SIGNIFICANT FORM IN CHURCH ARCHITECTURE

According to our research, this article is previously unpublished.

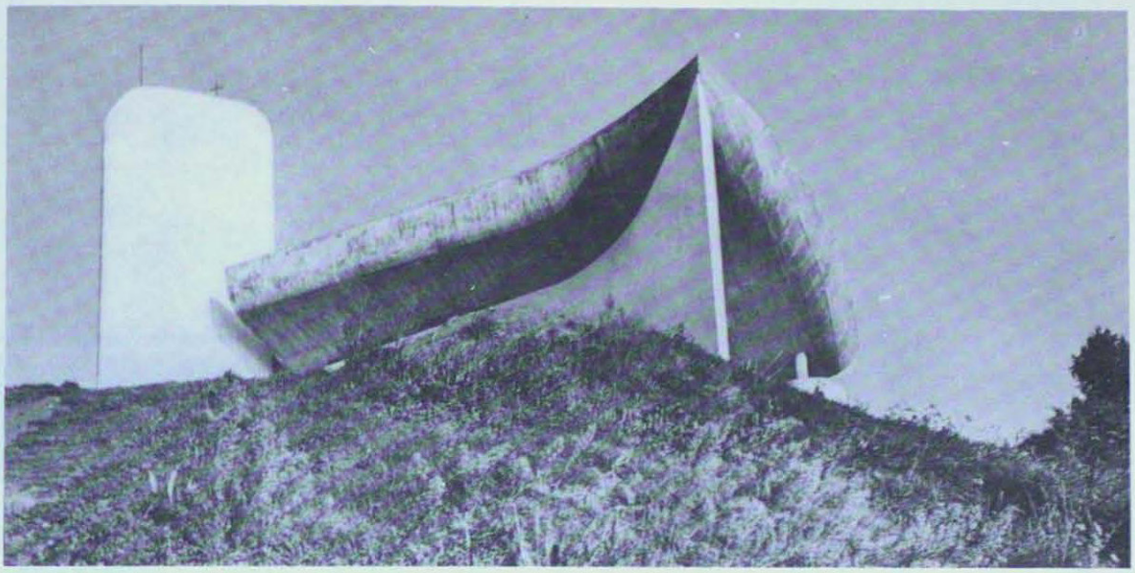
If the term "significant form"—so popular in the language of art criticsm—means anything in architecture (and there is no guarantee that it does, since buildings, unlike painting and sculpture, are a necessity, and thus derive all their essential significance from the mere fact that they are there) it 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 activites 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 "certianly 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 concrete 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 Nôtre 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 revolutionay changes which have occured in architecture since 1920 derive essentially from the changes which have occured 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.

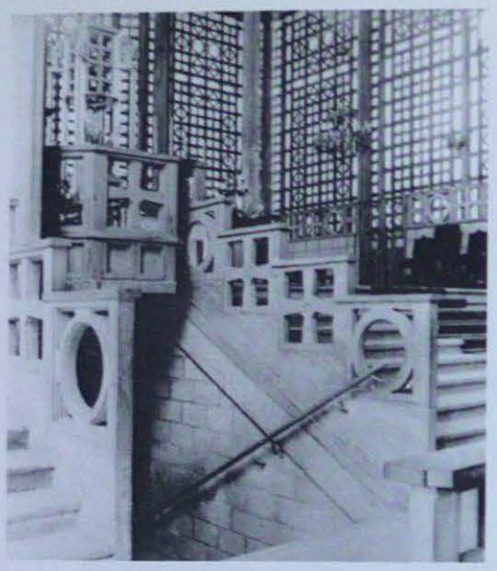
The second aspect of the dilemma is that the function of a church is essentially traditional, whereas the "functionalist" theory is only valid on the assumption that the planning requirements of all buildings has radically changed within recent years. How then can a church avoid being "drenched in historicism," 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.

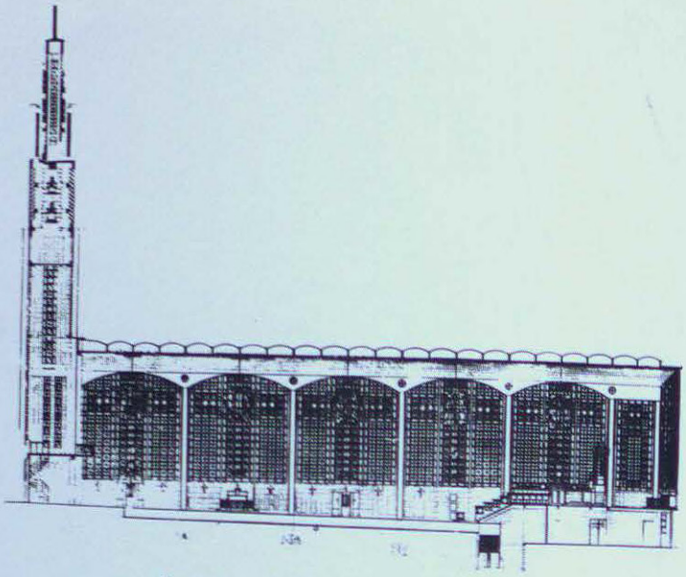
This latter approach is the one most usually adopted because it is supported by many priests and laymen who believe in a return to a more primitive liturgical arrangement so as to intergrate public worship more fully into the mystical life of the Church. Architecturally, it is quite valid, and in several 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, fosterd 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 occured 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."