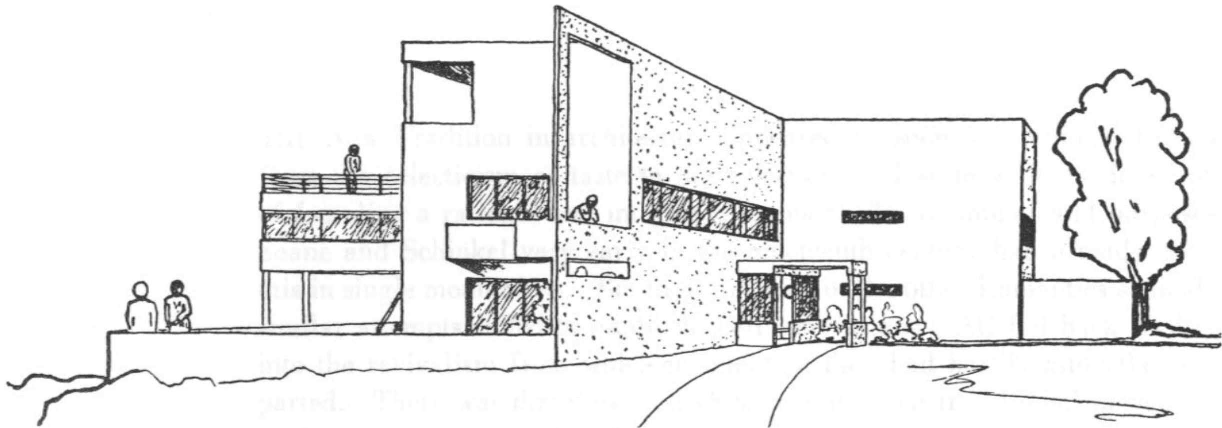
HENRY-RUSSELL HITCHCOCK JR.

MODERN ARCHITECTURE

ROMANTICISM AND REINTEGRATION



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CHAPTER EIGHT

THE ESSENCE OF THE NEW TRADITION

THE New Tradition in architecture appeared as soon as architects turned from the eclecticism of taste to the eclecticism of style with the intention of founding a rational and integrated manner. To all intents and purposes Soane and Schinkel very early in the nineteenth century had already done this in single monuments. But they and such of the other Romantics as made similar attempts failed to establish their innovations. All fell back readily into the revivalism from which in intention they had hardly altogether departed. There was therefore in architecture no such transitional movement as those in building and engineering.

Yet in Gromort's treatment of late nineteenth century eclecticism of taste it is easy to see how that served in a sense as such a transition. It was the sort of training needed to familiarize architects widely with all the various architectural motifs which the past had developed. This the earlier and more exclusive revivals of Romanticism had done only in very incomplete fashion. Moreover, by the last third of the nineteenth century Classical and Mediæval archæology had made somewhat more clear the nature of architectural motifs and their original functional significance. The rationalizing Classicists had already applied such knowledge to the Classical elements from as early as 1800 in some cases. The Mediævalists had at least considered doing so with the Mediæval elements by the fifties. As has been indicated, this was effective in connection with building rather than with architecture. Scott, for example, in his practice did not pass much beyond the Mediævalist equivalent of the peristylar temple formula with which intelligent Classicists were long finished.

The early Romantics found in the non-Classical and non-national past only a pleasant flavour of fantastic unreality. But by the last quarter of the nineteenth century the widening of the field of archæology had made Egyptian, Indian, Islamic and other non-European styles nearly as functionally comprehensible as those of the Classical and Mediæval past. For example Mr. Owen Jones, who was mentioned by Scott, made a study of the Alhambra and also published a universal *Grammar of Ornament* which ran to many editions. The eclectics of taste made, it is true, less use of exotic styles than the early Romantics. But they were prepared to do so when occasion demanded with at least a certain plausibility not inferior to that of the Classical and Mediæval Revivals.

As Scott pointed out, such general interest in the architecture of the past, such wide possibilities of emulation had never existed before. The Late Gothic had known and had been influenced only by the immediate High Mediæval past. The Renaissance and the Baroque had considered only Classical antiquity. With the Age of Romanticism a change appeared. One after another and several at a time there were revivals of different periods of the past. Yet still generally in theory the Romantics believed only in the revival of one period or another; or, at least, only of such different periods as were closely related in character. Thus there were sharp struggles between the two chief factions, the Classicists and the Mediævalists. The resolution of their differences along symbolic functional lines was the accomplishment in theory of the eclecticism of taste. It quite destroyed that sense of style which the best Classical Revival and Mediæval Revival architecture of Romanticism had somehow been able to preserve at least until 1850. It restricted sound traditional building to the English Mediævalist revival of building, and constructional experiment to engineering. It obscured those abstract qualities the early Romantics had discovered and called the "sublime" and the "picturesque." The principle of freedom and catholicity of reminiscence was, however, firmly established. Thus the nineteenth century at the conclusion of the Age of Romanticism, regularized its relation to the past. In so doing as regards architecture it also more or less completely cut itself off from the present.

The model town in America after the War still possessed churches of High Mediæval style, banks of Greek or Roman form, houses Late Gothic or Georgian, and public buildings Renaissance or Baroque. The whole as regards architecture was completely heterogeneous. As regards building

it was usually perhaps somewhat superior to that of the last half of the previous century. The engineering was moreover as expressive of contemporary conditions as the architecture permitted and unconsciously at times in factories and garages even rather fine. The churches were as nearly forgeries of Mediæval monuments as money, skill and the religious prejudices of particular sects permitted. The best of the houses were often—but less often than in England—excellent examples of traditional craftsmanship. The public buildings were considerably constrained by the attempt to fit elaborate modern needs into ancient shells. In the schools, gymnasiums and swimming pools architecture was almost as forgotten as in the factories and garages. Only the window enframements and the entrance features of the façades reflected the period of the past the whole was supposed to emulate; the rest was good, bad, but more usually mediocre building and engineering. Popularly the value of a monument was in exact ratio to its accuracy as a forgery. Gothic power stations and industrial chimneys or Renaissance hotels at impossible scale were accepted, however, as *tours de force.* They were supposed to be productive of harmony, the very quality which the incoherent and symbolic functionalism of the eclecticism of taste made impossible.

As regards architecture the New Tradition replaced eclecticism of taste with eclecticism of style. From the nineties this is clearly evident in an increasing number of important buildings. For once the past could be seen as a whole and not as a set of closed and contradictory systems, it became possible to imitate an effect of mass from the Romanesque and to support it with Baroque detail—to offer an extreme example. On occasion this eclecticism of style was so little fused that it is obvious to the most casual observer. From the beginning, however, the founders of the New Tradition in various countries succeeded in blending their borrowings so subtly and in so prominently incorporating with their architecture the finest craftsmanship in building, as well as to some extent contemporary methods of engineering, that the public was persuaded there was no reminiscence of the past at all. From this fact appears to derive the appellation "Modernist" frequently given to the architecture of the New Tradition. More timid architects easily avoided startling the public by combining their reminiscences in such a way that the resultant amalgam appeared superficially to belong to some accepted formula of revival, treated in the occasion rather broadly. Yet in retrospect there is very little difference in the dependence on the past of those who early announced themselves as the creators of a new

architecture and those who remained respectful, as Soane for example had earlier done, toward some principle of single or multiple revivalism.

Ventures really more far reaching in intention, such as the Art Nouveau, failed as completely as Romantic attempts to achieve an architecture which was merely "sublime" or purely "picturesque." The Art Nouveau had a certain intellectual support. A purely linear ornament was quite conceivable and yet it had never existed. The ornament of the past was known to have been frequently derived from the stylization of natural forms. It was, however, over-cerebral at its best and out of the hands of Henry Van de Velde it rapidly degenerated. It was far less adapted than the eclecticism of style to the decoration of revived building. For the revived building was traditional. It offered no effects of sufficient scale to include contemporary engineering. Engineering was moreover in 1900 still much more subsidiary in the general mass of production than it later became. Previous to the general adoption of ferro-concrete construction architecture was still largely tied to the use of traditional materials. Metal except in certain types of buildings had no more important place than it had had in the mid-nineteenth century.

But eclecticism of style as such would have been no more successful than the Art Nouveau, as such Romantic projects as that of Idzkowski in the forties and that of Berlage in the eighties illustrate, had it not implied distinctly more. It was primarily a summing up of the experiments in form of the last five hundred years, and even of the parallel experiments in form of earlier periods. Like the Late Gothic which did not merely continue the earlier Mediæval style; like the Renaissance and *a fortiori* the Baroque, which were far from exact in their recall of the antique, the New Tradition stylized what it borrowed in a way not without analogies in the new stylization of nature which the painters who came after the Impressionists were developing at the same time. After the first also there was much less a repetition of the original varied borrowing followed by a new stylization than a continuation and evolution of the manner of the founders. It was thus that the New Tradition became truly a tradition.

This tradition of architectural forms furthermore was given solidity by the reincorporation of building and to some extent of engineering. It was not therefore like the Art Nouveau a matter merely of theory nor a matter merely of detail. It was a reintegrated architecture, in intention as all-inclusive as

that of any pre-Romantic period. It gained moreover very definitely from the analyses of the Age of Romanticism. Romantic vision had discovered and set apart certain values which were retained, or more exactly were for the first time adequately achieved.

What the Romantics built to be "picturesque" was in general at best only quaint. What the Romantics built to be "sublime" was too often absurd or of such a derived and literary symbolism, like the descent from the Alps to Gingerbread, that the relation is nearly incredible. The New Tradition provided much more nearly a "picturesque" architecture than anything in the Age of Romanticism which did not anticipate it. The word indeed constantly rises to the lips in the presence of the best early twentieth century monuments. It is better restricted to the earlier period, however, if it is to be used with critical exactness, or at least as far as possible to such matters as definitely have their individual roots in the earlier period, as in the case of the irregularity and the relation to the landscape of country houses. Even its greatest admirers are chary of calling the skyscraper "sublime." Yet that æsthetic quality as distinguished from the "beautiful" in the eighteenth century is more clearly present in the twentieth century German industrial architecture than even in the Arc de Triomphe, and it is indeed often suggested by the best skyscrapers as well. By keeping it *entre guillemets* it is a valid critical term, if its special origin may be thus currently recalled.

Thus set down, the essence of the New Tradition has a falsely simple air. It appears in retrospect as much a formula as the best of the Classical formulas of the nineteenth century, different chiefly in being less exclusive. But much less than they was it arrived at as a formula and then later applied. Indeed, with the Art Nouveau many of the most creative men of the day in which the New Tradition was initiated went at first far astray. The New Tradition is a formula only historically, existing on *a posteriori* analysis. It found and still finds very different explanations from those who established it, as well as from those who do not approach it in sequence as the reintegration of architecture after the Age of Romanticism. It is very possible, for example, to minimize the eclecticism of its formal experimentation, increasing proportionately, as is for the developed manner not unjust, the importance of new methods of construction. One may even deny its "sublimity" but not its "picturesqueness," despite or even because of the ambiguity of the term. Moreover in different countries and with different architects the formula was arrived at very differently. The results are therefore notably

different in exactly the same way that Wren's work differs from that of Borromini or Bramante's from Boccador's. But after 1910 the formula was in general established by one means or another and the New Tradition very definitely a real tradition, if a comparatively broad one. Not good building became traditional, but the special sorts of good building used by the founders; not engineering—which is by nature anti-traditional—but certain ways already initiated of using engineering in architecture.

By 1910 the New Tradition had reached maturity, and although the analysis of later monuments may be made in terms of elements borrowed from the past, it is more accurately made in terms of the work of the founders. One finds in general not such and such a combination of Archaic Greek and Late Gothic features or of Japanese planning and Maya ornament, but rather Dutch fantasy modified by the more geometrical manner of Wright, the Néo-Rokoko detail of Hoffmann in combination with the brickwork of the English, or the engineering of the French joined to a formal expression based on Berlin néo-monumentality.

It was particularly in ornament that the eclecticism of the New Tradition was manifest, although that ornament was not only stylized but reduced—that is much simplified—in order both to give it original character and to bring it within the capacities of contemporary craftsmen. But the ornament of the New Tradition has already begun to fall out of use to some extent. The reasons for this increasing avoidance of decorative embellishment are of such general significance that they merit particular treatment. The question, however, goes some distance back into the past and is only fully resolved in the manner of the New Pioneers which is succeeding the New Tradition.

In Modern architecture previous to the Age of Romanticism it is difficult, as was done by the Romantics in principle, to distinguish engineering from building or either from decorative embellishment. The lack of detail on the Pitti Palace or an eighteenth century French château was comparative. Detail existed in the exquisite mouldings as truly as in the orders or the carved ornament of more elaborate monuments. Moreover, the work of architecture was still, as in the Middle Ages, the result of co-operative effort. The execution of even these mouldings presupposed trained and even sensitive hand craftsmen. This is in general quite as valid as regards the architecture of the further past. Not, it is true, under the developed Roman

Empire, when engineering and embellishment became more or less separated and the latter was done mechanically by ill-trained and insensitive craftsmen; nor for the early monuments of the ancient East in whose construction the individual workman must frequently have been used like cogs in a wheel.

Already, however, in the Late Gothic a new point of view began to make its appearance. As detail became more elaborate it also became more mechanical. The virtues of architecture existed primarily in the design of the master builder and the quality of the detail as such was in some degree incidental. The use of detail—and even good detail—was still presupposed; but it was already conceived as an embellishment. To this the existence of many empty niches, for example, appears clearly to testify.

Against this the Renaissance at first reacted. Much opportunity was again offered for individual creative expression in decorative detail. Yet elaborate ornament, or even particularly excellent ornament, was notably unnecessary to Brunelleschi in his finest works. From such ornamental freedom the High Renaissance turned at least in theory toward the conception of the craftsman as a machine for the correct production of the Classical orders. This conception continued into the seventeenth century Baroque. Its freedom in detail other than the orders did not at all require real excellence of execution. Such detail existed solely as a function of the whole and its intrinsic quality was, therefore, of small consequence.

The later Baroque, particularly in France, was the last stand of the individual craftsman. Both in the more elaborate and in the simpler version detail, even if it were no more than mouldings, became of very great importance with the change to a more intimate scale. Only traditionally trained workmen with a real feeling for the work could carry it out altogether satisfactorily. The difference between the work of Paris and that of the provinces is often for this reason very considerable. This also to some extent creates the difference between the Rococo done by the French in Germany and the Rokoko done by the Germans.

The opening of the Age of Romanticism marked a new development of the post-Mediæval point of view toward the craftsman. This amounted in time to a definite and complete change, although it came very gradually and was long masked by unconscious continuance of old methods. No longer, however, was detail intrinsically of even as much importance as in the Late

Gothic or the Baroque. The idea of detail of one sort or another alone was of serious consequence to the Romantic mind. All detail thus became merely a trophy or a symbol. This was to some extent already true in the case of the Classical orders, but not more generally.

The direct vision of architecture which came to dominate during the second half of the eighteenth century took account chiefly of masses, volumes and relations, even if according to pictorial canons. But the early Romantics also saw indirectly according to literary and archæological principles. Thus the consequences of the new vision were double, as has already been pointed out. Workmen were forced to struggle not only with the inherited Classical orders in which they were at least trained, but also with newly discovered versions of these and with more abstruse archæological documents in the hope that the desired effect of reviving the past could be achieved thus mechanically. Yet on the other hand standards of execution in detail were forgotten since architecture was characteristically to be seen only blurred as through a fog. Detail did not need to be, in the terms of the period, "beautiful," that is regular and intrinsically of high quality, so long as it accomplished an effect which was "sublime"—hence superior to the criticism of parts—or "picturesque." In the latter most typical case indeed intrinsically good detail might even have been considered actually undesirable for it would have interfered with the irregularity of the whole and set the work of man so completely apart from the landscape that the most lithographic eye could not fuse them.

The two rather opposing ideals were only fully satisfied by real ruins whose ancient and authentic "beauty" had been rendered "sublime" or "picturesque" by the action of time and nature. Their combination as they came nearer together in the nineteenth century resulted in the utter degeneration of detail, reaching its extreme point between 1850 and 1875, which has already once been discussed. What is here significant is as much the fact that the combination of the pictorial and the archæological point of view also caused an extraordinary multiplication of detail as that it brought about this degeneration of detail. If a certain amount of reminiscent detail was considered worth-while as a trophy of erudition, according to nineteenth century quantitative standards twice as much was twice as worth-while. As it was never seen clearly but only impressionistically, twice as much certainly made a greater effect on eyes which had lost with the sense of quality of execution the power of appreciating in actuality the expressive texture of

undecorated plain surfaces which they so much enjoyed when it was sufficiently exaggerated by the graphic artists or by time.

Thus, as the critics of the time occasionally noted, the most insignificant building often became as richly endowed with architectural features as a cathedral or a palace. The solid virtues of many of the simpler published projects in the books of the first half of the century disappeared for lack of adequate execution when they were built: otherwise the designs had to be loaded with ornament in execution in order to make palatable in reality that which engraved or lithographed must have had as much charm and real quality to the men of the day as to us. (Figure 10.) In terms of currency there resulted an inflation of detail of which any street largely built between 1859 and 1900 is the sad witness. For the world was flooded with vast quantities of detail each item of which was nearly valueless.

The route toward deflation took several forms. For some time the soundest was that pursued particularly in England. The revival of the craft of building accomplished at least a revaloration of the small change of detail. The latter eclecticism of taste attempted a more general revaloration which proved to be more or less futile. Providing draftsmen with accurate photographic documents and training workmen artificially to follow the draftsmen's paper designs for detail accomplished only a more and more complete duplication in the contemporary paper currency of the gold coinage of the past. The results were usually more like the Greek drachma than the British five-pound note.

The New Tradition profited in its turn by the lessons of both these attempts. After the fiasco of the Art Nouveau had displayed the impossibility of really creating an ornamental currency on *a priori* principles the masters of the New Tradition on the one hand made the most of the possibilities of detail the revival of the craft of building provided. On the other hand they sought in their ornament borrowed from the past not the exact repetition of documents but stylized and reduced forms which the post-Romantic craftsman was capable of executing adequately. Both a Doric column and a Romanesque capital for example were impossible with contemporary means of production. But neither a simple column nor even a comparatively elaborate capital were, provided they were not brought into real competition with the work of the past by the obvious intention of direct emulation.

Moreover since the earlier revivals of the nineteenth century had particularly favoured the fully formed styles of the past, failing so very obviously even in their intended replicas because there existed a wholly definite standard to which they could not possibly attain, even the men at the end of the nineteenth century who were only working toward the New Tradition began to imitate periods of transition in which detail had no fixed norm, or when two norms existed in conflict, as in the Early Mediæval styles or the Early Renaissance. From this the step to full eclecticism of style was easy and was immediately taken in the twentieth century when the arbitrary symbolical value of detail had somewhat diminished.

Stylization and reduction gave the new detail a certain coherence. Stylized and reduced forms still recalled or suggested to the sophisticated observer the various styles of the past without attempting directly to vie with the works of any one of them. Eclecticism of style thus provided for a time a far wider revalorization than had the revival of the craft of building, at least when the importance of fine execution was as adequately recognized. This was of course sometimes equally recognized by some of the eclectics of taste who understood the pseudo-economic parable of the five-pound note.

But the ornament of the New Tradition, as has been said, rapidly became subject to a formula, or rather a set of national formulas. Although these formulas had at first a certain originality they staled very rapidly with repetition. The later attempt to rejuvenate them by ever more exotic borrowings from the primitive arts of the past did not succeed in giving any further validity to the original principle. The miracle of the new creation which had occurred once could hardly be repeated often. The current imitation of the French formula in America is particularly indicative of the impossibility of continuing the ornament of the New Tradition, now that it has been already sometime established, without arriving at once at an inflation as serious as that of revivalistic ornament. In general while the work of the followers of the New Tradition is more sure than that of the founders, it lacks the force and conviction they alone as true innovators could give it.

Fortunately at the same time increasing interest in the study of mass and proportion, also along eclectic lines, tended to support the abstract pictorial and psychological points of view inherited from Romanticism. It became

consciously admitted that ornament was of minor importance and less central to the problem of style in architecture than had been accepted generally by the literary and archæological theorists of the nineteenth century. The more clearly the new youth of ornament was seen to be artificial and the more certainly its bloom proved almost as impermanent as that so quickly tarnished of the Art Nouveau, the more desperate were the attempts at first to find more exotic and novel forms. Expressionism in the broadest sense was the last concerted programme of renovation. But neither its exaggerated distortion of reminiscent forms nor its geometrical experimentation along the lines of the Art Nouveau have had any continuing success despite their continuing use. The zigzag has become as tiring as the sinuous curve and its intrinsic interest is even less.

Thus in the last years without changing its more general principles the New Tradition has come more and more to discard ornament. It has sought its eclectic effects of mass for themselves in simplified and reduced form, lending them secondary interest by balance of surface textures, frequently without recourse even to mouldings. This version of the New Tradition does not, however, constitute in itself a separate and later manner since its fundamental principles remain unchanged. Although devoid of decorative detail, it resembles only superficially the succeeding manner of the New Pioneers, who from the first recognized the impossibility of ornament. With this it has indeed to some extent merged, particularly in Germany and Eastern Europe, borrowing features from the latter manner as freely as the primary version of the New Tradition borrowed from the styles of the past. But it is not profitable to attempt a separation of the New Tradition into three versions, that of the founders, that of the followers, and that which is already rather superficially close to the New Pioneers.

Once established and formulated, the New Tradition may be more accurately considered to have continued without real development wherever it has penetrated. For such development as there has been toward greater emphasis on engineering, toward greater simplicity and the reduction of reminiscent elements, has led too directly toward the essentially different architecture of the New Pioneers. It is moreover to be found quite as much in the work of the founders as elsewhere. If one were to distinguish three versions within the last thirty years it would be necessary to find that almost every architect of the New Tradition had had equal success in two and many in all three. The New Tradition, although far from over, may

therefore be considered in general terms as pre-eminently the single dominant manner of architecture of the first quarter of the twentieth century since the continuance of the eclecticism of taste is negligible except in bulk. The story of this manner of architecture of the first quarter of the twentieth century is far too complicated and too rich in individual personalities to be told further thus. For the architecture of the Age of Romanticism, the use of generalities was at once more possible and more necessary.

CHAPTER THIRTEEN

TOWARDS A NEW ARCHITECTURE

AMONG the nine designs premiated equally in the competition for the Palace of the League of Nations in 1927 there was only one which would be considered in America to be wholly traditional. All the others were marked by the manner of the New Tradition or by that later manner of the New Pioneers which is even less connected with the revivalism of the nineteenth century.

Of the seven designs that belonged more or less definitely to the New Tradition the French and Italian examples whose designers are apparently to build the Palace are still in a general way Classical. But their Classicism is modified by a more or less original study of the massing, a certain eclecticism in the choice of architectural features and a simplification and stylization of the reminiscent detail. They are significant in the present connection only because they indicate that by 1927 even the more official and reactionary architects of the Latin countries were no longer able to design even palaces without being influenced more or less strongly by the New Tradition. The architecture of revivalism according to the principles of the eclecticism of taste as established in the middle of the nineteenth century had already at the beginning of the second quarter of the twentieth century all but universally given place to the architecture of the New Tradition.

But it was not among these more reactionary designs that the finest and most typical manifestations of the New Tradition were to be found in this competition. On the one hand the Swedish design of Ericsson in its chaste and

subtle reflection of reduced eclecticism; on the other the more monumental design of zu Putlitz, Klophaus and Schoch in its forceful and reiterative emphasis on mass, as in the later work of Behrens, represented the two chief possibilities of expression of the developed New Tradition.

The design of Fahrenkamp, more typical perhaps than that of zu Putlitz of contemporary German production, was highly significant for itself and as a sign. It illustrated a more extreme simplification of the New Tradition than those just mentioned. This was carried to the point of reducing beyond possibility of identification that eclecticism of style which gave the New Tradition architectural form. Moreover it was clearly marked by the newer positive influences of the New Pioneers quite unrelated to the New Tradition. The manner of the New Pioneers was epitomized in the ninth project, the design of Le Corbusier and Pierre Jeanneret, which for some time was expected to be accepted.

The hundreds of designs submitted in this competition not among the nine to receive equal first prizes might be similarly sorted not by quality but historically—if the term thus used of work of two years ago may be pardoned. Among them there were many more of the general type of Fahrenkamp's and Le Corbusier's as also of the purely revivalist order. As statistics such a listing would have little significance; but the existence in numbers of designs in which the New Tradition is definitely modified by the later manner of the New Pioneers and of designs wholly created in accordance with that manner make it clear that this competition did not truly mark, as it may well have for many Americans, the appearance of the post-eclectic phase of Modern architecture. Indeed along the line of engineering experimentation of the nineteenth century on the one hand and along the line of formal experimentation, as distinct from the revival of more and more exotic forms of the past, in the work of the masters of the New Tradition and their precursors, the roots of this current phase might be carried back at least a century. Its spirit was not wholly unknown in the earlier pseudo-styles of Modern Architecture, the Late Gothic, the Renaissance and the Baroque, but it cannot hardly be isolated until after the Age of Romanticism was well over.

Forgetting their Art Nouveau decoration we admire to-day certain values in the French monuments in steel of the end of the nineteenth century. The existence of these values indicates that during the period of transition to

the New Tradition two ways of reintegration existed. The way which was taken was that of recombining the methods of engineering and the revived craft of building with an architecture which summarized the æsthetic effects of the past. The other way of developing from engineering alone its specific and unprecedented æsthetic effects lay dormant during the development of the New Tradition. This second possibility can be clearly seen in retrospect in many of the monuments which mark the inception of the New Tradition. But after the last and finest of the Paris department stores and the decline of the Art Nouveau the eclectic crystallization of twentieth century architecture became more definite and the development of an architecture from engineering was not then carried further.

The reasons for this are not easy to fix at the present time and discussion of them is not very profitable. In a sense the New Tradition exists as its own justification. To have passed beyond it without passing through it would have been to lose the monuments of a brilliant summary phase of the Modern style.

But well within the period of the New Tradition there is a landmark much more definitely connected with the manner of the New Pioneers than even the department stores of 1900 whose importance historically was perhaps somewhat less than it appears to-day. As in the case of the work of Soane just after 1800 the latter seem to have pointed the way on, but they did not certainly do so to those who came immediately after. In the Werkbund Exposition of Cologne in 1914 there were however three buildings which marked in different ways the definite initiation of a new point of view and from which lines of descent may be much more clearly traced.

In the least startling but probably the finest of these, Van de Velde's theatre, there was an æsthetically conscious formal expression of the function and of the concrete material almost wholly without precedent in the architecture of the past. This was not altogether unanticipated in the earlier work of this somewhat ambiguous master. But previously, except perhaps in the Weimar Art School of 1906, his exteriors, whether in traditional materials or not, had been at least unconsciously influenced by the eclectic néo-monumentality of the Germans with whom he was associated so that his creative energies has gone primarily into his interiors and their furnishing. Since it exists no longer for our study it is difficult to say how fully successful this theatre was, how far it was a summary of Van de Velde's earlier work,

and how far it marked consciously a new direction as it could so profitably be accepted as doing.

More significant probably was the model factory and office building erected at the Exposition for the Deutz Gas Motor Company by Walter Gropius, destined to become after the War the most important New Pioneer of Germany. This constituted a very definite attempt in the field of industrial architecture to give æsthetic expression to engineering without thought of the architectural effects of the past. It is true of course that in the play of masses there was still a certain predilection for monumentality. In the treatment of the front wall and the entrance moreover architectural features in the simplest manner of the New Tradition and not directly derived from the engineering were distinctly prominent. All this is a reflection of Gropius' training with Peter Behrens. But the glass stair towers studied purely as volume, the long side windows and the open façade of the machine hall are clearer and more unarchitectural in the sense of the time than anything hitherto produced by an architect.

The Glashaus of Bruno Taut was somewhat more experimental in the use of materials and thus more clearly indicative of a desire to derive artistic forms from the intrinsic possibilities of novel methods of construction. It was, however, very much less successful than the buildings of Van de Velde and Gropius. For its general design was based on current German exposition architecture of the New Tradition and only in detail was there further innovation in the æsthetic expression.

Gropius gave a more complete demonstration of the possibilities of his new ideas in the Faguswerk factory in Alfeld-an-der-Lahn completed in the same year as his Deutz pavilion at the Cologne Exposition. Here the entire main building was treated as volume rather than mass, and the ornamental and architectural features are reduced to the clock bay of the entrance which was nevertheless exceedingly simple. Moreover in this elaborate complex of buildings the lyricism of the grouping, especially of the chimneys and other purely industrial features, was not as with Behrens vaguely Mediæval but wholly dependent on a free study of the natural proportions and relations between the parts. (Figure 38.) Although it was the problem of the factory which offered most clearly the possibilities of creation to the New Pioneers and set the terms from which their æsthetic was to derive, no architect achieved a greater success than this Faguswerk until

the van Nelle factory outside Rotterdam built in 1928 by Van der Vlugt and Brinkman probably with the collaboration in design of Mart Stam. (Figure 49.)

After 1914 architectural production all over Europe and particularly in France and Germany ceased almost entirely for even longer than the period of the War. It is impossible to find any buildings truly reflecting a new æsthetic until 1922 when they appeared contemporaneously in France and in Holland; and immediately afterward in Germany. Indeed it is not until 1925 that Le Corbusier's Pavillon de l'Esprit Nouveau at the Paris Exposition of Decorative Arts formally presented the manner to the general public and gave illustration to his book *Towards a New Architecture.*

The effect of the War on the incubation of the new manner is difficult to analyze. Forced inaction in architecture undoubtedly encouraged generally the development of tendencies away from the New Tradition. The immense amount of engineering with which a whole generation was brought in contact may even have led some men to seek æsthetic possibilities there who would not have done so otherwise. Moreover the increasing development of the machinery of transportation was beginning to arrive at a sort of purely technical beauty that was quite unrelated to the beauties of the past. This was achieved by refinement of structural necessities, direct non-symbolic expression of function, and intimate relation of forms to materials. When the idea of the technical beauty of boats and aeroplanes was exposed by Le Corbusier and others after the War it is certain that it found a somewhat prepared audience.

Nevertheless this idea as an idea was not altogether new. The writing of men such as Frank Lloyd Wright, Henry Van de Velde, and particularly Adolf Loos before the War made them more or less definitely precursors in principle. They and others had begun to see and to say that handcraftsmanship had become more and more anarchronistic except as a final luxury, and they had urged the possibilities of the machine as an art-tool. Loos notably in his curious article on *Crime and Ornament* published in 1913 in the *Cahiers d'aujourd'hui* had gone further and stated that all ornament was anachronistic. However in his buildings in Vienna, where he stood isolated amid a general revival of decorative art under Hoffmann's leadership, he hardly went beyond an extreme simplification of the New Tradi-

tion. His æsthetic expression was largely negative and in retrospect it appears distinctly inferior to the more positive if less "pure" achievements of Wright in certain of his houses, of Van de Velde in his Cologne theatre or of Perret in the strictly engineering warehouses of Casablanca.

More important probably, certainly more definite, was the influence of the abstract painting which began to appear from about 1910 and which suggested strongly the architectural values in the elemental volumes and planes of machinery and engineering. The possibilities of achieving on another scale and in three real dimensions the effects then found in painting to be of æsthetic significance occurred thus to many men about the same time during the period of the War. These effects were not particularly present in the architecture of the New Tradition. Pictorially it still lent itself to evaluation according to the Romantic principles of the "picturesque."

Nevertheless the manner of the New Pioneers did not come into being as directly and simply as what has just been said would tend to indicate any more than had the New Tradition. In Germany for example it was the painting of Expressionism which particularly influenced the architects in their experimental sketching during the War. That influence achieved its most notable realization in Poelzig's Grosses Schauspielhaus of 1919 in Berlin. This was a weird but still New Tradition building as crude in detail as the sketch engendered architecture of the *romantisme de la lettre.* It was moreover eclectically reminiscent of Islamic art and the primitive styles of Asia, Africa and Polynesia, blended by distortion into a nightmare entity. Mendelsohn showed in his War sketches the influence of machines but his imagination was equally Expressionistic. Reduced in scale and modified by the materials used, this order of conception reached execution in his Einstein Tower, built at Neubabelsberg in 1921. With regard to this Einstein made the cryptic and paradoxical comment: "Organic."

Except for the straight engineering projects of Freyssinet, of Limousin & Cie, such as the magnificent hangar at Orly, the War developed no new important building in France. Indeed the rebuilding of the devastated areas has been done in the rationalistic rustic manner of the pre-War period where it does not represent even more out-moded tendencies, which might still be described as provincial Second Empire. In Belgium the rebuilding has been

somewhat more intelligently done in fairly successful imitation of the old work. But it is quite as devoid of any new character which might have been developed during the War as Whitney Warren's Flemish Baroque library at Louvain.

The two reviews that particularly championed a newer manner of architecture, *de Stijl* and *L'Esprit Nouveau,* were both in intention international and the former was primarily the organ of a Dutch group. The two architects of *de Stijl* and *L'Esprit Nouveau* who showed in 1922 an integrated post-eclectic manner were the Dutch Oud and the Swiss Le Corbusier, neither of whom had had any connection with the War. Both had been in close relation with extreme abstract painting and related abstract sculpture, Oud with Mondriaan and van Doesburg; Le Corbusier was himself at one time a painter and in *L'Esprit Nouveau* he was associated with Ozenfant. Gropius came out of the War an Expressionist and although he had adopted the new manner by 1922 he did not until 1926 achieve again work comparable to his factory of 1914. His painting associates have been all along the more abstract Expressionists.

As in the opening period of the Age of Romanticism in architecture it was a point of view developed first with regard to painting that crystallized the new manner. But whereas the painting, Baroque or Romantic, which influenced architecture in the late eighteenth and early nineteenth centuries was poetically interpreted, and vague and effective in expression; the painting, Cubist or Néo-Plasticist or otherwise abstract, which influenced architecture during the War and immediately after was intellectually, even cerebrally, interpreted, and exact and specific in its expression. In neither case was architecture necessarily related to the line of development in painting in the appreciation of which the particular point of view that affected it had appeared. It is certain that Romantic architecture went its way independently long after the sort of painting which first helped to set it going had become altogether subsidiary to later and more important developments. It is probable that the influence of abstract painting on architecture will prove also to have been but temporary. Indeed it may already appear that its point of view is better satisfied by architecture than by painting, and that it will be continued in architecture alone; just as the "picturesque" point of view, although it arose in the appreciation of painting, was eventually better satisfied by landscape gardening and has been longest continued in that art.

The architecture of Romanticism adopted archæology as a means of giving solidity to the values of pictorial order that it sought. The architecture of post-Eclecticism found in new developments of engineering a solid basis of structure with which to achieve its more purely æsthetic ends. Moreover the theories of Loos, Van de Velde and Wright provided a body of doctrine which could in large part be taken over; just as the Romantic architects took over certain largely unrelated archæological doctrines. The very archæology on which the Romantics leaned came during the course of the nineteenth century indeed rather to lend its support of theory to the central idea of the New Pioneers: that a style of architecture depends on a method of construction. In their interpretation of Gothic some of the archæologists of the mid-century carried the technical point of view to as great extremes as certain writers of to-day. The monuments in both cases serve to prove the falsity of theoretical exaggeration of rationalism and functionalism.

Within the New Tradition, leaving aside the overt influences of the later manner such as appear in Fahrenkamp's competition design for the Palace of the League of Nations, there has already been remarked the general tendency toward extreme simplicity which has developed particularly since the War, parallel with this manner of the New Pioneers. This has been to some extent due to the economic conditions which have followed the War as well as to those considerations here earlier derived from the theory of the inflation of ornament which have caused the newest architecture to avoid it entirely.

But the newer manner is fundamentally distinct from this version of the New Tradition in that it is based on principles of design not inherited from the art of the past. Instead of composing in three dimensions in values of mass, the New Pioneers compose in values of volume; instead of complexity as a means of interest they seek a strenuous unification; instead of diversity and richness of surface texture, they strive for monotony and even poverty, in order that the idea of the surface as the geometrical boundary of the volume may most clearly be stressed. Their avoidance of ornament is not entirely due to the fact that all ornament is seen to become to-day rapidly worthless from mechanical repetition. Rather it is felt that if the study of volumes and planes is carried far enough ornament as it has been known in the past does not embellish but makes the fullest unification impossible by breaking the surfaces. At the same time there is a certain faith that the possibility of something equivalent to the ornament of the past is not gone forever. Not as in the Art Nouveau on *a priori* grounds, but naturally and

from the constructive necessities of the style as in the developing architectures of the far past, a new detail might eventually come into being. It would have to be intimately derived from the design of the whole and utterly subordinate to it, so that it should not interfere, in the way of even the simplest geometrical ornament now used as such, with the fundamental values which the New Pioneers have discovered, or more accurately uncovered. This is very definitely a matter that belongs to the future.

It is worth stressing, since it is a point frequently denied by its theorists, that the new manner constitutes essentially an æsthetic and not necessarily particular methods of construction. Such a new æsthetic could hardly have taken form of course if completely new methods of construction had not called for suitable expression and served to lend it validity. The ferro-concrete structure of Perret is for example probably sounder than that of Le Corbusier; but it is only the latter's which belongs to the new manner since the æsthetic of Perret remains in general that of the New Tradition. The fact that the idea of a new architecture finds support particularly in the engineering of the past hundred years and that its most fundamental principle is to make of engineering an æsthetic activity has not put architects completely at the mercy of engineers. Engineering may change completely from year to year, but the æsthetic of the New Pioneers has already shown a definite continuity of values separate from, and even on occasion in opposition to, those derived purely from the practical and the structural.

In the chief engineering architecture of the past, the High Gothic of France, exactly the same situation existed. The engineers, or rather the builders functioning as engineers, developed their construction to a point which solved their technical and practical problems and made possible a quite new æsthetic expression. After that functioning as architects they were free of engineering. They even mocked it, as for example by placing buttresses where the eyes demanded them instead of at the exact point at which they were most completely effective in counterbalancing vault thrusts. Moreover they indulged as at Beauvais in extreme technical virtuosity for its æsthetic effect, going well beyond their engineering capacity in pursuit of a magnificent vision.

Were the newer manner characterized merely by a determination to make the fullest possible use of the advances of engineering as certain German critics claim, it might well be but a branch of the New Tradition continuing

in extremely reduced forms its eclectic æsthetic. But it represents primarily a new feeling for form and the search for certain specific effects. These may hardly be more fully defined in general terms. Specific examples and illustrations which nearly a decade of activity on the part of its leaders provide fortunately make it possible to do so in detail.

But finally as with any manner of architecture it is worth remarking that no name may be more than denotative for the work of the New Pioneers. Yet, for all their vagueness of overstatement Oud's claim that the new manner is a "pure" architecture, or Lönberg-Holm's that it is a "time-space" architecture, even van Doesburg's that it is "elementarist," have some slight meaning. To add another similar term profits little, but perhaps "technical" might be suggested. For the architecture of the New Pioneers in its establishment represented to a large extent—although not quite completely—the triumph of the technical point of view in the same way as the architecture of Romanticism represented in general the triumph of the anti-technical point of view. Although on a plane that admits of a fully developed æsthetic, the buildings of the New Pioneers appeal in the same way as machinery with its generally recognized technical beauty.

When the work is known, however, it is enough to call the architecture of the New Pioneers the international style of Le Corbusier, Oud and Gropius, of Lurçat, Rietveld and Miës van der Rohe, which is enrolling more and more the younger architects in Europe and many as well in America about to begin their building career.