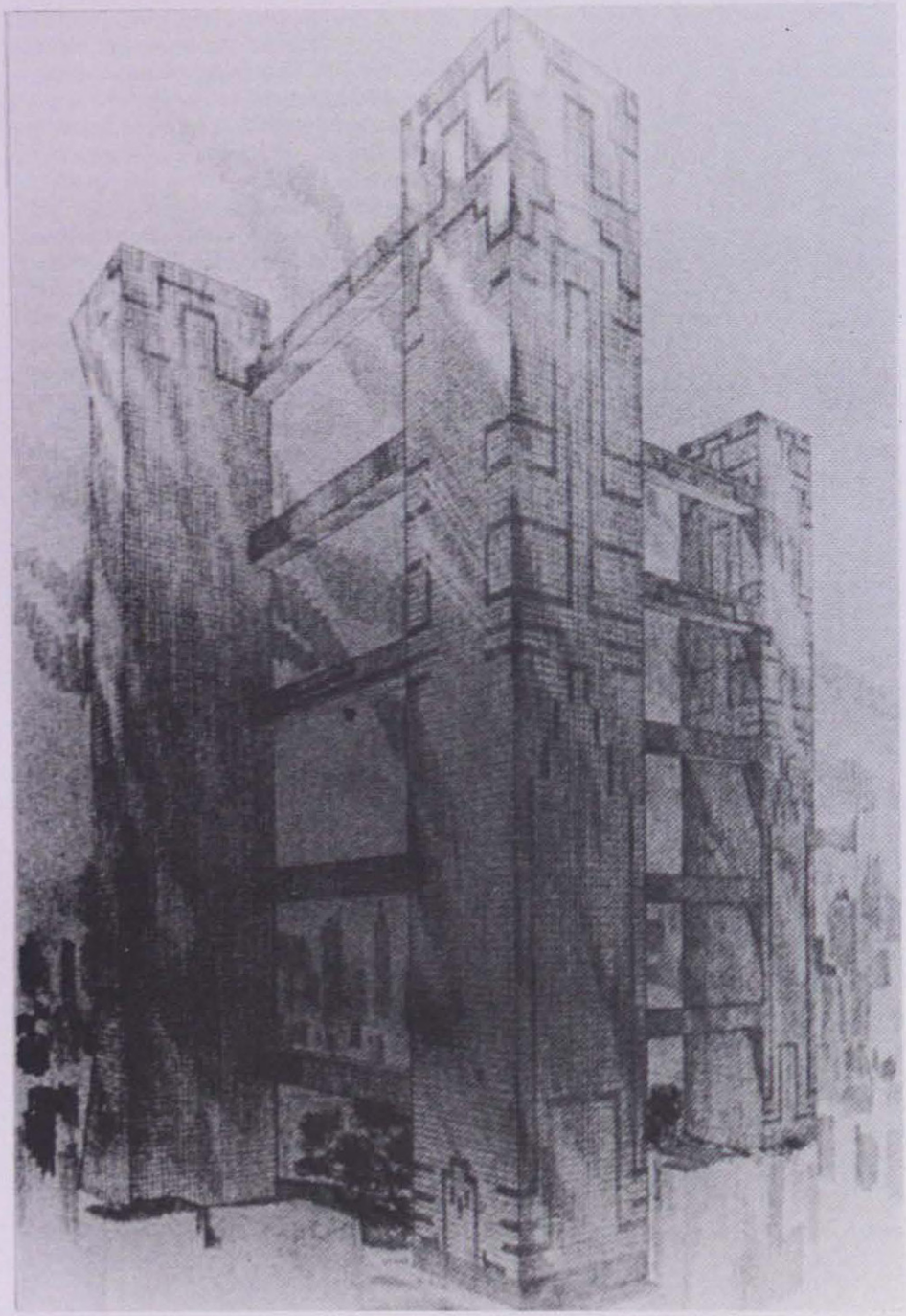


Fig. 5

Braced Towers by Secundino Fernandez (architect) and De Simone & Chaplin (engineers). As the sites are small in area, the buildings will be tied to each other, providing the bracing required to satisfy the physics of the structure.
Photo: De Simone & Chaplin & Associates

Although engineer William J. LeMessurier has proposed the Sears Tower as a memorial for Fazlur R. Khan, he declares in the same breath that he is prepared to go higher himself as designer of the 207 story Erewohn Center. In this model he seeks to carry the gravitational forces of the building upon four massive supports, one at each corner of the quadratic base, with additional diagonal bracing to resist the horizontal wind forces. Due to the difficulties involved with the exposure of the building's interior to sunlight, as well as the limitations in area of typical urban parcels, he has limited the width to 220 feet. Thus the theoretical Erewohn Center acheives an as yet unreached aspect ratio of 12.6. The Sears Tower, with its base width of 226 feet, has an aspect ratio of only 6.5, and the World Trade Center, with a base of 207 feet, acheives a value of only 6.4.

The future World Trade Center in Chicago is to be 210 stories and 2,500 feet tall, declares architect Harry Weese. In collaboration with the engineering firm Lev Zetlin and Associates, his architecture firm has developed a building with an unusual form. The building winds forty-five degrees around its own axis in seven steps of thirty stories each. Each thirty story segment of the building is independently serviced with water, electricity, fresh air, and waste removal. Huge turbines located between segments are to transform the enormous windpower of

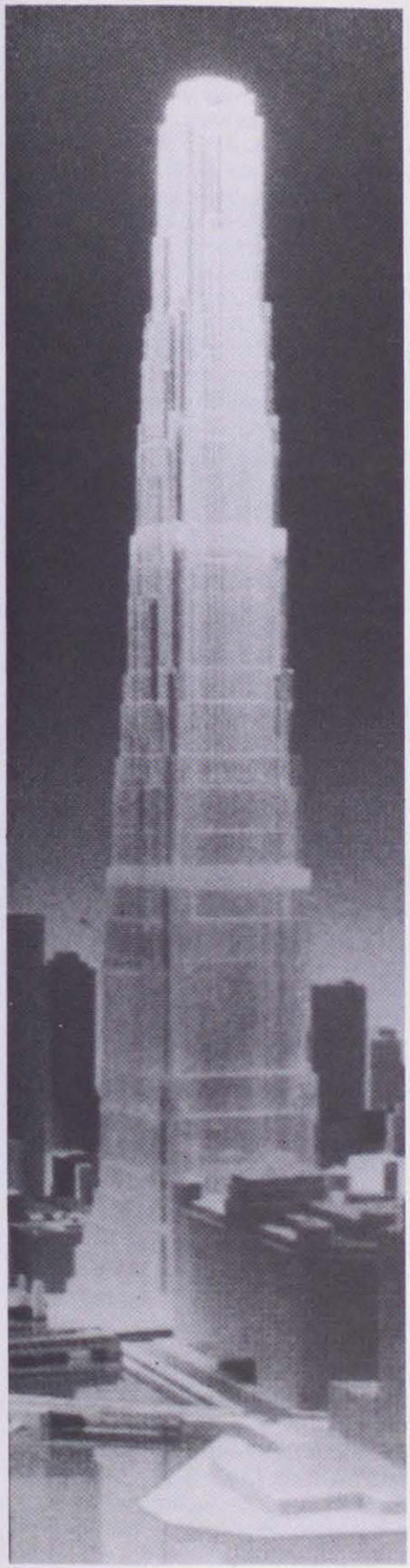


Fig. 6

Skidmore Owings & Merrill: Demonstration model for a particularly efficient structural system. All gravitational forces acting on the 168-story high building will be resisted by the frame; bearing walls and support in the interior are not necessary.
Photo: Skidmore Owings & Merrill

the Windy City into useful energy. The building has its own waste treatment facilities (fig. 8).

This project may have greater financibility than many others, as developer Stanley Raskow does see sufficient chance of amortization due to the planned 800 apartments, 2,400 hotel rooms, an international and trade fair center, retail stores, restaurants, three theatres, and a stellar observatory on the roof. Only 3,000 parking places are planned, since an electro-magnetic light railway is to service the complex.

Architect Robert Sobel of Emery Roth and Sons, New York, has clearly exceeded the present limits of financibility with his 500 story Houston Tower, which has primarily experimental-hypothetical value for him at this point. The gigantic 1.3 mile tower with its base-length of 800 feet would take up nine blocks in Houston's inner city (fig. 9). Emery Roth and Sons took part in the planning of the World Trade Center in New York and hope to employ and refine the experiences of that project in Houston.

Harsh Reality

What are the problems which arise from super-tall buildings? As long as there are skyscrapers and human beings there will always be both opponents and supporters of such construction.

The supporters of skyscrapers see in them magnificent sculptures that defy the forces of nature, symbolize man's pre-eminence, challenge his ingenuity, advance technology, and add excitement to the urban setting. They are enraptured by the view from the top of these buildings, and they enjoy rare excursions in an elevator, for most of these proponents themselves do not live in skyscrapers.

Critics see the epitome of egotistic arrogance in skyscrapers. They view them as a phenomenon that has overwhelmed and transformed the cities of the world into look-alike pestholes, condemned their inhabitants to a cave dweller's existence, and taxed their infrastructure to the point of rush-hour collapse.

One thing however is certain, whatever the reasons for man's acrophilia in the past, whether religious, political, economic, scientific, or aesthetic, inspiring structures have often been the result. The fruits of man's desire to build are visible from the pyramids at Giza and the Tower of Etemenanki in Babylon, to the Acropolis in Athens, to St. Peter's Basilica in Rome, to the Eiffel Tower in Paris, and to the Sears Tower in Chicago.

The function of the highrise of the future can be seen as the result of the cultural and political-economic framework in which it is built. With the increasing population density of American cities in particular, the potential profitability of the real-estate rises. The profitability can then be driven up even further through an even greater density of population. Rents in American cities rise enormously in a viscious circle until the point of either absolute market saturation or collapse is reached.

We can already see that the rentability of office space has declined over the last five years as a result of the automation of office work. Conversely, from a standpoint of residential use, these desolate canyons of steel, concrete, and glass are equally unrentable. It is also important to realize that in superhighrises the price per square foot doubles above the hundreth floor. The interest payments alone during the sometimes six-year construction period can be one billion dollars. In light of these conditions it is not easy to find a financier for such a risky and costly experiment.

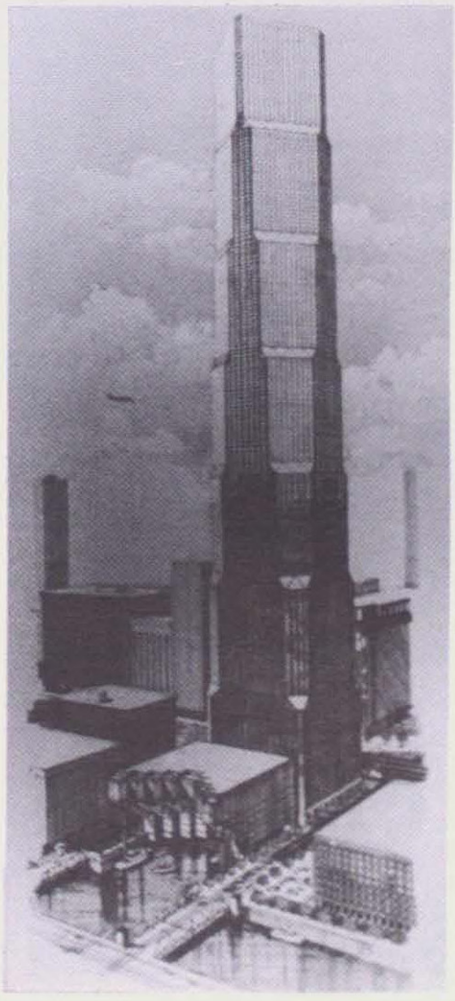


Fig. 8
Esquisse for the World Trade Center in Chicago, by Lev Zetlin & Associates. Seven self-sufficient levels of 30 stories each twist about a 45° angle from the ground to a height of 762 m. Enormous turbines between these levels help resist the windloads.
Photo: Lev Zetlin & Associates

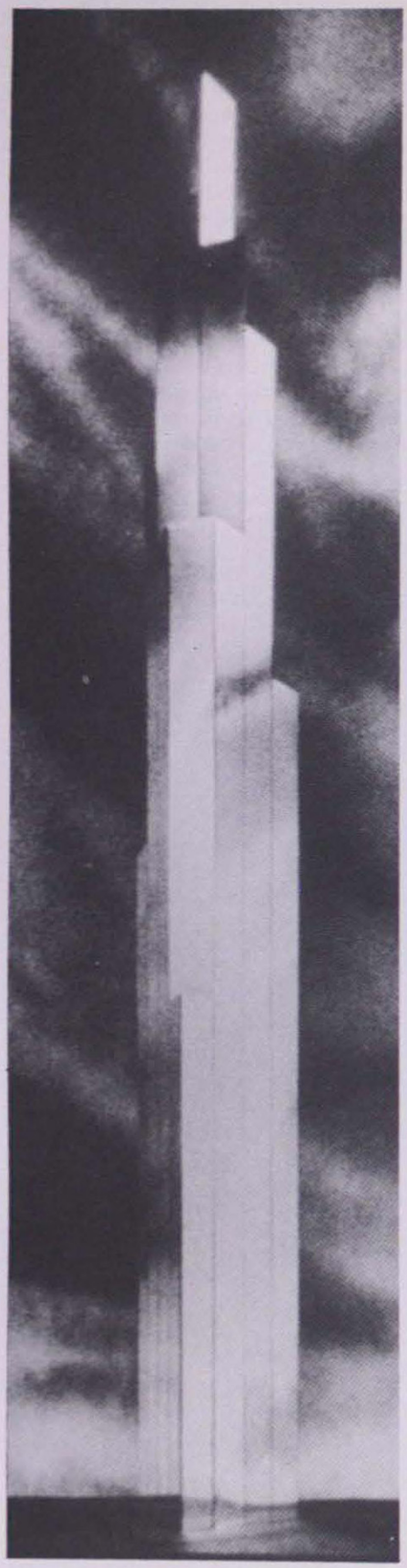


Fig. 9
Feasible but uneconomical: the 500-story high Houston Tower by Robert Sobel (Emery Roth & Sons).
Photo: Robert Payne

The architectural and engineering specialists have a much easier time of it, for they need only deal with the physical problems of construction. Because they know exactly the parameters within which they are working, they can more easily find solutions for the most extreme problems of construction.

The construction of a superhighrise, like that of every other building, must be able to absorb the forces of gravity, wind, and even a possible earthquake, and divert these safely into the ground. With increasing height these forces are magnified exponentially, and theoretically there is no limit to a building's height, if its base, as in the case of the Eiffel Tower, can also increase exponentially in cross section towards the ground. This is an important rule of thumb for the high-rise architect: the higher the building, the broader the base must be. This vertical/horizontal relationship, also called the aspect ratio, ranges in most highrises between six and eight. In superhighrises these values must be increased greatly due to the limited size of available parcels and municipal zoning ordinances. Most current plans call for aspect ratios of around ten.

Even though it is theoretically simple, by excluding all other design components (e.g. access, exposure, security), to constructively deal with the vertical forces of gravity, dealing with wind induced horizontal forces is far more difficult.

In a superhighrise, these horizontal forces can induce slipping, bending, oscillation, twisting, shearing, cracking, or even breaking (see fig. 10). We can leave aside horizontal forces which result from earthquakes, for ostensibly even in the earthquake country of Los Angeles these do not equal the forces of a hurricane in Houston.

Tension arises when these forces act upon the construction material. The material must therefore be able to absorb as many of the tensions of bending, pulling, torsion, shearing, etc. as possible. The construction itself must generate as little tension as possible within the material, and the actual form of the structure must be one that subjects the construction to as little horizontal force as possible. This point leads us to the dynamic behaviour of a structure when it is exposed to winds. Vortices arise when a square or a rectangular building is exposed to wind forces; these cause low pressure on the leeward side of the building, resulting in oscillation as the building yields to the higher pressure on the windward side (see fig. 11).

An aerodynamic structure is subject to less wind induced horizontal force than a quadratic structure; in aerodynamic automobiles for instance, this is indicated by lower gasoline consumption. Aerodynamic structures, however, according to the wind tunnel experiments of engineer William J. LeMessurier, also have a lesser capacity to divert vertically such horizontal forces as they strike the building. A structure that is stiffened by corners (with a quadratic or triangular ground plan) is in his experience twice as resistant as a cylindrical shape.

Although this surpises LeMessurier as well, he has not developed the idea of combining the aerodynamic advantages of a slippery structure with the stiffer and stronger quadratic design. A logical conclusion of this idea would be to place such a hybrid structure upon a rotating disk... But who would pay for such a construction?

The Human Factor

Which access, security, servicing, and disposal systems do we humans deem necessary?

The champions of the superhighrise claim not only to have satisfied all basic human needs in their buildings, but actually to have perfected the satisfaction of those needs. Total protection from the weather: heat, light, a continuous air supply, water, and electricity at the turn of a switch; and the effortless disposal of all waste are the rule in these buildings. That all of this requires proportionally more space is viewed as a minor problem. Electricity is conveyed under high tension and transformed to house current within special technical floors, water is kept in the building's own treatment plant, and trash is transformed into heat in the building's own incinerators.

The biggest problem of internal transport is the human ear. Even with the "slow" twenty mph elevators in the Sears Tower there are some people who experience pain upon descent. For the tremendously long and rapid rides in the superhighrise there will have to be transfer floors for rider equilibration.

In order to cut down on the sheer number of elevator shafts there will be two and three decker elevators which service various floors in one stop. What are really needed, say the designers of such systems, are self propelled elevators which can "leap" from one floor to another.

It was conceeded at the ENR-Symposium that security systems cannot offer absolute security. The risk factor rises along with the height of the building in the battle against the nature of fire, wind, and earthquakes. Even completely fireproof security zones can not alter instinctive human panic-behaviour.

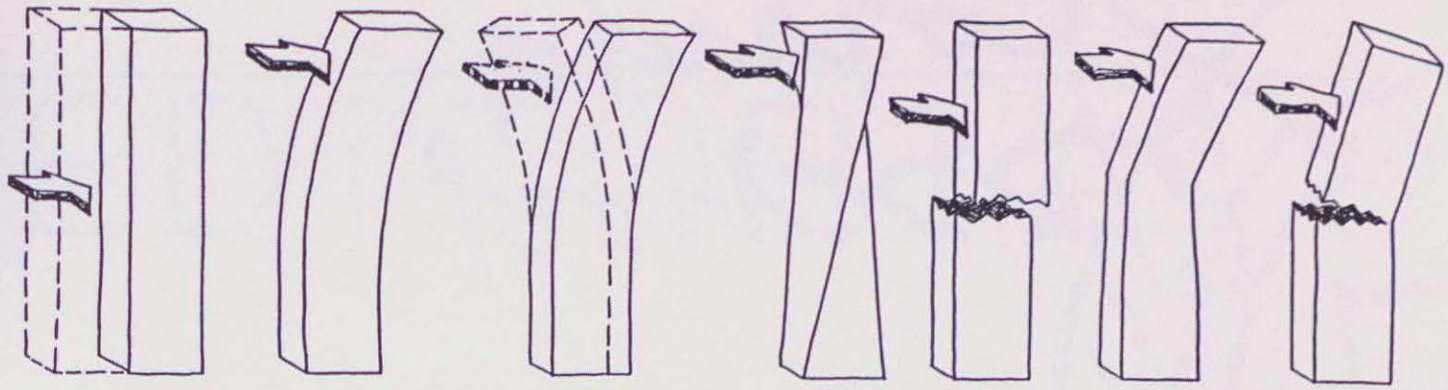


Fig. 10

Slipping *Bending* *Oscillation* *Twisting* *Shearing* *Cracking* *Breaking*

The Financial Question

The construction itself is primarily a financial problem, for theoretical cost calculations often prove to be wrong, as do proposed time schedules. The actual construction period, which can last years, generates no income even as the very high interest payments accrue. If new construction techniques are being tested, the risk of cost and time miscalculations rises.

The use of a superhighrise is determined by its price, as it is located in the most expensive part of a city and must generate corresponding income. The enormously high rents of superhighrises are only possible for corporate renters. In addition to this, the shadowy and windy inner-city landscape is generally not conducive to residential use, even though it must be allowed that city noise disturbances are no longer a problem above the hundreth floor.

Summary

For the most part we have the know-how for a new generation of highrises. As Robert Sobel considers buildings of up to 1000 stories technically feasible, we arrive, according to him, at new contemplations which transcend technological problems. The problematic of the building becomes the problematic of the environment. What are the social, environmental, and cultural effects, the costs of infrastructure, transport systems, etc., that the solution of the technical problem engenders? What effect does such a building have on the relationship between a city and its suburbs and outlying areas?

Does not the United States have a post-industrial responsibility to Europe and the developing countries to show how the mistakes of the past can be corrected, to show that architecture and city planning can be practiced along other lines than merely visions of quantity as quality?

Can America not finally resolve its historically grounded inferiority complex, reflect upon its accomplishments, and realize that indeed quality and not quantity will be the telling factor in the coming century?

Should we not as human beings orient ourselves more towards our direct requirements of integration into nature, rather than letting abstract data and rationalistic facts rule us?

Could we not strive to live in harmony with nature and plan our future without automatically reverting back to the stone-age in our thinking, without dreaming of a romantic past, but instead realistically working for a future where we can reconcile ourselves with the Earth?

We have not yet overcome the heritage of the middle ages to view nature as our enemy. We seek to understand the laws of nature, not so that we may live in harmony with it, but so that we may overcome nature's dominance and conquer it along with our own species.

Skyscrapers are symbols of dominance. Dominance over the laws of nature, our competitors, other cities, other countries, the Other in general. This type of black and white thinking keeps us in a struggle with ourselves without letting us understand that the Other is also part of us.

I see in the development of future highrises the danger that we will further alienate ourselves from our environment as we render it ever more artificial. Today's highrises can be compared to an airplane, tomorrow's to... a spaceship?

If we really have deep within our souls the desire to soar in the heights, couldn't we be satisfied with a short jaunt in a helicopter?

Granted, the development of the highrise has precipitated ingenious technological progress. But haven't we reached a point where height alone can not be viewed as intrinsically desirable, where we can psychologically afford to build on a smaller scale?

I would like to see in all cities a better quality of life on the streets and in the places where people live and work.

And it's strange; as soon as I stand on the observation deck of a skyscraper I can understand its proponents, but I can understand its opponents when I once again walk on the street in its cold shadows. ■

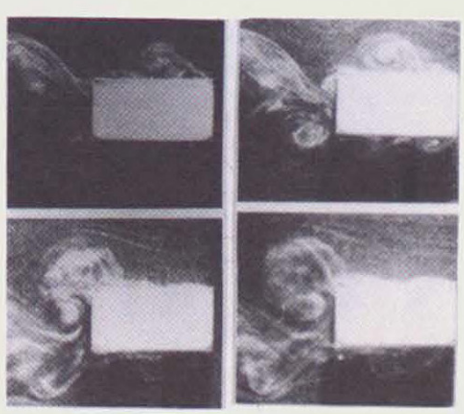
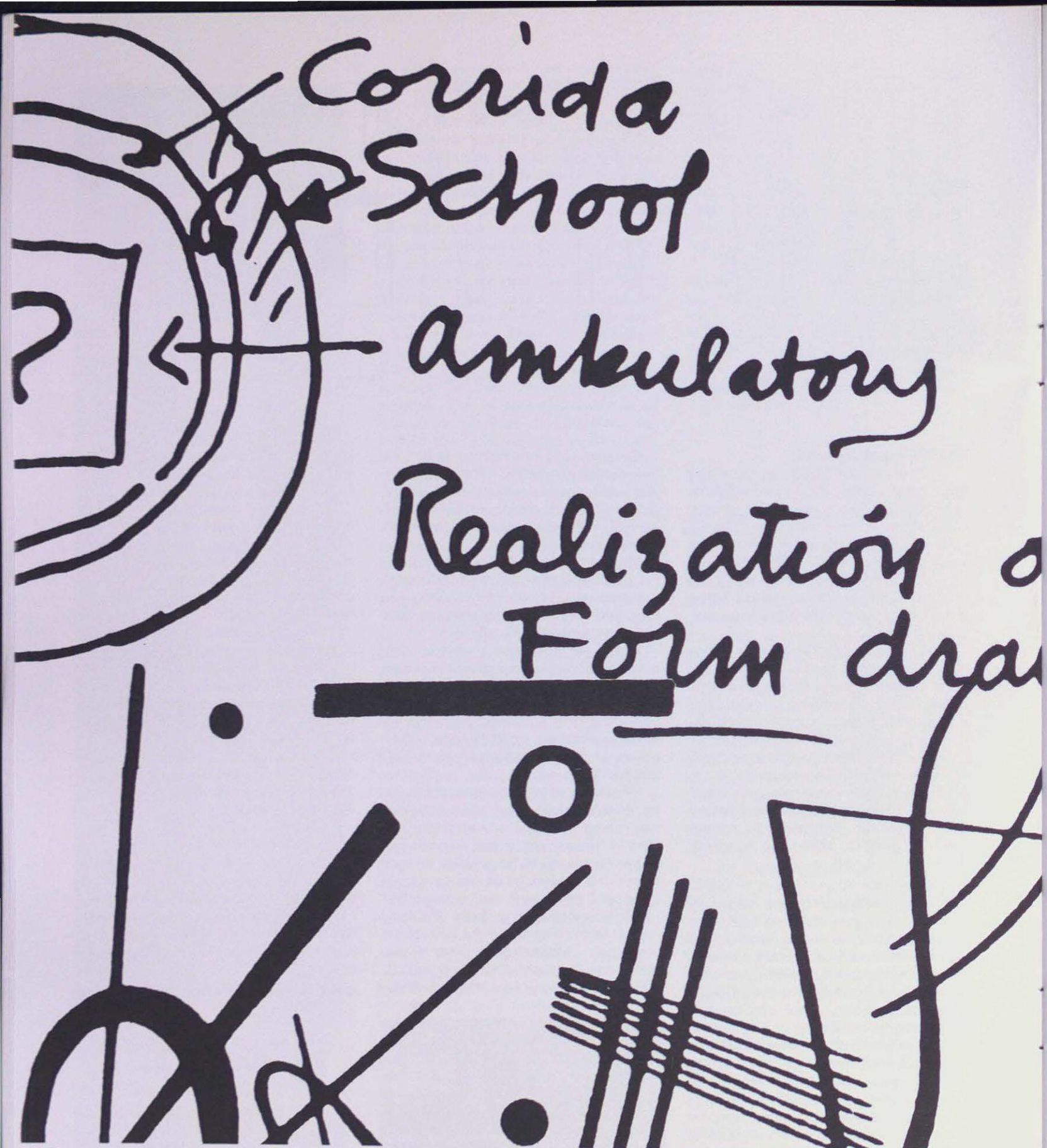


Fig. 11
Airflow/wave patterns about a building with a rectangular plan. Photo: Michael Mikitink

Hans-Gerhard Kauschke studied at the Bremen Architectural College and graduated from the Berlin Art Academy. He has worked in Berlin, New York and San Francisco.



th emphasis on the horizontal'

EDITORIALS

It is particularly appropriate that a student journal of architecture should publish an issue on the theme of architectural education. The articles and interviews which comprise this issue discuss many of the central concerns of formal architectural education: curricula, admission policies, the process of crits, etc. These are difficult questions given the rigourous demands upon the field as it passes through the Post-Modern period and moves towards the developments of the 21st century. That architects should address cultural, philosophical, and aesthetic concerns as well as more specific technical, professional and legal ones imposes an additional degree of complexity to the task of educating students of architecture.

Few, if any, professional studies demand so much from both educators and students nor provides a less certain direction for teaching. Architectural education consequently falls under the continual scrutiny of practicing architects, theoreticians, critics and students.

In light of these circumstances, however, two conditions seem imperative to the well-being of the educational process. The first is the encouragement of a vigourous dialogue among professionals, academics and students regarding the objectives of architectural education and the methods of teaching which can most effectively achieve those objectives. Complimentary to this idea is a second condition; the approach to architectural education by students and teachers cannot afford the luxury of complacency. Too often, these conditions are not met in schools of architecture. Dialogue is limited, contrived or completely absent. Intellectual rigour is lacking among students, lecturers and critics regarding the development of architectural ideas.

Finally, it is regrettable that among the submissions made to this issue, an assessment of architectural education is not offered from a perspective somewhat removed from the educational process itself. It is easy for students and academics to myopically discuss the finer points of formal architectural education when what might be required is the posing of a far broader question: Is a school of architecture the appropriate place to educate the architect?

How different would the results be if an architect's education consisted of a liberal arts background and a practical apprenticeship, with formal architectural education limited to the teaching of the history of architecture? In a time where conflicting demands are being made for a return to a humanist approach to architecture: for increasing technical competence, for the adjustment to computer-aided design, for specialists, and for generalists; it might be appropriate to re-examine the entire validity of formal architectural education and not simply its component faults.

Peter Smale, Editorial Board

The Media of Architectural Education

Throughout the history of architectural education various schools of thought have chosen to emphasize one medium of communication over another for the expression of architectural designs. It is during this last century that prevailing theory has alternated from a curriculum based on drawing, to one based on building, and once again to one based on drawing.

An often neglected area of architectural education is the perfection of skills based on written and verbal communication. The architect is, today, more than ever, required to present his design proposals and intentions to an increasingly discerning public and not just to an enlightened client or connoisseur. The intelligible manipulation of both the written and verbal components of any language will be of primary importance when dealing with a public, which is most often not skilled in the interpretation of architectural drawings.

The use of the " drawing " as the primary medium for conveying architectural information was extensively used by the Ecole des Beaux Arts in Paris, during the years 1870-1900. Elaborate final drawings constituted the focus of all activities and exercises within the ateliers. Exercises based on the study of light and shade yielded results influential in the representation of light behaviour in two dimensions (paintings and drawings). Attempts to integrate these results into the design and construction of three dimensional spaces were often overlooked.

Similarly, at Columbia University in New York City, under the directorship of William Robert Ware, the use of extensively detailed renderings was an important part of the school's early curriculum. The extent to which the rendered drawing should dominate as the method of expression was consistently debated amongst the school's faculty. Ralph Adams Cram understood that while many graduates were knowledgeable in the creation of beautifully rendered images, few were competent in the design and construction of actual buildings. It was Ware himself who, after having left Columbia, realized that inherent within the established curriculum were faults and deficiencies which often resulted in the "drawing" becoming the final objective of all architectural exercises.

> The chief danger to which the architect or the student of architecture is exposed, when he employs this art as a help in designing and building, is obvious. He is likely to regard it not as a means, but as an end in itself, and in doing so he is likely to lose interest in the art of building...[1]

The resulting split between the fine arts (painting and drawing) and the building crafts was most acutely condemned in the Bauhaus Manifesto of 1919. Written by the director and founder of the Bauhaus, Walter Gropius, it proclaimed the end of the academies. The stagnant state of all art education was to be transformed in order to achieve the synthesis of all fine arts and crafts. This ensemble would once again make the building of architecture the essence of design.

> The ultimate aim of all creative activity is the building. The world of the pattern designer and applied artist, consisting only of drawing and painting, must at last and again become a world in which things are built.[2]

The workshop and not the studio was to be the focus of the school. A select few of the architectural avant garde believed that the knowledge derived from the design and " making " of furniture and tapestry, for example, could successfully generate the primary components of a new architectural language. Unfortunately, hindsight has demonstrated that the direct translation of formal and aesthetic relationships, as originally conceived at the scale of a piece of furniture, cannot become the sole guiding principle for the design of a building.

During the past fifteen years the architectural profession has been involved in the re-evaluation of both history and drawing as important components of the design process. This renewed interest in the two dimensional representation of architecture has resulted in schools once more requiring students to master sophisticated techniques of drawing and colour rendering. It is not coincidental that many architects today employ a palette of colours reminiscent of the days of the Ecole des Beaux Arts.

While this renewed indulgence in two dimensional graphic communication may be a reflection of the society's need for visual stimuli, students should be introduced to an aspect of architectural education usually reserved for the occasional term paper or critique presentation — the written and spoken word.

Upon entering a school of architecture great emphasis is placed upon the learning and development of vocabulary and syntax of various architectural languages. This knowledge is most often applied in the graphical representation of architectural designs. Yet the written and verbal languages in which we possess knowledge of vocabulary and syntax are not nurtured to be synthesized with the visual languages. Can we not incorporate such written and verbal communication into the design process?

The student of architecture would undoubtedly benefit from such emphasis, for at the commencement of every design project, information must be gathered and analyzed (building program, precedents, site analysis, etc.) This information must be intelligibly compiled in order to proceed with the conceptual design phase. It is at this stage that a dialogue must be established between the verbal and the visual zones of the brain such that the collected data may be transformed into architectural ideas and design intentions. Furthermore, one of the most important areas of any architectural practice is the presentation of the proposal to the client, where the assessment of the proposal is most often based on the architect's competence at verbal communication.

At the root of this deficiency is the repeated misinterpretation, both by architects and clients, of the role which words play within the design process. The writing of an architectural essay is most often not interpreted as an exercise in proposed design intentions, where the "experience" of writing, being analogous to that of sketching, can help establish possible design solutions. Most often texts are considered to be the definitive and all inclusive design solution and not simply another tool that the design process offers.

Notwithstanding the above discussion, as architects our primary form of communication should be based on graphic and constructional techniques: sketches, models, etc. These methods aid us in visually interpreting three dimensional spaces and volumes. Nonetheless, attempts should be made in order to synthesize established media with that of the word. The student and the professional can but benefit by engaging in intelligible written and verbal discourse with society and it is within the schools of architecture that the development of such skills should be encouraged.

Notes:

1. *The Making of an Architect 1881-1981.* edited by Ricard Oliver. New York, 1981, p. 19.
2. Frank Whitford, *Bauhaus.* London, 1984, p. 202.

Franka Trubiano, Editorial Board

LA FRANCE: RÉFORME ET CONFUSION

NOUR-EDDINE CHAOUKY

Enseignment et recherche architecturale en France avant et après l'école des Beaux-Arts. Réflexion sur la spécifité architecturale.

From 1960 to 1968 teaching and architectural research in France was stagnant within the Ecole des Beaux Arts. The wave of student protest in May of 1968 just made public a crisis that would later shatter the school. Since then, the teaching in France has been multidisciplinary, critical but also confused with respect to the nature of architecture.

L'objet de ce travail est de retracer l'évolution des idées en France concernant les études et la recherche architecturale depuis les anées '60 jusqu'à la fin '70. Je pense qu'il est pertinent de discuter d'enseignement puisque la vitalité de la recherche architecturale dépend de toute évidence de la qualité de l'enseignement.

Les années '60 jusqu'en mai '68

Les années '60, comme on le sait, ont décrit en France toute une floraison de critiques, de remises en question de la société, en provenance des milieux intellectuels fortement influencés par la Nouvelle Gauche; ces critiques n'ont pas épargné la formation architecturale notamment telle qu'elle était donnée à l'école des Beaux-Arts.

On connaît l'école des Beaux-Arts de par sa réputation, son prestige et sa grande influence exercée sur la construction à travers le monde depuis 1819. La conception de l'architecture qui y était diffusée était celle de l'enseignement-objet, et privilégiait la dimension artistique et les principes de composition formelle dérivés de la tradition classique. La formule du Concours était appliquée de façon systématique: il y avait des concours mensuels (des étudiants devaient participer au moins à deux de ces concours par an) et il y avait le fameux concours pour le Grand Prix de Rome.

Les concours réflétaient les plus purs idéaux académistes car les projets soumis, ne devant pas être réalisés, étaient exempts de toute considération socio-économique et contextuelle. De plus, ce système d'émulation favorisant un certain conformisme, conformisme aux vues du jury très conservateur (ce jury était formé des membres de l'Academie), le monde de l'enseignement évoluait en vase clos, complètement coupé des aspirations et des réalités nouvelles; mais il était en revanche tout à fait saturé de problèmes formels. On y entretenait l'idée d'un esthétisme absolu, d'une beauté classique, éternelle. La structure qui prévalait était la structure parafamiliale de l'atelier dirigé par les professeurs-patrons, ce qui définissait le mode de transmission corporatiste.

L'école des Beaux-Arts apparaissait ainsi dans les années '60 comme une institution périmée, en marge de la société globale; son enseignement qui se faisait dans le même esprit qu'au XIXème siècle était donc déphasé par rapport aux véritables problèmes de la recherche architecturale.

Cette condamnation en se publicisant avait tout de même forcé en '65 l'éclatement de l'école en plusieurs groupes et la formation tout particulièrement du groupe C: six centres avant-gardistes avaient à leur tête George Coudilis et Alexis Foric où les étudiants recevaient une formation découlant de la charte d'Athènes ainsi que de tous les grands principes du mouvement moderne.

Mai '68

La vague de mécontentement étudiant déferle en mai '68 et l'école est occupée. Sans entrer dans les détails du mouvement, disons que celui-ci ne faisait que rendre publique, ouverte

Layout by: Eric Stein

une crise déjà existante.

'68 est l'année charnière qui ouvre les portes à la réforme. Le rattachement de l'enseignement de l'architecture à l'Académie des Beaux-Arts est remis en cause et c'est la mise sur pied des Unités Pédagogiques d'Architecture. Les objectifs de la réforme étaient de démocratiser les structures, de rendre à la profession architecturale sa mission de service public, et concernant la recherche, de rehausser le niveau scientifique des études architecturales, d'élaborer une approche pluridisciplinaire en faisant appel aux sciences humaines, et enfin de conférer à l'enseignement son autonomie vis-à-vis la pratique professionnelle (il s'agit ici de rechercher de nouveaux rapports entre l'enseignement et cette pratique professionnelle précisément à travers la recherche).

Depuis '68

On peut constater depuis '68 une tendance à la normalisation comportant un retour à un encadrement bureaucratique et à la protection professionelle; c'est-à-dire au contrôle de l'ordre des architectes sur l'enseignement, je me réfère à ce sujet à l'article de Bernard Huet "L'enseignement de l'architecture en France" dans *Lotus International*. Bernard Huet fait également remarquer qu'on est passé de l'enseignement de l'architecture objet à celui de plusieurs matières connexes dites de l'environnement sans vraiment établir de lien entre elles.

Cette confusion, si elle visait un rapprochement spontané des différentes disciplines, a tout compte fait eu l'effet indésiré d'éloigner les études de la spécificité architecturale.

L'effort de théorisation a surtout reposé sur l'essor des sciences sociales qui promettait beaucoup; il a abouti à de multiples questionnements souvent restés sans réponse, à des analyses dispersées qui ne pouvaient tenir lieu de théorie proprement architecturale (et l' effort n'a donc pas su combler le vide laissé par l'enseignement des Beaux-Arts sur le plan de la recherche architecturale.)

L'importance de l'histoire de l'architecture, a également été négligée car l'histoire fournit à l'architecte un système de référence et un recul critique par rapport à son travail. La perception de la dimension historique est un bagage nécessaire à la compréhension du processus qui relie l'architecture à l'urbain.

La recherche architecturale dans tout cela restait encore tâtonnante; les avis sont assez unanimes dans les années '70 pour reconnaître une lacune de critères opératoires pour mesurer et prévoir les effets de diverses expériences architecturales. On déplore qu'il faille encore procéder essentiellement de façon intuitive dans une démarche architecturale. La rigeur intellectuelle exige que l'on teste les théories architecturales. La logique de la recherche architecturale est d'établir un lien constant entre la réflexion théorique et l'expérimentation pratique.

Voilà où l'on est rendu à la fin des années '70; on est à un enseignement pluri-disciplinaire, critique, ce qui a eu sur la recherche les répercussions suivantes de dégager le terrain, d'ouvrir de multiples possibilités mais de créer une certaine confusion notamment sur la question de la spécificité architecturale.

La spécificité architecturale

La définition de la spécificité architecturale fait appel, d'une part à la mémoire collective, et d'autre part, aux principaux événements qui ont marqué l'histoire.

Ces événements nous sont transmis à l'aide d'images qui représentent des lieux inscrits dans la ville. La spécificité architecturale est fondée sur une profonde analyse reliant l'architecture à l'urbain. C'est aussi une discipline autonome qui exclut toutes les matières annexes à l'architecture dites environnementales, à savoir les sciences sociales et humaines. Elle se concentre donc sur l'étude de la formation et de la transformation des lieux et sur l'établissement d'un rapport entre le développement morphologique de la ville et ses caractéristiques typologiques.

La spécificité architecturale représente aussi l'archéologie des formes permanentes et la reconnaissance d'un savoir-faire naturel ancré inconsciemment dans nos pratiques quotidiennes et usuelles qui constituent en fait notre théâtre collectif. Celui-ci est illustré par la représentation de la ville comme marché où toutes les entités ont un caractère spontané et autonome baignant dans un univers continu.

L'examen de la ville moderne repose essentiellement sur des considérations abstraites qui excluent , implicitement ou explicitement, la présence de traces de références aux pratiques et usages établis. Il trouve sa réalité dans une vision surréaliste où la démesure aboutit à son apogée. Cette tendance moderne ne peut être comprise et appréciée que sur le plan intellectuel. Elle ne peut, en effet, satisfaire le réalisme et le pragmatisme du quotidien. Elle évoque, en outre, par le truchement des prouesses technologiques et par son approche systémique, une société homogène aseptisée par le voile de la non-existence.

Cependant, nous ne voulons pas faire le procès de l'industrialisation qui a engendré une monotonie du cadre bâti. Une telle analyse mériterait de s'y attarder longuement. Nous voulons simplement souligner que l'architec-

"...le monde de l'enseignement évoluait en vase clos, complètement coupé des aspirations et des réalités nouvelles; mais il était en revanche tout à fait saturé de problèmes formels. On y entretenait l'idée d'un esthétisme absolu, d'une beauté classique, éternelle."

ture urbaine propose de redécouvrir l'existence de la ville à travers une approche constructive résultant de la tradition figurative (i.e. une représentation fidèle des formes et structures).

Ainsi le langage symbolique est relié à un aspect structural plutôt qu'à une image post-moderniste. Cette image n'est qu'éphémère et a une saveur consommatrice: on la qualifie de design et non d'architecture .

Importance de l'ordre, de la forme et du type

L'ordre, la forme et le type représentent les entités fondamentales dans le support et dans l'évolution d'une ville. En effet, l'universalité de l'architecture passe par l'ordre social établi qui représente l'aspect rationnel des formes urbaines où une importance particulière est accordée à des considérations d'ordre anthropologique.

Les fonctions de la ville doivent, en outre, être bien identifiées et délimitées par l'entremise d'un certain nombre d'archétypes accessibles à tous.

Enfin, l'image du pouvoir représentée par les édifices publics doit exprimer ces caractéristiques spécifiques.

Il en est de même pour chaque entité, le logement, la rue, la place. Si toutes ces considérations sont respectées, la ville perdra son caractère homogène et neutre.

Elle pourra alors préserver toute son identité et son authenticité. ■

"Ainsi le langage symbolique est relié à un aspect structural plutôt qu'à une image post-moderniste. Cette image n'est qu'éphémère et a une saveur consommatrice: on la qualifie de design et non d'architecture."

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Nour-Eddine Chaouky, bachelier de l'université de Montréal en architecture, a notamment participé aux ateliers de Melvin Charney et étudié en design de l'environment à l'UQAM.

Juries: should they be

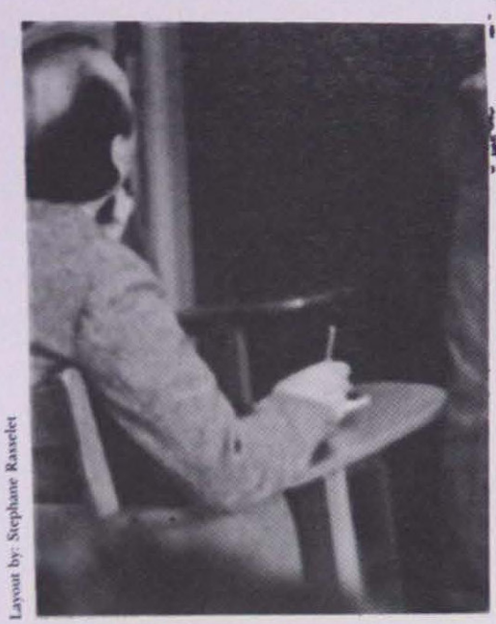
By Gary Hasler

Les jurés sont considérés aujourd'hui essentiels au dévelopment de l'étudiant en architecture; ils sont souvent l'étape finale des projets scolaires. L'essai qui suit questionne les jurés et suggère des améliorations.

For the average citizen, a jury is something faced by criminals. The word carries with it associations with wrongdoing, trial, and inevitably, guilt. Unfortunately for the architecture student, there is a similarly negative set of associations in the particular version of "jury" he or she is faced with.

An architectural jury is basically a visual and/or oral presentation of a design to a number of jurors who then discuss, criticize, and judge. The purpose, of course, is to provide him or her with constructive feedback to improve their design process. Because architecture is ultimately judged subjectively, this also furnishes a degree of democracy in the hope that several opinions are more reliable or valuable than one.

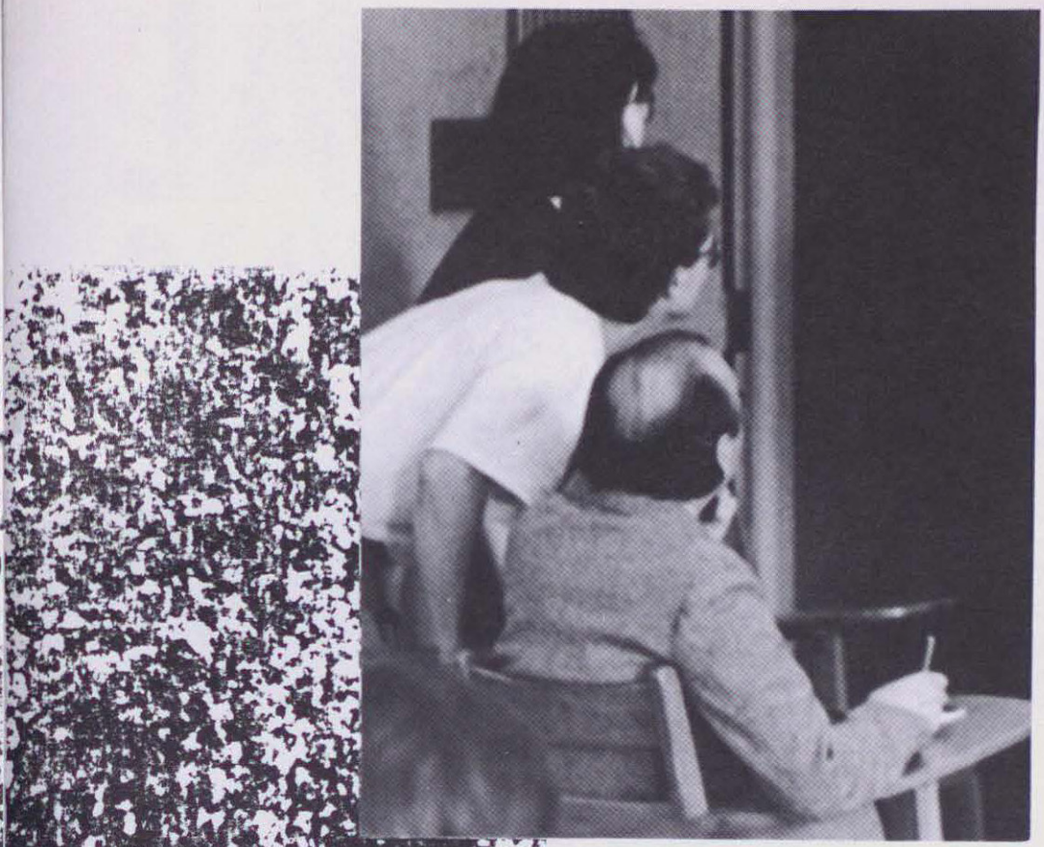
For the student, the most positive result of such a jury is feedback on the immediate impression given by a design. A student on intimate terms with the design, and conscious of many smaller details, can easily lose sight of the first overall impression it conveys. The jury imprints in the student's mind the reminder to continually step back and take a wider view. This is undoubtedly a constructive result.



Layout by: Stephane Rasselet

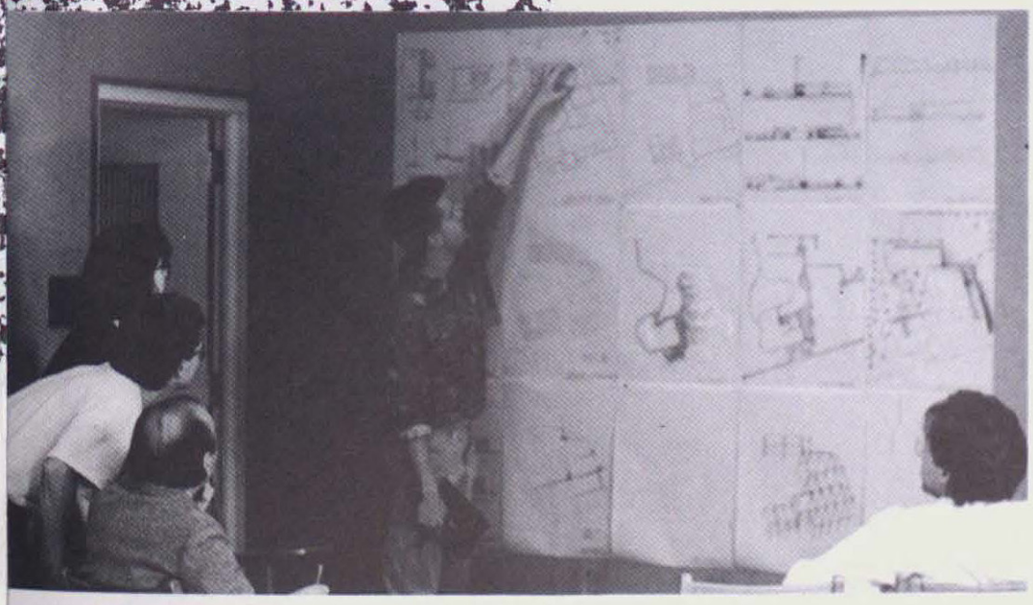
However, a jury goes deeper, examining not only the design itself, but the student's decisions and the reasons for them. Has he or she made the right decision in view of the facts, or determined what the facts are, or ignored them entirely? This type of examination is useful in steering the student towards a clearly defined method of decision making, which is valuable since the design process is simply a series of decisions which translates ideas and requirements into a building.

A common problem in the way the architectural jury is used is that it is seen as the climax of the design project. It is almost always the final event in the project schedule, and the presentation is usually geared entirely towards communicatng and enhancing the design to an audience, seated many feet away, who will only examine the design for a few minutes. While this attitude towards presentation is not unreasonable, the feedback from repeated jury experiences causes a backwash which affects the design process itself. Design decisions begin to be based on the impression they will make on the jury rather than the effect they would have on the supposed inhabitant or client.



A more subtle effect of the jury process, less recognized and more insidious, however, is the psychological attitude that is produced by the constant fear of criticism. In many students, the eventual effect of repeated criticism is a permanent defensive attitude which renders them unable to make proper decisions or any decisions at all. The student who relies on the studio critic to make decisions for him is somewhat the analog of the habitual criminal who can no longer judge right or wrong, but merely accepts that punishment is inevitable. Indeed, in rationalizing a decision, it becomes obvious that there is no way to be immune to criticism of even the smallest detail. The student sees himself in a no-win situation, resigned to simply enduring the criticism while waiting until his "sentence" has been served: graduation day.

a trial?



Those who try to work within the jury system, rather than giving up the struggle, find themselves faced with two paths. As in any endeavor, the broad and well-travelled path is the safest: how can anyone criticize what has worked many times before? The other path, that of innovation, leads to interest, discussion, and criticism, but it is the criticism that stings the longest, especially when backed by the threat of a poor grade, and a jury which wanders into a particular line of critcism is often no longer judging the overall design, but a particular detail which may or may not be important to the design's overall success. In a small-scale and very subtle way, a mob mentality settles over the jury, obscuring a coherent overall judgement. One of the ideals of formal education – discussing new ideas – has the unfortunate effect of associating innovation and creative thinking with increased criticism.

These concerns about the jury system do not suggest that juries are intrinsically bad or destructive. The complete abandonment of juries would take away much of the intensity and concern for communication and overall impact which are stronger than in other academic fields. In the student's eyes, the jury symbolizes the reality of a client user, and helps remove architectural education from the realm of the purely academic. Rather, the jury might be improved by somehow overcoming the previously mentioned faults. Students and professors need to be encouraged to regard the jury's response as only part of the assessment of a design's success. The jury itself perhaps, needs a stronger hand guiding the path of its discussion, and above all, the faults of the jury system need to be acknowledged within the system itself.

Most students eventually realize that the lasting value of formal education is in learning to think for themselves. Just as with a work of literature, or a science textbook, an architectural jury should be seen as a tool for the students to use to educate themselves, rather than the "trial by fire" it is seen as now. ■

Gary Hasler is a first year masters student at the Universty of Manitoba.

université LAVAL
QUEBEC
école d'architecture

Essentiellement l'École d'architecture de l'Université Laval offre un enseignement orienté vers la pratique professionnelle traditionnelle. Elle tend cependant à élargir l'accès à des pratiques nouvelles par des formations spécifiques telles l'informatique (CAO-DAO) et par l'initiation à des problématiques qui dépassent le cadre restreint de l'édifice isolé: énergie, patrimoine, design urbain... De plus l'École offre deux programmes de maîtrise en architecture, l'un à caractère professionnel, l'autre sur la formation de chercheur.

Caractéristique du programme

Le programme de baccalauréat s'articule sur deux types d'enseignement parallèles: les cours théoriques d'une part, l'atelier de l'autre.

La caractéristique principale de l'École se situe dans l'importance qu'elle accorde au rôle de l'atelier de design en terme:

— de processus de formation;
— de diversité et de complémentarité des approches;
— de formation professionnelle de base;

soixante deux (62) crédits sur les cent-vingt-quatre (124) que compte le programme, soit 50%, sont alloués aux ateliers qui représentent, à eux seuls, 70% des crédits obligatoires.

Role et diversité des ateliers

L'atelier joue sur deux plans dans le processus de formation:

— l'intégration des connaissances acquises (synthèse);
— littération du processus de design proprement dit, c'est-à-dire l'apprentissage de la conception architecturale par le travail sur le projet et la méthodologie qui s'y applique.

Le programme de baccalauréat s'étend sur quatre années ou huit sessions universitaires. A chaque session les étudiants d'un même niveau d'étude ont le choix entre plusieurs "modules" autonomes regroupant une vingtaine d'étudiants sous la direction d'un professeur.

La structure session-module permet d'exposer l'étudiant à la diversité des approches pédagogiques issues de la diversité des sensibilités et des expériences des professeurs. Il est confronté à 7 ou 8 professeur différents au cours de son programme.

Graduation et formation professionnelle

Deux objectifs majeurs sous-tendent la gradation que constitue le cheminement par module:

— permettre à l'étudiant de comprendre des situations de plus en plus complexes et étrangères à son expérience personnelle. En plus des projects de complexité croissante, des visites académiques et des stages d'étude à l'étranger (Mexique, Turquie, France, Angleterre, États-Unis), visent à atteindre cet objectif.
— atteindre une formation de base suffisante pour aborder la vie professionnelle. A cette fin l'École a institué le Projet de Diplôme où l'étudiant doit faire la preuve de la compétence et de l'autonomie acquise. Ce projet se distingue des autres travaux d'atelier par son ampleur, par le mode d'encadrement et par l'évaluation finale à laquelle il est soumis, assurée par un jury composé d'architectes enseignants et d'architectes praticiens.

Programme de maîtrise et recherche

L'École d'architecture offre deux programmes de maîtrise en architecture. Le premier vise un approfondissement de la formation dans un domaine de l'activité professionnelle. Le second est axé sur la formation de chercheurs et vise à dévolopper la capacité de contribuer à l'apport de connaissances nouvelles.

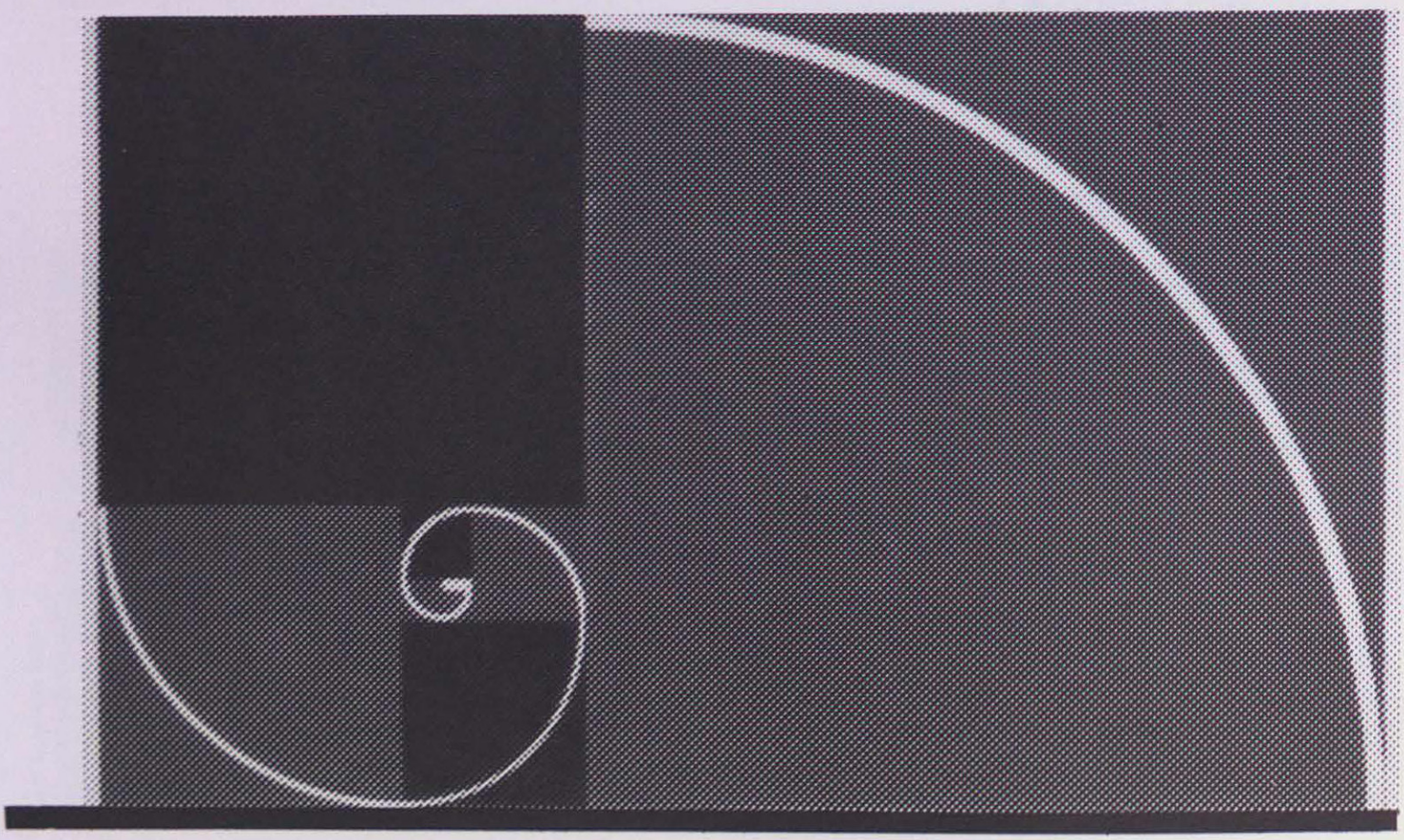
Les domaines dans lesquels la contribution de l'École d'architecture de l'Université Laval mérite d'être signalée peuvent être regroupé autour des axes suivants:

— énergie et architecture;
— recherches méthodiques en design et méthodologie du design;
— conservation/réhabiliation/recyclage;
— relations personnes-milieu;
— informatique et design;
— acoustique.

Pour clore ce bref aperçu de l'École d'architecture de l'Université Laval, nous aimerions ajouter en guise de conclusion, que l'architecture reste le coeur de notre propos. Elle émane à la fois de la réalité et de l'imagination.

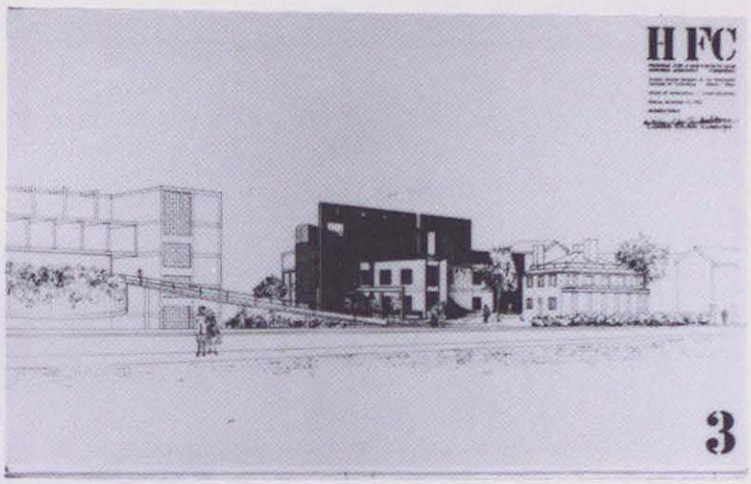
Pour nous, faire appel à l'imagination c'est apprendre à percevoir les indices subtils de la transformation des choses et des attitudes; c'est orienter toute spécialisation intellectuelle pour mieux saisir l'essence même de l'architecture: la présence humaine.

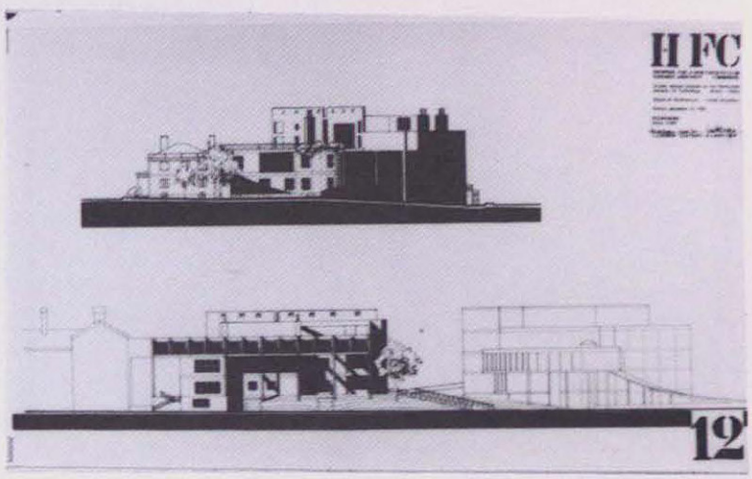
Alexis Ligougne, arch. École d'architecture
Professeur agrégé l'Université Laval



Faculty Club - Université Harvard

stage à boston module jampen





Problématique + theme + objectifs de l'atelier

Cet atelier a été consacré à un entraînement et à des recherches intensives sur les principes de la **composition formelle**. La confrontation avec la forme en soi est une nécessité qui a pris des dimensions particulières au 20e siècle. *Entre* la nostalgie scénographique du "mouvement punk" (post-modern) et la sublimation de l'imagerie technologique du "high-tech", *entre* le pittoresque à consommer *et* la rationalité culturaliste de quelques italiens, *entre* la commercialisation du bâtir *et* l'abstraction picturale du groupe "New York Five", l'architecture contemporaine est à la recherche d'une logique pertinente de la forme, puisque grâce à une technologie très performante "toute forme est àpriori devenue constructible", -ou presque. Aujourd'hui nous sommes privés des limites constructives et de la stabilité des conventions sociales et esthétiques, qui auparavant équilibraient nos hésitations. L'hétérogénéité de notre environnement avec son absence de règles apparentes en est le reflet. Dans le travail de cet atelier l'étudiant a cherché à confier à la forme architecturale une logique conceptuelle et constructive.

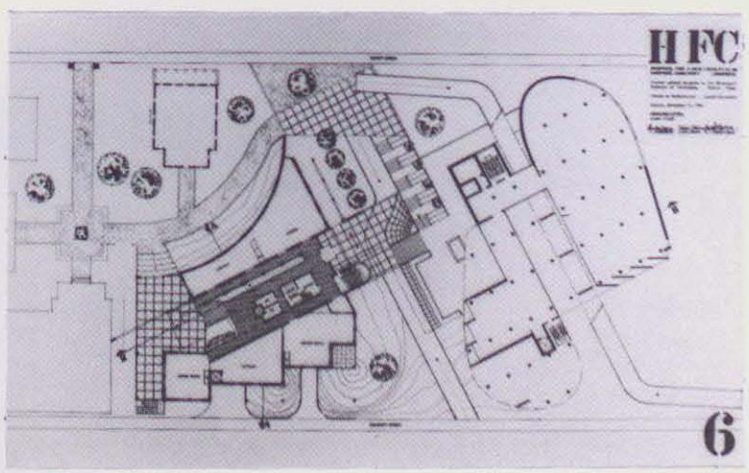
Le but de "l'exercice" a été la manipulation des moyens formels par lesquels l'architecture peut structurer l'espace, la forme et la lumière. Nous avons espéré offrir une occasion de "**pratiquer l'art de faire des formes**", afin que l'étudiant-e puisse développer son sens de perception visuelle et sa capacité d'établir avec plus de précision un lien entre ses intentions et l'expression finale de son projet, entre sa pensée et ses yeux.

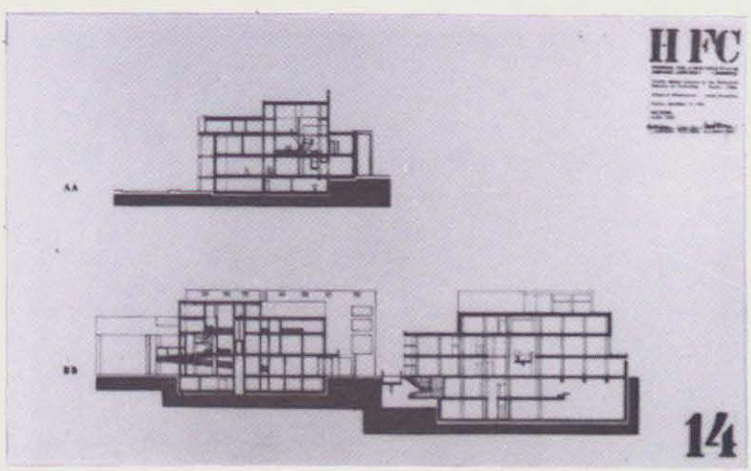
La forme didactique choisie a eu l'aspect d'un jeu intellectuel, visuel et manuel. Nous avons travaillé parallèlement avec le dessin et en maquette. Comme aux échecs, les choix possibles sont, à première vue, trop nombreux pour être rationnels. La rationalité s'exprime alors par une stratégie, c'est-à-dire un ensemble d'actions coordonnées en vue d'une réussite. Une stratégie implique donc une série de décisions liées entre elles, une cohérence des actions.

Ces objectifs ont eu peut-être un certain niveau d'abstraction et pourtant il ne fallait pas oublier que l'on proposait des espaces architecturaux permettant à l'homme d'y "accéder", de les "parcourir" et d'y "séjourner". Il-elle a exploré avec une intensité extraordinaire des stratégies possibles pour comprendre les implications d'une situation de départ, développer un "parti", augmenter ou diminuer l'effet de clôture ou la fluidité des espaces, coordonner les moyens mis en oeuvre, faire usage des possibilités de la géométrie et des proportions, mettre en relation *structure, divisions* et *enveloppe*, donner un sens à l'expression des façades, etc...

Nous avons pris comme prétexte la "projétation" du nouveau "Faculty Club" de Harvard (env. 3 000.00 m^2) sur un site qui se situe à proximité d'un édifice marquant de l'histoire de l'architecture du 20e siècle, **cette proximité à été un défi. Nous nous sommes frottés à la force d'une oeuvre élaborée avec soin et intelligence:** *Le Visual Arts Center of Harvard University*, édifié en 1963 par *Le Corbusier* en plus de nous procurer de la vraie "nourriture plastique" ce bâtiment guide a été notre interlocuteur.

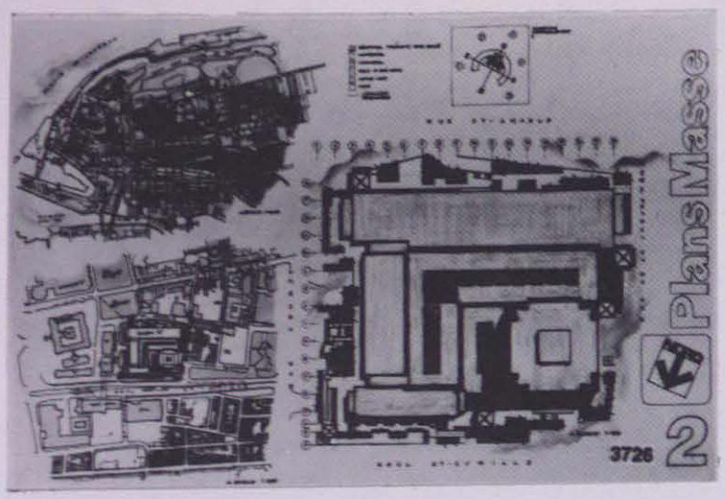
Projet: Louis Gagnon, Sylvie Gélinas, Anne Labrecque

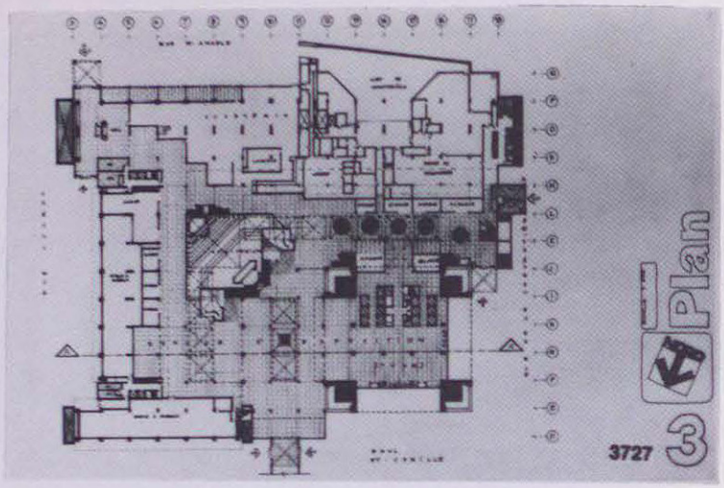


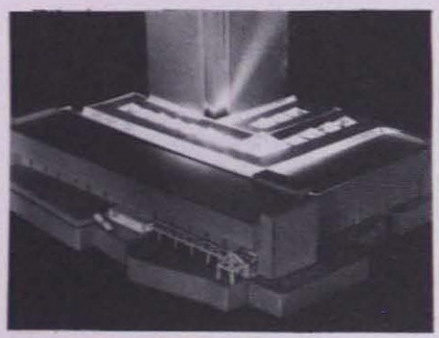


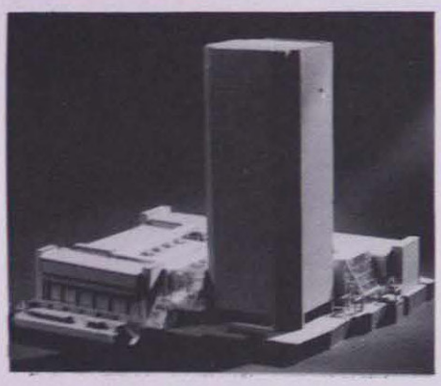
Récupération de la cour du complexe G

atelier 6 module ruelland





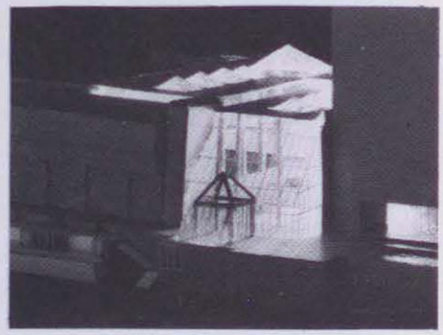


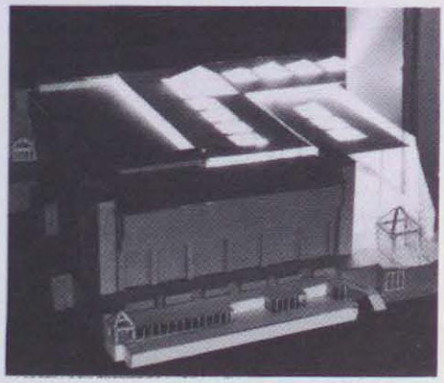


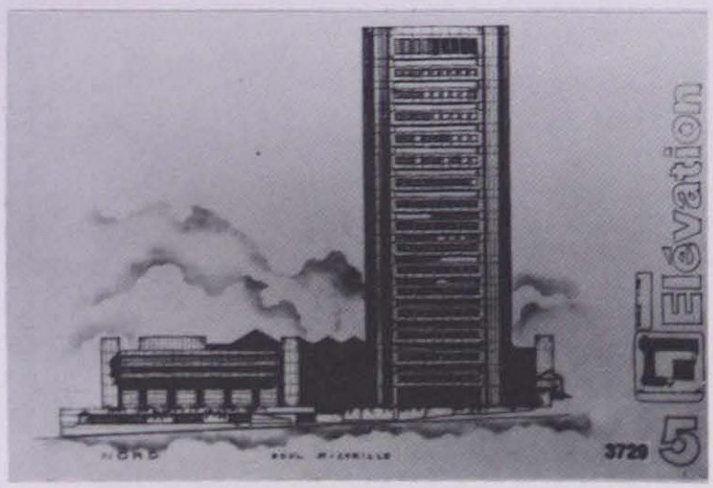
Situé sur la colline parlementaire à Québec, le complexe "G" regroupe plusieurs fonctions administratives du gouvernement provincial. Cet immense complexe comme son nom l'indique, avec sa "tour" perçue des quatre coins de la ville, comprend un espace central extérieur jusqu'ici inutilisé en raison des conditions climatiques défavorables qu'il offre. Ce projet se veut avant tout une récupération de cet espace à haut potentiel, en y créant un centre à vocation de diffusion d'informations gouvernementales et de rencontres publiques, en plus d'y agrandir les espaces à bureaux actuels, le tout enveloppé d'un atrium disposé à offrir toute la lumière naturelle possible qu'offrait déjà la cour extérieure existante.

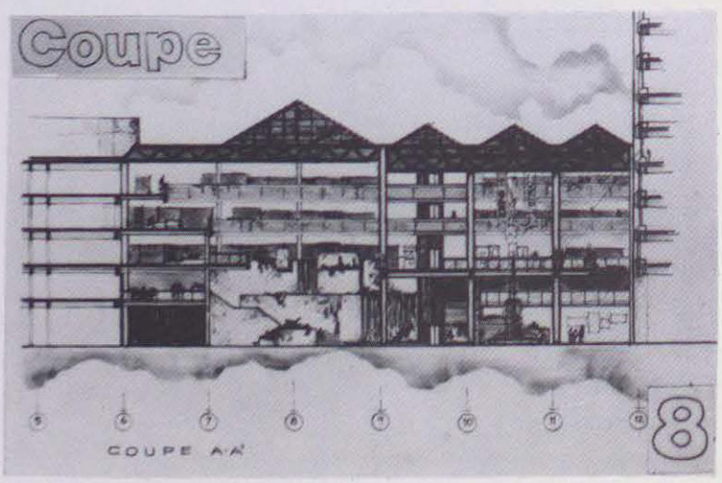
Sa position stratégique au coeur de la ville, nous a amené à accentuer le traitement des accès et des liens en rapport à un circuit urbain pour Québec, imaginant une échelle intéressante pour le piéton, quelquefois délaissé face à d'immenses masses de béton.

Projet: Linda Rhéault



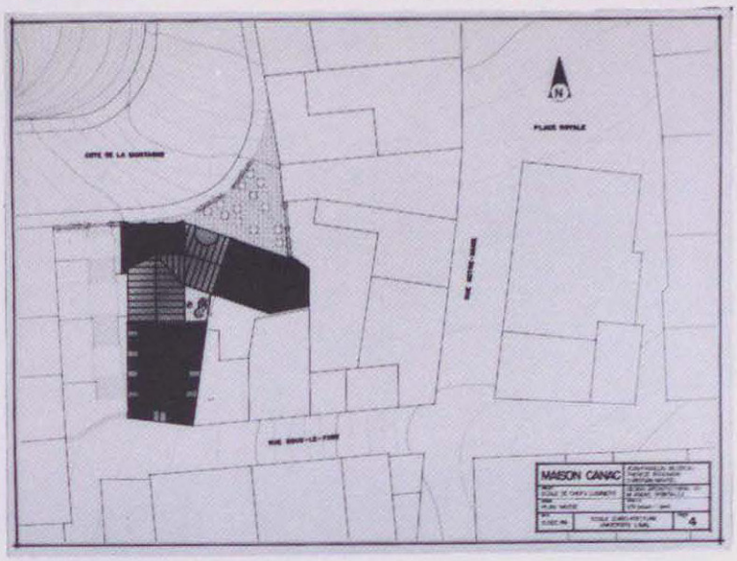


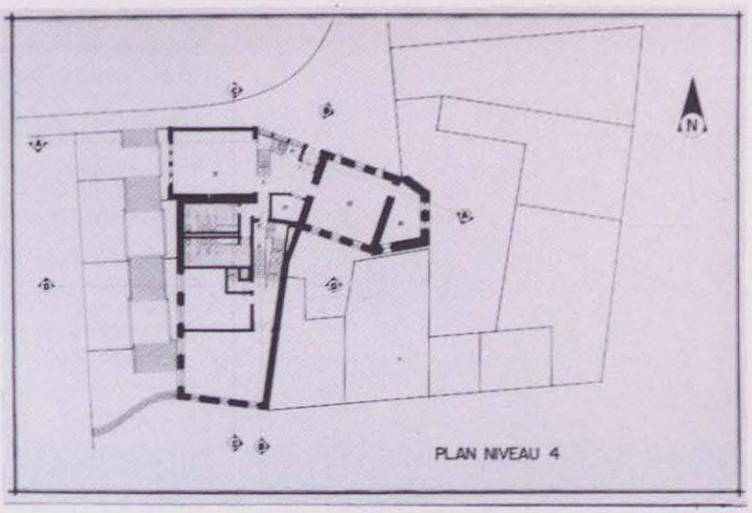


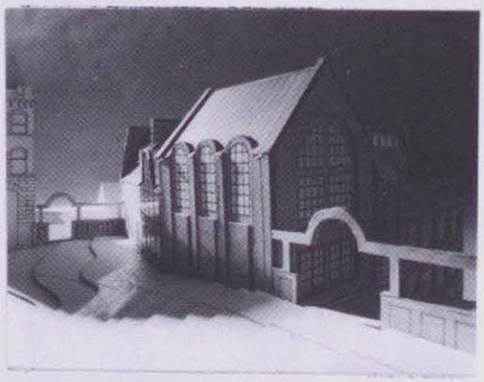


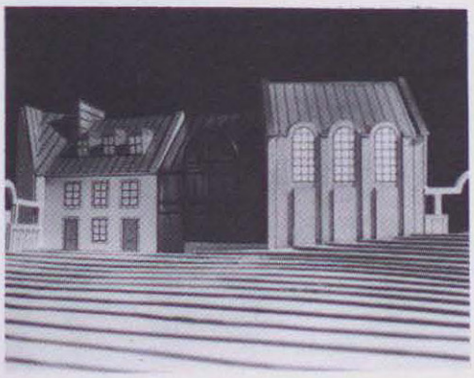
La Maison Canac- Marquis

atelier 7 module robitaille



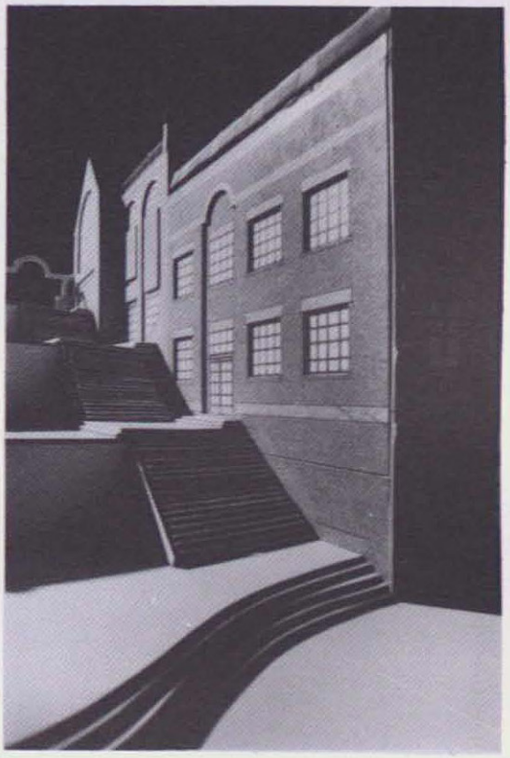




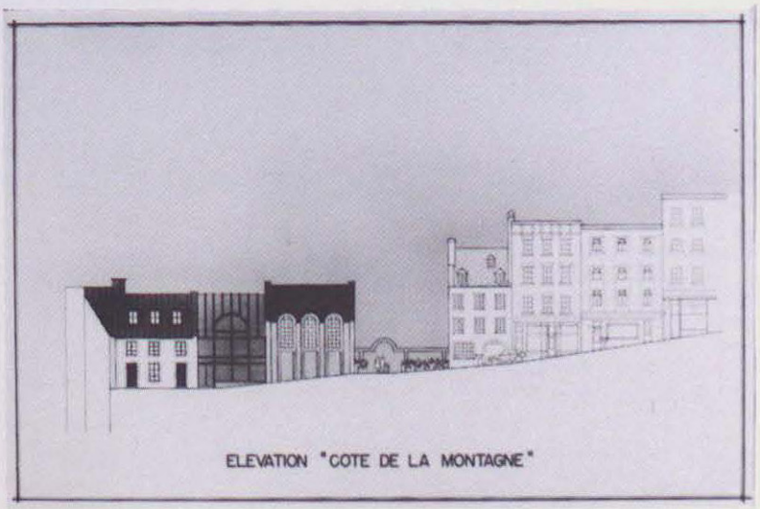


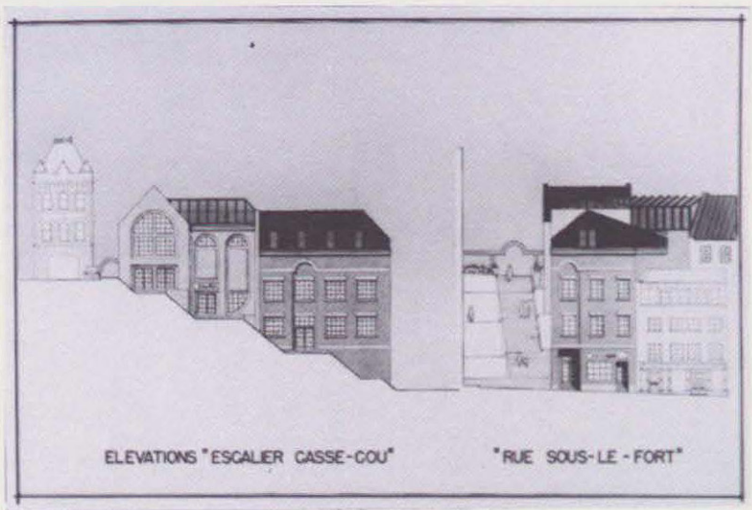
Elle était abandonnée et délabrée; presqu'en ruine. Située sur la côte de la Montagne à Québec, la maison Canac-Marquis est une demeure historique qui'il faut s'empresser de préserver. Elle fut donc un sujet exceptionnel pour un projet d'atelier.

Au départ, il a fallu trouver une fonction pour cette habitation au toit rouge. Particulièrement bien situé, elle deviendrait, avec deux nouvelles constructions et la maison Larchevesque, une école de haute cuisine pour quarante étudiants: Vingt en classe et autant en cuisine. Le cap, les édifices voisins n'étaient que quelques obstacles à surmonter. Il y a de grandes salles à manger avec une vue en carte postale du Chaâteau Frontenac, une terrasse fait revivre le petit coin de rue et les boutiques, tout le long de l'escalier casse-cou, permettent de vendre les expérimentations des étudiants.



Projet: Jean-François Bilodeau, Thérèse Bouchard, Christian Martel





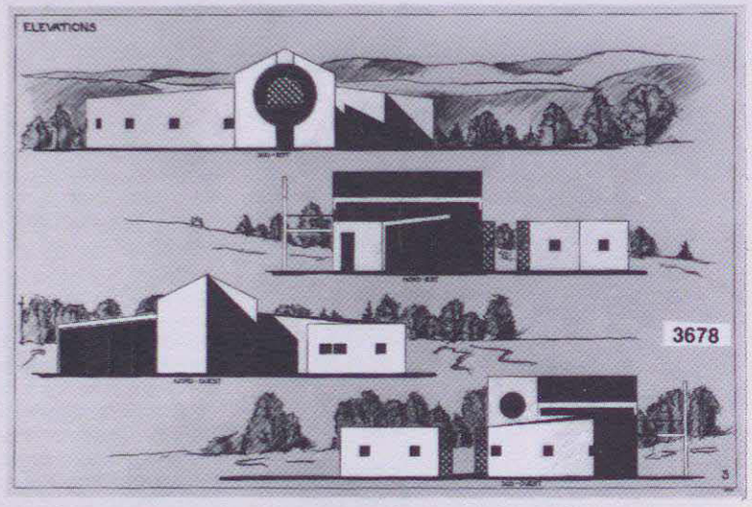
Site, Mémoire et Architecture
atelier 2 module ligougne

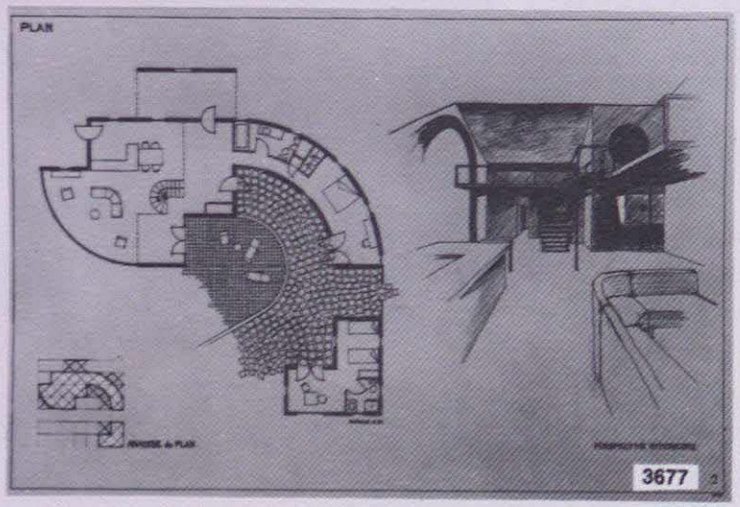
Site, mémoire et architecture

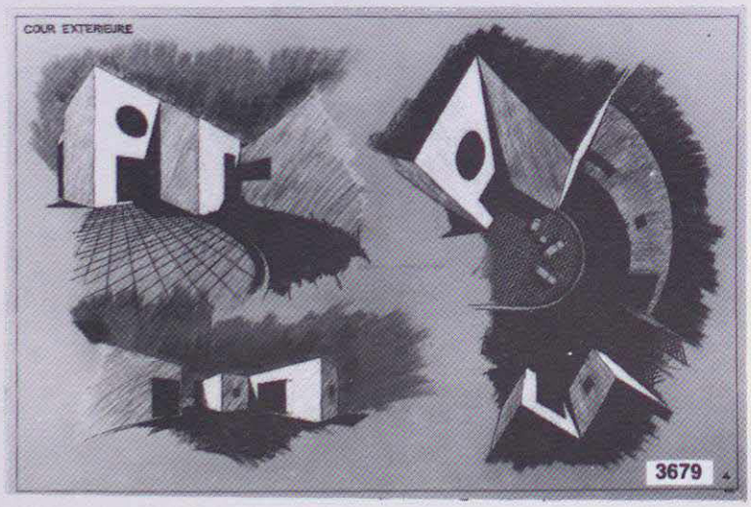
Professeur: Alexis Ligougne

Ce projet fait suite à un exercice sur l'analyse d'exemples remarquables de l'histoire de l'habitation isolée.

Il consiste à établir une relation entre une situation objective: le site; un état affectif: la mémoire d'un lieu; et un moyen d'action: l'architecture comme outil de transformation et d'appropriation d'un territoire individualisé.







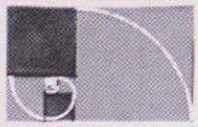
Pour ancrer l'étudiant dans une réalité affective intense, le choix du site fait appel aux souvenirs personnels, à l'album de photos de famille, à la description des lieux et à l'évocation, tant écrite que graphique, des scènes mémorables.

A l'inverse des projets conçus comme "problem-solving", ce projet permet d'associer la fiction et la réalité dans un rapport inverse aux projets traditionnels. Ici, la fiction passe spontanément du premier plan de la démarche conceptuelle. Elle est le désir par lequel l'architecture existe.

Projet: Richard Bergeron

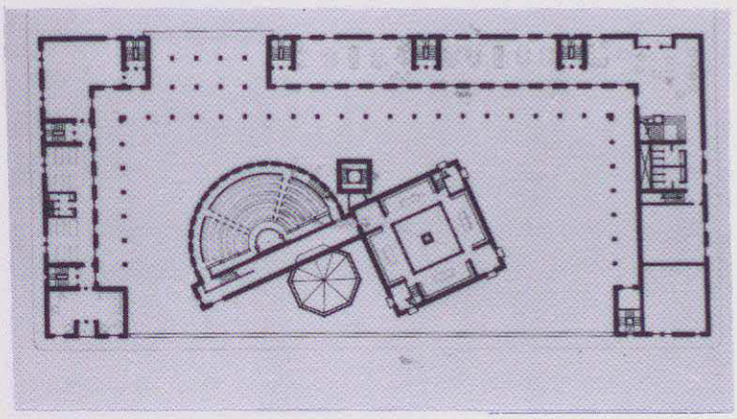
Un Monastère , Une Villa

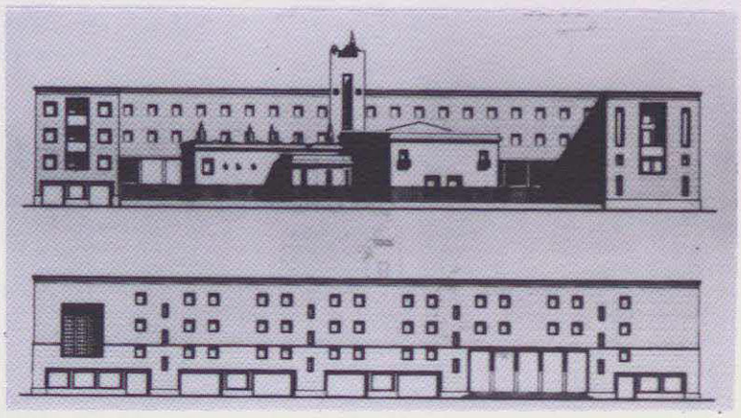
atelier 6 , 3 . module baker



"Etudier le plan d'un monastère, c'est constater un ensemble d'espaces architecturaux conçus pour répondre à une seule fonction. Chaque activité se voit accorder une importance qui dépasse le simple fonctionnel: le réfectoire célèbre l'importance accordée au repas commun; un repas simple mais offert dans un environnement digne d'un prince. La salle capitulaire parle de la solennité et du sérieux des assemblées. Les bibliothèques et les "scriptoriums" incarnent l'esprit du "scholarship". Chaque élément, du plus haut et sacré au plus bas et profane, se trouve identifié, articulé et accordé à sa juste place dans la hiérarchie du plan".

Projet: Daniel Legault

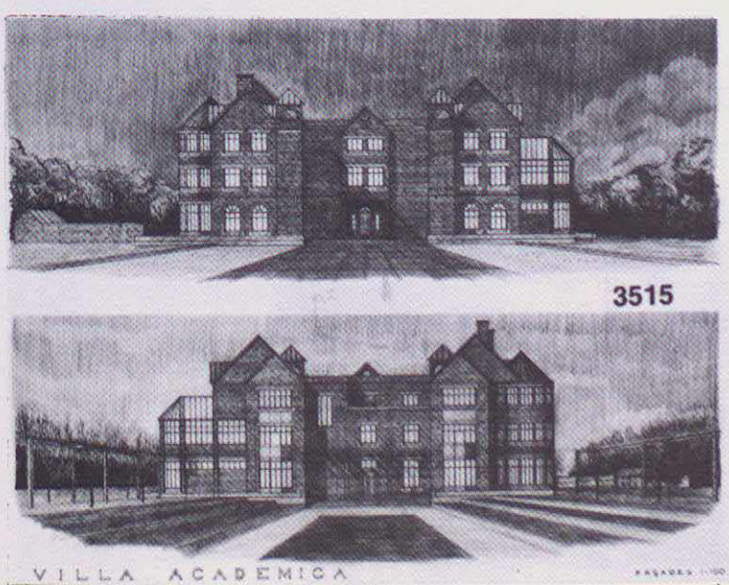


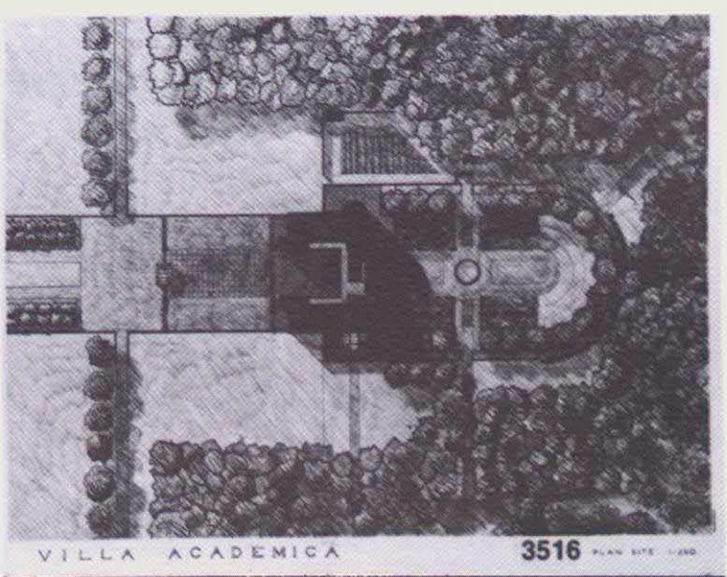


"Dotée d'une longue tradition qui a ses origines dans l'empire romain, des exemples de la villa abondent dans l'histoire, trouvant son apothéose dans l'oeuvre magistrale d'Andrea Palladio qui ne cesse d'inspirer la pensée architecturale dans tous les coins du monde. Elle évoque la vision d'une vie harmonieuse, élégante, suivant les saisons, à l'intérieur et à l'extérieur, autant qu'aux salons, halls, chambres qu'aux terrasses, loggias, jardins qui font leur complément.

C'est dans une atmosphère paisible, intellectuelle mais sensorielle, propice à l'étude mais d'autant plus à l'art de la conversation, devant le foyer, sous la vigne de la pergola, que nos douze universitaires s'installent pour l'année académique".

Projet: Richard Fortin





Design Urbain - Centre Ville Québec

atelier 7 module neuman

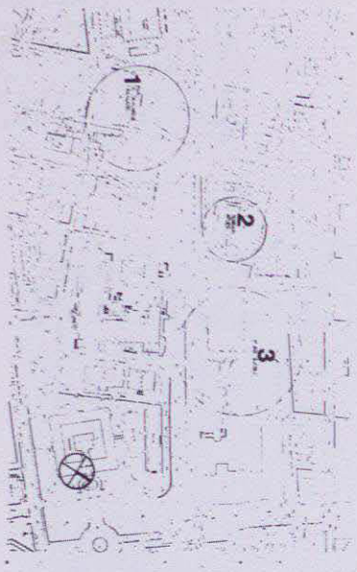
Introduction
Par ce projet, nous avons été initiés aux divers aspects impliqués au sein d'une intervention urbaine. Les problèmes de design reliés au secteur centre-ville de Québec ont été abordés dans cette étude.

Situation du projet
Le champ d'intervention était délimité au nord par la rue St-Jean, la Grande Allée au sud, le boulevard Dufferin à l'est et la rue Claire-Fontaine à l'ouest.

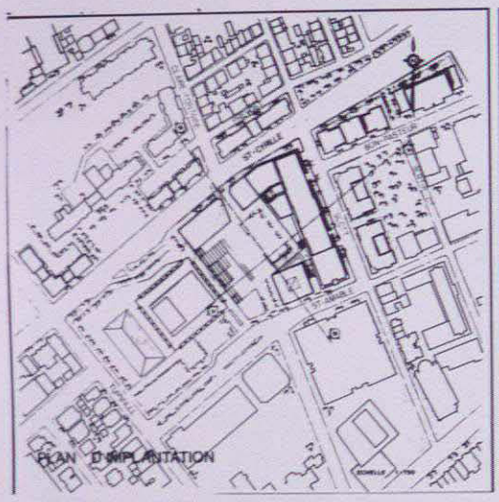
L'histoire du projet

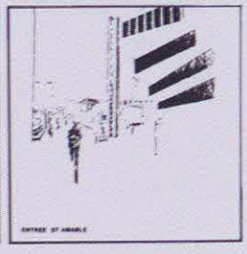
Ce secteur a subi de nombreux remaniements au cours des années '60 et '70 au moment du développement de la colline parlementaire. Le quartier St-Jean-Baptiste, au centre de cette activité fébrile, a subi de nombreuses démolitions et sur ces terrains vacants sont nés de nouveaux édifices gouvernementaux, deux hôtels de luxe, des immeubles à bureaux... Et pour faciliter l'accès à cette nouvelle population journalière, 35% du territoire fut consacré à la circulation. L'autoroute Dufferin est née de ce mouvement: une voie rapide scindant littéralement le quartier en deux secteurs qui ne communiquent plus. La population résidente s'est alors mobilisée pour freiner cette poussée destructive. Le comité de citoyens a pu empêcher certaines démolitions et, poussant plus loin, a voulu proposer ses propres solutions de réaménagement. C'est sur leur appel qu'avec notre professeur, Naomi Neumann, nous nous sommes impliqués dans ce projet.

LOCALISATION DES SITES D'INTERVENTION



LOCALISATION DU SECTEUR ÉTUDIÉ





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Le projet
Neuf équipes, neuf alternatives. Il était primordial d'explorer un maximum de possibilités d'aménagement, chacune d'elles répondant à un objectif propre et chapeautée par l'un des trois intervenants potentiels au niveau du secteur. (Voir tableau).

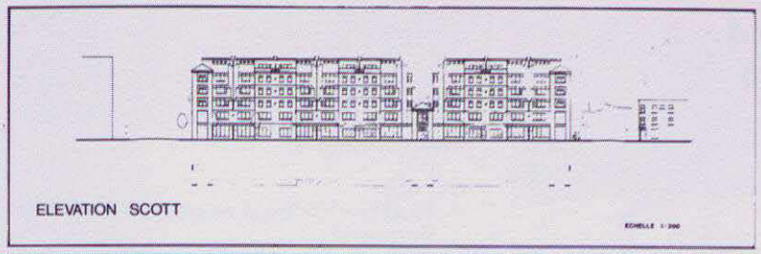
Projet/promoteurs privés

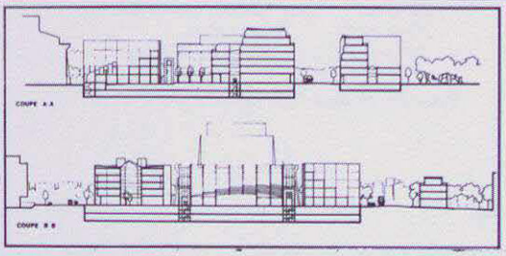
Objectifs:
— Profitant de la présence du grand théâtre, développer dans son voisinage un secteur à caractère multifonctionnel afin d'y emmener une population locale régionale et touristique.
— Améliorer l'accessibilité piétonnière au site.

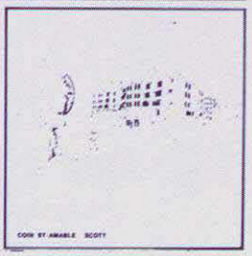
Projet: Charles Garant, Yvan Mireault

INTERVENANTS	PROMOTEURS PRIVÉS
PRINCIPAUX OBJECTIFS	1. Développement résidentiel site 1
	2. Développement multifonctionnel site 1
	3. Rentabilisation du site 3

RÉSIDENTS DU QUARTIER	COMPROMIS/FONCTIONS CENTRE VILLE/QUARTIER
1. Revitalisation par l'habitation	1. A l'échelle du secteur
2. Mise en valeur espaces verts	2. A l'échelle des sites d'intervention
3. Amélioration de l'accessibilité piétonnière	3. A l'échelle architecturale







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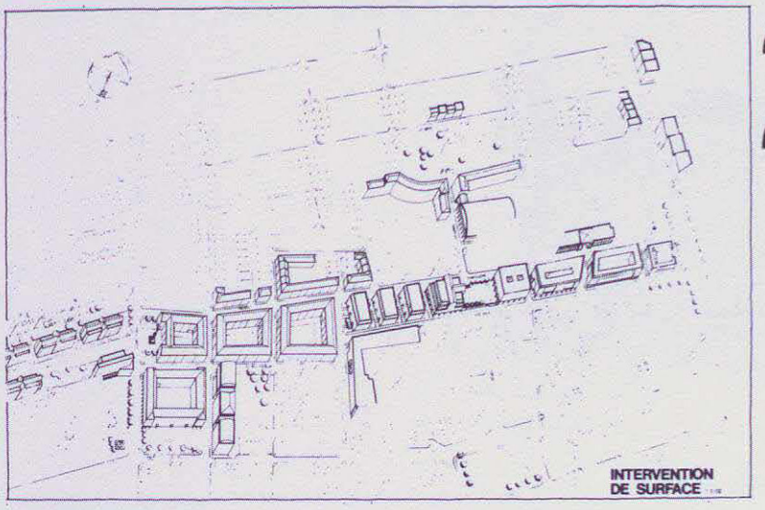
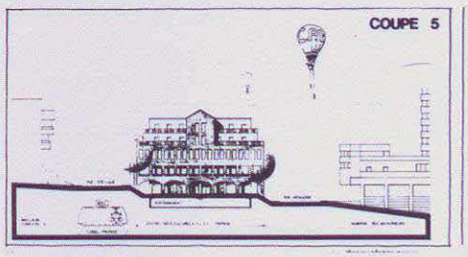
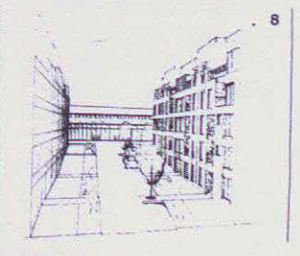
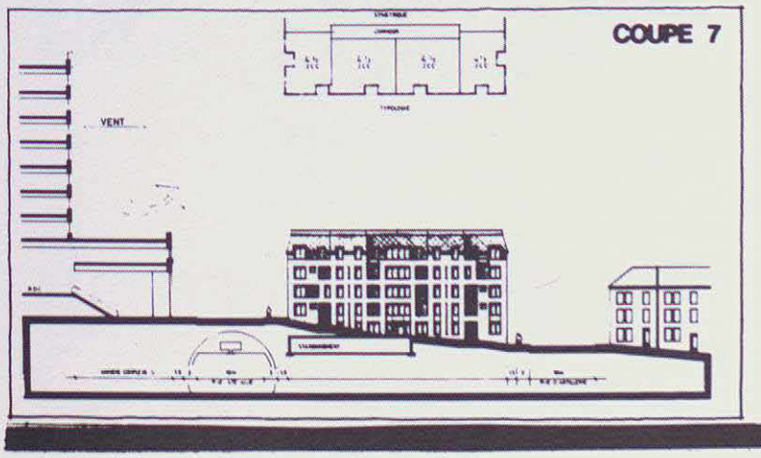




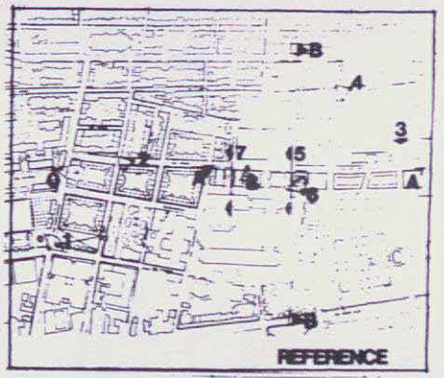


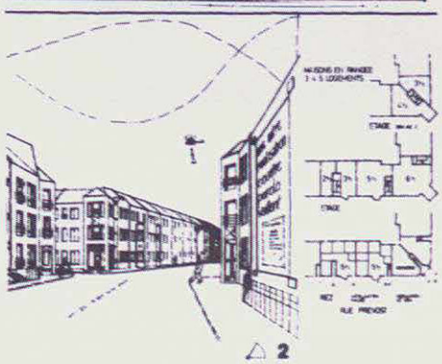


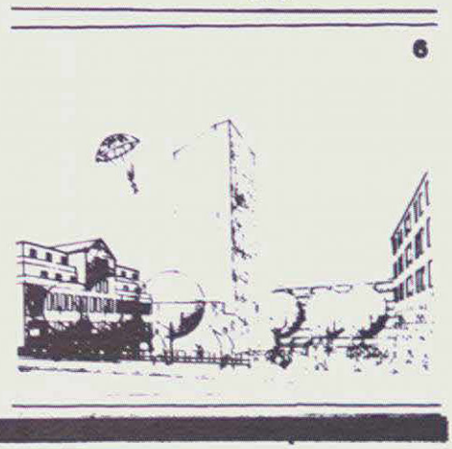
Projet/résidents de quartier

Les nouvelles constructions proposées sur le boulevard St-Cyrille visent à réunifier le quartier St-Jean divisé par cette grosse artère de circulation automobile permettant ainsi une accessibilité piétonnière plus grande et plus agréable au niveau du quartier. L'accès par automobile se trouvant ainsi congestionné, nous proposons un nouveau système de transport en commun (S.L.R.) impliquant l'ensemble de la communauté urbaine de Québec.

Projet: Yvan Couette, Carlo Peirolo, Sylvain Vaillant







3

Projet/compromis

Objectifs:
— Equilibrer les fonctions centre-ville et celles de quartier.
— Maintenir la circulation automobile en améliorant l'accès piétonnier.
— Diversifier la population résidente.

Projet: Caroline Gagnon, Linda Rhéault

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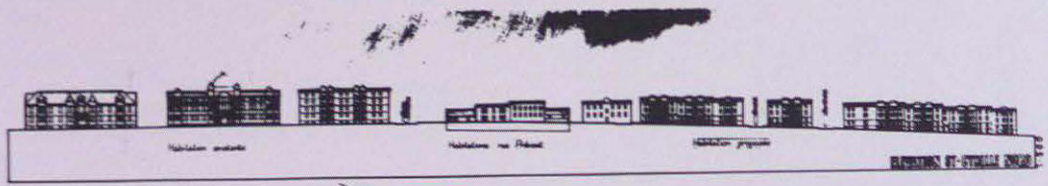
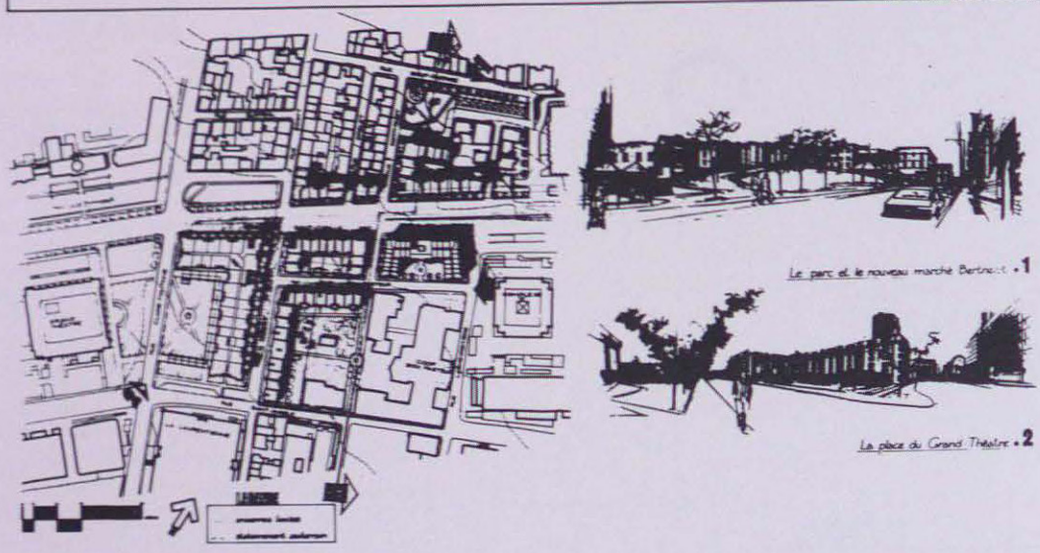
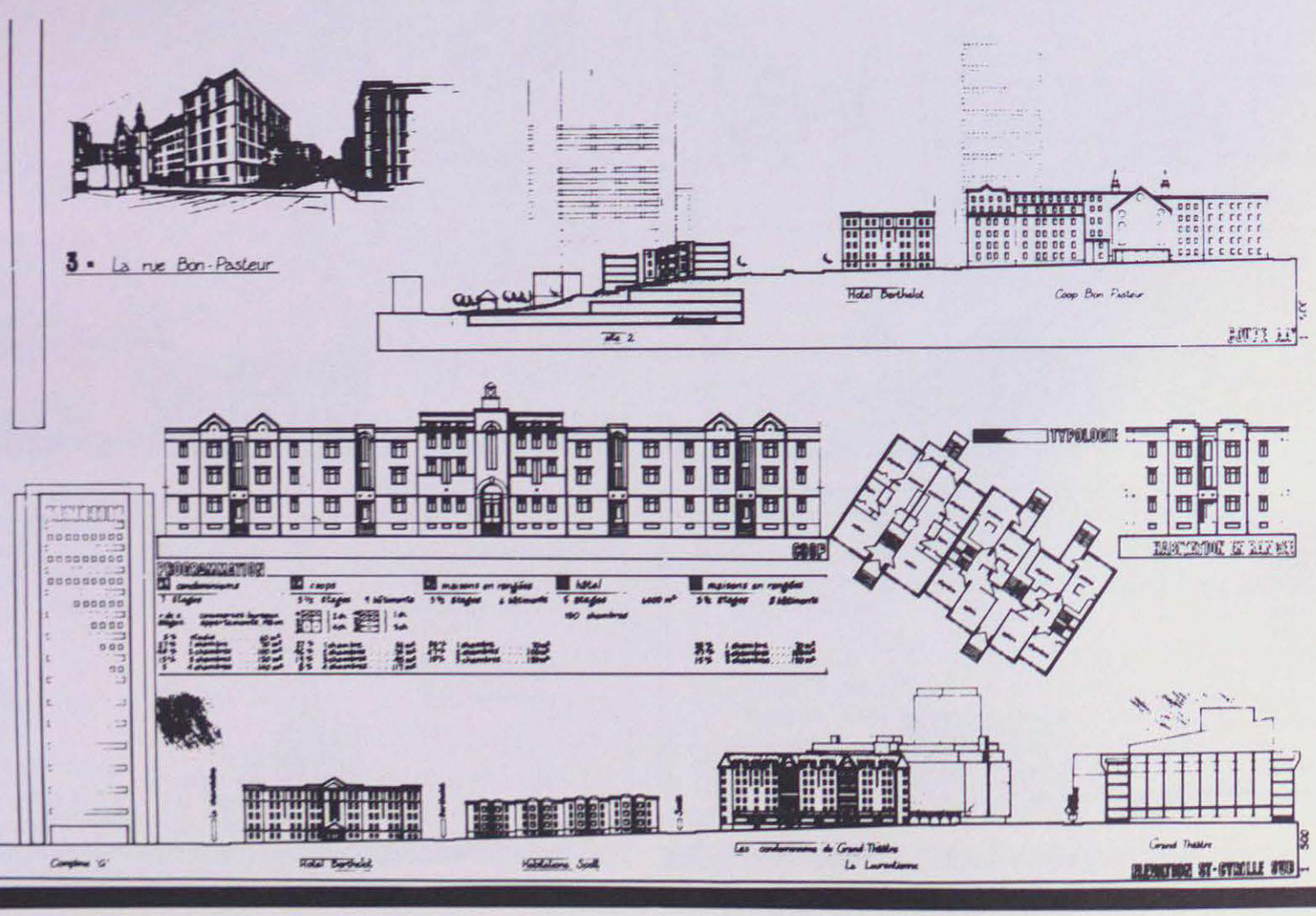




Le parc et le nouveau marché Bertrand .1

La place du Grand Théâtre .2



Interview with Stephen Fong

Stephen Fong est présentement le directeur de l'école d'architecture à l'Université de Toronto. Le 17 novembre 1986, à Toronto, il accordait une entrevue à Michel Gingras et Peter Smale. Depuis, il a été décidé que l'école d'architecture de l'Université de Toronto serait réformée et rebaptisée sous le nom de l'école des sciences et du design architectural.

Stephen Fong is the acting director of the School of Architecture at the University of Toronto. On November 17, 1986, Prof. Fong was interviewed by Michel Gingras and Peter Smale in Toronto. Since the interview, a decision has been made to reorganize the school of architecture at U of T under a new designation as the School of Architectural Science and Design.

TFC: Briefly, would you describe your own educational background.

SF: I actually started in art and switched to architecture. I did a Bachelor of Architecture degree at Cornell, which is a five year program, and then I went on to do a Masters of Architecture and Urban Planning at Cornell. One of the features of that particular program that has probably stuck with me in terms of my orientation is that we were a faculty of architecture, art, and planning. I suppose from that experience I've always had the bias for the idea that architecture should be seen as part of the liberal arts, as part of humanist education, and specifically the relationship to art is apparent to me.

TFC: In the September 1986 issue of *Canadian Architect*, you stated that the pedagogical goals of architecture are not easily defined given that it is a creative discipline where critical questioning of philosophical orientation constantly occurs. You went on to describe the present situation as a shift to a 'post-modern' curriculum, or as a more broadly-based education. Could you define and elaborate on the idea of the "post-modern" curriculum?

SF: I think that the analogy would be to what we would call the post-modern city. By the post-modern city I think we are talking about the kind of city that respects the history of the city, the history of its districts, and has an under-

Layout by: David Morin

standing of its institutions and how they fit in. And in order to work within the context of the city like that, you need a fairly broad-based education. You need to understand the mechanisms, be they social, political, formal, visual, that make a city work. So it's in that sense that I see that a post-modern education is geared toward the idea of how we make the post-modern city. Maybe I should elaborate on what is the post-modern versus the modern city. For me, the modern city is the one where say thirty years ago we felt as architects that we could knock down districts, we could invent a new world. All we needed was our own formal language for that, and our own intuitions exclusive of the existing environment. In that scenario, I don't think a broad-based education was considered to be so important. But if you are to be sensitive and recognize everything that is happening around you in the city, you do need that kind of educational base. If the modern city was based on scientific precepts, then the post-modern city should be based on humanistic precepts.

TFC: More specifically, how do you see the curriculum being redirected now as compared to the curriculum which existed prior to 1968 and, later, during the New Program as introduced by Peter Pragnell?

SF: That is a difficult question. Certainly there are pieces of each program which overlap and each program that has gone through U of T has taught some things that are essential to prepare different generations of architects. But what is happening in terms of the direction now is the idea that there are a certain number of technical skills and technical issues that have to be dealt with with the students. It is part of the responsibility of this school to the society at large to help in that kind of training. Then there is the question of aesthetic delight and of trying to make a better environment. That probably amounts to what might be called tuning the eye. If music is about tuning the ear and going through that whole pedagogical process to arrive at that point, architecture is partially about tuning the eye.

TFC: You've partly answered this question, but how do you feel that a school should deal with the dichotomy between technical training and the aesthetic and intellectual development of the students?

SF: Well, I suppose that relates to what you see as your vision of architecture. At least my bias, and I think that of a number of my colleagues here, is a bias that architecture is about built work. Since with built work the medium is materials, structure, etc., then I think that architectural education has to be

about helping people to think in terms of that medium. For instance, if you train a musician on an instrument, he's got to know the technical skills required to make the sound which is ultimately the art. With architectural training, we have to talk about exploring ideas, and how materials translate and make ideas. It is to that extent that technical knowledge is important as part of the curriculum of architectural education.

TFC: Does the evolution of an architectural curriculum, such as that which U of T has been undergoing in the last 5 years, simply respond to changing architectural ideas in society or do, and should, curriculum changes anticipate these changes?

SF: As best possible, they should anticipate those changes, but I think we've got to back away from an old vision we had as architects 20 or 30 years ago that architects lead society, that somehow they've got an intellectual machetté and they could cut through the thicket of the unknown to lead society on to something. That kind of heroic posture has gotten us into a lot of trouble. Clearly architects have turned around after wading through this jungle and seen that society is not following. It is even questionable whether architects were going in the right direction. Maybe, more accurately, what we should be saying is that there should be some kind of reciprocal passing of knowledge and ideas back and forth. That is part of the ideal of post-modern education. Architects need to be involved in a dialogue with all disciplines where issues are discussed concerning where we are going in society. For example, the term 'post-modern' is really as much a phrase of the liberal arts in all of its branches as it is of architecture. In fact it has different meanings in other disciplines where it's not so much associated with a style or with a return to nineteenth century form or whatever but rather with a notion of a wholistic vision of the world. So I think that answers your question in a different way. We're part of a dialogue about where society is going and to a certain extent we try some experiments which might result in interesting ideas coming about. But we're not in that heroic period of change. I think we really have to understand when we can make realistic contributions as architects.

TFC: And that attitude is more than a simple reactionary response?

SF: No, I think it's not a matter of just following; it's a matter of, in certain instances, recognizing opportunities, say opportunities of structure of a city or organizations that are latent in the environment, and doing something about them.

TFC: You've said that given the nature of architectural pedagogy, schools of architecture have to be forums for debate over the direction architectural education. Over the last decade, U of T has been embroiled in such a debate. Is this really a positive process within a school, and at what point does such debate become unhealthy to the welfare of a school?

SF: To answer the questions in order, I think it is positive. Any school which sees itself as a kind of broadly based university education must have that kind of dialogue; its a prerequisite of education to have that meeting of ideas. Perhaps that word 'meeting' is a good word to begin the second question with because that's what a dialogue has got to be. It has to be a discussion and a meeting of ideas, a dialogue that's based on a mutual respect for a number of positions. Perhaps the school becomes unhealthy if one set of ideas gets submerged completely.

TFC: There is the politics of public relations, however, that requires that the public perceives such debate as orderly and constructive. Even though a forum of vigourous debate may create a good educational environment, it may produce a public image of a school

which is politically unacceptable. Specifically then, is there a way to discipline the forum so that in the public view the debate seems positive and orderly?

SF: Well, that's one of the great difficulties. I don't think there can be explicit policies. It almost comes down to a case of personalities and individuals, and how they interact. If you hear discussions of schools that were in a good state, it's really a discussion of chemistry, chemistry of people and how they work together and the kind of dialogues that go on. It's a somewhat magical situation where people are talking and there's intellectual activity going on in a healthy way.

TFC: In spite of the threat to close U of T, is there such a debate going on to promote a healthy evolution of ideas within the school?

SF: One of the problems at U of T is that we have a situation where people are competing for a small budget. The budget has been cut year after year after year and you get to a point where you wonder "can you have a truly pluralistic dialogue? Can you have all these voices heard here when you're in a situation where you've got to make the department lean and work in a very efficient way?" At times when there is a lot of money around, things can work fine. You can have a whole bunch of voices, you don't have to have everyone carry a full studio, and that can be very interesting. But then it costs a bit more money to run that type of program. If you have a situation where every teacher here is putting in their maximum amount of teaching, then you have difficulty when people are voicing unpopular ideas. As much as one would want to have that dialogue as part of the university, that doesn't work under the scenario of efficiency.

TFC: Does that say something about the way architectural education is perceived by other academic fields, educational administrators and the professional community? Is the nature of architectural education understood by those outside the profession? For instance, there has been criticism raised about the quality of the teaching staff at U of T based on the volume of research work published. This is an accepted standard for measuring academic quality in other fields but does it apply equally to architecture?

SF: I think that partially relates to the problem of architecture in Canada in that there is not a tremendous audience for reading things about architecture, and for the architectural discourse. As a consequence, there are not that many publications. If you look at the publications which exist in North America, most of them are in the U.S. They involve a group of people who always write for those journals, and it's very difficult for younger people to break into that circuit of writing. I think that at this time there are not the mechanisms to allow for that kind of research to be done in Canada. Compounded with that, there is very little money for research. If you look at the dollars available for architects doing design related work, you see that compared to anything, compared to engineering, compared to grants in creative writing, etc., there is probably very, very little. The Canada Council has only, I think within the last two years, recognized architecture as a seperate division. Where is the money coming from to do these kinds of things? So by one of the university's parameters of success, 'dollars brought into the department', it's an impossible question because the money isn't there. We should recognize that most people who are advanced in design want to do design related research. They're not going after the computer dollars or the building science dollars; they're going after dollars related to their own area of specialization. Those dollars aren't available in this country, number one, and, number two, if they were and, if they did work, the outlets to publish the material are not available.

TFC: The question of tenureship and whether it should exist at all in schools of architecture often comes up. What are your feelings on that subject?

SF: I think that some of the people who I have respected the most at other schools are older, tenured people who provide a kind of institutional memory to the school, who have made a career out of thinking about architecture and are very well respected in both the academic and professional worlds. Because of that, I'm a person who supports tenure when used properly. I think of great teachers in North America such as Louis Kahn, Vincent Scully and Colin Rowe, and certainly with these people, there is no question that if they want to stay at a school and tenure is a way to get them to continue to teach, then that's what is necessary. It's important in some cases to maintain a tenure system.

TFC: Once again you're saying there is no recipe for the use of tenure yet it is often quoted as the source of many difficulties.

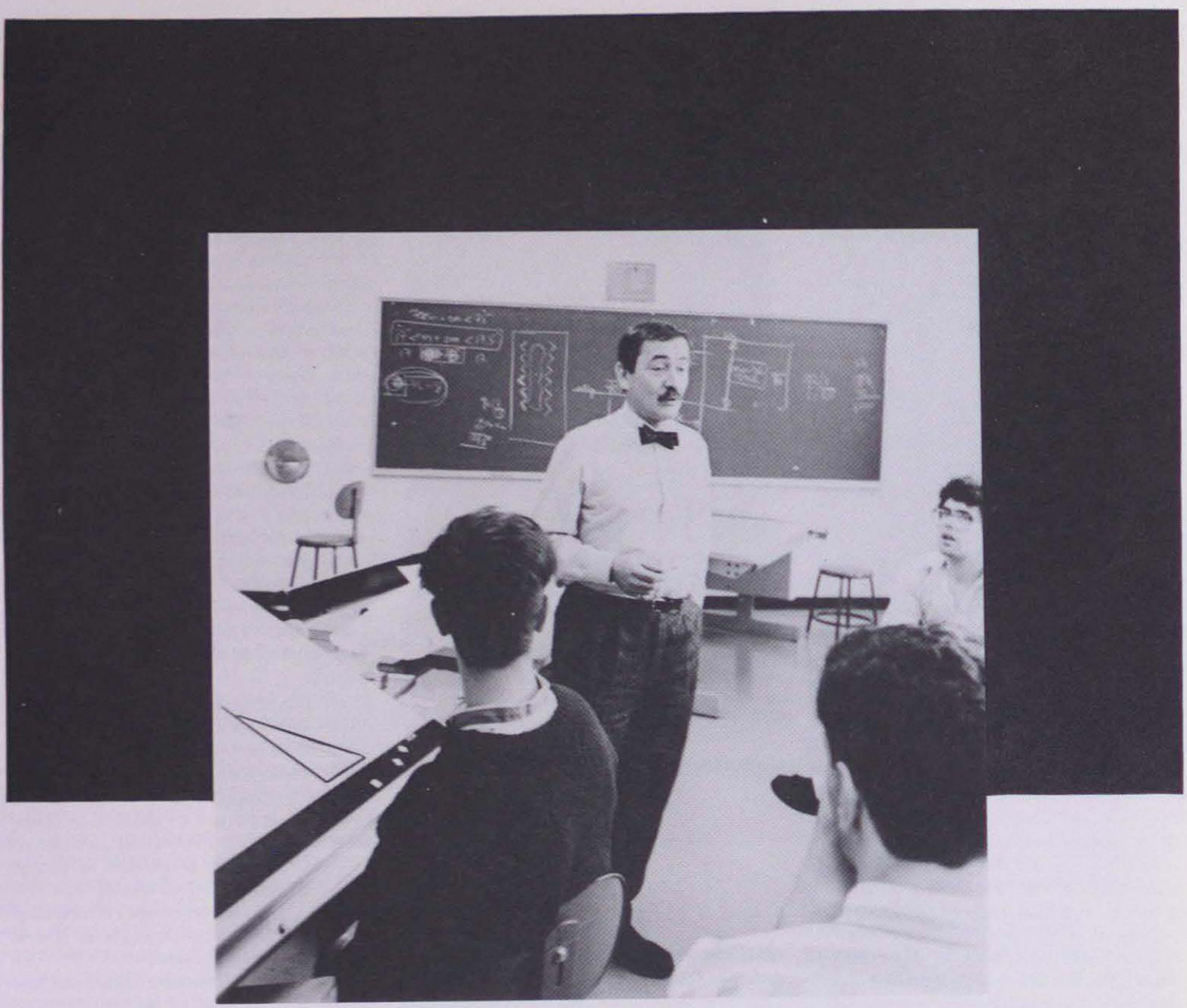
SF: That's one of the problems of a school and you hear this all the time in discussions about schools: "Well that school over- tenured in a certain period of time." And, therefore, the school goes into a period of decline because they've tenured the wrong people or whatever. I don't think that is necessarily an indictment of tenure as a system. It might be that in a particular case it was not the most far-sighted use of tenure at a particular time.

TFC: Finally, do you think current academic training of architects, particularly at U of T, and in general across Canada, is preparing them for the 21st century or for the changes we are going to witness in the future?

SF: We are beginning to do that but we have a long way to go. We have a lot of thinking to do about how that is to be done. I was at a conference last week where there was debate on that subject in general architectural terms. The discussion centered on the idea that the move towards specific technical training is a problem at this point, that newer directions should be toward redevelopment of humanist liberal arts education because it trains thinkers rather than people who know specific techniques. We've got a lot of thinking to do on how that is to be done, but clearly that should be one of our goals.

■

Michel Gingras and Peter Smale are second year architecture students at McGill University.



Jean-Louis Robillard is an architect and professor in the department of Design at the Université de Quebec à Montréal. He teaches architecture in the Environmental Design program, which he founded in 1970. He is also the director of the Centre de Création et de diffusion en design at UQAM, chairman of the Corporation de l'Archifête and co-founder of ARQ magazine. He was named fellow of the Royal Architectural Institute of Canada in 1984.

M. Jean-Louis Robillard est architecte et professeur au département de Design à l'Université du Québec à Montréal. Il enseigne la planification architecturale dans le programme Design de l'environnement qu'il a initié en 1970.

Jean-Louis Robillard

Layout by: David Morin

Il est aussi directeur du Centre de création et de diffusion en design à l'UQAM, président-directeur-général de la Corporation de l'Archifête ainsi que co-fondateur de la Revue ARQ. Il a été nommé Fellow de l'Institut Royal d'Architecture du Canada en 1984.

TFC: Avec une formation architecturale complète, des études de deuxième cycle dans le même domaine et une pratique professionnelle, vous avez décidé, en 1970, de créer à l'UQAM un programme de design de l'environnement. En quoi consiste exactement cette école et d'où en est venu l'idée?

JLR: La situation socio-politique de la fin des années soixante avait créé bien des interrogations dans les milieux universitaires, tout comme elle avait polarisé les intellectuels et bien des militants à redéfinir la réalité québécoise et à dessiner au grand jour la vision d'un Québec autonome. A ce moment aussi, la réunion des conditions d'existence de cette nouvelle université permettait d'envisager des enseignements qui répondraient à des besoins et à des objectifs nouveaux exprimés de toutes parts dans la foulée de Mai '68.

On trouvait aussi l'influence des premières recherches de gens comme Sim Van der Ryn en Californie qui créaient un nouveau corpus de connaissances qu'ils ont intitulé "Environmental Design". Melvin Charney m'y avait intéressé. Enfin, c'est aussi ma déception devant la nature des enseignements que l'on prodiguait à ce moment-là dans les écoles d'architecture qui a provoqué le besoin d'apporter une réponse nouvelle à une pédagogie que je trouvais et trouve encore sclérosée.

Le premier programme de design de l'environnement visait surtout à sortir du piège des spécialités et à atteindre des objectifs plus généralistes dans la considération et la création de nos espaces. Le programme actuel maintient cette orientation en ce qu'il permet à un étudiant d'apprendre et d'expérimenter de façon concurrente l'échelle de l'objet, du bâtiment et de la ville. Ce programme demeure un programme de premier cycle et n'a pas de réelles visées professionnelles. Il les questionnent plutôt.

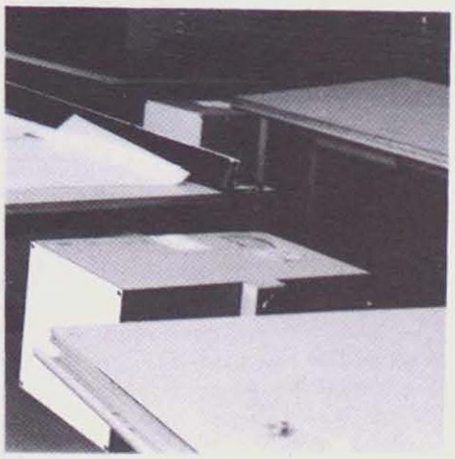
TFC: Comment voyez-vous l'évolution de ce programme dans le temps depuis sa création?

JLR: Comme j'ai commencé à le dire, il y a eu évolution. Le temps, les réalités et les pressions externes et la présence croissante de nouveaux professeurs souvent européens, ont passé le programme à la moulinette, si on peut le dire ainsi.

Mon premier objectif était de répondre à un besoin auquel je crois encore et qui est celui de donner une formation de design à plein d'étudiants qui iraient plus tard oeuvrer dans des domaines aussi variés que la dramaturgie, la psychologie et l'horticulture. En fait le programme possédait un tronc commun d'ateliers et de cours théoriques qui s'adressait aux disciplines de l'espace. Les cours complémentaires et au choix donnaient l'occasion à l'étudiant de concentrer ses intérêts réels sur une discipline de son choix. Le programme permettait donc de préparer le passage vers un programme d'études supérieures dans une discipline autre que l'architecture et le design industriel. N'est-ce pas ainsi que sont nées les sciences behaviorales qui font le pont entre les sciences anthropologiques, psychologiques et... spatiales, par exemple? Donc on peut dire que le programme visait à augmenter dans le marché du travail le nombre de gens qui posséderait une "culture spatiale".

Les orientations diverses qui ont suivi ont modifié la façon d'y arriver en affirmant surtout que la discipline du design de l'environnement pouvait exister, se constituer avec la capacité d'une analyse et d'une expérimentation polyvalente des diverses échelles d'intervention spatiale. L'examen thématique de cet environnement a été à la base des modifications qui ont marqué l'évolution du programme. On y envisageait tout autant les points de vues anthropologiques et écologiques que sémantiques et épistémologiques.

Actuellement nos gradués qui poursuivent des études supérieures demeurent dans l'éventail des disciplines de la mise en forme. Il me faut dire ici que les écoles d'architecture traditionelles n'ont pas vu d'un bon oeil la création de ce programme.



L'establishment était sutout regroupé à l'Université de Montréal et le doyen du temps, Guy Desbarats, a souvent décrié nos efforts et notre orientation en la qualifiant de non-sérieuse. Aujourd'hui, nos étudiants, après trois ans d'études chez nous, connaissent bien des difficultés pour faire accréditer leur bagage académique s'ils veulent poursuivre leurs études professionnelles d'architecture dans cette école. Le temps et l'action effaceront-ils les antagonismes?

Quant à McGill, la diplomatie des anglophones a prouvé être juste. Ne pas attaquer directement. Laisser les gens se casser la gueule, seuls. Je ne

crois pas qu'on se la cassera et le dynamisme qui règne à l'UQAM en fait un milieu bien vivant à Montréal. Sûrement imparfait mais curieux, ouvert et préoccupé par le développement du "projet" plutôt que d'une pratique professionnelle établie.

TFC: La diversité des échelles fait-elle de votre programme un programme d'introduction au design qui doit être complété par des études supérieures?

JLR: Bien sûr que oui. Mais il y a deux façons dont on pourrait répondre à votre question. Cela dépend de la confiance que l'on a dans l'évolution de notre société. D'une part, on peut dire oui, c'est un programme d'introduction et nous pensons le faire suivre d'un programme d'études supérieures spécialisées très bientôt. Entre temps les autres programmes d'études supérieures des universités voisines pourraient ouvrir leurs portes à nos étudiants.

D'autre part, peut-être que ce programme pourrait se révéler comme étant une alternative à l'enseignement traditionnel de l'architecture et du design. A part la mécanique d'y ajouter un an d'études, il pourrait peut-être représenter une approche tout aussi acceptable que les programmes professionnels existants.

TFC: A quoi serait donc dû la réduction des études professionelles en architecture ou en design de six ans à quatre ans comme cela a été le cas ici au Québec?

JLR: Il y a eu plusieurs raisons. D'abord les changements opérés par le nistère de l'Education à la demande des universités, je crois, ont été motivés par des impératifs économiques tout comme la nécessité de promouvoir l'accessibilité aux études universitaires. Mais en architecture, comme ça a été le cás pour moi, les années que j'ai passées à McGill (sept ans plutôt que six parce que j'ai réussi à faire deux fois ma deuxième année) et ensuite les deux ans de maîtrise que j'ai faits sous la direction particulièrement stimulante de Melvin Charney à l'Université de Montréal, me font croire aujourd'hui que cette "période d'incubation" n'a pas été trop courte. Elle correspond aussi à l'apprentissage perpétuel qui est le lot de l'architecte. Mais elle met en cause le degré de qualité de l'éducation qui est nécessaire à une pratique d'excellence. Au-delà du temps il y a l'apport des professeurs. Il est vrai que plus on passe de temps à l'université, plus on a l'occasion de se confronter à un plus grand nombre de professeurs. Peut-être avoir un peu plus de temps pour aprofondir la pensée d'un professeur qui nous impressionne? Si le maître n'est pas dans les livres, il est peut-être dans la classe. Malgré bien des discussions sur la qualité des professeurs, il y en a qui font école. On peut nommer les Gordon Weber et Peter Collins, par example. Fera-t-on mourir Charney en le nommant ensuite? On se souvient de Marcel Gagné aussi. Je ne veux pas m'étendre sur cette question. Elle reste à débattre à toutes les générations.

TFC: Est-ce que vous concluez que les architectes qui graduent après quatre ans de cours ne peuvent prétendre qu'ils sont des architectes accomplis?

JLR: On a cru à l'économie pédagogique parce que l'on sait que la période de stage vient parfaire les connaissances pratiques du futur architecte. Mais je connais bien des gens qui n'ont rien à dire sur cette période de stage. Ou plutôt, qui peuvent dire qu'ils n'ont eu aucune véritable direction, qu'ils ont seulement bossé sur des projets souvent insignifiants, qu'il n'y avait aucune discussion stimulante sur l'architecture dans l'usine où ils avaient échoué et qu'en fait, ils avaient surtout appris à satisfaire le client à tout prix.

On doit donc penser que les premiers quatre ans devraient générer des architectes "pensants", impliqués, qui pourraient devenir les "nouvelles inspirations" que recherchent les bureaux établis. Les stagiaires sont en droit d'exiger autant de leurs patrons qu'ils en exigent de leurs professeurs. Dans cette optique aussi, il faut questionner le type de sélection qui est courant dans nos écoles.

On ne sait pas dire aux étudiants qu'ils ne sont pas à leur place si le cas se présente. C'est extrèmement rare. On donne une note de passage, complaisamment. L'étudiant les accumule, ne peut avoir accès aux études supérieures et se précipite dans la pratique sans qu'on exige de lui plus de qualité. Les résultats formels sont évidents et menacent totalement la crédibilité de l'ensemble.

Non seulement la sélection des aspirants à l'école est-elle faite souvent sur une compilation des notes antécédentes, ce qui élimine des candidats très sensibles dont le talent et les préoccupations ne sont pas comptabilisables, mais aussi la réorientation des étudiants en place devraient toutes deux être considérées prioritaires dans le processus d'éducation de l'architecture et du design.

On doit ajouter que les programmes actuels se soucient bien peu du niveau de culture qui est nécessaire au créateur pour accomplir son métier. Cette facette est attribuable au système d'éducation en général mais elle doit être corrigée dans nos programmes. Tant que les programmes du primaire et du secondaire n'auront pas inclus des cours de sensibilisation á l'espace (je ne sais pas si ça s'enseigne mais ça se développe), nous aurons le problème de devoir faire le rattrapage sur cet aspect, et le rattrapage évident sur le plan de la culture générale. J'ai mentionné des cours sur l'espace. C'est à la lumière des travaux du psychologue américain Gibson et à la lecture de "Body, Memory and Architecture" de Bloomer et Moore que j'ai acquis la conviction que nos sens ne sont pas seulement ceux énumérés par Aristote mais plutôt un regroupement différent qui établit avec certitude que nous possédons un système de perception de l'espace. Cette caractéristique vitale devra être reconnue par nos éducateurs si nous voulons progresser.

TFC: On semble justement se préparer à vivre une sursaturation de designers et d'architectes. Comment expliquer alors que, malgré une pratique architecturale en perte de vitesse, les universités s'entêtent à laisser graduer un nombre croissant d'étudiants et qui

plus est, sont des étudiants que vous considérez moyens ou même médiocres?

JLR: Laisser moi prendre une bonne respiration car la question est épineuse.

Tout d'abord, malgré les rapports officiels qui affirment que la profession est en danger et les dires aussi d'un professeur de l'U de M qui a décrit dans un séminaire sur l'éducation organisé par l'Ordre des architectes du Québec, la saturation complète du marché et la nécéssité de fermer certaines écoles, je persiste à dire que la formation d'architecture ou de design est essentielle à un nombre de plus en plus élevé de gens dans notre société. C'est une question tout à fait culturelle. C'est une question de sensibilisation à notre milieu de vie, de culture architecturale, qui doit pénétrer toute les couches de notre société.

En Argentine, en Italie, en France et ailleurs, il y a des milliers de gradués qui sortent des écoles d'architecture par exemple, sûrement plus que ne l'exige l'économie et le marché du travail. Mais n'existe-t-il pas plusieurs facettes à la pratique de l'architecture? Ne peut-on encourager leur développement et leur spécificité?

Si on prend l'exemple des architectes les plus méconnus dans notre milieu qui sont ceux qui travaillent dans la fonction publique. Il y en a plusieurs qui ne font plus d'architecture per se mais au contraire qui font de l'administration, qui définissent la commande gouvernementale. Ne pourrait-on souhaiter qu'il y ait plus d'architectes à ces postes-clés. Les ingénieurs ont réussi ce que nous entrevoyons avec peine. Ils occupent presque tous les postes de commande. Nous vivons dans une société dont la mentalité en est une d'ingénieur. Pratique mais pas toujours créatrice. Sûrement pas aussi sensible aux besoins spatiaux qu'on serait en droit d'exiger dans nos villes et villages. Je souhaiterais à l'OAQ de réunir 25,000 membres plutôt que les 2000 actuels.

Et ces membres pourraient tous s'appeller architectes. Un historien de l'architecture peut être un architecte au même titre qu'un practicien traditionnel. Un architecte impliqué dans la scénographie cinématographique mérite de garder son titre de formation même s'il a laissé à ses collègues le champ de la construction résidentielle ou commerciale.

Mais on n'a pas besoin de 25,000 architectes moyens ou médiocres. Ca demeure le problème des écoles de resserrer leurs critères de qualité. Mais la société se fait un devoir elle-même de poursuivre le processus de sélection. C'est un impératif de la vie. C'est un phénomène continu qui s'observe à l'oeil nu.

Ce qui est le plus surprenant, par contre, c'est l'éclatement qui s'opère à l'intérieur même du milieu architectural. La prolifération des organismes professionnels, toute bien intentionnée qu'elle soit, concourrent à la confusion de l'image de l'architecte. Une désaffectation massive des activités à caractère institutionnel et culturel, perpétue le manque de cohésion, de débat et d'entendement qui identifie notre milieu.

On examine et se prononce pour une Loi des Architectes sans insister plus avant sur le besoin primordial d'une "Politique de l'Architecture". Quand je dis que la société fera d'elle-même sa sélection, elle risque de la faire entièrement.

TFC: En revenant au problème que nous examinons ici, que pensez-vous du fait que les écoles d'architecture et de design au Québec n'affichent pas d'opinion précise comme l'a fait le Bauhaus, par exemple?

JLR: Je crois qu'il faut éviter de sectoriser les démarches. Chaque regroupement de professeurs constitue une entité différente. Mais chaque professeur aussi. Et c'est un fait rare qu'un regroupement bénéficie de la situation qui régnait en Allemagne et qui a polarisé les attitudes et les intérêts d'un certain nombre d'artistes et d'architectes pour en créer une véritable école. Je crois à la diversité parce que j'en ai bénéficié à McGill. Et je crois surtout au magnétisme de quelques uns qui influence et maintient un rapport dynamique dans une faculté.

TFC: En tant qu'architecte, qu'est-ce qui vous a poussé à partager votre temps entre la pratique et l'enseignement et jusqu'à quel point pensez-vous que l'un et l'autre sont interreliés?

JLR: Vous voulez dire que je partage mon temps entre l'enseignement, la pratique, l'écriture, l'organisation d'évènements comme l'Archifête, etc... Peut-être que je partage trop mon temps.

Pour ce qui est du rapport enseignement et pratique, il est essentiel. Il est requis surtout quand on parle des ateliers d'architecture. Et ce n'est pas la pratique vue seulement dans sa réalité de bâtisseur. Elle peut être une pratique d'écriture critique ou une pratique artistique comme c'est le cas pour Charney.

C'est l'expérience pratique qui éclaire le processus pédagogique; c'est la révélation construite de la mise en forme qui permet au professeur ensuite d'enrichir la création d'espace chez l'étudiant. Le processus se renverse ensuite et de l'acuité des rapports étudiants-professeurs, le praticien renouvèle constamment sa démarche personnelle. Quant à l'exemple américain, on peut dire que les écoles font tout pour attirer les meilleurs praticiens dans leurs rangs pour des périodes plus ou moins courtes. Elles perpétuent la nature de l'enseignement de l'architecture et du design en recréant le modèle maître et apprenti dans la meilleure tradition orale de l'expérimentation et de la transmission des connaissances.

TFC: Et l'UQAM?

JLR: Le département Design n'a pas une majorité de praticiens car son programme n'est pas de nature professionnelle. Mais nous invitons des praticiens étrangers, nous provoquons beaucoup de rencontres et débats avec les gens de l'extérieur. On veut, et je crois pouvoir parler au nom de mes collègues, on veut créer un milieu actif et vivant. Ce n'est pas une question de réputation d'école, c'est au contraire apporter à Montréal ce qui lui manque le plus; un espace où la confrontation est possible, où la question de l'architecture et du design est traitée pour elle-même et non pas en seul regard des contraintes et nécessités de sa production.

TFC: Comment envisagez-vous l'enseignement de l'architecture au Québec dans l'avenir?

JLR: L'enseignement de l'architec-

ture ou du design ne se portera bien que s'il y a plus de collusion entre les écoles et les institutions professionnelles. Si les écoles insistent à s'ouvrir plus sur le milieu.

J'ai le pressentiment que la direction qu'emprunte l'Université de Montréal sera celle du design urbain et de l'acte architectural dans ce contexte.

L'orientation de McGill ne semble pas vouloir changer beaucoup et l'école tend à poursuivre une formation traditionnelle d'architectes pragmatiques, sensibles mais rangés, savants et concernés par la tradition plutôt que par la simple actualité.

Quant à Laval j'imagine que cette école continuera de fournir les effectifs nécessaires à sa collectivité mais on est gardés loin du secret de ses orientations futures.

A l'UQAM les orientations d'études supérieures risquent d'investir le domaine de l'architecture intérieure mais sûrement aussi de poursuivre son enseignement de plus en plus pertinent en design industriel.

Tout cela, bien sûr, dit avec une ride au front et un sourire en coin.

Je pense surtout que l'enseignement devra trouver un nouvel élan dans la préoccupation du développement d'une culture architecturale au Québec, et qui commencerait par établir de vrais liens entre toutes les "individualités" qui constituent le milieu. En effet, le milieu architectural est encore une réalité d'accumulation plutôt que de cohésion.

Les efforts de l'UQAM en ce sens devraient être considérés sérieusement et les professionnels practiciens pourraient s'ouvrir au fait que l'UQAM est intéressée à parler d'ARCHITECTURE, par exemple, au même titre que tous les autres, et à contribuer à la définition de ce champ d'intervention avec tous les autres intervenants au Québec. Il ne s'agit pas là d'une transgression des choses gardées établies. Et si mon ton est polémique c'est parce que jusqu'ici les manifestations demeurent nombreuses d'une méfiance et d'une arrogance entretenue.

TFC: Sauriez-vous situer la qualité de l'enseignement de l'architecture et du design au Québec par rapport à d'autres pays?

JLR: Le Québec demeure un terrain propice à l'innovation et à la prospection. Les changements sont plus faciles à réussir que dans les pays européns et même peut-être qu'en Amérique. Si on considère la prospérité de certaines écoles américaines et leur politique de diffusion, on fait figure de parent pauvre. On ne possède pas non plus de Ciriani et le groupe UNO pour marquer le pas en éducation de l'architecture, mais c'est un exemple unique parmi le grand nombre d'écoles françaises.

L'enseignement au Japon est plutôt traditionnel, c'est la pratique qui est intéressante et elle est plutôt encouragée par une commande éclairée.

Notre enseignement se compare sans prétentions à de bonnes écoles. Je pourrais dire cependant que nous gagnerions à voir naître chez nous une école du type du Architectural Association, mais Montréal n'est pas Londres et le bassin de personnes-ressources est bien petit.

Ce qui me semble le plus évident c'est qu'on persiste à ne pas croire en nous-mêmes. On ne semble pas développer nos spécificités. Cela permettrait peut-être, si on le faisait, de développer un patrimoine spatial québécois comme on a créé un espace politique distinctif. ■

Cette entrevue a été réalisée en décembre 1986 par François Lemoine et Judith Letarte, tous deux étudiants en deuxième année d'architecture à l'université McGill.

A Conversation with John Bland

John Bland s'inscrit à l'école d'architecture de l'université McGill en 1928 et gradue en 1933. Par la suite il obtient un diplôme d'urbanisme de l'Architectural Association à Londres. Il revient à McGill en 1939 et devient directeur de l'école de 1941 à 1973. Il est présentement professeur Emeritus à McGill enseignant un cour d'histoire de l'architecture canadienne.

John Bland entered McGill's School of Architecture in 1928 and graduated in 1933. He then attended the Architectural Association in London, receiving a diploma in Planning. He returned to McGill in 1939 and became director of the school in 1941, a position he held until 1973. He is now a Professor Emeritus and teaches a course on the history of Canadian Architecture.

TFC: What was McGill's School of Architecture like when you entered in 1928? For example, what were the entrance requirements, the class composition, etc.?

JB: We had a junior matriculation, but we had to have mathematics, trigonometry and geometry as well. We had to submit a portfolio, though the only drawings I had were drawings I had made as a child, or as a young man.

As for the class, we were mostly Canadians, although there were also some Americans. The people from the United States were often here because of family connections with McGill. I don't think they sought out the School of Architecture because it was a well-known school, though of course the university was well known. I don't think we had anybody from Europe, but among the Canadians, there were people from various parts of Canada. I think that's always been the case, though perhaps as a percentage there were more students from outside of Quebec then.

We were actually quite a big class at the time; I think we might have been as many as ten. Most of the classes were small, very small. Ramsey Traquair had an interesting approach to instruction. Aside from the first year class, which was an introductory year, he used to combine the upper years. It didn't really matter whether you did one thing before another, and perhaps there was an ideal sequence, but with such small classes he could merge two classes together and teach them; and the next year you would be merged again, but with another group. It seemed an awfully sensible way to teach a course in architecture when there were so few students.

Interaction such as this between the various years in a school of architecture is very important, because the students teach themselves. The staff helps them as much as they can, but really it's the students who teach each other. So it's very, very important to have interaction among students for this reason.

TFC: Was there anyone on the staff at this time who had been around since the school's founding in 1896?

JB: No, however Percy Nobbs was on the staff. Now I suppose Nobbs was the virtual founder of the school because he was director in 1903 and led the school until World War I. Then he stayed on teaching the final year in design until 1939. He had two other courses that were rather philosophical courses. One was called aesthetics and the other was theory of planning, but he is chiefly remembered as an instructor in design.

Then Traquair was director for 25 years, until 1939, so he was director when I arrived. He was also in charge of the courses in the history of architecture, and a course called Ornament and Decoration. In these courses he was able to present his particular philosophy of architecture. He was an Arts and Crafts person, and continued the Arts and Crafts tradition at McGill. Actually, his true belief was that the best way to train as an architect was to work for an architect. He feared the university system was just interfering with the whole educational process. Because of this, he insisted that people have jobs in the summertime, and in those days we had a very long summer, so there was plenty of time to get experience.

TFC: Could you describe something of the program?

JB: Well, there was an English trained architect named Carless in charge of the beginners, and he presented architecture to the students as detail. We never did any plans and we never designed any real construction, but we would design a window, a doorway, a balustrade, something of that kind. Then we would design something that had the orders in it, and we had to produce a big rendered sheet which was a very studied thing.

We had to stretch the paper and we had to grind our own ink; and wasn't that a touch of the arts and crafts, the whole notion I mean? We didn't have to make the paper, but the idea that you had to get right down to the fundamentals by handling the materials, that was Traquair's belief.

TFC: Was there any influence from Le Corbusier or the Bauhaus movement at this time?

JB: No, that came later, probably with me when I returned from England in 1939. Traquair was aware of the Modern movement in architecture in Europe, and managed to give us some explanation of it, but it really didn't mean much to us. I guess that Nobbs was the person who influenced us the

McDonald Engineering Building, McGill University, Montreal. Percy Nobbs, 1907

Layout by: Nicholas Holman

most, and he preached regionalism and architecture through understanding materials and using materials, particularly through working with craftsmen. He always tried to design with the craftsmen in mind, and certainly when he took a job, he more than hoped that the builders would be people that he would select.

TFC: Nobbs must have been near the end of his career at this time. Was he still a popular source of inspiration?

JB: Nobbs is not a person who gets to the end of his career easily. He had lots of vigour. He took a year off when I was in school to write his book on design, and I think I missed a good deal of Nobbs as a result. Now is that a book anybody reads anymore? It was a book on design which was kind of a summary of his attitude, his point of view, his teaching philosophy, everything, but it was in 1932-33, and close to the end of his teaching life.

The book appeared at a time when there was a great new spirit in architecture. Le Corbusier was writing, Mies van der Rohe was doing surprising things, the Dutch had splendid new buildings, and people were interested in the Swedes too; and here comes Nobbs with a book. It was published in England and it was totally Victorian. It had a Victorian attitude, a Victorian point of view. It's a good book if you want to find out something about the Arts and Crafts ideas, but with the acceptance of machine manufacture the Arts and Crafts had been carried much further by this time, so I don't think the book was a great success.

TFC: The Sun Life Building was under construction at that time. What was the feeling towards such a building, given that its classical vocabulary is in fact no more than a veneer of granite on a steel framework within?

JB: I think we admired the Sun Life Building, admired it from the point of view of its materials and its details. Nobody was concerned about the fact that it was a steel frame building clothed in antique details. That didn't worry anyone except old Traquair, oddly enough. He felt that the steel armature of the building had played no role in the apparent design. I think he was hoping for an architecture that had a structural source.

TFC: How was business for architects when you graduated in 1933?

JB: The early thirties were bad everywhere, and they were certainly bad here in Montreal. There was a time when no buildings were going up at all. We graduated right at the peak, or rather bottom, of the depression. I was lucky enough to be able to go to London, to the AA.

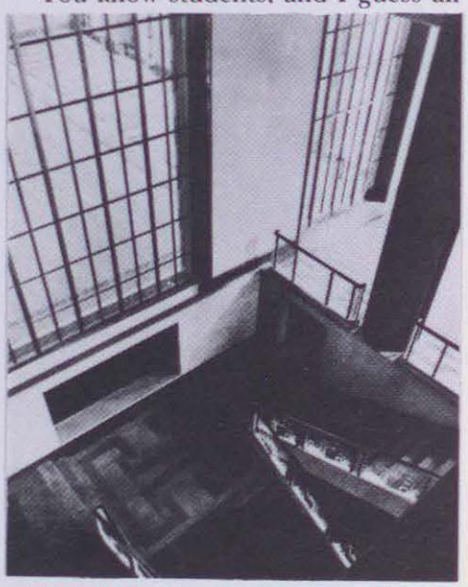
TFC: Was there much difference in the emphasis on the way things were designed there, compared to what you had learned at McGill?

JB: Oh yes, entirely. I learned that immediately at the AA. When I was at the AA I was a freak. They couldn't believe that anybody would design the way I designed; it was so old-fashioned. Even my funny lettering made everybody hoot. But it was quite an experience, let me tell you, because criticism isn't taken easily by young people, and so you learn how to do things in a different way. When I joined the AA, I was of course a latecomer. And as in any school, students had been together for a long time and so they had formed a pretty strong group. But they had to find room for me, and the only room available was with the girls. So I was in the studio called "the nunnery", totally ignored by everybody.

TFC: Despite the fact that you seemed to be a relic from the past, did you find that your training at McGill had prepared you to do the kind of things they were doing, or was the whole approach entirely different?

JB: I think it was only a matter of design. But you know every school has a different attitude. There were some pretty strong personalities at the AA then, and the students designed accordingly. At that time there was a great influence of Swedish architecture which was much admired: Grey Wornum's new RIBA building, for instance.

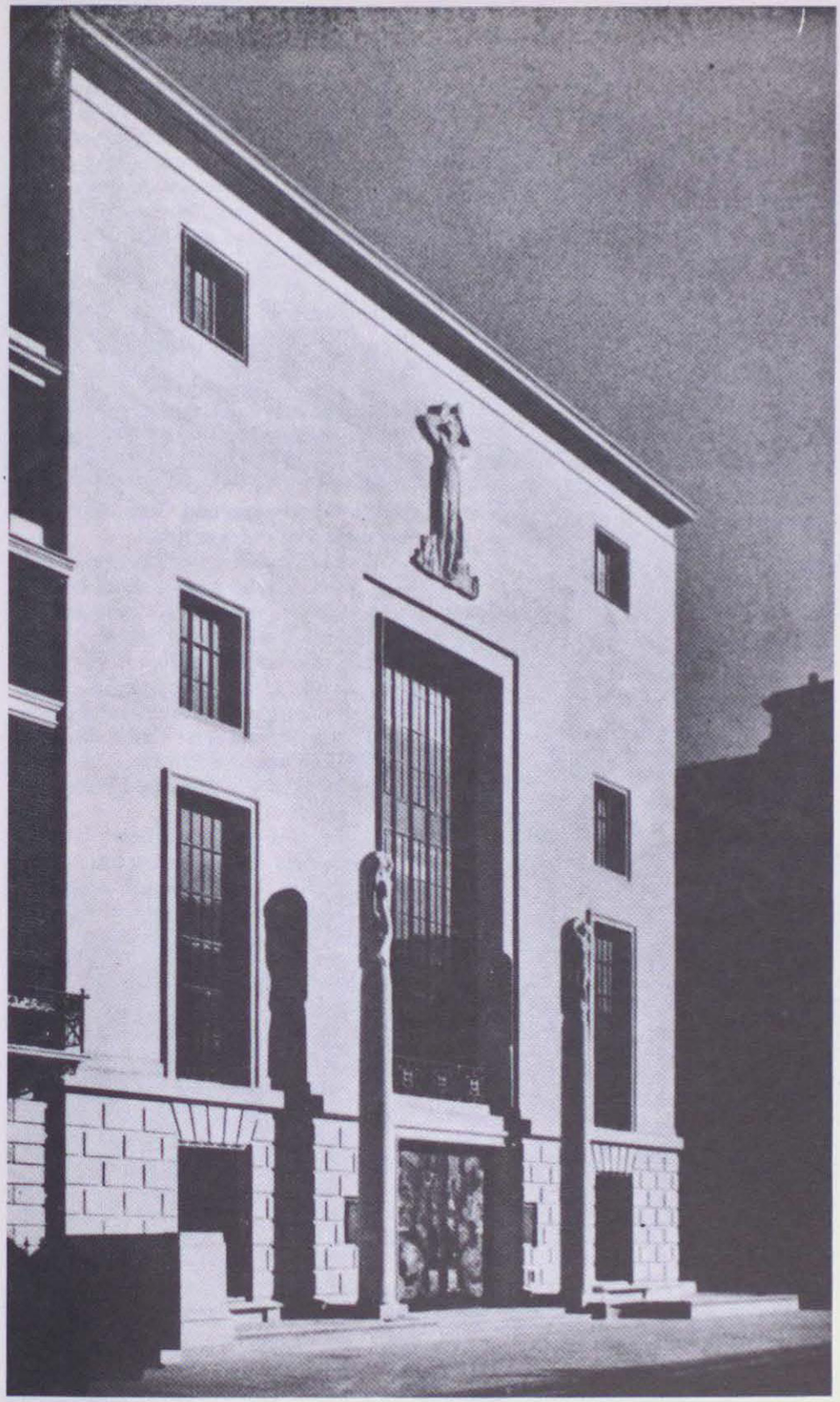
You know students, and I guess all architects, have a very superficial view of things. We look at the surface and we look at the patterns and we like it or we don't like it, but we don't look at it very carefully. But British work at that time was very thoroughly put together. I bet you could go into the RIBA building today and you'd be quite amazed by the skillfulness of the craftsmanship. It's probably regarded as entirely old hat now, but some of the rooms were very nicely made.



R.I.B.A. Building, London. Main stair with Henry Florence Hall beyond.

My goodness, I remember being there one night when Frank Lloyd Wright came to give a lecture. The main lecture room was quite elaborate, and he walked very slowly down the aisle from the back of the room. It seemed he looked at every detail. He was a magician you know, old Frank Lloyd Wright. And when he finally got to the platform he asked for the lights to be put out entirely and it seemed a criticism of the building, and I know it made everybody laugh and jeer. It must have hurt old Grey Wornum quite a lot.

Sun Life Building, Dominion Square, Montreal. Darling & Pearson, 1913-1935.



R.I.B.A. Building, London. by Grey Wornum, 1932.

TFC: What was your reaction upon first experiencing a Le Corbusier building?

JB: I think the first Le Corbusier building I saw was the Armée du Salut. It was just unbelievable, unbelievable! I still find it marvelous because there was the work of a man who had a heart and had a soul, feeling. And to build this beautiful building for bums, waifs and strays, and he had them so happy there. And then the next building that I got to know quite well was the Swiss House at the Cité Universitaire. I don't know what it looks like today, but it was an exciting thing.

They are very surprising, you know, Le Corbusier buildings. Today I suppose people might see them as a bit of old hat but at that time, that Swiss building that sat up on its pilotis, we'd never seen anything like that before. And Le Corbusier produced a building (I don't know whether people know it very well) which was a great big tent at the Paris Exhibition of 1937. He had a little airplane suspended in it, and there was a wonderful feeling of space and color. And he used big, big photographic blowups. He had a lot to say. But compared to some buildings...

Canada also had a pavilion at the exhibition It was so awful it made you feel ashamed. Architecture can give you pleasure, but when architecture gives you pain it really is something. It was a grain elevator. Not a real grain elevator, but a building in the form of a grain elevator. It was silvered, and it had big frightful lettering, "Canada"... terrible, awful! And it had other elements of the Canadian spirit, I guess you'd say, maple leaves and things. And inside it had pictures of farmland, and great big bottles of preserved fruit. It was just unbelievably frightful. And there it was, with people looking at it. And then you'd go around the corner, and you'd see something that had such spirit from Switzerland. Or there was Le Corbusier's tent, things of that kind.

The other big thing in '37 was of course Sert's Spanish Pavilion, which was incomplete because Spain was at war. It had such a feeling; you could feel the fact that this country was in trauma. And it had that big Picasso, Guernica, inside.

These were very spirited men.

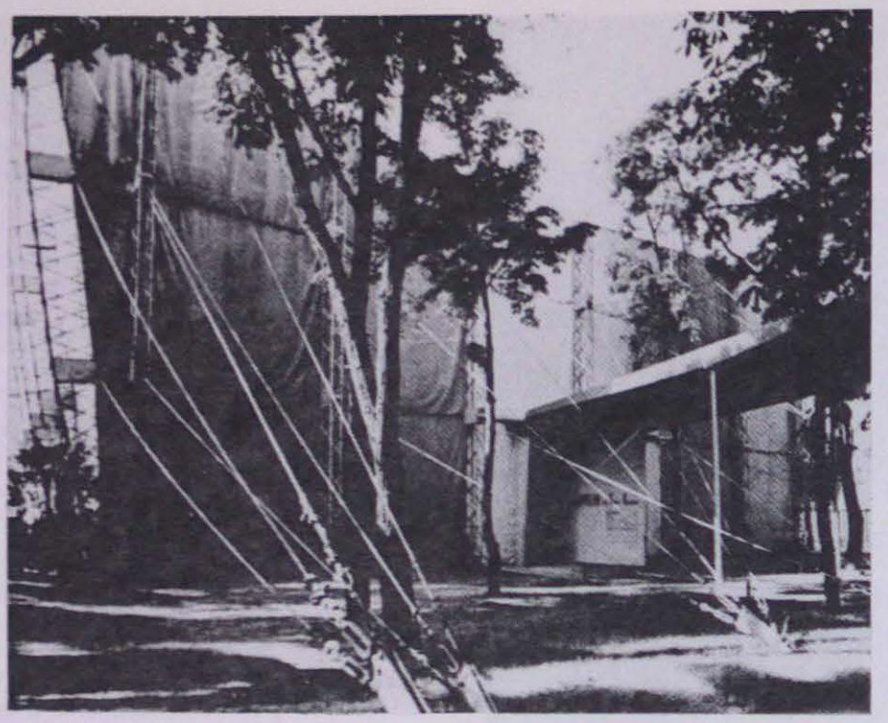
TFC: So in 1939 you came back to Canada and joined the McGill staff?

JB: Yes. By the late '30s the enrollment was really dropping, and in 1938 it was decided to close the school. The principal just saw no purpose in continuing. And both Nobbs and Traquair were about to retire, and it seemed that this would be a time when they wouldn't be replaced. But then they didn't close it.

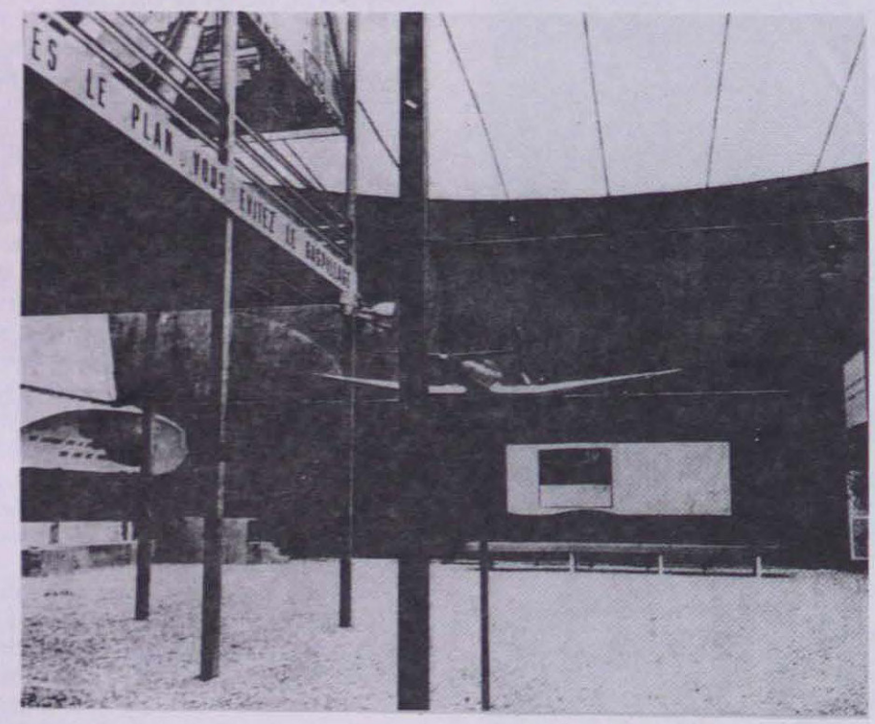
There was a man on the staff by the name of Phillip Turner, a practicing architect, and he campaigned to keep the school open. Eventually, Turner decided he could continue the school with the help of a young man, and a number of notable Montreal architects who would take over the design courses. That was when Turner offered me the job of being his assistant. I was glad to have such a job and I came back from London to take it. That was in 1939 and I've been here ever since.

TFC: How were you received when you returned from London imbued with the new architectural spirit?

JB: I think I was again a bit of a freak. In 1937, I think it was, McGill had a competition, which was open to graduates, for a gymnasium-armory. So a friend of mine in London who was also a graduate of McGill worked with me and we submitted a scheme. It wasn't a Le Corbusier scheme, but it was at least



Pavillion des Temps Nouveau, World Exhibition, Paris. Le Corbusier & Jeanneret, 1937.



Pavillion des Temps Nouveau, interior.

a modern concept. It was simple and stark, and it had a good swimming pool, a good gym, and a good big rink. Those were the three main elements. Well the people on the juries just couldn't believe that anybody would do anything like that. The other schemes weren't, of course, classic, but they were axial and fussy. And the only person who liked our scheme was the Director of Athletics. He thought it was great. But we didn't get anywhere with it.

I think that was the reason Turner asked me to come back. I think he thought that if someone could do this sort of design, maybe it might be useful to have him around.

TFC: Compared with when you graduated, how had things at McGill changed?

JB: The trend was completely different. We admired Gropius and we certainly admired Le Corbusier. We had much more of a feeling for modern design.

TFC: Following the rather quiet period during the war, what was the impact of the veterans when they arrived?

JB: Oh, that was fascinating. We had no idea what we should expect. The people who came back were a most extraordinary group. They had immense energy and optimism. They really felt that architecture was one of the things that could be used to make the world a little bit better.

Arthur Erickson was a star at this time, as he still is. He was a very clever man, and here he was working with us, and with a lot of energy! There were others too. Aimé Desautels was a veteran who had had no real training before, but he had genius.

TFC: Are there any particular trends from the past 40 years that stand out in your mind?

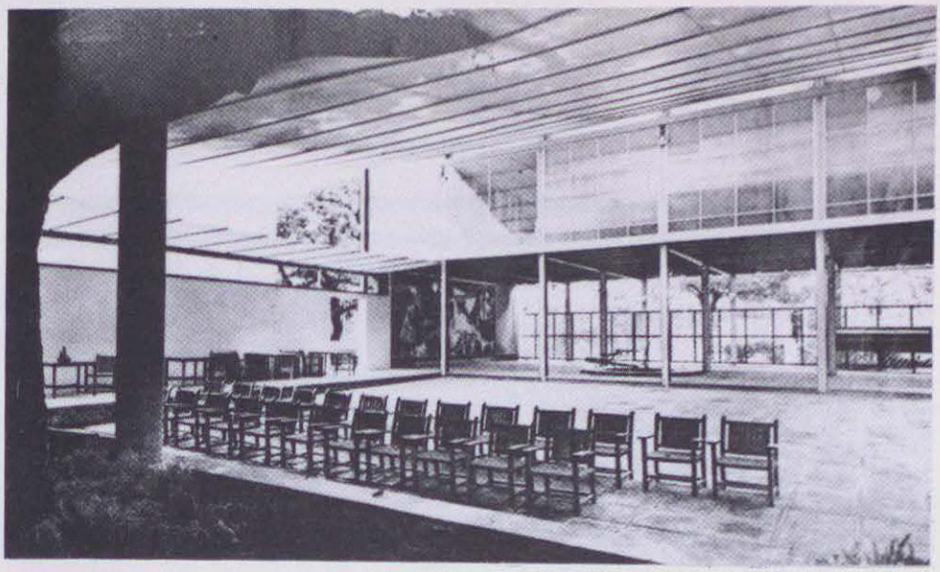
JB: Perhaps 1967 was sort of a watermark year with the Expo here in Montreal. There was great excitement and a lot of us felt very satisfied with what had happened since the war had ended. As soon as the war was over people began to do business. Montreal grew and things kept happening. But Expo '67 was a kind of culmination.

We had, for instance, Bucky Fuller here. Bucky Fuller gave a short course at McGill and we built a dome out of cardboard. It was great fun. And then he built that really amazing dome, and we gave him an honorary degree. And some of the other buildings were great fun. A lot of former students also returned. For instance Erickson was back in Montreal at the time, and built one of the pavilions.

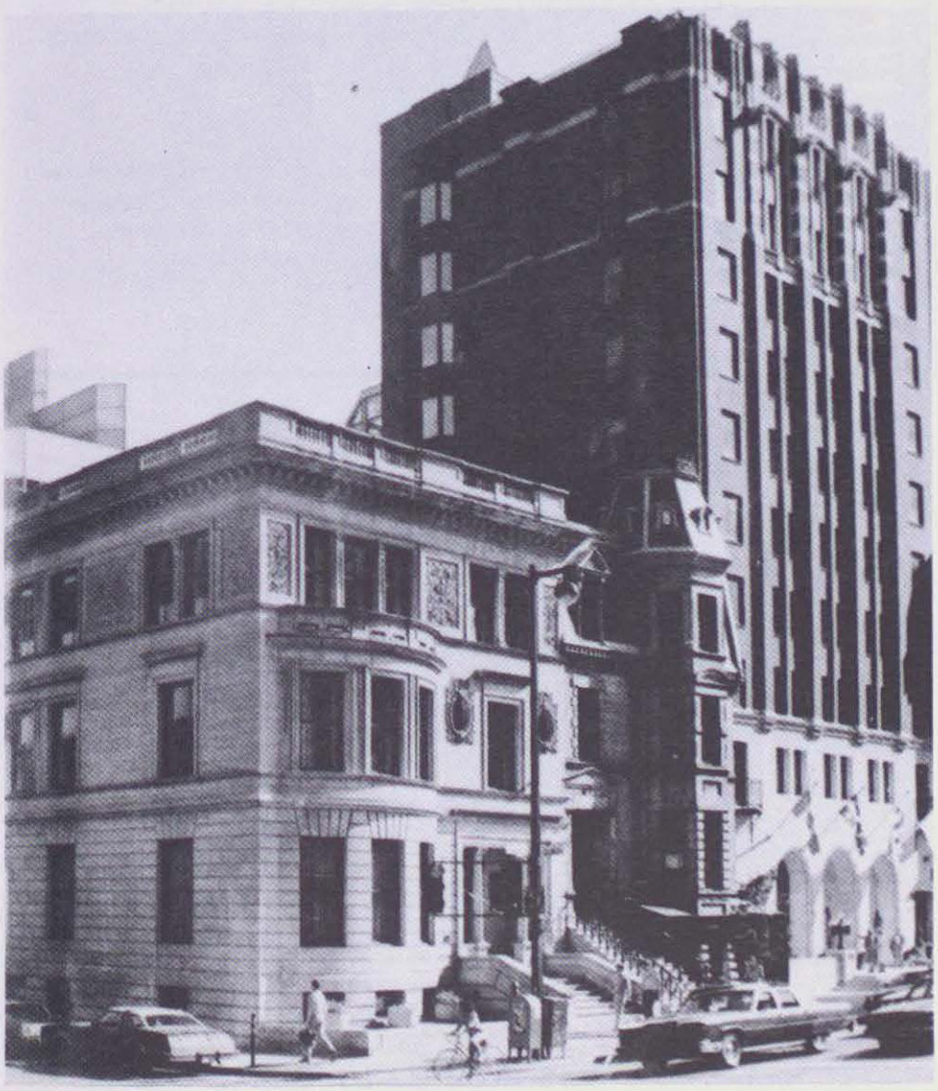
I guess I also relate a new philosophy to the late sixties, and to Joe Baker. Joe Baker was the first person in our little community to point out the reckless destruction of buildings to make sites for new buildings. A new buiding, it was felt, was always such an improvement over the old one, that no one worried about it. But Joe Baker drew attention to a lot of needless and careless destruction, and we had students becoming very much interested in a sort of minor architecture. We had classes which were actively involved in repairing old buildings, putting in plumbing and lavatories and that sort of thing. I think the interest in making do, not restoration, but rather recycling, put a big question mark over new buildings altogether and the spirit of new buildings.

TFC: What are your observations on the current state of Modern architecture, or the advent of Post-Modernism?

JB: I think that its when design becomes routine and thoughtless that it becomes uninteresting as far as the spectator is concerned, or as far as the user is concerned. It's when architects are captivated by their problems and working on the edge of real solutions that architecture has an excitement. But when it becomes just routine, it becomes bloody well careless and you get buildings that are totally uninteresting and everything is brought down as a result. This has become a problem with modern architecture.



Spanish Pavilion, World Exhibition, Paris. José Luis Sert, 1937.



Maison Alcan, Montreal. Sherbrooke Street frontage. Arcop Associates, 1983. Preservation of the existing streetscape, with the new building behind, shows a new attitude in modern architecture.

However, it's not just a modern phenomenon, because you can see it in old buildings too. If you go to the outskirts of Paris, you can see the most tawdry buildings, which you can tell belong to the Beaux Arts spirit of design. You can find all kinds of buildings that are just totally routine. People felt at the time that that kind of architecture had no future at all.

The same thing can happen with modern buildings. There's a building near Place Ville Marie that's a good example. Shocking building! Bad detail, hideously built. And this has become routine architecture. It's almost anonymous. Who did that? Who knows? Nobody knows. Now if you walk around that building and compare it with P.V.M.... Have you ever seen how they handle their goods entrance and their garbage at P.V.M.? It's astonishing how the building has been considered. In many respects it seems flawless. But if you go back to that other place...

TFC: Do you feel that in architectural training today, the basic recipe that you followed is still valid, or should there now be a greater artistic or humanistic emphasis, for instance?

JB: I think that you have to have a good strong emphasis on science, as in my day. Science is one of the things that we have, and to ignore it would be wrong. But architecture is the same as it's always been. The architect is confronted with a problem which is not unique, and he has to take advantage of all of the circumstances that he finds in designing a building. I think that we ought to avoid trite solutions; I think that it's a complicated matter. Certainly changes occurring. I can see that changes are occurring, and I think I can see why. But I don't think there's a need to go overboard. There's a lot of what we see in post-modernism that's just pure trash, and doesn't seem to me to have any substance at all.

TFC: Looking ahead to the architecture of the future, what are your thoughts on what it might hold?

JB: I think that we will probably make many improvements on what we do now; but we're not going to jump into a non-industrial situation, are we? We're not going to return to the pick and shovel, and hammer and sickle. We haven't yet seen all that a scientific attitude can do in production and materials; it allows much more skill and the product is a better product. The only way to judge what a building may be like in the future is to say, "How may it be improved?": aesthetically, and mechanically and structurally and so on.

People are as aware of architecture today as they've ever been. We have our sight, we have our touch, we can feel things. Just as you can enter an early Christian church in Rome, for instance, and you see the materials there and you can enjoy the building and you feel it has architectural quality, I think you can feel the same thing about a modern building.

The new Alcan Building is a good example. Beautiful materials and well thought out; it's a very successful building, and people really enjoy it. Taking this building as an example, I think the prospects for the future are very interesting. ■

Nicholas Holman is a graduate of the University of Toronto who is currently studying architecture at McGill.

Outdoor

La rue Saint-Hubert situé dans l'est de Montréal est une rue animée tant au niveau architectural que social. Ses balcons, balustrades et ornement ainsi que ses résidents, lui donnent cette richesse et vitalité.

Running nominally north-south in the eastern portion of Montreal, about half way between the streets of St.Denis and Amherst, St.Hubert Street is a long, variegated thoroughfare. Between the east-west streets of Pine Avenue East and Mont Royal, in the vicinity of Parc Lafontaine, St.Hubert broadens into a boulevard-like avenue.

A froth of white painted balconies exudes from the grey limestone ashlar facades of four-storey flats or apartments, overlooking tall trees and wide sidewalks on each side of the broad street.

Like outdoor platforms or open-air rooms, the ornate balconies are wide and deep. Balconies jut far out from building fronts with many tiered or superimposed columns holding up the different layers. Fussily ornamented ironwork balustrades swell outward in opulent bulges. Open and light-hearted, lush and complicated, the facades of the buildings are too busy in appearance to appear either relaxed or dignified.

During the hot summer months, apartment dwellers often sit out on the balconies to take in the air. The tranquility of this occupation, taken up largely by glances at the day's newspapers, or by knitting, by desultory, low-toned conversation or even by listless passivity, tends to increase the curiosity of the balconies' occupants in any other possible source of interest or amusement. A stranger walking down the street may be subjected to much looking and whispering.

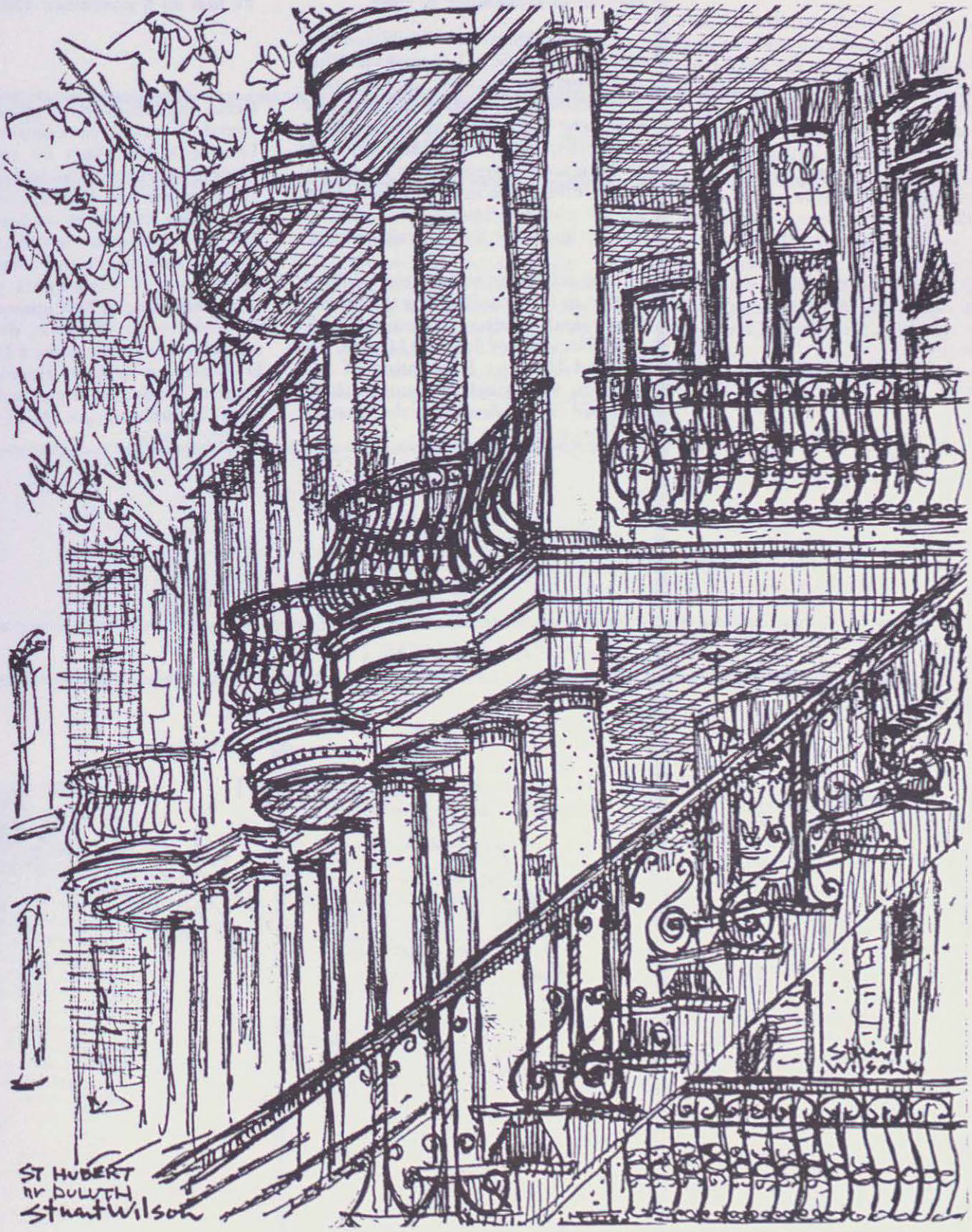
■

Stuart Wilson is a Montreal architect and Emeritus Professor at Mcgill University's School of Architecture in Montreal.

Layout by: Franka Trubiano

R o o m s

by Stuart Wilson



Evénements

Seminars

Centenery of Le Corbusier 1887-1987
The Modern Movement in Paris,
July 20 to 26, 1987

The SFA, French Society of Architects, have organized a seminar (for both french and english speaking participants) based on the life and work of Le Corbusier and his contemporaries. The seminar will include addresses by the director of the Le Corbusier Foundation, as well as by Mr. Wogensky, a colleague of Le Corbusier. Visits will be made to the Jeanneret / La Roche house, as well as to the Villa Savoye.

The seminar will also address in a broader perspective the Modern Movement in Paris, studying architects such as Perret, Lurcat, Pingusson, Chareau, and Ginsberg.

The final registration date is June 15, 1987.

For further information:
Agnes Baulme
22 bis rue de Paradis
75010 Paris, France

Centenaire de Le Corbusier
1887-1987
Le Mouvement Moderne A Paris
20 au 26 juillet 1987

La Société Française des Architectes, SFA, organise un colloque en français et en anglais sur la vie et l'oeuvre de le Corbusier et ses contemporains. On y entendra des conférences par le directeur de la Fondation Le Corbusier ainsi que par M. Wogensky, collegue de Le Corbusier. Des visites de la maison Laroche-Jeanneret et de la Villa Savoye feront partie du programme.

Ce colloque étudiera aussi l'impact de l'architecture moderne à Paris, à travers les oeuvres d'architecture tels que Perret, Lurcat, Pingusson, Chareau et Ginsberg.

La date limite d'inscription est le 15 juin 1987.

Pour plus de renseignements:
Agnes Baulme
22 bis rue de Paradis
75010 Paris, France

Exhibitions

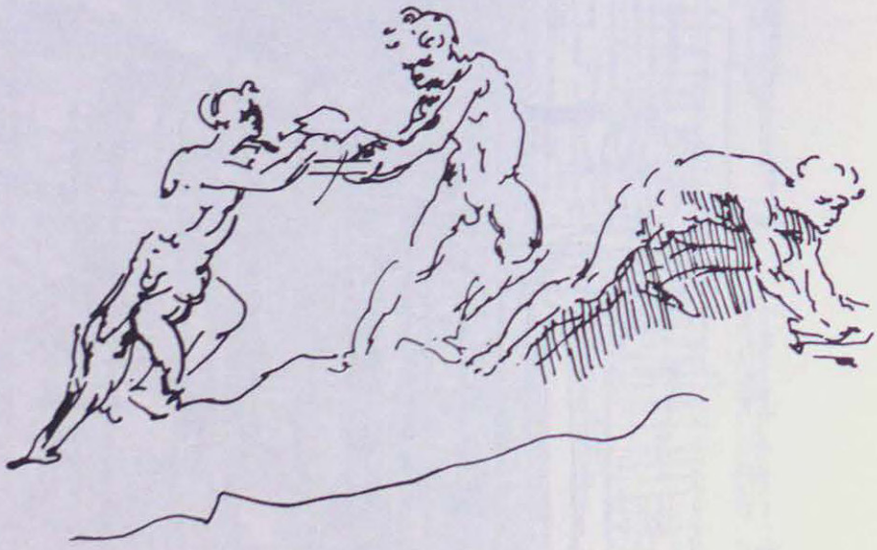
Leonardo Da Vinci,
Engineer and Architect
Montreal Museum of Fine Arts
May 22 to November 8, 1987

This international exhibition will highlight the role of Leonardo da Vinci as a prominent architect and engineer of the fifteenth and early sixteenth century. The exhibition will concentrate on the display of models and drawings of Leonardo's designs for machines, which anticipated the invention of airplanes and helicopters, but will also display his plans for centralized churches.

The exhibition will consist of drawings from the Royal Library at Windsor Castle, and manuscripts from the Biblioteca Nacional of Spain in Madrid, the Armand Hammer Foundation of Los Angeles, the British Museum in London and the Bibliothèque de l'Institut de France in Paris.

Leonardo Da Vinci,
ingénieur et architecte
Musée des Beaux-Arts de Montréal
22 mai au 8 novembre 1987

Cette exposition de calibre international démontrera l'importance de Leonardo Da Vinci en tant qu'ingénieur et architecte au cours des quinzième et seizième siècles. Y seront présentés des dessins et maquettes crées par Da Vinci pour les machines qui sont les ancêtres de nos avions et hélicoptères. Les documents présentés proviennent de la Bibliothèque Royale du Château de Windsor, de la Biblioteca Nacional d'Espagne à Madrid, de la Fondation Armand Hammer à Los Angeles, du British Museum de Londes et de la Bibliothèque de l'Institut de France à Paris.



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FIRST DESIGN
close translation
of realization in
Form

Realization or
Form drawing