

ON CRITICISM

THE PHILOSOPHY OF ARCHITECTURAL CRITICISM

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Any evaluation of architectural criticism, and any discussion as to its purpose and techniques, must presuppose one of two alternatives. Either it is simply a species or aspect of a general activity called "criticism" or an activity which must be considered *sui generis*. Historically, both concepts seem to have emerged in a literary form¹ at about the same time (i.e., in the middle of the 18th century) when Jacques-François Blondel introduced criticisms of Parisian buildings into his published lecture course and when Denis Diderot included criticisms of architectural drawings exhibited at the biennial *Salons*.

At first sight, the notion that architectural criticism is essentially a species of a general activity called "criticism" seems extremely attractive because we have been led by Renaissance humanists into paying unquestioned homage to the ideal of *Uomo universale* and have been conditioned by two centuries of transcendentalism into accepting the paradoxical idea that generalization is so superior to specialization that all forms, ideas and activities can be subsumed within some kind of conceptual unity. Hence the popular architectural notion of *Gestaltung*, whereby "the approach toward any kind of design—of a chair, a building, a whole town or a regional plan—should be essentially identical."

This philosophical concept of organic unity is not peculiar to our own profession, any more than the concept of the "unity of the arts" is peculiar to art historians. It is a general philosophical attitude shared by the Western world for many decades, whereby pedagogy is now conceived as something independent of, and superior to, what is taught; and salesmanship is now conceived as something independent of, and superior to, what is sold. It is thus only natural that we should initially regard criticism as something independent of, and superior to, what is criticized.

It may, however, be more fruitful, in the present context, to take the alternative point of view and consider architectural criticism as a very special activity related only to architecture. In so doing, we may also profitably subdivide this activity into four categories: popular criticism, lay criticism, professional criticism and self-criticism, considering each in turn.

Popular criticism

By popular criticism I mean architectural criticism intended for the general public, and it will at once be apparent that the purpose of this type of criticism is radically different from that which we associate with journalistic criticisms of music, drama and the graphic arts. In general, the public reads criticisms of concerts, plays and exhibitions to find out whether to take the trouble of visiting them. But it bodes ill for the future of architecture if the popular critic of buildings is concerned simply with evaluating their scenic attraction.

There is, of course, nothing wrong with regarding architecture as a form of entertainment. Guided tours round the Lincoln Center are as innocuous as guided tours round the Piazza S. Marco. But the fundamental values of both groups of buildings extend far beyond the reactions of gaping tourists; and it is characteristic of the misapprehensions which can be caused by this kind of criticism that the greatest popularizer of the church of St. Mark, namely John Ruskin, had not the slightest understanding of, or sympathy with, Catholic liturgy or beliefs. Similarly, the architectural qualities of an opera house can only be assessed by people who enjoy operas, who have attended numerous operatic performances in this particular building, and whose experience of other opera houses gives them a basis for comparative evaluation.

These assertions may seem unnecessarily restrictive; but even if they are only partly true, they suggest that architectural criticisms acceptable to the popular press are of little value except as public relations and a means of advertising the architectural profession.

Lay Criticism

By lay criticism I mean not only the layman's criticism of buildings seen or occupied but, most important of all, his criticisms of projects for commissioned buildings. Neither of these aspects of architectural criticism has received the attention it deserves, mainly, perhaps, because even when records exist, they are often incomplete or fragmentary. There are, however, a number of surviving published records which are particularly instructive, such as the various reports of Congressional or Parliamentary committees on the design of government buildings.



"Criticism by visitors to popular places such as Lincoln Center is more than anything a form of entertainment."

For example, there can be few more instructive chapters in the history of architectural criticism than the debate held in the British House of Commons on March 1, 1824, when Soane's enlargement of Westminster Hall (then used as a court of law) was subjected to parliamentary attack. During the debate, Henry Banks opined that "there was no modern architect whose works could be entirely commended," and objected to "the abominable taste in which new buildings of a different order of architecture had been grafted onto the old Gothic." Grey Bennet, taking full advantage of parliamentary privilege, asked who the architect was, "in order that the public might know whom to avoid." Charles Tennyson "animadverted in strong terms on the incongruous absurdities that were manifested in the modern additions of mongrel architecture." Sir J. Mackintosh said that "the system of undistinguishing destruction with respect to ancient royal palaces, and other venerable buildings, which had been so prevalent of late years, was not in unison with the feelings and sentiments of Englishmen," and demanded that new buildings should be in accordance with the *national* character (i.e., Gothic). Sir T. Baring referred to Nash's Brighton Pavilion as "the Kremlin." Even the Chancellor of the Exchequer "regretted quite as much as his honourable friend, the existence of the unpleasant excrescence of which he had so deservedly complained."

As a result, the House of Commons decided by a vote of 43 against 30 to establish a committee to inquire into the state of the Law Courts then being erected at Westminster Hall. The committee's report was tabled on May 14, 1824, and as a result, Soane was obliged to make many radical alterations which can be seen on the drawings preserved in the Soane Museum.

Extracts from this debate have been quoted extensively because they suggest that laymen had far more influence on the development of the Gothic Revival in England than historical text-books might lead us to suppose; and in our present age, when there is so much emphasis on architect's architecture, it seems important to stress the effect of clients' opinions in influencing architectural design. Conversely, in an age which still sympathizes with the 19th century romantic notion of the artist as either a heroic rebel or an intrepid pioneer, it seems worth emphasizing that no architectural criticism can afford to ignore the client's attitude both before and after the completion of a building.



"Westminster Hall, subject of constructive lay criticism with significant results."

Professional Criticism

By professional criticism I mean criticism of architecture by architects for architects, and this can be subdivided into two groups: the criticism of finished buildings and the criticism of preliminary drawings. The professional usefulness of adequate and skillful criticisms of finished buildings is indisputable. Nevertheless, "adequacy" and "skill" are difficult terms to define conscientiously and may well imply notions which the editors of architectural periodicals will find impossible to accept.

For example, I have gradually come to the conclusion that no building can be assessed adequately in environmental terms unless the critic himself has lived in that environment. I doubt if any building can be assessed adequately in functional terms until many months after its occupancy. I do not see how full justice can be done to the architect's final design unless a wide selection of preliminary drawings and models are both illustrated and discussed. But editors of architectural magazines can hardly be expected to be sympathetic to theories of criticism which demand so much space, so much delay and so limited a choice of critics.

On the other hand, the criticism of preliminary drawings—especially competition drawings—has proved itself historically to be the most useful and vigorous type of professional criticism, and this was, generally speaking, the only type of criticism published in architectural periodicals a century ago. By escaping the futility of proposing ameliorations for the immutable (a dilemma inherent in all but the most lyrical criticisms of finished buildings) it enjoys both the validity and responsibility we associate with criticisms of the performing arts. Being concerned solely with the *interpretation* of drawings or models, the critic has as much right to speculate on their ultimate effectiveness as the architect responsible for their design.

It is for this reason that this type of criticism constituted the historical origin of modern architectural education. The *Concours d'émulation*, introduced systematically 200 years ago, have persisted because they provide the only method of comparing architectural solutions to a given problem and creating an awareness of the many possible relationships of small-scale drawings or models to the structural and spatial realities they are intended to represent.

In some schools of architecture, those who teach design are specifically described as "design critics." In other words,

our profession has instinctively recognized that, as far as the process of *creativity* is concerned, the essence of architectural education is architectural criticism. One might even go so far as to assert that the criticism of drawings and models intended to constitute projects for future buildings constitutes the only activity really worth describing as architectural criticism; for the so-called "criticism" of buildings which have already been erected is seldom at its best except when it is a type of history—an objective description of selected significant facts.

Unlike architectural journalism (where the evaluation of a building will only arouse public interest if it either describes novelties or condemns mediocrity), the criticism offered to architectural students by experienced practitioners and scholars is securely based on the knowledge that the audience is not only deeply involved but constantly on the alert for any inconsistencies or inadequacies in the evaluations given. A student demands that criticisms of his work be lucid analyses of specific virtues or failings, and not simply witty expressions of sentimental enthusiasms or dislikes. If a design, which a student thinks is brilliantly original, should seem in the critic's opinion to be neither, then that opinion must be justified verbally with clarity and erudition. If the student's novelties are manifestly inappropriate or unconstructable, he must be given convincing and experienced arguments for their suppression.

Such criticisms are not recorded or published. They are not subject to those methods of electronic information retrieval which constitute the criteria of academic or literary stature. But they are powerful forces available for improving the environment in which we live. For each student can be made to see that the dialogue between his teacher and himself is

simply an exercise in one aspect of the process of design, which he must learn to perform in solitude once his academic training is at an end. For there is no difference between criticism and self-criticism except the number of people involved.

Self-Criticism

The intrinsic involvement of criticism in the creative process of literature and music is beyond dispute, so widespread is the evidence provided by marginal corrections and revised scores. But this involvement is just as great in all the creative processes of the human mind, even if its evidence in some disciplines is more obscure. The distinction made by our leading structural engineers (such as Mario Salvadori) between "design" and "analysis" is, in fact, a distinction between intuition and self-criticism, even though the essentially mathematical quality of this criticism seems to set it apart from the more subjective and frequently uncertain self-criticism of the architect.

Nevertheless, every evaluation of an intuitively conceived form is a criticism, and criticism implies criteria. How to establish architectural criteria, and how to use them, is beyond the scope of this essay; but if what has so far been written has demonstrated the practical value of architectural criticism, both architectural practitioners and architectural students can at least be encouraged to work out the criteria for themselves.

NOTES:

1. *Verbal* criticisms of buildings are presumably as old as architecture itself, and some have survived in documentary form, as for example, Bernini's views on French architecture reported in Fréart de Chantelou's diary (published in 1885). However, I doubt if the systematic publication of criticisms of buildings by architects, art critics or teachers of architecture antedates 1750, though occasional critical allusions to architecture are to be found in essays and satirical verse.

John Nash: Royal Pavillion, Brighton—as remodelled (1815 - 23)



JUDGEMENT

AS A RATIONAL PROCESS

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Any opinion expressed about a building or group of buildings can, in its widest sense, be called a rational judgement. In this sense, Ruskin's rapturous assessment of the merits of St. Mark's, Venice, is just as much a reasoned judgement as a surveyor's report on the condition of a mediaeval barn. In the narrower and stricter sense of the term, however, it may be assumed that professional judgements in architecture are neither the dithyrambic transmutations of poetic experiences induced by the contemplation of a building, nor the bare catalogue of a building's physical merits and defects. They are, we may presume, sober and sensitive critical assessments of the total quality of a building envisaged as a synthesis of every aspect of its design. Such assessments are rarely put into writing (even by judges of architectural competitions); nor are they elaborated into lengthy detailed expositions customary in Courts of Appeal. But elaborations of such judgements, and even attempts to reconcile or distinguish conflicting opinions, by means of reasoning, seem to be an indispensable part of the architect's *creative* process. The only controversial aspect of the activity concerns the difficulty in reaching general agreement as to what exactly this "rational" element implies.

The nineteenth-century theory of Rationalism, as expounded most eloquently by Viollet-le-Duc, has been criticized from two diametrically opposed points of view. First there are those who contend that an architect, being an artist, designs intuitively, and hence judges intuitively, so that the merits of his works are incalculable of assessment by Aristotelian, Cartesian or any other "rational" methods. Secondly, there are those who contend that nineteenth-century Rationalism was just a clumsy and obsolete substitute for judgements now capable of solution with absolute precision by computers. The only common ground of these two dissenting points of view is the shared implication that *debate* about architectural judgement is impossible. Hence those

who hold either view would presumably deny that legal judgements could possibly provide any useful analogy to architectural judgements, since the former, being based in Anglo-American law on an "adversary" system, assumes that there must be two points of view, even if one point of view is virtually untenable.

Scepticism as to the reality of "Rationalism" as a dialectical process cannot be ignored, because such scepticism was expressed even by those who were most influential in popularizing the doctrine in the nineteenth century. César Daly, in an editorial in the 1866 issue of the *Revue Générale*, stated that although the Rationalist School (with which he sympathized) was assuming considerable importance in France, its virtue in assuring technological progress was offset by its inevitable tendency to retard aesthetic progress.¹ John Summerson (whose essay on Viollet-le-Duc and his theory is a masterpiece of its kind) considered that Rationalism was vitiated by the fact that it was possible to envisage two kinds: the first depending wholly on the extent to which function can be mathematically stated, and the second depending on the architect's personal interpretation of function. "The first sort is ruthless in its application of means to ends; the second sort adapts both means and ends to a game of its own. The first sort of architecture is, as a matter of fact, almost impossible for conception...the second sort of architecture is a perfectly feasible one, the only proviso being that the function of the building be considered as a sufficient emotional interest to make this dialectic mode of expression significant."²

The credibility of nineteenth-century Rationalism has been affected in the present century by the introduction of parallel concepts, such as the idea of "organic architecture" developed by Frank Lloyd Wright, and the cult of "functionalism." Moreover, there are doctrinal ambiguities inherent in such architectural labels as "rationalism" and "functionalism" which are well exemplified by the title of Alberto Sartoris's "panoramic synthesis of modern architecture," published in Milan in 1935, where the title on the front cover reads: *Gli Elementi dell'Architettura Funzionale*, whilst the title on the spine reads *Architettura Razionale*. In this instance, the confusion was to some extent due to misgivings expressed by

Le Corbusier in a letter written in 1931; a letter which Sartoris published in the preface. In this letter, Le Corbusier contends that the term *architectura rationale* is too limited, and adds: "our rationalist cenacles negate, though only theoretically, the fundamental human function of beauty, namely the beneficial and invigorating action which harmony has upon us."

Walter Gropius also rejected the term "rationalism" in *The New Architecture and the Bauhaus*, though this was mainly due to the disrepute into which *Die neue Sachlichkeit* had fallen in the 1930's.³ "Rationalism," he wrote, "which many people imagine to be the cardinal principle (of the New Architecture), is really only its purifying agency. The liberation of architecture from a welter of ornament, the emphasis on its structural functions, and the concentration on concise and economical solutions, represent the purely material side of that formalizing process on which the *practical* value of the New Architecture depends. The other, the aesthetic satisfaction of the human soul, is just as important as the material."⁴ These emphatic repudiations of Rationalism by both Le Corbusier and Gropius, and their reasons for repudiating it, are important, because the nineteenth-century ideal of Rationalism, as expounded by Viollet-le-Duc and exemplified by Henri Labrousse, had never implied that "Rationalism" must necessarily exclude emotion. Following Boileau (whose *Art Poétique* was written in 1674), these French theorists regarded reason as an arbiter of architectural criticism, and never as the sole mechanism of architectural creativity. Hence, any discussion as to whether architecture should be either rational or emotional would, as far as these theorists were concerned, be intrinsically futile.

The validity of Rationalism as a basis for architectural criticism must surely depend on whether or not the essential qualities of good architecture can be assessed by *debatable* judgement. Before the Freudian era, this concept of a reasoned judgement, though difficult to define with philosophical precision, was at least relatively free from ambiguities in this respect. But since the middle of the last century, when the verb to "rationalize" was gradually introduced into our vocabulary, the difference between "reasoning" and "rationalizing" has obscured and complicated the essential nature of the problem. Nevertheless, it is some consolation to reflect that the complexities which this ambiguity has introduced into architectural theory are miniscule compared with its devastating effect on legal theory; and although American jurisprudence has now more or less recovered from Jerome Frank's shattering assault on the traditional theory of legal judgement, the nature of this assault, and the peculiar vulnerability which theories of legal judgement display to such attacks, makes legal theory an ideal "model" (as the sociologists would say) for elucidating the fundamental problems of professional judgement in architecture.

Professor Frank's argument in *Law and the Modern Mind* may be summarized as follows: "It has long been a tradition among lawyers to assert that judicial decisions are reached by a process of reasoning. But in fact, this overt display of reasoning is sheer bunkum. When a judge hears a case, he gradually makes up his mind (since the law insists that he *must* make up his mind); but he does so in response to a variety of factors which have nothing to do with reason, and range from the bias of his social prejudices to the rawness of his ulcers. The so-called 'reasons' which he finally sets forth in his official opinion are nothing more than rationalizations of predetermined hunches. If he has decided to give judgement in accordance with precedents cited on behalf of the plaintiff, his

trained intelligence and mastery of legal jargon will easily allow him to demonstrate their relevance. If, on the contrary, he favours the defendant, he can just as easily demonstrate the opposite. Judicial opinions are simply the expression of a subconsciously persisting childhood image of a 'father-figure;' and anyone who studies such opinions in the hopes of understanding the nature of law will be wasting their time."

Much of the force was taken out of Jerome Frank's argument by the simple expedient of promoting him to the Bench, when, as Judge Frank, he discovered that the judicial process was rather more objective than he had hitherto supposed. But even if we accept that Jerome Frank's original theory has now been shown to be incorrect, we are not thereby dispensed from analysing the rationalist theory of architectural judgement with the same scepticism that he displayed. Viollet-le-Duc, the father of modern architectural rationalism, approached the same problem from the other end when he wrote: "Observe in how many cases Reason confirms the judgement pronounced by Taste. Often—perhaps always—what we call taste is but an involuntary process of reasoning whose steps elude our observations."⁵

Similarly, the careful analysis made by Mrs. Johnson Abercrombie with respect to the psychology of perception and reasoning⁶ must not be allowed to obscure the fact that the legal profession long ago accepted, as one of the facts of life, that eye-witnesses frequently give contradictory evidence without the slightest taint of perjury. Indeed, it is one of the commonplace duties of a court of law to fashion justice from such contradictions and inconsistencies, asserted in perfectly good faith. Hence, although it is certainly useful for an architect to understand the psychology of perception, professional judgements in architecture, like professional judgements in law, become little more than academic exercises if we subscribe to a theory that all humanity can be so schooled in perceptiveness as to describe uniformly both the shape and significance of objects seen, and to draw identical conclusions from occurrences observed.

Every architect knows perfectly well that, when designing a building, his initial reasoning process is a sequence of rationalizations, in the sense that it is a series of "inspirations rigorously analyzed by reason."⁷ He visualizes some relationship of forms intuitively, and then tries to justify it in relationship to the programme. Often it is only with the greatest reluctance that he can bring himself to abandon his brain-child and search his mind for another. In practice, therefore, the question is not so much "why does the architect *choose* certain relationships of space?" but rather "why does he *reject* certain relationships of spaces?" The quality of an architect's creative talent may well be measured by the variety of spaces he is capable of conceiving; but the quality of his judgement depends upon his criteria of rejection, and the scruples with which they are applied.

Here, perhaps, lies the only real difference between the judicial functions of law and architecture. However creative the celebration of a High Court judge may be, it must necessarily be of a somewhat different order from that of an architect. Admittedly, it is quite possible, in theory, for a High Court judge, like an architect or an advocate, to envisage the solution of each particular problem as a process of selection and permutation from among every precedent he has ever encountered throughout his career. But in practice, judges rarely need to range beyond those precedents which are actually cited to them by the lawyers in charge of the case. Famous disputes have indeed been decided on the basis of one of the judge's own discoveries. Chief Justice Best's decision

in *Jones v. Bright* (1829) was largely influenced by a precedent not cited at the bar.⁸ *Norway Plains Co. v. Boston and Maine R.R.* (1854)⁹ was decided on the basis of *In re Webb*, which Chief Justice Shaw seems to have come across accidentally when looking up another case in the same unreliable volume of Taunton's Law Reports.¹⁰ But such occurrences must be rare. In fact, architectural judgement seems to be an amalgam of the functions of all the participants of a legal trial, in that an architect must not only weigh the merits of arguments, both for and against each potential solution, with judicial impartiality, but he must stimulate the adversary system of a Common Law trial by some kind of private intellectual debate within his own mind.

If this analysis of the creative process of architecture is correct; if architectural judgement is in fact more concerned with rejection than selection, then perhaps the most apt legal definition of reason is that given by Blackstone two centuries ago, when defining customary law. "Customs," he wrote, "must be reasonable, or rather taken negatively, they must not be unreasonable."¹¹ This, essentially, is all that the traditional Rationalist has ever demanded of an architectural design. He does not ask that it should demonstrably fulfil its function to perfection, that its structural system should demonstrably be the most elegant and economical that any civil engineer could devise, and that its environmental amenities must be proved to be unsurpassably exquisite. He simply asks that no architect should continue working on a project once he has become aware that it is unsuitable in its composition, illogical in its structure and incapable of harmonizing with its environment or with its component parts. This moderation partially explains why Rationalism is so unfashionable today. Rationalism has always been essentially a tolerant doctrine; hence it is as uncongenial to those for whom architectural creativity is analogous to Action Painting as it is to technocrats who dream of creating an everlasting urban utopia within five years.

Another reason why Rationalism is unpopular is that it conceives of reason in much the same way that the law conceives of a "reasonable man." Whenever litigation involves alleged negligence, the traditional Common Law test is usually: "what would a reasonable man have done in the circumstances?" Judicial definitions of a reasonable man have been numerous, varied and picturesque; but the frequency with which a jury of twelve reasonable men can stubbornly refuse to give a reasonable verdict has so persistently exasperated the judiciary, that jury trials in civil cases are becoming increasingly rare. Reasonable men also exasperate famous architects; for whatever definition we may choose for a reasonable man, it is unlikely that any architectural Form-Giver would recognize him as his ideal client. The basis of Le Corbusier's housing units (as they evolved from the mock-up exhibited in Paris in 1925 to their culmination in the various Unités d'Habitation) has been the Parisian artist's ideal dwelling since the mid-nineteenth century, i.e. a large glazed studio at the front, with an indoor balcony at the back covering the kitchen area and containing a bed. How suitable this is for a reasonable man, is difficult to assess, though the transformation of Pessac,¹² and the alacrity with which *béton brut* interior walls are covered with wallpaper suggest that the proletariat is more conservative than *avant-garde* architects care to admit. The sociological surveys of three housing units (including the Unités d'Habitation at Nantes) conducted by Paul Chombart de Lauwe estimated that thirty-two percent of the housewives at Nantes considered their kitchens to be too small, whilst forty-five per cent considered them so small as

to be totally inadequate.¹³ "Whilst granting to architects the role of educator of the occupants, and wise promoter of a new way of life in new dwellings and new cities, we nevertheless think that more attention should be paid to the needs and desires of families," the author writes. "For example, the solution which consists in providing a wide opening from a bedroom onto a living room is unacceptable."¹⁴

Rationalism has recently come under attack from another quarter. With the sudden advent to popularity of architectural theorists who advocate complete permissiveness, and affectionately regard Las Vegas as the twentieth-century equivalent of Versailles, it is no longer enough for Rationalists simply to demand greater tolerance in judging what is reasonable; they must reaffirm their belief that their kind of tolerance does not exclude criteria, and that such criteria can be enunciated in the form of rational principles.

The classical concept of "architectural principles" was unfortunately undermined by well-meaning but inept treatises published in the first half of this century, when "principles" were discussed rather aridly in terms of platitudinous generalizations such as "unity," "contrast," "balance," "punctuation," "inflection," and so on. In the present context, it will be profitable to forget such classifications for the moment, and examine whether any help can be obtained by analogy with the notion of "principles" as understood by practitioners of the law.

The popular idea of a legal principle is of an orotund Latin epigram. This idea was probably first popularized by Lord Bacon, who announced in his *Elements of the Common Laws of England* that "the rules themselves I have put in Latin, which language I chose as the briefest to contrive the rules compendiously, the aptest for memory, and of the greatest authority and majesty to be avouched and alleged in argument."¹⁵ However, the idea proved so infectious that when, in 1863, Chief Baron Pollock absent-mindedly made the comment: *res ipsa loquitur*¹⁶ instead of simply saying "the thing speaks for itself," the phrase was adopted with such enthusiasm and alacrity by the Bar, that it was eventually used to designate a principle enunciated by Chief Justice Erle (in *Scott v. London & St. Katherine Docks*)¹⁷ to the effect that "where an accident is such as in the ordinary cause of things does not happen if those who have the management use proper care, it affords reasonable evidence, in the absence of explanation by the defendants, that the accident arose from want of care." By 1896, we find the principle being specifically referred to as "the rule of *res ipsa loquitur*" in an American court of law;¹⁸ and it has been so termed ever since.

If, however, we seek the essential character of legal principles, as expounded or implied by judges when deciding cases, it seems clear that they stem from an entirely different concept, first enunciated (also in Latin) about a century ago: the concept of a *ratio decidendi*. The full implications of *rationes decidendi* are a favourite topic of professors of jurisprudence, since they allow full play for the intellectual sport of demonstrating the inherent contradictions of previous scholars' definitions. For our purposes, however, it can be defined quite adequately as the doctrine that there must always be some fundamental reason for deciding a case one way rather than another, and that this reason is the principle, or fundamental criterion, on which the case has been adjudged (whatever other remarks may have been made by the Court in its published opinion).

To demonstrate the relevance of this concept to the problems of architectural judgement, let us take, as an example, a critique published by Professor Peter Prangnell on the

Amsterdam City Hall Competition.¹⁹ After describing the Toronto City Hall, the Boston City Hall, and Wilhelm Holzbauer's winning project for the Amsterdam City Hall as "three monuments to the idiocy of our times," he justifies this rebuke by explaining that, traditionally, city halls have housed the secular organization by which city services are provided and regulated, and thus a city hall should demonstrate those qualities that citizens really value. Such qualities, he says, vary with the occupations and interests of each citizen; hence a city hall should be, in microcosm, the image of streets and places of cities; freely accessible and interiorized.

After describing the prize-winning Amsterdam scheme as simple-mindedly boorish, Professor Prangnell amiably continues: "the whole package does not make one civil gesture towards that extraordinary example of the city Amsterdam. This must be the crucial issue..." Then, after elaborating upon the nature of this crucial issue, he expresses the view that two projects, one by Heijdenrijk and the other by Hertzberger, *did* take it into account.

If Professor Prangnell had been one of the official judges of the competition,²⁰ he would obviously not have asserted that the qualities praised in these schemes were *alone* sufficient to justify giving their authors the prize. He would, for example, have had to make sure that both Heijdenrijk and Hertzberger had complied with all the published conditions of the programme. But if we assume, for the sake of argument, that the judges were wrong in specifically asserting that Heijdenrijk did not comply with the conditions,²¹ then the *ratio decidendi* of Professor Prangnell's judgement could be stated as the principle (which he enunciates) to the effect that "a project for any public building must have, at its root, a concern with the city-like fabric of support and fill, and must be concerned primarily with supporting all those elements and actions of life that make for agreeable citizenship."²²

Whether or not this *ratio decidendi* is valid, or whether it means anything at all, is, in the present context, immaterial. It need simply be noted that Professor Prangnell very logically based his judgement of this whole complex issue on one single principle which he considered of over-riding importance, and that he supported it by reference to two precedents which he considered authoritative, namely Shadrach Woods' Free University of Berlin and Le Corbusier's Venice Hospital.²³

The second important aspect of Professor Prangnell's principle of judgement, which is also relevant to the judicial theory of a *ratio decidendi*, is its implicit assumption of a context. It is appropriate here to note that there has long been a lively controversy among jurists as to whether a *ratio decidendi* is totally dependent on its context, or whether it constitutes a principle with a life of its own. Cardozo seems to have taken the latter viewpoint, since in *The Nature of the Judicial Process* he criticized²⁴ Lord Halsbury's pronouncement that "a case is only an authority for what it actually decides. I entirely deny that it can be quoted for a proposition that may seem to follow logically from it. Such a mode of reasoning assumes that the law is necessarily a logical code, whereas every lawyer must acknowledge that the law is not always logical at all."²⁵ Yet if we examine the context of Lord Halsbury's statement, there seems much to be said for his point of view, which was by no means novel, and had been made by numerous judges, as for example by Chief Justice Best in *Richardson v. Mellish* (1824).²⁶

The particular case referred to by Cardozo (*Quinn v. Leatham*, 1901) revolved around the general issue as to whether a dispute between members of a trade union and an employer

of non-union workmen was a trade dispute within the meaning of the *Conspiracy and Protection of Property Act* of 1875. The crucial problem which eventually confronted the House of the Lords was whether or not a decision in an earlier case (*Allen v. Flood*, 1898) constituted a binding precedent. Lord Halsbury contended that it did not, since in *Allen v. Flood*, it had been decided²⁷ that the defendant had uttered no threat, the trade union had passed no resolution, and the defendant had done nothing except express his personal views in favour of his fellow members. In *Quinn v. Leatham*, however, the evidence had shown that there had indeed been a conspiracy to induce the plaintiff's workmen to go on strike; hence whatever might have been the *ratio decidendi* of *Allen v. Flood*, it could never, according to Lord Halsbury, be applicable to a lawsuit based on the Statute in question.

This doctrine had been stated even more forcibly by Lord Halsbury in an earlier case (*Monson v. Tussaud*, 1894):²⁸ "I have some difficulty," he said, "In following the argument that a decision of the Court on one set of facts is an authority upon another and a totally different set of facts. Of course, if the two sets of facts are governed by some principle of law, the principle of law affirmed by the Court is equally authoritative to whatever facts the principle may be applied; but where the strength and cogency of the facts themselves, or the interference derived therefrom, is in debate, I cannot, as a matter of *reasoning*, compare one set of facts with another and bring within any governing principle."

These judicial opinions have been quoted in detail since they illustrate a principle of legal judgement which seems highly relevant to architectural judgement, even though it seems to have been generally overlooked by those who have written about architectural "rules." There is undoubtedly a whole *corpus* of architectural principles, enshrined in precedents, which can be aduced by the aid of reason, and applied to new or even hypothetical situations. But the congruity of the context is essential to the proper application of such principles, otherwise they produce only mechanical, alien and moribund *pastiches* of a type which brought "the rules of architecture" into justifiable disrepute. According to Howard Robertson's *Principles of Architectural Composition*, "the examination of the practical factors which influence the design of buildings in a direct and concrete sense forms a study quasi-independent of the consideration of design in the abstract."²⁹ But even the most superficial study of legal judgements will convincingly demonstrate that there is no such thing as "the consideration of adjunction in the abstract," and that even the broadest of legal generalizations depend for their application, in the last resort, on the context in which they are applied. Consider, for example, the maxim which can be translated as: "no one will be heard to assert his own shameful conduct."³⁰ At first sight, this proposition that no one may come into Court simply to ask for punishment might seem so obviously in accordance with the administration of temporal justice as to be applicable automatically, as indeed it *was* so applied by Lord Mansfield when he refused to allow a juror to testify to his own impropriety.³¹ But it eventually became clear that a jury *does* reach its decision by improper means (such as by casting lots), there is literally no other way of detecting such impropriety other than by a sworn confession from one of its members.³²

I claim then, that if we regard the principles of architecture in the same light that judges regard the principles of law, those principles are equally meaningful and genuine, since they form part of a creative "cybernetic" process involving *reasoning within an appropriate context*. For although the primary

ing is ostensibly the specific requirement of a client, in law and architecture any valid decision must depend on wider contexts: the context of history (which provides precedents), the context of society (which provides safeguards for the public with regard to the possible effects of any decision on those not immediately involved) and the context of the physical environment (which provides both a sense of place and the judicial guidelines of customary law). All these factors must be in

context of legal reasoning is ostensibly the specific issue in dispute, just as the primary context of architectural reasoning is the process of reasoning, just as the process of reasoning must be involved in the process of evaluation, and when an architect can enunciate his reasoning with the same clarity and precision as a High Court judge, he may feel assured that his judgement is professional in the noblest and most apt sense of the term.

NOTES:

1. *Op. cit.*, vol. xxiv, col. 3.
2. J. Summerson, *Heavenly Mansions* (paperback ed.), p. 149.
3. See B. M. Lane, *Architecture and Politics in Germany, 1918-1945* (1968), p. 130.
4. *Op. cit.* (1935 ed.), pp. 19-20.
5. E. E. Viollet-le-Duc, *Entretiens* (1863), vol i, p. 29, here given in Bucknell's translation, p. 29 (*très-souvent peut-être toujours le sentiment du goût n'est qu'un raisonnement involontaire dont les termes nous échappent.*)
6. In *The Anatomy of Judgement* (1960), ch. 2 and 3. The author of this book is now Reader in Architectural Education at London University; but when it was written she was in the Department of Anatomy, studying "perception in cerebral palsied children." The book is not therefore specifically concerned with architecture.
7. Viollet-le-Duc, *op. cit.*, vol. i, p. 179: "... l'inspiration revêtue d'une distinction particulière à toute oeuvre produite par un sentiment vrai analysé rigoureusement par la raison, avant d'être exprimé."
8. 5 Bing. 533 at p. 543: "However, I do not narrow my judgement to that, but think on the authority of a case not cited at the bar, *Kain v. Old...&c.*, &c."
9. Supreme Court of Massachusetts, 1 Gray 263.
10. Unfortunately, the eighth volume, to which Chief Justice Shaw referred, was notoriously unreliable. Cf. remarks (quoted in a footnote to chapter six) by Baron Parke in *Hadley v. Baxendale*.
11. Sir William Blackstone, *Commentaries on the laws of England*, p. 77 (Intro., sec. 3).
12. See: Philippe Boudon, *Pessac de la Corbusier* (1969).
13. P. Chombart de Lauwe, *Famille et Habitation* (1960), p. 80.
14. *Ibid.*, p. 107.
15. *Op. cit.*, Preface.
16. A phrase he doubtless recollected from Cicero's *Oratio pro Milone* (though Cicero wrote "*res loquitur ipsa*"); or from *Roberts and Tremayne's Case* reported in Cro. 16 Jac. I, p. 508.
17. 1865, 3 H. & C. at 601.
18. In *O'Neal v. O'Connell* (167 Mass. 390), per Lathrop J. The term appears in the 1867 edition of Bouvier's Law Dictionary, but in no earlier edition.
19. *The Canadian Architect*, March 1969, pp. 60 ff.
20. Which included Professor Sir Robert Matthew and Professor J. Schader.
21. *Jury Report*, p. 23.
22. *The Canadian Architect*, March 1969, p. 62.
23. *Ibid.*
24. *Op. cit.* (paperback ed.), p. 32.
25. *Quinn v. Leathon* (1901) A.C. 495 at 506.
26. 2 Bing. at 248.
27. It is important, in the present context, to note that when *Allen v. Flood* was decided in the House of the Lords, Lord Halsbury dissented from the majority opinion. In other words, he differed as to the interpretation of the facts constituting the subject of the *ratio decidendi*.
28. 1894 1 Q B. at 689.
29. *Op. cit.*, p. 3.
30. "*Nemo turpitudinem suam allegans audietur.*" Professor Wigmore, in his famous treatise on *Evidence*, describes this as an eighteenth-century maxim; but in fact it occurs in Coke's *Institutes* (Bk. IV, ch.64) in the form: "*allegans suam turpitudinem non est audiendus.*"
31. *Vaise v. Delaval* (1785) 1 Term. Rep II.
32. Cf. the Pennsylvania case of *Commonwealth v. Weizman* (1936) (25 Pa. Dist. & County 469), where the members of the jury were fined \$10.00 for Contempt of Court.





Grand Stair Hall, Bordeaux Opéra, by Victor Louis

ARCHITECT'S ARCHITECTURE VS. LAWYER'S LAW

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For the last two hundred years it has been customary to regard the philosophy of architecture as a branch of the philosophy of the "Fine Arts," or as part of that branch of philosophy known as "Aesthetics." Since there is no disputing that architecture is a "visual art," the advantages of studying its criteria with respect to other "visual arts," or with respect to some philosophical system which demonstrably underlies all forms of "art" (whether visual or otherwise), will be only too obvious. But the justification for basing a philosophy of architecture *exclusively* on such philosophies is by no means self-evident, and may indeed be questioned on three major grounds.

Firstly, the notion that architecture is akin to painting and sculpture is based on certain methods of training which were current in Italy in the early sixteenth century; but even if these methods were valid at the Renaissance (which is by no means certain) it does not necessarily follow that they must be valid today. Secondly, it is clear that, whilst a number of distinguished philosophers have regarded "Aesthetics" as a key to the understanding of all the "Fine Arts," this concept pre-supposes the notion that all activities so classified have certain fundamental qualities in common; for there can be little point in discussing *differentiae* until the existence of the *genus* has been demonstrated. Thirdly, whatever may have been the "artistic" condition of architectural practice before the mid-eighteenth century, it is now undisputably a *profession*; thus it would seem wise to examine whether or not its principles can be deducible by analogy with other professions, such as medicine and law, before regarding the practice of architecture as professionally *sui generis* or artistically unique.

The first two notions, which imply that architecture, sculpture and painting should be considered as belonging philosophically to the same *genus*, and that an understanding of "Aesthetics" provides the philosophical apparatus for comprehending all the "Fine Arts," can be disputed on a number of grounds. In the present context a reference to two authorities will suffice. The first is E. L. Boullée, who complained: "Oh how preferable is the fortune of painters and writers; free and without any kind of dependence, they can choose all their subjects and follow the impulse of their genius. Their reputations depend upon them alone."¹ The second is professor W. E. Kennick, whose essay "Does Tradi-

tional Aesthetics Rest on a Mistake?", published in the *Collected Papers on Aesthetics* edited by Fr. Cyril Barrett, suggests that the concept of "Aesthetics" is devoid of all philosophical reality. Undoubtedly, the traditional "Aesthetic" basis of architectural philosophy has certain practical values; but it seems to me that the traditional emphasis on the visual or emotional qualities of architecture has been due to fortuitous historical and philosophical causes which have given "Aesthetic" theories an unmerited preponderance. The purpose of this study is certainly *not* to demonstrate the total irrelevance of this traditional "Aesthetic" basis, but simply to question its total adequacy. In other words, it is an attempt to correct a distortion and disequilibrium of method which has vitiated much which now passes for architectural criticism and has caused architectural philosophy (or "architectural theory" as it is sometimes called) to fall into unmerited disrepute.

At the same time, it should be pointed out that, paradoxically, students of law show considerably more antipathy toward the study of jurisprudence than architectural students show towards the philosophy of architecture; so much so that the Faculties of Law of French speaking universities have virtually abandoned all attempts to include the philosophy of law in their curricula.² Similarly, in medical schools, the philosophy of medicine is virtually non-existent as an academic discipline. But it can, I think, be shown that this undervaluation on the part of the students of law and medicine (as compared with students of architecture) is explicable in terms of the peculiarities of their chosen professions. The Anglo-American system of law is such that students enter the legal profession with the primary intention of becoming *advocates*. Doubtless many of them are optimistic enough to hope that one day they will achieve such eminence as to be called upon to *judge*; but it is only natural that their main academic interest, as students, should be with the material and techniques of *litigation*, and only the most exceptional students can be expected to have the perspicacity to perceive the importance of philosophical problems which will have little practical relevance for them before they are either elected to the Legislature or promoted to the Bench.

Similarly, medical students have every incentive to devote all their intellectual energies to the materials and techniques of healing, without pondering about the *condition humaine* of those they will heal. The complex and challenging

scientific problems concerning the prolongation of human life must seem of more pertinence to the medical students than any ethical problems concerning the extent to which such prolongation may or may not increase the happiness of those involved. Hence, the average medical student is as little concerned with the implications of condemning men to live as is the law student with the implications of condemning men to die.

Architectural students sometimes show impatience with the philosophical problem related to their art, but for very different reasons. Their main concern is with the absorbing creative processes of architectural design, and with the vast mass of technological and sociological information required to achieve it effectively; yet they are well aware of the philosophical implications of criticism, since in many schools of architecture those who teach design are in fact called "critics." But students, by virtue of their youthful inexperience, inevitably tend to see the present as the beginning of the future rather than as a transitional period constituting a prolongation of the past. This does not mean that a philosophy of architecture will only be acceptable to them in so far as they can be made to perceive its immediate relevance to their own current creative activities. But it does mean that any attempt to convey that philosophy by reference solely to the past is fraught with peculiar difficulties unknown to the teacher of the Common Law, since (as all law students are well aware) the study of law and the practice of law are essentially, by their nature, *historical* disciplines, based on precedent and on statutes enacted in the past.

The literature devoted to the study of architecture as a profession is scarce. So far, only two standard works seem to have been published in English. The first, by Frank Jenkins, is entitled *Architect and Patron*, and is essentially a factual history. The second, Barrington Kaye's *The Development of the Architectural Profession in Britain*, is far more philosophical; but since the author is a sociologist, he bases his arguments on the general definition of a profession as "an occupation possessing a skilled intellectual technique, a voluntary association and a code of conduct." At first sight, the concept of "a code of conduct" might seem the obvious and facile link between the philosophy of architecture and the philosophy of law. But in fact this present enquiry is not in any way concerned with the social behaviour of architectural organizations, but rather with the problems of choice implicit in the term "skilled intellectual technique." This, of course, has little relevance to Dr. Kaye's thesis.

In order to explain what, in the design of buildings seems to indicate a real affinity between jurisprudence and the philosophy of architecture, I would suggest four headings. The first is the popular concept of "natural laws" as meaning the laws of inanimate nature. The second is the more accurate concept of "natural laws" as meaning the relationships between members of a civilized society. The third is the concept of "conventional law" as meaning obligations based on social convention.³ The fourth is the concept of "judgement," as meaning evaluation based on explicable criteria. It will be apparent that, in Vitruvian terms, the first three correspond to *firmitas*, *utilitas* and *venustas* respectively; but such correspondence would be merely verbal and artificial unless it could be established that both jurisprudence and the philosophy of architecture have a common basis. I would suggest that they have, and that it is the notion that both professions presuppose "rules" of some sort or another.

The notion that law implies some sort of rule would seem so fundamental to the whole concept of jurisprudence as to

be self-evident. Indeed, it might be argued that, in so far as the study of jurisprudence (in its contemporary English sense) originated in the mid-eighteenth century with Blackstone's lectures,⁴ the idea of legal rules and the nature of legal rules is the whole basis of a philosophy of law. Yet Professor Hart devotes considerable space in *The Concept of Law* to what he terms "rule-scepticism,"⁵ and this scepticism is of immense relevance to any study of the philosophy of modern architecture (which can also be regarded as originating in the mid-eighteenth century), since the conflict as to whether rules are or are not a fundamental aspect of architectural design has been a vital factor in the development of architectural thought. The number of books which, during the last two hundred years, have attempted to demonstrate that architects of the eras prior to 1750 achieved excellence by observing certain rules of proportion (thereby implying that similar rules might be applicable today) is considerable. Even Le Corbusier's *tracées regulateurs* and "Modulor" belong essentially to this tradition of thought. But when J. F. Blondel complained in the mid-eighteenth century that students were wilfully disregarding rules in an unscrupulous quest for originality,⁶ he bore witness to the emergence of "rule-scepticism" which many architects today would consider the essential trait of modern architecture. Hence, until the nature of "rules" and "rule-scepticism" has been resolved with respect to both disciplines, there seems little point in enquiring why or how this scepticism arose in architecture, or in what manner any rules do or might still apply.

It is important to emphasize here the generic quality of the term "rule"; for, as John Austin implied in the first lecture of *The Province of Jurisprudence Determined*, a law is obviously some kind of rule, but all rules are not necessarily some kind of law. Thus in architecture, we may legitimately distinguish between those natural laws which affect *firmitas* and *utilitas*, and the possibility of another class of rule which may or may not affect *venustas*, but which is certainly the only class of rule which the majority of architectural theorists from 1750 onward have considered to be the domain of architectural philosophy.

This latter type of rule can best be understood in the context of those which Professor Hart discusses with respect to games. The whole essence of a game is that despite certain intrinsic and widely recognized values, its rules are essentially *arbitrary* and a matter of *convention*. Whether or not it is meaningful to say that someone plays tennis "beautifully" (a semantic problem discussed by R. G. Collingwood⁷ and other writers on aesthetics) need not detain us here. The important fact is that it is certainly meaningful to ask whether the game itself is meaningful. Some enthusiasts may justify the sport by reference to "natural laws," such as the desirability of keeping oneself fit, or the desirability of fostering social relationships; and these arguments may well provide a partial justification. But they can never constitute a *total* justification. Tennis may be played because it is healthy, because it is socially useful, or simply because it is enjoyable. But it is only playable at all if tennis-players voluntarily agree to certain rules which, in a legal sense, may be termed "arbitrary." These rules, in other words, are solely tennis-players' rules; but whereas no one would scornfully dismiss the skill of a tennis-player by some derisive expression such as "tennis-players' tennis," architects, doctors and lawyers can see quite clearly what would be derogatory about the descriptions: "architects' architecture," "surgeons' surgery" or "lawyers' law."

The essentially derogatory nature of such criticism is its

implication that the practitioners are making a mere game out of something of far deeper human concern. The histrionic oratory of a popular advocate may effectively save a malefactor from well-deserved retribution, or deprive a plaintiff of the restitution of his rights; but it will usually irritate the judge, and must be considered by any thoughtful member of the jury as being just as despicable as the medical virtuosity which prolongs the senility of an octogenarian by a few more months, or that architectural virtuosity which disregards the reasonable requirements of a client and the amenities of his neighbours in the search for "artistic" expression. It is not that these aspects of forensic, surgical or architectural skill are held in low regard. What is criticized is the cynicism, conceit and distortion of values which arrogates to one aspect of professional skill a virtue isolated from the total good which the profession is intended to achieve and the purpose it is intended to serve.

Ethically, then, the most obvious affinities between jurisprudence and architectural philosophy would seem to be those based on what are termed "natural laws" and those based on laws concerning voluntary obligations. But it seems worth emphasizing that, in the first category, the scientific concept of "law" derived initially from the juridical concept of law, rather than vice versa. Newton regarded his own discoveries as simply "mathematical principles of natural philosophy," and it was the Rev. John Wallis who first seems to have related them to the Laws of Divine Providence. He coined the term "General Laws of Motion" in 1668 when explaining his astronomical theories to the Royal Society. It seems doubtful whether the notion of scientific "laws" entered French thought before Voltaire published his *Eléments de la Philosophie de Newton* in 1738, when he refers in his preface to "ces lois primitives de la nature que Newton a découvertes." Moreover, even though Dr. Johnson's definition of law as "an established and constant mode or process; a fixed correspondence of cause and effect" sounds scientific in a modern sense, the source he gives for this definition is Shakespeare's *Cymbeline*.

Hence the question: "To what extent do the laws governing rational structures and functional plans relate to natural law?" is of more relevance to jurisprudence than might first appear, because if one considers structural and functional laws in relationship to the philosophy of law, rather than to the philosophy of science, one can see why so much variety is permissible. The prestige of wide-span structural engineering—despite the number of bridges which have dramatically collapsed—has tended to make architects think of the "laws" governing short-span structural design as imposing immutable shapes on structural members such that they become simply a kind of diagram of the minimal dimensions needed to resist bending, compression, buckling and shearing. For over a century, therefore, the philosophy of architectural structures has suffered through being an intellectual battleground where the most vociferous belligerents have been the ultra-rationalists, who regard the shapes of all structural members as mathematically predetermined, and the ultra-aesthetes, who regard them as completely arbitrary. Yet the juridical (as opposed to the "scientific") concept of "natural law" is essentially concerned with the prescription of minimal requirements. No jurist ever regarded sumptuary laws as natural. Hence, although an architect is very properly liable in law if the dimensions of his structural members prove inadequate for stability, one can readily envisage many reasons why he might be morally and professionally justified in deliberately exceeding the minimal dimensions. Such justification would almost certainly relate to some concept of human happiness

or human dignity, and hence might legitimately be regarded as based on "nature," though not on "natural law" as the term is generally understood by scientists. Apart from individual definitions of natural law, many systems or aggregations of natural law have been formulated by successive generalizations during the last two centuries. They are important because they seem to have one fundamental quality in common, namely an appeal to a universal ideal which can be enunciated in the form of certain principles of order. Whether or not any kind of "ideal" is valid will be discussed in due course. But it is relevant at this stage to note that a particular generation often has the illusion that its formulations of "natural laws" are unequivocally applicable to every eventuality by the simple use of reason. Yet jurists usually find that what is "rational" is less a matter of law than a matter of fact, and the failure of architects to appreciate this basic theoretical distinction—so obvious in legal theory—has obscured much of the merit of the so-called Rationalist school of thought.

The Rationalist theory, as expressed for example by Viollet-le-Duc in his seventh *Entretien*, is a clear illustration of this problem. A building, according to him,⁸ is a sort of "organism"; the visible manifestation of the laws of nature; and he considers it illogical to enunciate any other kind of rule, since true architectural forms are nothing more or less than the "expression" of structure. But this "expression" can only be deduced by reason, and once architectural theorists embark on speculation as to what is structurally reasonable, they are confronted with the same dilemma which confronts jurists when they are asked to prognosticate concerning legal judgements involving the interpretation of "reasonable" behaviour. Admittedly even jurists are divided as to the nature of this dilemma, possibly as a result of the political theory (derived perhaps from Montesquieu) whereby there has been a failure to distinguish between general rules and the problem of interpreting those rules authoritatively in a particular context.

Thus Montesquieu's assertion that "there is no liberty if the judiciary power be not separated from the legislature and executive"⁹ is manifestly misleading, since it ignores the legislative power which the judiciary must inevitably assert. Hence (if I may rephrase a remark by Professor Hart in such a way as to give it a specifically architectural implication) there are two minimum conditions necessary and sufficient for the existence of an architectural system. On the one hand those rules of behaviour which are valid according to the system's ultimate criteria of validity must be generally obeyed, and on the other hand *its rules of recognition specifying the criteria of architectural validity and its rules of change and adjudication must be effectively accepted as common public standards.*¹⁰

Enough is known of the history of architectural theory during the last two hundred years for the importance of the first condition to be evident. Few theorists have ever been so eccentric as to deny the general rules of architecture. Even among the leading combatants engaged in the Gothic Revival's internecine strife, it can easily be shown that the general principles postulated by Viollet-le-Duc differ little from those postulated initially by Ruskin,¹¹ and that those postulated by Pugin¹² differ little from those postulated by Vitruvius. The frustration and sterility of the Gothic Revivalists' quarrels (to the extent that they *were* frustrating and sterile) resulted from the failure to grasp the need for establishing the criteria of validity and the rules of change and adjudication. And such frustration and sterility must inevitably be the mate of any theory of architecture which does not see that *criticism* is as fundamental to the natural laws of archi-

ecture as it is to the natural laws of society, since any law, whether it be forensic or architectural, is meaningless except in so far as it is related to specific cases. A similar argument applies to "Functionalism"—the term usually employed by architectural historians to indicate that aspect of Rationalism concerned with efficient planning. Ever since the Napoleonic era, when Durand published his treatise, the principle that good planning is the essence of good architecture has been enunciated with the complacent implication that the mere formulation of the law would itself ensure rational spaces. Even the complete absence of any visible sociological justification for the spaces delineated in Durand's published plans seems to have been overlooked by those who (perhaps unwittingly) have subscribed to his written doctrine. In recent years, the promotion of the study of human relationships and human emotions from the realm of literature to the dignity of "Social Sciences," combined with the awe inspired by electronic computers, has led to a resurgence and enhancement of Durand's theory, whereby architectural planning is again considered to be subject to the same kind of "laws" as those studied in other departments of the Ecole Polytechnique. Yet when the actual *design* of a major public building is involved, it is apparent (from the vast variety of solutions considered totally acceptable by those who designed them) that the element of uncertainty is commensurate with the *rationes decidendi* concerning the application of the fifth amendment of the United States Constitution.¹³

Hence, the conclusion to be drawn from comparing the laws of nature as they affect the philosophy of architecture with those which are the concern of jurisprudence would seem to be as follows: whereas in juridical law two distinct elements are essential, namely a body empowered to create law, and an adequate number of trained professionals empowered to interpret it; in architecture the first of these elements is irrelevant, since any such laws as exist are either the three primary general laws of Vitruvius (*firmitas, utilitas* and *venustas*), or mathematical principles which are so specialized as to be outside the competence of purely architectural studies. These may derive from experiments in acoustics, structural engineering, sociology, psychology, climatology or any other science. But the purpose of an architectural philosophy is not to test the validity of laws, but to establish the criteria of validity and the rules of change and adjudication, combined and applied in specific architectural circumstances to produce a "just" result. The philosophy of architecture is thus synonymous with the philosophy of architectural judgement; i.e. criticism.

The process of criticism implies the need for some kinds of standard, and when comparing jurisprudence to the philosophy of architecture in the mid-twentieth century, few paradoxes are more striking than the persistence of a faith in legal standards and the absence of a faith in architectural standards. Before 1750, when structural materials were virtually limited to timber and masonry, when structural calculations were completely unscientific, when human needs were relatively simple, when building-types were relatively few, and when the pattern of cities were relatively homogeneous, it is not surprising that the validity of fundamental principles of Antiquity could be accepted by reasonable men without hypocrisy. Their notions of order, arrangement, eurythmy, symmetry, propriety and economy¹⁴ may not have corresponded exactly to those of ancient Rome; but the correspondence was evidently sufficiently close to allow a universal concept of architectural standards to find wide acceptance among those who, because of influence or affluence, were

able to control the environment which architects were called upon to create. Today, however, the multiplicity of building materials, the advances in accurate structural analysis, the complexity of society, the extent of financial investment in real estate and the incompatibility of conflicting urban planning requirements have created a situation where the very notion of a "perfect building" seems not merely incongruous but virtually meaningless.

The same incongruous disparity is evident in law, yet the belief in standards is not thereby destroyed. When American philosophers and jurists framed the United States Constitution, American lawyers were still trained in England, or self-taught on the basis of English legal commentaries. Hence, it is not surprising that their first attempts at creating ideal republican laws should consist of the vaguer legal concepts of Antiquity amalgamated with the traditional specific privileges of their British ancestors; or that, in the expanding economy of a new capitalist and industrialist society, they should interpret "liberty" and the "pursuit of happiness" as legal principles indicating that legislation should be limited to the security of persons and property. Today, when legislation, like architecture, is thought of primarily as an instrument for social reform, the incentives offered to lawyers to find ways of circumventing the law are in some circumstances more tempting than the incentives to urge their strict observance, and experts on taxation law will more frequently be called upon to advise on how taxation can be avoided without penalty, than how the fiscal intentions of the legislature would most properly be fulfilled.

The importance of the advisory function of lawyers is of fundamental relevance to any study of jurisprudence as it relates to architectural philosophy, since legal advice is essentially a forecast of court decisions, and court decisions are based on the notion of *consistency and conformity to standards or norms of judgement*. The architectural implications of this principle are evident to anyone who cares to compare the decisions of the traditional Ecole des Beaux-Arts juries with the results of jury decisions in recent international competitions. The grading of French academic projects after a "judgement" still suggests that the jury, after studying several hundred projects in a few hours, eventually concludes that a certain solution is best, and hence that every scheme which approximates to this solution should receive a "mention" or a "médaille." Similar techniques seem to have been used in judging some of the nineteenth-century public competitions in England (such as that for the London Law Courts). The premiated schemes have much in common, so presumably the rejected schemes were based on concepts which the jury deemed inferior or unacceptable. Yet few would claim that a similar philosophy has been in evidence in recent major competitions. It seems fairly clear that the prizes were not awarded to the schemes which elaborated, in a superior manner, certain norms to be found among many of the more accomplished submissions, but that, on the contrary, the various prizes were given to the schemes which seemed most distinctively idiosyncratic.

The desirability of such norms would seem to suggest that instead of thinking of *venustas* as something which, in the domain of architectural creativity, is highly personal, we should think of it more in terms of the kind of *social obligations* legally associated with the notion of propriety. Even in games, where the rules are discretionary, some kind of *convention* is implied; and the importance of this fact is only too clear when one considers how derisively the term "conventional" is used by critics of the "Fine Arts." When painters or

poets are "unconventional," it is a personal decision connected with the expression of their own private emotions. In so far as it ceases to be purely private, it will usually only concern very few people. But just as the publicity given to certain paintings or certain poems can be considered, by society, to be obscene or libellous according to law, so we should consider whether or not unconventional modifications to our environment can in certain circumstances fall so far outside the norms of convention—either by being too idiosyncratic or too unimaginitive—as to outrage public notions of decorum and propriety. If so, what is the architect's moral responsibility in this respect?

The ability to establish norms is clearly more difficult in architecture than in law, since in the latter profession, the notion of *precedent* is still highly prized. Yet even with precedents as a guide, differences of judicial opinion are only too frequent, as is bewilderingly obvious from the number of times decisions in primary courts are reversed by courts of appeal, and by the number of times a final judgement of the United States Supreme Court is rendered on the basis of five in favour and four against.¹⁵ What chance, then, has an architectural jury, which regards precedent as a defect rather than a virtue, of achieving judgements which will be acceptable to the contestants, to the profession and to the public at large?

This question can be answered in two ways, and both answers not only call in question certain basic assumptions in current text-books on architectural philosophy, but indicate how salutary it would be for architectural theorists to study their own subject on the basis of the methods of teaching law. First, the current architectural assumption that precedent is the worst kind of guidance can only be based on a partial conception of architecture: that is to say, on the "Aesthetic" theory criticized at the beginning of this essay. Secondly, few jurists can justifiably claim nowadays to be judging by deference to the standards of the public, since the architectural profession—mainly through the influence of Le Corbusier—tends increasingly to regard itself as a paradigm for the whole human race.

The fact that legal judgement implies criteria and that legal criteria imply ideals, has given rise to a basic controversy in jurisprudence which cannot be ignored when trying to relate jurisprudence to the philosophy of architecture. This controversy, expressed in simple form, is whether or not the concept of "justice" is inherent in the concept of "law." Architecturally, this corresponds to the difference of opinion between those who contend that there can be no such thing as "bad architecture," because if a building is badly designed, it is not architecture at all, but simply "building."

Now there can be little doubt that a jurist's failure to forecast accurately a legally valid court decision is in no way synonymous with an assertion that justice has been denied. But if we transcribe this distinction into an architectural context, and ask whether the failure to design an "ideal building" means that there is no such thing as "ideal architecture," the answer seems comparable to the type of answer which justifies the study of legal *dicta*. In law, though there can be no such thing as an ideal judicial decision, the concept of justice makes it essential, in a civilized society, for judicial decisions to approximate as closely as possible to this concept. Such a concept need neither be abstract nor universal; on the contrary, the more the concept of justice relates to the realities and diversities of the administration of the law, the better. But unless law schools demand constant reflection on the nature of ideal justice, it seems doubtful if the approximation of human judgements to the ideal of justice will be maintained, and it certainly will not increase.

In conclusion, then, it may be asserted that the study of leading cases in legal education plays the same role as the study of architectural ideals in architectural education, and that both are increasingly necessary as the complexity of each discipline grows. Both are essentially concerned with the two fundamental facets of every legal or architectural problem: the search to identify the perfection of each discipline according to its nature, and the critical search for specific examples of *decisions* which approximate closely (or are prevented from approximating closely) to these perfections.

Abstract speculation about "perfect justice" is, in isolation, as futile as abstract speculation about "perfect architecture." On the other hand, exclusive concentration on the actual conditions of architectural or legal practice are likely to prove debasing to both professions. The art of effectively teaching jurisprudence and the philosophy of architecture must surely be to treat both these aspects with sufficient realism to make their relevance obvious to the student, whilst at the same time applying such techniques of criticism as will give each student a sense of professional integrity; for unless this sense of integrity is inculcated in the formative stages of a professional career, it seems doubtful if it will emerge during the temptations and human fallibilities of professional practice.

NOTES:

1. *Boullée's treatise on Architecture* (ed. Rosenau), p. 30: "Oh! combien est préférable le sort des Peintres et des hommes de lettres! libres et sans aucune espèce de dépendance ils peuvent choisir tous leurs sujets et suivre l'impulsion de leur génie."
2. In countries where the law has been codified, pedagogical techniques necessarily differ from those considered most effective in jurisdictions where the Anglo-American common law tradition prevails.
3. Sir George Paton (*Text-book of Jurisprudence* (1967) p. 96) points out that Aristotle "made a useful distinction between natural justice, which is universal, and conventional justice, which binds only because it was decreed by a particular authority."
4. In Sir William Blackstone's preface to his *Commentaries*, he begins: "The following sheets contain the substance of a course of lectures on the Laws of England, which were read by the author in the University of Oxford. His original plan took its rise in the year 1753; and, notwithstanding the novelty of such an attempt in this age and country, and the prejudices usually conceived against any innovations in the established mode of education, he had the satisfaction to find...that his endeavours were encouraged and patronized by those, both in the university and out of it, whose good opinion and esteem he was principally desirous to obtain."
5. *Op. cit.*, ch. VII.
6. *Cours d'Architecture...contenant les leçons données en 1750 & les années suivantes par J.F. Blondel* (1771), vol. IV, p. XV: "Il est de jeunes Architectes qui prétendent que les règles ne servent qu'à les embarrasser, & à éteindre, pour ainsi-dire, la vivacité de leur imagination." Cf. also *ibid.*, p. LIII: "Qu'ils ne croient pas, comme quelques-uns leur font entendre, que tout est épuisé, & que, pour paraître neuf, il faille avoir recours à la singularité."
7. R. G. Collingwood, *The Principles of Art* (1938), p. 39.
8. *Entretiens sur l'Architecture* (1863), vol. I, p. 285: "Il est impossible d'enlever à un édifice du XIIIe siècle ou d'y attacher des formes décoratives sans nuire à sa solidité, à son organisme, si je puis m'exprimer ainsi... Cette forme n'est pas le résultat d'un caprice, puisqu'elle n'est que l'expression, décorée si vous voulez, de la structure; je ne puis vous donner les règles imposées à la forme, puisque la qualité propre à cette forme est de se prêter à toutes les nécessités de la structure."
9. *Esprit des Lois*, Bk. XI, ch. VI ("De la constitution d'Angleterre"): "Il n'y a point encore de liberté si la puissance de juger n'est pas séparée de la puissance législative et de l'exécutrice." Since some commentators have asserted that most of the principles expressed by Montesquieu in this chapter were derived from Locke's *Treatise on Civil Government*, it seems worth pointing out that Locke distinguished simply between the legislature and the executive, and did not comment on the judiciary. Cf. also, in this respect, Dickey's *Law and Public Opinion in England*, Lecture XI, e.g. "judicial legislation aims to a far greater extent than do enactments passed by Parliament, at the maintenance of the logic or the symmetry of the law" (1926 ed., p. 364).
10. H.L.A. Hart, *The Council of Law*, p. 113.
11. e.g. in "The Lamp of Truth."
12. e.g. in the first paragraph of *The True Principles of Pointed or Christian Architecture*.
13. See especially Judge Jerome Frank, *Law and Modern Mind*, for a particularly cynical commentary on the administration of justice in the United States of America.
14. Vitruvius, I. ii.
15. Cf. J. Frank, *op. cit.*, ch. VI.

UGLIFICATION AND DERISION

Reprinted from the August, 1959 issue of the *Royal Architectural Institute of Canada Journal*.

"Art," the Director of the National Gallery of Canada was reported as saying recently, "is not beauty. The purpose of art is to enlarge our emotional experience, and this includes the emotions of horror, disgust and pity." Here we have, succinctly expressed, what may now be regarded as the most conventional and widely accepted art theory of the twentieth century. It was the Italian philosopher, Benedetto Croce, who first, some fifty years ago, created a philosophical system which justified the artistic exploitation of ugliness (already made fashionable by Victor Hugo and the French Romantics at the beginning of the previous century) and finally discredited the earlier assumption that the creation of beauty was the purpose of art. Since then, his views have been upheld by philosophers and art critics alike, and nothing could better illustrate this general acceptance than the fact that since 1929 the article on Aesthetics in the *Encyclopaedia Britannica* has been contributed by Benedetto Croce himself.

It is noteworthy however that neither Croce nor R. G. Collingwood, the most distinguished English philosopher to elaborate this theme, have had very much to say about architecture. Indeed, so obvious is this omission that it recently prompted a lecturer in architecture at Durham University to publish a book on the architectural implications of Collingwood's *Principles of Art*, though without any marked success. The dilemma is fairly obvious. Either one must deny that beauty—Vitruvius' *venustas*—is necessary to architecture, or one must deny that architecture is art.

Resistance to the rejection of architecture as a form of art comes most strongly from the Art Historians. To some extent this is due to the accidents of an academic system whereby in most universities the "History of Art" courses include architecture automatically, and thus painting, architecture and sculpture are dealt with together in classroom texts. This tendency is evident in the latest and most sumptuous series of the type (edited by Nikolaus Pevsner), the *Pelican History of Art*; nor is the exceptional publication of a volume devoted exclusively to architecture of the nineteenth and twentieth centuries any indication that the general art-historical attitude is modified when dealing with contemporary design. On the contrary, the whole basis of the editor's *Pioneers of the Modern Movement from William Morris to Walter*

Gropius indicates, by its title alone, that the art of design, "*commune padre delle tre arti nostre, architettura, scultura et pittura*," is still, as at the Renaissance, considered to be the common discipline uniting all three. Siegfried Giedion even extends the intuitive process of artistic creation to engineering. "If Maillart can claim to have developed the slab into a basic element of construction, modern painters can answer with equal justice that they have made surface an essential factor in the composition of a picture," he explains in *Space, Time and Architecture*. "This is no longer a fortuitous optical coincidence, as might be objected, but a definite parallelism of method."

There are art historians who do not merely regard contemporary architecture as contemporary art, but even as the mistress art. R. H. Wilenski considers architecture the art *par excellence*, since it is non-representational, and contends that the typical function of the architect as artist is the typical function of the sculptor and painter as well. The architect's business, he says, is to contribute to the definition, organization and completion of his formal experience by creating a concrete object symbolizing his actual or imagined perception of certain lines, balances, recessions, and so forth. "If he can do this he is what we call an artist, and if he cannot he is just a builder and nothing else."

Since it may thus be generally accepted that in the most advanced, as well as the most reactionary circles, architecture is still regarded as art, it may possibly be asked whether, since art is not beauty, architecture is compatible with ugliness. To such a question, the reply would doubtless be that there is here a misunderstanding of the problem altogether, since Croce's definition of art is less concerned with the object produced, than with the emotions involved in producing it. The statement "art is not beauty" does not mean that works of art cannot be beautiful, but simply that it is immaterial whether they be beautiful or not. "Ugliness," in common parlance, is merely the opposite of "beauty," so that in such circumstances it is irrelevant to judge a work of art (and hence a work of architecture) by either term.

The persuasiveness of this argument is undeniable, and yet it seems contradicted by the fact the Siegfried Giedion finds no alternative but to use the terms "beauty" and "ugliness" in his text. Of Maillart's bridge near St. Gall, to which passing reference has already been made, he explains that "To appreciate the full plastic beauty of the form of this

bridge" it is necessary to view it from beneath, and goes on to deplore the fact that its slanting columns with splayed-out heads are bound to appear, to eyes that are blind to the vision of our own day, "somewhat ugly."

It seems evident, therefore, that the only tenable line of argument is that whilst beauty is a permissible and even frequent characteristic of architecture, it is not as essential as was at one time supposed, and that there are occasions when architecture, like the other arts, may appropriately enlarge our emotional experience with the emotions of "horror, pity and disgust." Such a view has undoubtedly a long and hence presumably respectable ancestry. Anthony Blunt has suggested that Mannerism was an expression of the despair experienced by Michelangelo and his friends after the Sack of Rome. Kenneth Clark has thoroughly expounded the reasons why Gothic was used as an effective means of inspiring melancholy during the second half of the eighteenth century. There is at least one historical precedent for the use of architecture to inspire horror and disgust. J. F. Blondel, being an exponent of French Classicism, disliked Gothic ornament, but between 1750 and 1770 he recommended it to his students as appropriate for prisons, as a means whereby the architecture could "express externally the disordliness of the lives of those detained within."

A deliberate search for ugliness similar to that analysed by Lydie Krestovsky in *La Laideur dans l'Art à travers les Ages* can only with difficulty be paralleled in architecture. But Kenneth Clark justly refers to Butterfield's "sadistic hatred of beauty," whilst Robert Kerr, a contemporary of Butterfield and Professor of Construction at King's College, London, even considered "The Ugly" to be an established architectural style of the period. It arose, he explained, as a reaction against the effeminacy of the Gingerbread Style, and was an extreme manifestation of the rationalist creed of structural honesty. But just as the seventeenth century puritans suppressed bear-baiting "not because it gave pain to the bear, but because it gave pleasure to the spectators," so the nineteenth century pursuit of ugliness in architecture was more the expression of a sour sense of righteousness, than a sensitive interpretation of "life-enhancing" ideals.

The Ugly Style has however a certain indirect relationship to twentieth century art theory, in that it anticipated the deliberate use of deformity as a weapon with which to combat conventional artistic prejudices. As Robert Kerr pointed out, "If the architect be an advocate of mere muscular ugliness, his work will probably set common criticism at defiance." John Summerson has observed that the ugliness of Butterfield's buildings was a systematic and calculated assault on popular taste. "In this imagination there is something of the *fauve*, something of the contemptuous joy of distortion and destruction." He might even more aptly have described Butterfield as a Dadaist, since there is apparent in his work that same savage urge to deride accepted canons of beauty which prompted the Dadaists to exhibit a reproduction of the Mona Lisa adorned with a moustache. Butterfield, in fact, has more right to be considered the father of the Modern Movement than William Morris if we really wish to make a close parallel between modern architecture and modern art.

The triumph of the Modern Movement is now complete. There are few architects today under forty years of age who display any craving to design Ionic capitals or Gothic finials; nor could they draw them if they wanted to, since it is long since there were any schools where such detailing was taught. The Ugly is thus only possible nowadays in terms of Contemporary design. Perhaps we still occasionally need buildings

which express horror, pity or disgust, if merely to stir us from lapsing into apathy. It is doubtless for this reason that "The New Brutalism" has been given such publicity by the Architectural Press. In general, however, it is difficult to escape the conclusion that whether art is, or is not, beauty (or whatever modern euphemism one may prefer to substitute for this outmoded word) there is a social obligation to construct beautiful buildings, and a healthy satisfaction derived from so doing, which overrides any conflicting abstract principles which philosophers and art historians are prepared to defend:

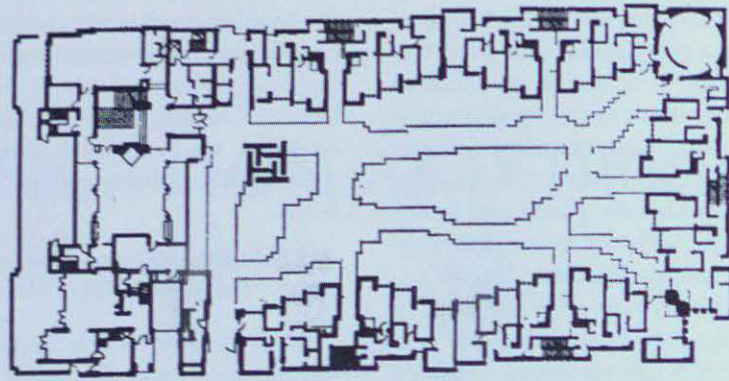
But suddenly you touch my heart, you do me good, I am happy and I say: "This is beautiful." This is Architecture. Art enters in.

Yet however much we may disregard Croce's theory, it has inevitably had disastrous consequences for architecture, since the fear of seeming to judge a work of art by whether or not it has beauty—*id quod visum placet*—has created a situation whereby architectural criticism is virtually dead. Whereas fifty years ago architectural periodicals printed acid comments about buildings they considered unpleasing, and editors wrote trenchantly about contemporary practices and taste, today the profession is merely presented with so many fashion plates, and what little editorial comment there is, is relegated to the back page. With relatively few exceptions, the only criticisms ever published are of art exhibitions; speculations on the significance of paintings or expatiations on the art-historical sources from which the artist's style has been derived. More and more, the architectural magazines have come to resemble *Vogue*; photographs of the latest models sandwiched between brightly coloured advertising material frequently reproducing identical illustrations.

As a counter-measure, the profession is in urgent need of a periodical comparable to *The Times Literary Supplement*; that is to say, a collection of criticisms, published anonymously, which comment on new buildings as they appear. Since only a small proportion of those completed each month throughout the continent could ever be selected, an architect might well consider it a compliment to have his work singled out, for clearly no building would be discussed unless it was of obvious interest and merit. The commercial press would have little reason for being interested in such an undertaking; but it is a project entirely within the sphere and competence of a professional society. If the RAIC were to empower its *Journal* to include this amongst its other duties, it would not merely be fulfilling a public service; it would be creating the most powerful and influential force for improvement to which architecture is susceptible in the present day. There would be no need to begin ambitiously. One review a month would suffice to establish some sort of tradition, set an example, and evolve a suitable technique. But there would be no limit to the scope of such an endeavour if it proved initially successful. By concentrating upon the *effect* of architectural designs upon the public, rather than upon the *motives* of the architect creating them (as is presupposed by Croce's aesthetic doctrines) it might well remove the main cause of that instability which is bogging us down in romanticism and individualism, and which prevents the emergence of that true classicism to which industrial standardization naturally tends.

Les artistes romantiques cultivaient la solitude, douloureux privilège de l'élu, et, du haut de leur tour d'ivoire ou de leur rocher d'exile, ils criaient à la foule indifférente que le poète devait être et le mage le pilote de la société. L'auteur classique, au contraire, ne croyait pas déroger en s'adaptant à son auditoire lorsque celui-ci le méritait. Aussi se donnait-il comme règle suprême de PLAIRE.

AN APPRAISAL



Massey College—Ground Floor Plan

A Critique of:

MASSEY COLLEGE, TORONTO

Reprinted from the October, 1963 issue of the Royal Architectural Institute of Canada Journal. This review was subsequently republished in a slightly modified version under the title "Home for Scholars" in the November 28, 1963 issue of the Manchester Guardian.

For members of the architectural profession, the main importance of Massey College lies in the fact that despite its obvious efficiency in plan, pleasantness of appearance and soundness of construction, it challenges with shameless vigour many of the basic architectural concepts which seem to constitute orthodoxy as expressed in the leading architectural magazines in Europe and the United States.

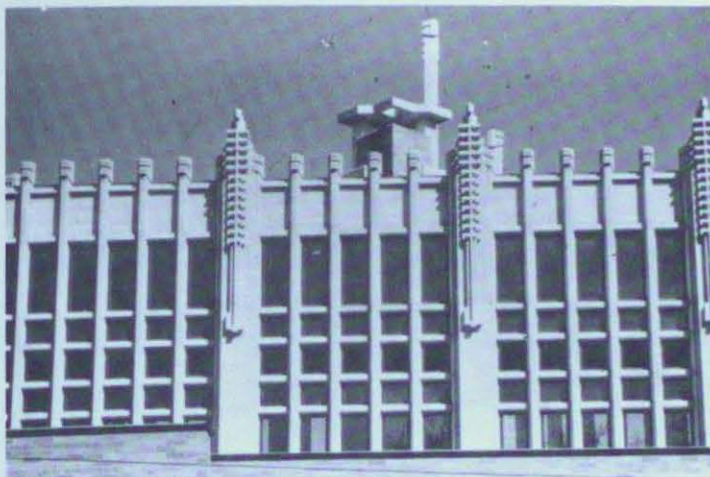
Consider, to begin with, the plan. According to the *avant-garde* theorists, such as Professor Llewelyn Davies and Reyner Banham, the worst thing any self-respecting architect can do is to accept either the client's program, or a traditional program, as the basis of his own design. Reyner Banham criticized Coventry Cathedral because, according to him, it kept too closely to the traditional arrangements of Anglican worship, whereas the whole liturgy should, in his view, have been reinterpreted in twentieth century terms to produce a twentieth century program. Professor Llewelyn Davies has been even more categorical in his attitude (although the uninspiring results of his attempts to apply his own theory in the new "Times" building may well have tempered his arrogance in this respect): "The client's brief is nearly always wrong, and a bad brief inevitably results in disastrous architecture." But in the competition for Massey College, the four contestants were presented with an extremely detailed brief by a group client (namely the trustees of the Massey Foundation) who had very definite ideas as to what was wanted; and the client not merely specified in detailed terms the physical facilities required, but stated the precise environmental character which was considered most suitable.

The nature of the amenities to be provided was prescribed in unequivocal detail, even to the extent of describing the character of the dining hall, common room and so on, and requiring, for example, that fireplaces should be provided in these communal rooms and in the resident Fellows' rooms. There is no doubt that the program was strongly influenced, if not directly inspired, by personal recollections of

the type of community which was established at Oxford seven centuries ago and has flourished vigorously ever since, and it is clear that the trustees deliberately intended that the graciousness and dignity of the accommodations provided at Oxford in the middle ages should be found at Massey College.

For visitors familiar with Oxford, there is undoubtedly an aura of traditional collegiate life about the plan of this new building in Toronto. But interestingly enough, the plan is in no way based on that of an Oxford college, and is strikingly original both in the organization of the circulation and the planning of the various rooms. Nowhere, at Oxford, can one find anything comparable to the spatial configuration of the common room, with the dining hall so elegantly superimposed. In fact, if one analyses and compares, one finds that the only really similar feature is the common presence of an enclosed courtyard whereby all the rooms look onto an inner communal tranquility. Perhaps the *avant-garde* theorists would prefer to have seen an isolated refectory and dormitory blocks, although it is difficult to see how one can reject the contemporaneity of this courtyard plan except on the grounds that it corresponded also to the needs of scholars before the First Machine Age, and hence is no longer valid.

Let us now consider the appearance of the building, since it is in this respect that hostile critics of the design will find most cause for raillery, in that, in the name of Progress, they can easily take the architect to task for using forms reminiscent of both the Middle Ages and of Frank Lloyd Wright's architecture previous to 1914. There can be no doubt that the window and spandrel details, and the pinnacles, could justifiably be classified by archaeologists as neo-Gothic, and in this sense, they are curiously comparable to Barry and Pugin's facades for the Palace of Westminster. Moreover, such romantic associations with mediaeval prototypes can hardly be dismissed as fortuitous, even though the architect himself protests his complete ignorance of the history of architecture. Hence, one has the uneasy suspicion that this design is essentially a kind of scenery, and any architect visiting the building is inevitably reminded of the brilliant speech made by Robertson Davies, now Master of Massey College, when he addressed the RAIC in 1960, and proclaimed that "you are the designers of the scenery against which we act out the



drama of our personal lives.”

It may well be that Robertson Davies and the Fellows of Massey College will find the same kind of comfort there which the Victorians discovered in their neo-Gothic villas as they immersed themselves in Sir Walter Scott's romances. It may be that Ron Thom has responded too superficially to Robertson Davies' plea: "Would it not be possible for some of us—a few of you architects and a handful of us ordinary people—to conspire to bring a whisper of magnificence, a shade of light-heartedness and a savour of drama into the setting of our daily lives?" But here, at Massey College, magnificence, light-heartedness and drama have undoubtedly been created with a skill which borders on genius; and the only question the hostile critic may legitimately ask is whether it is proper to achieve these effects by means which so patently appeal, however subtly, to nostalgic reminiscences of a past which is not Canada's, and therefore have an exotic as well as revivalistic flavour.

Much criticism of this nature could, I think, be validly countered by claiming that there is nothing very wrong with using traditional forms when building in traditional materials, and since this building is constructed of brick and limestone, it could reasonably be urged that the detailing is perfectly legitimate. However, before discussing this aspect of the design (which relates more to the validity of the structural system than to the problem immediately under consideration) I should prefer to deal with the other criticism which has been levelled against the building, namely that it is reminiscent, in its forms and ornamentation, of the early architecture of Frank Lloyd Wright. In other words, it is to be condemned because it seemingly indulges in what Nikolaus Pevsner has recently called "The Return to Historicism"; i.e., the imitation of a style authentic only in the first decade of the present century.

Does Massey College set Canadian architecture back fifty years, as one critic has suggested? The answer can indeed be in the affirmative; but only if one regards architectural style as comparable to fashions in clothes, whereby the nature of architecture changes every spring. If one considers that Frank Lloyd Wright was one of the pioneers of modern architecture, and that he had already reached maturity by, say,

1903, then it is difficult to see why the forms he was using in 1913 should cease to be valid in certain circumstances today. The operative phrase here, of course, is "in certain circumstances;" since clearly, the forms Wright used so successfully in Midway Gardens are obviously not applicable to every circumstance. But it may reasonably be argued that Massey College is precisely a circumstance in which they *are* applicable. The building is surrounded by neo-Gothic masonry and brick buildings of various periods with which it now harmonizes. The geometry of the composition seems peculiarly-suitable for, and in conformity with, the disposition of the accommodation. The general atmosphere created by these forms seems to combine with singular felicity to create both the dignity of an academic building and the comfort and intimacy of residential accommodation. Thus of all the works created by the so-called "Form-Givers" of modern architecture since modern architecture first assumed its definitive character fifty years ago, it can hardly be denied that, from the point of view of what Robertson Davies has called "magnificence, light-heartedness and drama," no idiom could be more suitable than that which has actually been chosen, and executed with such masterly originality and verve.

There remains then only one other possible basis of criticism (if we respect the triple criterion of *utilitas*, *venustas* and *firmitas*), namely the validity of the structural system. Was the architect right to build this three-storey building in load bearing brick and limestone, or should he have ostentatiously called to his aid some of the more daring technological developments which have appeared in the last fifty years? Perhaps a clue to the resolution of this dilemma is furnished by the fact that although the fenestration and spandrels are of carved limestone, the architect originally specified concrete, and only allowed limestone to be substituted when the building contractor demonstrated that it was cheaper.

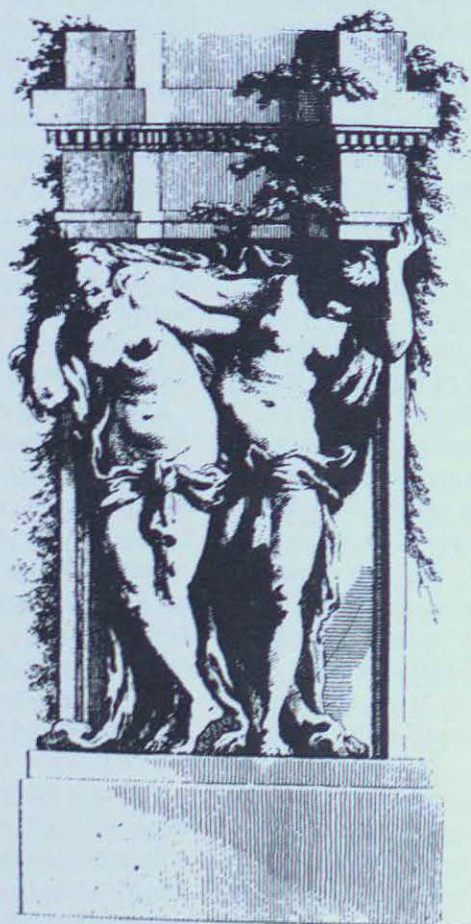
Now it seems to me that if one "designs" concrete in such a way that limestone can be substituted, there is something inherently wrong with the design itself, and in this respect it is interesting to compare the finished building with one of the competition projects rejected, namely that by John B. Parkin Associates. I do not for one moment intend to question the decision of the jury in rejecting this design, for there seems

no doubt whatsoever that the plan of the winning scheme was better, and that its appearance was more pleasing. But it is noteworthy that Parkin Associates made a deliberate attempt to utilize and exploit contemporary technology in their design, especially in their method of roofing the dining hall, and I would suggest that it is axiomatic that *really great architecture is infused, by the very nature of architecture as both an art and a science, with the urge to utilize and exploit the most up-to-date structural system that the the spatial requirements of a building will permit.*

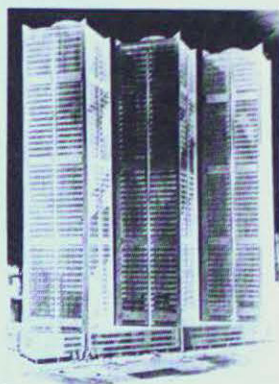
Massey College, as now completed, is, by virtue of its very excellence, a valuable lesson to architects as to the true nature of architecture, for it illustrates the fallacy of believing too strongly in the fashionableness of today's abstract forms,

just as it shows the folly of seeking modernity in novel programmatic requirements alone. Thus it bears striking evidence to support the view that there is no reason why an architect cannot create a completely contemporary building with a traditional program, traditional materials, and geometric forms evolved in an earlier decade. But at the same time it does suggest that genuinely epoch-making architecture can only result through the application of the latest technological processes. There is no reason why every building should be epoch-making. The trustees of the Massey foundation did not ask for an epoch-making building. They asked for a building that would be eminently functional, eminently sturdy, and eminently beautiful, and that is what they got.

Massey College, Toronto
Architects—Thompson, Berwick & Pratt
Architect in Charge—R. J. Thom



STOCK EXCHANGE TOWER, MONTREAL



A Critique of:

PLACE VICTORIA

Reprinted from the June, 1966 issue of the Architectural Review.

This new building, officially opened on October 17, 1965, is commonly referred to as the Place Victoria—presumably by analogy with another magnificent tall office building built recently in the heart of Montreal: I. M. Pei's Place Ville Marie. But whereas the most striking feature of the latter is its provision of spacious open-air pedestrian plaza at street level within the boundaries of the site chosen for development, the Montreal Stock Exchange Tower adjoins an existing plaza (i.e. Victoria Square) which it was simply intended to complement and enhance.

That it does enhance it is incontestable; but it does so in a manner probably quite unforeseen by Luigi Moretti when working on the initial project four thousand miles away. As actually built, with its four facades parallel to the surrounding street pattern, this single tapering prismatic shaft, shooting 624 feet into the sky, forms a superbly dominant focal point to Victoria Square—a small and previously insipid rectangle occupied by a dismal garden surrounding the two symbols of French and English civic pride respectively: a statue of the then reigning monarch and a public convenience.¹ But it should be noted that Victoria Square measures only about twice the area occupied by the tower now constructed beside it. The original scheme was for *three* such towers, set diagonally and continuously, whereby the longitudinal axis of the complex would have been at right angles to Victoria Square. To my mind, this solution, though financially lucrative in its provision of three million square feet of rentable office space, would have disastrously overpowered its setting; for though the perspective published by Moretti, seems to imply, with a kind of Piranesian *bravura*, that this massive cliff of zig-zag curtain-walling would have formed the boundary to a vast plaza at least 600 feet wide extending northward, in fact only the end corner would have faced Victoria Square, which is to the east and constitutes merely a minute fragment of the space implied by the sketch.

So far only one tower has been built, though a second is unfortunately intended to occupy the rear extremity of the site. The internal planning of the tower is not original except in so far as it relates to the novel structural system employed;

but this is one of its virtues as compared with Nervi's earlier Pirelli Building which, despite its many real merits, was conceived by the client (according to Reyner Banham's appraisal in AR, March, 1961) more in terms of publicity than of functional efficiency. The economic problems of tall office buildings—such as the ratio of elevator shafts to the total subdivisible rentable floor area, and the optimum qualities of perimeter walling—were solved many years ago, wherefore originality in this domain is only likely to be achieved at the expense of values extraneous to the basic problem. Not that there is anything intrinsically wrong with this kind of originality. On the contrary, when the shape of a skyscraper is conceived in terms of, say, the peculiar configuration of the site, or of the dominant character of its immediate environment, it would seem to be of particular interest and merit. But clearly such special conditions make the resultant building less useful as a model for buildings elsewhere, and it is precisely because such restrictive conditions did not radically influence the structural design of the Montreal Stock Exchange Tower that it can be regarded as a paradigm of universal validity.

Since the original concept of the building was produced by Nervi and Moretti, and since Nervi is uncontestedly the greatest designer of reinforced-concrete structures who has so far graced this planet, it will be tempting for future historians to attribute all the merits of the structure to them, and any jarring qualities to the Canadian architects, engineers and contractors who built it. It would, however, be most unfair to take such a prejudiced approach, especially as some of the most attractive features of the design, such as the visible diagonal trusses of the "mechanical floors," and the bowed curtain walling cantilevered in front of the structural columns, do not appear on Moretti's published perspective. Moreover, if Nervi had been allowed by Quebec law to take full personal responsibility for this 10m. structure, it is by no means certain that he would have persisted with his original plan for leaving the structural concrete of each corner shaft exposed. I myself wish he had. But in a city where the outdoor temperature often drops to fifty degrees below freezing point, the possibilities of thermal distortion in the four monolithic shafts, each half as high again as the Pirelli Building (where the

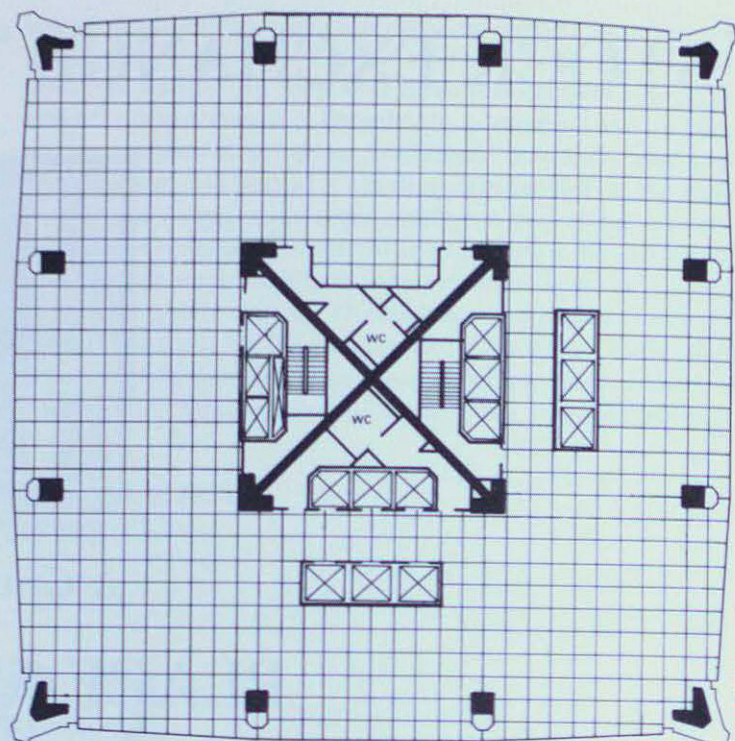


structural concrete was also encased externally, despite the temperate climate) are such that any engineer, however intrepid, might be forgiven for not taking the risk of a kind which few clients and even fewer lawyers would ever be likely to condone if anything went wrong.

There is, however, another important, though perhaps more controversial, reason for being cautious in assessing the extent, if any, to which Nervi and Moretti's original concept has degenerated as a result of their enforced association with local architects and engineers. It is now common for art-historians (whose views on these matters are, according to Nervi himself, extremely unreliable²) to assert that Nervi is essentially a designer of thin shells and folded slabs; a notion which derives partly from the tendency of his biographers to emphasize—very properly—his long-span single storey structures, but mainly from one of the Neo-Plasticist dogmas enshrined in *Space, Time and Architecture*³. In fact, it is apparent from an inspection of Nervi's various short-span multi-storey structures, such as the Bologna Tobacco Factory, that he not only uses what some writers derisively dismiss as "post-and-lintel concrete structures" but that these buildings are essentially refinements of the system patented by Hennélique in 1892, i.e. rectangular columns, haunched beams, and ribbed plates for the floors.⁴

Admittedly, Nervi's plates usually have ribs which span in two directions instead of one, to produce intersections of extraordinary beauty. Moreover, at the suggestion of Aldo Arangeli, who was one of his assistants involved in the design of the Gatti Wool Mill, Rome, he elaborated these ribs further by making them follow sinuosities ostensibly representing the isostatic lines of the floor's principal bending moments. But such refinements are not only of questionable structural authenticity; they can only be justified aesthetically when the soffit is left visible. Thus in those of his buildings which require, by their function, the inclusion of complex electrical and mechanical gadgetry in the ceilings, simple ribbed-plate floors based on a standardized rectangular grid are evidently considered by him to be most correct.

This issue of ribbed plates versus slabs was of crucial importance in the design of the Montreal Stock Exchange Tower, because whereas in steel-framed skyscrapers, the decisive factor in designing the floors is usually their depth,

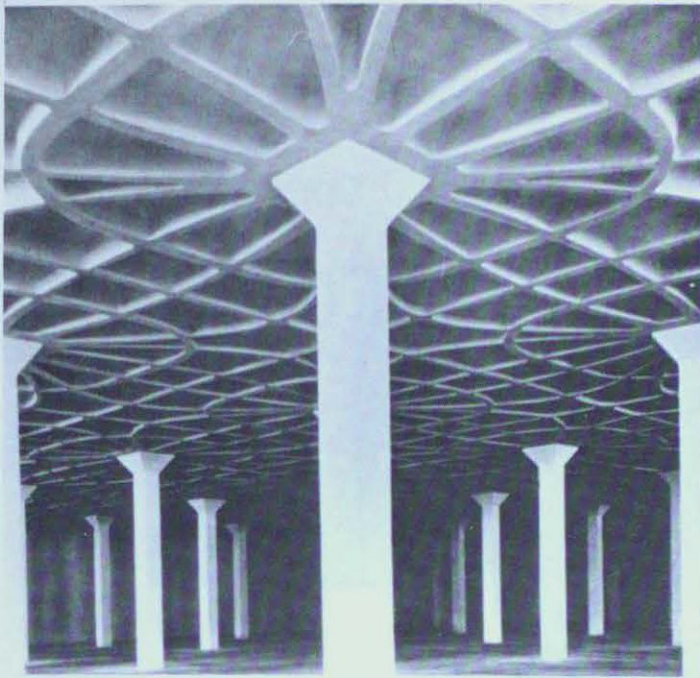


Place Victoria, Montréal—Typical floor plan

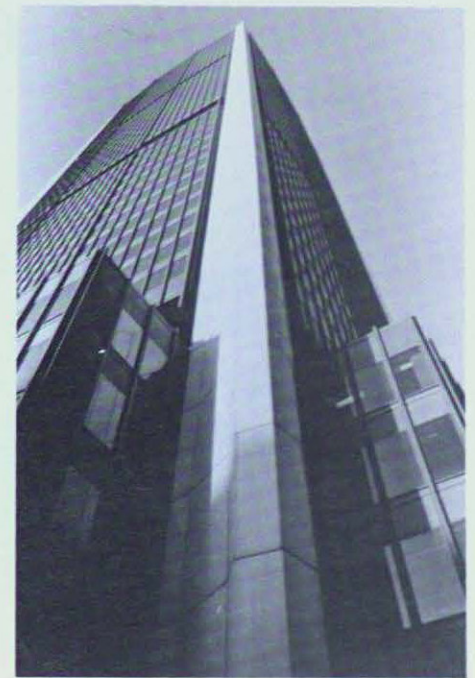
here it was their weight. In other words, it was not only considered more economical, but was structurally mandatory, to design a floor of minimum weight rather than of minimum depth. For the spans and live loads given it would doubtless have been possible to make all the floors of simple solid slabs; i.e. of constant thickness throughout. But the enormous weight of forty-seven such floors would have required so many wasteful and elaborate structural devices to resist the instability to be anticipated in the event of an earthquake, that any solution of this kind was out of the question. The floors, as built, therefore consist of 3-inch plates combined with 18-inch ribs, the latter being spaced at intervals of approximately six feet. It should be noted that this was the type of floor always envisaged by Nervi, although his initial project was later modified by the local engineers, who changed the positions of the pairs of intermediate columns (superimposing them behind the curtain-wall on each of the four facades), and suppressed the beam originally conceived as spanning between the corner supports.

The two most striking elements of the overall concept are, first, the so-called "mechanical floors" and, secondly, the corner supports themselves. The "mechanical floors" at the seventh, nineteenth and thirty-second levels do indeed contain a certain amount of mechanical equipment and ducts; but they are essentially a means of joining the central core (consisting of X-shaped shear walls of solid reinforced concrete, which house the escape stairs and most of the lifts) to the corner shafts on the exterior. By this means the tower, which stands on a site as liable to earthquake tremors as San Francisco, is given the fullest possible rigidity. The three great pairs of diagonal trusses, each about 23 feet deep, which link the central core to the corner shafts, are partially visible from outside, and they undoubtedly give the tower a variety and novelty which is all the more attractive, to me at any rate, because they are structurally needed.

The corner supports of the tower taper gradually from the ground to the top storey with an entasis which greatly contributes towards the elegance of the building's silhouette. Admittedly, the visible surface is simply a veneer; indeed, the space between each monolithic structural shaft and the pre-cast slabs which encase it is so large that a man can climb up between the two faces for periodic inspections. But, the ve-



Gatti Wool Mill, Rome—Structure



Robert Blanchon

neer follows faithfully the shape of each structural support, which consists of a continuous prong of roughly triangular section, diminishing in thickness towards the top.

Nervi first seems to have put forward this concept when collaborating with Ponti on the Pirelli Building; but in Montreal it achieves a far nobler, authentic and more eloquent expression, and the importance of its evolution cannot be too enthusiastically stressed. The traditional concept of multi-storey reinforced-concrete buildings—valid enough when the height of the building does not greatly exceed its width—has been that of a series of superimposed standardized floors supported by simple cylindrical or prismatic columns. These columns normally decrease in cross-sectional area at each successive floor, since the total superimposed load naturally becomes less in proportion to the distance of each floor from the ground. The system is in itself perfectly logical, since it not only corresponds to the static requirements of vertical loading, but allows all the faces of all the columns to be vertical—an advantage which is evident whenever the intervening spaces have to be partitioned or glazed. But such a concept relies, for its ultimate justification, on the assumption that a building is something that stands on the ground: an assumption which therefore regards the soil-condition as an independent problem, to be solved after the initial design for the building has been accepted. According to this notion, all buildings may be envisaged theoretically as constructed on solid rock, whether the “rock” be real or artificial; and it is well displayed in the *Unité d’Habitation* at Marseilles, where there is in fact no structural continuity whatever between the bases of the *pilotis* and the reinforced concrete substructure buried in the ground. Nervi, however, with his genius for discovering the essential nature of each structural problem, perceived that in a skyscraper, where the height is many times the width, the structure does not simply rest on its foundations; it is vertically cantilevered from its roots. And he therefore evidently concluded that however much the foundations may be submerged, their existence should be attested by the continuously sloping profiles of the structural elements they engender above ground.

The structural system used in Montreal Stock Exchange Tower is at present unique; but only unscrupulous individualism can prevent it from becoming the prototype of a whole

series of skyscrapers of comparable design, scattered throughout the world. It will undoubtedly be an honour for Montreal if the future students of architectural history make a special visit to that city to see this splendid building. But it will be a far greater honour for Nervi, reflecting glory back on the architectural profession itself, if the other cities also give themselves the benefit of such an environment, whereby each metropolis will be able to boast of its debt to this great engineer in the words of the most famous of all architectural memorials: “If you seek his monument, look around you.”

And as few buildings are beautiful unless every line and column of their mass have reference to their foundation, and be suggestive of its existence and strength, so nothing can be beautiful in art which does not in all its parts suggest and guide to the foundation, even where no undecorated portion of it is visible; while the noblest edifices of art are built of such pure and fine crystal that the foundation may all be seen through them...

Ruskin: *Modern Painters* (1843)

NOTES:

- Others concerned in the design were: associate architects, Greenspoon, Frelander and Dunne; consulting architect, Jacques Morin; structural engineers, D’Allemagne and Barbacki; consulting engineers, Letendre and Monti; mechanical and electrical engineers, James P. Keith Associates.
- It is, however, characteristic of the bi-culturalism and bi-lingualism which has haunted the Province of Quebec for over a century that the statue—the characteristic central feature of French urban squares—is inscribed “Queen Victoria,” whereas the monumental public convenience is inscribed “Vespasiennes.”
- See, for example, the article published in *Architecture d’Aujourd’hui*, No. 99 (December, 1961-January, 1962), of which the following is translated extract: “The fact that art criticism is thought out by non-technicians who, in most cases, are led to examine painting, sculpture and architecture from the same point of view, has certainly contributed in deflecting the analysis and interpretation of the constructive elements of a work of architecture, and in causing such analyses and interpretations to concentrate on strictly formal characteristics.”
- The fact that the forthcoming fifth edition of Giedion’s famous book will include a chapter on Jörn Utzon without any mention of Nervi’s scathing criticism (published in *Casabella*, July, 1959) of the Sydney Opera House (effusively praised by Giedion, though it will not even be completed, let alone tested acoustically, for at least another four years) would seem to support this assumption.
- I tried to show in my book on *Auguste Perret and his Precursors* that Perret also simply took Hennié’s system and refined it. But Perret, of course, had no training or mathematical competence as an engineer, and relied entirely on consultants, such as Louis Gellusseau, for structural analyses.

SIGNIFICANT FORM IN CHURCH ARCHITECTURE



According to our research, this article is previously unpublished.

If the term "significant form"—so popular in the language of art criticism—means anything in architecture (and there is no guarantee that it does, since buildings, unlike painting and sculpture, are a necessity, and thus derive all their essential significance from the mere fact that they are there) it may presumably mean one of four things. Firstly, it may mean that the form is "expressive" of the structural system and materials used. Secondly, it may mean that the form is "suggestive" of the activities which go on inside. Thirdly, it may mean that the form "symbolizes" some spiritual value. Lastly, it may mean that the form "invites attention from a select and initiated group of people." All these meanings of "significant" are implied in the Oxford Dictionary, and I propose to examine each one of them in turn.

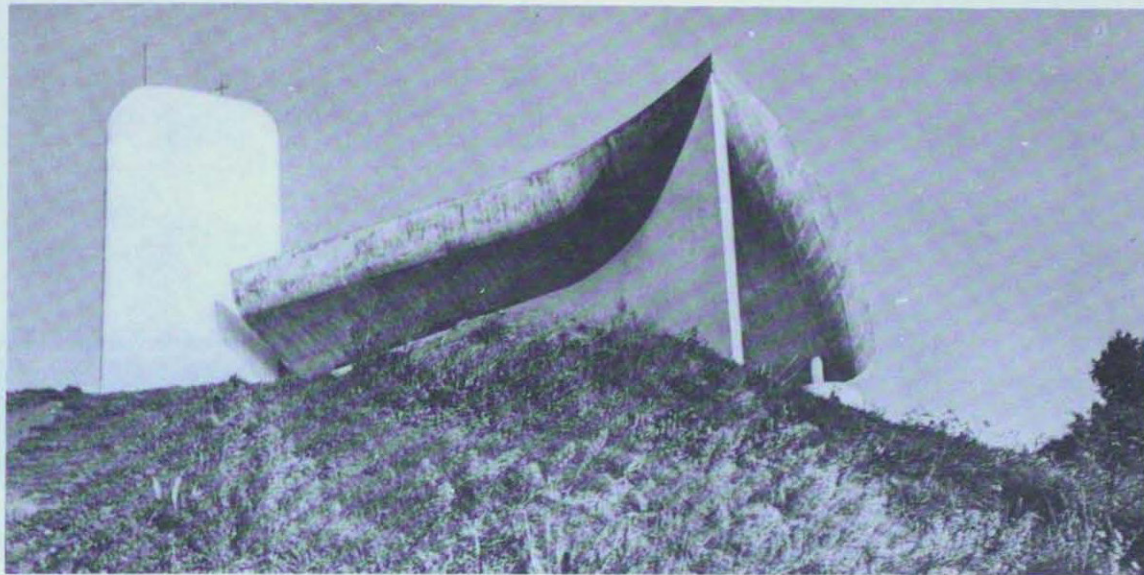
Firstly: church architecture as deriving significance from the expression of structure. This might appear to mean that to satisfy the standards of modern architecture, a church should display its structural surfaces internally, and wherever possible externally, and that the structural system and materials should be exploited to the absolute limits of resistance, as ascertained by calculation. But this is not the case. Perret's church at Le Raincy fulfils these conditions admirably, yet in May 1960 issue of the *Architectural Review* (p. 329) it was described as being drenched in historicism, and "certainly not modern." A true example of what orthodox opinion regards as "modern" ecclesiastical architecture, if one can judge from the extent it is published, is the chapel of Ronchamp, where thick rubble walls are covered with stucco, and the shape of the vault was, according to Le Corbusier, inspired by a crab shell he picked up on a Long Island beach.

It may even be questioned today whether the "expression of structure" really means, for practising architects, even the expression of an actual structure, or whether we are not reverting, so help us, to the old and much derided method of imitating "ideal" structural systems in other materials, like McKim, Mead and White, or, if one prefers it, the ancient Greeks. One needs a keen eye to distinguish which of the walls at Ronchamp is of rubble, and which is a two-inch thick sprayed concrete shell on a reinforced con-

crete frame. Similarly, it is not uncommon to see what appear to be "folded plate" roofs constructed of steel trusses, and on one recent example in Montreal (a synagogue), the steelwork supporting the timber "folded plates" was disguised on the outside by false windows made to apparently butt under the "slab."

This sort of subterfuge stems inevitably from the fact that by "significant," most architects really mean "contemporary," and by "contemporary" they really mean, as regards structural fashions, the forms which engineers like P. L. Nervi are currently constructing. But Nervi and his colleagues are mainly concerned with spans of the order of two or three hundred feet, if not more, whereas except in the most unusual circumstances, (such as the new subterranean basilica at Lourdes), churches rarely need larger spans than St. Peter's, Rome, either in Canada, or anywhere else. As a result, if "contemporary" structural virtuosity is to be explored aesthetically, it must be by imitation and "significant form" then becomes formalism, which is of no real significance at all. Probably the only way today's church architects have any chance of emulating mediaeval feats of structural daring without sacrificing their legitimate desire to do something genuinely contemporary is by using mediaeval materials in new ways, such as by employing laminated wood. There is clearly no structural virtuosity displayed in the roof at Ronchamp, even though Le Corbusier claimed that "the dear faithful concrete was shaped perhaps with temerity but certainly with courage;" for as Nervi has pointed out, the essence of tectonic virtuosity is correctness and economy. Genuine contemporary architecture not only uses every technological advantage appropriate to the circumstances, but excludes both wasteful structural systems, and systems more appropriate to structures of greater spans. The concrete roof at Ronchamp is certainly daring but so is the show at the Folies Bergères.

The second way by which churches can have "significant form" is when their exterior compositions suggest the ceremonies which go on inside. This type of expression, unlike the last, had probably meaning for mediaeval architects (who even seem to have been relatively indifferent towards



Esthétique de l'Architecture

Le Corbusier: Chapelle Notre Dame du Haut, Ronchamp

the artistic unity of their church exteriors, as compared with the interior spaces), but it is still very much part of the philosophy of modern design. Some theorists, such as John Summerson, have even gone so far as to suggest that the expression of new planning arrangements is the very essence of modern architecture, and that the revolutionary changes which have occurred in architecture since 1920 derive essentially from the changes which have occurred in modern planning needs.

The dilemma which this philosophy presents to the contemporary church architect is two-fold. Firstly, since no structural partitions are needed in churches, and their planning requirements are imprecise, it is impossible to draw up any programme which will give an unequivocal lead as to the volumes and proportions needed. There have of course been a number of text-books written explaining the various regulations laid down by Canon Law, but these concern more properly what is called "church furniture," and have little decisive influence on tectonic compositions.

The second aspect of the dilemma is that the function of a church is essentially traditional, whereas the "functionalist" theory is only valid on the assumption that the planning requirements of all buildings has radically changed within recent years. How then can a church avoid being "drenched in historicism," or be unequivocally "modern," when nave and chancel, altar and congregation, have been in the same relative position for fourteen centuries, and the ceremonies performed there are, from the very nature of religious dogmas, always the same?

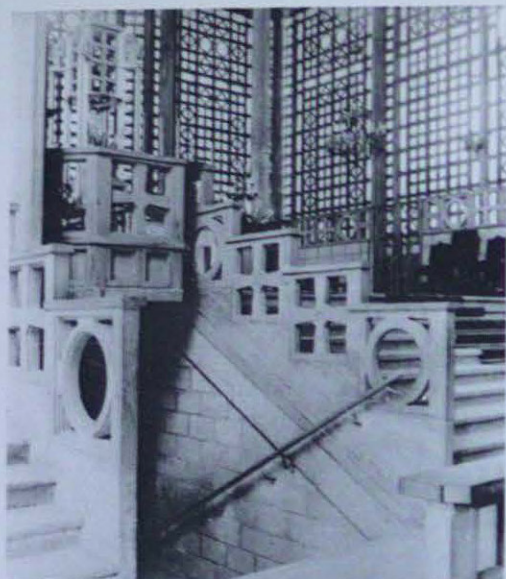
The architect who wishes not only to be contemporary, but to demonstrate that he is member-in-good-standing of the avant garde, has two choices. Either he can make arbitrary changes in the traditional arrangement, by deliberately disposing the congregation and the altar asymmetrically, or placing both in positions and spaces they have never, for good practical reasons, occupied before. Or he can adopt a Revivalist attitude comparable to that in vogue in the early nineteenth century and revert to a more primitive form of plan.

This latter approach is the one most usually adopted because it is supported by many priests and laymen who believe

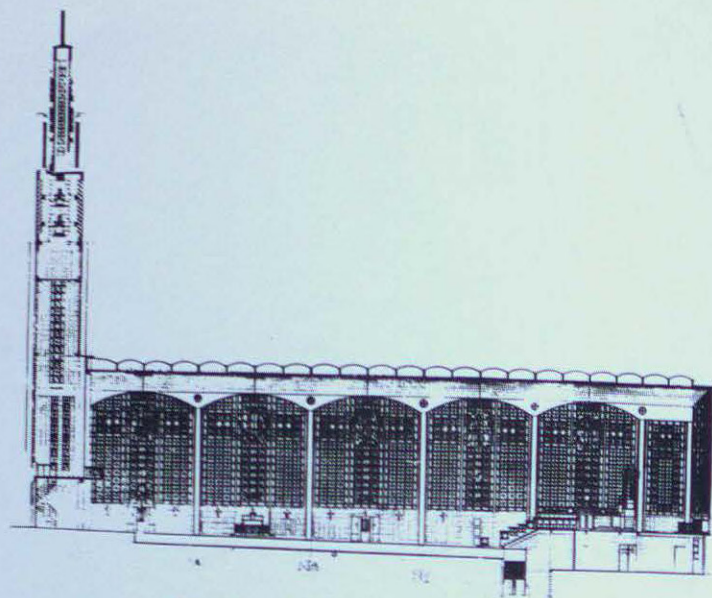
in a return to a more primitive liturgical arrangement so as to intergrate public worship more fully into the mystical life of the Church. Architecturally, it is quite valid, and in several instances (the most notable being the recent competition for Liverpool Cathedral) has provided the opportunity for some novel compositions. It does not, however, solve the problem of how to create "significant form" for congregations which still prefer a way of worship they are accustomed to, and which is in fact "contemporary," in the strict, evolutionary sense of the term.

A third sense in which the forms of church architecture can become "significant" is by symbolically expressing some spiritual value. Symbolism is obviously an important feature in religious painting and sculpture; indeed, according to Susanne Langer, symbolism is the key to all philosophy and all the arts. Moreover, since the iconological researches of Erwin Panofsky have brought to light so many examples it may be thought that symbolism is a key to architecture as well. Yet Mrs. Langer's theory is fully substantiated, and nothing could be further from the truth, for it is a fatal mistake to copy the Renaissance error of treating painting, sculpture and architecture as interchangeable disciplines with common values, or to assume that one can evolve a universal and all-inclusive "theory of art."

Symbolic compositions have no valid architectural significance for the simple reason that they are meaningless in terms of the phenomenological appreciation of space. Symbolic plans are of course of very great antiquity, although the most obvious (namely the cruciform plan) was only used in larger churches and probably originated, not in places of worship, but in sepulchral chapels, such as the tomb of Galla Placidia at Ravenna, or the church of the Holy Apostles in Constantinople (on which St. Mark's, Venice, was based). Symbolic planning was popular in advanced intellectual circles of the Renaissance, when Platonic philosophers, and amateur theorists like Alberti, fostered the adoption of "ideal shapes" like circles and spheres, irrespective of the function the buildings were to serve. But the real popularity of such plans occurred after the introduction of the *Prix de Rome* competitions, when even the most obtuse members of a jury could savour the significance of a symbolic design. McGill



Notre Dame, Le Raincy—Detail of Claustra



Notre Dame, Le Raincy—Longitudinal Section

University recently aquired—as a curiosity—a drawing for “A Temple for the Holy Trinity,” which is almost certainly a student project for the French Academy school’s design programme of January 1783, and in which three porches are arranged equilaterally around a central rotunda in the most approved Boulléesque manner. Two years ago, one of the thesis designs submitted at McGill was for a star-shaped synagogue planned on the basis of a “shield of David.” *Plus ça change, plus c’est la même chose.*

Symbolic detailing, like cruciform planning, is also of very great antiquity, but less of a tradition than might be supposed. During the initial era of persecution, it was not uncommon for christians to adorn the subterranean quarries in which they secretly worshipped with crudely drawn pictorial symbols, but once church architecture began to flourish, isolated symbols vanished, and in no period before our own would it have been thought an act of creative genius simply to scrawl “Mary” on a sheet of glass. During the Middle Ages, and after the Renaissance, symbolic ornament was rare, if by this term we exclude wall-paintings and coloured glass. In the Gothic period, detailing consisted either of mouldings or (in very lavish churches) carved ornaments of more or less conventionalized natural forms. In the post-Renaissance period, symbolic ornament was rarely feasible except when using the Doric Order (i.e. on the metopes), and this was seldom employed, because of the difficulty of achieving an orderly arrangement of the triglyphs when turning corners, or when using double columns. The one symbol most sedulously avoided by the architects of all periods before 1800 was the cross, which was considered both too sacred and too obvious to be proliferated over the surfaces of walls. Today, the cross is the only decorative motif which architects ever adopt (probably because it can be drawn with a set-square), and is as they say a “must” in patterned brickwork or pre-cast concrete screens. The most valid reproach one can make concerning Notre Dame du Raincy is that instead of emulating the sophisticated abstractions of mediaeval tracery, Perret followed Early Christian precedents by incorporating many cruciform elements in his *claustra*, and even made cruciform assemblages of these elements within the over all pattern of his translucent walls.

The only symbolic alternative to detailing is to make the composition of the building into some sort of a symbolic abstract ornament in itself. “Abstract Art”, wrote le Corbusier, “which rightly nourishes so many passions in these

days, is the *raison d’être* of Ronchamp, the language of architecture, the compass needle pointing to that space which is beyond written description.” Such justification is intellectually unchallengeable, for as Paul Rudolph pointed out: “The important thing about Ronchamp is that it speaks to many kinds of people, as a chapel should.” In other words, it says everything to everybody or anything to anybody, and as some character said to Alice in Wonderland, “means exactly what I want it to mean, neither more nor less.” If a church roof has a single tilted pitch, it expresses, as Frank Lloyd Wright said of his last church, “the attitude of the hands in prayer,” and if an architect cannot think of a symbolic roof-shapes, he can always introduce a tower which, as everyone knows, “points a finger to God.” The Toronto City Hall points two fingers to God.

My own view as regards all this is that if the term “significant form” means anything at all in contemporary architecture, it means that the forms “invite attention from a select and initiated group of people”—namely the editors of architectural magazines. In this sense, “significant form” for architects means the same thing as “style” for the readers of *The Motorist* or of *Vogue*: an arbitrary shape designed by a professional Stylist as the accepted image of how a thing ought to look next year. “Significant form” in house-design corresponds to what the real-estate salesman calls “the House of the Future,” just as “significant form” in dress-design means simply “next year’s dress.” There is no doubt that one has to be a genius to be able to forecast what next year’s dresses will look like; but everyone knows what next year’s chasubles or copes will look like, because the shapes have remained virtually unchanged for a millennium.

Perhaps the only really profound remark which Le Corbusier ever made about another architect’s work was his comment with respect to Notre Dame du Raincy that the section was not simply the section through a church, “but the section through any industrial or sacred hall where economy has been pushed to its limits.” In fact the only way architectural form can ever be significant is by being economical: not in the sense of cheap, but in the sense used by Racine when he said that “Style is thought expressed with the minimum of words.” “Architecture,” wrote the French Academy Professor of Architecture, two centuries ago, “is like literature: the simple style is preferable to an inflated style. Architecture is like poetry; by the beauty of its proportions, and the choices of its arrangement, it is sufficient unto itself.”