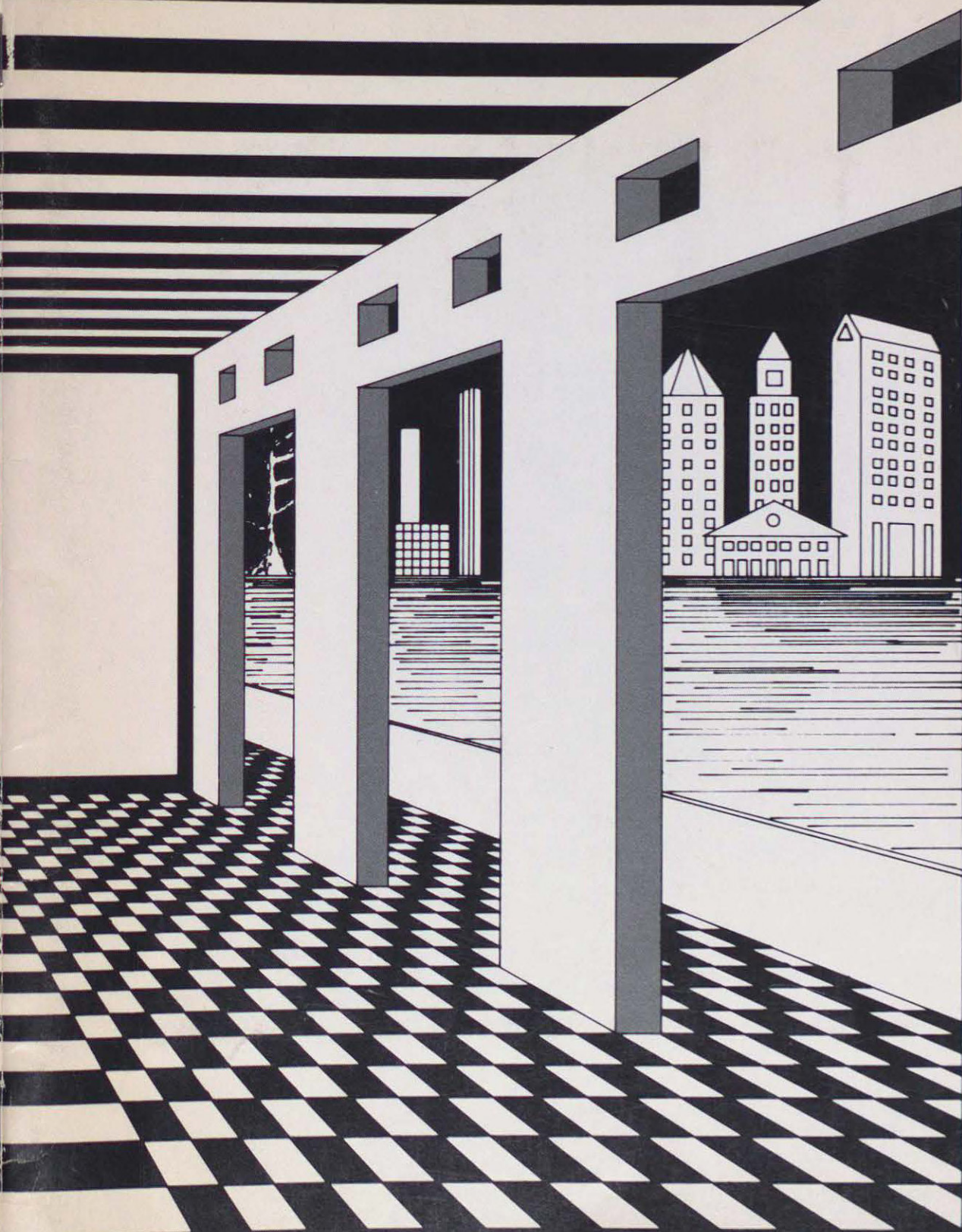


# THE FIFTH COLUMN

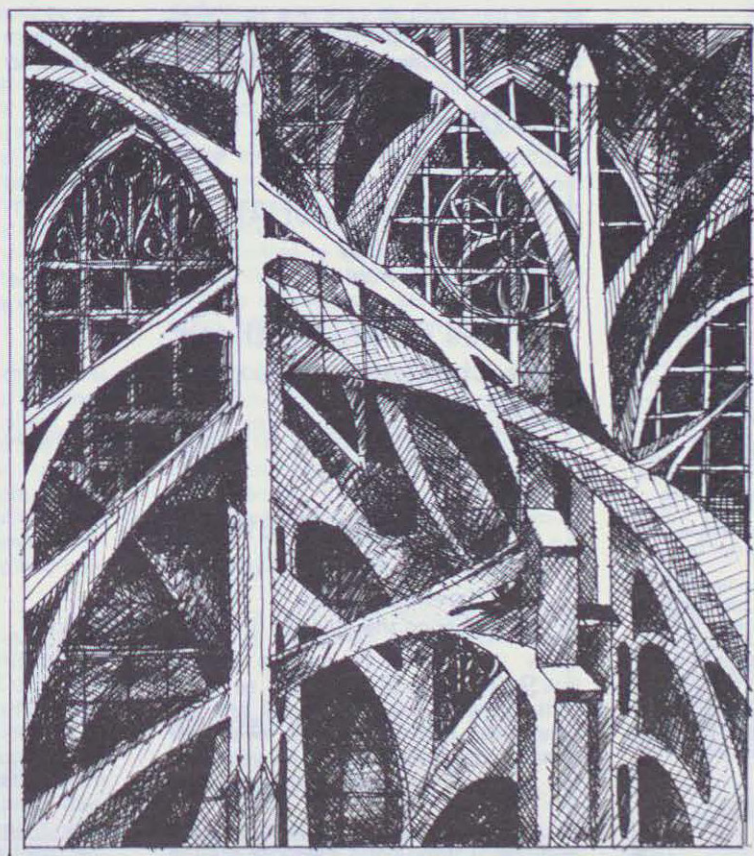


*RATIONAL  
ARCHITECTURE*



# THE FIFTH COLUMN

THE CANADIAN STUDENT JOURNAL OF ARCHITECTURE  
LA REVUE CANADIENNE DES ETUDIANTS EN ARCHITECTURE  
AUTUMN 1982 VOLUME 3, NUMBER 1



# THE FIFTH COLUMN

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# Rationalism

Rationalism should not be confused with either architecture that is rational or styles and movements that are denoted 'rationalist'. Rationalism in architecture is a body of **guiding principles** that formally stems from the philosophical school of Descartes (1596-1650). His ideas (that knowledge of the world is obtained by reason and the generation of *a priori* truths without the necessity of confirmation of the senses) became translated into architectural theory by Marc-Antoine Laugier in 1753. His essay hypothesized the fundamentals of architecture, by going back to how architecture must have started. The result was the rustic hut which was to have been the primitive archetype that the 'Masters of the Art' have emulated in the greatest works of architecture in antiquity. But despite the fact that the earliest structures were not what Laugier had conceived, being a true Rationalist he was only concerned with what architecture should have been, thereby setting the stage upon which a 'perfect' architecture could be realized.

If one can accept the premise that Laugier was not advocating a Greek Revival but structural rationalism and that structural rationalism can be seen within the broader context of Rationalism, then one can begin to appreciate the essence of Rationalism, which by its very nature, suggests an architecture that is **ordered, logical, consistent, clear and true**.

Thus Rationalism is not a style. It is important to note that in the nineteenth century, both Classical and Gothic Rationalists existed, and that while they formed hostile schools of thought, on more than one occasion opponents learned the principles of Rationalism from the other school. The ideals they held were similar but the means with which they chose to express them differed.

Consequently, Rationalist ideals were put into practice before the twentieth century, although they became more easily visible with the development of new building materials. Rationalism provided the foundation while new materials merely provided the means. For example, if Auguste Perret had not been influenced by Classical Rationalist Julien Gaudet, he might not have realized that the 'true' form and **expression** of concrete was a frame. In-

stead, it is conceivable that he might have continued to use it as a substitute for masonry or as a frame in disguise as others had done.

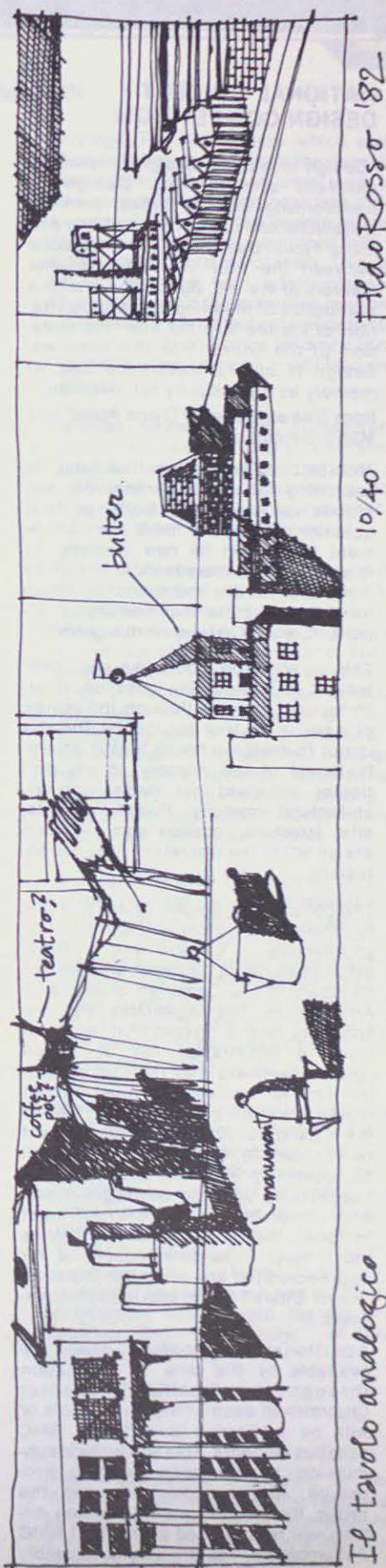
The sometimes resultant apparent simplicity of Rationalist architecture suggests a minimalism that is **not** nothing, but allows the intent to be rendered clear. This underlying idea is, for example, what Mies Van der Rohe and Aldo Rossi share and achieve in their architecture. The intent of Mies is expressed and defined throughout his buildings and may be obscured by the negative connotation that he is a leader of the Modern Movement. Likewise, it is only when one looks beyond the surface of Rossi's return to the pre-Modern era (when specific building types could more clearly embody tectonic values) that one can comprehend the intrinsic link between Mies and Rossi and their architecture. Each man's architecture and thinking is very different, but their similarity lies in the individual strength of their expressions, stemming from a strict adherence to Rationalist ideals.

It is crucial to grasp the meaning of expression and although it is most explicit on the exterior, it is by no means limited there. It is found in the articulation of interiors and spaces and in most cases, in the attention given to the meticulous details of the building. It is the sum of the parts that generates the total expression and greatness.

Those in pursuit of Rationalist ideals have all believed that architecture should not be of a personal whim because it belongs to civilization and not the individual. They contend that this idea can be realized most successfully by designing in accordance with their principles.

Thus neither the mere presence of square windows puncturing unadorned surfaces nor the mere utilization of glass and steel indicate that the ideals of Rationalism have been pursued. Rationalism is a body of guiding principles that transcends styles, movements and ages, and is reflected in the entire design and construction, expressing order, logic, consistency, clarity and truth. It is hoped that this will not be forgotten amidst the present fervor induced by the rediscovery of Rationalism.

Patricia M. Chang



## NATIONAL STUDENT DESIGN COMPETITION

*"Design is reading. Design is rewriting existent architecture. Design is transforming existent types; both architectural and urban, both building and place types. Design implies a dialectic between the new in relation to the memory of the old. But design is also a production of meaning, the transformation of the old into the new; the mutation of the known into the unknown. Design is also amnesia; the loss of memory as a possibility for invention."*

from *Idea as Model* by Diana Agrest and Mario Gandelsonas

Architectural design, at this time, is searching for new meaning. We see around us some new buildings that question the ideas of the Modern Movement in a quest for new meaning. In relation to this, there is more and more discussion on the memory of architecture. But what is the memory of architecture as it relates to designers?

This competition would like each contestant to address the question of architectural memory through the design of a house for four occupants. The aim is not to design a house that is an embodiment of the memory of any particular occupant but deals with architectural memory. Function, scale, site, structure, location and materials are all left to the discretion of each contestant.

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Additional information shall be available by the time of publication through the CSA/RAIC Chapter Chairmen in each of the ten schools or will be forwarded directly to RAIC syllabus students. This will include submission requirements, judging procedure, further regulations and the prizes that will be awarded. Winning entries will be exhibited at the 1983 RAIC Assembly in Montréal and possibly published in THE FIFTH COLUMN.

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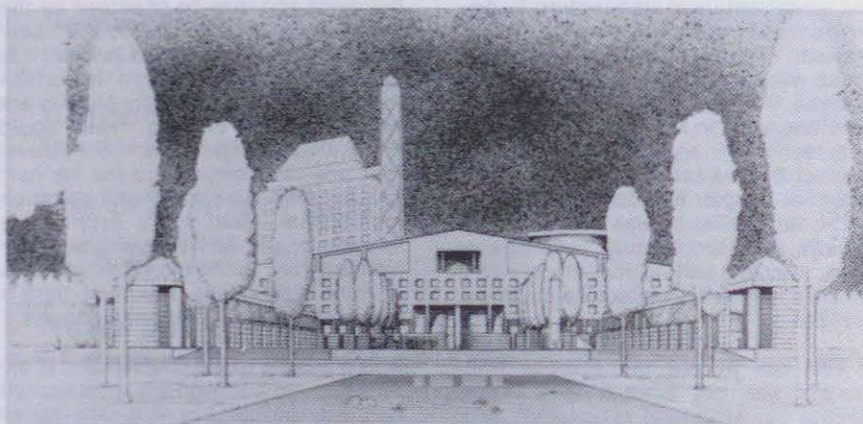
The first prize — \$150,000 in addition to the contract — went to J. Michael Kirkland and Edward Jones based in Toronto. The second prize (\$75,000) went to Barton Myers Associates (in conjunction with Bruce Kuwabara), the third prize (\$37,000) to the Ron Thom Partnership and Harvey Cowan Architects, and the fourth prize (\$18,750) to Michael Brisson. All are from Toronto.

Honourable mentions were given to R.E. Barnett, A.J. Diamond Associates, and the Davies/Leggett Partnership.

The five-person jury consisted of architects James Stirling, Phyllis Lambert of Montreal and Jerome Markson of Toronto as well as Mississauga's planning commissioner Russell Edmunds and a local resident, Douglas Kilner. The non-voting chairman was Toronto architect George Baird.

The judges' decision was unanimous. According to a press agent, James Stirling was to have commented, "The design was of high quality by world standards and would, in my opinion, receive international praise upon publication."

It is hoped that construction will commence in September 1983 with occupancy in October 1985.



Winning entry: "A building for two seasons."

## CANADIAN STUDENTS OF ARCHITECTURE ORGANIZE

Les étudiants en architecture du Canada possèdent maintenant une organisation nationale apte à reconnaître leurs intérêts et à encourager la communication entre les différentes écoles du pays.

Affiliée à L'Institut Royal d'Architecture du Canada, cette organisation porte le nom de "Regroupement des Etudiants en Architecture du Canada". Afin de promouvoir ses objectifs, le REAC/IRAC publie le seul magazine national d'architecture, THE FIFTH COLUMN, parraine une compétition nationale de design ainsi que diverses expositions itinérantes et va prendre part à la conférence Montréalaise de 1983, qui aura lieu à la fin mai, et est déjà en branle. Tout étudiant inscrit à l'une des dix Ecoles d'Architecture du Canada ou stagier du IRAC peut, s'il le désire, devenir membre du REAC/IRAC. La cotisation de \$15.00 comprend, entre autres, un abonnement à THE FIFTH COLUMN. Pour s'inscrire, ou pour obtenir plus de renseignements, s'adresser à REAC/IRAC, 328 ouest Somerset, Ottawa, K2P 0J9.

Students of architecture in Canada now have a national organization to address their concerns and to foster communication between the Schools. Affiliated with the Royal Architectural Institute of Canada, the organization is aptly named: "Canadian Students of Architecture of the RAIC". In promoting its goals, the CSA/RAIC publishes the only national journal of architecture, THE FIFTH COLUMN, sponsors a national design competition and travelling exhibitions, and meets annually at the RAIC Assembly. Plans are already underway for the 1983 Assembly in Montreal in late May.

Membership in the CSA/RAIC is on an individual and voluntary basis and is open to students attending one of the Schools of Architecture as well as to RAIC Syllabus students. Membership costs \$15.00, includes a subscription to THE FIFTH COLUMN, and is available from the CSA/RAIC at 328 Somerset West, Ottawa, K2P 0J9.

# NEWS AND VIEWS

## MARCEL BREUER: FURNITURE AND INTERIORS

A retrospective in recognition of the range, scope and impact of that architect's interior designs and furniture, was presented at the Château Dufresne, Musée des Arts Décoratifs de Montréal from September 17 until October 21, 1982.

## CONSTRUIRE EN QUARTIER ANCIEN

Paul Falconer

The French exhibit, *CONSTRUIRE EN QUARTIER ANCIEN*, which travelled to Quebec City and Montréal this summer, was sponsored by the Ordre des architectes du Québec, who supplemented the exhibit with one of their own, *DE LA RUPTURE À LA CON-*

**Analogy:** The architecture which searches for precedence within the surrounding neighbourhood and uses such as an analogy for new compositions. This necessarily involves the search for the essence of the place, combined with a direct reference to the context. This approach remains both admirable and challenging, and the examples provided demonstrate that direct reference to the style and spirit of a place lend new compositions a measure of credibility and aspect.

## THE FIFTH COLUMN

THE FIFTH COLUMN en tant que périodique d'envergure nationale invite étudiants ou professionnels, canadiens ou étrangers, à participer activement à l'élaboration de son contenu. Le niveau de qualité et d'intérêt de ses éditions dépend principalement des articles qui nous sont soumis; ces articles pouvant être thématiques ou d'ordre général.

L'édition printanière de 'THE FIFTH COLUMN' aura pour thème: 'Nouveaux horizons pour l'architecture canadienne.' Les divers régionalismes ainsi que l'influence des conditions climatiques semblent être les caractéristiques permettant de distinguer une architecture canadienne. Mais y a-t-il ou y a-t-il déjà eu une architecture canadienne? Les nouvelles directions que prend notre architecture mènent-elles vers un plus grand respect de ces conditions typiquement canadiennes? L'actuel débat international sur les valeurs architecturales nous rapproche-t-il d'une architecture canadienne ou nous en éloigne-t-il?

La date limite pour la remise d'articles thématiques à paraître dans notre édition Printemps 1983, ainsi que pour tout autre matériel se rapportant à nos chroniques régulières (Making Plans, News and Views, Drawing, Student Work, Critiques) est fixée au 15 février. Pour plus d'information, contactez votre éditeur régional ou 'THE FIFTH COLUMN'.

THE FIFTH COLUMN as a national journal is calling for increased participation throughout the country and beyond. Whether from student, professional or otherwise, material is hoped for and needed to raise the level of quality and broaden the appeal of the magazine. Articles can be thematic or of general interest. It is now our policy to publish potential future themes well in advance in order to better solicit submissions.

The theme for the Spring issue of THE FIFTH COLUMN will be New Directions in Canadian Architecture. Diverse regionalism and climatic response seem to be the two most evident characteristics defining a specifically Canadian Architecture. Is there or has there ever been a truly Canadian architecture? Are new trends in Canadian architecture responding to these conditions or specifically Canadian factors? Is the current international debate on architectural values contributing to or detracting from Canadian architecture?

The deadline for submissions of theme articles for this issue along with any material for our regular features, such as Making Plans, News and Views, Drawing, Student Work, or Critiques, is February 15. For further information, contact your Regional Editor or THE FIFTH COLUMN.

Architecture which is designed and built with total indifference or in total defiance of the existing neighbourhood. A rare example of how such an attitude or approach might be successful is the Eiffel Tower, a steel structure which has come to dominate and symbolize the city of Paris.

**The Invisible:** An architecture which maintains a low profile by using any one of several tactics such as transparency, reflectance or camouflage.

**Complex Examples:** An architecture which addresses more complex demands involving not one but a number of different attitudes in approaching the design of new compositions for older neighbourhoods.

**Blocks of Renovation:** The last section of the exhibition referred to the attitudes which affect the renovation or construction of a city block, or a larger part of the older neighbourhood. Here, the problem of integrating a building or group of buildings within the existing historical context is certainly most challenging, and therefore demands a special solution. The architect must address the more complex issue of integrating building and city; creating a piece of the city which belongs to the surrounding built environment.

How can one stop the ravages of this rupture and how can one safeguard and continue the traditional values and forms of the lifestyle? Successful integration requires an appropriate fusion of attitudes and a thorough exploration of the relationships between the city and its various parts. Unfortunately, there remain too many examples of Zero Degree Integration.

Works of architecture erected today depend enormously on our choices and references, and exhibitions such as these might be able to assist us in making effective decisions regarding the proposals forwarded by architects and planners in our older neighbourhoods. The OAQ encourages us to ponder the meaning of "integration" and "contrast" and whether it can lead to an architecture which might respect and develop the "know-how" of our forefathers' heritage.

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## TFC FIRST READERS' POLL

As a magazine of national character, it is important that THE FIFTH COLUMN be a vehicle for the exchange of ideas about architecture, and particularly architecture in Canada. It is also important to realize that this forum is not only open to the writers who contribute but also to the readers. And so, THE FIFTH COLUMN announces its first Reader's Poll.

In keeping with the upcoming theme of New Directions in Canadian Architecture, it seems appropriate that our poll should deal with what has influenced architecture in Canada. We would like to know what you think have been the ten most significant buildings built in Canada. Of course, the criteria for selection are difficult to enumerate and so it is felt that the guidelines for deciding what significant means should be left up to the individual reader. By significant, however, it is implied that these are not necessarily the ten best buildings, but rather those which have exerted the most influence on the Canadian architectural horizon.

The purpose of the poll is to see what the readers across the country think about Canadian architecture and what has made an impact upon them. Perhaps it will shed some light on the diversity of architectural expression within the nation and point out the roots of such diversity. And it will allow you to compare your own thoughts with those of the architectural community.

As well as the list of buildings, we are also interested in why those buildings were chosen. Any additional comments giving more detailed reaction or explanation will be very welcome and excerpts from these replies will be published with the poll results.

Selections for the poll should be given to your Regional Editor or mailed to the Montreal offices of THE FIFTH COLUMN, using the reply card provided in this issue. The readers' choice for the ten most significant buildings in Canada will appear in the Spring 1983 edition, New Directions in Canadian Architecture.

### THE FIFTH COLUMN

Canadian Student Journal of Architecture  
Revue Etudiante Canadienne d'Architecture  
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While Breuer's architecture has already received much of the attention it so richly deserves, his furniture and interior designs have yet to be given a comprehensive exhibition of their own. By the age of 28, Marcel Breuer had created a body of work that would remain one of the most significant in twentieth century design. His furniture, especially his work in tubular steel, was innovative and influential. Through his natural sense of design and his thorough knowledge of materials, Breuer was able to create furniture and interiors that rose above the level of decoration or function. Half a century after their conception, his works remain as modern and contemporary, as vital and relevant, as any designed in the present day.

MARCEL BREUER: FURNITURE AND INTERIORS presented some 37 pieces of furniture, including examples of Breuer's innovative chair designs, such as his wood armchair (1922), the first tubular steel chair (1925), his tubular steel cantilever chair (1928), his aluminum armchair (1932-33), and the Isokon molded plywood lounge chair (1935-36).

This exhibition was organized by The Museum of Modern Art, New York, with the aid of a grant from the National Endowment for the Arts, and was generously supported by SCM Corporation.

## UPCOMING ISSUES:

POLITICS IN  
ARCHITECTURE

NEW DIRECTIONS IN  
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The exhibits focused on the qualities of different neighbourhoods and contexts in which new architecture is inserted. The exhibition raised some important questions regarding contemporary architecture, as the architects who conceived this exhibition believed that many buildings are in direct contradiction with the value that we accord our lifestyle and culture. They suggested that the various forms of contemporary architecture might be inserted more successfully into our older venerable neighbourhoods.

The exhibition illustrated the work of various architects who have built in these older neighbourhoods and outlined their approaches.

**Zero Degree of Insertion:** A rupturous architecture which is poorly integrated and characteristically indifferent to the surrounding built environment.

**Integration:** An architecture which is highly homogeneous with the older neighbourhood, respecting the styles, scale and materials.

**Contrast:** An architecture which exhibits some degree of integration, but not so much as to interfere with its existence as a separate entity within the environment. The example provided illustrated the integration and yet unquestionable contrast between Florence Cathedral and the surrounding rooftops.

**The Amusing and Precarious:** An architecture which is designed and built with total indifference or in total defiance of the existing neighbourhood. A rare example of how such an attitude or approach might be successful is the Eiffel Tower, a steel structure which has come to dominate and symbolize the city of Paris.

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## FILM/STRUCTURE/ ARCHITECTURE REVIEWED

by Janna Levitt

The drywall and wood installation shown at Toronto's Artculture Resource Centre (July 1982) is an attempt to examine the structural interconnections between film and architecture. A narrative is established by sequentially ordering primary architectural elements — facade, corridor, room — whose reduced forms and spatial development are to be seen as the physical correlation between the two media.

The corridor that connects the facade and the room is the most successful element in this respect. The ramp narrows gradually as it leads towards the room, similar to the two-dimensional representation of a vanishing point. Foreshortening the perspective in this way results in a disjuncture which polarizes the physical reality of one's environment (the architecture) and how it is perceived spatially (the film aspect). Consequently, what is seen as a long distance



is inversely proportional to the actual time it takes to traverse the area. This causes the space to appear 'flattened' much in the way an image, recorded with a telephoto lense, looks on screen. The result, in both cases, is a rational displacement, because the 'thing' or image appears both far away and yet close to, one self.

Forced perspective is a device which has been used in film to varying degrees. From the more extreme examples of *The Cabinet of Doctor Caligari* and *Citizen Kane* to the more subtle application in *Marni*, there is an evident tradition employing this non-verbal narrative device to facilitate feelings of estrangement, apprehension, etc., as it relates to the story.

From the corridor one enters a brightly lit room where a video screen is installed in one of the walls. One is unaware of the video until the point of entry since

the corridor and adjoining room have been skewed. All the transition points, where one space meets another, are marked in this way. It's as if all the elements have been pulled apart, examined and then reassembled, each in a different way, testing the conditions of entry, passage and exit. One becomes cognizant of the architectural language by which space and mass interconnect and give way to one another. This self-conscious demonstration of the mechanisms that create a particular space or series of spaces are revealed in other areas of the construction. There are places where the drywall has been cut away to reveal the wood framing; some of the walls form putative corners; the entire framing is revealed, like a skeleton, on the outside of the piece.

The self-reflexivity that this calls into play has its parallel in film, specifically among the avant-garde where the process is as important as the final product. There is a particularly strong connection with the notion of editing, as this is the process where individual shots are joined together. In commercial cinema this is done in such a way as to make the joints or cuts invisible to the viewer. The avant-garde favour highlighting the productive values and the edits are often opaque, according to a parity and integrity to the components that create the illusions.

The video monitor in the room displays images of what is going on outside: that is, outside the actual construction but still within the gallery walls. A tenuous connection has been made by the artists to relate this to the notions of 'flashback' and 'future scenes' that in a film takes one out of linear 'movie' time. What is more intriguing and disturbing, in terms of the artists claiming that this signifies "film contained by architecture," is how upon examination they have settled for the most conventional representation or understanding of this relationship.

Due to the treatment of the video the room, the 'architecture', becomes subordinate to what is seen on the screen. The person, hitherto an active participant, is rendered a spectator, a voyeur, able to observe with impunity the activities of others. The classic relationship between spectator-spectacle is re-enacted.

From this room one steps outside the construction, where a film is projected onto a screen set high above the corridor. This screen resembles a Russian Constructivist composition mounted on wire mesh. Where the film is able to penetrate this billboard-like facade, the images spill onto parts of the gallery beyond the structure. The film itself is mainly a collage of architectural



elements, punctuated by shots of fireworks.

The fact that the movie is architectural in nature is not in itself enough to form a significant relationship with the construction. That the images are projected onto surfaces other than simply the screen *per se*, is indicative of the artists' attempt to establish a dialogue between the two media. However, technical difficulties with the film and lighting made it hard to get a clear reading.

The first part of the installation — the construction — has, as was stated previously, a narrative inherent in its organization. By doing so, a set of expectations on the part of the viewer are initiated. The concluding element of the piece — the film — is non-narrative and in a sense this leads to some confusion as one is trying to understand this part with regards to what he/she has just experienced. Ultimately the connection one makes can only be somewhat general, i.e.: "this installation has something to do with architecture that the construction on its own was unable to convey," as opposed to a more specific conceptual relationship between the two. This is not to suggest that the film is gratuitous. In its present state it is just very difficult to comprehend it as an integral part of, as opposed to apart from, the installation as a whole.

The clarity with which the various elements are presented and built, are in themselves the strongest argument for the ideas of the artists. They also allude to the potential that future investigations in this area will proffer. Where the installation falls short is indicative of the artists' inability to decide what in this complex relationship bears articulation. An ambiguity prevails and it is difficult to ascribe an intent whose nature is experiential, structural or both.

(Janna Levitt is a student at the School of Architecture at the University of Toronto.)

## GIORGIO DE CHIRICO

by Adam Caruso

The Museum of Modern Art in New York proudly opened the doors to its new West Wing with GIORGIO DE CHIRICO, an exhibition expectantly referred to by its organizers as "the first large scale exhibition to focus in depth on the artist's major works." On display were 75 paintings and 20 drawings, predominantly from the artist's best known period, 1911 to 1917, with a handful of transitional works dating from the 1920's. Rather than clarify the status of this most enigmatic artist, however, the exhibition only serves to reinforce the mystery surrounding his art.

Giorgio de Chirico has long held a prominent position in the pantheon of twentieth century painters; however, this place was reserved solely on the merits of his so-called Metaphysical works (circa 1911-17). Those who were so quick to immortalize de Chirico on the basis of those six years, were equally quick to dismiss his post-1917 work as insignificant.

The metaphysical works, as represented by the MoMA exhibition, are significant to be sure, representing a pictorial slice of the painter's psyche of that time. Although these paintings represented something utterly new to the art world at large, they were very much the product of inner forces that had been accumulating within de Chirico for some time. While considering himself to very much of the Italian classical tradition, de Chirico's imagination was fueled by German thought. Nietzsche and Schopenhauer gave focus to his concept of painting as a symbolic vision, and the late nineteenth century work of Arnold Böcklin and Max Klinger served as the prototypes for his pictorial manifestations of these hallucinatory visions.

With the integration of dream imagery and painting, de Chirico became something of a guru (albeit a reluctant one) to the fledgling group of surrealists. The work of Magritte, Tanguy and Dalí is unimaginable without the precedent set by de Chirico, and it is questionable whether any of them significantly furthered the cause. De Chirico's distortion of depth and flattening of the picture plane were also very much in keeping with the avant garde developments of that period, relating closely to the cubist's conception of space. From this position as a young artist working at the forefront, thematically as well as structurally, de Chirico abruptly changed course. It is at this point that most art historians, and this recent MoMA exhibition, leave the art of Giorgio de Chirico.



Self-Portrait

Giorgio de Chirico did not die in 1920, but in fact lived a productive life of ninety years, until his death in 1978. During this time he continued to paint, designed the sets and costumes for several theatrical and operatic productions, and wrote. In his autobiography, *Memorie della Mia Vita*, he staunchly defends the whole of his work, and repeatedly argues that his metaphysical outlook was not limited to the most familiar period, but was an ongoing concern, even in some of his more classical paintings.

Whatever the merits of his post-1917 paintings, they do deserve wider knowledge, if only to invalidate them. Any serious study of David includes some of the porcelain embarrassments of his old age, as well as *The Death of Marat*. A recent major exhibition of Dalí in Paris showed the whole of that artist's output, much to the detriment of Dalí's reputation. In excluding all but his most popular works, the MoMA exhibition offered no new insights into the oeuvre of de Chirico, but rather contented itself to show his importance to the development of painting in the 1920's, an already accepted fact.

(Adam Caruso is a student at the School of Architecture at McGill University and a Graphics Editor of THE FIFTH COLUMN.)

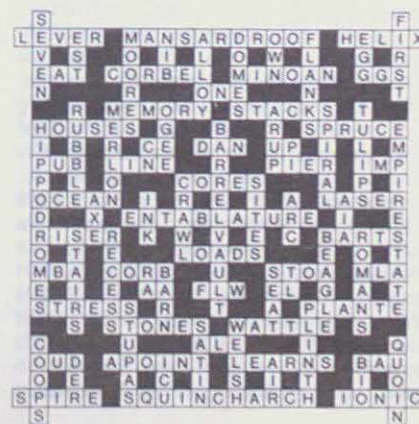
## EDITORS' NOTE

In all of the excitement of putting out the last issue of the magazine, a few credits slipped our attention. The photographs included in the reviews of the Percy E. Nobbs Exhibition were made available to us by the McCord Museum's Notman Collection. The centerfold drawing illustrating the article 'Pour la Gloire de la Guerre' was drawn by Eugenio Carelli, a student at the School of Architecture at McGill University. The layout for Wendy Eidenger's article on 'Art and Architecture' is the work of Lea Zeppetelli and we neglected to list Baila Lazarus as a member of the photo staff. Finally, it should also be mentioned that Paul Falconer, who wrote the news item 'The International Style of Harvard' is the Regional Editor for the Technical University of Nova Scotia.

We would also like to apologize for our criminal use of the French language, particularly in our reply to Alain Jouanisson's letter - excusez-nous! Peut-être avec l'aide des rédacteurs régionaux de l'Université Laval et l'Université de Montréal, et surtout, un peu plus d'attention à notre bout, ça ne va pas se reproduire. On our part, we have conscripted Georges Drolet, architecture student at McGill University, to moonlight at translator.

The staff of THE FIFTH COLUMN would like to take this opportunity to thank Stefan Wisniewski for his efforts in helping establish both the magazine and the Canadian Students of Architecture. His enthusiasm and hard work as both one of the founding editors and the student representative on the RAIC have helped to provide students of architecture across the country with a promising future. Upon his retirement from both duties and his upcoming graduation, we all heartily wish him the best of luck.

## CROSSWORD SOLUTION



by Brian Torobin

*"I hold a view that may be somewhat shocking to an audience as sophisticated as this, and that is, that the greatest piece of design in the United States today is Disneyland. If you think about Disneyland and think of its performance in relationship to its purpose — its meaning to people more than its meaning to the process of development — you will find it the outstanding piece of urban design in the United States. It took an area of activity — the amusement park — and lifted it to a standard so high in its performance, in its respect for people, in its functioning for people, that it really became a brand new thing. It fulfills the functions that it set out to accomplish unself-consciously, usefully and profitably. I find more to learn in the standards that have been set and the goals that have been achieved in the development of Disneyland than in any other single piece of physical development in the country."*

James Rouse,  
Commencement Speech at  
the Harvard School of Design  
in 1963<sup>1</sup>

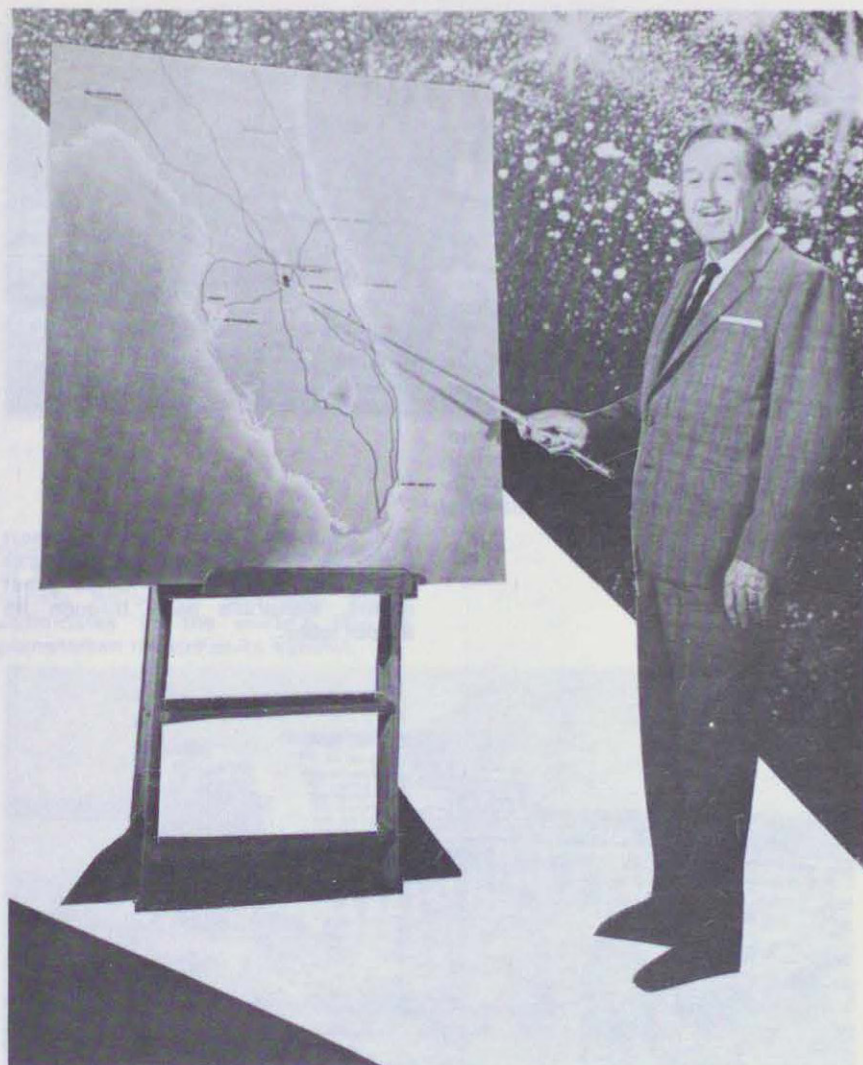
The man that brought Mickey Mouse, Fantasia and Disneyland to the world was always obsessed with challenges. His creative abilities in solving the problems inherent in such challenges was the key to his success. Walt Disney showed himself to be a true genius of design in whatever he undertook, whether it be the first colour-and-sound animated film or the construction of a truly innovative entertainment park. Disneyland was the first product of WED (Walter Elias Disney) Enterprises, the architectural and engineering branch of Walt Disney Productions that was established in 1952 to design the famous park. Its team of architects, animators, show designers and artists came to be known as 'Imagineers', a term effectively expressing the synergetic mixture of imagination and engineering forming the basis of WED's design processes. The success of Disneyland encouraged the Imagineers to stretch their creative abilities and invent new technologies for innovative

methods of entertainment, communication and theatre design. This was especially evident in the four highly-acclaimed pavilions that Disney eventually produced for the New York World's Fair in 1964. Perhaps more importantly, the Fair allowed Disney to bring a bit of Disneyland to the eastern region, a market as yet untouched by the Anaheim 'Magic Kingdom'. Though adamant that there should be only one Disneyland, Walt was convinced that he could build another unique imagined environment in the Atlantic region. This one, however, would be focused on a more serious creative challenge spurred on by the universal themes dealt with at the New York exposition.

The new enterprise would be the result of his persistent search for solutions to the problems of present-day cities. Disney wanted to plan and build a unique 'City of Tomorrow' that would restore a measure of comfort, cleanliness and humanity that existed

before the advent of today's smog and concrete communities. He reasoned that if his creative people could solve the technical and planning problems of smaller-scale projects such as his own Burbank film studio and Disneyland, then they could also apply their creativity to the design of a totally innovative community. To begin with, Disney realized he needed another form of Disneyland to attract attention and bring people and funds to his dream project. Just three years after the California park opened, Walt initiated research to select the best possible site for a new and different theme park and adjoining 'City of Tomorrow'. Several sites had been considered, including the riverfront of St. Louis and the Canadian side of Niagara Falls. However, by 1963, Disney executives agreed on a region that had all the qualities needed for the establishment and growth of a recreational, industrial and residential complex as envisioned by their boss. The choice of central Florida was ideal





because of its climate and the size of land available.<sup>2</sup> Disney was unhappy, to say the least, about the profusion of uncontrolled commercial development which began to encircle Disneyland. With the Florida project he wanted the blessing of size so that he could buffer his recreation park and 'community of the future' from such possible growth; in addition to giving him enough land to experiment with the various ideas he had. By the end of 1965, the company had acquired 27,433 acres of land southwest of Orlando, an area equal in size to the City of San Francisco or twice the size of the island of Manhattan<sup>3</sup>. Work soon began on the design of the theme park, but Walt left most of his planning to those Imagineers who had previous experience with Disneyland. Disney himself was more obsessed with his idea of a City of Tomorrow.

He continually tried to explain his intentions to both a confused press and an enthusiastic staff as to what he had in

mind. Eventually Walt developed a name for the city that succinctly summed up the project's purpose. It would be called the Experimental Prototype Community of Tomorrow — EPCOT. In his first public reference to EPCOT, Disney said:

I would like to be a part of building a model community, a City of Tomorrow, you might say, because I don't believe in going out to this extreme blue-sky stuff that some architects do. I believe that people still want to live like human beings. There's a lot of things that could be done. I'm not against the automobile, but I just feel the automobile has moved into communities too much. I feel that you can design so that the automobile is there, but still put people back as pedestrians again, you see. I'd love to work on a project like that. Also, I mean, in the way of schools, facilities for the community, com-

munity entertainments and life. I'd love to be part of building up a school of tomorrow.... This might become a pilot operation for the teaching age."<sup>4</sup>

The scope for his dream was so wide-ranging that even his staff was not quite sure how it could manifest itself in concrete form. With the help of company officials and designers, in addition to outside commissioned work, Walt began accumulating the necessary facts and information needed for EPCOT. He ordered reports made on the history of model planned cities with special attention paid to their relative successes and failures. He initiated contacts with industry to find out what was happening in the country's research laboratories. Visits were arranged to hundreds of factories, foundations and research institutes. Disney also realized the negative effects that outdated building codes, protective labour unions, standard contracting procedures and short-sighted politicians could have on a constantly changing, progressive city of the future. As a result, he and other officials drew up a proposal for governing the entire project; a plan that would have to be approved by the Florida legislature. Florida laws allowed the formation of certain special districts in the state with the power to control and organize certain government services such as fire protection and water. Disney requested responsibility over several wide-ranging services to fulfill the needs of the project's future users and citizens as well as to allow for innovation in the entire EPCOT experiment. These responsibilities included such government functions as drainage, zoning, power, inspection, gas, water, roads and others. Walt also wanted to have the legal power to establish a municipality within his property which would be governed by a set of laws that took into account civil rights and other city regulations<sup>5</sup>.

Unfortunately, Disney never got to see the realization of his project beyond its very early site preparations on the forty-three square mile lot. Walt died after a struggle with lung cancer in December of 1966. Soon after, his brother and financial right hand man Roy officially declared that the Florida project encompassing EPCOT, the new theme park and all other facilities would be called Walt Disney World in tribute to the man behind the dream<sup>6</sup>. Just a few months after Disney's death, Florida passed the 'improvement district' proposal sent up by the company with the inclusion of some minor modifications. The designers and officials of the firm were now left with the colossal task of bringing Walt's project to reality. After they acquired the power to establish an independent governing district free of county interference, it went full speed ahead with a planned first-phase open-

ing set for October first, 1971. During the first years of Walt Disney World, the EPCOT city was put temporarily on hold. What visitors to the complex have seen since 1971 is the result of attempts to combine several of Disney's concepts for EPCOT with Walt's wish for the construction of a new entertainment and recreation centre. The major component of this first phase is a twenty-five hundred acre 'Vacation Kingdom'. Located in the northern corner of the massive property, this multi-faceted resort includes a theme park similar to California's Disneyland, three themed resort hotels, two championship golf courses, six hundred fifty acres of lake for boating and swimming, a six hundred acre campground, a twelve thousand lot parking area and a 'Transportation and Ticket Center' where guests board Disney's famous monorail system to reach the many spots in the complex. The Vacation Kingdom is complemented by Lake Buena Vista, one of two municipalities permitted by Florida to be built and operated by Disney. Lake Buena Vista now boasts four hotels, an office plaza, a lakeside shopping and dining complex, a conference center plus scores of rental accommodations in the form of villas arranged along the Buena Vista Lagoon and golf course.

Walt Disney World has been able to answer many of EPCOT's original goals as stated in one of Disney's last descriptions of the project:

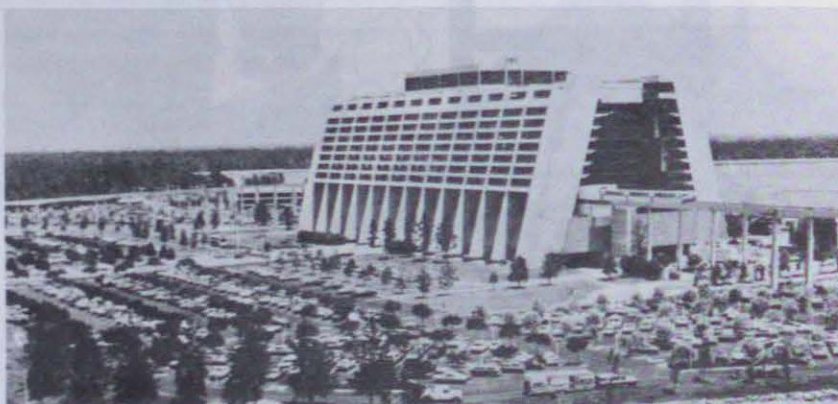
EPCOT will take its cue from the new ideas and new technologies now emerging from the creative centers of American industry. It will always be introducing and testing and demonstrating new materials and systems.... When EPCOT has become a reality, it's our hope that it will stimulate American industry to develop new solutions that will meet the needs of people expressed right here in in this experimental community<sup>7</sup>.

As part of the overall EPCOT experiment, the first phase has exhibited some of the most unique and innovative systems and technologies. Examples of these are a total fibre-optic telecommunications system, a pneumatic AVAC trash disposal system, linear-induction-propelled PeopleMovers and non-polluting, all-electric monorails, energy-efficient guest houses and modular, pre-fabricated building construction. Soon a new pyrolytic solid waste energy conversion plant will open to help air-condition buildings and cook food using energy derived from the project's garbage. Another program which is truly vital to the existence of Walt Disney World is its water control plan. Since much of the land bought by Disney suffered from the persistent Florida problem of flooding, a water control plan was included in the site



Early conceptual design for EPCOT consisting of a central business district surrounded by concentric rings of industrial, commercial and residential zones.

The 1,046 room Contemporary Resort Hotel in the Vacation Kingdom was assembled using pre-fabricated guest rooms. Monorails pass through its atrium lobby.



development that will eventually create a system of twenty-two automatic float gates and fifty-five miles of canals. This will maintain the height and flow of water even under the most severe rainfall conditions. A major part of this drainage system is the two hundred acre, man-made 'Seven Seas Lagoon' at the center of the Vacation Kingdom<sup>8</sup>.

By 1975, the success of the first phase had already been established and plans were underway to build the second. WED designers had been tackling the awesome task of trying to bring Walt's City of Tomorrow to fruition since his death. The world had seen many changes since 1966 and, as a result, the Imagineers began to search for a more timely and accurate translation of the EPCOT dream. Disney officials came to the realization that they could not practically construct a futuristic, experimental city and insure that it would not become obsolete within years of its opening. Technological and social

change happen too fast on this planet. They also realized that they could not very well experiment with the lives of the twenty thousand proposed residents of EPCOT. Imagine enjoying the advantages of a brand new EPCOT kitchen only to have it removed from under your eyes and replaced every few years. WED Imagineers were satisfied that millions of temporary residents (i.e. visitors) to the Florida Project could allow for enough practical experimentation to occur without tampering with people's lives. Thus came the decision to drop the 'city' proposal and turn to a more realistic and effective approach.

Disney's people had always excelled in the fields of communication and entertainment. It was thus reasoned that EPCOT's new format should take advantage of this expertise by becoming a Disney Imagineered center where creative minds from universities, industry, government, science and the arts, from all areas of the world, could



The first phase of EPCOT Center with Future World in the foreground and World Showcase beyond.

**Spaceship Earth** — Enclosing a space of 2.2 million cubic feet, this complete sphere houses a ride/show which culminates in the world's largest planetarium theatre at its summit.



develop, test, demonstrate and communicate prototype concepts and new technologies. EPCOT would become a kind of World's Fair that would constantly work toward achieving better ways of life for mankind. Realizing that mankind's problems were not limited to his cities but rather were worldwide, the designers searched for a more global philosophical framework to achieve EPCOT's goals. This was found in the writings of R. Buckminster Fuller and his thoughts on our 'Spaceship Earth':

One of the interesting things to me about our spaceship is that it is a mechanical vehicle, just as is an automobile.... You know that you're going to have to keep the machine in good order or it's going to be in trouble and fail to function. We have not been seeing our Spaceship Earth as an integrally-designed machine which is to be persistently successful must be comprehended and serviced in

total.... Now there is one outstandingly important fact regarding Spaceship Earth, and that is that no instruction book came with it... we were forced, because of the lack of an instruction book, to use our intellect, which is our supreme faculty, to devise scientific experimental procedures and to interpret effectively the significance of the experimental finding. Thus because the instruction manual was missing we are learning how we safely can anticipate the consequences of an increasing number of alternative ways of extending our satisfactory survival and growth — both physical and metaphysical<sup>9</sup>.

The result of the combination of the search for an effective set of operating instructions and Disney's lifetime dream of helping to solve technological and sociological problems is a massive six hundred acre communication and

entertainment showplace that just recently made its debut on October 1st of 1982.

Officially called EPCOT Center, the complex is located at the heart of Walt Disney World and is linked by monorail to the Vacation Kingdom. Here Disney has created a park filled with thematic and international pavilions dedicated to communicating solutions to Spaceship Earth's problems as well as to displaying the beauty in the diversity of her inhabitants. The first segment of EPCOT Center is Future World — an area focusing on the history and future challenges of the critical problems facing our planet today. Guests entering EPCOT Center walk directly underneath 'Spaceship Earth', the world's first, large-scale complete geodesic sphere housing a major introductory theme show. The storyline of the spiralling ride within is based on Fuller's belief that mankind's survival vitally depends on his ability to have access to accurate and relevant information and on his ability to record, retrieve and communicate this vital information. Beyond the eighteen storey globe lies EPCOT's communications corridor or CommuniCore. Here, visitors can directly experience and learn about new technologies and products in a series of displays housed in two semi-circular buildings. One planned show for CommuniCore will be the educational 'Solutions' exhibit which will communicate ideas and concepts being instituted in cities all over the world for combatting various urban problems. Radiating outward from CommuniCore is an array of privately-sponsored pavilions dealing with such topics as energy, transportation, imagination and 'The Land'. Each pavilion exhibits the ultimate in imaginative communication and entertainment systems and each display or show is the result of intensive collaboration with institutes or individuals involved in the various themes and subjects. These exhibits boast many firsts in show design including the largest animated film ever produced and the first large-screen, three-dimensional movie combining computer generated animation, live-action and special effects. Additional pavilions planned for the future include 'Horizons', 'The Seas', 'Space' and 'Life and Health'. The latter promises to be truly educational as it will offer a ride through the human body as well as an innovative theatre allowing guests to experience vision through the eyes of the visually handicapped.

To the south of Future World lies EPCOT Center's World Showcase. This is a unique, permanent international exposition displaying the accomplishments, culture, traditions, history and folklore of a variety of nations. Unlike those at most World's Fairs, these pavilions take the form of authentic recreations of



Canada — A portion of Ottawa's Chateau Laurier Hotel stands beside a recreation of a Laurentian mountain-side within which the new 360° film *O Canada* is shown.

People's Republic of China — The panoramic movie *The Wonders of China* is shown in a traditional structure set among pines, bamboos, willows and lotus ponds.



several architectural styles indigenous to the country, each forming its own village-like environment. To give equal facade exposure to each nation, the pavilions are situated side-by-side around a forty acre lagoon. Shops, shows, rides and restaurants are also sponsored by private concerns from the participating countries (except for the People's Republic of China) and each pavilion is operated by foreign students participating in year-long World Showcase programs. The nine countries opening exhibits this fall are Canada, the United Kingdom, France, Japan, the United States, Italy, West Germany, the People's Republic of China and Mexico. The site design allows for constant expansion of World Showcase and pavilions for the State of Israel, Equatorial Africa, Morocco, Spain, Denmark, Costa Rica and Venezuela should soon appear at EPCOT Center. This international portion also presents innovative theatres and shows. Both Canada and China have CircleVision

360° cinemas offering guests 'wrap-around' film experiences of their countries. The United States pavilion, called the 'American Adventure', presents the most advanced Audio-Animatronics ever exhibited. This is a process invented by WED Imagineers using computers, electronics and pneumatics to animate any form of three-dimensional figure. The American Adventure show startles guests when Ben Franklin actually climbs a flight of stairs during his role in a soul-searching treatment of American history.

Some observers may say that what has been built in Walt Disney World is just another form of amusement park having no link to the parameters of the real world. However, the success of the experimental systems and the uniquely designed built environments of the project are living testimony to the fact that the creative processes initiated by Walt Disney offer valuable lessons to creative people in any field. While Paolo

Soleri toils over Arcosanti in Arizona, Disney has already sold its heavily-tested WEDWay Peoplemover System to improve traffic flow at a major airport in neighbouring Texas.

In essence, EPCOT Center will now provide the medium in which the various projects and concepts experimented with at Walt Disney World and beyond can be explained, evaluated and discussed — enhanced with a touch of entertainment. It is indeed hard to believe that EPCOT might not have been possible without that mouse that started it all. However, it took a certain kind of determination to breathe life into a two-dimensional drawing — the same determination that brought Disney to believe that one could indeed solve the problems of man and his survival on this planet. It was his deep understanding of people that allowed him to use his imagination with confidence and consistently bring successful creative solutions out of his mind, onto paper and into physical reality. In this way, he can inspire all creative people to shoot for the stars and truly 'make dreams come true':

Somehow I can't believe there are any heights that can't be scaled by man who knows the secret of making dreams come true. This special secret, it seems to me, can be summarized in four C's. They are Curiosity, Confidence, Courage and Constancy.... When you believe in a thing, believe it all the way....<sup>10</sup>

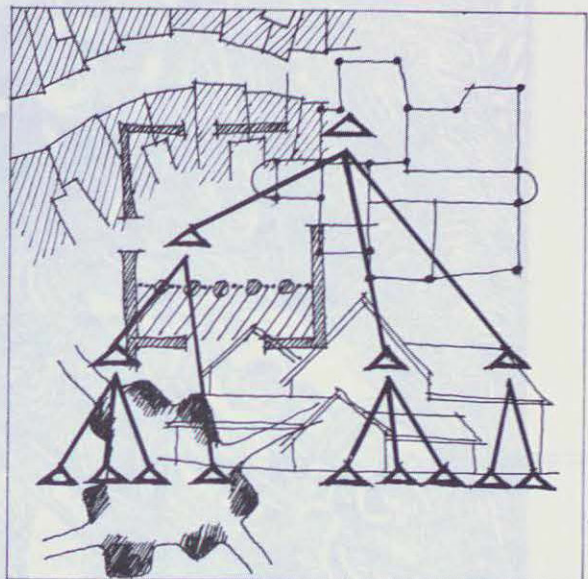
Walt Disney

Brian Torobin is a fourth year student at the McGill University School of Architecture.

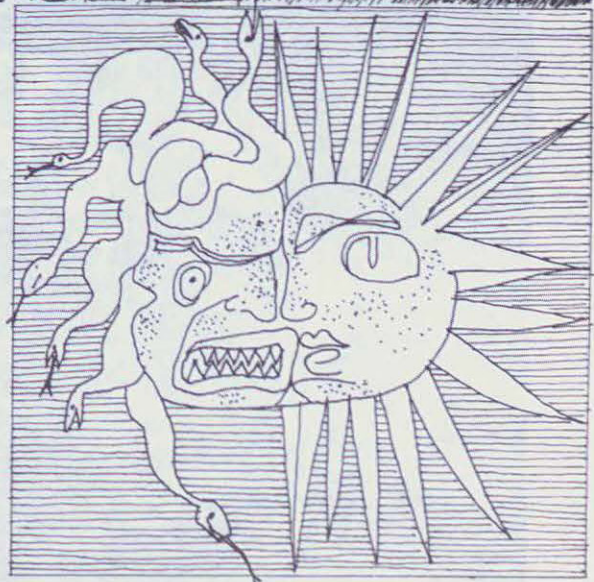
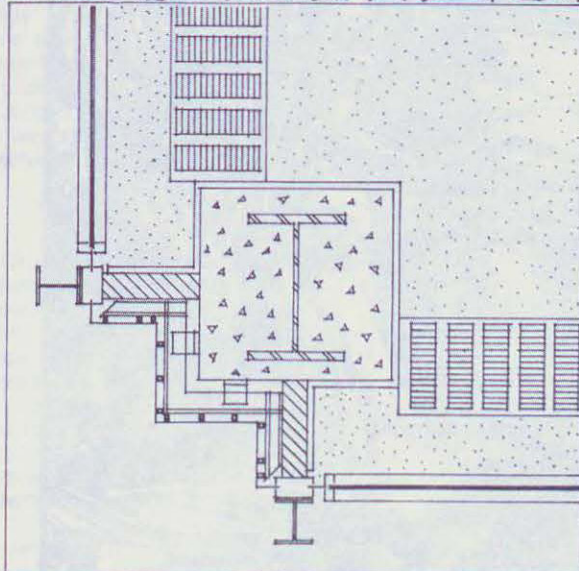
## Notes

1. Bob Thomas, *Walt Disney, An American Original*, New York, 1976, p. 358-359.
2. Thomas, p. 333-334.
3. *The Story of Walt Disney World*, Commemorative Booklet, 1st ed., p. 14.
4. Thomas, p. 338.
5. Thomas, p. 348.
6. Thomas, p. 357.
7. *The Story of Walt Disney World*, p. 14.
8. *The Story of Walt Disney World*, p. 18.
9. R. Buckminster Fuller, *Operating Manual for Spaceship Earth*, 2nd ed., New York, 1970, p. 47-48.
10. Edward L. Prizer, "Countdown for EPCOT," *Orlando Magazine*, May, 1982, p. 63.

(All photographs used in this article are copyright © Walt Disney Productions.)



# RATIONAL ARCHITECTURE





Illustrations from *Otto of the Silver Hand*, Howard Pyle

# ON KING SOLOMON'S RULE

by Peter Lanken

## MYSTERY: I

In Howard Pyle's image, the Knight is not the dashing *chevalier* of Medieval romance. He is older and wiser. He cares not for the ribands and glittering array of fabulous tournament. He has come from Jerusalem, and knows that the Holy City is only won through sacrifice and pain, and that it can be lost again through common human frailty. He understands the limits of military might, and the power that accrues to worldly wealth. He knows the Secret of Architecture.

The Crusaders finally entered Jerusalem in the year 1099. In 1118, a small group of them banded together to form the Order of the Knights Templar. This was a religious order, in that its members swore obedience, poverty and chastity. But it was also a military order, devoted to the protection of Christian pilgrims to the Holy Land. Its first headquarters were in part of the Temple of Jerusalem, hence the Order's name.

The Order grew rich, as any organisation must if its members are rich (as most of its knightly novices were), if they transfer all their wealth to the Order, and if they are sworn to personal poverty. It obtained the support of no less a personage than St. Bernard of Clairvaux, and increased its influence in Europe. After Jerusalem fell to Saladin in 1187, the Templars gradually moved all their operations to Europe, where

their increasing wealth and power soon made them rivals to the Kings of France and England.

The Templars had returned from the Holy Land with something more important than organisation, and power, and money. During their sojourn at the Temple of Jerusalem, they had carried out certain excavations and investigations below the remains of Herod's Temple, below the second Temple built after the Babylonian exile, to Solomon's original structure<sup>1</sup>. They had there discovered the key to the construction of that earliest Temple: Solomon's Rule. This was the rule, or template, or module or proportion, by which God Himself had instructed Solomon in the original building of His Temple. It was the very basis of architecture.

Thus the Templars returned to Europe not just in time to participate in the marvellous renaissance of the thirteenth century, but with the knowledge to generate that renaissance. They directed the construction of their own superb castles (which inspired concern among the mere kings of Europe), and of the great cathedrals themselves.

The kings' fear and jealousy grew. In 1307, helped by the Dominicans and their newly-founded Inquisition, Philippe IV of France charged the Templars with heresy. By 1312, the Order was officially suppressed. Its extirpation was completed in 1314 with the burning of the Grand Master Jacques de Molay. Solomon's Rule, handed down through the Order for 200 years, disappeared in the smoke of that final fire.

## REASON: I

Parts of this story are demonstrably true. The Order of the Knights Templar was founded in Jerusalem in 1118. It did become remarkably powerful in Jerusalem in the thirteenth century. It was wiped out by Philippe le Bel.

The story of Solomon's Rule, on the other hand, seems to have originated in the wishful thinking of the eighteenth-century founders of Freemasonry<sup>2</sup>. They wanted to form a secret society, with its own system of mystical knowledge. They wanted a link between their own time and biblical antiquity, and invented one, just as the early Kings of Scotland had traced their ancestry to Alexander the Great. The story they invented now persists in the literature of the lunatic fringe, between the volumes on Atlantis and those on astrology.

But clearly the story is attractive, and not only to those people who fervently hope that UFO's exist. Every architect has sat in front of some design problem and thought, "I wish I knew the rule for this one." Every thoughtful architect has looked at something he has built and wondered, "Was that the right solution?"

Our thoughtful architect, of course, might doubt the existence of a single rule covering all of architecture, attractive though that idea might be. But he would not doubt the existence of rules (he already knows a hundred of them), nor would he doubt that, if a rule had been found in the Holy Land, it could have been transmitted from one Knight Templar to another for two centuries.

Implicit in the story of the Templars, then, are two fundamental aspects of rationalism in architecture. First, rules of architecture can exist: there are correct ways of building. Secondly, and far more important, those rules can be communicated: that is, they can be enunciated and discussed.

## ORIGINS: I

The story of Solomon's Rule illustrates a third aspect of rationalism: every system of architectural thought requires some unassailable, unquestionable origin<sup>3</sup>.

Solomon's Rule comes as close to absolute authority as any rule is ever likely to. It has, as the art historians say, a good provenance. It was handed down to Solomon by God Himself. It was used to construct one of the few buildings described in the Bible. It was lost while the Infidel held Jerusalem, and was only rediscovered by the Crusaders.

Such a claim to historic justification is common in architectural theory.

The basic form, as usual, is defined by Vitruvius. In his *Ten Books*, he describes the discovery of fire, the beginnings of language, the construction of the first houses. Amongst many other anecdotes, he tells of the origins of the three orders and the derivation of proportion from the human body.

More or less related to these anecdotes, Vitruvius repeats rules that were a thousand years old in his time: those concerning symmetry, proportion, the uses of the orders. Symmetry and proportion are absolute rules. Once a square building was built, or once the idea of symmetry was demonstrated, they could never again be ignored by architects.

The forms the Vitruvius described — columns, pediments — were another matter. When these Roman forms were revived in the Renaissance, architects were confronted with a dilemma: could pagan forms legitimately be used in the construction of Christian churches? The resolution of this problem was achieved in the sixteenth century by two Spanish Jesuits, with reference to our story's touchstone of architectural thought, Solomon's Temple. Briefly, they identified the temple of Ezekiel's vision with the Temple of Solomon, and proved that it had been built under direct guidance from God. They showed that it accorded in every sense with Vitruvian doctrine, and that, indeed, it was the origin for Vitruvius's work.<sup>4</sup>

One can only imagine that kind of fusion occurring in the arcane and hermetic intellectual atmosphere of sixteenth-century Spain. But no matter. Solomon's Temple became a standard reference<sup>5</sup>, and Vitruvian rules and elements remained (and remain) absolute. No subsequent architecture could ignore them, just as no previous one could.

## PRINCIPLE:

In the mid-eighteenth century (when, not coincidentally, the story of Solomon's Rule originated), the Abbé Laugier took architectural theory one step further.

His invoking of the primitive hut is well known, as is his stern attitude concerning the use of classical elements of building. In other words, he accepted in his theory the fundamental concepts of rules and origin. But it is not because of these references that his work is important. He writes, with extreme brevity and clarity, the ideas which separated his theory from those preceding: "an artist

must be able to justify by reasons everything he does," and "the parts of an architectural order are the very components of the building; they must therefore be employed in such a way as not only to decorate a building but to constitute it, whereby if a single element is removed, the whole building will collapse."<sup>6</sup>

These are more than ideas, they are principles. Against the background of the rococo, he insists on clarity and simplicity. Against mannerism, he insists on structural logic and consistency.

For Laugier, architecture is not the playground for personal whim, nor is it a showcase for random ornament. Behind every work of architecture, there must be a clear and consistent set of ideas, logically constructed, which incorporates the truths of construction, convenience and proportion.

This is the beginning of rationalism as an explicit principle in architecture. And just as symmetry, once demonstrated, or a column, once constructed, could never again be ignored, Laugier's principle became an essential part of architectural thought.

## ORIGINS: II

Laugier thus added another necessary part to any new system of architectural theory. In addition to a basic set of transmissible rules, and a historic origin of some kind, a theory now required principles of logic, simplicity and clarity.

The works of Durand, Pugin, Viollet-le-Duc, and Le Corbusier all follow this pattern. But these writers don't explain the dedication of this issue of THE FIFTH COLUMN to rationalism. It was



Aldo Rossi who provided the theory, and the images which have revived interest in rationalism. And yes, he fits the form. He speaks of rules, of origins, of reason.

For Rossi, the origins of architecture are to be discovered in the city, in architecture itself<sup>7</sup>. The city displays all the elements of architecture, and all the rules by which they should be assembled. But the city is enormously complex, too complex for even mathematical analysis. The mechanism which Rossi proposes to distinguish the significant aspect of the city is memory. (Memory, as Mnemosyne, the mother of the Muses; memory, the generator of most of the origins in architectural theory.) Once so identified, the elements can be combined through the application of Laugier's principles of logic and simplicity into a system of ideas, and then into a building which can be understood....

## REASON: II

Thus we return to an aspect of rationalism mentioned earlier. The rules and elements which make up the intellectual framework of a building must be explicit, and susceptible of enunciation and discussion. They must be understandable to those who actually construct the building, to those who commission it, and to those who use it.

They must be assembled, according to Laugier's principle, into a coherent set of ideas before a design can be completed<sup>8</sup>. It is the architect's job to take that set of ideas through all the vicissitudes of the construction process, so that they are visible and understandable in the final building. This is the final objective of architectural rationalism. The single rule of the Temple has been replaced by a single, overriding principle.

## MYSTERY: II

A last thought about Solomon's Rule, that previous guiding principle that disappeared in 1314. We are again living in a time when the Secret of Architecture has been lost. The great masters of the Modern Movement all studied architecture, in the sense that a philosopher studies philosophy. Many of their disciples, however, believed that the way to promote the modern was to destroy all that went before. They ridiculed the buildings, denigrated the books, destroyed the plaster casts. Three thousand years of learning were almost extinguished. Many architects now practising or teaching have little idea of what was risked during the past forty years of self-inflicted urban amnesia.

But the persecutors didn't destroy it all. Some of it is being rediscovered, and it is being rediscovered through the study of architecture, as Rossi postulates. Social science, or semiotics, or politics, cannot provide the answer.

Even the post-modernists — most of whose buildings will look silly in five years — helped. They showed that the old elements (columns, pediments and all the rest) could still be used, even if as a joke. Once used, questions inevitably arose about their appropriateness, and discussions of rules ensued. The Secret of Architecture is being discovered again.

## Notes

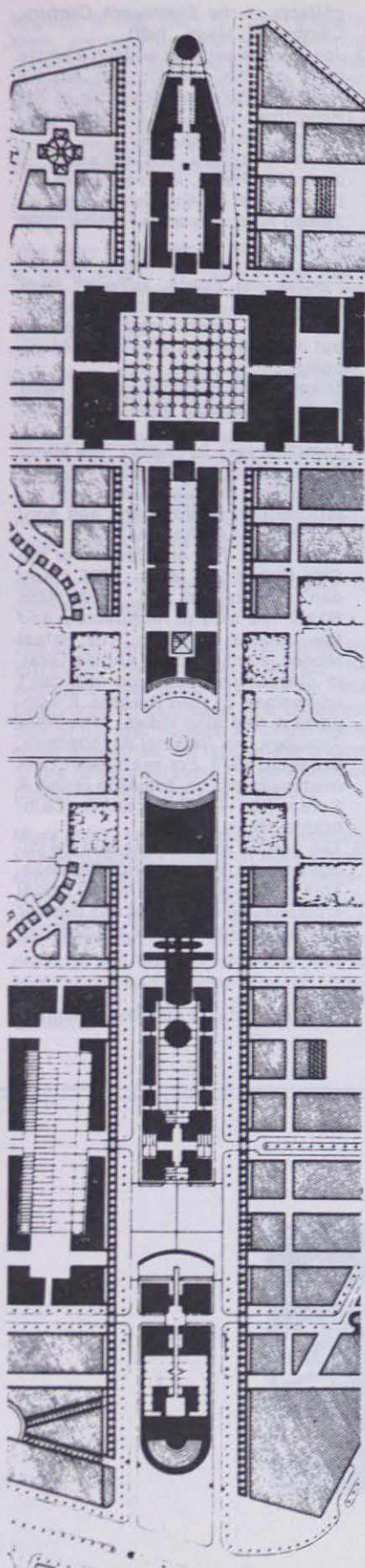
1. Solomon's Temple is described in the Bible in II Samuel xxiv; I Kings vi-vii; II Chronicles ii-iv; and in Ezekiel's vision, Ezekiel xl-xliii.
2. A somewhat equivocal and confused rendition can be found in Joseph Rykwert, *The First Moderns: The Ar-*

*chitects of the Eighteenth Century*, Cambridge, Mass., 1980.

3. Joseph Rykwert has written a whole book on this subject: *On Adam's House in Paradise: The Idea of the Primitive Hut in Architectural History*, New York, 1972.
4. Juan Battista Villalpando & Jeronimo Prado, *In Ezechielem Explanationes et Apparatus Urbis ac Templi Hierosolymitani*, Rome, 1596 & 1604.
5. See, for instance, Johann Bernard Fischer von Erlach, *Entwurf einer Historischen Architectur*, Leipzig, 1721 (No, I haven't read this either, but it nevertheless substantiates my point).
6. These readings are taken from Peter Collins, *Changing Ideals in Modern Architecture*, London, 1965; for the complete text in English, see Marc-Antoine Laugier, *An Essay on Architecture*, (translated and with an introduction by Wolfgang and Anni Herrmann), Los Angeles, 1977.
7. Aldo Rossi, *The Architecture of the City*, Cambridge, Mass., 1982. If you can't understand this, read "Aldo Rossi: The Idea of Architecture and the Modena Cemetery," by Rafael Moneo, translated by Angela Giral, in *Oppositions* 5. If you still can't understand it, read it again. It's important. See also Vidler, "The Third Typology," in *Rational Architecture*, Brussels, 1978. For examples of his memory in action, see Aldo Rossi, *A Scientific Autobiography*, Cambridge, Mass., 1982.
8. The danger, of course, is that the images are manipulated, not the ideas. This is especially likely with a lyrical architect like Rossi. See any number of student projects over the past five years.

Peter Lanken is a Montreal architect.





# ON PUBLIC BUILDINGS

by Georges Bulette

*"... located at the intersection of the Grand Boulevard and the main Avenue of the Quartier. Instead of blocking off these routes with a monolithic mass, the Mairie, as a symbol of centralized power, is fractured by the most public routes — its various functions being fragmented into each of the corners. The intersection itself is crowned by the assembly chamber which is lifted on a forest of columns. A precise dialectic of solid and void is established. The urban spatial context defines the building Type, which in turn produces a sense of 'place' — qualifying and defining the abstract order of the public space. Thus the production of architecture (and of Meaning) finds here its social and physical place."*

**T**his stirring proposal describes the municipal hall in Leon Krier's definitive work to date, the reconstruction of the La Villette quarter in Paris. A dense and whole piece of the city, the quarter is slashed by a main boulevard which in fact consists of two parallel avenues fifty metres apart. These in turn contain in their one kilometre length the quarter's main public buildings; vertebrae standing vulnerable and unshielded, whose jutting and broken masses jag the dusk perspectives of the boulevard.

The social and architectural implications of this project exemplify an approach and a vision of the city that is non-existent in actual built form. Like the Mairie, public buildings must be given over, virtually dispossessed and abandoned to the stares and the steps of the population. Monolithic, bastilian masses are toxic to the street and break the pattern of the city while bureaucratic labyrinths speak of

authoritarianism and control rather than authority and order.

The nature of our monuments must change. Conscious of their roles in the punctuation and generation of urban form and growth, the new monuments must be monuments to the collective and not the individual; monuments not to the institution but to its servitude.

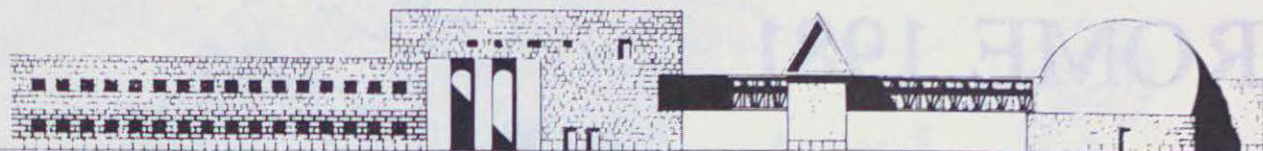
By breaking and rending it — and allowing the people it is to serve passage through, around and under it and permitting them to sit on its flanks — a building will become truly public, truly an everyday occurrence and experience, and truly a memory of verb and adjective.

Accessory to this social fragmentation of form is its liberation from the bondage of preconceived shape. Form follows social stance. A building becomes a composition of basic forms and architectural elements. Its richness is acquired through the orchestrated variety of parts in counterpoint to each other.

Aldo Rossi and Massimo Scolari's Scandicci City Hall project of 1968 is broken into parts then bridged back together. This gives rise to a pleasurable association of simple forms and architectonic elements which are uncluttered and clearly exposed but still part of the whole. Four massive columns demarcate the principal entrance. This place of entrance is a singular place, a part of the building but also a part of the city, the exterior. A covered void as a sheltering form, it doesn't seek to exclude the passerby. A trussed *passerelle* connects the main

A.D., March 1977

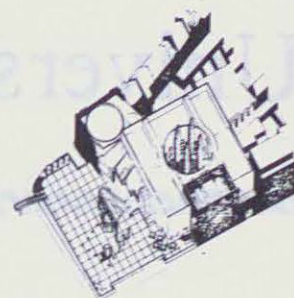
Layout: by the author



**Above:** Scandicci City Hall Project.

**Right:** Dusseldorf Art Museum Project;  
Stuttgart Museum;  
Project for Prager Platz, Berlin (IBA '84);  
Project for a school in St. Quentin.

**Opposite:** Grand Boulevard, project for the reconstruction of  
La Villette, Paris.



Lotus 15

masses of the building to its two disengaged components, the greater of the two being the domed assembly chamber, uncompromisingly strong and alone.

Architecture's social and public roles become more active in two of James Stirling and Partner's German museum projects. In Dusseldorf, Stirling detaches the building's main entrance to a pavilion that animates a square, acknowledges the axis of a street and is visually related to a courtyard in the heart of the building but which is nonetheless in the public domain by way of a pedestrian street. Stirling takes this one step further in Stuttgart. Here the program demanded a pedestrian link between two of the diagonal extremities of the site. This condition is met by taking the path into and around a circular sculpture court and then out the other side. Thus pedestrian access is accommodated in a way that brings him sensorially into the museum without actually having to set foot in it. The art of a public museum is thus accessible to its public on their own ground. The spatial and sequential experience of the city is greatly enriched.

Strangely surreal is Carlo Aymonino's project for the Prager Platz in Berlin (IBA '84). One of the many reminders of war, the Prager Platz was once a presentable part of the city. Now it is a scab, hardened, but not yet replaced by new skin. Its round shape receives five converging streets. Aymonino's scheme naturally builds up to these streets but instead of leaving the Platz itself open, he elects to put in an open-air theatre connected to the circumscribing buildings by bridge. The communicative nature of the performance is thus

acknowledged and even strengthened by its placement in the centre of a web of roads. Thus the cityscape serves as the ultimate backdrop.

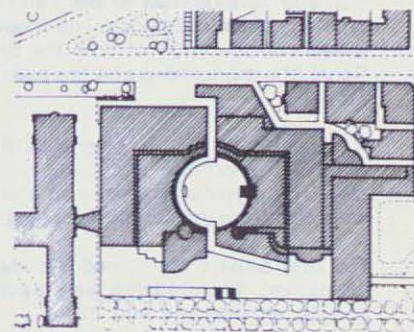
Leon Krier takes the disarticulation of a building to an extreme and logical end with his project of a school in St. Quentin in France. Here he has completely severed the school's functional components into single buildings and arranged them according to their relative importance in the form of a little city, each building analogous to a block and defining the school's streets and squares. The bridging element is gone and the building is not one.

Accumulating all these experiences it is possible to envision an imaginary city where daily occurrences are intertwined with the city's bones. A citizen in his everyday itinerary passes through a succession of public spaces of varying types and models. The urban tissue, viewed as a solid piece, is punctured, tunnelled through and chiseled by the connected voids of the public realm. This skeletal network of public spaces is also a network of public buildings. The square is a street and the building is both.

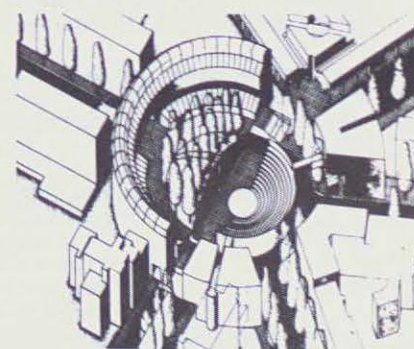
#### Notes

1. Leon Krier, "A City Within a City," *Architectural Design*, March 1977, p. 207.

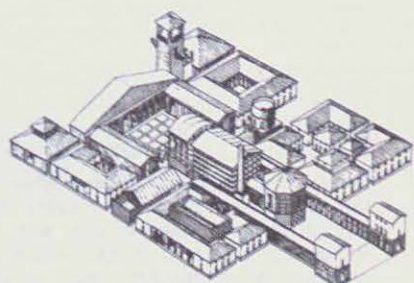
*Georges Bulette is a student at the School of Architecture of McGill University.*



Perspecta 16



Domus, December 1981



Architectural Review, January 1980

# ROME 1981

## Fourth Year Class

### University of Waterloo

The studio of the University of Waterloo in Rome was concerned with the elucidation and development of the notions of typology and morphology. The theory allowed consideration of both the exceptional (the monument) and the plain (the fabric).

It is the power of the general case that establishes normal expectations in a city. The atypical elements of the city were therefore the first objects of study.

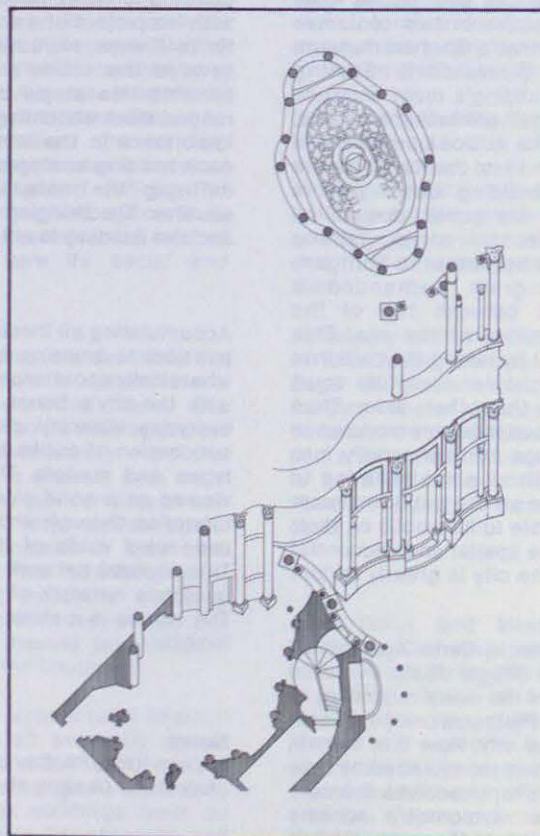
The first project concerned the idea of monument. The students were asked to choose an example and make a documentary drawing that explained the object in a manner appropriate to its nature and significance. A second drawing was to represent the object transformed.

The documentation drawing San Carlo alla Quattro Fontaine (fig. 1) describes the building through a formal decomposition.

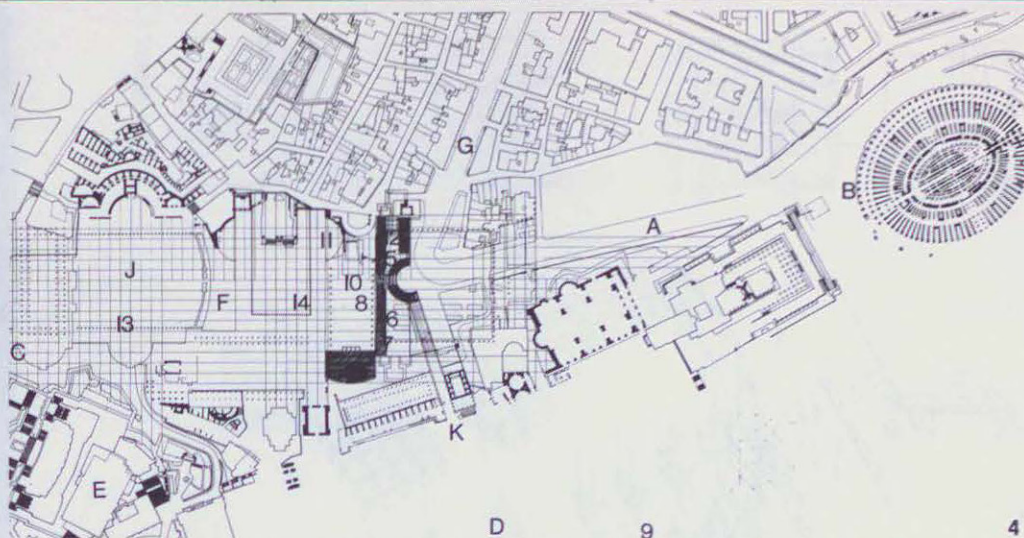
The transformation drawings of the Porticus Octavianus consists of plan (fig. 2) and axonometric (fig. 3). The classical portico was the entrance to a monumental precinct. It has undergone many transformations over the centuries. During the middle ages attempts were made to restore the monument to an image of its original condition. Architectural elements were placed incongruously within the composition, due to a lack of understanding of the classical language.

A new layer of elements extended the portico. The transformation was discussed as a critique of recent architectural practice, and of the studio itself.

The second and major project asked that the suggestiveness of the history of the city of Rome be used to deal with contemporary problems in its culture. The programme was for a museum to house



1



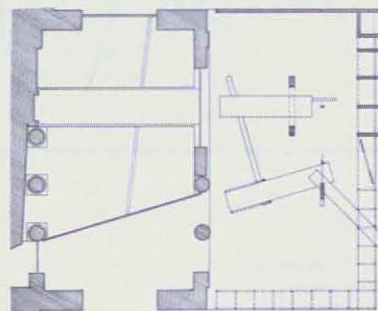
the Torlonia collection of classical statuary, which was to be sited within the boundaries of the new district that will be created by the destruction of the Via dei Fori Imperiali (fig. 4 A). A general proposal was required for the new archaeological zone, as well as a specific design display of the 600 antique sculptures.

The project had many implications; it is necessary to elucidate some of the background for the project. The project was begun in the eighteenth century by Giovanni Raimondo Torlonia. In general it contained works from the late Imperial age; with several Greek originals, a group of 107 busts of Emperors and a series of famous relief carvings. The sculpture has not been seen in public since 1975. The problem hypothesized their donation to, or expropriation by the Italian State.

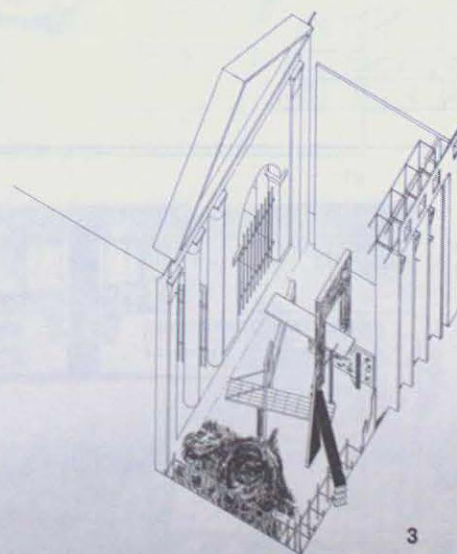
The site of the Via dei Fori Imperiali is located in the valley between the Palatine, Esquiline and Quirinal hills. In the 1st century B.C. and the 1st and 2nd centuries A.D. the Emperors constructed the magnificent public buildings. While their purpose was to accommodate expanding bulic life, their lavish construction and ornamentation was indicative of a propagandistic nature.

The present civic administration, the Communist party, has decided to excavate the entire area, joining the Palatine (fig. 4F) into a vast park in the centre of Rome.

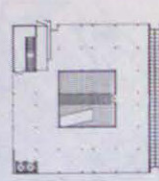
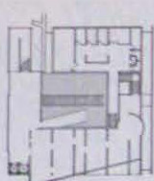
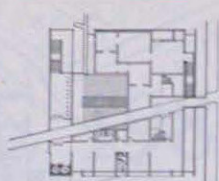
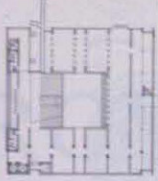
Architectural issues were conditioned by the attitudes of students towards political and programmatic issues. Furthermore, an attitude had to be assumed towards building in an archaeological zone, and towards the surrounding urban conditions.



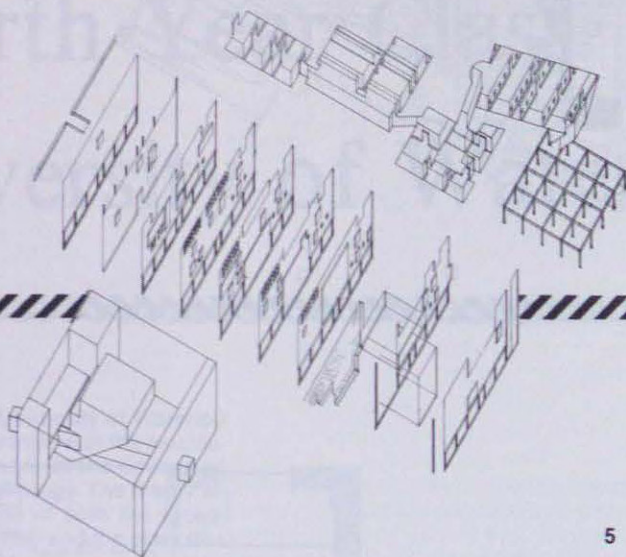
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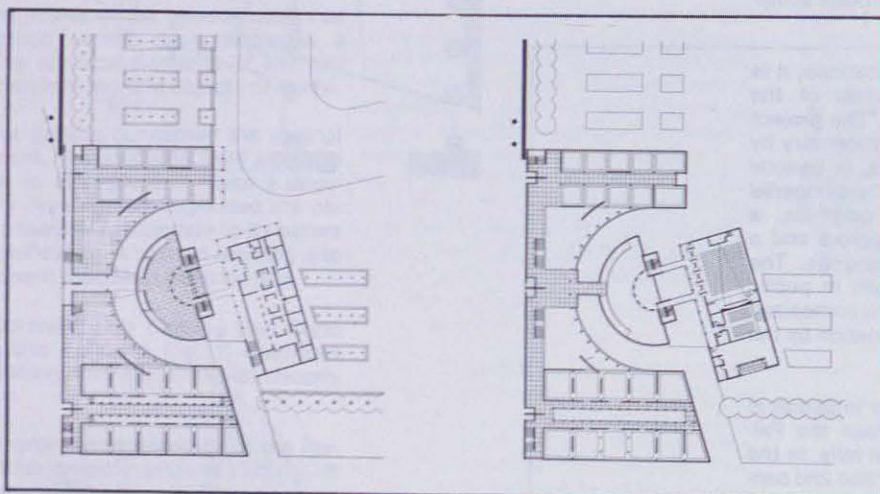
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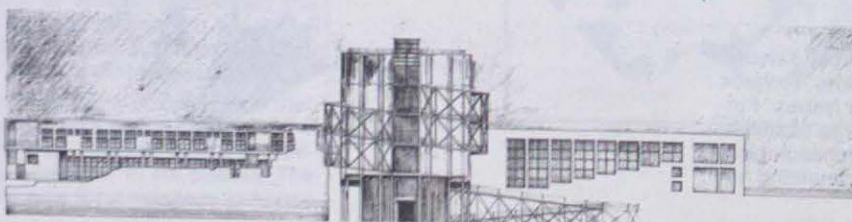
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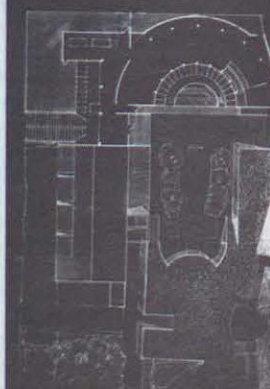
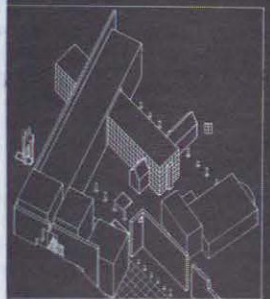
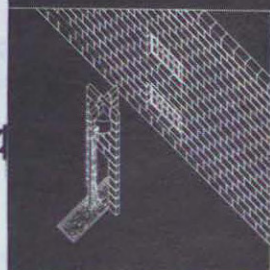
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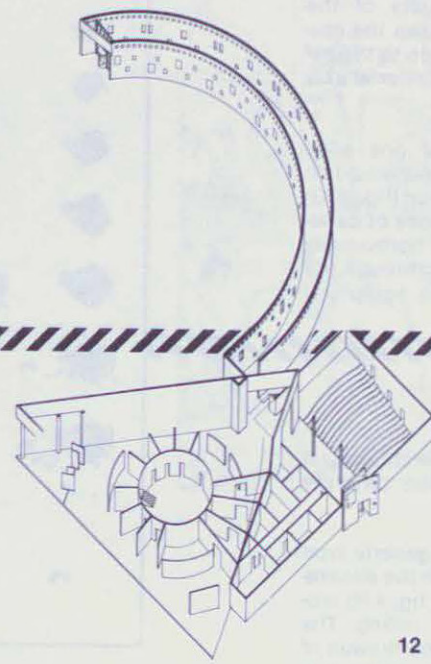
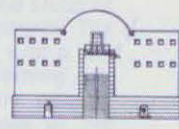
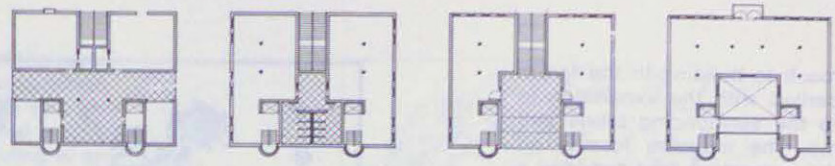
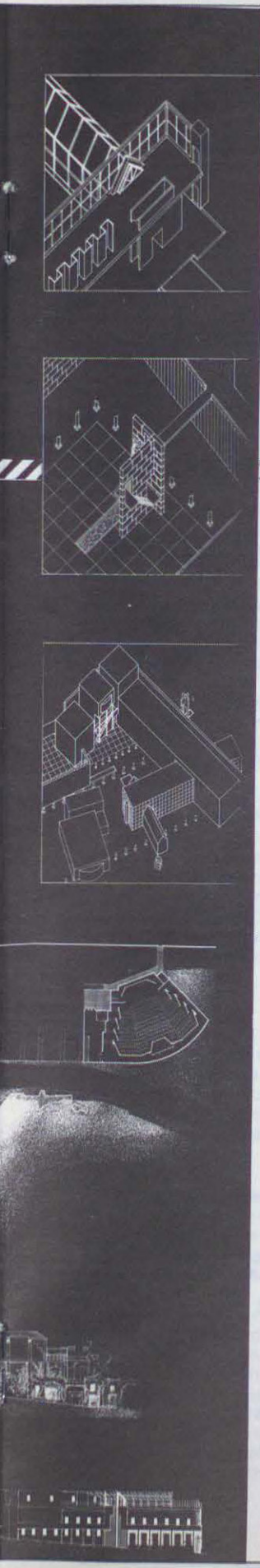


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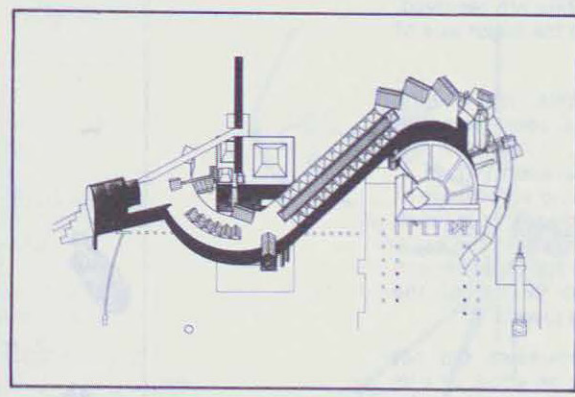


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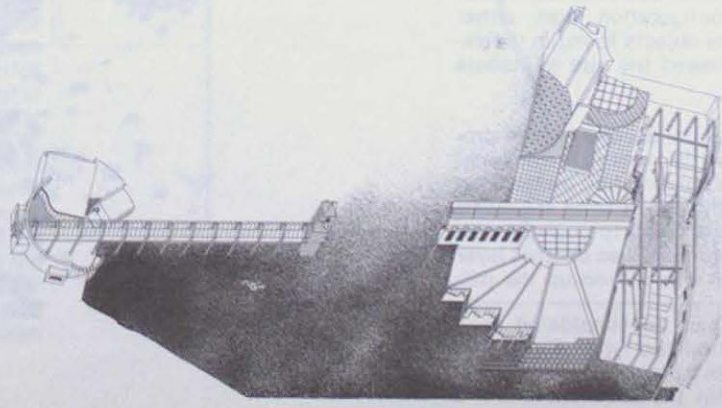




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One approach to building in the forum was concerned with the excavation in relation to the surrounding fabric and monuments. The museum formed an edge to the excavation, and provided a boundary to the discontinuity of the general fabric. In several cases the museum was seen as an entrance to the excavation, or a barrier to the imperial axis (figs. 5, 6, 7).

The first example, sited at one edge where the Via dei Fori Imperiali would be re-routed into the Via Cavour (fig. 4 G) was constructed as a sequence of parallel spaces that transformed horizontally and vertically as one moves through the building. The nature of the sculptural

programme informed the architectural programme, by grouping the different subjects.

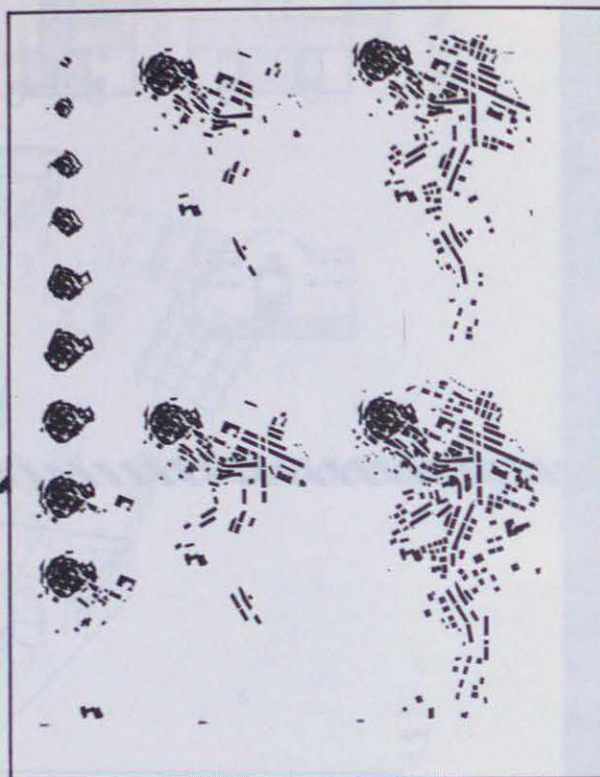
The second example of the generic type (fig. 6) formed an entrance to the excavation. The Markets of Trajan (fig. 4 H) provided the model for this building. The Markets were built behind the firewall of the Forum of Trajan (fig. 4 J). Within this development the regular geometry of the Forum, and the circumstantial development of the general fabric are resolved. The museum is sited on the major axis of the Imperial Forum.

The third example of this type is illustrated in elevations as seen from the level of the street (fig. 7) and from the lower level of the excavation (fig. 8). It consists of a wall-building at the edge of the excavation, and a tower that is located as a free-standing object in the excavation. The entrance to the museum and the archaeological park is through the wall and the base of the tower.

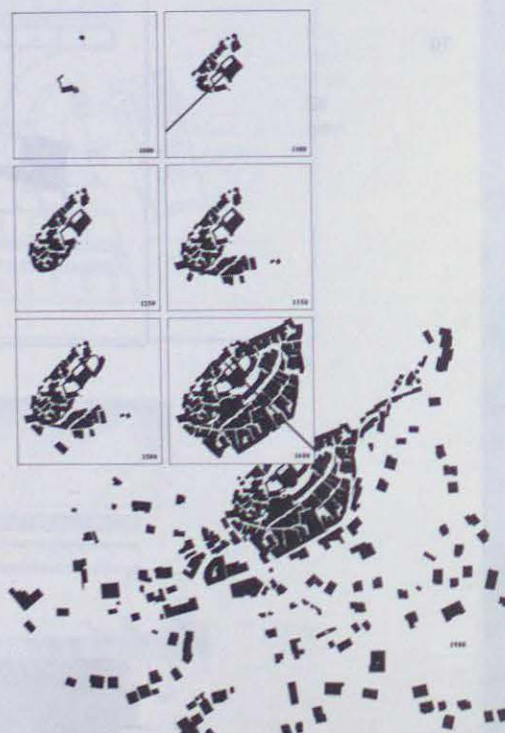
The second type of museum did not form a barrier, provide an edge, or provide an entrance from the street to the park. Generally, the museum of this type was perceived as an object within a landscape. Its configuration was either informed by the objects found in the excavation, or, viewed the site as 'tabula rasa'.

One example of the second type of proposal built upon the ruins of the Imperial palaces on the Palatine hill, overlooking the Sacra Via (fig. 9). Existing structural elements were allowed to co-exist with the new. The proposal was another layer of construction that picked up the pat-

A third type can be considered as a hybrid of the first two types. Figures 11 and 12 illustrate a proposal consisting of buildings within the excavation, and a

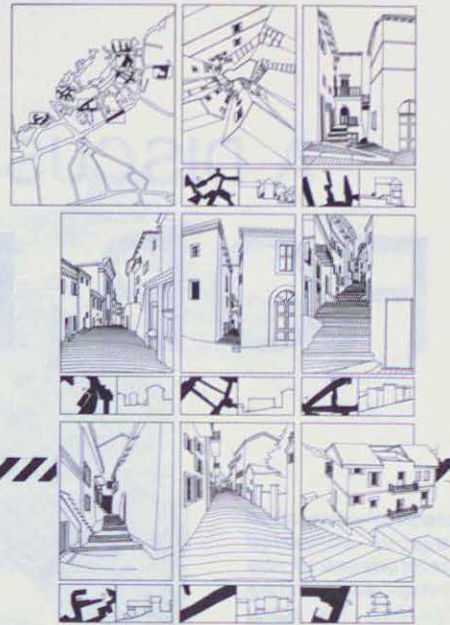


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pavillion located at the edge of the park. The excavation building is a composition of primary forms that intersect one another. Collisions are resolved at points of intersection. The edge building is an isolated object in the composition that is constructed of separate rules. It is the gate to the excavation.

The third project comprised the study of a town in the Roman campagna. The towns provided the students with a laboratory for the study of settlement patterns related to the specific natural, historical or social conditions in the place, as well as, allowing the abstraction of general principles relating to town planning.



17

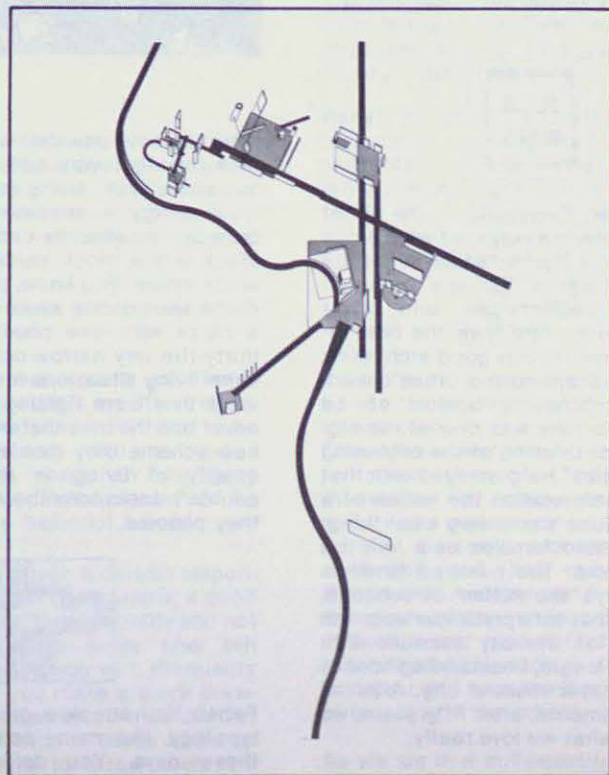
The existence of a crisis due either to the unsatisfactory conditions of the existing building fabric and infrastructure or the pressure to expand the population of the town allowed the students to produce proposals for the town's expansion related to their analysis. The generic characteristics of the place and its patterns of growth and change were brought to bear on the consideration of new proposals.

Illustrated here are examples of formal analysis. Figure-ground maps for the towns of Moricone (fig. 15) and Ciciliano (fig. 16) describe the morphology of patterns of growth. It was speculated that the re-orientation of the front of the palace in Ciciliano (fig. 16) caused the town to develop along a second axis, in a structure conforming to the contours of the site.

The town of Moricone (fig. 15) was speculated to have grown by accretion at points in the peripheral walls where gates were located. Piazzas within the mediaeval town are now remnants of the space in front of the town gates, and provided clues to morphological speculation.

Perspectives were drawn in an attempt to describe spatial types within the town of Ciciliano (fig. 17) the characteristics of each circumstance can be observed in relation to supposed patterns of growth.

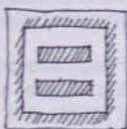
A third method of perceiving the town was derived from the inventory of buildings within the general town plan of Moricone (fig. 18) and a knowledge of the specific roles of each built object in the life of the town. The public spaces structure the town like an armature, upon which the objects and fabric of the town were constructed.



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# A DISCUSSION WITH ROB KRIER

The following are excerpts from a taped discussion held by a group, composed largely of third year students of the McGill University School of Architecture, on February 23, 1982. The guest was architect Rob Krier who was in Montreal in view of a lecture he was to give that evening as part of the Alcan Series. Our many thanks to architect Peter Rose who made the session possible, to Professor Emeritus John Bland for his role in coordinating the weekly discussions and, of course, to Rob Krier for his kind participation.



**R**ob Krier: Everybody in the street has a precise notion of what a city is but not the technicians, not the architect. It was a dramatic evolution begun by LeCorbusier and other pioneers which were then the best architects, tremendously good architects; but they mechanized the urban dimension. LeCorbusier's notion of *La machine à habiter* was one of the biggest faults of thinking of the beginning of the Twenties. He destroyed with that machine interpretation the notion of a house. A house was a very clear thing: one family, two families or a little bit more but never five hundred families. That destroys the notion of a house. Parallel to that interpretation went the destruction of the city because with these huge, single, freestanding houses you could never make a city. After all these experiments, after fifty years, we rediscover what we love really.

**Panel:** Is it a case of reaction and, in LeCorbusier's case, was it an overreaction? Was he endeavouring to find a solution which he felt was needed at the time?



**Krier:** I would say that way of thinking was the right way and it was a very moralistic way, trying to find with all their energy a solution for the overcrowded nineteenth century city: the block with a block inside with another block inside. You know, the schemes of Berlin and London where you don't have a block with one courtyard but with thirty-five very narrow ones and very insane living situations inside. That was what they were fighting against. They never had the idea that with this kind of new scheme they took away the urban quality of living in the city. They couldn't anticipate the result of what they planned.



**Panel:** You speak a great deal about typology, like many people in Europe these days. You define typologies, which we can recognize to a certain degree, in European cities. Is there the possibility of looking at the North American city and deriving the same typologies that you do in Europe or

distinct typologies that we can in turn use as a tool for analyzing our cities and designing in our cities? Does the model translate to North America?

**Krier:** After my understanding of the city there is only one model for a city. There are not twelve. There is only one and I can ask you where are the models? In human scale, in the scale of your legs because I think as long as we have bodies with *des membres qui fonctionnent*... There is distance, there is a scale which is extremely important in a city. When you can't walk, you have no city. When you don't have the interaction and the communication on a very humane level, then you have not the city. You have something remembering it, perhaps, when you go pro-car. Montreal is very good pro-car. So you have all these impressions coming in at the speed of fifty kilometres. But when you don't have the possibility to look at the faces of the people running around or meeting somebody or saying hello and so on, then you have no city. These kinds of models are everywhere in the world, even in the States — but they are very seldom. You have too many cars. In my understanding of America, you have a situation of a civilization with all this technology behind it in a state of a beginning of a development. We are the end. Even beyond that. Our new cities are completely American cities. We have the chance that something is left, mostly in the middle. Not in Germany but somewhere like in Italy or in Austria. The city of Vienna is still there, eighty percent, and I think that the modern American city will make a similar evolution in another way, where certainly you will have some nice cities in two hundred or three hundred years.

**Panel:** So you see it as a comparable beginning?

**Krier:** Yes, I see it similar to the Greek city foundations around the Mediterranean which were grids, extremely

abstract. But I hope that the scale will work on this kind of cities, but with skyscrapers and these abstract buildings you will never build a city anywhere in the world.

**Panel:** In Europe the war shattered your cities so you could rebuild what was there in a present-day fashion while reassembling the types of the city which are already established. I don't think we have any immediate prospects of war damage in North America.

**Krier:** Your damage is continuous.



**Krier:** You know the discipline of a medieval town, to build up the very few square metres inside the city wall. The city wall forced them to build with an extreme discipline inside and the moment that the wall fell down, this discipline was lost. The medieval towns, inside the walls, are the best prototypes of how to build with a certain discipline in a very dense way. You don't need skyscrapers. You can have with three storey buildings tremendously dense situations.



**Krier:** It's a pity we don't have anymore the quality of *artisanat*.

**Panel:** Whose fault do you see that to be?

**Krier:** Whose fault? It's this crazy industrialization. They cut the wood, put it in a machine, it comes out something like chips, then they glue it together to

make the kind of drawers we have. Isn't that crazy? And after five years, twenty years you throw it out. That's not progress. It's an easy way of money-making and a very immoral way of money-making.

**Panel:** Do you think you should try to stop that?

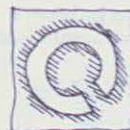
**Krier:** I could never. I could not. I know only that things I did in my life as an architect, in some years, will have to be repaired completely. Totally. And I hope, in some years, an intelligent client will throw out the plastic and he will build some beautiful wooden windows.

We have to build with a certain responsibility for the next generations; a good aesthetic and craftsman quality and not something to throw away after ten years. It's the same way with the quality of drawings. If you make a quick drawing you throw it away afterwards. Our offices have plenty of these kinds of things. You have to throw them immediately away. It's another point if you make a drawing as a watercolour on good paper and you take a month drawing it. Slowly and precisely. That you keep.

**Panel:** Now that industrialization has a foothold — is established — in what sort of way are you going to give birth to a craftsmanship?

**Krier:** No, I would say that the problem is not industrialization because in a factory you have people working in the same way on the same problem of building a window or a chair. It's really the scale of how many you produce. But you can have a tremendous quality in industrial products. The big factory is not the problem. Neither is the term *industrialization*. That is not the problem. The problem is the quality you bring out from the *fabrique*. They produce in the cheapest way to take out the most money. That is the thing.

**Panel:** You're an educator. We're interested in knowing what architecture students should go through in school. What sort of program do you believe in?



**Krier:** I'm in a very bad situation. We have a tremendous amount of students in one class. In one year: four hundred fifty. After a year about one hundred fifty come through. The rest sort themselves out or are expelled for bad results. It's quite a normal process. It's not a dramatic process. It looks dramatic but half go away by themselves. Another part began by studying chemistry, philosophy, and architecture and tried to find their way. I teach the introduction to design in the first year so I have the biggest problem of teaching in my school.

As we are in a still-beautiful city, Vienna, I have a certain amount of exercises and I send the students to the city to look for the best window, the best door, for the best entrance room, for the best staircase. My exercises are about

elements in architecture and how you can put them together. Twice a year we have a designing exercise where they learn how to connect several rooms together in a plan and how to organize a facade. I force my students to make clear geometrical interpretations of space, and this looking at the city and learning from the city is the best book of learning of architecture and urban situations. I'm glad to be in Vienna. I would perhaps be not so glad to be somewhere else. In Stuttgart I couldn't do the same thing.

**Panel:** Are these students totally taking courses or are they working in architectural offices?

**Krier:** They are mostly working. We have eight years as the normal rate of study. Sixteen semesters.

**Panel:** So it is in the office where you learn to be a professional. You don't have to teach professionalism in school. You teach to see and to observe and to be an architect.

**Krier:** You are absolutely not able when you come out of the school to make a construction drawing. You are absolutely not able. They have to learn it in the offices.

**Panel:** What about drawing?

**Krier:** When you see a good thing with the intention of making it visible you go on and draw it in an extremely naturalistic way; a right way and not in a superficial way. If you solve the problem you have a good drawing. There are situations where somebody has a left hand in drawing and I understand it very well when somebody found a very good thing and he couldn't draw it very well. Then I would say the eye is important and the medium comes behind.



**Panel:** What about the types of drawings you make when you think and design and the types of drawings you use for the presentation of your ideas?

**Krier:** That is not so important, the presentation of an idea. It's good for publication. I try to make drawings in a very simple way so that everybody can understand it. Not only architects but mostly people who are not professionals. I never make a drawing for an architect. I am against abstract drawings. Drawings as axonometrics. Things which are not at the eye in reality. I like the architectural drawing as a way of artistic expression. Not as an abstract instrument for technicians or for some illustration magazine.



**Panel:** You suggest competitions as a way of solving the problem of everybody trying to get the most out of their architectural contacts.

**Krier:** The competition is a chance. It is not a solution for better architecture. It's a chance. If the opportunity is good,



if the jury is good, you can find good architecture. It's a chance for young people to get a job.

**Krier:** I finished my studies in '64. I had the idea that in some years, perhaps five, I would be able to build up an office. It was my idea, my primitive and naive idea, and I started entering competitions one after the other and I lost at forty competitions before I got one prize. But I had a good time training.

**Panel:** These were competitions you were doing on your own while you were working with another architect?

**Krier:** Only at home in the evening.

**Panel:** You have worked with Frei Otto and with O.M. Ungers. Did you gain a great deal from both of them?

**Krier:** Oh, yes. Ungers in those times, before his coming to America, was a very hard personality, a very difficult one, and I suffered very much under his regime. So after nine months I went away and went to Frei Otto because I was curious about his constructions.



**Krier:** What I admire most are the Romans. They were, in my interpretation, perhaps not as good as the Greek architects, not so good as the Greek

sculptors but they were fantastic urban designers. They found the Greek cities as open layouts. The Greek agora was prototypically freestanding. The temples were freestanding. There was no urban situation putting them together. The Romans began putting these elements into an urban fabric. The forum was a Roman invention; so was the basilica as two layers of arcade types with a roof between and with an ending and entrance; and the arcade street and how they bend it, in Palmira for example — arcade streets in different typological problems, how they come together, the joint; the plan of Pompeii, the forum and all the different things behind in all the geometrical shapes you can imagine for different functions. And all that just cut out of one piece of urban texture; the quality of urban spaces in the composition of the Trajan Forum and the very accurate compositions of how to enter and to find the different sequences of different types of spaces glued one to the other. You had nowhere in the Roman city an axis, something going through a city like the Baroque cities, something cut through just like Haussman. That's a very modern, dangerous thing. Everything was nicely put one to the other in a very labyrinthic way.



**Panel:** What about your brother Leon? Do you have any debates? Are there issues you don't agree on?

**Krier:** Dramatic, tragic debates. I would have been glad to work with him but that doesn't work. We tried several times to make plans together. He refuses to build and this is something which I really cannot understand very well because if you have an idea you have to push it and put it through to reality, to test if the theory works in practice or not. I offered him, several times, projects to do, but he refuses. He will never do a drawing with some numbers. He was never involved in real constructive problems and he refuses building as such, he personally doesn't want to do the job. I have a certain central relationship to the building. Something just like an erotic approach. I need it. If you have ever built something and the people inside are glad, it is a tremendous event. Even if the building is badly realized and not an idea of perfection. In the apartment building I finished last year in Berlin no one has furniture or something I would appreciate. All the apartments are totally bankrupt inside. They put in the worst *tapisserie* and the worst curtains but they are glad inside and we had a tremendous feast in the courtyard. That's quite nice.

**Panel:** All your schemes are for holes in an existing fabric. How do you face the reality of cases where you have to build on untouched land?

**Krier:** It would be fantastic to build on untouched land. What a dream!

**Panel:** What route would you take? Would you try and set the same restrictions to obtain the same results?

**Krier:** On untouched land you first have to make a good plan. Then choose good architects.

**Panel:** In the plan would it be in the tradition of what we have or...

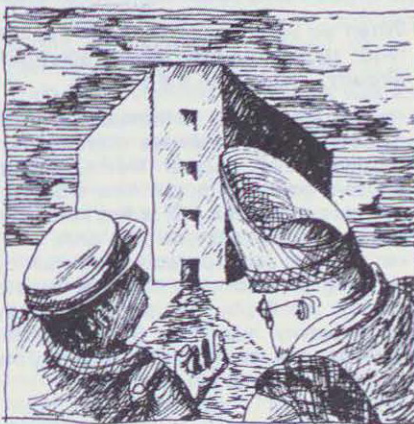
**Krier:** Well, it is very difficult. Today it is very fashionable to make schemes for irregular city environments, you know. Things very picturesque. I have a problem in making something artificially irregular on plan. I find it a very curious thing. I would prefer to be disciplined on a geometrical level and be rich on architectural detail and scale and how you mix the composition from one to another. Therefore I mentioned the Roman situations. You never were in Rome? Did you see the big plaster model the ancient city in a museum? It is tremendous, the variety and tremendous freedom.



**Panel:** But isn't that a product of time? How do you capsule time into a single motion? The Roman city is a product of three to four hundred years of acquired building and each new emperor inputs his own aspirations of how he's going to make Imperial Rome greater, his city. There's always a number of monumental buildings built and there's a rearrangement of the geometry of the streets and things like that, so all these things are acquired but they are always subservient to what is already there. But can you really make a wonderful city in one move? Can one designer or design do it?

**Krier:** If it would be possible, as planners, to understandably define for everybody the house for living, the house for community, for school, for church. All that. To make the difference between urban fabric and a place for a monument. I don't believe it because a church today is nothing. Because who makes it a monument? The people. Just like in the thirteenth century. A cathedral. That was a church. That was a temple. With a significance. But today? Who takes that as a monument? Who believes in the morality of a state government so deeply that we could really make out of that town hall a town

hall. Just like the Greeks did it. They had the prototype of the town hall image through one thousand years. All of them the same. A temple: one thousand years the same prototype, with the same importance, the same significance. Everything is moving today. The church can be a station. The station can be a church. A tent can be everything. There's confusion today. That is our problem. Therefore we cannot build cities because we don't know what to do.



**Panel:** You have an admiration for the Roman city which is really small.

**Krier:** I never saw a Roman city. I have an image in mind.

**Panel:** But it's small compared to a Baroque city.

**Krier:** Very small.

**Panel:** What do you think of the Baroque cities?

**Krier:** That is the beginning of the degeneration because, for example, the layout of Versailles is something abstract or the layout of Baroque towns and *quartiers*.

**Panel:** When Pope Sixtus decided to join the great monuments so the pilgrims would be able to move freely...

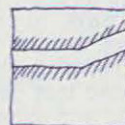
**Krier:** That was nice because there was enough texture around to keep it strong together. But Ledoux's plan for *les salines de Chaux* was the beginning of the breaking down of the city with a good plan and with beautiful architecture. One of the most beautiful in Europe. If ever you are in the country of Besançon you have to go to Arc-et-Senans and have a big architectural shock. But this idealistic city was the beginning of the prototype of the modern city which falls apart.

**Panel:** Do you think you can cross cultures and times?

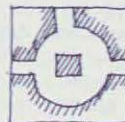
**Krier:** Naturally. History is our baggage from which we can learn. The city is not something to be invented in the twentieth century. Cities have been invented since five thousand to six thousand years ago.

**Panel:** Cities develop in different ways depending in which part of the world you're in.

**Krier:** Yes, but there is only one really makeable model for the city. Others function with cars or with metros but they don't function really. Paris is not yet a city, only the city centre.



**Krier:** I think it is important that people which have nothing to do with building understand how it is done because otherwise the building technology loses its comprehension.



**Panel:** How do you feel about the work of Aldo Rossi?

**Krier:** I like him very much. I asked my brother in the only competition I won to build a house. I had the impression it was important for him. He said no. Then I asked Aldo Rossi and he accepted. We are just planning. He was my first promoter. He asked me for the Triennale in Milan in '73. That was for me a big hope because for years before I was without any success. His architecture is a little bit straight. It has, when you see it in reality, a poetic quality. A very good poetic quality. They are very roughly constructed. No big detailing whatsoever.

**Panel:** Do you see any parallels between some of the things that are happening in the United States? For example, Robert Venturi who proposes looking at Las Vegas and drawing upon icons of North American culture and so on?

**Krier:** I have absolutely no understanding of this because Las Vegas is for me the death of everything. It is my problem because I'm not familiar with this kind of iconography. A gas station is for me nothing to look at. It is something you need but not something to glorify. This kind of transforming the background... is extremely bad.



# Notes on the Synth

## I An Environmental Conflict

I am looking out of the window now... I see trees, and I think of the one that provided shade in my backyard. It was young and robust. A red maple getting ready to change colors and shed its leaves. Through its branches the winter light would have shone into my bedroom. It was, like the other trees in the city, an extraordinary environmental system. The kind that designers have been conceiving with some success and lots of failures for thousands of years. The tree is not there anymore. My next door neighbor cut it down yesterday. I have no doubt that he meant well. He had a great smile when he told me about it, although I did not think it was the 'smile of reason'. His action seems to have been justified. What more than the ancestral building drive which will soon be materialized in a brand new addition to his recently renovated basement; the archetypal match-box with diagonal siding *à la Californien*. He had all the legal rights of wrong/doing: the red maple was just a few inches within his property. Mind you, he is a nice fellow. We greet each other every day.

I look out of the window again and I see more trees. I think... no leaves to rake this fall. I realize that my neighbor and I do not share the same understandings about the ways in which we could effect changes in the environment. Our immediate environment, that is. The one that includes the alleys, the backyards, the rooms, the porches, the entrances, the street, the neighborhood playground, the park, the corner grocery store... the city in which we live. I also realize that the conflict just presented — a true story — could have had a happier ending had my neighbor been aware of some simple design concepts like the following.

## II A Design Concept

"Buildings must always be built of those parts of the land which are in the worst condition, not the best."

This idea is indeed very simple. But it is the exact opposite of what usually happens: and it takes enormous will power to follow it through.

What usually happens when someone thinks of building on a piece of land? He looks for the best site — where the grass is most beautiful, the trees most healthy, the slope of the land most even, the view most lovely, the soil most fertile — and that is just where he decides

to put his house. The same thing happens whether the piece of land is large or small... It is only human nature; and, for a person who lacks a total view of the ecology of the land, it seems the most obvious and sensible thing to do.

When we build on the best parts of the land, those beauties which are there already... get lost in the shuffle.

People always say to themselves, well, of course, we can always start another garden, build another trellis, put in another gravel path, put new crocuses in the lawn... But it just is not so. These simple things take years to grow — it isn't all that easy to create them, just by wanting to. And every time we disturb one of these precious details, it may take twenty years, a lifetime even, before some comparable details grow again from our small daily acts.

The idea of site repair is just a beginning. It deals with the problem of how to minimize damage. But the most talented of traditional builders have always been able to use built form, not only to avoid damage, but also to improve the natural landscape. This attitude is so profoundly different from our current view of buildings, that concepts which will help us decide how to place buildings to improve the landscape don't even exist yet.

Therefore: On no account place buildings in the places which are most beautiful. In fact, do the opposite. Consider the site and its buildings as a single living ecosystem. Leave those areas that are the most precious, beautiful, comfortable, and healthy as they are, and build new structures in those parts of the site which are least pleasant now.<sup>1</sup>

## III Patterns

The Environmental conflict illustrated in the story of the tree and its possible solution offered by the design idea of "Site Repair" represent, in a nutshell, the concept of a "pattern". In this light, it is possible to equate the idea of pattern with a rule; a three-part rule which states an environmental conflict, establishes the range of contexts where the conflict occurs, and gives instructions for its solution. Moreover, a design or planning pattern is a whole entity that forms part of a larger network of instructions known as *A Pattern Language*. Christopher Alexander conceived this design and planning language in the early 1960s. He and others have been developing, refining,

and implementing it ever since<sup>2</sup>.

The language, published in a book with the same title, includes 253 patterns like "Site Repair". All of them are identical in structure and all are hierarchically organized and related according to scale and context, thus forming, three different groups. The first one consists of "Global" patterns (Patterns 1 to 94) which serve as general frames of reference for the development of towns and cities. The second group is composed of the patterns which define buildings and the spaces between buildings (Patterns 95 to 204). The pattern "Site Repair" belongs to this category. Finally, the third group includes all the "construction" patterns which provide instructions on how to build in detail (Patterns 205 to 253). Because of their general nature, only the patterns in the first group cannot be built or designed<sup>3</sup>.

"A Pattern Language" is a design vehicle now available to all of those who are involved in environmental changes and interventions, whether specialist or non-specialist individuals, teams or user groups. For these designers the language provides an excellent framework for design inquiries. It is also a diagnostic tool that permits a selective, but comprehensive, apprehension and development of understandings about how environmental change can be effected.

## IV Design and Epistemology

Architecture can be considered as the formal externalization of understandings, hence the notion of a 'conceptual framework' behind every building and every building act. Conversely, "the process of design is essentially the process of gaining understanding", of gaining knowledge<sup>4</sup>. In this light design inquiries, attitudes and theories become relevant themes for epistemological study<sup>5</sup>.

The study of architectural epistemology provides a clear picture of the evolution of past and present design thought. Moreover, it allows to make an incisive inquiry into the architectural situation of a given epoch; one that is free from

# esis of Christopher Alexander

the straitjacket of stylistic labelling and pigeon-holing — as it is the case in most of today's architectural discussions. It should provide also some answers as to the possible avenues and prospects for the design activity. From this perspective, the study of Alexander's work clarifies what his contribution has been to the development of current architectural thought and practice. It may, finally provide some insights about the relevance of his work in actual and historical terms.

## V Reason and Experience

Contemporary design thought and practice have been fundamentally influenced by two epistemologies: Rationalism and Empiricism<sup>6</sup>. Both developed in the seventeenth and eighteenth centuries within the emerging context of experimental science as an attempt to explain how scientific knowledge was attained. Empiricism and Rationalism are of the same coin; one opposite to the other, but both part of the same whole. Generally speaking the empiricist view maintains that the only legitimate starting point for knowledge is the human sensory system. Thus, human experience (the experiment) happens first, and knowledge is distilled, **induced** from it. The rationalist view, on the other hand, emphasizes the power of reason (*Ratio* in Latin) for the development of knowledge. The rationalist scientist maintains that it is possible,

by pure unaided reason, first, to conceive and comprehend certain general features of the universe, and then, from these conceptions, to **deduce** mathematically a description of what the actual empirical world is, prior to any experiment.

Both of these epistemologies become an integral support for the development of Christopher Alexander's ideas and theories of design, a fact that sets him apart from other contemporary approaches which seem to rely on only one of the two epistemologies<sup>7</sup>.

## VI Alexander's Synthesis

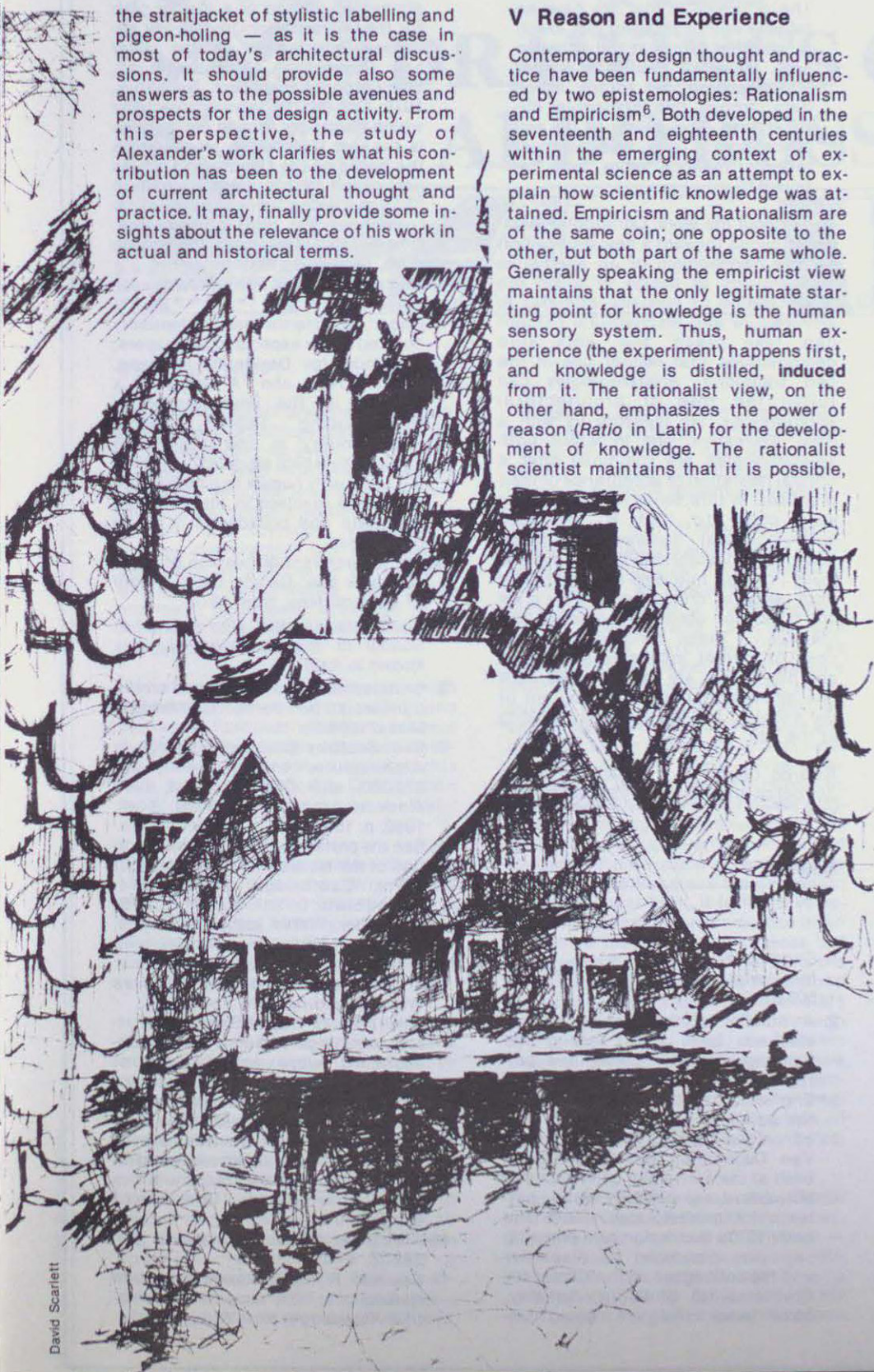
Alexander's initial ideas of **patterns** fell specifically within the boundaries of Rationalism. This becomes evident when studying the *Notes on the Synthesis of Form* which encompasses the outcome of his research into the processes that lead to the creation of form<sup>8</sup>. The *Notes* were published in 1964, and in them Alexander presents some very useful concepts such as the notion of 'fit' between form and context, and an excellent discussion of how design processes take place both in the unself-conscious and the self-conscious cultures. For this task he utilized a very systematic approach based, among other things, on graph and set theories. This, of course, brought him forward as one of the pioneers of Design Methods and as one of the leading exponents of rationalist thought in design<sup>9</sup>. He has, however, disavowed these labels rejecting at the same time the idea of design methods<sup>10</sup>. Of all the ideas enunciated in the book he has kept the seminal concept of 'diagrams' which is derived from d'Arcy Thompson's remark that a 'form' is a diagram of forces<sup>11</sup>. He points out in a later preface to the paperback edition of the *Notes*:

Today, almost ten years after I wrote this book, one idea stands out clearly for me as the most important in the book: **the idea of diagrams**.

Those diagrams, which, in my more recent work, I have been calling **patterns**, are the key to the process of creating form<sup>12</sup>.

He adds later on:

At the time I wrote this book, I was very much concerned with the formal definition of 'independence', and the idea of using a mathematical method to discover systems of forces which are in-





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dependent. But once when the book was written, I discovered that it is quite necessary to use such a complicated and formal way of getting at the independent diagrams<sup>13</sup>.

Continuing his critical discussion of the *Notes*, Alexander then announces, what I consider, a shift to an empiricist attitude; and he finally concludes:

If you understand the need to create independent diagrams, which resolve, or solve, systems of interacting human forces, you will find that you can create, and develop, these diagrams piecemeal, one at a time, in the most natural way, **out of your experience (emphasis mine)** of building and design, simply by thinking about the forces which occur there and the conflicts between these forces<sup>14</sup>.

His work from here on will be impregnated by the marriage of two different perspectives. Rationalism will provide the conceptual framework for the development of the pattern language, and its related theory. Empiricism will allow the experiential approach for the development of each pattern, each element of the larger system. It is precisely in *The Timeless Way of Building*<sup>15</sup>, the book that describes the philosophy behind the pattern language, that Alexander stresses the empirical qualities of the patterns:

...a pattern is alive if its individual statements are empirically true... A pattern only works, fully, when it deals with all the forces that are acutely present in the situation...

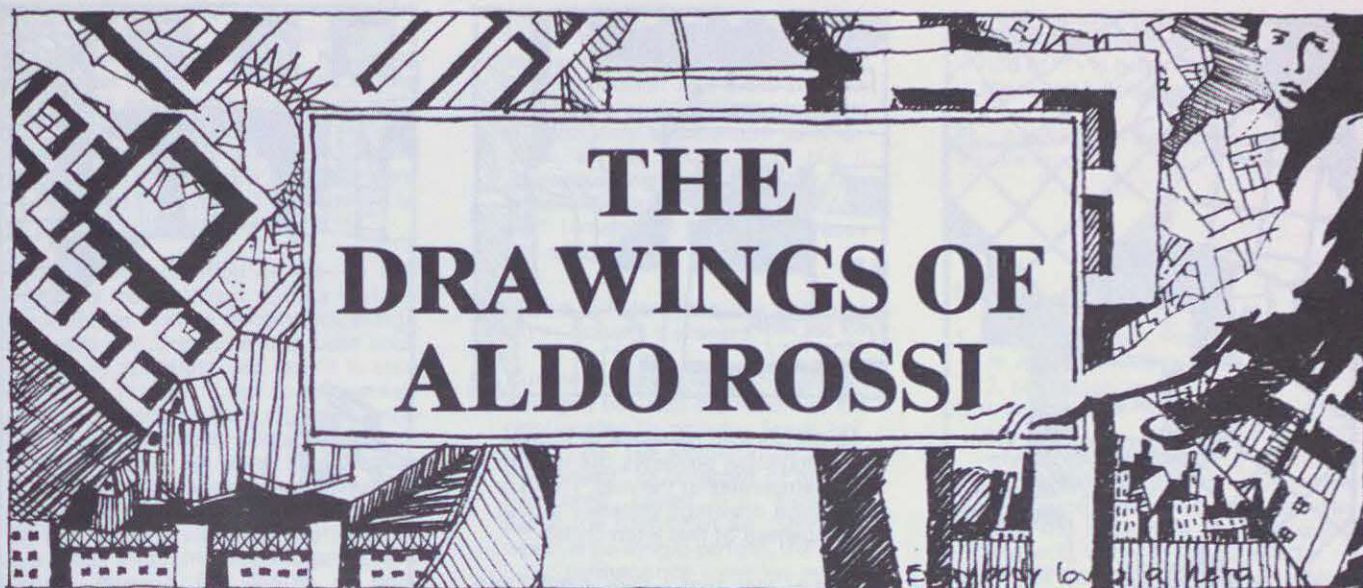
The difficulty is that we have no reliable way of knowing just exactly what the forces in the situation are... What we need is a way of understanding the forces which cuts through this intellectual difficulty and goes closer to the empirical core... To do this, we must rely on feelings more than intellect<sup>16</sup>.

Throughout his work, Christopher Alexander brings forward a new proposition for the development of an alternative epistemology of design in which the reconciliation of opposite attitudes in architecture and architectural thought can take place. His work also demonstrates that neither one of the two traditional epistemologies can fulfill the role of architectural epistemology. He presents us with a third alternative, one in which both epistemologies are combined after a critical refutation or acceptance of their premises. In this sense Alexander gets very close to Karl R. Popper's epistemological framework in which knowledge (design) results from a will to learn from our mistakes and ultimately from taking a "critical" stance *vis à vis* one's own, or others' hypotheses and theories<sup>17</sup>. These conditions, in the case of current architectural practice and discussion, are badly needed, as it can be corroborated by looking out of the window... beyond the trees... looking at the city.

Ricardo Castro is a professor at the School of Architecture at McGill University.

## Notes

1. Christopher Alexander et al., *A Pattern Language*, New York, 1977, pp. 508-51.
2. A number of institutions and individuals have been testing the language and developing new patterns. The U.S. Army Corps of Engineers has developed guides for the design of childcare centers based on the pattern language. Harry Van Oudenallen and Gary Moore, both at the University of Wisconsin-Milwaukee, are currently testing patterns for marketplaces. Since the early 1970s the design and planning principles developed by Alexander and his colleagues at the Center for Environmental Structure, Berkeley, have been and are being implemented as part of a master plan for the University of Oregon. For additional information on the latter see: Christopher Alexander et al., *The Oregon Experiment*, New York, 1975. One of the latest projects in which Alexander applied his theories is the Linz Cafe which was built on the banks of the Danube in Linz, as part of the 1980 summer exposition "Forum Design". For additional information on this project see: Christopher Alexander, *The Linz Cafe*, New York, 1981.
3. Alexander et al., *A Pattern...*, pp. xviii-xxxiv.
4. Robert S. Harris has extensively covered these aspects in two papers: "A Model for Designers", Eugene, Oregon, 1975, and "A Design is a Spin-off in the Development of Understanding", Eugene, Oregon, 1975.
5. Epistemology is the branch of philosophy which studies things having to do with human knowledge, the processes involved in knowing and the limits and boundaries of these processes.
6. For an excellent discussion of these concepts see: George Gale, *Theory of Science*, New York, 1979.
7. For instance the Neo-rationalist School or the Tendenza as it is known in Italy.
8. Christopher Alexander, *Notes on the Synthesis of Form*, Cambridge, Mass. 1964.
9. See: Geoffrey Broadbent, *Design in Architecture*, London, 1973, pp. 272-280, and Charles Jenks, *Late Modern Architecture*, New York, 1980, p. 184.
10. See the preface to the paperback edition of the *Notes on the Synthesis of Form*, Cambridge, Mass. 1974.
11. Broadbent, p. 275.
12. Alexander, *Notes* (paperback), p. i.
13. Alexander, *Notes* (paperback), p. i.
14. Alexander, *Notes* (paperback), p. ii.
15. Christopher Alexander, *The Timeless Way of Building*, New York, 1979.
16. Alexander, *The Timeless...*, pp. 282-86.
17. See Karl R. Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge*, New York, 1968.



by John Trahey

Interest in Rossi drawings, as Eisenman says, is perhaps greater than the understanding of them. To students in America, "who have neither read his works nor seen the few buildings, have found his drawings a fascinating source of form and invention. Whereas, in Europe, his practice has consistently been seen as a whole — writings and buildings reinforcing his often enigmatic and poetic drawings — in America it is his imagery which has had the profoundest effect."<sup>1</sup>

It is interesting to me that images which appear in Rossi's drawings, with origins perhaps in European urbanism, not here in America, hold some apparent meaning, that which Eisenman notes, at this time, for North Americans. The question is, of Rossi's drawings, now — "Why are we looking at them?"

This perhaps, too, simplifies the problem in that in asking "Why do we look?", we are asking essentially what meaning do they embody and for what reason do they now hold that meaning? We ask not "Why do we look?" But rather inquire "What do we see?"

Is there some reason why the analogic that has helped determine Rossi's forms, his drawings, his objective realism, producing things like the drawing *L'architecture Assassinée*,<sup>2</sup> has some particular appeal for today in North America? Peter Eisenman hypothesizes that present-day man, so profoundly influenced by the events of World War II, in dislocation, sees no heroes — can see no heroes. The post-war dislocation / disorientation / disembodiment man-conception places a detached image of self in modern consciousness spawned in holocaust, Hiroshima, and in memory, Auschwitz.

Heroism is obsolete. An architecture anonymous, without faces, without heroes, or heroism, is now plausible. A heroless architecture cannot create utopia, it can only conjecture survival.

To give this sort of interpretation to Rossi's architecture autonomous — *Architettura Autonomia*<sup>3</sup> to the concept of 'Autonomous architecture,' is, if not blasphemy, indeed a misconception. From *Oppositions* 5, we see autonomous architecture, as represented in Rossi's architecture (buildings, drawings and writing), as the pursuit and conviction that sees architecture, like other arts, sculpture and painting, as an independent discipline, which, in that, is again unlike other disciplines, with underlying principles of its own. The search for these principles by means of the analysis of the thought and creative processes geared toward the production of architecture occupies Aldo Rossi and his generation of architectural form. It is the development of a theory of the production of architecture which not just stresses but relies upon this rudimentary nature of the discipline that "cannot be understood exclusively through external parameters but which can be established through appropriate formal rules. To discover these principles and to determine how they can be incorporated into the production of architecture, and the creation of the city, should be the task of any theoretical discussion of architecture."<sup>4</sup>

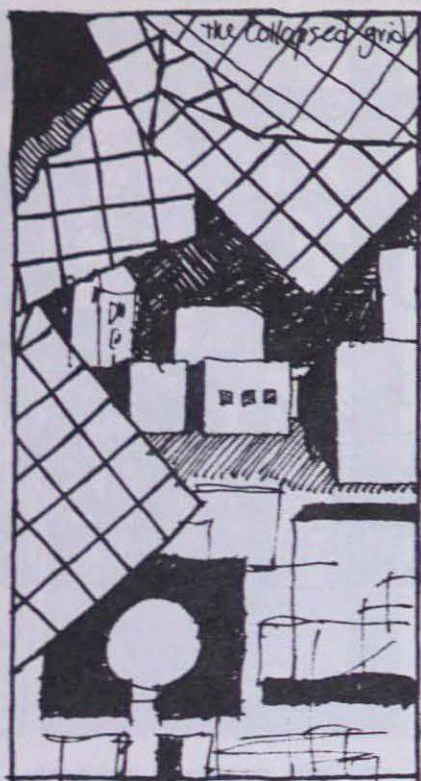
This is the autonomy of which Rossi and the editors of *Oppositions* speak. Eisenman's anonymous architecture — facelessness, dislocation — is different. The two nevertheless have a simultaneity which is basic to my reading of the significance and contem-

porary meaning of Rossi's drawings. Eisenman says:

But since the Second World War man's condition has radically altered: the events of 1945, the full comprehension of the meaning of the Holocaust and atomic destruction have changed the basis on which life can be lived. For man faced with a choice between imminent or eventual mass death, heroism, whether individual or collective, is untenable: only survival remains possible. The problem is now of choosing between an anachronistic continuance of hope and an acceptance of the bare conditions of survival. And when the hero can be only a survivor, there is no choice. The condition of man which formerly contained this alternative has ended, and the continuous "narrative" of the progress of Western civilization has been broken.<sup>5</sup>

This is the architecture of the Apocalypse.

Eisenman's view, to my mind, is somewhat retrospective (in light of his argument, you might say, how else?) It fails, I think, to be forward-looking, arguing, as it does, that progressivism, at least in the positive sense, is defunct. The Modern Movement's utopian-purest visions seem to us somehow naive. We no longer see the 'complexity of reality'<sup>6</sup>, through benevolent, modificatory, remedial eyes. We perhaps observe more and contemplate reality and its perception. But a result of this outlook is, of necessity, negativism. Eisenman is perhaps observing the past and assessing the altered state of



man's perception and concluding that there is no future. I propose that in looking into the future with the inevitable conditioning of the post-1945 reality and, as Rossi does, analyzing perception, projecting into the future, does one inevitably see destruction? No, nihilism. *Architecture Assassinée: Architecture Abandonnée*<sup>7</sup> — forsaken and dissected. Disembodied and reassembled with a new soul, a new condition of this perception. Perhaps it is black: a void in which the elements of architecture swim. The perception is one of doubt: "Where do we go from here?" In a world with no future there is no direction. We must, like Rossi, find analogy or like Eisenman be retrospective. Of the drawing *L'architecture Assassinée*, P. Eisenman says: "On the most obvious level it is a vision of the city today and a description of a society which brings about that vision."<sup>8</sup> This is most significant — a reflection of the society which produces it. "But *L'architecture Assassinée* is not a typical Rossi drawing. It is a drawing of ruin and fragmentation... the drawing which constitutes the majority of Rossi's work, those of *Cité Analoga* are not about ruin. Rather they are drawings of emptiness, incompleteness and abandonment."<sup>9</sup> Architecture, says Eisenman, is not 'dead' but surviving — 'Abandonnée.'

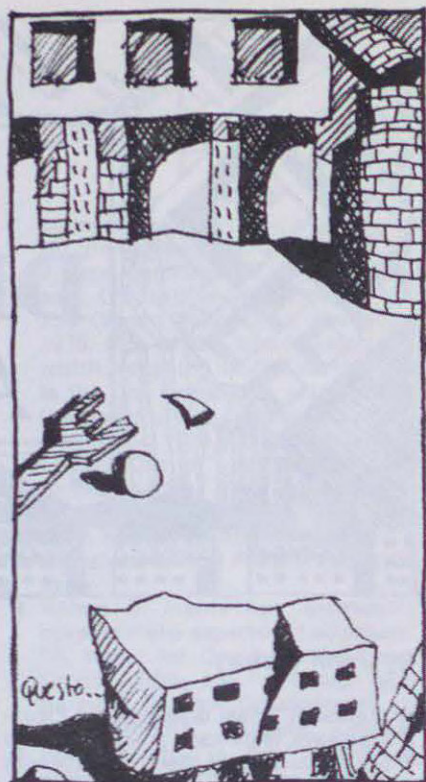
The ruin is a part of a specific architectural tradition, brings with it the nostalgia of history: incompleteness, by contrast, is without sentiment. Nostalgia links ruin to man; incompleteness distances life from the remorse. Ruin assumes the



continuity and presence of history. Incompletion suggests the rupture and emptiness of the void. The *Cité Analoga* drawings possess a consciousness of this interruption.<sup>10</sup>

You may feel that I here catch onto mere images, just words, verbal images; however, we are all affected by that which surrounds us, socially and culturally. Our perception is biased by the things we are shown or see around us. The meaning images hold for a society depends upon the poignancy of truthfulness they embody in their recognition. When a thing is impressed upon an individual, be it an image or a thought, the vividness of its remembrance and of its impression relates to the apparent truth or illumination seen in it at the time. One's particular predisposition, of course, colours one's affinities, nevertheless being a member of a particular society and associated with a particular cultural milieu (North America) one is bound to have shared perceptions with people of similar position. This collective recognition, perhaps indoctrination, is the basis of many artistic movements, especially in popular music and aesthetic fashion. The point I wish to make is that perhaps North American appreciation of Rossi drawings is a result of such cultural conditioning. Is it that we see now through ugly eyes?

Peter Eisenman is obviously not influenced by this cultural context. His view of Rossi — his interpretation — is essentially a North American one. One is afraid perhaps that in this trans-Atlantic observation-analysis that the true and complex basis of Rossi's work could be abated i.e. the touch with European urbanism and the concept of his own collective memory subtracted from the work. Yet this goes further along the way to discovering why the drawings of Aldo Rossi hold such meaning for students of architecture in America. They cannot possibly see the perceptions of urbanism that Rossi himself sees. They have no shared experience! But like the drawing *L'architecture Assassinée* — "A vision of the city today and a description of the society which brings about that vision" — they



can appreciate a particular sentiment towards modern society and living which to them has meaning i.e. is recognizable in their own society and has appeal in its contemporary recognition. Disillusionment, perhaps nihilism, disorientation, and alienation is seen, nevertheless, negativism, brought on by harsh economic conditions, hopelessness, and apprehension about a volatile global political situation. Indeed Rossi himself says that architecture is influenced or "aided by" the analysis of political, social and economic systems.

Perhaps it all seems somewhat implausible, a little tenuous and that somehow it denies the basic conception of Rossi ideology that architecture is "an autonomous discipline not assimilated within sculpture and painting."<sup>11</sup> Yet simultaneous explorations with similar intellectual affinities are possible with little direct intercommunication within locally dissimilar cultural milieus in completely different geographic locations — an argument for the pervasiveness of global cultural context. If we are conditioned to think certain things in a given historical context, particularly in an age of fluid global communication, then architects like Rossi, concerned with "architecture as an expression of thought,"<sup>12</sup> holding that conviction, will think in a mode appropriate to their conditioned context. Rossi pursues an autonomous architecture because of the dislocation of modern urbanism, perhaps, in face of Tafuri's "end of architecture — the exhaustion of purely architectural alter-

natives."<sup>13</sup> In this light, he sees what he wishes to see. In pursuing an autonomous discipline, is he doing more than those who respond to the world with anarchistic, discordant art?; with excessive pluralism, as do the eclectic post-modernists? Is not world pluralism in many and/or all fields mere or profound dislocation? A response to or symptom thereof?

The present condition of man is coloured by many things: things that he sees, things that he remembers, things he reads and things he has been told. History is nostalgic, yes, but it is also profound. To deny it and to look ahead cannot be denying it at all for at once this is a response to some element or condition of history which inspires that activity. In this sense, Autonomous Architecture then is not a pure pursuit at all. It is rooted in all history. Detached, it is a break away. In Rossi's analogy is a search through the depths of consciousness, of memory, the unconscious, and through history for the 'principles' of our collective architecture.

Rossi says:

Now it seems to me that everything has already been seen; when I design I repeat, and in the observation of things there is also the observation of memory. I design my projects with a discreet sense of affection for each one but I reduce them to things that surround me: country houses, smoke stacks, monuments and objects, as if everything arose from and was founded in time; in this beginnings and endings are confounded."<sup>14</sup>

The monument — (to him):

There are, in the city, urban facts which are permanent, that withstand the passage of time; these ur-

ban facts are the monuments that, in one way or another, constitute or make up and configure the city. The monument has more than an intelligible and atmospheric value, it is not only architecture as anecdote, as the picturesque, but it gives meaning to the life of the city, which, through these monuments, both remembers the past and uses 'its memory.'"<sup>15</sup>

To Rossi they "embody the current moment — the city's present."<sup>16</sup>

But not only is man's condition changed but also the nature of his relationship to objects. Inevitably, after 1945, the significance of the 'movement' as a record of history has been called into question. Since the dignity of an individual death is no longer certain, the symbolic permanence provided by the memorialization of death — the capacity to mark the continuity between the end of life and death with a slab, a star, or a cross — also becomes tentative. Can the values of the physical symbols of individual life — that is, the house and its relationship to collective life, the school, the church and the

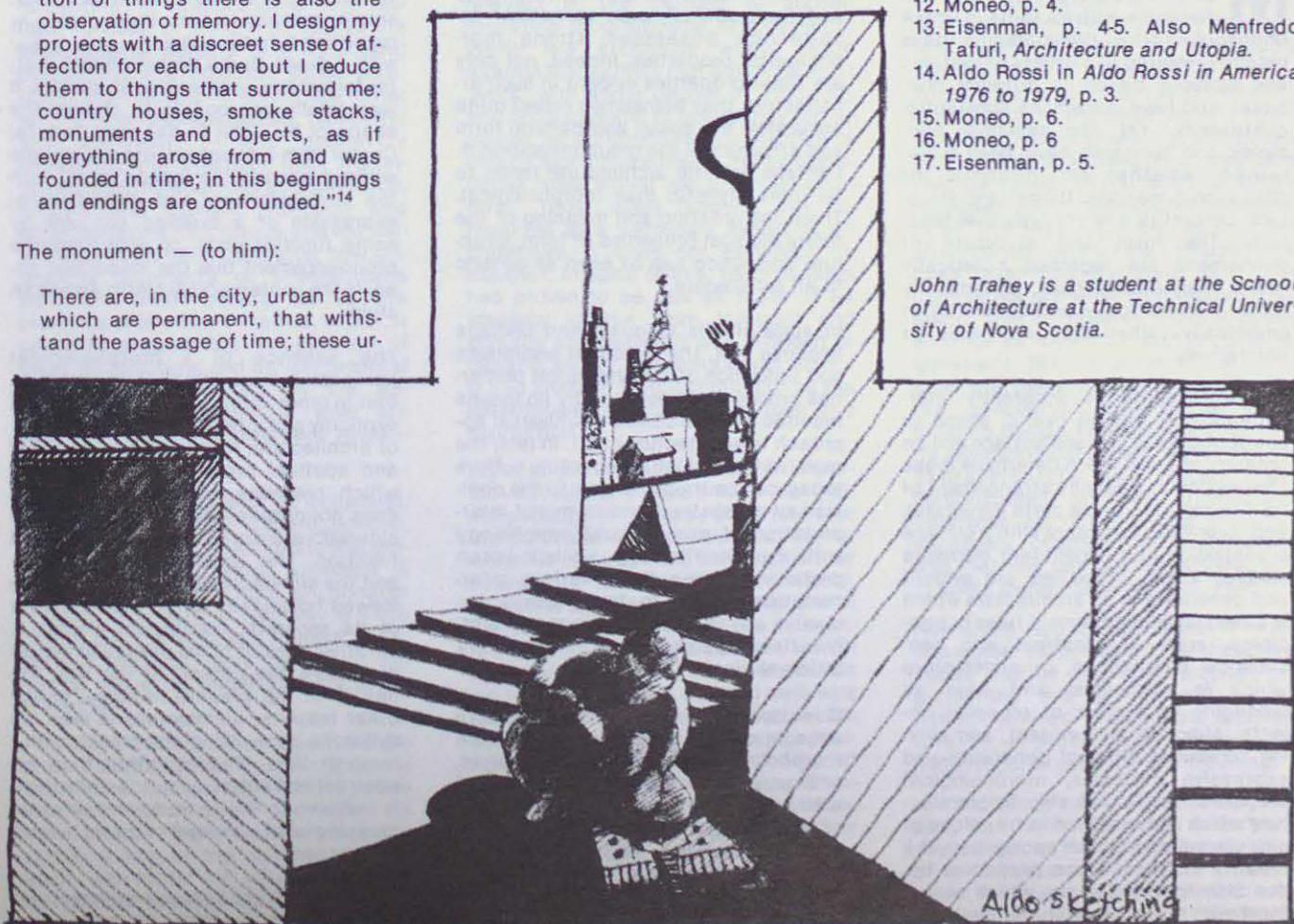
public square — be the same when the capacity to make the symbolic end of life is gone? Without an end there can be no 'beginning.'"<sup>17</sup>

The question to be addressed: "Where are we now?"

## Notes

1. Peter Eisenman, Preface, *Aldo Rossi in America 1976 to 1979*, Catalogue 2, MIT Press, p. 1.
2. *L'architecture Assassinée* - a drawing made by Aldo Rossi in 1975 which he dedicated to Manfredo Tafuri, the Italian writer and thinker on things concerned with architecture and urbanism. The drawing is shown in notes in Catalogue 2.
3. Rafael Moneo, *The Idea of Architecture and the Modern Cemetery, Oppositions 5*, MIT Press, p. 3.
4. Moneo, p. 4.
5. Eisenman, p. 5.
6. Moneo, p. 1.
7. Eisenman, p. 4.
8. Eisenman, p. 4.
9. Eisenman, p. 6.
10. Eisenman, p. 6.
11. Moneo, p. 4.
12. Moneo, p. 4.
13. Eisenman, p. 4-5. Also Manfredo Tafuri, *Architecture and Utopia*.
14. Aldo Rossi in *Aldo Rossi in America 1976 to 1979*, p. 3.
15. Moneo, p. 6.
16. Moneo, p. 6.
17. Eisenman, p. 5.

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# ON MORPHOLOGY, STYLE AND FUNCTION IN ARCHITECTURE

by Clarence Aasen

**M**orphology, the science of form and structure, is an old discipline with its roots in Greek philosophy. New developments have recently resulted in a variety of systems and opinions based on different principles and have generated substantial controversy. Yet, the essential principles and concepts have been maintained: whether for heuristic or philosophic reasons, formal and structural content is given priority over function. The form and structure of phenomena are regarded holistically rather than atomistically, dynamically rather than statically, and concretely or empirically rather than abstractly or normatively.

All architecture is inherently morphological: it has an overall shape or configuration of line and surface and an ordering of parts which determine these shapes (form); a definite arrangement of its internal, localizable parts (structure); and volumetric enclosure with a surface organization and constituent elements (space). These properties are evident and generative in all architecture which is based on explicit, formal rules or principles, such as classical and neo-classical architecture, or architecture which is typological and seen as belonging to a class of repeated objects. Although less evident, and serving somewhat different generative and expressive purposes, morphological properties are found also in architecture which is considered to be unique or singular objects which spring from the creative impulse. These properties occur also in architecture which serves symbolic rather than functional pur-

poses, or which is conceptual rather than built. And in spite of its informality and 'naturalness', even vernacular architecture possesses strong morphological properties. Indeed, not only are these properties evident in such architecture, they sometimes reflect quite accurately the social and cultural form and structure of the group inhabiting it. Perhaps eclectic architecture tends to be more stylistic than morphological. Thus, the ordering and meaning of the morphological properties of form, structure and space can be seen as generic to all architecture.

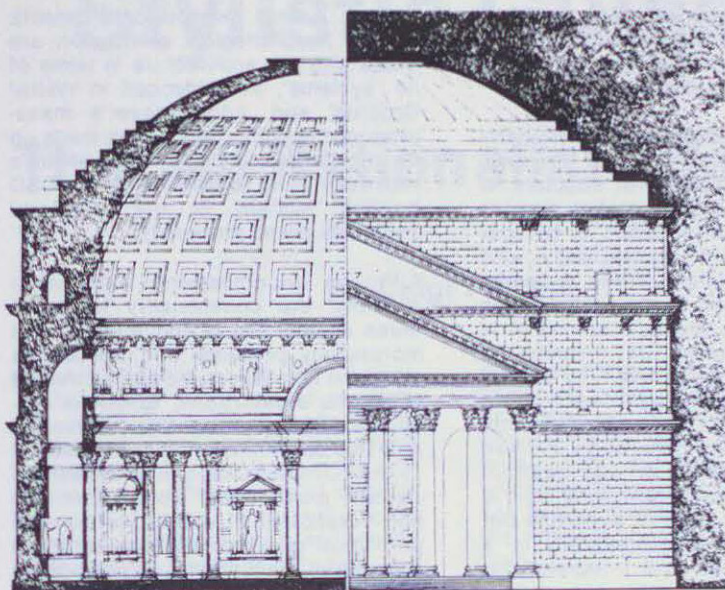
In spite of this ubiquity, and perhaps because of it, the historical awareness and utilization of morphological properties among architects has by no means resulted in a consistent or universal approach to architecture itself. In fact, the malaise from which architecture suffers today can be traced in part to the collision of an abstract and formalist interpretation of architectural morphology with functionalist and stylistic interpretations. Often these various interpretations seem to be mutually exclusive and to operate from significantly different perceptions and serve very different ideals.

Questions of whether architecture does, or should, derive its meaning from morphological order, function, or style, or from some combination thereof, and with what if any priority, underlie many of the bitterest debates in the history of architecture. The intensity of this debate indicates that these are questions not only of relativity of perspective or choice of method but touch on more

fundamental architectural values and viewpoints. It is very difficult to, for example, reconcile Louis Kahn's dictum regarding 'what a building wants to be' with Edward Durrell Stone's belief that, for formal and compositional reasons, it was totally appropriate to change the shape of his John F. Kennedy Cultural Center from a doughnut into a rectangle without altering the facade at all; with the straightforward and almost literal expression of a building program by some functionalists; or with Venturi's pronouncement that the 'decorated shed' is the contemporary North American style.

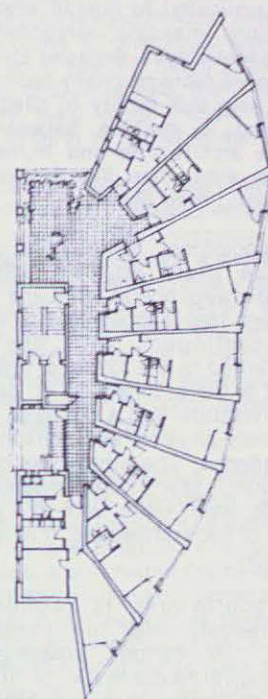
The essence of a morphological perspective in architecture is similar to that in other fields. In particular, it deals explicitly and integrally with the content of architecture, its constituent material and spiritual properties, in a manner which precedes and transcends, but does not necessarily negate, other considerations, primarily those of style and function. The architectural challenge and the architectural product tend to be viewed holistically rather than in terms of its separate, constituent elements. Whether a result of the particular period of history, the context of the site, the nature of the creative impulse, or for other reasons, architecture is seen as dynamic, as evolving and transforming through time. Finally, rather than an abstract and elitist pursuit, architecture is believed to derive from, and be most meaningful at, the level of direct human experience.

It is the juncture between architectural content and function or style, par-



The Pantheon, Rome.

Architecture, Space and Order, Francis Ching



Neue Vahr Apartments, Bremen.

Architecture, Space and Order, Francis Ching

ticularly what is meant by content 'preceding' or 'transcending' architectural function or style, that causes the more intense debates in architectural circles. From a common sense viewpoint, architecture is unlike any other art — it is simultaneously functional and aesthetic — and discretely separating the practical from the inspired leads nowhere. As an experience, architectural content, function and style make one continuous and mutually inclusive pattern, no matter how differently architects or theoreticians establish their criteria as to the priorities of one over the other. In fact, it could be argued that the essence of great architecture, and its fundamental creative force, resides in the appropriate reconciliation of what are often seen as these divergent tendencies.

Nevertheless, because of its inclusivist, dynamic, experiential, content, holistic, empirical, contextual and historical emphases, a morphological approach is significantly different from functional or stylistic perspectives. Not only is it different, but it is also, in a number of important respects, more central to the formal and experiential pursuits of architecture.

Functionalization of architecture implies its transformation into a set of operational rules, into a tool of an exclusively technological character. Its main concern becomes the efficiency and economy of the building process itself, with moral and ethical issues of building remaining not only unanswered, but also unasked. History,

according to this viewpoint, becomes irrelevant in the process of accommodating programmatic requirements. While few architects would argue against the premise that buildings must 'work' with some degree of efficiency and programmatic fit before they can be valued as architecture, architecture is clearly much more than a set of operational rules which are given physical form. Thus, while function can be regarded as a necessary aspect of architecture, it does not epitomize its essence. In spite of this, functionalism has proven to be just as much of an ideology as the more formalist and stylistic approaches it was intended to replace, and its adherents argue strongly and loudly in favour of function as the determinant of architectural form and expression.

Style in architecture serves an important but similarly more limited role than morphology. In general, style refers to the particular or characteristic form or mode of composition, construction, or appearance of the architecture. Hence, a stylistic approach deals explicitly with neither the functional nor the substantive content; its central concern is with visual effect. In fact, in earlier periods (up to the nineteenth century) style was chosen for the appropriateness of its use in much the same way that the Russians spoke French when they wanted to appear cultured. Once having determined the proper style, the primary issue was the quality of its composition and the resultant architectural effects. Although the twentieth century insistence that style was simply the outcome of applying modern materials and

methods to modern problems resulted in the elimination of all historical reference, even this 'styleless' architecture quickly became selfconsciously preoccupied with visual effect.

When style is given undue prominence in architecture, the result tends to be exclusivist, coldly calculating, and quickly boring, since it is based on conceptually predetermined characteristics which necessarily limit the range of architectural expression. Such approaches often concentrate on the compositional rules underlying the style as if they themselves are what architecture is all about. This is, however, a moral stance and not an inevitable architectural requirement. The danger is in confusing rules with meaning; that is, in assuming the conceptual organization of a building design takes precedence over its psychological impact. In fact, as the expressionists and others have demonstrated, all rules, stylistic and otherwise, are only possible and not a necessary condition of architecture, and meaning can flourish without, and in some instances in spite of, them.

Numerous arguments favor a morphological perspective in architecture. These include not only propositions supporting the architectural pursuit itself, but ones which relate architecture to a much larger universe of knowledge, experience and meaning.

In morphology resides the more primordial and archetypal of a human's psychological and cultural experience of architecture. Architectural structures, forms and spaces appeal directly and innately, although not necessarily

deterministically, to human emotions, perceptions, meaning, symbolism and cultural rootedness. Because style and function are more rationally based, they do not have this quality of directness: they tend to mediate between and distance architecture and human experience rather than, like morphology, synthesizing their essence.

A morphological perspective of architecture deals explicitly with the pragmatic and poetic language of architecture. This language can be viewed as a continuum, with one pole characterized by the formal or syntactic content of the architecture or, parts of the architecture into a cohesive whole on a purely physical and sensory level of experience. The other pole of this continuum, the transcendental or semantic level, deals with the poetic content of the architecture; that is, with its *a priori*.

This continuum is concerned simultaneously with the intellectual content, the cultural meaning and psychological experience of the architecture. Rather than respond to an architectural language as architects do, untrained viewers react to the architectural effects. A morphological perspective of architectural effects. A morphological perspective of architecture allows, therefore, an intimate connection to be made between the more exclusive but precise formal language and rules of architecture and the less cerebral but more perceptually uninhibited response of the non-architect. As such, not only is the precision of the communication increased and intellectual discourse enhanced, but another range of meaning is created by the design elements themselves in their capacity to evoke cultural and psychological responses.

The more successful morphological approaches treat the formal, structural and spatial properties of architecture integratively, dealing with their conceptualization and expression simultaneously on a metaphorical, inclusive level and on a literal, more exclusive level. Thus, a morphological perspective is, for example, far more than a creative use of structure in building or a rationalization of the geometry and form of structures. Pier Luigi Nervi, a leader in bringing the problem of structure in contemporary architecture to the forefront, has given it such formal importance that it becomes the determinant and final feature of architectural design. Other structural engineers, such as Morandi, Castiglioni, Frei Otto and Felix Candella, have also pushed structure to its logical and expressive limits: the forces of compression, tension, moment and shear become a clearly legible pattern of stress and just as clearly legible a pat-

tern of neutralization of stress — visible and comprehensible, demonstrative of the properties of the materials with which the forms are executed.

Although comprehensible and logically correct and, in fact, often exciting, these designers deal with structure in such a literal and absolutist manner that the architecture tends to be one-dimensional and experientially and culturally unfulfilling. While it seems particularly suited to the technologies of engineering systems, it speaks little to the nourishment of meaning in human existence, or even to the requirements of a well-functioning building. This can be contrasted with, for example Hans Scharoun's Philharmonic Hall in Berlin, or with much of Aalto's work, where a structural logic is also taken as a point of departure but where it is raised expressively to a metaphorical level and integrated far more successfully into the overall design.

Unlike stylistic approaches, based as they are on conceptually predetermined characteristics, or functional approaches, with particular operational rules and a technological expression, a morphological perspective is inclusive and, because of this, more accommodative of the pluralist tendencies of our contemporary age. This accommodation derives largely from the variety inherent in the empirical and experiential bases of morphologically-oriented architecture: as the designer's interpretations, the context and the conditions change, so also does the intention and effect of the architecture.

Consequently, it is common to find a very diverse range of schools of thought in architectural history which can be considered morphological in their intent and effect. As examples, organicists like Frank Lloyd Wright and Paola Soleri, or Metabolists like Kurokawa, derive their concepts, analogies and inspiration from the natural world, producing an architecture which is itself often nature-like in its expression. For others, including expressionists such as Mendelsohn and Taut, and the more difficult to categorize architect, Gaudi, it is the creative autonomy of the artist which is paramount: they all preach the freedom of the architect's imagination as against a sterile rationalism in architecture. Others operate on a more literal level and aim for visual effect: the sensual beauty of the Pulsating Yellow Heart by the Haus Rucker Co. and much of the 'Pop' architecture are examples of this approach. Still others refer to the concreteness, richness and detail of the social and physical context to set the parameters for and the content and expression of their designs; activists such as Ralph Erskine, or more traditional contextualists like Asplund, are ex-

amples. A final example of architects with a morphological orientation are those who see architecture in terms of its 'systems', as evidenced in Walter Gropius' and Adolf Meyer's mass-produced housing (which was made up of 'large-scale building bricks'), Safdie's Habitat, Ezra Ehrenkrantz's SCSD building system, or the structural engineers noted previously.

Although encompassing substantial diversity, the commonality in all of these approaches is that architectural morphology precedes and transcends style and function as the central means of formal organization, functional accommodation, and poetic expression. And this accommodation is not pushed to the point of ideological indifference. Certain architectural approaches are non-morphological, and within the morphological perspective some are more successful than others. In addition to the stylistic and functional viewpoints already noted, a morphological perspective does not accommodate the Platonic idealists such as Mies van der Rohe who attempt to carry their buildings through to an absolute and static perfection, as if they represented some underlying cosmic order; or philosophies such as Social Realism, which are based essentially on superimposed political ideologies with a minimum of architectonic content.

Morphological perspectives have led scientists and artists to the conclusion that aesthetics is no longer an isolated science of beauty; science can no longer neglect aesthetic factors. That all art, including architecture, has formal, structural and spatial properties of a rhythmical, even of a precisely geometrical kind, has for centuries been recognized by all but a few nihilists (the Dadaists, for example). That some of these properties — notably the Golden Section — have correspondences in nature has also been recognized for many years. Now the revelation that perception itself is essentially a pattern-selecting and pattern-making function (a Gestalt formation); that pattern is inherent in the physical form and function, and in the meaning and perception of architecture, as well as in natural phenomena such as the nervous system; that matter itself analyses into coherent patterns or arrangements of molecules; and the realization that all these patterns are effective and significant by virtue of an organization of their parts which can only be characterized as *aesthetic* — all this development has brought works of art and natural phenomena on to an identical plane of enquiry. The scope for architecture has, as a result, expanded enormously.

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# Stylistic Guises:

## That All Rationalists Be One

by Luigi Ferrara

**T**he tendency in an era of ever-changing social structure, communicative overload in all forms of media, and rapidly evolving and decaying environments, is to oppose the constant flux through attempts at stability. The prevalent social forces will attempt to reinforce their positions, and will set up the apparatus to accomplish their aims. Allied with this phenomenon is the part of human psychology which requires unities that are palatable, be they

political, social or aesthetic. Elements of society begin to align, whether consciously or inadvertently. These alignments or trends have created a form of historical criticism and analysis whose basis lies not in documentation and critical revelation, but rather in the discernment of categorizable epochs of time.

These epochs are passed off to the public in a simplistic and highly digesti-

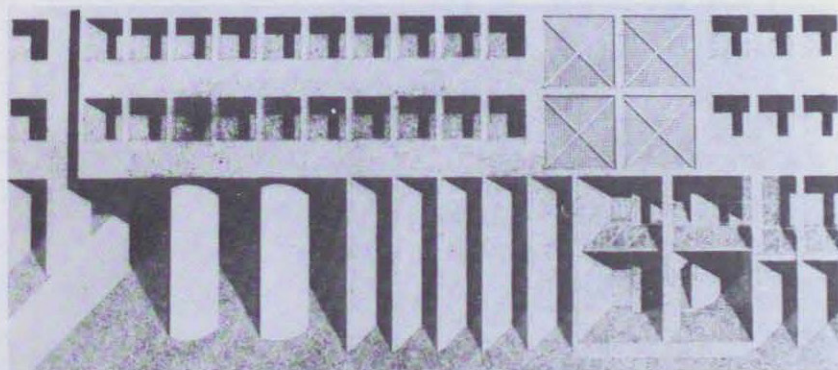
ble form which reveals very little about a period except its very existence as a category in the eyes of historians. When this process of historical analysis is taken up in specific fields such as the subject of architecture, the revelations become even more limited and any sense of truth is further distorted.

The problem can be seen as one of generalizations. However, seeing it this way invokes the problem itself. Generalizations are not a problem *per se*. They are in fact extremely helpful in eliciting truths about a larger segment of the population than the individual. The problem concerns itself more with the improper use of generalizations, and the excessive conclusiveness of most scholarly writing.

The methods with which architectural historians have simplified and yet distorted their accounts of history is by stylistic classification. For the most part, critics and historians have viewed the building stock of our world and have grouped it into categories derived from aesthetic and chronological coherence. This method of ordering was never introduced or qualified as just one particular method. Instead, it propagated a view of the built world through eyes only, a perspective we still suffer from. And yet if one asks oneself what architecture is, aesthetics would hardly be the answer, though it might figure in it. Recently there have been trends to oppose this method of historiography by analyzing the built world from alternate standpoints. These efforts however remain sparse and like the previous method do not emphasize the particularity of their simplistic interpretations of our environment.

In this article I am combatting stylistic classification by examining one of the established stylistic categories — Rationalism — from three particular viewpoints, hoping to reveal its unfounded basis as a stylistic category. These three reference points form one possible way of understanding architecture. They are: sensorial evocation through form and place creation, political influence of the built product as used or intended, and social structure implied.

In beginning this analysis it may be helpful to work in reverse chronologically. The present day Rationalist movement came to the fore in the late Seventies, though its roots go back much further. In Italy, the most prominent exponents are Giorgio Grassi, Carlo Aymonino, and Aldo Rossi. The work of the latter two architects has been frequently published together because of their collaboration on particular projects and because of a supposed shared viewpoint. However, an analysis of their work from the three standpoints previously iterated reveals fundamental differences.



Rational Architecture, AMA, 1978

Rossi — Gallaterese housing, Milan.



Rational Architecture, AMA, 1978

Ayminino — Gallaterese housing, Milan.

If one looks at the housing complex at the Gallaterese in Milano, executed between 1967-1973, where the work of both architects stand side by side, one can begin to read the differences. Ayminino's building is a collection of separate individual units of varying size and character. The forms, the materials, and the spaces accentuate this, marking the place of the individual in the collective. The public spaces are exalted through strong forms like the cylinders of the stairs, the amphitheatre, and the bridges. There is an effort to make each architectural element read separately and yet fit into the harmony of the whole.

Rossi however, has created a long drawn out white structure with a rhetorical colonnade at its base and continuous fenestration on both sides. Viewing the building from a distance, one cannot understand where one unit ends and another begins, or if any of the units are different from one another. This structure's sensoral evocation asks for a sublimation of the individual to the collective. It is akin to speculative housing in this denial of individuality but it is also representative of a totalitarian marxist ethic, both philosophies which demand unusually unified societies.

From these buildings one can see that though a unified constructional stylistic aesthetic exists, there is a fundamental rift between the building that is expressed sensorally and formally.

Another purported present day Rationalist is Leon Krier who, though declared politically aligned with types like Rossi,<sup>1</sup> reveals in his work another tendency altogether. Firstly, though Krier's drawn forms resemble Rossi's, when built they would be very different in character. Rossi in his usage of materials continues to employ industrial processes and the means of Capital. Krier instead, decries them and refuses to build, arguing for a return to craftsmanship. This alone places him and Rossi in two varying political and social standpoints. A connection with Aymonino is even more tenuous. How these men have come to be grouped as Rationalists point to the inappropriateness of stylistic classification.

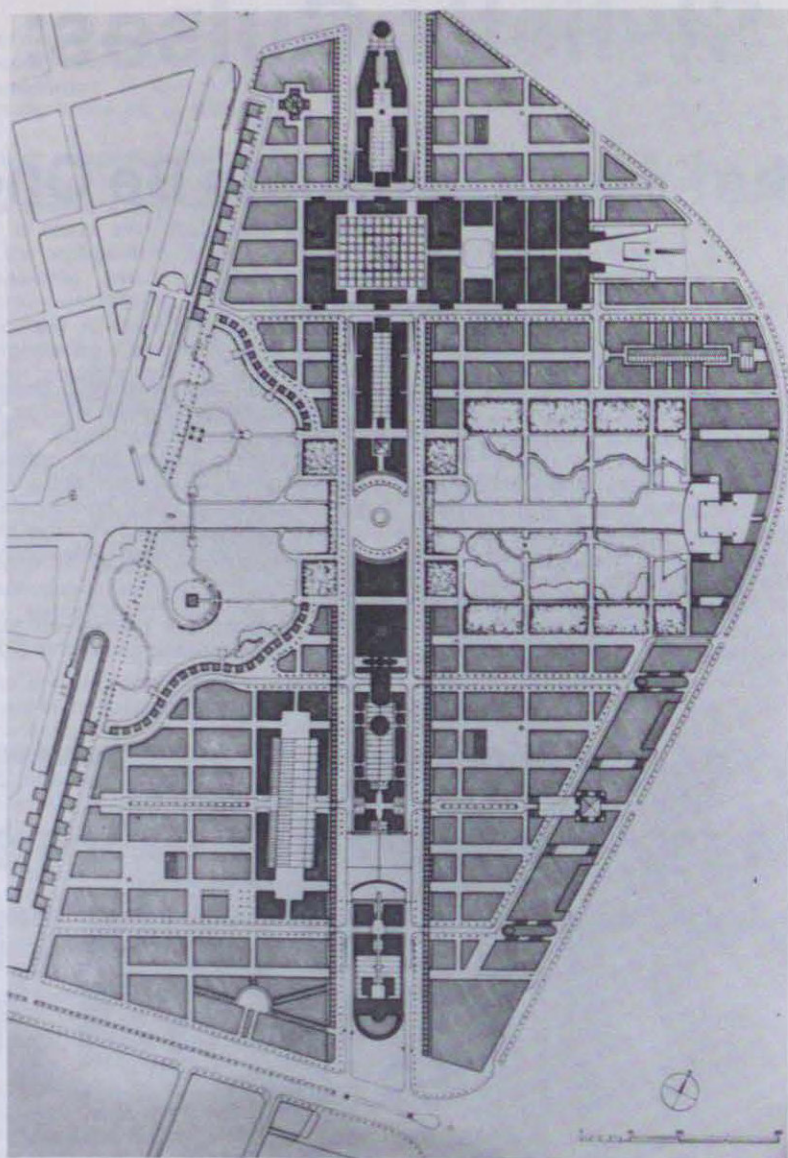
Krier's brand of marxism which harkens to a society of *petit-bourgeois* craftsman and to *petit-bourgeois* scale (whether he admits it or not) is really a rather gallant plea for democracy as it is experienced at a small and manageable scale. The 'marxist' theoretical stance is often thwarted in Krier's drawn work where his own designs for towns, like the La Villette competition entry, take on an incredible aristocratic melancholy. The organizational methods and the constructional forms of urban planning and architec-

ture in more despotic areas are pursued by Krier without substantial modification to push them into line with his own ideological concerns. That such a singular figure as Krier be lumped into the Rationalist movement (by himself or critics) reveals the very pitfalls of the stylistic system in coming to grips with understanding movements within architecture.

Taking the present day Rationalist movement and comparing it to the movement in the Twenties and Thirties as it existed in Italy and as initiated by Group 7 and not the Milanese 900<sup>2</sup> raises even more discrepancies that point to the fundamental inaccuracies

and confusions of stylistic classification. That such diverse and contradictory figures in Italian architecture such as Terragni, Ridolfi, Albini, and Piacentini have come to be known under the guise of Rationalism, further emphasizes the point. A chart comparing these architects from the three standpoints may shed light on the dissimilarities between them and the new Rationalist as well. (See table)

From this chart one can begin to see how different these architects are in relation to each other, and yet if one were to create a chart which included only aesthetic preoccupations and tendencies, their work would begin to



Krier — La Villette (plan and traffic layout).

## THE FIFTH COLUMN

### First Readers' Poll

#### THE TEN MOST SIGNIFICANT BUILDINGS IN CANADA ARE:

(Please give name, location and architect, if necessary.)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

FURTHER INFORMATION AND COMMENTS ABOUT THESE BUILDINGS WILL BE VERY WELCOME AND SHOULD BE SENT TO THE FIFTH COLUMN, EITHER BY DIRECT MAIL OR THROUGH YOUR REGIONAL EDITOR.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

hold much more in common. That an aesthetic stylistic grouping could have such marked differences in other sensoral realms, in political association, and social implication, begins to reveal the complexity of architecture and the inadequate way we have come to deal with writing about the subject.

Perhaps the present oft spoken of crisis in architecture which has been attributed to the failure of the bourgeois

culture, to the influx of new technologies that altered convention, to the loss of tradition and/or ethics, is also a crisis in the way architecture is being perceived and transmitted to the public. Architecture has always been "firmities, commodities, and delight" and the splintering of architecture, by scholarship which emphasizes one of these qualities at the expense of the others, distorts our understandings of architecture, preventing us from realizing that all Rationalists are not alike.

Luigi Ferrara is a student at the School of Architecture at the University of Toronto.

#### Notes

1. *Rational Architecture*, Archives d'Architecture Moderne, Bruxelles, 1978, p.38.
2. Vittorio Gregotti, *New Directions in Italian Architecture*, Brailier, New York, 1968, p.16-17.

#### OLD SCHOOL

Terragni,  
Giuseppe

Ridolfi,  
Mario

Albini,  
Franco

#### SENSORAL

symmetries, asymmetries, space-time  
classicizing, light and air  
Casa del Fascio Nuovocomun Housing

brutal, minimum cost expenditure  
I.N.A. Casa

structural refinement  
of sensual exquisiteness  
Apartment, 6th Triennale

#### POLITICAL

repentant  
fascist  
intellectual

rationalized  
sell-out to Capital

apolitical

fascist

"marxist"

marxist-  
communist

socialist

#### SOCIAL

democratic  
socialism

capitalism

perpetuates  
monied class

state control

petit-bourgeois  
democratic  
artisanal

the sublimation of the  
individual (excepting the  
architect) to the collective

welfare society



New Directions in Italian Architecture, Vittorio Gregotti

Ridolfi — I.N.A. casa Tiburtino quarter.

If one looks at the housing complex at the Gallaterese in Milano, executed between 1967-1973, where the work of both architects stand side by side, one can begin to read the differences. Aymonino's building is a collection of separate individual units of varying size and character. The forms, the materials, and the spaces accentuate this, marking the place of the individual in the collective. The public spaces are exalted through strong forms like the cylinders of the stairs, the amphitheatre, and the bridges. There is an effort to make each architectural element read separately and yet fit into the harmony of the whole.

Rossi however, has created a long drawn out white structure with a rhetorical colonnade at its base and continuous fenestration on both sides. Viewing the building from a distance, one cannot understand where one unit ends and another begins, or if any of the units are different from one another. This structure's sensorial evocation asks for a sublimation of the individual to the collective. It is akin to speculative housing in this denial of individuality but it is also representative of a totalitarian marxist ethic, both philosophies which demand unusually unified societies.

From these buildings one can see that though a unified constructional stylistic aesthetic exists, there is a fundamental rift between the building that is expressed sensorially and formally.

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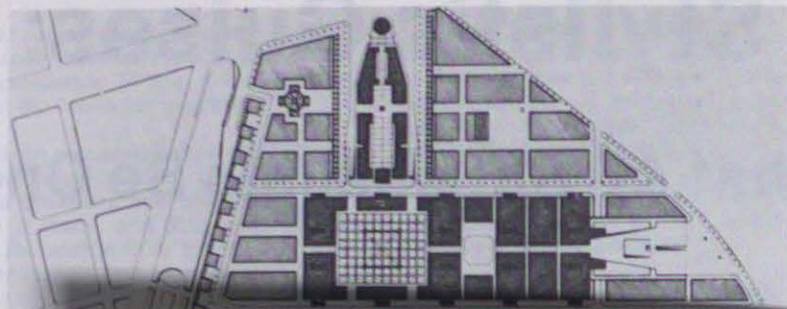
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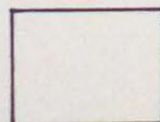
THE FIFTH COLUMN  
13-3480 University Street  
Montreal, Quebec, H3A 2A7

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Krie



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Giuseppe

Ridolfi,  
Mario

Albini,  
Franco

Piacentini,

## SENSORAL

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Plan for E.U.R.

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apolitical

fascist

## SOCIAL

democratic  
socialism

capitalism

perpetuates  
monied class

state control

## NEW SCHOOL

Krier,  
Leon

poetic monumentality  
traditional forms, human scale  
La Villette Plan

Rossi,  
Aldo

reductive forms, "pure signs" rhetorical space  
abstraction in sensoral terms  
Gallaterese Housing

Aymonino,  
Carlo

asymmetries, material contrast  
collided pure forms in space-time  
Gallaterese Housing

"marxist"

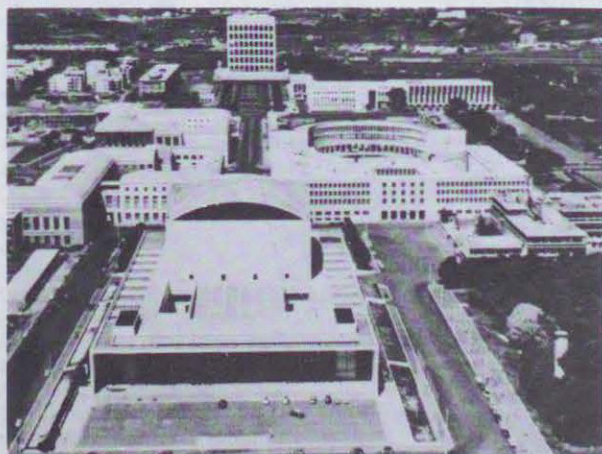
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New Directions in Italian Architecture, Vittorio Gregotti



New Directions in Italian Architecture, Vittorio Gregotti

### Piacentini — E.U.R. '42.

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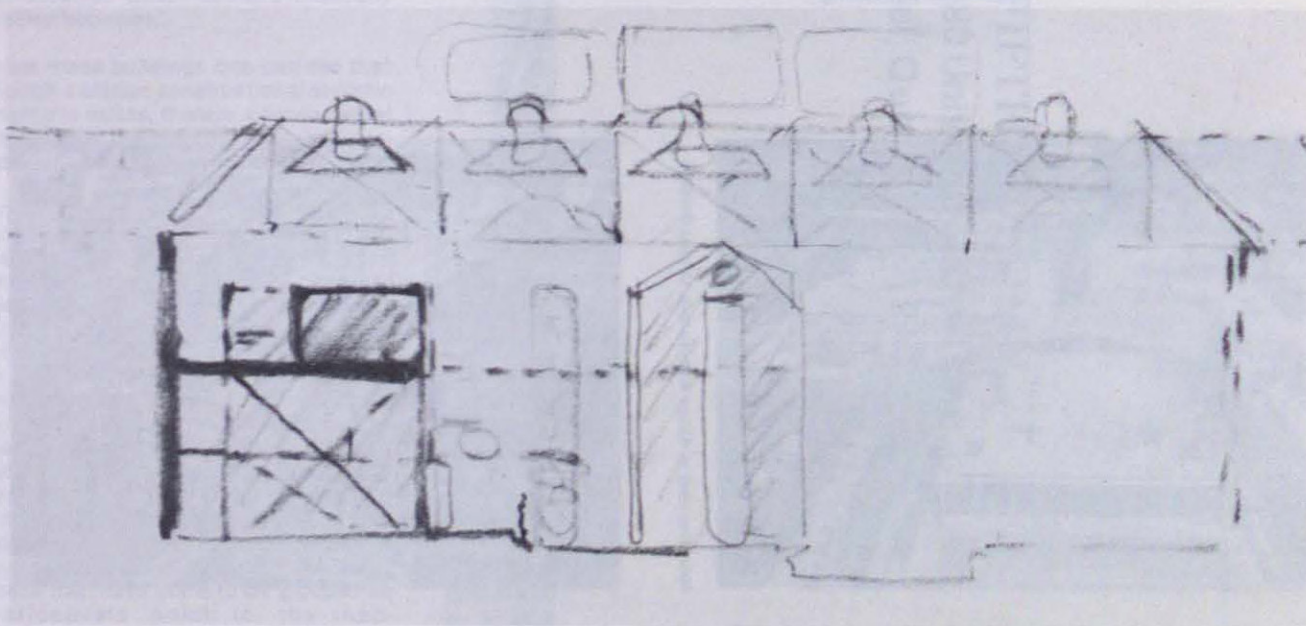
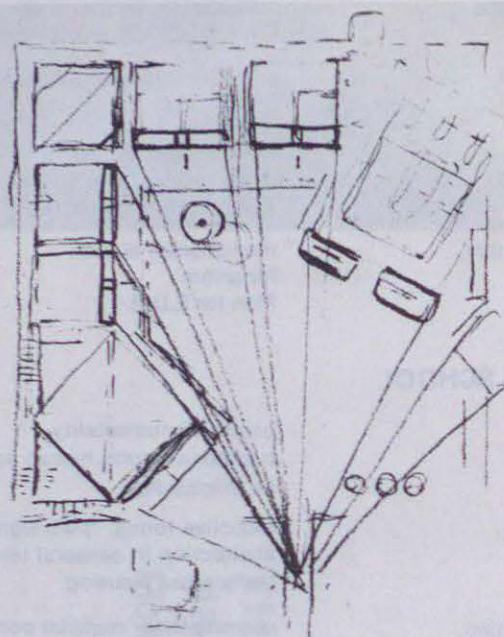
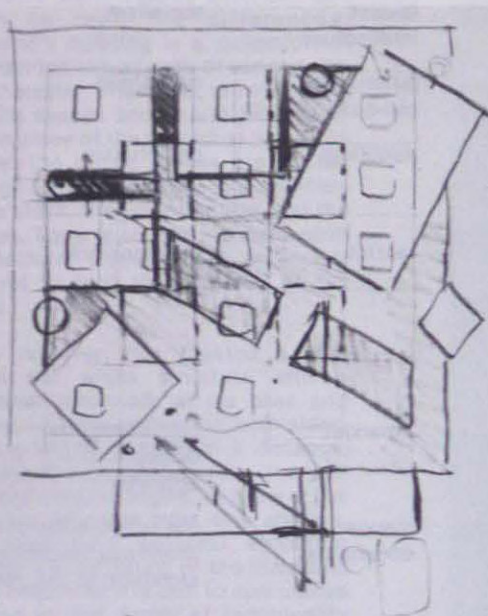
### Ridolfi — I.N.A. casa Tiburtino quarter.

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# DRAWING



Preliminary sketches for the Seagram Museum,  
Waterloo, Ontario.

Project currently under construction.  
Barton Myers, 1980.  
Grease pencil on trace.

# MAKING PLANS



## COMPETITIONS

### National Architecture Student Design Competition 1982

The Canadian Students of Architecture are sponsoring this second annual competition. The theme for this year addresses the question of Architectural Memory in the design of a house. The competition is open to any student registered in a school or department of architecture in Canada and to RAIC syllabus students. Registration deadline is January 1, 1983 and the entries must be postmarked no later than February 14, 1983. For more information, see news section at the front of this issue.

## EXHIBITIONS

### Technical University of Nova Scotia, Faculty of Architecture

#### Exhibition Series:

##### Unplanned and Unbuilt

An exhibition from the Toronto office of A.J. Diamond and Associates. November 1-19, 1982.

##### Drawings

An exhibition from the office of Baird and Sampson, Toronto. November 22 - December 10, 1982.

### McGill University, School of Architecture

#### Exhibition Room

**Contexts** - An Exhibit from the office of Moshe Safdie: November 15-26, 1982.

### Le Centre de Création et Diffusion en Design

Expositions, Automne 1982

**Dieter Magnus — L'Art de l'Environnement contre l'Environnement Artificiel**  
4 au 21 novembre 1982.

### Le Design Hollandais pour le Secteur Public

25 novembre au 19 décembre 1982  
Pavillon Arts IV — Design de l'UQAM, 175 ave. Président Kennedy (locaux 1915 et 2890), Montréal. Ouvert au public mer-dim, 12h00-18h00.

### Carleton University, School of Architecture

Exhibition Gallery — Fall 1982

#### Design in Netherlands

A display of recent product, industrial, street furniture and interior design. November 1 to 10, 1982.

### RAIC Governor-General's Medals for Architecture, 1982.

An exhibition of the twenty medallists.

November 12 to 26, 1982.

### University of Toronto, Faculty of Architecture and Landscape Architecture Exhibition Series

#### Swiss Architecture.

October 18 to November 5, 1982.

#### Manhattan Transcripts and Follies

Drawings by Bernard Tschumi.  
November 15 to December 12, 1982:  
Ballenford Architectural Books, 98 Scollard St., Toronto.

#### Streetscapes

Exhibition of works in the City of Toronto's fine art collection depicting various streets in the city. October 9 to December 12, 1982: The Market Gallery, 95 Front St. E., Toronto.

### Waterloo School of Architecture and Department of Fine Arts Alumni Exhibition

Includes original drawings and models by Waterloo architecture alumni. October 28 to December 12, 1982: Centre for the Arts Gallery, Waterloo, Ontario.

### University of Manitoba, Faculty of Architecture

Exhibitions, Fall 1982 in the Jury Room, J.A. Russell Building

### Governor-General's Medals in Architecture.

October 18 to November 5, 1982.

#### Working Drawings Working.

From the University of Toronto. November 8 to 19, 1982.

## LECTURES

### If there is a Relationship between the Architecture of the City and that of Buildings — What is it?

Fall Lecture Series at the Faculty of Architecture, Technical University of Nova Scotia, Halifax.

**Ray Affleck** of ARCOP, Montreal: November 4, 1982.

**Jack Diamond** of A.J. Diamond and Associates, Toronto: November 18, 1982.

**Barry Sampson** of Baird and Sampson, Toronto: November 25, 1982.

**Melvin Charney**, Montreal: December 2, 1982.

#### Building Montreal

A series of lectures at the Montreal Museum of Fine Arts, open to the public, Museum Auditorium, 6:00 pm.

**Participation in City Planning: A Comparison between Vancouver and Montreal.** Norman Hotson and Mark London: November 4, 1982.

**Points de Vue: l'aménagement futur du Montréal.** Hubert Chamberland, Robert Cohen, Lysiane Gagnon, Louis Jalabert and Jean-Claude Marsan: November 11, 1982.

### Dinner in a Glass Box: Are Curtain Walls Our Friends?

The Fall Lecture Series at McGill University, School of Architecture, Room A9, 6:00 pm.

**Dan Hanganu:** October 19, 1982.

**Ricardo Castro:** October 26, 1982.

**George Baird:** October 29, 1982.

(to be held in Room W220, Arts Building at 1 p.m.)

**Larry Richards:** November 2, 1982.

**Joe Baker:** November 9, 1982.

**Jack Diamond:** November 16, 1982.

**Moshe Safdie:** November , 1982.

**Phyllis Lambert:** December , 1982

To confirm dates and times, please call the School at 392-5409.

### University of Manitoba, Faculty of Architecture

Lectures, Fall 1982 in the Centrespace, J.A. Russell Building, 8:00 pm.

### The Architecture of Classic Mayan Cities.

Douglas Cannell: October 27, 1982.

### An Evening of Award Winning Films.

Organized by Winnipeg film producer Vonnice Von Helmolt: November 17, 1982.

### Calgary Fall Architecture Lecture Series

Calgary Central Public Library, 2nd Floor Auditorium, 7:30 pm.

**James Wines:** October 22, 1982.

**Diana Agrest:** November 10, 1982.

**Doug Cardinal:** December 3, 1982.

Organized by the Southern Chapter of the AAA. Tickets are \$4.50 each or \$10.00 for the series.

### Alcan Lectures on Architecture 1982-83, Vancouver

Organized in collaboration with the Vancouver League for Studies in Architecture and Environment and held at the Robson Square Media Centre.

**On his work.** Lucien Kroll: October 27, 1982.

**Architecture and Morality.** Yi-Fu Tuan: November 3, 1982.

**On his work.** Mario Campi: November 25, 1982.

**Recent Work.** Harmond Moriyami: December 2, 1982.

**On Tall Buildings.** Henry Cobb: January 26, 1983.

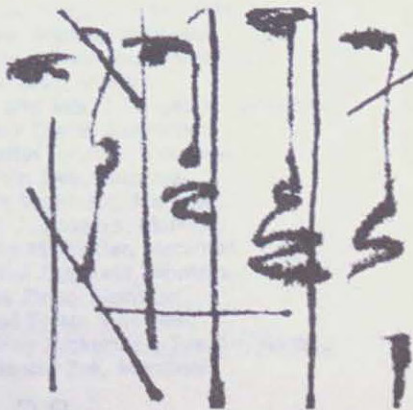
**On his work.** Ricardo Legoretta: February 9, 1983.

### The Prospects for Critical Regionalism.

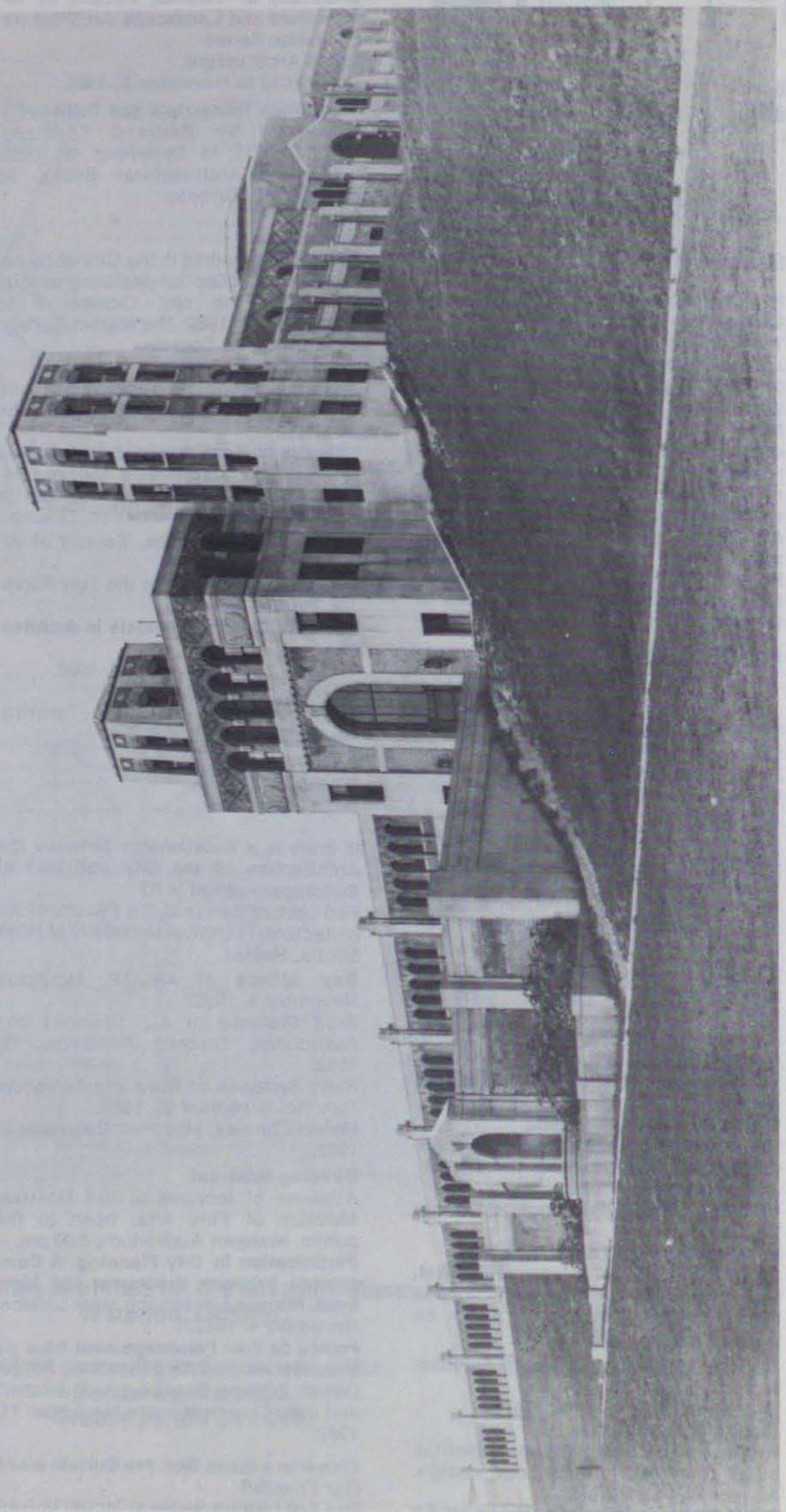
Kenneth Frampton: February 23, 1983.

**On his work.** James Stirling: March 30 (tentative).

For more information, please call (604) 683-8588.



# ARCHIVES



R.C. Harris Water Purification Plant, Toronto.

# THE FIFTH COLUMN

## BENEFACTORS / BIENFAITEURS

Alcan.  
Phyllis Lambert, Montreal.  
Architectural Undergraduate Society, McGill University.  
School of Architecture, McGill University.  
The Royal Architectural Institute of Canada.

## SUPPORTING INSTITUTIONS / INSTITUTIONS PARRAINANTES

School of Architecture Association of Students, Carleton University.  
School of Architecture, Carleton University.  
Faculty of Architecture, University of Manitoba.  
Ecole d'architecture, Université de Montréal.  
School of Architecture, University of Waterloo.  
Alberta Association of Architects.  
Southern Chapter, Alberta Association of Architects.  
Architectural Institute of British Columbia.  
Association des architectes en pratique privée du Québec.  
Saskatchewan Association of Architects.

## SPONSORS / PARRAINS

Ballenford Architectural Books, Toronto.  
Dennis Deskin/Eric Deskin, Longueuil.  
Domtar.  
Le Chateau Dufresne, Musée des Arts Decoratifs de Montréal

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R. David Bourke, Montreal.  
Frances Bronet, Montreal.  
G.E.C. (Ted) Brown, Halifax.  
William Bruce, Lorraine.  
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Gaetane Carignan-Guerra, Montreal.  
Joe Carter, Mount Pearl.  
Naomi Caruso, Montreal.  
Ricardo Castro, Montreal.  
Raymond Michel Cherrier, Montreal.  
David Mario Covo, Montreal.  
Dawson & Szymanski, Mount Royal.  
Desnoyers/Mercure, Montréal.  
Joseph L. De Stein, Lachine.  
Leslie Doelle, Montreal.  
Derek Drummond, Montreal.  
William B. Evans, Calgary.  
Patricia L. Falta, Montreal.  
J. David Farley, Montreal.

Marie Farmer, Ste. Anne de Bellevue.  
Gerald W. Farnell, Montreal.  
Robert P. Fleming, Montreal.  
Gilles Garceau, Boucherville.  
Julia Gersovitz, Montreal.  
Jim Girvan, Montreal.  
Barry Graham, Calgary.  
Nathan Godlovitch, Montreal.  
Dan Hanganu, Verdun.  
Duncan Harvie, Toronto.  
Klaus Hempel, Mississauga.  
Edward Hercun, Montreal.  
Thomas Howarth, Toronto.  
Orest Humennyj, Montréal.  
Lynne Kick, Dorval.  
Peter Lanken, Montreal.  
Roy Emile Lemoyne, Montréal.  
Seymour Levine, Montreal.  
D.L. Livesey, Fredericton.  
Antonio Mancini, Montreal.  
Marcovici Family, Cote St. Luc.  
Peter McCleary, Philadelphia.  
Brian McCloskey, Ottawa.  
Marianne McKenna, Toronto.  
René Menkès, Montréal.  
John Meunier, Cincinnati.  
Mill & Ross, Kingston.  
Leslie Muccino, Toronto.  
Michel G. Nadeau, Laval.  
Okun & Walker, Toronto.  
Sherry Olson, Montreal.  
Alan E. Orton, Pointe-Claire.  
T. Otsu, Agincourt.

Ara Palandjian, Toronto.  
Tomas J.F. Pavlasek, Montreal.  
C.L. Pimlott, Dorval.  
William Mark Pimlott, Montreal.  
Zvi Reshef, Israel.  
Larry Richards, Waterloo.  
Dr. & Mrs. Colin P. Rose, Nuns' Island.  
Peter Rose, Montreal.  
Max W. Roth, Montreal.  
Professor & Mrs. W. Sanderson, Montreal.  
Sankey/Werleman/Guy, Montreal.  
Carole Schepper, Montreal.  
Norbert Schoenauer, Montreal.  
John Schreiber, Montreal.  
Vincent Scully, New Haven.  
David A. Selby, Montreal.  
Adrien Sheppard, Montréal.  
Pieter Sijpkes, Montreal.  
William Steinberg, Montreal.  
Bela Szell, Montreal.  
Mr. and Mrs. J. Telgarsky, Winnipeg.  
David Thane, Saskatoon.  
Gentile Tondino, Montreal.  
Martin Troy, Montreal.  
Nick Tsontakis, Montreal.  
Carl J. Turkstra, Montreal.  
Barry M. Wexler, Montreal.  
Daniel Zappitelli, Montreal.  
Tony Zinno, Montreal.  
Jozef Zorko, Montreal.  
Jeffrey Zuckernick, Tuscon, Arizona.  
Radoslav Zuk, Montreal.

