Summary

Objekttyp: **Group**

Zeitschrift: **Bauen + Wohnen = Construction + habitation = Building + home : internationale Zeitschrift**

Band (Jahr): **14 (1960)**

Heft 5: **Einfamilienhäuser = Maisons familiales = One-family houses**

PDF erstellt am: **24.09.2024**

dériver certaines lois générales de l'architecture, Gaudi lui, au contraire, essaye d'appliquer directement les formes de la nature à l'architecture. Les lois de Sullivan forment un ensemble cohérent qui mène à l'architecture bien connue dite fonctionnelle. Pour Gaudi au contraire l'ensemble spécifique parait moins important: ce sont surtout les détails qui le préoccupent; l'architecture, comme la peinture et la sculpture, est pour lui avant tout un art. C'est ainsi que pour Gaudi un pavillon peut être le prétexte d'une étude d'un château en miniature, un vestibule une étude de piliers obliques, une toiture une nouvelle construction de pierre. Partout nous retrouvons l'esprit expérimental du chercheur dans un domaine chaque fois particulier. Deux bâtiments typiques nous indiquent clairement les intentions différentes de Sullivan et Gaudi: Les Grands Magasins Carson, Pirie et Scott à Chicago (1899, 1903—04) de Sullivan d'une part et la Casa Mila à Barcelone (1905—10) de Gaudi d'autre part. Alors que les Grands Magasins en question sont nés du problème «Grands Magasins» et des possibilités constructives, la Casa Mila est une application directe du principe naturel des couches géologiques (voir page 187). Gaudi n'a d'ailleurs entrepris qu'une seule fois cet essai, signe caractéristique de son esprit expérimental. L'on notera d'ailleurs que le faîte du toit à hauteur variable de la Casa Mila n'est pas l'expression d'une imagination débordante mais la conséquence parfaitement logique d'une construction très astucieuse (voir figure 29-34).

Il faudra donc pour comprendre et estimer Gaudi étudier ses œuvres avec précision. Gaudi n'est pas, a-t-on pu dire, un plat qui se digère facilement!

3. La signification de Gaudi pour notre génération

Gaudi peut-il aujourd'hui encore nous apprendre quelque chose? Ses applications et corrections néo-gothiques n'ont qu'une valeur historique, ses constructions audacieuses ne sont plus utilisables à notre époque, son style est bizarre et étrange. Il n'est donc pas question de vouloir copier ou imiter Gaudi. Pourtant il est certain qu'au point de vue historique la leçon du maître est fort profitable.
Récapitulons en quelques mots les principes qui se dégagent de ces quelques considérations:

a) L'architecture moderne a atteint un certain canon. Le besoin d'enrichissement de son vocabulaire est pressant. L'œuvre de Gaudi nous offre l'exemple classique d'une architecture qui s'enrichit sans cesse. Mais elle nous en indique également tous les dangers: l'arbitraire et l'anarchie. A ce point de vue Gaudi peut nous servir d'exemple en empêchant une imagination par trop débordante de se perdre dans la confusion totale.

b) La théorie de Le Corbusier selon laquelle la bonne architecture doit être avant tout juste (en se servant de l'angle droit, du cube et du cylindre) mérite une comparaison d'ailleurs très fertile avec l'œuvre de Gaudi: en effet, un autre point de vue que celui de l'abstraction intellectuelle peut être également fécond: celui du naturalisme empirique.

c) En troisième lieu il faut une fois encore insister sur l'imagination polychromique prodigieuse et vraiment géniale de Gaudi, dont nous pouvons profiter aujourd'hui encore.

Summary

Private villa surrounded by rocks
(pages 158-161)

The picturesque landscape around Chappaqua, a suburb of New York, has not up to now been much in demand for building. However, this region covered with scattered boulders of all sizes inspired Rado to such an extent that he built his own house there.
As far as possible, Rado adapted his plan to the contours of the site. The influence of Marcel Breuer is very marked. Moreover, Japanese architecture appears to have served as a model for certain motifs. The upper part of the house is of wood and is placed on foundation floor. The spatial conception in general as well as the adaptation of the architecture to the natural surroundings constitute a total effect that is both interesting and pleasing. On the other hand, we encounter here the parking area that seems to dominate the elevation! The location of the stairway and of the fireplace, as well as the circulation areas, do not seem to be quite adequate. These criticisms, however, are entirely positive: this villa possesses great qualities and it would be useless to wish to criticize it straight off or its bad qualities.

Metal skeleton villa on a slope
(pages 162—165)

All the rooms of the building had to be placed, according to the client's specifications, on the same level (with a 30% slope!). The T-plan of the building permits a splendid view over the valley, the sea and the shore of Los Angeles. The metal skeleton of the house, of welded sections, is painted blue. The span of the pillars is 3 meters. The exterior walls are rendered on both sides. The dividing partitions, on metal frameworks, are faced with laminated wood. The plan of the villa is absolutely symmetrical.

Villa of reinforced concrete on a steep slope (pages 166—167)

Reidy, just like Ellwood and Rado, places his building on the site without altering its natural configuration. The problem, moreover, was not simply that of the general disposition of a building. The contours of the site emerge likewise in the plan: nature penetrates the house! The section of the building is also most revealing on this point.
The original disposition of the main entrance should also be noted (see building by Rado), as well as of the loggia, and the integration within the overall plan of the subtropical vegetation.

Villa in Cologne (pages 168—170)

Villa erected on a slope, site measuring 2000 sq. meters. The planning and building were left entirely to the architect, who in this way enjoyed almost complete liberty of action.
The steel skeleton placed on the foundation walls weighs only 22 tons and is covered with insulation slabs of concrete measuring 250 x 50 cm. These concrete slabs are in turn faced with French slate.

The villa has a mixed heating system: living-room and dining-room are entirely air-conditioned, whereas the other rooms are heated only. The woodwork in this villa is especially rich.

Villa and library in Fulda
(pages 171—173)

The plan of this villa shows us clearly the logical interrelationship of the different spatial volumes. The special case of a library for 14000 books lends itself very well to this architectural conception.
The arrangement of the interior courtyard and the presence of numerous objects of art serve to embellish the living area.

Villa and architectural office
(pages 174—175)

The building in question is divided into two well-defined sections: one containing fixed rooms and the other flexible cubicles. The latter is constructed with movable partitions.

The flexibility of the building extends even to the elevations, since the elements of the latter are interchangeable depending on the temporary functions of the rooms, on the inside. Rather surprising technical resourcefulness! Skeleton of the villa is of steel.

Two-family villa in Würzburg
(pages 176—178)

Rather special case in which two owners build a dwelling-house in common for structural reasons; what is involved here, in fact, is two very narrow sites making this type of construction necessary. Two identical flats occupy building A, whereas building B is a private dwelling-house.

Happily the two owners have abandoned the usual palisade and make common use of the entire garden!

New trends in furnishings
(pages 179—180)

It is interesting to note that trends in furnishings always more or less keep in line with those of architecture in general.

The furniture receiving awards at the International Furniture Competition at Cantù in 1959 seeks to accentuate the different structural parts by the utilization of different materials: thus, for example, the screws, certain attachments, etc. are plainly visible.
The general influence of Werner Blaser is markedly apparent.

Antonio Gaudi (pages 181—187)

1. Introduction

The keen interest being shown at the present time in the style of art known as "Jugendstil" or "Art Nouveau" is entirely justifiable and necessary from the historical point of view. On the other hand, the servile rebirth of this style in contemporary architecture—in a spirit of opposition to purism—can lead only to disaster (see on this subject: Reyner Banham, The Neoliberty, the retreat from modern architecture. Architectural Review 1959, Vol. 4).
As modern architecture has only just emerged from the classical period—i.e. purist style—it is understandable enough that an attempt is being made to extend its vocabulary. This ardent quest for the new at all costs nevertheless entails grave dangers, especially that of a "renewal" of outmoded conceptions without vital motivation in the present.

There was no doubt that in this quest for the immediate past the famous name of Antonio Gaudi y Cornet was bound to be unearthed. His passion for the fantastic and for the surprising cannot fail to excite a generation of purists in search of new designs. The study of the influence of Gaudi on contemporary architecture can therefore be considered one of the most interesting historical assignments. There exists, however, a more exacting and more imperious assignment, which can be summed up in the following manner: How is Gaudi to be understood properly, i.e., how can we judge his real intentions and methods?

2. Some Special Features

Gaudi and "Jugendstil" or "Art Nouveau"

Antonio Gaudi y Cornet was born on June 25, 1852 at Reus, and died as a result of a traffic accident in 1926. When comparing Gaudi with his contemporaries, we cannot simply classify him without further ado as an "adept" of Jugendstil, in that group comprising: Alfred Messel (1853), H. P. Berlage (1856), C. F. A. Voysey (1857), as well as the architects of the Chicago school: J. W. Root (1850), W. Holabird (1854), M. Roche (1855) and L. Sullivan (1856).
In 1884 Gaudi was appointed successor of Francisco de Paulo del Villar, architect in charge of the building of the Neo-gothic church of the Sagrada Familia in Barcelona. This tradition and his own personal convictions will lead Gaudi increasingly toward the study of the Gothic idiom. Only a brief period of his life from 1903—04 to 1910 is effectively devoted to buildings in the Art Nouveau spirit, at a time then when Art Nouveau had already come to an end in Western Europe. Peter Behrens, for example, had been converted at that time to cubist architecture, as is shown by the buildings of the Exhibition of Art of Oldenburg in 1905 — heralding the architectural ideas of 1920!

Thus Art Nouveau influences appear in Gaudi's work only when this style had practically ceased to display any vigour. This is evidence, moreover, of Gaudi's genius, he not arriving at this phase by mere imitation but by a strange concatenation of circumstances. Besides, Gaudi has never displayed the revolutionary spirit of Art Nouveau, he achieves certain designs only by way of laborious stages; Gaudi is a seeker who has never wished to create the "New" at all costs. His works appear clad in various guises: Neo-gothic, baroque and even ancient classical. But behind these designs there can always be detected the thinker, the philosopher and an ardent explorer in the world of forms.

Methods of work

Is the work of Gaudi nothing but a phantasmagoria, the expression of an arbitrary exploratory genius? By no means! Let us be cautious in our approach to Gaudi's "improvisations." They are deceptive! The musical impromptu is a mere fiction, for they have been just as patiently elaborated as any other work. Joan Bergós, former associate of Gaudi describes for us as follows the methods of work of his teacher:

Gaudi would cogitate a very long time before drafting his first sketches. That done, they were then entrusted to two specially chosen associates with instructions to alter them if necessary and think out the whole problem again from the beginning. After some time the results were compared and corrected. This process would be repeated until the thing was perfect and Gaudi satisfied. Gaudi would also construct models of wire when complicated vaults were involved, which he would load with weights in order to study their elastic deformations. It was in his way that he was unceasingly in quest of "perfect shapes." Where else can we find such radical methods and such a clear vision applied to this type of problem?

Construction

When Gaudi took over the construction of the Sagrada Familia in 1884 he was faced with the problem of a large church vault in all its complexity. The classical Gothic system did not satisfy him. The principle of the flying buttres is not wholly logical. Though Gaudi takes his inspiration from Gothic art, he endeavours to improve it. He makes use of English and Italian mathematical notions. In this way he retains the idea of the static catenary of the Italian mathematician and engineer Giovanni Poleni (1748). In the principle of the catenary (wire suspended and subjected to regular loading) all the forces are stretching forces. Gaudi makes use of this discovery for the construction of the vestibule of the church of Santa Coloma de Cervelló (see Fig. 6). His structural conception is naturalistic. He demands that it reveal as obviously as possible the lines of stress. It should be pointed out that this demand is in force to this day. Gaudi's Neo-gothic point of departure, his naturalistic structural demand and his questing spirit lead him likewise to constructions in wood, steel and concrete. The results are astonishing and prodigious: Vault construction at the Colonia Güell in Barcelona (1887) see page 183.
Springer of reinforced concrete in the entrance pavilion at the Güell Park in Barcelona (1900—1914) see page 184.

Roof structure on the parochial school of the Sagrada Familia in Barcelona (1909) see page 184.

Colours

The mosaics of the Güell Park seem to have been borrowed from a painting of Kandinsky (see Fig. 23). It is possible that Picasso (whose studio was for a certain time opposite the Güell Palace) may have been inspired by these gardens. The mosaics under discussion, in part composed of all kinds of débris (terra cotta, porcelain, glass, etc.) are a perfect reflection of the experimental and imaginative spirit so characteristic of Gaudi (see Fig. 28): his colour compositions definitely herald what was to come later.

Nature as a model

Nature serves as a model for Gaudi—as with Sullivan—but whereas the latter took his inspiration from nature in order to derive therefrom certain general laws of architecture, Gaudi for his part, on the

other hand, endeavours to take shapes given by nature and apply them directly to architecture. Sullivan's laws constitute a coherent body of unified principles that lead to the kind of architecture so well known as functional. For Gaudi, on the other hand, the specific complex appears to be less important: he is above all concerned with details; architecture, like painting and sculpture, is for him before anything else an art. Thus for Gaudi a pavilion can be the pretext for a study of a palace in miniature, a vestibule a study of the effect of oblique pillars, a roof a novel construction in stone. Everywhere we encounter the seeker's experimental spirit, each time in a special field. Two typical buildings indicate clearly the different intentions of Sullivan and Gaudi: The Carson, Pirie and Scott Department Store in Chicago (1899, 1903—04) by Sullivan on the one hand and the Casa Mila in Barcelona (1905—10) by Gaudi on the other. Whereas the department store in question grew out of the problem of the department store as such and out of structural possibilities, the Casa Mila is a direct application of the natural principle of geological layers (see page 187). Moreover, Gaudi experimented but once in this direction, an indication of his experimental spirit. It will be noted, moreover, that the ridge of the roof of the Casa Mila, having a variable height, is not the expression of an overflowing imagination but is the consequence, which is perfectly logical, of a very artful construction method (see Fig. 29-34). In order to understand and properly assess Gaudi, it will thus be necessary to study his work with exactitude. Gaudi is not, as it were, an easily digestible dish!

3. The Significance of Gaudi for our Generation

Have we today anything to learn from Gaudi? His Neo-gothic applications and improvements have only a historical value, his bold structures are no longer of use in our age, his style is bizarre and strange. Thus there is no question of seeking to copy or imitate Gaudi. However, it is certain that from the historical point of view the lesson of this great architect is highly profitable.
Let us recapitulate briefly the principles that emerge from these considerations:

a) Modern architecture has reached a stage where it has a certain canon. The need to enrich its vocabulary is a pressing one. The achievement of Gaudi is a classical example of an architecture that is ceaselessly self-renewing. But it shows us likewise all the dangers attendant upon such an architecture: arbitrariness and anarchy. From this point of view Gaudi can serve as an example by preventing a much too overflowing imagination from losing itself in total confusion.

b) The theory of Le Corbusier according to which good architecture ought to be above all exact (by making use of the right angle, the cube and the cylinder) deserves to be compared with the work of Gaudi, and such a comparison would be most fertile in ideas: in fact, another point of view from that of intellectual abstraction can also be fruitful: that of empirical naturalism.

c) Thirdly, the polychromic imagination of Gaudi, which is prodigious and truly inspired, should once again be emphasized; we can still profit by it today.

Inhaltsverzeichnis

	Am Rande	157
Ladislav L. Rado, Architekt, New York	Einfamilienhaus zwischen Felsblöcken	158—161
Craig Ellwood, Architekt, Los Angeles	Stahlskeletthaus an einem Hang	162—165
Affonso Eduardo Reidy, Architekt, Rio de Janeiro	Hanghaus in einer Stahlbetonkonstruktion	166—167
Joachim Schürmann, Architekt BDA, Köln	Einfamilienhaus in Köln	168—170
Gerhart Laage, Architekt BDA, Hamburg	Einfamilienhaus und Bibliothek in Fulda	171—173
Werner und Grete Wirsing, Architekten, München	Haus mit auswechselbaren Fassadenelementen	174—175
Walther und Bea Betz, Architekten, München	Doppelwohnhaus in Würzburg	176—178
Neue Tendenzen im Möbelbau	Beim internationalen Möbelwettbewerb in Cantù prämiierte Entwürfe	179—180
Dr.-Ing. Jürgen Joedicke, Architekt BDA, Stuttgart	Willkür und Bindung im Werk von Antonio Gaudí	181—187
Prof. Jean Tschumi, Architekt BSA/SIA, Lausanne	Verwaltungsbau Nestlé in Vevey	188—192
Paul Preisig	Vorfabrizierte Stahlelemente für Decken und Dächer	
Fokke van Duyn, Architekt BNA, Den Haag	Haus in den Dünen	
Peter Stead, Architekt, Huddersfield, England	Versuchshaus in Almondbury	
	Chronik	
	Konstruktionsblätter	