Le Corbusier. Strasbourg Congress Hall Model, seen from the west. Musées de la ville de Strasbourg, M. Bertola.

Richard Klein. The Luminous Horizon of Le Corbusier's Last Project
LC. Revue de recherches sur Le Corbusier N° 7, 98-113.

THE LUMINOUS HORIZON OF LE CORBUSIER'S LAST PROJECT

Richard Klein

DOI: https://doi.org/10.4995/lc.2023.19231

Abstract: Le Corbusier's project for the Congress Hall for the city of Strasbourg between 1962 and 1965 has a relatively discreet place in historiography. However, it is frequently presented as a synthesis that skilfully blends the archaism of the rough finishes with the new machinist features of the 1960s. The evolution of the last design phases shows how the spectacular and event-based dimensions largely take precedence over the usual practices of the rue de Sèvres workshop.

Keywords: *Le Corbusier, Strasbourg Congress Hall, Sound & Light, Scenography, Archaism*

Résumé: Le projet du Palais des congrès que Le Corbusier élabore pour la ville de Strasbourg entre 1962 et 1965 a une place relativement discrète dans l'historiographie. Il est cependant fréquemment présenté comme une synthèse mêlant savamment l'archaïsme des finitions brutes avec les nouveaux caractères machinistes des années 1960. L'évolution des dernières phases de conception montre comment les dimensions spectaculaires et événementielles prennent largement le pas sur les pratiques habituelles de l'atelier de la rue de Sèvres.

Mots-clés: *Le Corbusier, Palais de Congrés de Strasbourg, Son et lumière, Scénographie, Archaïsme*

Resumen: El proyecto del Palacio de Congresos que Le Corbusier diseñó para la ciudad de Estrasburgo entre 1962 y 1965 ocupa un lugar relativamente discreto en la historiografía. Sin embargo, a menudo se presenta como una síntesis que mezcla hábilmente el arcaísmo de los acabados en bruto con las novedades maquinistas de los años sesenta. La evolución de las últimas fases de diseño muestra cómo las dimensiones espectacular y de acontecimiento priman ampliamente sobre las prácticas habituales del taller de la rue de Sèvres.

Palabras Clave: Le Corbusier, Palacio de Congresos de Estrasburgo, Sonido e iluminación, Escenografía, Arcaísmo

ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

M. Pflimlin, the mayor and the impeccable city services had designed a perfect program.
In such favorable conditions, the architect admitted that it were as if he were working for God himself; with conscientiousness, integrity and loyalty.
That is when we realized that architecture is about passion…[1]

Even if historiography grants it a relatively modest place, the Congress Hall project Le Corbusier designed for the city of Strasbourg between 1962 and 1965 provoked the curiosity and sometimes the fascination of commentators. Maurice Besset had already pointed out the unique nature of the project as early as 1967, finding that Le Corbusier disagreed with Strasbourg on the grounds of "the Euclidian register of irrational forms, like the Chandigarh Palace of Assembly"[2]. It represented the same aesthetic contrasts between organic forms and a geometric structure like the 'box' which Stanislaus von Moos[3] commented on in 1970. In their book devoted to Le Corbusier in France, Gilles Ragot highlights the relative consistency of the project from the first study to the final product and analyses the Congress Hall in the structural lineage faithful to the principles of the 1914 Maison Dom-ino as well as to its main aesthetic components[4]. Jacques Lucan evoked the theoretical perspective of the composition of the plan and, in his latest work, Peter Eisenmann includes the palace in his list of 'Ten Canonical Buildings', renewing his reading of the building through analytical drawing[6]. The complexity of the program, the plan's composition, the aesthetic contrast between the Cartesian and free forms explain the interest in Le Corbusier's final project.

The story of the building shows how other aspects, notably the spectacular, final dimensions are certainly far more ambitious than the habitual practicality of the rue de Sèvres atelier. Among these spectacular aspects is the treatment of artificial light, a pre-occupation which, from the start of the commission to Le Corbusier's final proposals, was hugely significant.

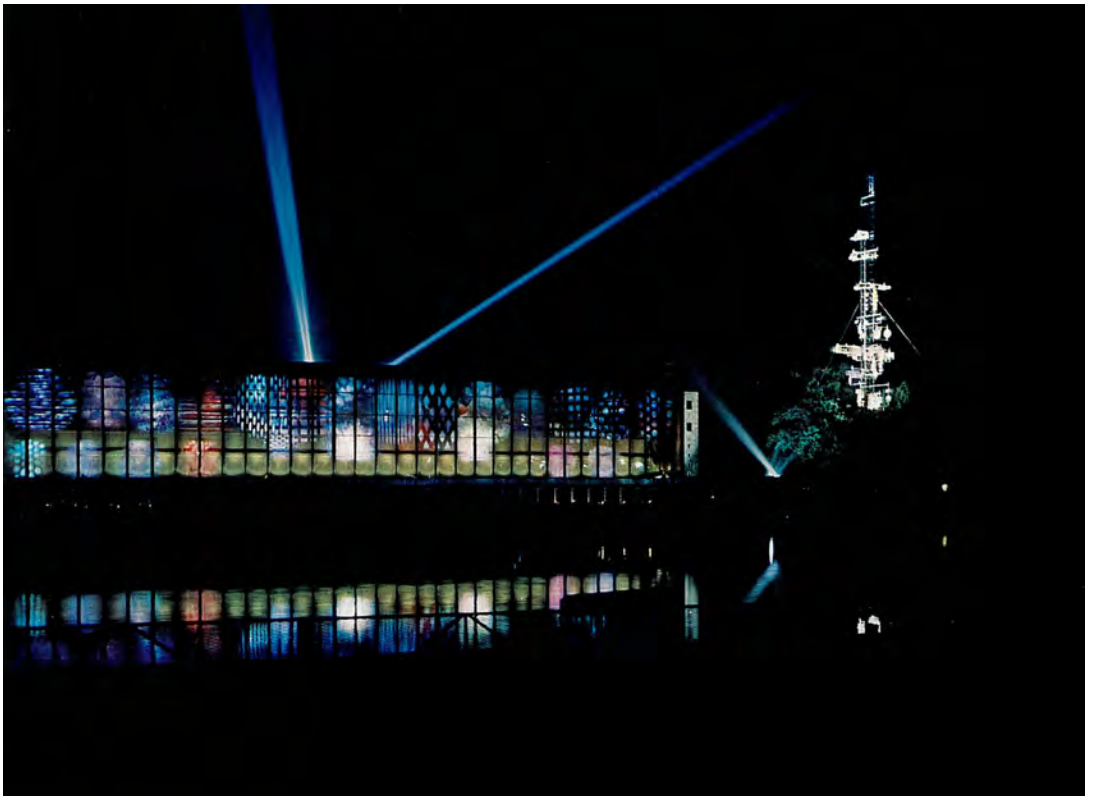


FIG. 1
Photograph of the Liège Congress Palace: cybernetic light tower and luminodynamic games designed by Nicolas Schöffer. *Nicolas Schöffer,* Neufchâtel : éditions du Griffon, 1963, p. 112.

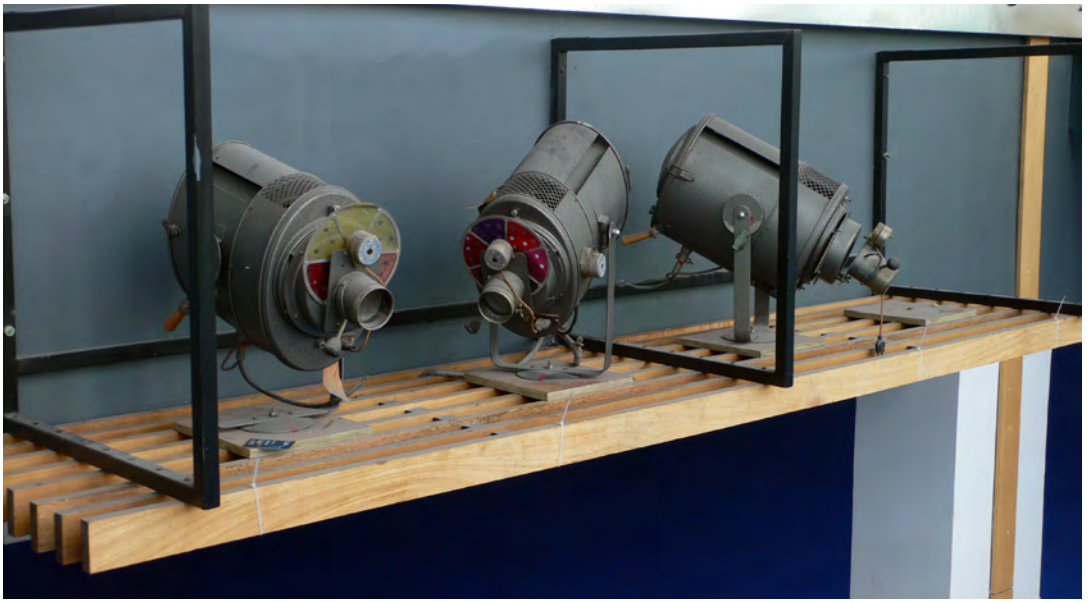


FIG. 2
Some of the projectors used at the Liège Congress Palace by Nicolas Schöffer's luminodynamic show. Photograph by Richard Klein, April 2011.

The Liège Model

At the dawn of the 1960s, when Pierre Pflimlin, the mayor of Strasbourg[7], decided to provide the city with a Congress Hall in the aim of making the city an international tourist destination, the city administration had scant indications of the precise nature of the project intended for project managers' consultation. The broad brushstrokes of a study on tourism development and figures from the journal Associations Internationales which reported on the experiences of cities that had invested in similar public buildings were all the administration had to go on. The Congress Hall was a completely ground-breaking project and there were very few similar buildings with which it might be compared. At the end of 1960, armed only with this scant information, the city administration visited several Congress Halls all over Europe with a delegation of elected representatives, who selected the Liège example as a model with which to hone their own project.

The Liège Congress Palace was opened to coincide with the 1958 Brussels World Fair. It was heralded as one of the most fully equipped buildings of its kind in Europe[10]. The Palace was composed of three main sections: the conference section (three halls seating 1000, 500 and 200 respectively, ten committee rooms, utility rooms, a lobby, offices and amenities), radio and television studios section and a restaurant and recreation section (restaurant, bar, function and banqueting rooms). These three main sections are embodied by the characteristics of rationalist architecture and situated on the banks of the River Meuse in Boverie Park. The most ostentatious part, the grand foyer and lobby opened directly out onto the river behind a predominantly glass façade. Designed by the 'Équerre'[11] Agency, the Palace continued to bask in the praise it received in 1960 for the widely publicized images and positive feedback during intensive use of the building for the World Fair in 1958. (Fig. 1)

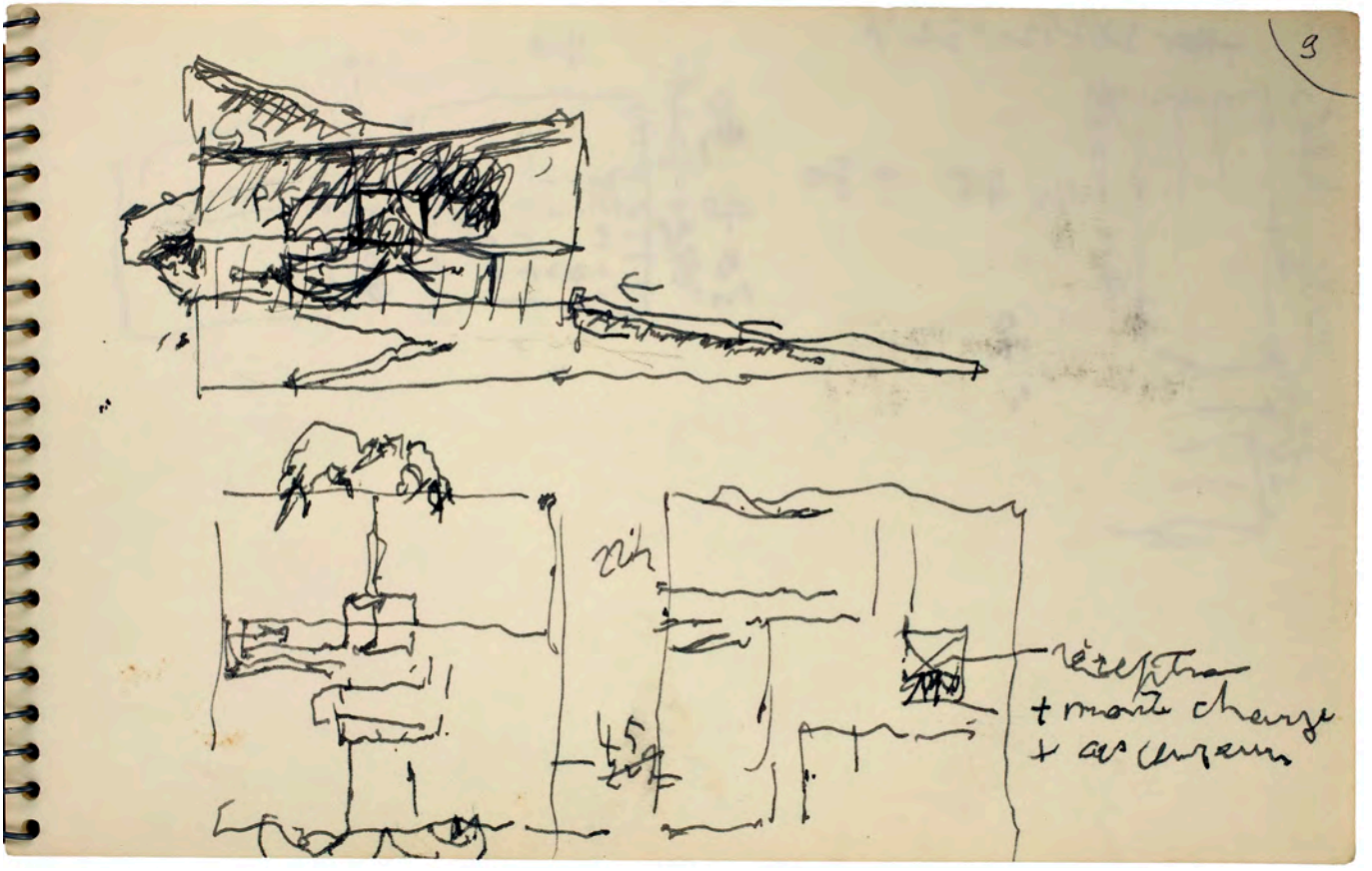
The building did not attribute its early notoriety to the rationalism of solutions retained by the designers but moreover to the intervention of the artist Nicolas Schöffer. At the start of the World Fair, the Liège Congress Palace, was transformed into a 'lumino-dynamic show' culminating in a cybernetic light tower. This radical transformation of the building thanks to the light show was described by Michel Ragon: "Nightfall, 120 multicoloured lights create a lumino-dynamic light show projected onto a 1500 m2 screen stretched across the glass façade of the Congress Palace. Sculptural architecture, spectacular architecture, musical architecture, all against the musical backdrop composed by composer Henri Pousseur especially for the tower"[12]. Nicolas Schöffer himself recalled the Liège experiment during an interview with Philippe Sers[13]:

ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

FIG. 3
Le Corbusier. *Carnet S 68 (22 octobre 62) + 69 bis 1963, p. 959. Le Corbusier Carnets,* volume 4, 1957-1964, Herscher /Dessin et Tolra, 1982. (FLC).

"(…) It was the first cybernetic tower installed in a city, linked to its own environment. Completed on a pretty tight budget, it worked every day at first. The man behind the project was a local councillor who also worked at the time as director of the tourist office. After reading an article about my work, he sought me out and asked me to create something exceptional for the prestige of his city. I suggested the tower and the show, and he managed to persuade the council to grant authorization for the project. For the sound installation in the tower itself, we made several tracks. The first consisted of sounds made on the tower itself, reworked by a skilled sound engineer in order to create a soundscape generated by the visible. We recorded the sound of the water – the River Meuse – on the second track; the third featured sounds of the city; the fourth was birdsong from the nearby zoo. The fifth track was the sound of the city's bells (…) After six months, the program had to be suspended due to complaints from residents…As for the show, the visual side was well received, but the electronic music, I had commissioned Henri Pousseur to compose, created uproar. The residents went as far as to threaten to oust the council and my original sponsor almost lost his post. He suggested leaving the show as it was but modifying the sound work. Philips offered to arrange an admirable, lesser- known Bach fugue mixed with Gershwin's Rhapsody in Blue, but they had to fight to stop the city's brass band from joining in… The show went out once a week on Sunday nights during the summer months and was an interesting production and certainly in a class of its own". (Fig. 2)

Rare images of Nicolas Schöffer's lumino-dynamic shows allow us to understand how complete the metamorphosis of the building was. The Liège Palace became the canvas for an art installation and the star of its own show.

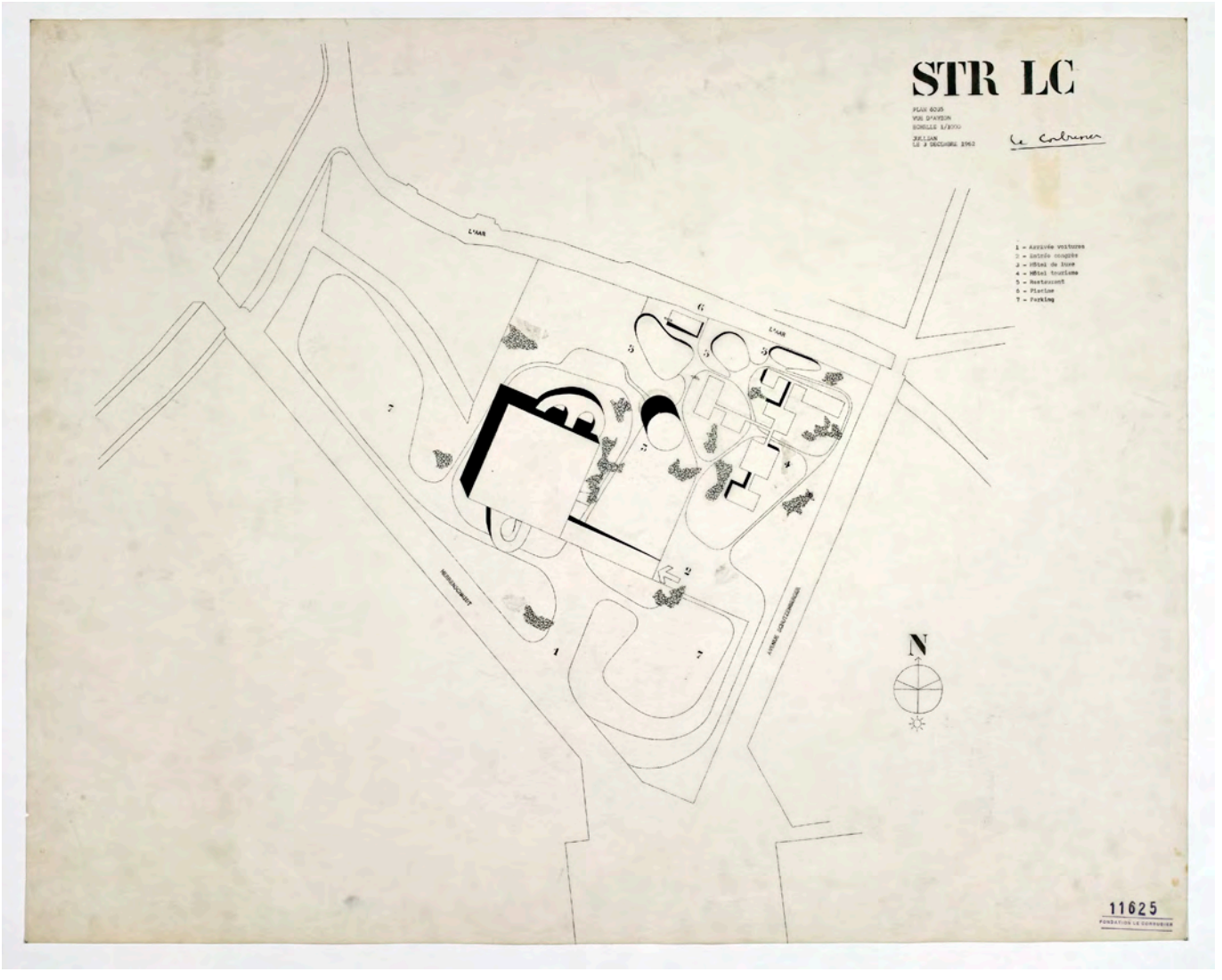


A Changing World

After having envisaged organizing an international consultation, Pierre Pflimlin wrote to Le Corbusier on December 8, 1961, to offer him the opportunity to consider the Strasbourg Congress Hall project. Le Corbusier went to Strasbourg on April 11,1962 and put down the broad brushstrokes of the project in November of the same year, in parallel with the retrospective of his work at Paris Museum of Modern Art. The rue de Sèvres atelier submitted their draft proposal in December 1962.

The Congress Hall was set in a rectangular prism, the first level of which provided independent access to five different-sized meeting rooms organized around a central forum. The second level was given over to general distribution and equipment shared by all users and was the level on which pedestrians accessed the building via the external ramp. The third level housed the main hall with a capacity of 2000 and the medium-sized hall seating 500. The roof terrace was on the fourth level. On the north of the site, near the banks of the Aar, Le Corbusier located all the ancillary facilities: a swimming pool, restaurants and two hotels.

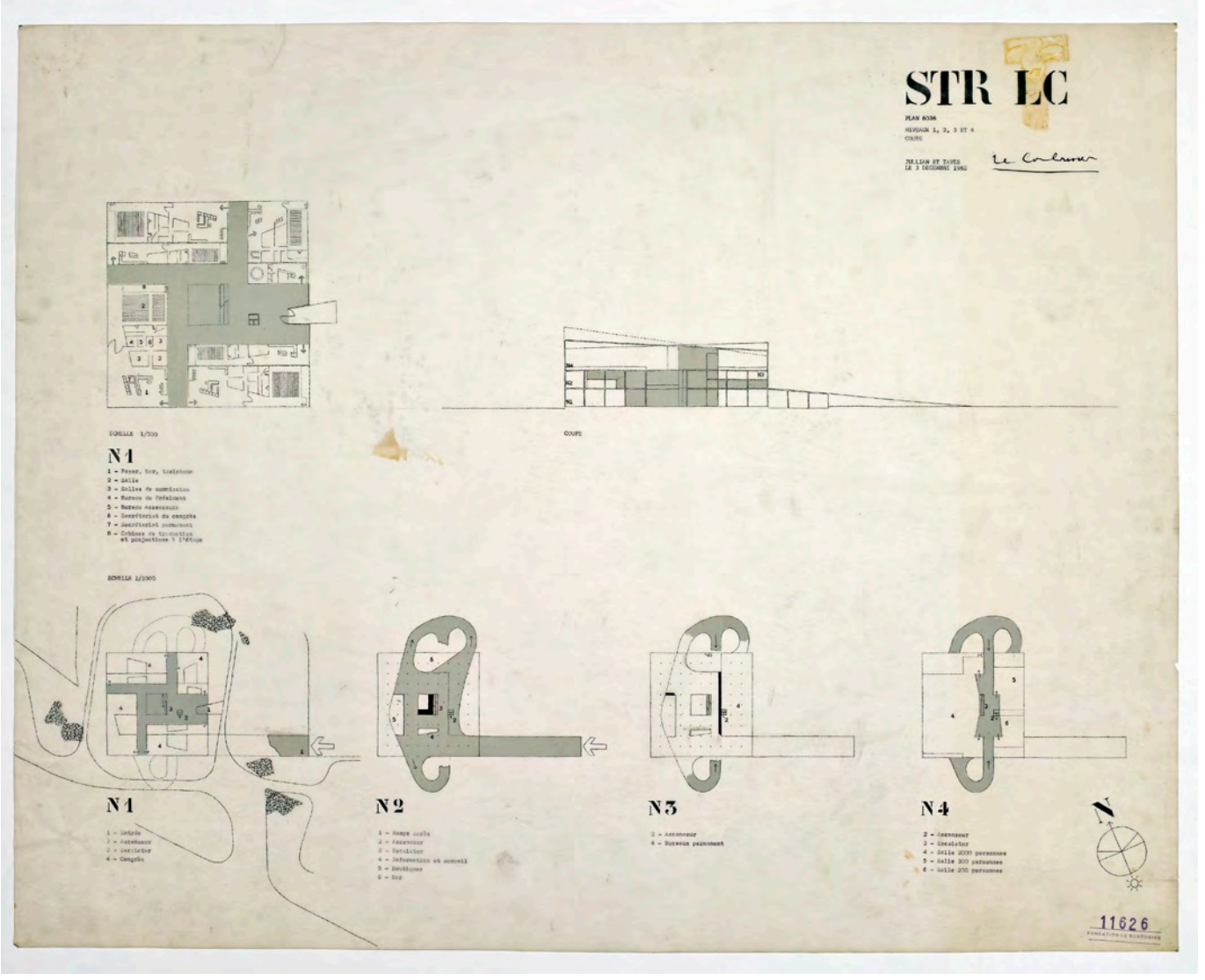
FIG. 4
Le Corbusier. Strasbourg Congress Hall. General plan for urbanisation in the Park, December 3, 1962
FLC 11625.



ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

FIG. 5
Le Corbusier. Strasbourg Congress Hall. Plans and sections, December 3, 1962 FLC 11626.

In the explanatory note[14], which makes up for the relatively unprecise drawings, Le Corbusier described how each level worked and justified the importance of the spaces allotted for 'foot fall', referring to his knowledge of international meetings and the difficulties he encountered when he insisted these areas were retained in the United Nations Secretariat Building, New York. For Le Corbusier, spaces usually regarded as open, or for moving through, were at the heart of systems put in place in Strasbourg. The Congress Hall draft proposal hinges emphatically on these spaces and the relatively imprecise graphic representation of the other elements of the project. The drawings highlight the continuous ramp at the heart of the distribution of space ensuring free-flowing movement inside the building and emphasize the consideration of interior fluctuations stemming from arrivals and departures from the Congress Hall. The unique slant of the project, which prided itself as being forward-looking and adaptable for crowds of future congress goers, is resumed in a nutshell: "The world is changing. A page is turning. We must put the past behind us and create the future". (Fig 3)



It took six months to complete the draft proposal. Le Corbusier spent this time attempting to create a 'spontaneous theatre' in Strasbourg. The project management was more flexible as it had shifted away from the original idea towards a Maison de la Culture, the flagship program of the day and hobby horse of the new Secretary of State for Cultural Affairs, André Malraux. New plans, a description and a maquette were submitted to Strasbourg city council in June and July 1963. Apart from the main access ramp which goes from East to Southwest and a lift tower for goods, which appears on the east side of the façade, the project depended on the same 80 m2 right-of-way on the side of the building, as outlined in the draft proposal of December 1962. The drawings for the plans of each level, as well as the sections, now conveyed a precise reading of every aspect of the project. The vertical section of the building was built around four main floors, two of which were split on two levels. The first level (Level 1) is situated in a basement lightwell and is reserved for site offices and technical facilities. The second level (Level 2), which is at the ground level of the natural site, is treated as a plinth expressed by a peripheral biased

FIG. 6
Le Corbusier. Strasbourg Congress Hall. Collage, sketch of level 3 'forum' undated. FLC 28176.

ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

structure forming a sun shield on three sides and housing the meeting rooms. A third level, on Level 3 'Forum', has a structural framework, measuring 7.50 m x 7.50 m and can, if necessary, be partitioned: here undulating glass panels are set back from the structure, inside the right-of-way and extend far enough to close the access ramp leading to the upper floors. Level 4, home to the large concert halls, is included in the prism which owes its shape to the slope of the roof. The terrace dominates Level 5. (Fig. 5)

The plans of the levels facilitate the organization of the various services and the panoply of partitions included in the project. The closures and indoor partitions are designed more freely on Level 3. The areas for visitor services are drawn like free forms - kidney shapes that seem to float randomly in space punctuated by regular vertical supports. This level is treated as a void separating the lower base from the closed overhead volume of the concert

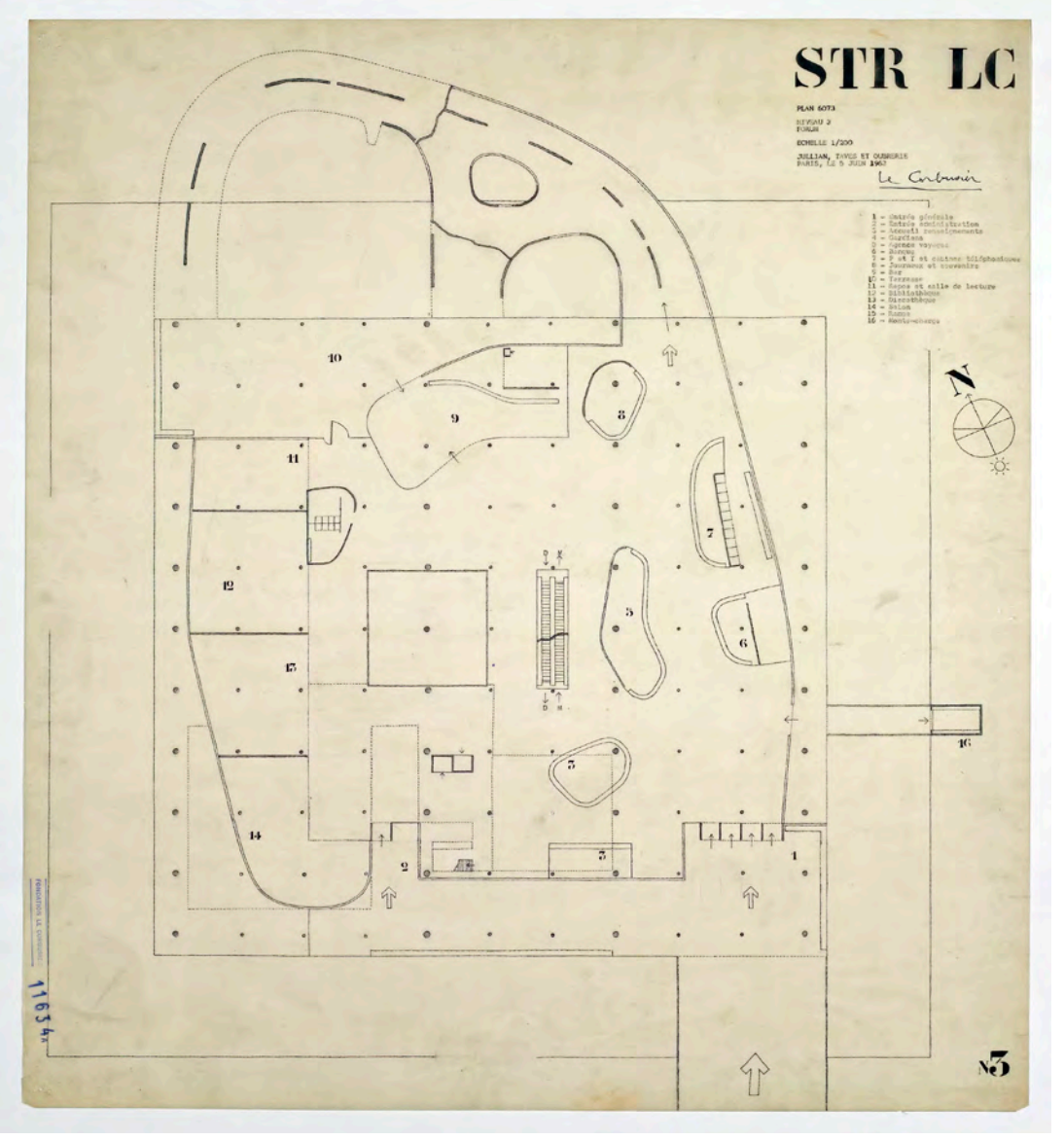


FIG. 7
Le Corbusier. Strasbourg Congress Hall. Plan of level 3, June 5 ,1963. FLC 11634 A.

halls of Level 4. The terrace includes the sloping plane of the roof, and a low wall for open air shows. As in the draft proposal, the fluid ramp emerges from the voluminous square base to serve the upper floors. (Fig. 6-10)

The documents of June 1963 which illustrate the choices and their spatial impact so clearly were chosen to convey the most complete state of the project in published form so far. Thus, in the publication of the completed plans which dated the project to June 1964, the illustrations all feature the state of the project in June 1963. The June 1963 version states its case just as clearly: the principles of disassociating the structure and the closure outlined as early as the 1914 Maison Dom-Ino, also called the counterpoint between structure and envelope[15] - by Maurice Besset; the Monastery of Sainte Marie de la Tourette (1957) for the inclusion of free forms in a prism and the panels of undulating glass, the Carpenter Center (1961) for the spectacular paths crossing spaces and peripheral slanted structures forming sun shields.

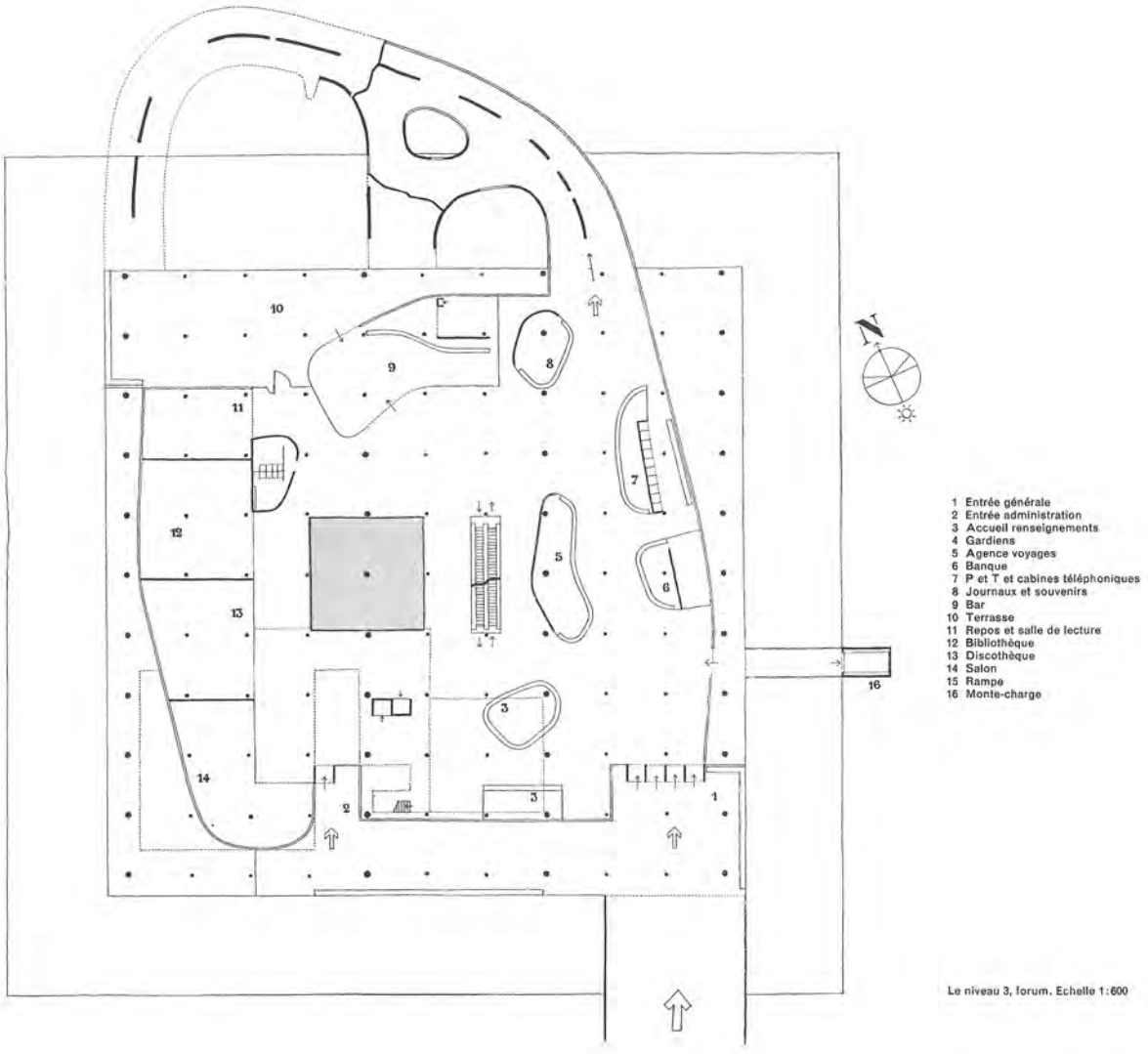


FIG. 8
Le Corbusier. Strasbourg Congress Hall. Plan of level 3b, June 5, 1963 (FLC) Boesiger, W. *Le Corbusier et son atelier rue de sèvres 35,* Œuvre complète, volume VII, 1957-1965, Zürich : Les éditions d'architecture.

ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

Sound, Stage & Light, the Emergence of Events Architecture

Most historians' comments focus on these elements of what was known of the project. However, the project which should have been submitted in May and June 1964 in the form of detailed plans, continued to evolve. The areas of particular concern to Le Corbusier, at the point the project was being fine-tuned, were associated with the functionality of the events equipment: the acoustics, the stage equipment, the artificial lighting and what he called 'the electronic games' on the roof terrace.

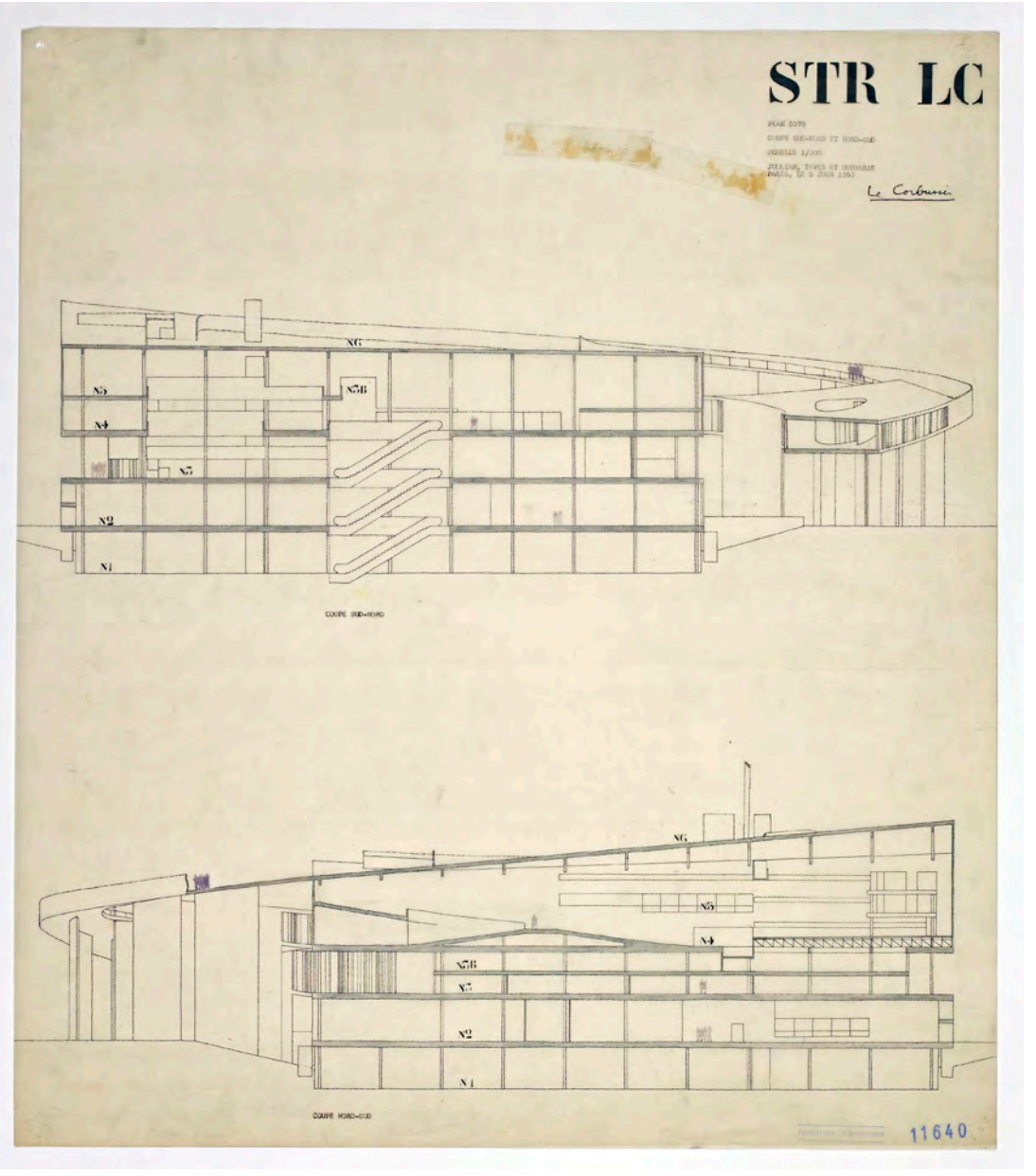


FIG. 9
Le Corbusier. Strasbourg Congress Hall. South-North and North-South sections, June 5, 1963 FLC 11640.

With regards to acoustics, Le Corbusier attempted to recruit the sound engineer and acoustic advisor to Phillips, W. Tak, with whom he had previously collaborated on the Chandigarh Assembly. Le Corbusier sent him documents on the Congress Hall on February 20, 1964 and asked him to provide "perfect acoustic solutions"[17] and also considered calling on him in order to install electronic music in the churches at Firminy and Ronchamp "flooded with pilgrims on Sundays and during the week" and "still deprived of bells". Despite Le Corbusier's faith in electronics and even in its capacity to overcome possible acoustic defects, it was José Bernhart[18], a radio events specialist who would eventually work alone on the acoustic engineering in the Congress Hall until October 1963. (Fig. 11)

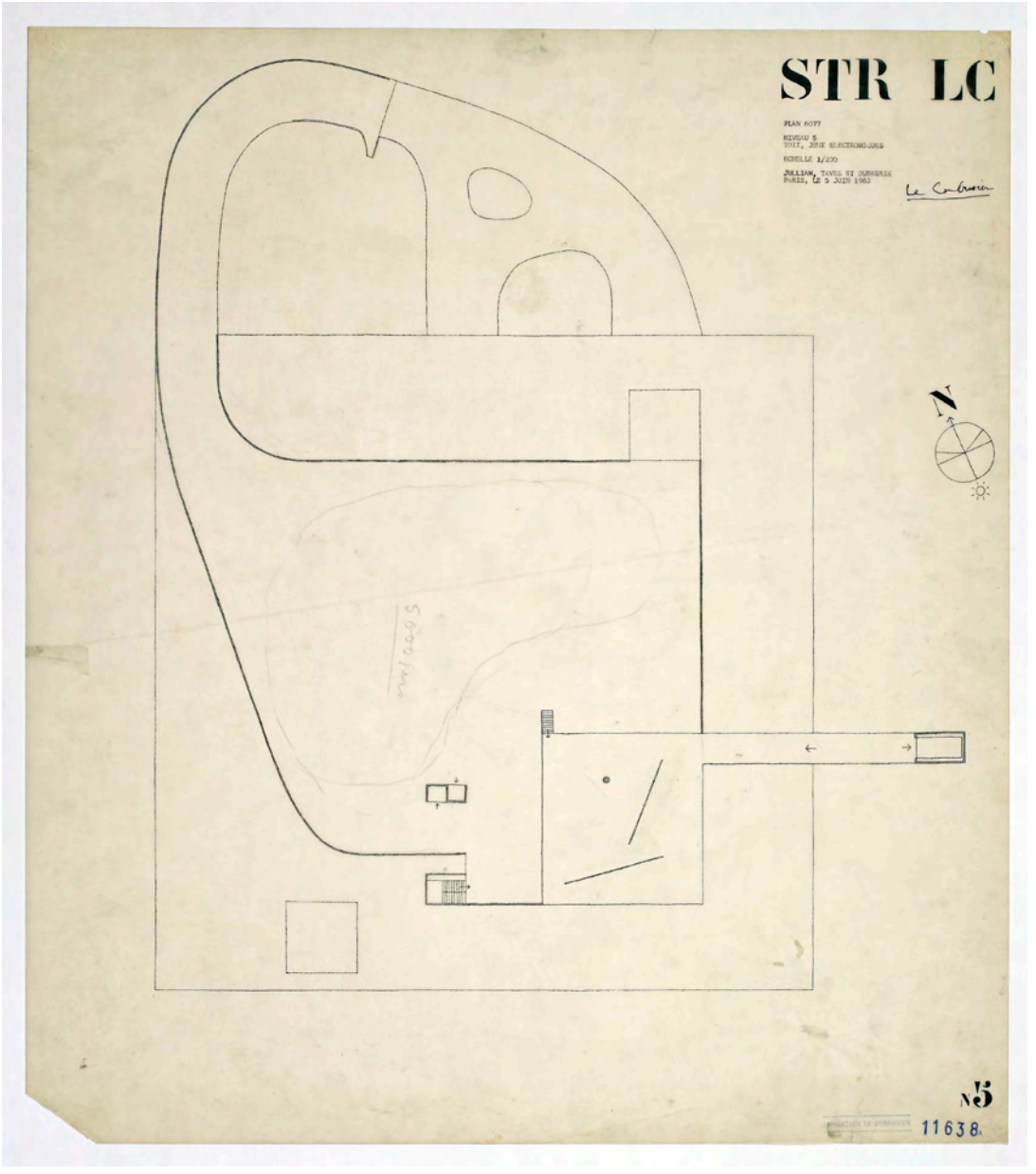


FIG. 10
Le Corbusier. Strasbourg Congress Hall. Plan of level 5 (roof, electronic games), June 5, 1963. FLC 11638A.

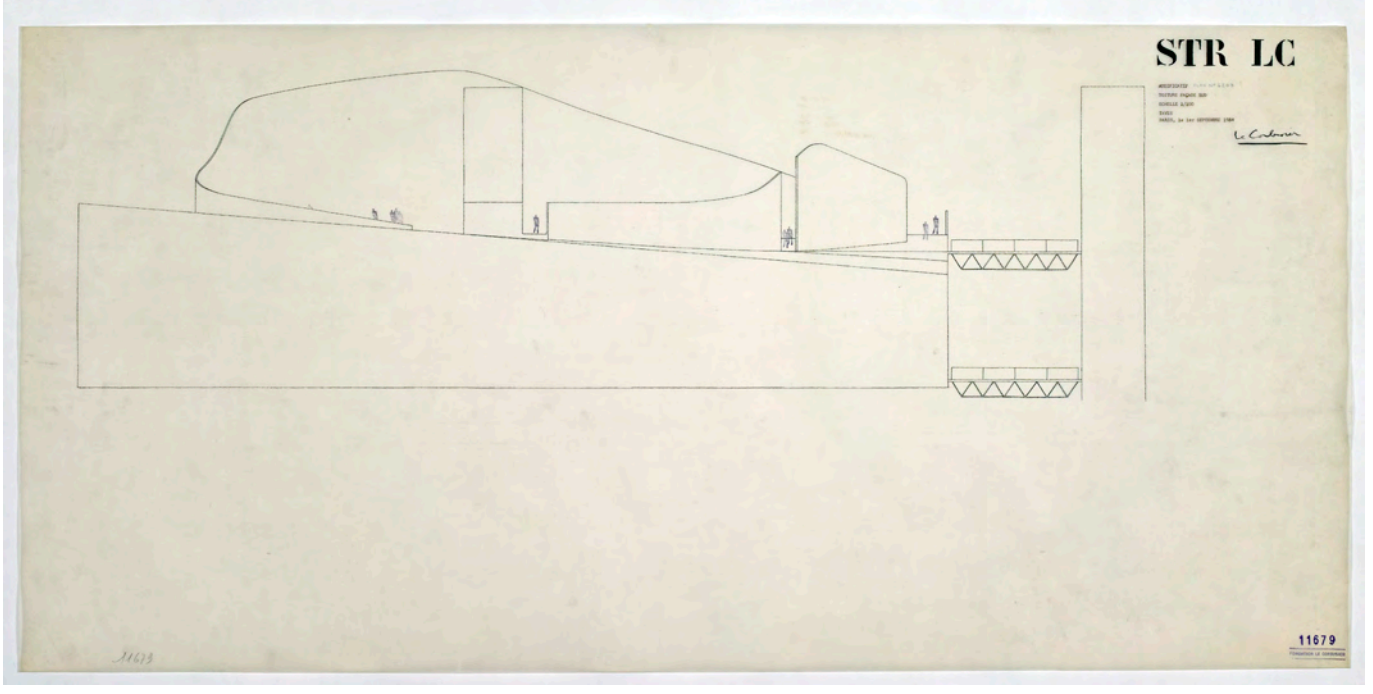
ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

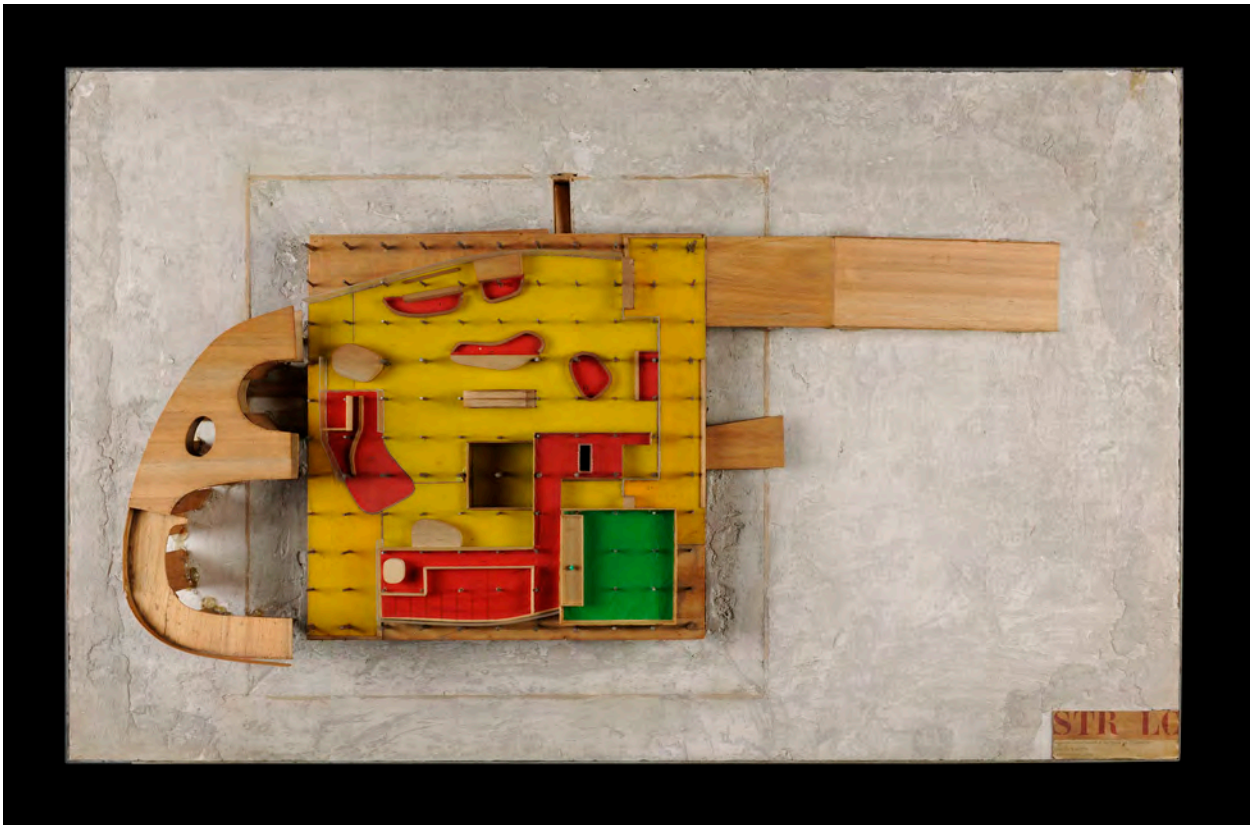
FIG. 11
Le Corbusier. Strasbourg Congress Hall. Modification. Roof on the south side, September 1, 1964. FLC 11679.

The question of stage equipment had also been discussed ever since the start of the project's development. The presence of a man of the theatre, Germain Muller, at the heart of the Strasbourg city team, followed by the arrival of Emile Biasini and the program's shift towards a Maison de la Culture[19], played a large part in developing the theatrical component of the program and focused discussions on versatility and openness to contemporary experimental scenography. Le Corbusier's investigations in the field began with visits to working theatres, where he asked managers questions about the shortcomings and qualities of their respective theatres[20] and went as far as meeting and taking advice from Jo Tréhard, a key figure in the decentralization of theatre in France[21], and even organizing visits to Parisian theatres for his collaborators. At this time, adjustments were also made to the terrace roof. The left surface did not follow the conventional geometry of flat rooves and, above all, it was imagined as a fifth luminous façade.

Electronic Games, Sound and Light, a Fifth Luminous Façade

From the start of the project, Le Corbusier envisaged 'lively' activities on the roof terrace of the Congress Hall. The light shows designed by Nicolas Schöffer for the Liège Congress Palace, which served as a reference for the project management, undoubtedly reinforced this spectacular trend which is equally strong in Le Corbusier's work from the 1950s onwards. Le Corbusier organized a visit for the Liège Congress Palace staff[22] in April 1963 and thus furthered the building's role as a model[23]. The draft proposal of December 1962 indicated this, but the description of July 29, 1963, includes specific references to updates to the roof terrace and its electronic games: "Here the roof will be made of a slab of reinforced or pre-stressed concrete on the left. This roof will be used for open air theatre or musical shows and for projecting electronic games at night. The stage is equipped with a mast supporting screens made of sails for mobile or static light shows projected from the lift tower for goods or from the lift plantroom. The sound shows will be broadcast in stereo. A low wall, 2 m high, will limit the areas provided to games and the audience". To create these facilities Le Corbusier enlisted the help of an occasional collaborator, Jacques Polieri, who was a director, set designer and performance theorist. He was the founder and director of the Festivals of the Avant-garde in Marseille (1956) and Nantes (1957) – events which took place against the backdrop of the Cités Radieuses [Radiant Cities]. In 1960, Jacques Polieri founded the Centre for Experimental Theatre,





and at the time the Congress Hall project was being developed, he was a prominent personality, a specialist in experimental scenography in which he broke audiences' boundaries and disrupted stability by introducing movement and light and projected images and films. October 1963, the journal Aujourd'hui art et architecture published a special edition devoted to new scenography, driven entirely by Jacques Polieri. Shortly after it came out Le Corbusier invited Jacques Polieri to join him in Strasbourg[24]. (Fig. 12)

Signage Lighting, Autonomous Lighting

The experiential, spectacular dimension of the Congress Hall increased as the project was updated and fine-tuning of the technical aspects dominated meetings in the last quarter of 1964 and the beginning of 1965. At a meeting in September 1964, to discuss interior signage, Le Corbusier asked his collaborators to study neon circuits with colored tubes which would follow the walls and stair railings, and documents drawn up by the lighting design office to illustrate the presence and trajectory of these lighting systems. Light was used to help visitors find their way round the Congress Hall. After the receptionists have indicated their destination, visitors must follow the luminous neon line in order to find the room where they need to be[25]. The very mention of this kind of signage recalls scenes from the film Playtime (1964-1967) by Jacques Tati, where the restaurant's spiraling and sometimes mischievous neon sign indicated the entrance under an overhang and obliged the diners to perform curious dance steps. One of the first Congress Palaces in France - in Royan (1954-1957, Claude Ferret & Pierre Marmouget architects) - also had neon lights on the ceiling. The colored lines took on free forms reflecting the city which was being rebuilt. Their only purpose was to light up the space. The Royan lighting aesthetic and Le Corbusier's project embraced interior lit signage which resolved the problem of navigating the space and emphasized the symbolic nature of human traffic moving through the building.

FIG. 12
Le Corbusier. Strasbourg Congress Hall Model, level 3. Musées de la ville de Strasbourg, M. Bertola.

ISSN (2660 - 4167) / e-ISSN (2660 - 7212)

On December 15, 1964, during a work meeting which brought together all those involved in the future completion of the project right down to the prospective contractors, Alain Tavès set out the project's progress and proposed a ceiling at Level 3 in the form of clouds made of sheet metal linked together in order to conceal certain technical ducts. Le Corbusier's atelier selected a design which allowed them to maintain the coherence of the undulating glass panels by adapting a technical component in the ceiling. The unique look created by the visible passage of the ducts in the ceiling reinforces the aesthetic of free form, however, it was also one of Le Corbusier's tactics and an attempt to control the aesthetics of the wider networks regardless of whether he had actually mastered all the technical or dimensional aspects of the tasks involved. Le Corbusier insisted that he did not want light fittings attached to the ceiling and advocated free-standing lighting and movable lamps. With regard to the lighting of the halls on Level 4, (where the height of the ceiling was 8 meters), Alain Tavès rejected various lighting systems proposed by Le Corbusier's atelier: sections of the walls indirectly uplit from floor level via a system of small boxes or ramps 5 centimeters from the ground for the forum and concrete furniture, a 2-metre high column widening out towards the ceiling ('like a battery-powered torch'); for the forum on Level 4, high voltage tubes used for indirect lighting, outdoor sodium lighting (at floor level). The council asked Alain Tavès to meet with the engineers Clemessy & Trindel in Paris to finalize the lighting issues. Germain Muller asked for an explanation about the design of the main hall, stage installations and the honeycomb cells, and that was followed by further details on the outdoor theatre, cinema and sound and light show. With regard to the roof terrace, planned for use as an outdoor theatre, projecting films or sound and light shows, the indoor capacity was estimated at approximately 1,500 people. The last plans of the Congress Hall were submitted to Strasbourg by Le Corbusier's atelier on July 9, 1965.

Commentators have long emphasized that Le Corbusier's Strasbourg project was one of a series of commissions in a particularly lucrative decade for the rue de Sèvres atelier. It was only natural that it should include many common features with projects and builds undertaken at that time. Even though Stanislaus von Moos declared that the Philips Pavillon was the only building where the spectacular side of Corbusian design could be seen and heard with such intensity , the Carpenter Center is usually considered to be the most all-embracing example of Corbusian ideas during that last period of his career. William J.R. Curtis regarded it as a synthesis of the major arts[27]. Bruno Reichlin reminds us that Le Corbusier wanted to combine the kinetic promenade through the Carpenter Center with electronic sounds composed to create a stereophonic soundtrack to the route[28], further proof of the spectacular choices made by Le Corbusier on his last projects.

The project for Strasbourg may seem to be the culmination of Le Corbusier's work at the end of his career; work which skillfully combines archaism of raw finishing touches with new industrial characteristics of the 1960s, but it is likely that the contrast between the brutalism of the building and the spectacular elements including the lighting in all its forms - from the interior lighting to the electronic games - had never been so emphatic. In and on the spaces he had designed, Le Corbusier introduced or superimposed an events feature, ranging from the colored neon signage to the sound and light shows planned for the roof of the Palace. By combining the expression of complex programming with lighting features, Le Corbusier not only synthesised his working practices at a time when the world was experiencing major change, but also presenting us with a picture of the directions architecture would take in our time.

Acknowledgements

I would like to express my thanks to the Fondation Le Corbusier and to Mrs. Estelle Pietrzyk, Director of the Museum of Modern and Contemporary Art of the city of Strasbourg and Mrs. Barbara Gatineau, Head of the photo library and documentation of the Museums of the city of Strasbourg.

Auteur

Richard Klein est architecte, historien de l'architecture, Professeur des écoles d'architecture, chercheur au Lacth (Ensap de Lille), Président de docomomo France, directeur de la collection Architectures contemporaines aux éditions Hermann. Il est l'auteur de très nombreux articles et ouvrages traitant de l'histoire de l'architecture contemporaine. Ses recherches portent sur l'histoire de l'architecture du XXe siècle, ses programmes et ses représentations.

Notes

1 Opening lines on the presentation of the project for the Strasbourg Congress Hall *in Le Corbusier et son atelier rue de Sèvres* 35, Œuvre complète, volume VII, 1957-1965, Boesiger, W. Zürich: Les éditions d'architecture, p. 152.

2 Besset, Maurice. *Nouvelle Architecture Française*, Teufen: Éditions Arthur Niggli,1967, p. 31.

3 von Moos, Stanislaus. *Le Corbusier, l'architecte et son mythe,* Paris: Horizons de France,1970, p. 285.

4 Ragot, Gilles and Dion, Mathilde. *Le Corbusier en France, réalisations et projets,* Paris: Electa Moniteur, Paris, 1987, p. 197. Then re-published by, Le Moniteur, Paris, 1997, p. 397.

5 Lucan, Jacques. "On en veut à la composition", *Matières* n°5, 2002, pp. 40-49.

6 Eisenman, Peter. *Ten canonical buildings*, 1950-2000, New York: Rizzoli, 2008, pp. 72-100.

7 Pierre Pflimlin was mayor of Strasbourg from 1959 to 1983.

8 Visits were made to the Congress Halls in Liège, Zürich and Rome, to the Maison de l'Europe in Strasbourg, Aalborg-Hallen (Denmark), the Palais de Chaillot (NATO). The Strasbourg city administration also examined documents relating to the Brussels International Palace of Congress.

9 "The visitors unanimously agreed that of all the Congress palaces visited, Liège was far and away the most successful from the point of view of functionality and with regard to the harmonious nature of the location, the sumptuousness of the presentation and décor". Strasbourg City Archives, Typescript of division VIII, 7 November 1960.

10 Jeunehomme, H. "Palais des Congrès de Liège", *La technique des Travaux*, jan-fév 1960, pp. 16-28.

11 Founded in 1935, the architecture and town-planning agency, 'L'Equerre' comprised the architects Ivon Falize (1928), Emile Parent (1910-1985), Paul Fitschy (1908-1993), Albert Thibaux (1908-1985) & Edgard Klutz (1909-1987). Supporters of the ideas of the Ciam, in 1928 they founded in Liege the L'Equerre journal, committed to spreading modernist ideas. In 1939, the directors of the International Exhibition on water techniques, entrusted Ivon Falize with drawing up all the plans in association with Le Corbusier. The Liege Congress Palace (1956-1958) was one of several commissions the agency undertook from the 1950s onwards.
Van Loo, Anne (dir.), *Dictionnaire de l'architecture en Belgique de 1830 à nos jours.* Bruxelles: Fonds Mercator, 2003.

12 Ragon, Michel. "Nicolas Schöffer architecte et urbaniste", in *Hommage à Nicolas Schöffer* 1912 / 1992. Noroît/Arras, 1994.

13 Sers, Philippe. *Entretiens avec Nicola Schöffer,* Paris: éditions Pierre Belfond, 1971, p. 49

14 (FLC G3 01) Note made on December 4, 1962.

15 Besset, Maurice. *Qui était Le Corbusier*, Geneva: Skira, 1968, p. 78.

16 Le Corbusier in an annexe to the letter dated February 7, 1964, suggesting joining forces with Philips (Holland) on acoustic issues.

17 (FLC J3 16) February 20, 1964, letter from Le Corbusier to W. Tak, engineer in Eindhoven (Philips).

18 José Bernhart was a telecommunications engineer, head of the sound recording department at Radiodiffusion Française. He wrote a treatise on sound recording, prefaced by Arthur Honegger in 1949, member of the editorial board of La Revue du son from its inception in 1953. José Bernhart was a pioneer of stereo radio broadcasting, and his expertise was in great demand for several sound and light shows.

19 Emile Biasini examined the project submitted by Le Corbusier to Strasbourg from plans dated June 1963.

20 (FLC J3 16) March 21, 1964, newsletter from Le Corbusier to the following theatres: Théâtre de Poche, en Rond, Kaléidoscope, Vieux Colombier, Châtelet, Champs-Élysées, Opéra, Opéra-Comique, Odéon, Comédie-Française, Salle Pleyel & Gaveau, Olympia, Cirque d'Hiver & Médrano, Folies Bergère, Casino de Paris.

21 Jo Tréhard wrote the programme of the Caen Théâtre-Maison de la Culture (1957-1963) whose auditorium was designed by the architect Alain Bourbonnais.

22 (FLC J3 16) April 2, 1963, Le Corbusier requested visits for three architects to the Liège Congress Palace and, on April 18, 1963, he thanked Monsieur Verstraeten from the Liège Congress Palace for the visits arranged for Jullian, Oubrerie, Tavès.

23 Alain Tavès, Le Corbusier's collaborator during the development of the project, described the visit to the Liège Congress Palace in an interview we conducted with him on February 7, 2008, at La Celle-Saint-Cloud.

24 (FLC J3 16) February 7, 1964, typescript: "meeting Le Corbusier / Polieri, Subject: Roof of the Strasbourg Congress Hall + outdoor theatre". A note by Le Corbusier dated February 8 stipulates that Jacques Polieri also voice his opinions on the concert halls. In his CV, Jacques Polieri mentions his stint as "scenography advisor to Le Corbusier during the construction of the European Congress Hall in Strasbourg (1964)". See also "Gamme de sept", a ballet by Jacques Polieri, with music by Iannis Xenakis, issued by Philips (c. 1968).

25 (AM) September 22, 1964, Robert Will's account of a meeting in Le Corbusier's office. The pack of cards which was part of the draft proposal of December 1962 submitted to the city council to allow visitors to understand the path highlighted by the interior light.

26 von Moos, Stanislaus, *Le Corbusier, l'architecte et son mythe,* Paris: Horizons de France, 1970, p. 284 "Le défi électronique".

27 Curtis, William J.R. "The modern and the archaic, or the last works" in *Le Corbusier, une encyclopédie* (Jacques Lucan dir.), Paris: Centre Georges-Pompidou, 1987, p. 251.

28 Ibid., p. 149.

ISSN (2660 - 4167) / e-ISSN (2660 - 7212)