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The Synthesis of the Arts in the Context of Post-World War II: A Study of  
Le Corbusier's Ideas and His Porte Maillot Pavilion

by  
Ann Koll

A dissertation submitted to the Graduate Faculty in Art History in partial  
fulfillment of the requirements for the degree of Doctor of Philosophy,

The City University of New York

1999

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## Introduction

Following the devastation of World War II in Europe, Le Corbusier and many of his contemporaries, with a combined sense of urgency and optimism, aimed to build a new world based on a collective, cultural consciousness. This war signified the greatest amount of destruction by the most advanced mechanized warfare ever experienced by humanity. This potential for enormous destruction raised great concern for the future and the desire to find the means to re-humanize a mechanistic society. Their intention was not only to repair the damage done but to prevent another catastrophe from happening again.

Within an environment of psychological and physical chaos, many modern architects and artists influenced by late nineteenth century utopian concepts of the synthesis of the arts had advocated synthesis after World War I and reintroduced the same ideas as a leitmotiv after World War II. They again promoted a synthesis that embraced both the arts and the machine age as a whole and that created a better world. Because urban sites were the worst hit by the war, it was there that the most urgent healing of the community and building reconstruction was needed. At the first postwar meeting of the CIAM (Congrès Internationaux d'Architecture Moderne) in Bridgwater, England, in 1947, Le Corbusier and others discussed ideas for a synthesis of the arts within the urban context. The consensus among the international architects was that re-humanizing the built environment would result from

an integration of the arts brought into the public arena of civic centers.

Le Corbusier, who was dedicating more and more of his time to painting and sculpture after 1940, focused on the arts as a way to create a cultural focus in the cities. As a result of these discussions, Le Corbusier proposed the placement of exhibition pavilions in the social and cultural centers of cities throughout Europe. At the 1952 Unesco (United Nations Educational Scientific Organization) Conference on the Arts in Venice, he suggested Unesco head the international association of pavilions, with Paris as the central hub. His idea was to create pavilions as architectural settings that would serve as both exhibition spaces and workshops in which sculptors and painters would produce their works in situ in response to the structure. The prototype pavilion was first designed for the 1950 Paris Exposition of the Synthesis of the Major Arts at the Porte Maillot.

Even though the Porte Maillot Pavilion was never built due to a number of problems at the time, its form appeared in two posthumous structures: the Centre Le Corbusier in Zurich of 1965 and the Pavilion for Temporary Exhibitions in Chandigarh of 1986, neither of which have received any significant attention from scholars.<sup>1</sup> In the context of Le Corbusier's more famous buildings it may seem that the Porte Maillot Pavilion is not a key example in his oeuvre, however a close examination of it will reveal a deeper understanding of Le Corbusier's ideas of postwar synthesis and its role in the larger picture of postwar society.

This dissertation is the first study of this pavilion building-type in the

work of Le Corbusier with a twofold purpose: first, to understand the contextual significance of artistic synthesis within the international social, cultural, and political setting in Europe following World War II; second, to investigate Le Corbusier's pavilion designs with a specific focus on his Porte Maillot project in order to show how this design represents the ideology of the synthesis of the arts in Le Corbusier's theory and practice. This dissertation is concerned with the formal spatial qualities and the structural, technological innovations of the pavilion. Nevertheless, the primary approach will be to explore the larger network of cultural, social, and political issues that give meaning to the pavilion. The goal of this research is to fill the lacuna that exists in cultural studies of postwar Europe as well as in the scholarship of Le Corbusier's postwar production.

In the large body of literature on Le Corbusier's work there is almost no discussion of the Porte Maillot Pavilion. Le Corbusier made the first reference to the pavilion in his seven volume monograph Le Corbusier oeuvre complète<sup>2</sup> of 1953 in which he personally selected the projects he wanted to be remembered by. In general terms, the Swiss architectural historian Stanislaus von Moos dedicated a chapter to Le Corbusier's personal interpretation of the synthesis of the arts in the first important compendium of critical essays published on Le Corbusier's work, Le Corbusier: Elements of a Synthesis, first published in German in 1968 and in English in 1979.<sup>3</sup> In his discussion on synthesis that covers a wide range of Le Corbusier's paintings, sculpture, and architecture he briefly mentions the Centre Le Corbusier

Pavilion in the context of polychromy in architecture but does not make a direct reference to the Porte Maillot project.

To date, there are only two brief descriptions of the Porte Maillot Pavilion. Arnolde Rivkin, wrote an illuminating description of the pavilion in his 1987 essay "Synthèse des arts: Un Double paradox" in Le Corbusier une encyclopédie.<sup>4</sup> But given the fact that it is an entry in an encyclopedia it is by necessity limited in scope. In 1995, Eric Christopher Pearson wrote a dissertation, Integrations of Art and Architecture in the Work of Le Corbusier: Theory and Practice from Ornamentalism to the "Synthesis of the Major Arts"<sup>5</sup> which for the first time cohesively presents an overview of the ideas of synthesis in Le Corbusier's entire career from the early designs at La Chaux-de-Fonds to his late Brutalist projects and which places the Porte Maillot project within Le Corbusier's career. In contrast, this research is more localized; it will be the first study to center specifically on the Porte Maillot Pavilion design and to understand its significance within the cultural and the political forces of the postwar epoch. Except for the four existing sources mentioned above no significant published literature exists on the subject.

In order to explore the historical significance of the design of the postwar pavilions of the synthesis of the arts, the material for this dissertation will be organized into three chapters. After a brief historical perspective on the synthesis of the arts from the point of view of Sigfried Giedion and Paul Damaz, the first chapter will look at Le Corbusier's writings, addressing his theory for a synthesis of the arts that can be traced from his 1920's and 1930's

through the postwar years. Even though Le Corbusier did not adopt the term “synthèse des arts majeurs” to describe the design of a pavilion structure and to encapsulate his ideas until 1950 with his Porte Maillot project, it is necessary to look at his pre-World War II discussion of art which includes ideas of synthesis in order to understand its predominance in his later work. An analysis of these writings will show how Le Corbusier’s ideas shifted from emphasizing the machine and technology to poetics.

A close look at Le Corbusier’s friendship with Fernand Léger throughout the 1920’s and 1930’s will elucidate the importance of the role of polychromy in architecture and urbanism for the integration of the arts. This research will bring to light two divergent approaches to the synthesis of the arts: one promoted by Léger that called for a mutual collaboration among painters, sculptors, and architects, and the other exemplified by Le Corbusier’s uncompromising stance that called for the architect to be the single signature on a work of synthesis. These opposing views established a pattern in Le Corbusier’s relationship with other artists and became a point of contention throughout his career.

The second chapter will place postwar ideas of synthesis of the arts within the broad context of seven important international conferences, from 1944 to 1952, that dealt with the subject in conjunction with issues of urbanism, monumentality, and aesthetics. This chapter will show how a close connection between Le Corbusier’s and Giedion’s elitist and idealist ideas based on a unified theory of the synthesis of the arts, which came to the

forefront on issues of urbanism because of their leadership roles at the postwar CIAMs, became controversial when confronted by populist points of view strongly held by a number of CIAM members such as J.M. Richards of the English MARS (Modern Architectural Research) Group. These international conferences pointed to a time of complexity where many issues were raised. An investigation of the different issues presented at the conferences that ultimately asked for practical solutions over ideological positions, will demonstrate the weaknesses of the old leadership of CIAM which slowly led to its demise and the strengths of new leaderships such as at Unesco that successfully developed different venues for the promotion of the arts and artists within an international community.

The third chapter will focus on the Porte Maillot project and the influence of André Bloc and the Groupe Espace. Le Corbusier presented his ideas for the Porte Maillot Pavilion at both the CIAM and the Unesco conferences and a discussion of the development and function of the project will serve as a paradigm for the larger problematic such as the discourse on the role of the common man in postwar society discussed at the conferences. A comparison of Le Corbusier's practice with Bloc's will illustrate the difference between an individual and a collaborative synthesis. Bloc, advocating the latter approach created the Group Espace independently from Le Corbusier. A look into the formation of the Group Espace will raise issues concerning the French art scene in the context of an international movement. It will show how French artists such as Jean Gorin and Félix Del Marle,

advocating a synthesis of the arts founded on the utopian ideologies of the De Stijl movement, lost relevance in a postwar context.

Ultimately, this study will show how Le Corbusier, ever eager to promote his career, was adept at working with different organizations in order to promote his pavilion designs; whether through international organizations such as Unesco, national governments such as the French government, or through private connections. In turn, it will show how he transformed his chameleon-like pavilion designs to adapt to different external pressures. This in-depth exploration of this little-studied pavilion building-type in the work of Le Corbusier will serve as a catalyst to raise larger issues and will demonstrate how the pavilion reflected the ideological failures and successes of the complex social, cultural, and political milieu in postwar Europe.

## Notes to Introduction

<sup>1</sup> There are no comprehensive publications on either of these buildings. When the Centre Le Corbusier was completed a number of short articles were published on it; the most noteworthy were: "Centre Le Corbusier à Zurich," L'Architecture d'aujourd'hui (Dec., 1966 / Jan., 1967), pp. 72-75; Ueli Roth, "Centre Le Corbusier," Architectural Forum (Sept., 1967), pp. 82-87; "Omaggio a Le Corbusier: Il Centro Le Corbusier Heidi Weber a Zurigo," Domus (Oct., 1967), pp. 1-12; "Center Le Corbusier, Zurich," The Architectural Review (March, 1968), pp. 213-218; "La Maison d'Homme, Centre Le Corbusier a Zurich," Techniques et architecture (April, 1968), pp. 98-104. Since then information on the Centre Le Corbusier remains confined to short articles and citations in general books on Le Corbusier's work. There is only one short article on the Pavilion for Temporary Exhibitions in Chandigarh: Charlotte Ellis, "Sculptures and Pavilion Added to Le Corbusier's Chandigarh Complex," Architecture (Sept., 1986), p. 17.

<sup>2</sup> Le Corbusier, Le Corbusier oeuvre complète, 1946-1952, vol. 5 (Zurich: Boesinger, 1953), pp. 67-71.

<sup>3</sup> Stanislaus von Moos, Le Corbusier: Elements of a Synthesis (Cambridge, MA/London: MIT Press, 1979, 1983). First published in German as Le Corbusier, Elemente einer Synthese (Verlag Huber, 1968).

<sup>4</sup> Arnaldo Rivkin, "Synthèse des Arts: Un Double paradox," Le Corbusier une encyclopédie, Jacques Lucan, ed. (Paris: Centre Georges Pompidou, 1987), pp. 386-391.

<sup>5</sup> Christopher Eric Pearson, Integrations of Art and Architecture in the Work of Le Corbusier: Theory and Practice from Ornamentalism to the "Synthesis of the Major Arts" (Ann Arbor: UMI Dissertation Services, 1995).

## **Chapter 1 - Le Corbusier's Ideas on the Synthesis of the Arts and the Influence of Léger**

### **Historical Perspective by Giedion and Damaz**

Because the advent of the modern world view was prompted by the nineteenth century industrial revolution, the general perception within the humanities was that the close relationship among architecture, painting, and sculpture had been lost. In order to counteract an imposing materialistic age various artistic movements arose in Europe like the British Arts and Crafts movement (1860-1910) based on ideals of social reform. Led by William Morris its primary concern was to develop a visual arts that critically dealt with industrial progress and at the same time addressed societal betterment founded on the fundamental premise of equal human rights. This movement became an important inspiration for early twentieth century modern architecture.

In Germany the British Arts and Crafts influenced the Deutscher Werkbund founded in 1907 by Hermann Muthesius, Fritz Schumacher, and Peter Behrens who sought to forge closer links between industry and the arts. Between the two world wars, also in Germany, the Bauhaus, first directed by Walter Gropius in 1919 strove more precisely to reunite all artistic disciplines so as to realize the Wagnerian ideal of "Gesamtkunstwerk" (a total work of art). This ideal of artistic synthesis went hand in hand with ideals for a new society which other avant-garde movements also called forth, in different

ways, such as Neo-Plasticism in Holland and Constructivism in Russia.

It was after World War II that the idea of a new synthesis of the arts was fully developed. The psychological impact of five years of destruction and human suffering brought a reaction against the materialism that prevailed between the wars and incited a search for more lasting spiritual values. This, in the world of architecture, became synonymous with the integration of the arts. Both the Swiss architectural historian Sigfried Giedion and the American architect and journalist Paul Damaz<sup>1</sup> writing after the war, explained that the causes of separation between art and architecture could be traced back to René Descartes who was the first to divorce science from philosophy and who proposed the separation of thoughts from feelings.<sup>2</sup> They asserted this was the start of the one-sided rationalism that was reinforced with the industrial revolution when the purely functional elements of life took precedence. Western society plunged into a materialistic state empowered by science, industry, and technology, leaving little interest for the arts.

Giedion and Damaz were two important advocates for the synthesis of the arts in the postwar architectural scene. Giedion led major discussions on the subject in his writings and in his central position in the CIAM Congresses. Damaz wrote the most comprehensive survey of architectural examples of the postwar European movement towards a new synthesis of the arts at the time in his book Art in European Architecture, Synthèse des Arts of 1956.<sup>3</sup>

From Giedion's point of view this domination of mechanistic thinking

was a major catastrophe that befell the nineteenth century. Searching for an equilibrium in contemporary modern life, Giedion's writings show constant attention to the reconciliation of thought and feeling. This was part of a larger scheme of history he portrayed as a unified vision of culture. Giedion's unified theory as a synthetic approach appeared before the war in 1941 in his seminal book, Space, Time and Architecture: The Growth of a New Tradition,<sup>4</sup> a compilation of the Charles Eliot Norton Lectures he had given between 1938 and 1939 at Harvard University. In the foreword he clearly stated his intention:

Space, Time and Architecture is intended for those who are alarmed by the present state of our culture and anxious to find a way out of the apparent chaos of its contradictory tendencies. I have attempted to establish, both by argument and by objective evidence, that in spite of the seeming confusion there is nevertheless a true, if hidden, unity, a secret synthesis, in our present civilization. To point out why this synthesis has not become a conscious and active reality has been one of my chief aims. My interest has been particularly concentrated on the growth of the new tradition in architecture, for the purpose of showing its interrelations with other human activities and the similarity of methods that are in use today in architecture, construction, painting, city planning, and science.<sup>5</sup>

The book's approach was to construct an all-encompassing theory based on the concepts of space, time, and architecture, and to place modern architecture within a historical context.<sup>6</sup> Giedion presented a chronological overview of the development of architecture from the Renaissance to the present with an emphasis on the concepts of space-time in art, construction, and architecture in the nineteenth and twentieth centuries. He was primarily preoccupied with a view of history that was relevant to the present cultural

condition. He continued to add to the last part of the book which was revised five times by incorporating new contemporary examples, many looking at industrial development in architecture and urbanism. Similar to Le Corbusier, Giedion was an admirer of the new spirit in the world spearheaded by industry. They both saw industry optimistically with all its technological developments in new methods of construction and new materials as an intrinsic characteristic of the new architecture. Giedion did not see the problem as modern people advocating technology itself, but rather in the dichotomy between thinking and feeling. He wholeheartedly blamed the nineteenth century for being the period in which thinking and feeling were separated. He wrote:

We have behind us a period in which thinking and feeling were separated. The schism produced individuals whose inner development was uneven, who lacked inner equilibrium: split personalities. The split personality as a psychopathic case does not concern us here; we are speaking of the inner disharmony which is found in the structure of the normal personality of this period. . . Throughout the nineteenth century the natural sciences went splendidly ahead, impelled by the great tradition which the previous two hundred years had established, and sustained by problems which had a direction and momentum of their own. The real spirit of the age came out in these researches -- in the realm of thinking, that is. But these achievements were regarded as emotionally neutral, as having no relation to the realm of feeling. Feeling could not keep up with the swift advances made in science and the techniques. The century's genuine strength and special accomplishments remained largely irrelevant to man's inner life.<sup>7</sup>

Giedion confidently pointed back to a specific moment in history when the schism between architecture and technology became evident. The moment was March 17, 1791 when the "Proclamation de la liberté du travail," marking the demise of the craftsmen's guilds, was signed in France. Giedion

saw the creative freedom of the artist, which came with the dissolution of legal contracts in trade, as a loss in the artist's former position within the community. The establishment of the Ecole Polytechnique and the Ecole des Beaux Arts only helped widen the schism. Three years after the proclamation, the Ecole Polytechnique was founded in 1794, a highly specialized school focused on combining theoretical and practical science that had a direct influence in the development of industry. In 1806, Napoleon founded the Ecole des Beaux Arts whose program covered the field of the plastic arts, and unfortunately, according to Giedion, fostered a constantly increasing isolation of the arts from the conditions of ordinary life. From the early nineteenth century in France the schism between architecture and construction was institutionalized in these two schools. With the increased pace of the progress of industrialization in the middle of the nineteenth century Giedion saw the position of the engineer slowly encroaching upon the domain of the architect.<sup>8</sup>

The potential for a new cultural synthesis, as presented in Space, Time and Architecture, where thinking and feeling would be in a harmonious equilibrium, was severely damaged by the mechanized destruction of the war. The problems Giedion articulated before the war were only worsened after the war, displacing the earlier optimistic vision by one of fear and skepticism towards the idea of progress. Giedion announced "the end of the age of rationalism" in his next major work, Mechanization Takes Command: A Contribution to Anonymous History published after the war in 1948.<sup>9</sup> The

book addressed the mechanized horror evidenced by the war calling “this period as one of mechanized barbarism, the most repulsive barbarism of all.”<sup>10</sup> The prewar belief that mechanization held the key to the betterment of human life was exposed as a grave falsehood. Giedion took it upon himself to look the beast in the face and record the developments and changes since the origins of the machine. His goal was to understand the role of mechanization in society and he emphasized “that the coming period had to reinstate basic human values.”<sup>11</sup>

Once again, in Mechanization Takes Command Giedion turned to the reign of Napoleon (1804-1814) to demonstrate the roots of the disintegration of the modern world, but this time he focused on the influence of the Empire Style founded by Napoleon’s architects, Charles Percier and Pierre François Louis Fontaine. They later became the first representatives of the ruling taste based on the imitation of past styles that consequently lost a feeling for totality and brought about the devaluation of symbols as well as ornament. For Giedion the reintegration of symbols was fundamental for universal unity. He concluded the book by calling for a new type of man, “a man in equipoise,” whose prerequisites included the ability to restore the lost equilibrium “between inner and outer reality,” “between the individual and the collective spheres,” and able to discriminate “between those spheres that are fit for mechanization and those that are not.”<sup>12</sup>

Giedion’s postwar ideas further developed in conjunction with the postwar CIAM Congresses which he documented and summarized in the

book, Architecture, You and Me: The Diary of a Development,<sup>13</sup> first published in German in 1956. The main emphasis of this book was on aesthetic values which, according to Giedion, had been greatly undervalued. Within a platform based on the humanization of society Giedion addressed a number of points including the new formation of a sense of community made possible by the design of city cores, the need for a new monumentality as well as a new symbolism, and the concern for regionalism.

In less theoretical terms than Giedion, but nonetheless with the same passion, Damaz gave a historical account of a society driven to blatant excesses. He saw the rise of democracy and the individual, technology and economics as the primary protagonists of this phenomenon. He explained that with the rise of democracy the upper classes of society, who had always been the patrons of the arts, were greatly reduced. The client was no longer a powerful and cultured person; instead, the government held the power to support and develop the arts as well as the education of the masses. Unfortunately, the democratic governments were made up of people who, as a rule, had little or no artistic formation. They determined the policies of educational institutions and emphasized practical subjects for everyday life, neglecting subjects intended to develop the mind and spirit. This promoted a separation between artistic production and the public. In addition, art had rapidly and drastically changed, becoming more abstract, and therefore alien to a public that had not been educated in this new aesthetic, and who still clung to nineteenth century figurative art.

Damaz explained that in the past, economic means had been available to attain a perfection of architectural aesthetics which included the participation of painters and sculptors. These concepts had been completely transformed by machine technology where the precepts of efficiency and economy prescribed that a building be foremost a good investment. Therefore, architecture amounted to finding a formula that would ensure profits. Unless art could be considered an asset, it was not taken into consideration. It is clear, from Damaz's point of view, that economically, industrialization and standardization stood against freer and more original forms of architecture more likely to incorporate the hand of the artist.<sup>14</sup>

In contrast to the Middle Ages, Damaz explained, when a unified religion was the basis of every activity and the artist worked within a community, in the modern era the artist was an independent individual. The result was an anarchic situation wherein each artist had his own theory and style. This period was characterized by conflicting personalities and diversity in the arts, scarcely favoring a synthesis that required a unity of thought and belief among artists and architects. The artist became confined to the studio while the architect was confronted with a more complicated field in terms of technology. It seems that the architect became more confined to the processes of logic while the painters and sculptors isolated themselves in the field of metaphysics. The artists felt cut off from society and retreated into their solitary studios as their art was increasingly hidden away in museums, galleries or in the private homes of the elite. Specialization divided society

into categories causing each individual to lose sight of the harmony of the world.

Damaz gave examples of the past that showed how complete and deliberate the synthesis of the arts had been in every great period of architecture. The great epochs of synthesis ended, in his mind, with the Renaissance. The loss of the arts in architecture had created, for the first time, a purely utilitarian architecture that took command of the entire building scene. Damaz pointed out that art began by being an integral part of architecture. However, he acknowledged that among the pioneers of modern architecture who had generally been considered responsible for its austerity, a few stood out for their attempt to synthesize the arts from the outset. He clearly saw how Le Corbusier was misunderstood in the beginning of his career when he declared in his first architectural manifesto, Vers une architecture, that a house was “a machine to live in.” What followed this catchy phrase was overlooked: “Architecture goes beyond utilitarian things. Architecture is a plastic thing. Passion can create drama out of inert stones.”<sup>15</sup> Also, in 1920 Le Corbusier, along with Amédée Ozenfant and Paul Dermée, founded the magazine L'Esprit Nouveau which included a plethora of subjects that dealt with the arts and architecture in a synthetic manner.

Damaz also cited the Bauhaus, where Walter Gropius promoted the unity of art and technology, and other movements such as De Stijl and the Russian Constructivism which were also searching for a synthesis of the arts as well as individuals such as Henry Van de Velde, Willem Marinus Dudock

and Frank Lloyd Wright. Nevertheless, their impact was not felt and instead their followers took the simpler road of meeting design demands from a strictly material functionalism. Damaz's portrait of a world gone astray due to over-rationalization seemed to represent the consensus of the time.

Against this historical panorama as presented by Giedion and Damaz one needs to trace Le Corbusier's writings and concepts in the development of the postwar ideas of the synthesis of the arts. Even though Le Corbusier's idea of a synthesis was born in the 1920's and appeared in his 1930's texts, it is not until 1950 with his project for an exhibition pavilion at Porte Maillot that he adopted the term "synthèse des arts majeurs" to describe the design of the structure and to encapsulate his postwar ideas in architecture.

### Pre-World War II Concepts

The idea of the synthesis of the arts within an urban context was first introduced directly at CIAM's Athens Congress in 1933 by Fernand Léger who was a close and influential friend of Le Corbusier throughout the 1920's and 1930's [Fig. 1.1]. They probably met in 1920 at the café La Rotonde when Léger became involved with L'Esprit Nouveau, and their collaboration continued with L'Esprit Nouveau Pavilion in 1925 and through the thirties after which it became more sporadic.<sup>16</sup>

Both men had significant experiences in each others' profession. In 1902 Le Corbusier was a student enrolled in the Ecole d'Art at La Chaux-de-Fonds and was drawing and producing watercolors before considering

architecture. Throughout his architectural career Le Corbusier seriously practiced painting; beginning in 1927, he painted every day from eight in the morning to one in the afternoon. For him painting represented a visual laboratory in which he could experiment for his architecture, and in the late phase of his career, disappointed that his painting was not appreciated as much as his architecture, he said: "I am known only as an architect, and no one wants to recognize me as a painter, although it was through my painting that I discovered architecture."<sup>17</sup> Conversely, after a regular education at Argentan, Léger pursued an architectural education in a college at Tinchebray. In 1897 he apprenticed for two years to an architect in Caen and then moved to Paris where he continued to work as an architectural draftsman for the following two years. Then after a year in the military he became a full-time painter. Throughout his career Léger's paintings showed a dedicated concern for architecture and urbanism.<sup>18</sup>

Both Léger and Le Corbusier became interested in mural painting around 1923 when they saw polychromed walls in the designs of Théo van Doesburg, Gerrit Rietveld, and Cornelius van Eesteren of the De Stijl group exhibited in Paris at L'Effort Moderne gallery of Léonce Rosenberg.<sup>19</sup> It has been noted often that Le Corbusier's aesthetic for a polychromed architecture was developed after he saw the Dutch exhibition. This exhibition inspired him to confront his own thoughts on the subject which he published in L'Esprit Nouveau as a critique of the show in the form of a dialogue between an anonymous architect "X" and Léger:

Léger -- Did you notice the Dutch architects at the Rosenberg exhibition?

X -- They owe you an important contribution. (Léger overlooks the technical problem of architecture which does not concern him. All the better, because the interesting exhibition of the Dutch is strictly limited to a question of aesthetics.)

Léger -- Aren't their polychrome houses interesting?

X -- I don't partake of your point of view, polychromy applied to the exterior produces the effect of camouflage. Conversely, applied to the interior, the Dutch achieve a formula that is not at all new, but that merits the greatest attention. It is there, Léger, that your painting is experimental.

Léger -- A red wall, a blue wall, a yellow wall, a black floor or blue or red or yellow, I see a total transformation of the interior decoration.

X -- Yes, a red wall that is stationary, a blue wall that retreats, a warm wall, a cold wall etc.. These are architectural elements and in their immense appearances they don't disturb either the quality, or the proportions.

Léger -- This is the problem that concerns me passionately. Ah, architecture as a resource, not plans made up of colors!

X -- So you agree that colored surfaces exist as whole entities more or less; in any case, they should not be decorated as you examined at the last Indépendants with (Josef) Csaky?<sup>20</sup>

Léger -- Exactly, there lies the error; walls should be conceived as a whole that enter like components within the equation.

X -- You agree that that will be the work you admire, but then you will no longer be able to sign your name at the bottom of the frame?

Léger -- Precisely, and that will be all the better. This is a sign of our times, a whole new side of the problem of the painter-architect is announced.<sup>21</sup>

By stating from the outset that architecture was not the business of the painter, Le Corbusier affirmed that the Neo-Plastic works were limited to an aesthetic question. Without acknowledging the basic principle of Neo-Plasticism, where all elements are treated equally and are integrated into a total unity of the arts, Le Corbusier saw the works as composed of separate elements and pointed out the use of color as a decorative one. He rejected the idea of the exterior polychromed surface because it destroyed the unity of the

exterior architectural volume, nevertheless he was interested in paying more attention to the coloring of the interiors which was where he saw a potential for the birth of a collaboration between architects and painters. With this in mind he invited Léger's participation as long as Léger agreed to honor the architecture. This points to Le Corbusier's long-held views of the primary position of the architect over that of the painter that played a crucial role in his ideas of artistic collaboration to follow.<sup>22</sup>

In 1929, Le Corbusier republished a segment of the dialogue with Léger in an article addressing the painter's relationship to architecture.<sup>23</sup> Le Corbusier singled out Léger as the painter of the epoch who could give a new expression to architecture through his understanding of the application of color. Léger's contribution lay in that he didn't merely color form but molded color in very specific ways within a controlled geometric composition to capture the eye. Le Corbusier translated his understanding of Léger's painting into architecture:

The rooms are no longer square; they are pierced, continuous; certain walls extend, others roll like cylinders, like spirals.... and color with its specific virtues (blue creating ecstasy, red stabilizing the plan, etc.) comes to put order, a density, a light, a lyrical intensity. It is an acquisition of modern architecture. Colored walls enter the equation as whole units.<sup>24</sup>

Le Corbusier's and Léger's friendship was mutually fruitful in promoting their respective research on the relationship among painting, sculpture, architecture, and urbanism which climaxed in the 1930's. The result was apparent in Léger's 1930's unpublished writings, starting with "The

Wall, the Architect, the Painter"<sup>25</sup> of 1933, and in Le Corbusier's first texts in which he discussed the synthesis of the arts: "Sainte alliance des arts majeurs ou le grand art en gésine"<sup>26</sup> of 1935, "Peinture, sculpture et architecture rationaliste"<sup>27</sup> and "Architecture and the Arts"<sup>28</sup> both of 1936. Together these texts introduced their ideas of the synthesis of the arts in the 1930's.<sup>29</sup>

The short essay "Sainte alliance des arts majeurs ou le grand art en gésine" appeared in the fourth number of the magazine La Bête noire.<sup>30</sup> Le Corbusier began the text by defining architecture as a plastic event unto itself without need for added painting or sculpture. This plastic event was perceived as a total lyricism, manifesting a gamut of emotions where the most intense emotions resulted from the play of mathematical proportions within which a symphony of volumes, colors, materials and light interacted. A multiple number of sensations could be found on the inside and outside of the structure constituting a single biology, and harmony would appear when there was a correct concordance among all parts.

Le Corbusier respected modern technology and the use of new materials such as steel, concrete, and glass as integral parts of the plastic event and announced the creation of a new plan which responded directly to the demands of modern techniques. He was referring to his "five points of a new architecture," a concept that originated with his design of the Maison Dom-ino of 1914-15 and flourished in his villa designs of the 1920's. The five points encompassed the piloti, the free plan, the free facade, the strip window, and the roof garden.

He stated that the new free plan introduced architectural polychromy. It was through polychromy that a sensational play could be articulated in the modern plan with its complex biology of curved and oblique partitions. Application of color to walls could create lyrical spaces to bring out order, to increase dimensions, and to produce the feeling of joy. He described this capacity of color to open perspectives as "indicable"<sup>31</sup> or "ineffable," and equated the resulting space with Cubist ideas concerning the fourth dimension. It was not about an evasion of the eye according to the right laws of perspective, but a splendid evasion of the spirit created by the plastic event and color.<sup>32</sup>

A connection can be made here between Le Corbusier's and the German Expressionist architect Bruno Taut's ideas on color. Le Corbusier owned three publications by Taut from the early twenties that would have introduced him to Taut's concepts of architectural polychromy.<sup>33</sup> Taut's use of brightly colored stucco facades in various projects such as the 1921 scheme for Magdeburg were rooted in his interest in synaesthesia that stressed sensory awareness.<sup>34</sup> Similar to Taut, Le Corbusier discussed the use of color in architecture from psychological and perceptual points of view. Architectural polychromy was discussed extensively in Germany in the early twenties and influenced a number of architects such as Ernst May and his Frankfurt housing project (1925-1930) that Le Corbusier would have seen during the Second CIAM Congress that took place there. Le Corbusier is known to have been a Germanophobe and therefore steered away from

explicitly giving credit to German influence in his work.<sup>35</sup>

After affirming that art did not decorate, Le Corbusier gave descriptions through analogy of the way painting and sculpture could collaborate with architecture. For instance, he described a work of art as a presence, like a guest whose particular entrance into a room was strongly felt. This presence had a force of its own that must enter into an engaging dialogue with the architecture. He also described sculpture as an emitter of sound. When placed in an exact location within a room one could trace its acoustical qualities upon the place, that is to say, the resonance of the work would be heard at all points within the architectural vessel. Thus, painting and sculpture were seen as integral elements that engaged the viewer through sympathetic vibrations with the architecture.

Le Corbusier heralded a new epoch of the machine aesthetic. The traditional artists who worked with a paint brush or pencil to reproduce images were seen as part of the past. The technical revolution had brought about new means of documentation such as photography, cinema, newspapers and magazines, opening new fields for artists to explore. Le Corbusier went so far as to suggest that artists had the option to leave painting aside to pursue these other fields.

In October 1936, Le Corbusier presented the paper "Peinture, sculpture et architecture rationaliste" at the Volta Reunion Art Conference at the Reale Accademia d'Italia in Rome entitled "Les Tendances de l'architecture rationaliste par rapport à la contribution des arts figuratifs." Le Corbusier

took this opportunity to denounce the figurative arts as well as the decorative arts and expounded on his personal views of a synthesis of the arts appropriate for the times.

He began the paper by stating that modern art was in the process of development and that in time, approximately ten years, it would reveal its true form. He declared: "The world explodes in light of the machine civilization! A new civilization is bursting forth."<sup>36</sup> Modern architecture bound to the new technologies of its epoch was also bound to the creation of a new aesthetic. Although Le Corbusier characterized the times as one of frightful disarray because the avant-garde had abandoned the decayed academies, and he believed we were entering an uncertain future, his tone was optimistic: "This new civilization allows for a limitless understanding of all the manifestations of human thought through time and space: folklores and works from high civilizations. Prodigious investigation."<sup>37</sup> He described the process as a rupture with the past and a birth of a constructive new civilization through the machine.<sup>38</sup>

Le Corbusier declared that modern architecture was a total event unto itself where the naked, white wall, existed as a true expression of poetry dependent on harmony, proportions, and polychromy. He took the extreme position of excluding the need for artistic collaboration in architecture, which later in the paper, he reconciled by admitting that on certain occasions the collaboration of painters and sculptors, if they were of the highest order, could contribute to the architecture.

Mocking the decorative arts he said: "The debate does not revolve around decorative bauble, around pictorial jumble, or artistic patisseries. Humanity is projected into the new epoch. The arts, expressions of consciousness itself, will be new."<sup>39</sup> The new art could be seen in "a new fauna" of machine-made objects for every-day use, which Le Corbusier referred to as object-types in his 1920's writings, like the pocket pen, the typewriter, the elevator, and the airplane. He described the experience of a flight on an airplane as a fundamentally new way of perceiving the world from above that would have an unprecedented effect on human consciousness. According to Le Corbusier these modern, every-day objects aesthetically preceded architecture because architecture lagged behind in the powerful grip of the old regime.

He then proceeded to explain his understanding of what is modern architecture and recalled a phrase he wrote in 1919 in L'Esprit Nouveau: "Architecture is the masterful play, correct and magnificent of forms under light."<sup>40</sup> Looking for "a human language of architecture" he described architecture perceived through the senses like a person moving through time and space in an architectural promenade. The person in motion would have multiple visual experiences of the architecture whether from inside or outside, from above or below. For Le Corbusier the architectural volume depended on the plan and section -- one horizontal the other vertical -- working simultaneously. The architectural game lay in the different horizontal and vertical combinations like musical notes in a symphony.

There was no need to add moldings, sculpture or painting to architecture because these elements were not an intrinsic part of architecture. Instead, Le Corbusier acknowledged the sun light as a fundamental element of architecture with the capacity to deeply touch the psycho-physiological emotions. Together with the play of proportions, light would affect the architectural experience all day long. He summarized these ideas by stating: "architecture is an activity extended to all construction subjected to the laws of vision."<sup>41</sup>

In this paper Le Corbusier discussed architectural polychromy in more depth and in term similar to Léger. Le Corbusier affirmed that color was necessary to man's well-being because color is a spontaneous expression of life. Polychromy in architecture seized the wall and qualified it, Le Corbusier explained:

Architectural polychromy is something else; it seizes the entire wall and qualifies it with the strength of blood, or the freshness of the prairie, or the burst of the sun or the depth of the sky or the sea. What forces are available! It is the dynamic, how can I explain: dynamite, all goes well, which my painter incorporated into the house. If a wall is blue, it expands; if it is red, it contains the plan, or brown; I can paint it black, or yellow.<sup>42</sup>

Le Corbusier did not trust artists to paint walls because they most likely were not aware of the architectural game and could easily corrupt a wall rather than make it an integral part of the entire volumetric effect. Though he endorsed modern technology, when it came to color Le Corbusier expressed a preference for "eternal" basic earthly tones rather than colors made by chemicals. He also was against the application of wallpaper or

frescoes, both for being not evolved and being poor techniques. However, he welcomed the application of photomontage because as a product of modern technology, derived from marvelous machines of reproduction, it had the potential to express a new life, revealing the mysteries of the cosmos. This could be done with instruments of photographic enlargement that, for the first time, showed close-up views of the microcosm, and, with the aid of the airplane, aerial images of the world afforded new insights into the macrocosm. Through photomontage, Le Corbusier saw modern man projected into new times with new visions.<sup>43</sup>

Le Corbusier repeated that he would allow for the careful placement of paintings and sculpture in his architecture but only under his strict control. The works of art would be perceived as distinguished presences within the architectural ensemble. They would be placed in very specific locations to be determined by the mathematical make-up of the architecture. Their placement would assure a vibrant resonance among the art works and the architecture.

Even though Le Corbusier's paper was praised for its passion and conviction, many participants at the Conference questioned his assumptions. Regarding the synthesis of the arts, it was clear that everyone present was supportive of the concept but the problem was how to define such a goal. Le Corbusier's rejection of the participation of the artist in architecture, except under very controlled circumstances determined by the architect, was interpreted by Paul Bonatz and Alexandre Cingria as pretentious and as a turn

towards an exaggerated individualism. Bonatz, Paul Landowski, and Gino Severini called for an equal participation among architects and artists, while Cingria accepted the secondary role of the artist led by the architect, as long as both were educated to work as a team toward a common goal.

Le Corbusier's idea of the white wall that could only be polychromed or covered with photomontage was also very controversial. Vaslav Husarski called for a new mural painting using the latest techniques, and like Severini, saw mural painting rooted in a tradition, though not historicism. Other supporters of mural painting were Cingria, who gave a list of Italian examples, and Virgil Bierbauer, who referred to the mural paintings of Diego Rivera in Mexico. Willem Marinus Dudok called for the reintegration of ornamentation in modern architecture as an indispensable element for monumental structures. In more general terms, both Bonatz and Louis Hautecoeur reproached Le Corbusier's ideas of the machine civilization for sounding like dogma and for presenting a formula of modern architecture.

Amédée Ozenfant, Le Corbusier's partner in the development of the Purist movement (1918-1925) also declared his dissatisfaction with the outcome of modern architecture. Although he didn't attend the Volta Reunion his writings at the time seemed to be specifically attacking Le Corbusier's concepts.<sup>44</sup> Ozenfant credited the technological revolution in architecture responsible for the negative influence on mural painting. He explained that François Hennebique who around 1890 invented a structural system of reinforced concrete where neither the exterior nor the interior walls

contributed to the structure eliminated the purpose of ornamentation. According to Ozenfant, the functionalist approach was solely concerned with making an aesthetic assessment of the architectural elements creating "a merciless war" against ornamentation including painting.

Ozenfant accused the aesthetic of the white wall and the strip window (which diminished the possibility of hanging paintings) as contributing to the elimination of art in architecture. He criticized the architect for acting like a "master priest" designing an individual and total work of art in which the polychrome walls were treated as "abstract paintings," rendering mural painting useless. Nevertheless, Ozenfant thought the rebirth of mural paintings in public buildings could be brought about by a collective sense and the end of individual egoism.

Within a more congenial group of people including Léger and Louis Aragon, Le Corbusier presented the paper "Architecture and the Arts" at a discussion on "Painting and Reality" held at La Maison de la Culture in Paris in May 1936. This paper reiterated the same ideas he addressed in the previous two papers but with a slightly different focus oriented towards the title of the discussion.

It is clear that Le Corbusier saw the modern machine aesthetic as a visual evolution in the Darwinian sense, and as an improvement over the past, thereby making the role of traditional figurative and documentary painting obsolete. He explained that the influx of machine-made images replaced the need for the artist. Consequently, painting lost part of its purpose

which partially accounted for the large number of unemployed painters after the war. This was the reason for the general uneasiness vis-à-vis the arts, yet Le Corbusier proposed a promising modern world starting from zero. He saw the opportunity to cleanse the world of the mistakes and deformities of the academies that had applied art as decoration. Instead, the new art would appeal to the spirit of the times where the pure spirit of renovation would be expressed as total works of art.

According to Le Corbusier, the Cubist movement was a great historical event which manifested itself as a spontaneous birth and which made no direct references to past pictorial art. He did not see Cubism as abstract but rather as concrete. The realism was inside, made of layers that were deep in organic equilibrium where the origin could be found in each element. Here a reversal had taken place from Le Corbusier's Purist years when he criticized Cubism for its decorative deformations of the object based on esoteric games of the fourth dimension.<sup>45</sup> Thus Le Corbusier, like Léger, defined the "new realism" as an abstract art that was essentially concrete and open to innovative plastic inquiry.

Although Le Corbusier repeatedly stated that architecture had no need for painting or sculpture, he believed that painting and sculpture could be incorporated in architecture anew since architecture was beginning from zero and was reorganizing everything from the skeleton to the skin. In this essay he was willing to invite painters and sculptors to collaborate with architects, but with dignity and mutual respect and not with frivolous pretension as in

the nineteenth century. He realized that artists and architects involved in a collaborative project required distinct personalities working in tandem; an obstacle when art production had remained indifferent to architecture, and vice versa. Collaboration would require a harmony moderated by discipline, careful preparation, and specific qualities of monumentality. Le Corbusier demonstrated his admiration for Léger whom he named three times in the paper as concurring with his ideas of the machine aesthetic, polychromy, and the need to revise the artist's education.

Aragon presented a paper that explained how the advent of the camera challenged the painter's desire to imitate nature, the primary form of realism.<sup>46</sup> Photography became a kind of rival to painting, advancing rapidly with a number of technical developments, leaving painting behind. Aragon urged painters to use the photographic experience as an auxiliary to painting; to use the photographic eye to create a new realism in painting. He asserted that the human expression in painting would no longer be dictated by naturalistic painters but rather by painters concerned with realism which was conscious of social realities; he was advocating a socialistic realism. Aragon's views backed up Le Corbusier's exaltation of the photomontage by stating it was a technologically advanced tool of human expression when compared to the state of painting at the time.

Léger's paper echoed Aragon's socialistic overtones.<sup>47</sup> Léger believed the rapid changes in science, philosophy, and society would influence the expression of this epoch's new realism through a new collective mural art.

He called for the liberation of the masses by giving them access to modern art. An important step would be to ensure leisure for the workers which in turn would allow them to reflect on their modern environment. By observing the aesthetics of the everyday object, the object-type Le Corbusier talked about, Léger believed the workers would be able to make the connections with modern painting.

Léger, who thought highly of modern architecture, said it was born from modern painting. He believed modern architecture would provide an entirely different life for the workers and thanked Le Corbusier for two gifts: “the white wall and light.” Léger said:

To learn to use them, to love them, and not be made to turn backward in this respect by trying to force on them to accept the stuffs, draperies and wallpaper of 1900; the working class has the right to all that. It has the right to have on its walls mural paintings signed by the best modern artists, and if it is given time and leisure it will learn to live among them and love them.<sup>48</sup>

Léger rejected the vulgarized version of representational art found in advertising that was forced on the working class. This inferior quality of popular art was to be replaced by works of painters willing to cooperate with the producers of popular art, and color could be their means of expression.

Léger then expounded on color:

Pure color, dynamically disposed, is capable of visually destroying a wall. Color gives joy, it can also drive a person crazy. It can heal, in the polychromatic hospital. It is a formidable raw material, as indispensable to life as water or fire. It can exalt the feeling for action to an infinite degree. It can hold its own with a loud speaker: it is of equal size. It can be dosed, also, in infinite degrees, beginning with the nuance and ending with an explosion.<sup>49</sup>

In 1931 Le Corbusier wrote his most comprehensive but unpublished manuscript on polychromy, "Polychromie architecturale."<sup>50</sup> It was part of a collaboration with the Swiss wallpaper company Salubra of Basel, and was accompanied by a brochure of color swatches, "Claviers de couleurs," selected by Le Corbusier. While giving various detailed examples from his Pessac housing project (1925-1926), Le Corbusier focused on the effect of color on the human perception of architectural spaces and volumes, and the power of color to stimulate a psychological reaction. Within the text and for the heading of the "Claviers de couleurs" brochure, Le Corbusier cited a phrase Léger often wrote: "Man needs color to live; it is an element as necessary as water and fire."<sup>51</sup> Both men eulogized color as vital to human life.

There is no doubt that Léger played a significant role in the development of Le Corbusier's ideas on polychromy. In 1933 Le Corbusier wrote an essay on Léger, crediting Léger as the most influential painter of the times to address architecture.<sup>52</sup> Referring to Léger's impact on architecture Le Corbusier wrote:

The tumult is going to be born of forward and backward movements of color. It composes with this dynamic. Of its architectural aspirations it has kept the right angle which gives order to this forward and backward movement of color. This painting is the sister of architecture.<sup>53</sup>

Léger's unpublished writing of 1933 also called for an agreement between the architect and the painter on how to treat the wall.<sup>54</sup> He saw collaboration as indispensable in a world where specialization had created an architecture of extremism. Architecture had so rid itself of the past that it had

produced emptiness exemplified by the large dead surfaces of modern walls. It was the job of the artists to bring life back to the wall through color. He, like Le Corbusier, described the use of polychromy and mural painting as having a psychological impact on the observer, being able to dynamically affect the physiognomy of the wall and to potentially create a new monumental art.

However, in contrast to Le Corbusier's predominantly poetic world view, Léger's position embodied more concern for the social context of art and he spent more time articulating how the painter, with a palette of pure colors, could service humanity through a collaboration with architects. Léger sought to address the aesthetic needs of the masses by incorporating mural art and color into rationalist architecture. In the mid 1930's Léger's political activities reflected his social concerns when he joined cultural figures such as Paul Vaillant-Couturier in supporting social reforms of the French leftist Popular Front government.<sup>55</sup>

Léger mocked Le Corbusier's uncompromising stance and called for a more equal relationship between the painter and the architect:

My architect friends, we should be able to get together about this wall. You want to forget that painters are put into this world in order to destroy the dead surfaces, to make them livable, to spare us from overly extreme architectural positions.... I think, my dear architects, that you have reached the irreducible qualities.... You have wanted to dispense color yourselves. Allow me to tell you that in an era like ours when everything is specialized, that is a mistake on your part.... What right have you to dispense color? The era of the specialist condemns you. The contract among the three of us, the wall, you, and me, must be adhered to. Why have you broken it?<sup>56</sup>

Despite these difficulties, Le Corbusier and Léger had worked together

on various occasions such as the 1925 L'Esprit Nouveau Pavilion at the Exposition des Arts Décoratifs;<sup>57</sup> each painted murals in the house of the architect Jean Badovici in Vézelay in April 1934;<sup>58</sup> both contributed to the "chambre d'étude" with Charlotte Perriand and Pierre Jeanneret (Le Corbusier's collaborators) for the "Maison du jeune homme" within the "Foyer de la famille française" at the 1935 Exposition Internationale in Brussels; both showed works at the exhibition "Les Arts dits primitifs dans la maison d'aujourd'hui" that took place in Le Corbusier's rue Nungesser-et-Coli apartment in June 1935; and both collaborated on the use of photomontages of images of man, machine, and architecture on polychromed surfaces in the exhibit for the Temps Nouveaux Pavilion at the 1937 Paris fair.<sup>59</sup>

However, to Léger's disappointment there never was an opportunity for a true collaboration in which he painted a mural in a project by Le Corbusier. This was probably due to the fact that Le Corbusier strongly held his uncompromising position rendering such a collaboration impossible. Even though Léger agreed that the artist would be willing to accept up to fifty percent of the limitations established by the architect, Le Corbusier preferred the architect to be in total control of the polychrome ensemble. Le Corbusier's discourse for a polychrome architecture seemed to be primarily directed toward other architects, and not to artists.

## Post-World War II Concepts

During World War II Léger associated the idea of the synthesis of the arts with the formation of a modern monumentality. This theme had an important influence on the aesthetic development of urbanism. While living in New York from 1940 to 1945 he came in close contact with Giedion and José Luis Sert and together they entered the ongoing debate on modern monumentality. In 1943 they presented a paper for the American Abstract Artists entitled "Nine Points on Monumentality."<sup>60</sup> They showed a concern for the devaluation of monumentality in modern architecture which was primarily preoccupied with the design of temporal structures of utilitarian nature. From their point of view, monuments were vital to the collective society. In terms of their eternal symbolic qualities, not only did they "form a link between the past and the future," but they also were "the expression of man's highest cultural needs."<sup>61</sup>

The authors argued for the integration of monumental ensembles in the redesign of postwar urban centers, to be carried out by collaborations among planners, architects, painters, sculptors, and landscape designers. They proposed the placement of monumental buildings in vast open spaces with the imagery of the buildings directly corresponding to the available modern materials and technology. They envisioned light-weight structures with mobile parts recalling the sculpture of artists like Naum Gabo and Alexander Calder. Artists would design the animated surfaces through use of colored paint, color projections, new and old textured materials, and sculpture.

Ultimately, they espoused the collaboration of artists and planners in order to create a monumental architecture, to enable architecture to “regain its lyrical value.”<sup>62</sup>

A few years later, in 1946, the American Abstract Artists published Léger’s essay “Modern Architecture and Color.”<sup>63</sup> This essay was retitled “On Monumentality and Color” and was published along with Giedion’s essay “The Need for a New Monumentality” and “Nine Points on Monumentality” in Architecture, You and Me: The Diary of a Development. In his discussion on monumentality, Giedion pointed directly to a collaboration of the arts as a means of communicating to collective human emotions. Interestingly, he foresaw the new monumentality as urban spectacles of fountains, light, sound and fireworks (discussed in pp. 83-84).

Léger, probably the foremost painter to want to work together with architects, nicely buttressed Giedion’s essay with an exposition on the transformation of architecture through color. Here he fleshed out his prewar ideas in more detail. For example, at the scale of the wall, he showed how a brightly colored factory in Rotterdam inspired the workers to perform better at their jobs. He also suggested that various colors be used in hospitals to aid the patients, such as green and blue wards for the nervous and sick, and yellow and red wards to stimulate the depressed and anemic. At the scale of the city, Léger wrote about his meetings in Montparnasse with Leon Trotsky during World War I when they discussed an entirely polychromed city that would expand the feeling of freedom in the housing projects of the workers.

The city would have a red street, a yellow street, a blue square, a white boulevard and some polychromed buildings.

In addition to the psychological impact of color on society, Léger described the formal qualities of color in space which he had started to explore around 1909 along with Robert Delaunay. Since then, he claimed that color had been set free and its potential could be exploited for use both externally and internally. The sensations of weight and distance of the exterior of the architectural volume could be increased or decreased through the manipulation of color. He explained that color had developed an “elastic rectangle” of space from a “habitable rectangle” where light blue walls receded, black walls advanced, yellow walls disappeared and the combination of dynamically contrasting colors could destroy a wall. Léger evoked a new sensation of space with endless possibilities by the forward and backward movement of one color placed against another. This form of painting was perceived as an ally of architecture. He illustrated that by placing a black piano in front of a light yellow wall the visual effect would diminish one’s sense of the dimensions of the rectangular space, and also suggested that an asymmetrical arrangement would augment the effect. He urged the use of colored interior walls to expand the space of the small scaled worker’s housing units.<sup>64</sup>

Léger also revealed that for the 1937 Exposition International des Arts et des Techniques in Paris he had proposed a fantastic colored urban landscape called “Paris Completely White.”<sup>65</sup> He envisioned the 300,000

unemployed given the job of cleaning and whitewashing all of the building facades. By day, Paris would be pure white, at night however, the city would be lit up by a son et lumière show. The buildings would serve as screens for projectors placed throughout the city. The Eiffel Tower would lead the light show with the most powerful projectors while others would be mounted on airplanes producing a dance of colored movement. Simultaneously, loud-speakers would emit melodious music synchronized with the newly colored world.

The 1937 Exposition was particularly significant because at the moment of incorporation of the modern aesthetic by most of the participating countries, many artists tackled the idea of mural painting's demonstrating a variety of different artistic movements. Le Corbusier disapproved of most of the results of collaborations among architects and painters which he described as "forced marriages" at the 1937 Exposition.<sup>66</sup> Concerning the placement of the works of art Le Corbusier pointed out the arbitrary placement of Léger's painting in the corner of the main stair of the Grand Palais, which in spite of its poor location, its pictorial quality opened up spatial perspectives. He criticized the new rooms of the Palais Trocadero for their dull grayish plaster walls that could have been enlivened by the use of polychromy. However, he gave his complete approval to Robert Delaunay's collaboration for the Palais de Chemins de Fer et de l'Aviation because of its successful rendition of a polychrome architecture [Fig. 1.2]:

The architectural polychromy; it bursts with the use of colored rhomboids like a rainbow displaying their volutes in the aviation hall.

Then one finds the painter with his excellent collaborators in the enormous mural paintings which are all made with a great mastery and where the phenomenon of color was ordained by chromatic painters who understand the resources of space and of the lyricism that color can give. All this expresses thanks to the judicious relationships of color, a joy, a kind of spring-like explosion, an enlargement of the spaces.<sup>67</sup>

In contrast to mural painting, Léger was openly critical of easel painting because he saw it as the outcome of an individualism. In the past, during times of collaboration, pictorial art had been bound up with architecture through the use of mosaics, frescoes, sculpture, etceteras. Therefore, the new focus on mural painting meant the positive resurrection of a collaboration between the arts and architecture.<sup>68</sup> Léger considered mural painting an essential part of society where colored walls would enliven the dead surfaces of public buildings while addressing the community at large.<sup>69</sup> Through the use of pure color in an abstract mural composition Léger saw the development of a “new space” in architecture:

I believe that if one wants to create space in architecture, it is necessary to stay within the given conditions of color distribution. There we are truly in partnership with the architecture. Architecture cannot be considered as a foil on which to hang pictures. That is the error of the past. A state of collaboration must be established.<sup>70</sup>

Immediately after World War II, with inexhaustible resilience, Le Corbusier resumed his prewar views. In light of the surrounding devastation, he saw the aftermath of World War II as yet another opportunity to construct anew, he wrote: “The new world will be infinitely newer than imagined... Architecture is waking up in all parts of the world. The synthesis of the major arts will be realized only in extremely new forms: the old molds

have cracked!”<sup>71</sup> Five months after the liberation of Paris Le Corbusier appealed for the synthesis of the arts in a newspaper run under the auspices of the French Resistance called Volontés in which he stated: “An epoch of the plastic arts is beginning.”<sup>72</sup> Approximately one year later, in a special issue of L’Architecture d’aujourd’hui of 1946 he contributed his first essay on “L’Espace indicible” in which he described the spatial interrelationship among architecture, painting and sculpture as “the consummation of plastic emotion.”<sup>73</sup>

Here he reiterated ideas of synthesis from the 1930’s that emphasized the importance of mathematical proportions as the framework which ensured the concordance of the parts to the whole in his concept of plastic acoustics. However, he wrote with a more poetic language about the “action of the work on its surroundings as vibrations, darting away like rays, as if springing from an explosion; the near or distant site is shaken by them, touched, wounded, dominated, or caressed.”<sup>74</sup> In addition to the descriptive sensations evoked by the action of each of the arts, he described the influence of the “fourth dimension,” based on intuition, “as the moment of limitless escape evoked by an exceptionally just consonance of the plastic means employed.”<sup>75</sup> The “fourth dimension” was explored by the Cubist painters as exemplified in the painting “The Clarinet” of 1911 by Picasso<sup>76</sup> [Fig. 1.3]. This new perceptual dimension was conveyed by simultaneous representations of the figure in various perspectives, creating a forward and backward movement of the picture plane, and producing a sense of immensity of space

suggesting infinity.

Le Corbusier said the miracle of “ineffable space” was accomplished when “a boundless depth opens up, effaces the walls, and drives away contingent presences.”<sup>77</sup> Phrases such as “springing from an explosion,” “the moment of limitless space,” and “a boundless depth opens up” clearly showed Le Corbusier moving away from the restrained rationalism found in his works of the 1920’s and moving toward more sublime notions of a dynamic poetic transcendence that appeared in his work from this point on in his career.

Ideas that parallel Le Corbusier’s “ineffable space” can be found in Léger’s writings discussing the destruction of the wall through polychromy, as well as in an interview with Matisse describing his work at the Chapel at Vence. Matisse explained his intention as “the idea of vastness which touches the soul and even the senses,” and he added that “the role of painting is to enlarge surfaces, to work so that one no longer feels the dimensions of the wall.”<sup>78</sup>

Le Corbusier’s idea of “ineffable space” was primarily an emotional response to concepts of space that permeated all the arts including city planning, architecture, sculpture, and painting. Following Giedion’s twentieth century space-time concept that came about through an optical revolution represented in painting by Cubism,<sup>79</sup> Le Corbusier described a personal experience of “ineffable space” from a perceptual point of view in time and space:

These words were the fruit of an experience. At my home there is a hall, two meters square. One faces a large north light opening on the roof garden. This wall is, then, under constant -- almost an ideal -- light. It is the only wall lit in this way, the flat being laid out towards east and west. I had made it a habit to use this wall as a test bench for my paintings while I was working on them: paintings both small and very large. One day -- at a very precise moment -- I saw 'ineffable space' come into being, before my eyes: the wall, with its picture, lost its limits: became boundless. I put friends and visitors through the test. After the picture had been hung, I would suddenly take it away. There remained a little wall, two meters long: a wretched sort of wall.<sup>80</sup>

When all of the ingredients such as mathematics, proportions, artistic intention, light, visual perception, and emotional experience converge in a harmonic resonance they have the capacity to create "ineffable space," comprehended as a fleeting moment of poetic affection that deeply touches the individual soul in a sublime way. Le Corbusier described this experience with poetic words: "Then a fathomless depth gapes open, all walls are broken down, every other presence is put to flight, and the miracle of 'ineffable space' is achieved."<sup>81</sup> Ultimately, this means of possessing space, as Le Corbusier called it, was possible by working creatively with all of the arts simultaneously leading towards a synthesis.<sup>82</sup> Where there was a work of art and Le Corbusier's Nietzschean notion of the will of the architect, "ineffable space" could equally be experienced within architecture, a public urban space or a natural landscape. The first publication of "L'Espace indicible" was included in the context of addressing the question of artistic collaboration in a special issue which included sections on architecture, painting, sculpture, and tapestry, and was illustrated with works by Le Corbusier, Brancusi, Giacometti, Léger, Miro, Picasso, and Savina among others.

In 1948 Le Corbusier further articulated his ideas in New World of Space<sup>83</sup> and in an article entitled "Unité"<sup>84</sup> in another special issue of L'Architecture d'aujourd'hui. The inside cover page of New World of Space clearly stated its intention in the subheading: "Some day through unanimous effort unity will reign once more in the major arts: city planning and architecture, sculpture, painting." Here urban planning was placed in a primary position which became fundamental to the postwar discourse on the synthesis of the arts.

The main body of the book was divided into three parts beginning with the essay on "ineffable space" followed by a short section of biographical notes and a long section that combined brief selected texts interspersed among images of Le Corbusier's creative production presented in chronological order. These works included paintings, murals, drawings, sculpture, tapestries, furniture, exhibitions, object-types, "objects of poetic reaction," architecture, urban plans, and two photographs of Le Corbusier attending the Fourth CIAM Congress (1933), one of which was a portrait of Le Corbusier with Léger, highlighting the importance of their relationship at the time. The book ended with a basic listing of Le Corbusier's architectural, artistic, and written works. As a whole the book read as an up-to-date autobiographical document of Le Corbusier's aesthetic vision.

The significance of "L'Espace indicible" essay is evident in the number of times it was republished. Important parts of the essay were also quoted in Les Grands courants de la pensée mathématique<sup>85</sup> (1948), Le Modulor<sup>86</sup>

(1950), and Modulor 2<sup>87</sup> (1955). In addition, in 1953 Le Corbusier accepted the proposal from Jérôme Lindon to write a book (that was never published) with the title “L’Espace indicible” for the publishing firm Les Editions de Minuit. In a letter to Le Corbusier, Lindon acknowledged the importance of the text when he wrote: “I think that ‘ineffable space,’ which could, in a sense, become the great theoretical book that is now expected from you so impatiently, could obtain a large propagation [circulation].”<sup>88</sup>

By placing “L’Espace indicible” essay in the preamble of New World of Space it served as the theoretical underpinning for his ideas on the unity of the arts. The careful layout of images and words in the long section of the book was a historical visual survey of Le Corbusier’s oeuvre. An even number of architectural and artistic works balanced each other. Often, on the same page, a photograph of a building was coupled with a photograph of a painting done in the same year, thus allowing an opportunity to correlate the influence of one medium on another. Here the images were to be read like text. Even though Le Corbusier began exploring his artistic vocabulary in multiple mediums such as murals, tapestries, lithographs, engravings, enamels, and collages after 1935, it was after the war that he consciously presented these works as interrelated to his architecture and urban plans.

The long section of New World of Space ended with a concise text on the Modulor, a measuring system based on the proportions of the human body. Le Corbusier began developing the Modulor in 1943 that stemmed from his constant study of mathematical proportions in architecture dating

back to 1921 when he had introduced the “regulating lines” based on the Golden Section.<sup>89</sup> The “regulating lines” controlled the architectural form in plan, section, and elevation. In the 1930’s Le Corbusier was influenced by the anthropomorphic mathematical proportional systems developed in the work of Matila Ghyka, who published the book Le Nombre d’or in 1931. Ghyka demonstrated from a historical perspective the application of the Golden Section in western culture as well as the link between organic forms and geometric structures in the architecture of the past. Le Corbusier, who was always concerned with giving an aesthetic foundation to a technically advanced architecture based on the psychology of perception, understood that pure geometric forms were capable of creating the sensation of harmony and equilibrium. In this way, through the creation of pure geometric volumes guided by “regulating lines,” architecture could incite a plastic emotion. Rooted in nature and ancient metaphysical traditions these mathematical proportional systems applied to either new technological forms in architecture or to standardized objects of mass production served to create a universal perception of order and unity.

Paul Turner who has studied in depth Le Corbusier’s early education has pointed out that Le Corbusier’s early readings showed a propensity for idealistic beliefs based on universal concepts that he carried through his entire life.<sup>90</sup> Two influential books that stand out in Le Corbusier’s early library were Henry Provensal’s L’Art de demain<sup>91</sup> and Edouard Schuré’s Les Grands initiés.<sup>92</sup> Both books were rooted in the nineteenth century

philosophic traditions of German Idealism of Friedrich Wilhelm Joseph von Schelling and Georg Wilhelm Friedrich Hegel. Provensal and Schuré placed emphasis on the spiritual renewal of modern culture in order to counterbalance the prevailing materialism of the times as brought about by Descartes and promoted by the philosophy of Positivism.

Provensal's general philosophy called for a harmonious unification of the spiritual and material realms. In architecture it would be expressed as the essential forms of cubic volumes derived from nature. Different from Provensal, Schuré's ideas placed spiritual truth above matter. Schuré's book discussed eight mystical prophets in order to show the similarities in their esoteric messages and the prophetic role of these elite initiates entrusted to penetrate the spiritual mysteries and to transmit them to humanity through the creative forces of art and architecture. Le Corbusier, who identified himself with these prophets, annotated and marked the chapter on Pythagoras describing Pythagorean numerology in simple divine numbers that played into his "regulating lines" and later into the Modulor.

For Le Corbusier the notion of a synthesis in terms of spiritual harmony applied equally to the rational, utilitarian "a machine to live in" as to the poetic "a machine to evoke emotions."<sup>93</sup> The dialectic between the creative intuitive art and the geometric rationalism governing architecture was brought together in a synthesis found in the poetic expression of the Modulor. The Modulor was intended to be a harmonic measure to the human scale universally applicable to architecture and industrial production.

Le Corbusier presented the Modulor diagram of proportions by the end of 1943 with the idea that it would be drawn on the walls of building sites during the time of reconstruction for guidance and consultation. The diagram depicted a “universal” six foot man with one arm upraised inserted into a square which was in turn subdivided into two scales of interspiralling dimensions, one corresponding to the Golden Section and the other to the Fibonacci series [Fig. 1.4]. The Modulor was a philosophic emblem proposing an anthropomorphic system of measurements connecting humankind and technology to nature while at the same time facilitating the experience of “ineffable space” through the use of a sublime proportions. The Modulor in essence was an attempt on Le Corbusier’s part to link nature, humanity, and the cosmos in a harmonious manner with the fundamental purpose of specifically bringing people closer to each other.<sup>94</sup>

The German architectural historian Rudolf Wittkower, who was at the forefront of the renewed interest in humanism after the war when he wrote Architectural Principles in the Age of Humanism<sup>95</sup> in 1949, acknowledged the immediate success of the Modulor as being right for the times and placed Le Corbusier within the pantheon of the humanist tradition of Vitruvius and the Renaissance. He also explained its short-lived notoriety was due to its “amateurish, dynamic, personal, paradoxical, and often obscure” nature.<sup>96</sup>

Two years earlier in 1947, Wittkower’s student, Colin Rowe had published an essay comparing the geometry of Andrea Palladio’s Villa Malcontenta (1560) to Le Corbusier’s Villa Stein de Monzie (1927) at Garches,

both based on pure geometric volumes and the Golden Section.<sup>97</sup> Rowe's revolutionary observations broke from Giedion's *Zeitgeist* premise of Modernism based on technology and the space-time principles found in Cubism. Rowe countered the modernist ahistorical precept of Le Corbusier's architecture by showing its historical reference to the humanist Classical tradition bound by similar mathematical principles.

For Le Corbusier the past was the vital sign of "the presence of man" and architecture was "the memory of the people."<sup>98</sup> It was through the synthesis of man, history, memory and architecture that he sought to communicate a universal language: "Every level-headed man, once cast into the unknown of architectural invention, can really only sustain his impetus by looking to the lessons provided over the centuries. The testimonies provided by the ages have a permanent human value. One may consider them folklore -- a notion expressing the flower of the creative spirit in folk traditions -- by extending their realm beyond man's home to their gods."<sup>99</sup>

The "Unité" article had a similar format to New World of Space, alternating words and images to show Le Corbusier's artistic synthesis, but in this case the images were not presented in chronological order. They were more in keeping with his design process that did not possess the linearity of narrative but rather were all inclusive of his visual vocabulary expressed in a multi-directional matrix. Towards the beginning of the article Le Corbusier stated that a synthesis of the major arts would bring harmony to every level of design in a machine society:

Then a phenomenon of cohesion will replace the present hiatus. The real problem will be posed: that of the arts and all things. Discrimination will take effect: art is the way to do things, to do well, to do very well. The major arts will find their reason to be. The synthesis of the arts will take effect.... Harmony, that magic word of joy, is a word of synthesis and is the word of tomorrow.<sup>100</sup>

He further explained the concept of unity in his description of the interrelated plastic qualities of the three major arts:

But where does sculpture begin, where does painting begin, where does architecture begin? At one of the extremities of these three branches one sees the statue, the easel-painting, the palace or the temple. But in the plastic event all is a unity; sculpture - painting - architecture: volume (spheres, cones, cylinders, etc..) and polychromy, that is to say the materials, the qualities, the specific quantities assembled within relationships with the nature to move us. The built environment of tomorrow is the expression of the solidarity among the three major arts.<sup>101</sup>

In "Unité" architecture was seen as a natural function that grew from the soil as did animals and plants. The secret lay in understanding the intrinsic universal harmony that united man, nature, and cosmos. Le Corbusier's observations of a family of sea shells at the Museum of Natural History paralleled the transformation occurring in his art and architecture. In the course of his observations, he explained the shell-type, neutral in color, as an expression of perfect equilibrium. In time, two shell-types were absorbed into each other and a third hybrid type appeared as a new sculptural form with color. This expressed, for him, the lesson of unity, variety, and harmony.

In 1946 Le Corbusier began to collaborate with the Breton cabinet maker Joseph Savina who translated Le Corbusier's paintings into sculpture, and

both his paintings and architecture took on a more plastic vocabulary that fully integrated color. All three media coalesced in his work to create a hybrid type, yet it was important to distinguish that each medium existed as its own entity. Throughout, color played a significant role in the psycho-physiology of the new space whether at the scale of the mural or of the city.

In "Unité" Le Corbusier presented an outline of his urban projects that inspired "ineffable emotions" in the public. The Algiers project was presented as an acoustical event in which the curving buildings were like conch shells that send and receive sounds from the sea [Fig. 1.10]. The Saint-Dié project was described as a musical composition wherein rhythmic elements and high notes combined. For Le Corbusier, the challenge lay in creating a symphonic architectural site where buildings were placed in a varied yet unified manner [Fig. 2.11, 2.12]. The harmony produced by such an architectural composition would resonate with the new social order after the war. At the end of the article Le Corbusier added urbanism to the three major arts. The urgent need for reconstruction after the war made urbanism a first priority and was therefore immediately endorsed by many architects at the CIAM Congress, the most important forum for discussions on urbanism.

Throughout the course of the war Le Corbusier and his wife Yvonne spent time in the small town of Ozon in the Pyrenees, located in the demilitarized zone of the country which was then under the leadership of Marshall Pétain and his pro-German Vichy regime. During the first two years of the German occupation Le Corbusier became closely involved with a Vichy

government branch responsible for making urbanistic and architectural decisions in France and its colonies.<sup>102</sup> Nevertheless after complex dealings with the Vichy authorities his proposals for a plan for the city of Algiers were rejected and in 1942 he retired to his mountain hideaway where he spent the last two years of the occupation engrossed in a very productive introspective phase composed primarily of painting and writing.<sup>103</sup> Le Corbusier also found time to attend various ASCORAL (Assemblée des Constructeurs pour une Rénovation Architecturale -- a French affiliate of CIAM) meetings which examined a number of French cities in detail with the awareness that a massive reconstruction of the country would take place after the war. This phase of incubation, in which Le Corbusier, a man in his mid-fifties with time to focus on his thoughts and his visual vocabulary was faced with the prospect of rebuilding the war-torn cities of France, laid the groundwork for the conscious birth of his mature work.

After the war Le Corbusier believed he had achieved a synthesis among painting, sculpture, architecture, and urbanism, and exhibited his architectural and artistic work as one, already demonstrated in the editorial format of New World of Space and the "Unité" article. In 1948 Le Corbusier began organizing exhibitions of his own work showing the relationship among different media for the first time. The 1953 exhibition at the Musée National d'Art Moderne in Paris and the 1956 exhibition in Lyon showed Le Corbusier's desire to convey new relationships within his oeuvre through his selection and placement of the art works.<sup>104</sup>

Enlarged photographs of his architecture and his paintings were installed in an alternating network of visual associations on the walls and interior partitions while his sculptures, the media that enabled him to establish the most direct dialogue between painting and architecture, were placed at specific junction points between the partitions. This display system allowed each spectator a private reading of the exhibition and the freedom to make any number of connections among the diverse works of Le Corbusier.<sup>105</sup> In his last exhibitions, such as the 1962 exhibition in Barcelona and the 1964 exhibition in La Chaux-de-Fonds, Le Corbusier used only photographic reproductions of his paintings and architectural works, thereby equalizing the visual boundaries between the two by reducing them to two-dimensions.

Le Corbusier's design process, which he described in 1960 and called "the patient search,"<sup>106</sup> holds the key to understanding how a synthesis of the arts came together in his architectural design. He described the process in three phases: first, identifying with the site; second, the spontaneous birth of the whole work after a long period of incubation; and third, the slow execution of the drawings and the construction itself.<sup>107</sup> The long period of time corresponding to the incubation phase was an essential part of Le Corbusier's creative process. In his own words: "When a job is handed to me I tuck it away in my memory, not allowing myself to make any sketches for months on end. That's the way the human head is made: it has a certain independence. Its a box into which you can toss the elements of a problem

any which way and leave it to float, to simmer, to ferment.”<sup>108</sup>

While a project was in gestation Le Corbusier looked for references from his entire spectrum of experiences and drawings. Le Corbusier explained that he kept most of his old drawings in drawers at home, and that he would pick drawings at random to take on trips so that there would be an instantaneous and constant contact between his previous stages and the present.<sup>109</sup> It was through drawing, the understanding through sight, that images were retained in his memory and it was also through drawing that they re-emerged at the moment of creation. He said: “Then one fine day there comes a spontaneous movement from within, the catch is sprung; you take a pencil, a drawing charcoal, some color pencils and you give birth on the sheet of paper. The idea comes out -- the child comes out, it comes into the world, it is born.”<sup>110</sup>

The pilgrimage chapel of Notre-Dame-du-Haut (1950-1954) at Ronchamp is the most sculptural of his architectural designs and a good postwar example that demonstrates the synthesis of visual forms and Le Corbusier’s ideas [Fig. 1.5].<sup>111</sup> In order to discover the sources of inspiration for the images of Ronchamp it is necessary to look at all the visual references in his life -- images from his travels, such as the 1911 sketch he made of the periscope-like serapeum he saw at the Villa Adriana in Tivoli [Fig. 1.6] which he then translated into the “wells of light” or towers at Ronchamp; and personal memories, like the horseshoe crab shell, an “object of poetic reaction,” Le Corbusier found in 1947 on a Long Island beach that inspired the

form and structure of the roof [Fig. 1.7]; as well as borrowings from modern technology, such as the airplane wing that also suggested the structure of the roof [Fig. 1.8]. Here, one can begin to see how Le Corbusier's images freely overlap and intermingle. His sources were many, whether historical or found objects, and all were direct influences that Le Corbusier explicitly referred to in his work.<sup>112</sup>

Le Corbusier's design process showed many parallels to Surrealist ideology, which influenced him.<sup>113</sup> However, the main difference between the two was that Le Corbusier resented the decadent, "deconstructive" focus of the Surrealists and saw himself primarily as "constructive."<sup>114</sup> Yet, for both the process of creation was more important than the finished product. The process moved through the mind's labyrinth where personal as well as collective experiences were stored. Then a metamorphosis occurred by the psychic process of analogical association in the artist's mind, creating new forms. This transformation occurred inside of people within the psychological realm, as Carl Einstein stated: "Man lives within the orbit of objects which become psychological functions."<sup>115</sup>

Connected to individual transformations was the larger concept of transforming the world, man's social structure, through the human mind. From the teachings of Pierre Janet, André Breton realized that the mind was linked in innumerable ways to other minds and to the universal network of nature. And it was only through self-knowledge that one could gain knowledge of the exterior world. Breton's aim consisted in discovery

“through speech, through human relations, through the unleashing of automatic forces of the human psyche, and through the reception of the outer forces of the physical world,”<sup>116</sup> all necessary in the transformation of the world.

The artist was no longer a mere interpreter of life but was a creator. The role of the interpreter was also transferred to the spectators who lost their passive role of merely absorbing the message of the artist. Instead the spectators assumed the more creative role by opening their eyes and relating the visual sensations to their own experiences and capacities of imagination and association. Le Corbusier clearly stated that he approached the design problem at Ronchamp psychologically: “The requirements of religion have had little effect on the design, the form was an answer to a psycho-physiology of the feelings.”<sup>117</sup>

In Le Corbusier’s paintings one can most clearly see the first shift towards a more plastic synthesis.<sup>118</sup> He began painting in 1918 under the influence of Ozenfant and together they created Purisme. In the late 1920’s a radical change took place in Le Corbusier’s pictorial work with the appearance of a symbolic language of forms which was more dynamic and fluid rather than static in the strict use of verticals and horizontals of the Purist period. The symbolic language, often ambiguous in meaning, began to appear in 1925 when he did drawings of natural found objects such as stones, shells, pine cones and bones which he called “objects of poetic reaction,” suggestive of Surrealist theory and practice at the end of the 1920’s.

In his work during the 1930's there appeared more human figures and an obsession with curves inspired from aerial views of natural land formations and rivers as well as from female nudes. This was the time Le Corbusier began to frequent the studio of Léger. Both artists explored abstraction, the figure, and the found object in their paintings at the same time.<sup>119</sup>

Curves as an abstract representation of nature appeared in Le Corbusier's paintings such as "Deux femmes étendues" (1936-1940) [Fig. 1.9] and urban projects like the Plan Obus in Algiers (1930) [Fig. 1.10]. What seemed like a new adventure and study of plastic forms actually was rooted in his early training around 1905 with Charles L'Eplattenier when he had studied and drawn natural forms, though now he drew the natural forms more abstractly. The Algerian study for a monumental mural of 1931 [Fig. 1.11] shows a direct influence of the human form on the composition in plan of Ronchamp [Fig. 1.12]. The north entry wall recalls the leg and body forms in the drawing.<sup>120</sup> Also, the plan can be interpreted as a human body with the cistern, located at the western end, as a head. Another association can be made with a 1946 pastel from the "Ubu" series called "Acoustic Forms" that literally became the plan<sup>121</sup> [Fig. 1.13]. Clearly, certain figures used in paintings were directly transposed to his architectural designs.

At this time, Le Corbusier developed the ear and the horn motifs. The ear motif represented by periscope-like forms appear frequently in his paintings and sculptures of around 1945. His 1946 polychrome sculpture

“Ozon” demonstrated this form as his concept of “acoustique plastique,” that is, forms that emit and receive sound [Fig. 1.15]. At Ronchamp the ear motif appeared both in plan in the west wall and in elevation in the towers [Figs. 1.12, 1.14]. They face three cardinal directions, north, east, and west, and the south facade serves as the fourth receptive surface.

The horn motif derived from the mid 1930’s when Le Corbusier along with many artists such as Picasso and André Masson turned to alchemy and classical mythology, and specifically to the tale of the Minotaur as a source for symbolic inspiration. Taken from the tale of the Minotaur, the horn motif represents a union between Pasiphae, the moon goddess, and the solar bull. It was a symbol of the unification of opposites, a leitmotif throughout Le Corbusier’s life. Le Corbusier described his discovery of the horn motif as an outcome of chance:

You will see how things arise: from a 1929 vertical painting, the photograph of which has been looked at horizontally. From one thing to another, thirty years later, the mind busy with something else and particularly with the usefulness of human figures to possess their own ‘bestiary,’ arose successive deformations. And one fine day the discovery of the bull on my canvasses came to light quite out of control. Then, development of the theme itself, its flourishing (Taureaux VIII to XIII approximately), and finally a change of sensibility with respect to the theme and a new arrangement of the elements of the painting.<sup>122</sup>

The horns appeared frequently in a series of paintings done in the early 1950’s called “Taureaux” [Fig. 1.16]. The horn shape also appeared in plan in the south wall and in the south-east corner elevation at Ronchamp [Figs. 1.12, 1.5].

Both the ear and horn motifs were personal symbols for Le Corbusier.

He seems to have delighted in the complex visual and intellectual adjustment which must be made simultaneously in order to see these symbolic motifs developed at right angle rotations. Writing on Ronchamp in 1957 Le Corbusier stated: "Counterpoint, and fugue-music-grand music undertake to look at the images upside down, or turn them at quarter angle, you will discover the game."<sup>123</sup>

Le Corbusier honored the right angle in Le Poème de l'angle droit, a portfolio consisting of one hundred and fifty loose plate lithographs of images and texts he put together between 1947 and 1953.<sup>124</sup> These lithographs allow a look into the synthesis of his thoughts and design work, and is the best comprehensive graphic source to give clues and to reveal the links between his plastic works and architectural designs. Le Poème de l'angle droit was graphically summarized in a diagram of nineteen lithographs forming a complex cross pattern of seven horizontal zones [Fig. 1.17]. Le Corbusier referred to this configuration as an "iconostase" which in the context of orthodox churches was a sacred screen of icons that separated the altar from the nave. For Le Corbusier the iconostase can be interpreted as a collection of private and personal symbols from his "patient search" designed only to be understood by those initiated into his work. Le Corbusier worked with selected images which he reworked over and over again to make several versions of a single theme, yet he would transform certain motifs into symbols that could be used in various contexts regardless of their original derivation and meaning. Le Corbusier described, in the third person, how he

made Le Poème de l'angle droit:

In assembling everything within a banal coherence and the statement of all the facts taken into consideration. There are many things at the bottom of this poem. Later he gave himself some distance, later some height. He has burned the bridges. From now on, it is up to the reader to read the poem.<sup>125</sup>

The diagram is a multi-directional matrix that can be read in a number of ways, from top to bottom or from bottom to top. Each zone can be read from left to right, from right to left, or from the middle outward. The entire diagram can also be read simultaneously by taking each square independently. The possibilities are numerous. The images read by the spectator were assimilated in the same way as his design process, as a constant conflation of forms and symbols that incite a playful and personally creative interaction. Le Corbusier's process was a labyrinthine one, like a network of images that were constantly repeated, transformed, permuted, and interchanged with shifting symbolic meanings.

Another strategy Le Corbusier employed to generate multiple forms was "the marriage of contours."<sup>126</sup> Here the contours of the forms were a continuous line, without beginning or end, creating an arabesque-like design that united the reading of multiple figures and made the boundaries between the figures ambiguous. In "Icône" (Woman with Candle) from Le Poème de l'angle droit the continuous contour line connects breast to torso to arms to candle to hands in a single undulating line [Fig. 1.18]. Similar two dimensional contours found in the lithograph "Icône" are transferred to three dimensional sculpture [Fig. 1.20] and to architecture in the elevation of

the Phillips Pavilion (1958) in Brussels [Fig. 1.19].

Le Corbusier sometimes drew different figures on transparent paper and superimposed two papers which he slipped and rotated until he obtained the desired contours. This process of superimposing drawings in order to discover a third design was a process often used by architects. The synthesis in Le Corbusier's work occurred in the design process by treating all media with the same formal language and methods of formal manipulation. Le Corbusier used the same strategies such as the right angle game, "the marriage of contours," and transmutations in the generation of all plastic forms, whether they were pictorial, sculptural, architectural or urban designs. What made Le Corbusier's work stand out from other architects at the time was that he was a one man band so to speak. The synthesis of the arts took place within a hermetic world of his own visual vocabulary applied to all levels of design.

## Notes to Chapter 1

<sup>1</sup> Paul Damaz was trained at L'École Spéciale d'Architecture and at L'Institut d'Urbanisme of the University of Paris. After the war he worked for Auguste Perret and became associate editor of L'Architecture d'aujourd'hui. In 1947 he moved to New York to join the team of designer's of the United Nations Planning Commission. From 1950 to 1952 he worked for the firm of Harrison and Abramovitz. In the United States he became a permanent correspondent for L'Architecture d'aujourd'hui and L'Art d'aujourd'hui.

<sup>2</sup> Paul Damaz, Art in European Architecture, Synthèse des Arts (New York: Reinhold, 1956), p. 9. Also see Sigfried Giedion, A Decade of New Architecture (Zurich: Girsberger, 1951), p. 34.

<sup>3</sup> Following the publication of Art in European Architecture, Synthèse des Arts Damaz wrote another comprehensive survey book with Latin American examples of the synthesis of the arts: Art in Latin American Architecture, preface by Oscar Niemeyer (New York: Reinhold, 1963). For the best survey book of examples of the synthesis of the arts in the United States at the time see Eleanor Bitterman, Art in Modern Architecture (New York: Reinhold, 1952).

<sup>4</sup> Sigfried Giedion, Space, Time and Architecture: The Growth of a New Tradition, 5th ed. (Cambridge, MA: Harvard University Press, 1982).

<sup>5</sup> *Ibid.*, forward to the 1st ed., p. vi.

<sup>6</sup> Sokratis Georgiadis, Sigfried Giedion: An Intellectual Biography, translated by Colin Hall (Edinburgh: Edinburgh University Press, 1993), p. 99. Originally published as Sigfried Giedion: Eine Intellektuelle Biographie (Zurich: Ammann Verlag, 1989). See Jean-Louis Cohen's review of the book in the Journal of the Society of Architectural Historians (June, 1998), pp. 202-211.

<sup>7</sup> Giedion, Space, Time and Architecture, pp. 13-14. Also quoted in part in Giedion, Architecture, You and Me: The Diary of a Development (Cambridge, MA: Harvard University Press, 1958), p. 13.

<sup>8</sup> *Ibid.*, pp. 211-218.

<sup>9</sup> Sigfried Giedion, Mechanization Takes Command: A Contribution to Anonymous History (New York: Oxford Press, 1948), p. 715.

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*, p. v.

<sup>12</sup> *Ibid.*, pp. 720-721.

<sup>13</sup> Sigfried Giedion, Architecture, You and Me: The Diary of a Development (Cambridge, MA: Harvard University Press, 1958).

<sup>14</sup> Some architects and artists perceived Americans in a negative way for promoting an aesthetic world governed by economics. See Damaz, Art in European Architecture, Synthèse des Arts, p. 16, and Fernand Léger, "The Wall, the Architect, the Painter," Functions of Painting (New York: The Viking Press, 1973), p. 94.

<sup>15</sup> Le Corbusier, Towards a New Architecture, translated by Frederick Etchells (New York/London: Holt, Rinehart and Winston, 1960), p. 140. Originally published as Vers une architecture (Paris: Editions Crès, 1923).

<sup>16</sup> Jean Petit, Le Corbusier lui-même (Geneva: Editions Rousseau, 1970), p. 54. For a description of Léger's first impressions of Le Corbusier see Robert Doisneau and Jean Petit, Bon jour Monsieur Le Corbusier (Zurich: Hans Grieshaber, 1988), n.p.

<sup>17</sup> Stanislaus von Moos, Le Corbusier: Elements of a Synthesis (Cambridge, MA: MIT Press, 1983), p. 282. For a concise overview of Le Corbusier as a painter see Christopher Green, Chapter 2, "The Architect as Artist," in Le Corbusier Architect of the Century (London: Arts Council of Great Britain, 1987), pp. 110-157.

<sup>18</sup> Douglas Cooper, Fernand Léger et le nouvel espace (London: Lund Humphries and Paris: Editions des trois collines, 1949), p. 1.

<sup>19</sup> Françoise Ducros, "Léger, (Fernand)," Le Corbusier une encyclopédie (Paris: Centre Georges Pompidou, 1987), p. 231.

<sup>20</sup> The critic Walderman George referred to this work in a disapproving comment: "The ensemble project for a hall by Josef Csaky has been spoiled by Léger's polychrome.... Instead of animating it, the painter punches holes, cuts it up, fragments and destroys the flat harmony of the wall," see Christopher Green, "Painting for the Corbusian Home: Fernand Léger's Architectural Paintings, 1924-26," Studio International (Sept.-Oct., 1975), pp. 103-107.

<sup>21</sup> Le Corbusier, "Salon d'Automne -- Déductions consécutives troublants," L'Esprit Nouveau, no. 19 (Dec., 1923). Translated by author from French text: "Léger -- Avez-vous remarqué chez Rosenberg l'Exposition des architectes Hollandais?"

X -- Ils vous doivent une fameuse graine. (Léger passe par dessus le problème technique de l'architecture qui n'est pas son affaire. Et il vaut mieux, car la

manifestation intéressante des Hollandaise se limite strictement à une question d'esthétique.)

Léger -- Ces maisons polychromes sont intéressantes?

X -- Je ne partage pas votre avis, la polychromie à l'extérieur produit les effets du camouflage; elle détruit désarticule, devise, donc va à l'encontre de l'unité. Mais par contre, à l'intérieur, les Hollandais exploitent une formule qui n'est pas tout à fait neuve, mais qui mérite la plus grande attention. C'est là, Léger, que votre peinture fait école.

Léger -- Un mur rouge, un mur bleu, un mur jaune, un sol noire ou bleu ou rouge ou jaune, je vois toute une transformation du décor intérieur.

X -- Oui, un mur rouge qui est fixe, un mur bleu qui fuit, un mur chaud, un mur froid, etc. Voilà des éléments de l'architecture et dont l'immense dehors ne perturbe ni la qualité, ni les rapports.

Léger -- Voilà le problème qui me passionnerait. Ah, architecture ainsi une banque, pas des plans de couleurs!

X -- Vous admettez donc que les surfaces colorées demeureraient entières ou à peu près; qu'en tout cas elles ne devraient pas être décorées comme vous en avez essayé aux derniers Indépendants avec (Josef) Csaky?

Léger -- Parfaitement, là était l'erreur: il faut que les murs soient des entiers qui entrent comme des unités dans l'équation.

X -- Vous admettez que ce serait là l'oeuvre qui vous ravait, mais alors vous ne pourriez plus signer au bas du cadre?

Léger -- Bien sûr, et ce serait tant mieux. Voilà un signe des temps, tout un côté du problème peintre-architecture qui s'énonce."

<sup>22</sup> For further commentaries on Le Corbusier's response to this exhibition see Yve-Alain Bois and Nancy Troy, "De Stijl et l'architecture à Paris," De Stijl et l'architecture en France, Yve-Alain Bois, Jean-Paul Rayon, and Bruno Reichlin, eds. (Liège: Pierre Madarga Editeur, 1985), p. 52, and Matthew Affron, Fernand Léger and the Spectacle of Objects (Ann Arbor: UMI Dissertation Services, 1994), pp. 176-177.

<sup>23</sup> Le Corbusier, "L'Architecture et Fernand Léger," Masters of Modern Art - Fernand Léger (New York: Publications of the Institute of French Studies, Columbia University, 1929), pp. 21-24.

<sup>24</sup> *Ibid.*, p. 24. Translated by author from French text: "Les pièces ne sont plus carrées; elles se pénètrent, se continuent; certains de leurs murs s'étendent, d'autres se roulent en cylindres, en spirales.... et la couleur avec ses vertus spécifiques (le bleu créant de l'extase, le rouge fixant le plan, etc.) vient mettre un ordre, une densité, une lumière, une lyrique intense. C'est une acquisition de l'architecture moderne. Des murs colorés entrent dans l'équation comme des entiers."

<sup>25</sup> Léger, "The Wall, the Architect, the Painter," (unpublished text presented at a conference at the Kunsthaus in Zurich in 1933), in Functions of Painting, translated by Alexandra Anderson, Edward F. Fry, ed. (New York: The Viking Press, 1973), pp. 91-99.

<sup>26</sup> Le Corbusier, "Sainte alliance des arts majeurs ou le grand art en gésine," La Bête noire (July 1, 1935), p.1. Also in L'Architecture d'aujourd'hui (July, 1935), p. 86.

<sup>27</sup> Convegno di Arti -- 25-31 ottobre 1936 -- XIV Thema: Rapporti dell'Architettura con le Arti Figurative (Rome: Reale Accademia d'Italia, 1937). For a shorter version see "Peinture, sculpture et architecture rationaliste," Le Corbusier Savina: Dessins et sculptures (Paris: Philippe Sers, 1984), pp. 12-21.

<sup>28</sup> Le Corbusier, "Destin de la peinture," La Querelle du réalisme (Paris: Editions Sociales Internationales, 1936), pp. 80-91. Reprinted in various English translations such as "Architecture and the Arts," Transition, no. 25, (Fall, 1936). Also in Le Corbusier: Architect, Painter, Writer, Stamo Papadaki, ed. (New York: Macmillan), 1948, pp. 141-145. Also in "Special Issue: The Visual Arts Today," Daedalus (Winter, 1960), pp. 46-51. A slightly longer version can be found in "The Quarrel with Realism: The Destiny of Painting," Circle, International Survey of Constructive Art, J.L. Martin, B. Nicholson, and N. Gabo, eds. (London: Faber and Faber, 1937, reprinted, New York: Praeger, 1971), pp. 67-74. Also in The Visual Arts of Today, Gyorgy Kepes, ed. (Middleton: Wesleyan, 1960), pp. 46-51.

<sup>29</sup> The basic formulation of a synthesis of the arts under the pretext of architecture can be traced back to 1920's writings for both authors. Léger in a 1924 essay, "Le Spectacle: Lumière, couleur, image mobile, objet spectacle," for a lecture for the Groupe d'Etudes Philosophiques et Scientifiques pour l'Examen des Idées Nouvelles at the Sorbonne on May 31, in Functions of Painting, pp. 131-143, and Le Corbusier in L'Art décoratif d'aujourd'hui of 1925. For a closer look at Le Corbusier's early writings on the subject see Jinkouk Jeong, L'Oeil et le mur, l'origine de la polychromie architecturale de Le Corbusier 1923-1931, Ph.D. dissertation, Ecole des Hautes Etudes en Sciences Sociales, Paris (June, 1993).

<sup>30</sup> This short lived journal -- from the first number of April 1935, to the eighth number of February 1936 -- was founded by Tériade and Maurice Raynal when they lost their position at L'Intransigeant due to administrative changes. Their idea was to create a small journal, similar to Minotaure, where they could express their ideas freely. Michel Leiris gave it its name and André Breton designed it. They declared the intention of the journal to be as follows: "La Bête noire is directed against all the 'slackers' of the modern spirit. And also against its profiteers. It seeks only to authenticate and to give

value to these new elements of this spirit." Translated by author from French text: "La Bête noire est dirigée contre les 'lâcheurs' de l'esprit moderne. Et aussi contre ses profiteurs. Elle ne cherche qu'à authentifier et à mettre en valeur les éléments nouveaux de cet esprit." See Hommage à Tériade (Paris: Centre National d'Art Contemporain, 1973), pp. 7-15.

<sup>31</sup> This is an early use of the word "indicible" in Le Corbusier's writings which he later coined in the term "espace indicible" or "ineffable space" to describe his postwar architecture.

<sup>32</sup> In an earlier publication, "La Crise des arts plastiques: Monsieur Le Corbusier envisage la question des matériaux colorés et revêtement," Excelsior (Dec., 29, 1932), p. 3, Le Corbusier differentiated the constructive role of polychrome in architecture as compared to painting. Polychrome was understood as an element of architecture that could "camouflage" the wall while painting was introduced into the architecture as a separate element.

<sup>33</sup> The three publications by Taut in Le Corbusier's library were: Der Weltbaumeister (Hagen: Folkwang Verlag, 1920); Die Auflösung der Städte (Hagen: Folkwang Verlag, 1920); and Das Frühlicht (Magdeburg: Karl Peters Verlag, Winter 1921/1922).

<sup>34</sup> See Rosemarie Haag Bletter, "Expressionsim and the New Objectivity," Art Journal (Summer, 1983), pp. 108-120, for a more detailed account of Taut's use of architectural polychromy in various projects and for other sources on the subject.

<sup>35</sup> H. Allen Brooks, Le Corbusier's Formative Years: Charles-Edouard Jeanneret at La Chaux-de-Fonds (Chicago/London: The University of Chicago Press, 1997), p. 210.

<sup>36</sup> Le Corbusier, "Peinture, sculpture et architecture rationaliste," Convegno di Arti -- 25-31 ottobre 1936 -- XIV Thema: Rapporti dell'Architettura con le Arti Figurative, p. 102. Translated by author from French text: "Le monde éclate devant la civilisation machiniste! Une nouvelle civilisation est en éclosion."

<sup>37</sup> *Ibid.*, p. 104. Translated by author from French text: "Cette nouvelle civilisation comporte une connaissance illimitée de toutes manifestations de la pensée humaine à travers le temps et l'espace: folklores et oeuvres de haute époque. Enquête prodigieuse."

<sup>38</sup> At the "Entretien international: Les Arts contemporains, et la réalité, l'art et l'état" that was sponsored by the Institut International de Coopération Intellectuelle in Venice in July 1934, Le Corbusier presented his thoughts on

the interdependence of the machine age and art and architecture. This new collaboration between technology and art exemplified a cultural rebirth. See Le Corbusier, "Entretien international: Les Arts contemporains, et la réalité, l'art et l'état," FLC (Fondation Le Corbusier), B3-13. In addition, Le Corbusier described this new machine civilization as technology affecting every aspect of life and art. His desire was to produce a unified theory based on technology where harmony would reign in the transformation of society. With this premise he proposed his urban plans for the "Ville Radieuse." Here nature -- "sun, space, trees: law of urbanism" -- and technology would be in harmonious rapport. See Le Corbusier, "Espoir de la civilisation machiniste le logis," Europe (May 15, 1938), pp. 91-98.

<sup>39</sup> Le Corbusier, "Peinture, sculpture et architecture rationaliste," Convegno di Arti -- 25-31 ottobre 1936 -- XIV Thema: Rapporti dell'Architettura con le Arti Figurative, p. 108-9. Translated by author from French text: "Le débat n'est pas autour de fanfreluches décoratives, autour de ratatouilles pictorales, ou de pâtisseries plastiques. L'humanité est projetée dans les Temps Nouveaux. Les arts, expression de la conscience même, seront, neuf."

<sup>40</sup> *Ibid.*, p. 110. Translated by author from French text: "L'architecture est le jeu savant, correct et magnifique des formes sous la lumière."

<sup>41</sup> *Ibid.*, p. 113. Translated by author from French text: "l'architecture est une activité s'étendant à toute construction assujettie aux lois de la vision."

<sup>42</sup> *Ibid.*, p. 115. Translated by author from French text: "La polychromie architecturale est autre chose; elle s'empare de mur entier et le qualifie avec la puissance du sang, ou fraîcheur de la prairie, ou l'éclat du soleil, ou la profondeur du ciel ou de la mer. Quelles forces disponibles! C'est de la dynamique, comme je pourrais écrire: de la dynamite, tout aussi bien, avec mon peintre introduit dans la maison. Si tel mur est, il fuit; s'il est rouge, il tient le plan, ou brun; je peux le peindre noir, ou jaune."

<sup>43</sup> See Le Corbusier, "Esprit de vérité," Mouvement (June, 1933), pp. 10-13. Le Corbusier wrote about the potential of film, as an extension of the human eye, to discover the truth in life. He referred to documentaries on nature that through different applications such as fast and slow speed film techniques could reveal the mysteries of the universe that lay beyond human perception. Thus Le Corbusier praised the camera as a machine for bringing consciousness through new visual techniques. In the same year Léger also published an article on film: "A Propos du cinéma," Cahiers d'art, no. 3-4 (1933), n.p. Like Le Corbusier, he saw the possibilities of film to produce new visual effects creating a new kind of poetry that could transform the world.

<sup>44</sup> Amédée Ozenfant, "Divorce de l'architecture et de la peinture,"

Encyclopédie française, vol. 16, Pierre Abraham, ed., Paris (1935), pp. 70-2 to 70-6.

<sup>45</sup> Susan Ball, Ozenfant and Purism (Michigan: Research Press, 1978, 1981), p. 23.

<sup>46</sup> Louis Aragon, a discussion on "Painting and Reality" in Transition (Fall, 1936), pp. 93-103.

<sup>47</sup> Fernand Léger, a discussion on "Painting and Reality" in Transition (Fall, 1936), pp. 104-108.

<sup>48</sup> *Ibid.*, p. 107.

<sup>49</sup> *Ibid.*

<sup>50</sup> Le Corbusier, "Polychromie architecturale," unpublished typescript (1931), FLC, B1-18. Le Corbusier, Claviers de couleurs (Basel: Salubra, 1931). For further analysis of Le Corbusier's ideas on color see two essays by Luisa Martina Colli, "Le Corbusier e il colore: I Claviers Salubra," Storia dell'Arte, no. 45 (1981), pp. 271-294, and "Couleur – Vers une polychromie architecturale," Le Corbusier une encyclopédie (Paris: Centre Georges Pompidou, 1987), pp. 104-110; also see Christopher Green, "The Architect as Artist," Le Corbusier Architect of the Century (London: Arts Council of Great Britain, 1987), p. 123, and various essays from the symposium Le Corbusier et la couleur (Paris: Fondation Le Corbusier, 1992).

<sup>51</sup> *Ibid.* Translated by author from French text: "L'homme a besoin de couleur por vivre; c'est un élément aussi nécessaire que l'eau ou le feu."

<sup>52</sup> Le Corbusier, "Fernand Léger," Cahiers d'art, no. 3-4 (1933), n.p.

<sup>53</sup> *Ibid.* Translated by author from French text: "Le tumulte va naître des mouvements en avant ou en arrière des couleurs. Il compose avec cette dynamique-là. Des ses aspirations architecturales il a gardé l'angle d'riot qui ordonne cette circulation avant-arrière de la couleur. Cette peinture et soeur de l'architecture."

<sup>54</sup> Léger, "The Wall, the Architect, the Painter," Functions of Painting, pp. 91-99.

<sup>55</sup> Léger, "The Human Body Considered as an Object," (1945), pp. 132-136, and "The Circus," (Le Cirque, Paris, 1950), pp. 170-177, both in Functions of Painting.

<sup>56</sup> Léger, "The Wall, the Architect, the Painter," Functions of Painting, pp. 96-97.

<sup>57</sup> For an analysis of the Pavillon de L'Esprit Nouveau see Green, "Painting for the Corbusian Home: Fernand Léger's Architectural Paintings, 1924-26," Studio International, no. 190 (Sept.-Oct., 1975), pp. 103-107, and for a fuller account of the construction and significance of this work see Christopher Green, Chapter 9, "Léger and the Purist Esprit Nouveau, 1920-25," pp. 250-285, and Chapter 10, "Painting and Architecture: Léger's Modern Classicism and the International Avant-garde," pp. 286-309, both in Léger and the Avant-garde (New Haven/London: Yale University Press, 1976). Also see Rosalind Krauss, "Léger, Le Corbusier and Purism," Art Forum, no. 10 (April, 1972), pp. 50-53.

<sup>58</sup> See Jean Badovici, "Peinture murale ou peinture spatiale," L'Architecture d'aujourd'hui (March, 1937), pp. 75-78. Badovici described each of the murals by Le Corbusier and Léger as "style d'espace" suggesting that they create space around themselves through the use of dynamic forms and color.

<sup>59</sup> For another look at Léger's association with Le Corbusier see Affron, Fernand Léger and the Spectacle of Objects, Chapter 6, "Colored Walls: Léger and Le Corbusier on the Functionalist Urbanism and Rationalist Architecture," pp. 174-191.

<sup>60</sup> Joan Ockman with Edward Eigen, eds., "Nine Points on Monumentality," Architecture Culture 1943-1968 (New York: Rizzoli, 1993), pp. 27-30.

<sup>61</sup> *Ibid.*, p. 29.

<sup>62</sup> *Ibid.*, p. 30.

<sup>63</sup> Léger, "Modern Architecture and Color," (1946), Functions of Painting, pp. 149-154, reprinted in Formes et vie: Revue trimestrielle de synthèse des arts, no. 1 (1951), pp. 24-28.

<sup>64</sup> *Ibid.*, pp. 150-151.

<sup>65</sup> When asked how he would have organized the 1937 Exposition, Léger described a multi-colored environment turning into a spectacle at night by different kinds of illumination and film projections directed on to the buildings and monuments. See Fernand Léger, "Reponse à une enquête: Que feriez-vous aviez à organiser l'Exposition de 1937?" VU, Paris, no. 387 (1935). Also in 1937, Exposition Internationale des Arts et des Techniques (Paris: Centre George Pompidou, Musée National d'Art Moderne, 1979), p. 7.

<sup>66</sup> Le Corbusier, "A Propos des peintures murales à l'exposition de 1937," (unpublished 1937), 1937, Exposition International des Arts et des Techniques, pp. 12-13.

<sup>67</sup> Ibid., p. 13. Translated by author from french text: "La polychromie architecturale; elle éclate dans l'emploi des rhodoïdes de couleur en arc-en-ciel déployant leurs volutes dans le hall de l'aviation. Puis on retrouve le peintre avec ses excellents collaborateurs dans d'énormes peintures murales qui toutes sont faites avec une grande maîtrise et où le phénomène coloré a été ordonnancé par chromiste qui comprend les ressources d'espace et de lyrisme que peut donner la couleur. Tout ceci exprimant grâce aux judicieux rapports de couleur, une joie, une espèce d'explosion printanière, un élargissement des espaces."

<sup>68</sup> Léger, "Mural Painting and Easel Painting," (unpublished 1950), pp. 160-164, and "Mural Painting," (Derrière la miroir, Paris, 1952), pp. 178-180, both in Functions of Painting.

<sup>69</sup> For an excellent overview of Léger's architectural collaborations in mural paintings see Simon Willmoth, "Le Mur, l'architect, le peintre Fernand Léger et ses collaborations artistiques 1925-1955," in Fernand Léger, Hélène Lassalle and Joëlle Pijaudier, eds. (Milan: Mazzotta, 1990), pp. 45-58.

<sup>70</sup> Léger, "Color in Architecture" (Problèmes de la couleur, Paris, 1954), in Functions of Painting, pp. 186.

<sup>71</sup> Le Corbusier, New World of Space (New York: Reynal and Hitchcock, 1948), p. 103.

<sup>72</sup> Ockman with Eigen, eds., Architecture Culture 1943-1968, p. 65. Translated by author from French text: "C'est une épopée plastique qui commence."

<sup>73</sup> "L'Espace indicible," L'Architecture d'aujourd'hui, special issue "Art" (Jan., 1946), pp. 9-10. Also in Les Grands courants de la pensée mathématique (Paris: F. Le Lionnai, 1948, 1962), p. 480. Also in Le Corbusier Savina: Dessins et sculptures (Paris: Philippe Sers, 1984), pp. 23-24. Translated into English in New World of Space (New York: Reynal and Hitchcock, 1948), pp. 7-8. Also in The Modulor 2 (London: Faber and Faber, 1958), pp. 25-27, and in Architecture Culture 1943-1968, Ockman with Eigen, eds., pp. 64-67. Translated into Spanish in Revista de arquitectura, no. 32 (Sept., 1947), pp. 317-327. See FLC, B3-7, pp. 1-128, for 1959 unpublished version.

<sup>74</sup> Le Corbusier, "L'Espace indicible," New World of Space, p. 8.

<sup>75</sup> Ibid.

<sup>76</sup> See Linda Dalrymple Henderson, The Fourth Dimension and Non-Euclidean Geometry in Modern Art (Princeton: Princeton University Press, 1983), pp. 74-102.

<sup>77</sup> Ibid.

<sup>78</sup> Jack Flam, Matisse on Art (New York: Phaidon, 1973). See interview with Georges Charbonnier, p. 139.

<sup>79</sup> Giedion, Space, Time and Architecture, see sections "The New Space Conception: Space-Time," pp. 430-433, and "The Research into Space: Cubism," pp. 434-442.

<sup>80</sup> Le Corbusier, Modulor 1 and 2, translated by Peter de Francia and Anna Bostock (Cambridge, MA: Harvard University Press, 1980). See Chapter on Modulor 2, a footnote to the text, p. 27.

<sup>81</sup> Ibid.

<sup>82</sup> For other interpretations of "ineffable space" see Mogens Krusturp, "The Ineffable Space," Arkitekturtidsskrift B, no. 50, pp. 53-77, and Daniel Naegele, "Photographic Illusionism and the New World of Space," in the exhibition catalogue Le Corbusier Painter and Architect (Denmark: Nordjllands Kunstmuseum, 1995), pp. 103-113. Also see Arnaldo Rivkin, "Indicible (Espace)," Le Corbusier une encyclopédie, p. 189.

<sup>83</sup> Le Corbusier, New World of Space (New York: Reynal and Hitchcock, 1948).

<sup>84</sup> Le Corbusier, "Unité," L'Architecture d'aujourd'hui, special issue (1948).

<sup>85</sup> Le Corbusier, "L'Architecture et l'esprit mathématique," Les Grands courants de la pensée mathématique (Paris: F. Le Lionnai, 1948, 1962), p. 480.

<sup>86</sup> Le Corbusier, Le Modulor (Boulogne-sur-Seine: Editions de L'Architecture d'Aujourd'hui, 1950). First English edition by London: Faber and Faber, 1954.

<sup>87</sup> Le Corbusier, Modulor 2 (Boulogne-sur-Seine: Editions de L'Architecture d'Aujourd'hui, 1955). First English edition by London: Faber and Faber, 1958.

<sup>88</sup> Quote in Krusturp, "The Ineffable Space," Arkitekturtidsskrift B, p. 54, taken from "L'Espace indicible," FLC, B3 -7, p. 1. The quote implies that the book on "ineffable space" could have a large circulation and influence.

- <sup>89</sup> Dario Matteoni, "Tracés régulateurs," Le Corbusier une encyclopédie, pp. 409-414.
- <sup>90</sup> Paul V. Turner, The Education of Le Corbusier: A Study of Le Corbusier's Thought, 1900-1920 (New York: Garland, 1977), and "The Beginnings of Le Corbusier's Education, 1902-1907," Art Bulletin (June, 1971), pp. 214-224.
- <sup>91</sup> Henry Provensal, L'Art de demain (Paris: Perrin, 1904).
- <sup>92</sup> Edouard Schuré, Les Grands initiés (Paris: Perrin, 1908).
- <sup>93</sup> A term Le Corbusier used in the publication of Le Corbusier. Oeuvre plastique. Peintures et dessins. Architecture, Jean Badovici, ed. (Paris: Editions Albert Morancé, 1938).
- <sup>94</sup> Le Corbusier, Modulor 1 and 2, p. 260.
- <sup>95</sup> Rudolf Wittkower, Architectural Principles in the Age of Humanism, 6th and 7th eds. (New York/London: Norton, 1962, 1971).
- <sup>96</sup> Rudolf Wittkower, "Le Corbusier's Modulor," Four Great Makers of Modern Architecture (New York: Columbia University, 1961), pp. 196-204.
- <sup>97</sup> Colin Rowe, "The Mathematics of the Ideal Villa: Palladio and Le Corbusier Compared," Architectural Review (March, 1947), republished in The Mathematics of the Ideal Villa and Other Essays (Cambridge, MA: MIT Press, 1976), pp. 1-27.
- <sup>98</sup> Danièle Pauly, "The Chapel of Ronchamp as an Example of Le Corbusier's Creative Process," Le Corbusier: Ronchamp, Maison Jaoul and Other Buildings and Projects (New York: Garland Publishing Inc., 1983), p. 21.
- <sup>99</sup> Ibid.
- <sup>100</sup> Le Corbusier, "Unité," p. 7. Translated by author from French text: "Alors un phénomène de cohésion remplacera le hiatus présent. Le vrai problème sera posé: celui de l'art en toutes choses. La discrimination s'opérera: l'art est la manière de faire, de bien faire, de très bien faire. Les arts majeurs retrouveront leur raison d'être. La synthèse des arts majeurs s'opérera.... L'harmonie, ce mot magique des béatitudes, est un mot de synthèse et c'est le mot de demain."
- <sup>101</sup> Ibid., p. 11. Translated by author from French text: "Mais où commence la sculpture, où commence la peinture, ou commence l'architecture? A l'une

des extrémités de leurs trois branches on voit la statue, le tableau, le palais ou le temple. Mais dans le corps même de l'événement plastique tout n'est qu'unité: sculpture - peinture - architecture: volume (sphères, cônes, cylindres, etc...) et polychromie, c'est-à-dire des matières, des qualités, des consistances spécifiques assemblées dans des rapports d'une nature émouvante. Le corps du domaine bâti est l'expression des trois arts majeurs solidaires."

<sup>102</sup> For an in-depth account of Le Corbusier's politics from the 1930's through the war years see Mary McLeod, Urbanism and Utopia: Le Corbusier from Regional Syndicalism to Vichy (Ann Arbor: UMI Dissertation Services, 1985).

<sup>103</sup> During this time period in 1943 Le Corbusier wrote La Maison des hommes (with Pierrefieu), The Chartes d'Athènes and Entretiens avec étudiants des écoles d'architecture, and in 1944 he wrote Les Trois établissements humains and Propos d'urbanisme.

<sup>104</sup> Le Corbusier oeuvre complète, 1952-1957, vol. 6 (Zurich: Boesinger, 1957), p. 11.

<sup>105</sup> Jaime Coll, "Le Corbusier. Taureaux: An Analysis of the Thinking Process in the Last Series of Le Corbusier's Plastic Work," Art History (Dec., 1995), pp. 558-560.

<sup>106</sup> Le Corbusier, L'Atelier de la recherche patiente (Paris: Vincent Fréal, 1960). Translated by James Palmes as Creation is a Patient Search (New York: Praeger, 1960).

<sup>107</sup> Pauly, "The Chapel of Ronchamp as an Example of Le Corbusier's Creative Process," Le Corbusier: Ronchamp, Maison Jaoul and Other Buildings and Projects, p. 13.

<sup>108</sup> Le Corbusier, Texts and Sketches for Ronchamp (Geneva: Association oeuvre de N.D. du Haut, 1984), p. 5.

<sup>109</sup> Le Corbusier oeuvre complète, 1946-1952, vol. 5 (Zurich: Boesinger, 1953), p. 225.

<sup>110</sup> Ibid.

<sup>111</sup> Ronchamp was seen by many critics to be in violent opposition to Le Corbusier's previous ideas and works, and was interpreted as a highly irrational building moving away from the modern movement. Its expressionistic qualities shocked James Stirling and Nikolaus Pevsner. Stirling in "Ronchamp: Le Corbusier's Chapel and the Crisis of Rationalism,"

Architectural Review, vol. 119 (March, 1956), p. 155-161, questioned whether it would have an important influence on the course of modern architecture, he stated: "The sensational impact of this chapel on the visitor is significantly not sustained for any great length of time and when the emotions subside there is little to appeal to the intellect, and nothing to analyze or stimulate curiosity. This entirely visual appeal and lack of intellectual participation demanded from the public may partly account for its easy acceptance by the local population." Pevsner in An Outline of European Architecture (Harmondsworth: Penguin Books, 1963), p. 429, stated: "Le Corbusier has changed the style of his own buildings completely, and the pilgrimage chapel of Ronchamp.... is the most discussed monument of a new irrationalism." Both Stirling and Pevsner seemed to be caught within the rationale of the modern movement and could not see the connections that existed between Ronchamp and Le Corbusier's earlier works nor were they open to accept its pure poetic expression charged with hidden symbolic content.

<sup>112</sup> See Pauly, "The Chapel of Ronchamp as an Example of Le Corbusier's Creative Process," Le Corbusier: Ronchamp, Maison Jaoul and Other Buildings and Projects, for more examples of sources from Le Corbusier's visual memory that influenced the design of Ronchamp.

<sup>113</sup> Stanislaus von Moos, Le Corbusier: Elements of a Synthesis (Cambridge, MA: MIT Press, 1983), p. 306. Also see Alexander Gorlin, "The Ghost in the Machine: Surrealism in the Work of Le Corbusier," Perspecta, MIT Press, (1982), pp. 51-65, and Richard Becherer, "Chancing it in the Architecture of Surrealist Mise-En-Scène," Modulus 18, The University of Virginia (1987), pp. 63-87.

<sup>114</sup> Le Corbusier, When the Cathedrals Were White, translated into English by Francis E. Hyslopas (New York: McGraw Hill, 1964), pp. 146-147.

<sup>115</sup> William Rubin, and Carolyn Lancher, André Masson (New York: Museum of Modern Art, 1971), p. 130.

<sup>116</sup> Anna Balakian, André Breton, Magus of Surrealism (New York: Oxford University Press, 1971), p. 44.

<sup>117</sup> Le Corbusier oeuvre complète, 1946-1952, vol. 5, p. 72.

<sup>118</sup> There are very few critical studies of Le Corbusier's plastic works. The problem with this lack of research and the main reason for it that has been echoing through time is well put by Richard Ingersoll: "It is precisely because of his importance as an architect that Le Corbusier's artistic production has not been considered seriously; critics and architects generally treat it as an amusing digression. Ironically, it is quite possible to appreciate the art works

independently of Le Corbusier's architecture, but what is not possible is to understand his architecture separately from his art. Le Corbusier had none of the technical mastery or range of his Parisian contemporaries, Fernand Léger and Pablo Picasso. Nor did his painter's vision give vision to others, except during the brief period of his partnership with Amédée Ozenfant." (Le Corbusier: A Marriage of Contours [New York: Princeton Architectural Press, 1990], p. 1.) As Jaime Coll has pointed out, many references have been made to Le Corbusier's plastic work in the writings of Giedion, Summerson, Banham, Rowe and Slutzky, Moos, Petit, Tafuri and Dal Co, Sekler, Moore, and Kustrup, but a comprehensive study of Le Corbusier's pictorial work in relationship to his architecture is still missing. Coll, up to now, has accomplished the most in-depth analysis of Le Corbusier's paintings after World War II which give invaluable insight into the development of his postwar architectural works, see Le Corbusier: La Forma Acustica, Ph.D. dissertation, Universitat Politècnica de Catalunya, Barcelona (March, 1994). Subsequently Coll has published two articles: "Le Corbusier. Taureaux: An Analysis of the Thinking Process in the Last Series of Le Corbusier's Plastic Work," Art History, pp. 537-567, and "Structure and Play in Le Corbusier's Art Work," AA Files (Summer, 1996), pp. 3-14.

<sup>119</sup> Green, "The Architect as Artist," Le Corbusier Architect of the Century, pp. 125-126.

<sup>120</sup> Moos, Le Corbusier: Elements of a Synthesis, p. 287.

<sup>121</sup> Coll, "Structure and Play in Le Corbusier's Art Work," AA Files, p. 10.

<sup>122</sup> June 25, 1958 letter from Le Corbusier to Ronald Alley from the "Dossier Tate" at the FLC, see Coll, "Le Corbusier. Taureaux: An Analysis of the Thinking Process in the Last Series of Le Corbusier's Plastic Work," Art History, translated into English by Coll, p. 562.

<sup>123</sup> Le Corbusier, The Chapel at Ronchamp (New York: Frederick Praeger, 1957), p. 6.

<sup>124</sup> As early as 1921 Le Corbusier was already formulating his concept of the right angle. In number 18 publication of L'Esprit Nouveau (Nov., 1923) he contributed an article entitled "L'Angle droit." From the beginning of Le Corbusier's architectural career the right angle can be interpreted as a perfect symbol representative of the dualistic forces between the horizontal and the vertical lines. See Le Corbusier, Le Poème de l'angle droit (Paris: Editions Verve, 1955, reprint, Paris: Fondation Le Corbusier/Editions Connivences, 1989).

<sup>125</sup> Le Corbusier oeuvre complète, 1946-1952, vol. 5, p. 241.

<sup>126</sup> Ingersoll, Le Corbusier: A Marriage of Contours, pp. 7-37.

## **Chapter 2 - Discussions on the Synthesis of the Arts in the Context of Postwar Conferences**

### **Preface**

Ideas about the synthesis of the arts in the postwar years were woven by architects, artists, and planners into a number of complex issues of modern architecture addressed at various international symposia and conferences. These issues included looking at the urban community center as the locus for a synthesis of the arts, developing a new monumentality appropriate for the times, advocating team collaboration between architects and artists, and addressing the relationship between the common man and modern art.

The CIAM, spanning over thirty years from 1928 to 1959, stands out as the most significant international forum in which the major figures of modern architecture such as Le Corbusier, Sigfried Giedion, Walter Gropius, and José Luis Sert discussed their ideas. The CIAM serves as a good chronometer of the development of the history of modern architecture in relationship to urban planning. Although the theme of aesthetics, always present in Le Corbusier's polemic, was not an integral part of the first CIAM debates, the pre-war CIAM conferences set the background for the issues of urban planning within which the postwar synthesis was to occur. Following a brief overview of the first five CIAM Congresses this dissertation will explore, in chronological order, seven significant conferences that addressed issues around the synthesis of the arts starting at the end of the war: the New

Architecture and City Planning Symposium (1944), the Sixth CIAM Congress (1947), the What is Happening to Modern Architecture? Symposium (1948), the In Search of a New Monumentality Symposium (1948), the Seventh CIAM Congress (1949), the Eighth CIAM Congress (1951), and the Unesco Venice Conference on the Arts (1952).

### **Prewar CIAMs**

The first CIAM was founded in June of 1928 at the Châteaux of La Sarraz in Switzerland owned by Madame Hélène de Mandrot, a wealthy French-Swiss woman who aspired to be a patron of modern design. This session was called as a direct consequence of the selection of an academic design and the rejection of Le Corbusier's project for the palace of the League of Nations competition which was favored by modernists at the time. Twenty-four architects from seven different European countries gathered under the leadership of Giedion and Le Corbusier, who wrote the preparatory document stating "the aim of the First Congress is to establish a program of action to drag architecture from the academic impasse and to place it in its proper social and economic milieu."<sup>1</sup> Their intention was to create a forum in which issues of modern architecture and urbanism could be examined by subjecting them to comparative inquiries and debate.<sup>2</sup> The early CIAM debates were principally concerned with the themes of urbanism, economics, and politics.<sup>3</sup>

The Second CIAM Congress, which took place in Frankfurt-am-Main

in 1929, was summoned by Ernst May who focused the attention of the meeting on the problem of low income housing from which resulted the significant report, Die Wohnung für das Existenzminimum<sup>4</sup> (1930). The Third CIAM Congress, held in Brussels in 1930 and organized by Victor Bourgeois, dealt with the problems of land organization for housing whose outcome was the publication of another important report, Rationelle Bebauungsweisen<sup>5</sup> (1931). By this time, CIAM was established as a group of international architects who represented the key to the development of ideas in urban planning. Yet there were increasing organizational difficulties which prompted the call for the design of a standardized method of presentation to be used by the CIAM members. The Dutch group, under Cornelius van Eesteren, was put in charge of this endeavor and met three times until it produced a satisfactory scheme, delaying the next plenary congress for approximately three years. This delay, coupled with the fall of Weimar Germany in 1933, marked a definitive change in the development of the next landmark meeting of the CIAM.

The Fourth CIAM Congress took place in July 29 to August 13 of 1933 at sea aboard the cruise ship *S.S. Patris*, traveling from Marseilles to Athens and back to Marseilles.<sup>6</sup> It was dominated by Giedion, Le Corbusier, and the French members who took a more generalized viewpoint when compared to the specific approach based on the practical aspects of design advocated by the German members in the previous two CIAMs.<sup>7</sup> Under the theme of "The Functional City" thirty-three plans of large industrial cities, all coded with the

same symbols and colours and drawn to the same scale, were analyzed by dividing each city plan into four categorical functions: dwelling, working, recreation, and circulation. This systematization provided solutions within each category which Le Corbusier autocratically interpreted in his book La Charte d'Athènes.<sup>8</sup> It was at this CIAM that notions of the synthesis of the arts were first introduced by Léger. His "Discours aux architectes" brought to the fore the social needs of the masses who could not accept the blank white wall of functionalist architecture.<sup>9</sup> Léger proposed to solve this problem by a collaboration of painters with architects. He gave a description of his color theory that could be applied at the scale of the city.

The Fifth CIAM Congress of 1937 in Paris was to be the last before the war and basically served as a continuation of the previous Congress with the featured participation of Sert, who summarized his ideas in the book Should Our Cities Survive?, based on the four functions of the city and the notion of the city as a "living organism." This book was later published in 1942 with the collaboration of Gropius and the assistance of Lewis Mumford with the new title Can Our Cities Survive?<sup>10</sup>

#### **New Architecture and City Planning Symposium - 1944**

During the twelve-year lapse between the time the Athens Charter was drawn up and the end of the war, the Athens Charter had become the established blueprint of urban planning in schools and offices. However, during this time the weaknesses of the Athens Charter had also become

apparent. Mumford, who had participated in the second publication of Sert's synopsis of the Athens Charter, held serious reservations towards the limiting definition of the four functions because they did not include the political, educational, and cultural needs of the people; in other words, the vital centers of community or civic centers were missing from the plan. Mumford's critical observations of the Athens Charter planted the seed in Sert's thinking that flourished later on at the Eighth CIAM in 1951 with the heading "The Heart of the City." Sert had begun to write about community centers in 1944 in his essay "The Human Scale in City Planning" for a New York symposium published in New Architecture and City Planning edited by Paul Zucker.<sup>11</sup>

In this essay Sert denied the value of technology and economics if the goal of either was not directed towards a humanistic end based on ideas of democracy. He called for the humanization of city plans to be governed by the human module and to be designed as an "organic social structure" where "fomenting and facilitating human contacts" was to be the main objective.<sup>12</sup> He proposed cities divided into designated units and zoned according to functions with a carefully planned and centrally located civic nucleus. Distances between neighborhood units and these civic centers were critical and should be measured according to human needs, avoiding vast extensions. He thus described the civic and cultural center as the most important type of social structure in a city:

In it should be found: the university buildings, the main museums,

the central public library, the main concert hall and theatres, the stadium and area for Olympic games, the central administration buildings (for local regional and sometimes national governments), central park, and areas especially planned for public gatherings, the main monuments constituting landmarks in the region, and symbols of popular aspiration should also be found.<sup>13</sup>

It is significant to note the placement of a main monument in Sert's civic center design. The matter of monumentality as an architectural and urbanistic phenomenon became important in the mid-twentieth century. In the large body of literature on the subject, the main concern was to define the meaning of monument within a modern idiom.<sup>14</sup> Giedion was the person who led the most extended discussions on monumentality in architecture. One can find references to monumentality in Space Time and Architecture (1941), but his first concise essay on the subject, "The Need for a New Monumentality" (1944), was also published in Zucker's New York symposium volume that had included Sert.<sup>15</sup>

Giedion began his essay by denouncing the nineteenth century as a period of pseudo-monumentality when the indiscriminate use of styles of the past had caused the loss of their inner significance and devalued them to "mere clichés without emotional significance."<sup>16</sup> He made references to J.N.L. Durand and subsequently to Durand's influence on contemporary examples such as "Adolf Hitler's 'Das Haus der Deutschen Kunst' (1937) in Munich, the Mellon Institute (1937) in Pittsburgh, the new museums in Washington, and the representative buildings in Moscow."<sup>17</sup> He also took this opportunity to denounce the palace of the League of Nations (1935) in

Geneva as “an example of internationally brewed eclecticism,” claiming that if Le Corbusier’s 1927 “scheme for the palace of the League of Nations had not been killed by the leading politicians of the League, the development of monumentality in contemporary architecture would probably be today at another level.”<sup>18</sup> He saw aspects of a modern monumentality “in market halls, in factories, in the bold vaulting problems of great exhibition buildings,” and acknowledged the Eiffel Tower (1889) as the only true monument representative of the late nineteenth century.<sup>19</sup> These last examples reflected a primitive truth -- according to Giedion, they represented a contemporary architecture which similar to painting and sculpture had to begin anew without any references to past styles.

Giedion declared three steps of design in contemporary architecture: first, the single cell housing unit for the working class; second, urbanism as the greater entity of the city; and third, “the reconquest of the monumental expression.”<sup>20</sup> For Giedion it was imperative to redefine the modern monument which he said “derived from the eternal needs of the people to own symbols which reveal their inner life, their actions, and their social conceptions.”<sup>21</sup> He claimed the problem of the modern monument lay in the lack of emotional training in those who governed and were patrons of architecture, and in the loss of a collaboration among architects, painters, and sculptors. Giedion saw the ideal position of the artist as the creator of symbols capable of opening new ways of affecting the masses emotionally. Thus he saw the need for architecture, painting, and sculpture to come together in a

synthesized manner, and the place for this collaboration capable of creating contemporary monuments was the community center. As in the earlier periods when there was a sense of a more unified cultural life, society had creatively fashioned its image in accordance with its human values in the agora, the forum, and the medieval square. He also acknowledged the artists reclaiming mural painting as an indispensable element for creating monumentality.

Giedion's vision of modern monumentality encompassed great public spectacles made of new materials, movement, color, and abundant technical possibilities, for he believed they had the power to awaken the masses to engage in community life. He referred to the displays of waterplays, light, sound, and fireworks at the 1937 Paris Exposition International des Arts et des Techniques designed by the architects Eugène Beaudouin and Marcel Lods, and at the 1939 New York World's Fair designed by Jean Labatut. While making connections between contemporary artists and architects by their choice of design elements, he described these monumental spectacles as "ephemeral architecture:"

These spectacles form one of the rare events where our modern possibilities are consciously applied by the architect-artists. They use the structural values of different materials as the medium to intensify the emotional expression, just as the Cubists liked to introduce sand, fragments of wood, or scraps of paper to their paintings. In this case, the architect made use of different 'structural' values: incandescent and mercury light, gas flames, colored chemicals, fireworks, smoke, water-jets, painted on the night sky and synchronized with music.<sup>22</sup>

Giedion further clarified his idea of "ephemeral architecture" in the specific example of "The Spirit of George Washington" fountain display by

Labatut at the 1939 New York World's Fair [Fig. 2.1] in which he described how an eternal patriotic symbol such as the American flag could be paid tribute in a transient spectacle:

"The Spirit of George Washington" represents the symbol of the American flag by three colors: red, white, and blue. To get the maximum of luminosity and depth in the colors, the red was obtained by inference of red glass between incandescent light, water-jets and smoke (which gives it volume and scale). The white was obtained by a combination of incandescent and mercury light. The blue was formed by the interference of blue glass over mercury light only. The three national colors were given additional force by means of gas fire into which chemicals were blown and by proper grouping of red, white, and blue firework shells.<sup>23</sup>

In addition to Giedion and Sert's contributions, Zucker's publication included other relevant essays on the possible image for a new monumentality by several authors. George Nelson, the coeditor of Architectural Forum, took a cynical view of contemporary society in which a general indifference towards the arts was upheld by industrialists and by financiers and statesmen, the so-called main patrons of the arts. This rift could be bridged only by a common understanding of sociology, economics, and philosophy among patrons and artists. He pointed out the contradiction between the demand for monumentality, which he said was an anachronism for the times, and the lack of faith in the institutions normally glorified by monumental works. In fact, like Giedion, he saw a tendency towards the ephemeral in architecture that would change the traditional concept of the monument.<sup>24</sup>

From a technological point of view, Louis I. Kahn defined

monumentality in architecture as “a spiritual quality inherent in a structure, which conveys the feeling of eternity.”<sup>25</sup> In a description of a cultural center that extended into the landscape and which was designed by a collaboration of a citizens’ committee, architect, and engineers, he expounded on the monumental qualities of structure and the use of new materials by artists to enhance the total effect [Fig. 2.2]:

On the ground the first reaction comes from the gigantic sculptural forms of the skeleton frame.... The plan does not begin nor end with space he has enveloped, but from the adjoining delicate ground sculpture it stretches beyond to the rolling contours and vegetation of the surrounding land and continues farther out to the distant hills.... The plans reveal that the vast spans shelter smaller areas designed for specific use, which are divided from the whole by panels of glass, insulated slabs, and marble. These partitions are free of the structure and related only to the circulation pattern. The ground plan seems continuous. The great lobby is a part of the amphitheater which dips down on the stage. The light comes from above through an undulating series of prismatic glass domes. Ahead, some distance from the entrance, is a great mural of brilliant color.... To one side in the community museum of sculpture, painting, and crafts.... With the new materials and tools, chemical tints, and with manufacture at the artist’s disposal, his work becomes alive with ideas.<sup>26</sup>

The architect Philip L. Goodwin, who had worked on the design of the Museum of Modern Art in New York City, addressed the traditional view of the civic monument as sculpture and proposed three new ideas for the monument: the monument directed at the air to be viewed from an airplane, the monument situated within the structure of international highways and bridges, and the monument as a building for use.<sup>27</sup> Although he strayed from the general notion of the monument within the civic center, he did promote the role of the artist as image maker and the use of new materials

such as metal and glass to give the sensation of lightness and mobility.

The German-born American painter, Ernest Fiene, admonished the patrons of industrialization for devaluing civic art by being more interested in self-glorification than in giving art to the community.<sup>28</sup> In addition, these patrons concerned themselves with the production of standardized low priced architectural ornaments, usually modeled on classical patterns, thereby avoiding the employment of artists. With the advent of modern architecture which conceived space and form as one unity, Fiene saw the chance for architects, painters, and sculptors to work together towards an integrated design where art was not merely an additional embellishment of architecture. He also advocated the use of new technology and materials, and showed a preference for abstract art on painted murals and possibly as film projections as well. Above all, the most important attribute of monumental art, in his opinion, was to inspire the public through an emotional appeal going beyond its practical function.

Carol Aronovici, a consultant for housing and community planning in New York, addressed civic art as "a synthesis of a wide range of the arts and art forms which embodies the elements of creative communal living in harmony with the realities of practical communal functioning."<sup>29</sup> Like Sert, she saw the larger context of the urban fabric encompassing a civic responsibility toward aesthetics. She criticized the focus given to the theories of functionalism in recent years which had purported a rationalistic and mechanistic age while devaluing the spiritual and emotional aspects of

community life. She had hope in the concept of democracy as a social order where civic art could transcend individual and tyrannical self-importance and provide inspirational relief to the masses. She supported experimentation with new materials in which color, texture, and light would play an important part in the visual perception of buildings, and suggested looking at a variety of elements that could enhance the civic environment such as water through careful treatment of river banks, sea and lake shores, to water displays in fountains; using color on a grand scale consciously affecting the psychic and physiological responses of people; making poster design an integral part of civic design; projecting music throughout the city as a medium of connecting people through sound; and lighting cities with flood lights and colored lighting, producing kaleidoscopic effects designed by artists.

These essays demonstrate how each author was grappling in a different way with the image of a new monumentality for the city, and yet, they all seemed to agree on the vital participation of the artist in the creation of an unprecedented monumentality made of new materials while reflecting new concepts of space. The descriptions for their proposals, however, were somewhat simplistic and rather romantic in their assumptions. It is within this context that the two seminal essays by Sert and Giedion, the only CIAM participants among these authors, began to set the stage for a platform on the synthesis of the arts in relationship to urban planning at the first CIAM after the war.

### **Sixth CIAM Congress in Bridgwater - 1947**

A pre-congress meeting by CIRPAC (Comité Internationale pour la Résolution des Problèmes de l'Architecture Contemporaine -- a CIAM committee established at the Second Congress<sup>30</sup>) was held in Zurich in May of 1947 to discuss the reconstitution of CIAM and the program for the first postwar Congress.<sup>31</sup> The chief function of this interim meeting was to get CIAM going again. The lack of consensus on the theme of the next Congress became evident when different groups presented their suggestions. The group from the United States presented an outline by K. Lonberg-Holm under the name of "Community Development" with the formal agenda to analyze community patterns throughout the world. In response to this outline the English MARS (Modern Architectural Research) Group formulated a counter-proposal, "The Impact of Contemporary Conditions Upon Architectural Expression," directing the focus on aesthetics with social responsibility. Similar to the group from the United States, the Swedish group proposed the practical and functional theme, "Units for Planning of Urban Housing," and like the English group, the Swiss group suggested an aesthetic theme promoted by Giedion, "The Relationship between Architecture, Painting, and Sculpture." Siding with the former two groups, the Dutch chapter did not accept the theme of the affiliated arts, presented by the Swiss, as an international problem of vital importance, and instead presented the problem of "Housing: The Role of the Architect" as the central question in Western and Eastern Europe. Even though it seems that one

could identify two ideological camps among the groups, one focused on planning and the other on aesthetics, the division between the two was not altogether clear, given the points of contention within each.

The general reaction to these topics was that they were too limited in scope to represent the interests of the entire Congress. In reviewing these proposals, Sert reminded the members that the goal of CIAM since its founding was to find a method of achieving "human needs" within a technological society. He suggested a balanced approach in the following statement:

The CIAM should try to conciliate the two different trends now apparent in architecture and town planning of those who put technical advancement before human needs and those who emphasize the human side of the problem and frequently minimize the technical possibilities of our time.<sup>32</sup>

Without a clearly defined theme and merely a general philosophy of intention summarized as the need "to work for the creation of a physical environment that will satisfy man's emotional and material needs and stimulate his spiritual growth"<sup>33</sup> -- the aims of the Sixth CIAM Congress were primarily to re-establish contacts among the delegates and members of the different countries and to examine the work that had been done in the past ten years in planning. It was hoped that through this exchange of ideas it would clarify and define the existing problems in each country and thus help prepare a more cohesive platform for the Seventh CIAM. A résumé of the Congress was published in A Decade of New Architecture by Giedion who considered it valuable to give an outline of the current situation in each

country so as to provide some insight into the variety of works. He included an extensive photographic survey in the back of the book illustrating what had been built during the war so as to bring the CIAM up-to-date.

The make-up of the CIAM members changed significantly at the first postwar Congress. Nevertheless, the old guard from the previous Congress still held the leadership roles with Sert as President, Le Corbusier and Gropius as Vice-Presidents, and Giedion as General Secretary with his new associate, Mary Jaqueline Tyrwhitt who became Secretary to the council the following year.<sup>34</sup> Before the war they were relatively unknown; the architects were mostly working on small scale projects. Now they were professional men with busy offices designing projects in different parts of the world. Their ability to agree on an issue continued to determine an official CIAM idea. They were still the focus of the meetings, which now captured the attention of approximately eighty representatives from seventeen countries in Europe, Asia, Africa, North and South America, including many new members from India, Ceylon, Ireland, Argentina, Cuba, and Brazil. This new and more international membership, coupled with the results of the war which changed the power structure of many countries around the world, opened a new kind of forum at CIAM where the different needs of the various countries became more explicit than the attempt to find common solutions to urban planning for all.<sup>35</sup>

Some of the political consequences of the war paralleled ideological and power shifts within the structure of CIAM. Western Europe, which had

dominated global affairs before the war, fell to the rank of secondary power while the United States emerged as the dominant military and political power of the world. Fascism was destroyed in all the defeated countries and Germany was divided. Italy lost its possessions in Africa at the same time as the English and French empires began decolonizing in 1945, granting the independence of most countries in Asia and Africa by 1960. These new power balances continued to shift in the ensuing postwar years, defying any sense of certainty which reflected in the postwar CIAM's lack of a consistent or cohesive overview.

The emotional impact of the war threatened human hopes for a better life through technology as demonstrated by the construction of deadly weapons. The most dramatic example was the dropping of the world's first atomic bombs on Hiroshima and Nagasaki. These devices for mass killing marked a radical shift in the nature of warfare, from attacking opposing armies to destroying whole populations. The human toll in the Second World War of an estimated seventeen million military personnel and over forty million civilians, including six million Jews who were victims of the Nazi Holocaust, exceeded that of any previous war. These humanly incomprehensible facts of the war instilled in the general public the fear of the possibility of an even more devastating third world war.

The sense of fear that remained in the human psyche after the war was addressed at CIAM from a social point of view by the new Dutch member, Jacob Berend Bakema.<sup>36</sup> He thought that a CIAM architect had the

responsibility to help prevent a third world war by means of his or her artistry. The role of the architect of a new postwar society, moving towards a democracy, was in the hands of someone who could stimulate people towards "total living" in which aesthetics and human feelings exist in a harmonious relationship. A successful architect used his artistry "not for giving expression to his individual desires, but to stimulate real freedom for everyone."<sup>37</sup> Social concern for an aesthetic catering to the taste of the general public was clearly a reaction against the elitist modern aesthetic of the twenties which was thought to have created a gulf between the common man and the elite architect, an issue that was also at the core of J.M. Richards' ideas.

In the preamble of the document "Reaffirmation of the Aims of CIAM," the English representative, Clive Entwistle, contributed his thoughts on the changing social consciousness of the times by touching upon two main fears of the time, fascism and mechanization:

These have been years of struggle and separation during which, as a consequence of the threat of fascist domination, political, economic, and social questions have taken on a new significance for everyone. At the same time technical progress has been accelerated by intensive scientific research and the needs of war production. The technique of planning has also moved forward as a result of the experience some countries have gained in socialist organization.<sup>38</sup>

In light of these factors, he saw the emergence of a new conception of integrated planning allied with a new contemporary consciousness in the expression of the arts, alluding to the trend towards the integration of the plastic arts.

Albert Camus explained the contemporary fear in man as a loss of

human values that had been replaced by values of contempt, efficiency, and the desire for domination. He presented a bleak view of mankind moving towards inertia and whose goals in life were money and success. Camus called for a revolt by the individual confronted by this human crisis.<sup>39</sup> Le Corbusier fully believed in the capability of individual self reflection to transform false principles into exemplary human values. For Le Corbusier the reformation of individual consciousness would serve the collective, responding to the emotional needs of people. He stressed the need for “harmony” in all aspects of life brought about by a poetic phenomenon which he described as the precise assemblage of objects through mathematical relationships that invoke an emotional response.<sup>40</sup> Le Corbusier agreed with Giedion’s request to give aesthetics a primary voice at the Congress and stated, “finally imagination has entered CIAM.”<sup>41</sup>

The decision was made to hold the Sixth CIAM Congress in September of 1947 in England, in part, because it had not been overrun by the enemy and because the English MARS Group had maintained a continuity while focusing on issues of modern architecture during the war as it grew from fifteen members in 1939 to ninety-seven members at the time of the Congress.<sup>42</sup> The small riverport called Bridgwater in Somerset was chosen for its quiet rural environment with an arts center which in the context of a postwar setting seems escapist for an international convention on urbanism. Mark Hartland Thomas, from London, described the spirit of the Congress as a “very moving experience” that resembled “a revolutionary society or

perhaps still nearer to a religious brotherhood.”<sup>43</sup>

As part of a one week program of informal meetings, a series of lectures was presented on the last two days of the week under the respective titles of “Urbanism” and “Architectural Expression” for each day. The earlier part of the week had been dedicated to organizational matters with the presentation of reports by the different groups. The focus of these lectures was guided by the old guard who clearly showed a penchant for aesthetics over the functional city that had taken precedence in the earlier CIAM under the presidency of Cor van Eesteren, who personified prewar analytical urban planning. The new President, Sert, spoke about the human scale in urban planning and more specifically, in civic centers; Giedion addressed aesthetics and the need for a new monumentality; Le Corbusier expounded on the importance of the individual in the work of an ensemble; while Gropius, on the other hand, delivered a paper on architectural education.

The aesthetic problem was also of major interest to the CIAM hosts, the English MARS Group. It had been investigating aesthetic issues since the mid-thirties when it was influenced by Bauhaus teachers such as Laszlo Moholy Nagy, Marcel Breuer, and Gropius, who found assylum in Britain from Nazi Germany before moving to the United States. In 1938 they had held a key exhibition at the New Burlington Galleries which brought up the issue of the wall surface texture, promoting masonry over the white wall aesthetic of modern architecture of the twenties.

Richards, the main representative of the MARS Group, presented an

important paper addressing the emotional response of the common man on issues of aesthetics. He criticized the language of the CIAM statements because it was not accepted or understood by the man on the street and catered exclusively to the appreciation of a small elite group of connoisseurs. He referred to the seventeenth and eighteenth centuries when design percolated down from a hierarchical social system in contrast to contemporary society striving for an egalitarian organization and deriving its inspiration from the needs of humanity. Richards made it clear that he did not believe in a design that completely deferred to the tastes of the man on the street or to the public committees that represented him. But he also rejected the prewar CIAM premise that if architecture were conceived with sociological and technical priorities which improved the living standards of people, then people would automatically appreciate it both visually and functionally. He emphasized this point in the following quote:

So the question resolves itself into this: whether the architect is to regard the public as the passive recipient of the benefits he has to offer, or whether, in the special circumstances of today, he is to make a special effort to enable the ordinary man -- who is, for the first time in history, the real patron of architecture -- to share somehow in the creative process. I do not mean of course that he might assist in the actual designing of buildings; only that the visual standard aimed at might be such as already come within his experience, so that, as far as he is concerned, appreciation can be based on what already means something to him emotionally. Perhaps this is more easily done in the field of town planning than architecture in the limited sense, and the requirement is for a studied humanization of the visual side of the urban scene.<sup>44</sup>

Richards reiterated the standard criticisms at the time of modern architecture such as the use of synthetic materials, new construction methods,

mass production, and the disappearance of handcrafted ornaments, all for economic ends, as the factors that had helped create an inhuman environment. In the same spirit, Aldo van Eyck blamed the decadence of man on his addiction to money. He equated material progress with the wrong stress on functionalism made by "quasi modern architects."<sup>45</sup>

Richards questioned whether a humanization could take place through the use of familiar materials and a return to some kind of regionalism in architecture.

Three months before the Congress Richards had published an article in Architectural Review with the title, "New Empiricism," supporting the Swedish attempt to humanize the aesthetic expression of functionalism by the application of traditional materials. A house at Kevinge by Sven Markelius illustrated the example of a technologically advanced system of pre-fabricated parts covered with timber and stone finishes. Seen as part of a Swedish avant-garde movement, Richards cited Sven Backström who defended Richards' viewpoint:

It was then that people gradually began to discover that the 'new objectivity' was not always so objective, and the houses did not always function so well as had been expected. They also felt that the lack of many of the aesthetic values and the little contributions to coziness that we human beings are so dependent upon, and that our architectural and domestic tradition had nevertheless developed.... Today we have reached the point where all the elusive psychological factors have again begun to engage our attention. Man and his habits, reactions and needs are the focus of interest as never before. To interpret such a program as a reaction and return to something of the past and to pastiches is definitely to misunderstand the development of architecture in this country.<sup>46</sup>

In the introduction to A Decade of New Architecture Giedion expressed his disagreement with this Swedish style that appeared overly picturesque to him. He wrote that even though Sweden was “very social-minded and not at all averse from adventures in town planning, it was nevertheless endangered by sentimental trends such as the ‘new empiricism’ which, under cover of ‘humanizing’ architecture led it only into another cul-de-sac.”<sup>47</sup> It made sense that Giedion, who was in the midst of inquiring about a new monumentality, was inclined towards a new aesthetic expressive of new materials, and could not sympathize with either Richards or the Swedes.

By bringing to the fore the importance of the architect’s willingness to respond to public opinion, Richards touched upon another point of contention that had been dealt with by the critic Clement Greenberg in his 1939 essay “Avant-Garde and Kitsch.”<sup>48</sup> Greenberg differentiated avant-garde and kitsch cultures as simultaneous outcomes of the industrial revolution in Europe. The avant-garde was seeking to go beyond academic models and according to Greenberg, its most important function “was not to ‘experiment,’ but to find a path along which it would be possible to keep culture moving in the midst of ideological confusion and violence.”<sup>49</sup> Existing in a paradox, the avant-garde remained a small somewhat removed group, detaching itself ideologically from bourgeois society, yet staying financially dependent on it. Kitsch, on the other hand, developed with universal literacy, that is, by bringing the level of culture down to the lowest common denominator.

Catered to by the new market consumption kitsch reached the level of universal culture. Kitsch works encompassed self evident meaning accessible to all, while avant-garde works required a cultivated spectator able to reflect.

Although Richards denounced the small elite group of connoisseurs, he was walking a fine line between the two cultures, because even if he requested architects to respond to public opinion, he gave the architect and not the man in the street the ultimate responsibility for creating the aesthetic design. Giedion was sure to say that he did not think contemporary art and architecture should express popular taste. Having been founded on the elite principles of modern architecture, CIAM in the immediate postwar years found itself in the difficult position of having to readjust to the demands of popular taste brought about by the world of the Popular Front.<sup>50</sup>

Before the Second World War the French Popular Front had gained power from 1936 through 1939. Led by Léon Blum the Popular Front represented the socialist party. It advocated the rights of the working class at a time of high unemployment. Similar to the efforts made by the United States government in a time of crisis in 1930 to employ artists through the Works Progress Administration, the Popular Front commissioned numerous artists for the 1937 Exposition des Arts et Techniques. The artistic aim of the Popular Front was to promote popular art through public mural paintings which would also serve to encourage artists to work for the common man.<sup>51</sup>

As the leader of the host country, Richards further helped to influence the direction of the discussions towards aesthetics. He wrote the press

releases that included his reworded version of the reaffirmation of the aims of CIAM. Together with Giedion and Hans Arp he highlighted the issues of aesthetics by formulating questionnaires. Because of the great variety of points of view it seemed important to make inquiries through written questionnaires as a means to process the material. There was also an aversion to reaching conclusions too quickly. Patience and sifting through multiple questions and responses seemed more in line with the times when the beliefs and actions of the entire society were being revalued and reassessed. Richards produced two questionnaires addressing the impact of technical and social developments, and Giedion and Arp collaborated on one questionnaire focusing on the relationship between the sister arts [see Appendix 1].

The questionnaire on the sister arts inquired about the possibility of cooperation among architect, painter, and sculptor and, in particular, raised criticism of the role of the architect. In a letter to Giedion and in response to the questionnaire, the sculptor, Barbara Hepworth, blamed architects for not embracing the arts in unity:

I feel, as a sculptor that we have said what we have to say, and played our part and that architecture, as the coordinating part of our culture, has failed so far, to unite (and even to understand!) the work that has been done in our time by painters and sculptors. Without this unity we cannot achieve a robust culture.... During my last exhibition I found there was a keen sense, among all kinds of people, of the part that sculpture plays in life, except among the architects. They all stood with their backs to the sculpture and bewailed their lot, or chattered about new materials. I was shocked by the attitude because we are working, all of us, for something much greater than planning. We are working for a spontaneous sense of life, of unity of purpose which will give heart to the nature of our own living. I cannot say anything new

of great importance, the answers are all there, in the history of architecture. New conditions, new materials cannot alter the basic principles. It is then, up to the architects.<sup>52</sup>

Indeed, the problem of collaboration lay in the coordinating hands of the architect, and there were few examples of modern architecture showing a successful collaboration. Van Eyck, who also accused architects of often being “guilty of megalomania,” called the De Stijl design of Café L’Aubette (1926-28) in Strasbourg by the architect Theo van Doesburg and the artists Hans Arp and Sophie Tauber Arp, the best example of a collaboration.<sup>53</sup> Unfortunately, it was destroyed by the owners shortly after the Second World War and was replaced by decorations consisting of palm trees and nude figures. This interior design project in an existing building designed by an avant-garde group was only a small attempt when compared to the larger picture of a collaboration implied at the Congress for architecture and urban planning.

If we look at Le Corbusier as an example, he clearly defined the architect as the leader, the single dominating mind of a project.<sup>54</sup> He led various collaborations in the twenties and thirties with artists such as Léger and Jacques Lipchitz, and furniture designer Charlotte Perriand. In all of these cases the artist played a secondary role in relation to the architect who defined the exact placement of the art work. However, this by no means undermined the impact of the art work within the architectural ensemble. Le Corbusier expounded on this in his writings on “acoustical space” and “ineffable space.”

Without a clear ideological grounding, at the closing of the Sixth

Congress two themes were chosen for the following Congress: "Urbanism" chaired by Le Corbusier and Arthur Ling, a MARS Group member, and "Architectural Expression" chaired by Giedion. It was unanimously agreed that Le Corbusier in conjunction with ASCORAL (Association des Constructeurs pour la Rénovation Architecturale) and the MARS Group were to redesign the CIAM Grid; the standard presentation format left over from the Athens Charter now seemed outmoded for postwar discourse.<sup>55</sup> The main criticism lay in the use of the term "recreation" in the four functions of the city outlined by the Grid. Instead of "recreation" a broader term was sought to replace it: "cultivation of mind and body." The new Grid was introduced at the Seventh Congress of 1949 in Bergamo.

#### **What is Happening to Modern Architecture? Symposium - 1948**

In the time between the Sixth and Seventh Congresses two significant symposia continued the discussion on aesthetics.<sup>56</sup> First, in the United States as debates arose about the aesthetics of modern architecture in conjunction with a new monumental expression, Alfred Barr organized a symposium at the Museum of Modern Art in February 1948 called "What is Happening to Modern Architecture?" This session was triggered by Lewis Mumford's "The Skyline (Bay Region Style)" article that appeared in his regular New Yorker column on October, 1947.<sup>57</sup> In the article, Mumford openly rebuked two established architectural historians and critics who had advocated the machine aesthetic of modern architecture in the thirties: Henry-Russell

Hitchcock for turning to the highly personalized architectural vocabulary of Frank Lloyd Wright, and Giedion for promoting “the monumental and the symbolic.” Instead, Mumford praised the works of the California architects Bernard Maybeck and William Wilson Wurster who practiced “a native and humane form of modernism which one might call the Bay Region Style, a free yet unobtrusive expression of the terrain, the climate, and the way of life of the Coast.”<sup>58</sup> Barr understood that Mumford was identifying the Bay Region Style, part of the larger category called the International Cottage Style, as the American counterpart of the Swedish New Empiricism Style.<sup>59</sup>

The Museum of Modern Art symposium was moderated by Mumford who led twenty-two formal lectures and a panel discussion composed of prominent architects, planners, designers, critics, and teachers.<sup>60</sup> The outcome of the symposium showed parallels between the American and CIAM factions that divided into two main categories: those who took a practical approach by looking at industrial production, and those who focused on the social and aesthetic meanings of buildings. The latter subsequently split into two stylistic approaches, defined by Barr, as the International Style of “post-functionalism” and the International Cottage Style, “a kind of neue Gemütlichkeit.”<sup>61</sup>

Barr’s opening lecture placed aesthetics at the forefront by stating “we are on the side of architecture as art rather than on the side of mere building,” and continued with a discussion defending the term International Style, named as the title of a book by Philip Johnson and Hitchcock, published in

1932 by the Museum of Modern Art.<sup>62</sup> He pointed out the misconceptions of the term which had been erroneously understood by many architects and critics to be synonymous with “functionalism.” Barr explained he found “that much of the book was devoted to defending architecture against scientific functionalists on the one hand and commercial functionalists on the other.”<sup>63</sup> He “even considered using the term, ‘post-functionalism,’ to make absolutely clear that the new style was superseding functionalism.”<sup>64</sup> He also pointed out the broad and flexible implication in the idea of “international” design that allowed the works of various designers to be clearly distinguishable; the acceptance of wood as a design material; and the concern for human needs as ever present. Hitchcock defined the International Style as “Modern Architecture,” including two separate movements, the Cottage Style and Giedion’s question of monumentality.

Gropius joined in defense of early modernism’s accent on the machine but, with man as the main focus, nonetheless. He quoted Kandinsky’s formula from the Bauhaus years: “Let’s not say ‘either/or,’ any more but ‘and;’ let’s not exclude anything but include everything.”<sup>65</sup> He also mentioned the 1923 exhibition, “Art and Technics in New Unity,” where “the problems of humanizing the machine were discussed to a great extent, and functionalism for us meant embracing the psychological problems as well as the material ones.”<sup>66</sup> Breuer, who also gave support to humanism in early modernism said, “just as Sullivan did not eat his functionalism as hot as he cooked it, Le Corbusier did not build his machine for living!”<sup>67</sup> By

establishing that, indeed, humanism was rooted in early modernism and not separate from functionalism, these speakers supported a modern humanist aesthetic in the postwar era founded on the International Style.

On the other hand, the English architect Gerhard Kallmann defended New Empiricism as not a return to historicism or folkloristic revivalism, but rather a “return to the functional core, through emphasis on social and individual psychology, and greater freedom in a widening of the expressive range and evolution of a more humanistic form language.”<sup>68</sup> Le Corbusier’s design of the Errazuris house (1930) in Chile, referred to specifically by Hitchcock and implied by Kallmann, is a perfect example of a structure classifiable within both styles, thus blurring the borders between the two. Mumford, who also felt his term Bay Region Style had been misunderstood, said “that it cannot be characterized by any single mode of building, and it certainly cannot be reduced to redwood cottage architecture.... It is precisely the variety and range and universality of it that I am stressing.”<sup>69</sup> Mumford concluded the symposium with the following poignant words:

Society is now in the process of a very profound transformation. It may either commit suicide on an inconceivable large scale, or it may develop the foundations of a new civilization. If we continue to develop the foundations of a new civilization, the first efforts of the modern style will be seen an indication of that greater humanism and universalism which can be achieved.<sup>70</sup>

In summation of the different talks, it appears that Mumford’s reference to “the modern style” was inclusive of both the International Style and the International Cottage Style.

Throughout the sessions the issue of monumentality was addressed by a number of speakers but without any clear agreement as to what a new modern monumentality was or how to achieve it. Hitchcock referred to the United Nations building as a monument because of its size and scale, but doubted its symbolic expression because the design was conceived by a committee. He projected the “need for focal monuments, even if those focal monuments are only small ‘pubs’ for large housing projects.”<sup>71</sup> And Carl Koch saw the TVA (Tennessee Valley Authority) dam projects and the large housing communities such as Clarence Stein’s Greenbelt designed for 1000 families near Washington, D.C., both from the mid-thirties, as monuments in themselves.<sup>72</sup>

#### **In Search of a New Monumentality Symposium - 1948**

The issue of monumentality was taken up at the second significant symposium held in London called “In Search of a New Monumentality” sponsored by Architectural Review in 1948. The symposium was published including Giedion’s lecture at the Royal Institute of British Architects in London of two years before; it was basically the same text published by Zucker in 1944.<sup>73</sup> The symposium was launched with a statement similar to the aims of the Sixth CIAM affirming that “in its next phase, modern architecture will blossom in several new directions, none of which need represent a retreat from functionalism but rather a broadening of the term to include a building’s moral and emotional functions in addition to its material

functions.”<sup>74</sup> This concern for defining a new monumentality expressive of human emotions continued to be problematic as was admitted at the outset of the talks:

Although the contributors to this symposium are among the most eminent architects, architect-planners, and critics of architecture, they make it quite clear the contribution of their views about monumentality can do little more than define and pose the problem. A great deal more discussion and, what is more important, a great deal of building, must take place before a clear picture begins to emerge.<sup>75</sup>

The symposium revolved around Giedion’s point of view that defined monumentality as the eternal need of people to create symbols that reveal their social conceptions, best expressed in contemporary terms as “ephemeral architecture” to be located in civic centers and created by a collaboration among architects, painters, and sculptors. The other participants consisted of Gregor Paulsson of the University of Uppsala; Henry-Russell Hitchcock of Wesleyan University and MIT; William Holford of the University of London; Walter Gropius of Harvard University; Lucio Costa, architect of Brazil; and Alfred Roth, architect of Switzerland and editor of the magazine Werk, all of whom presented their statements.

Paulsson, who was the most critical of a modern monumentality denied the possibility of its existence within a democracy. He claimed that a genuine monumentality could only arise from a dictatorship because it was an expression of its emotional complexes which in architecture “induced in the subjected people fear, admiration, and a feeling of insignificance through the vast dimensions and associations connected with its forms.”<sup>76</sup> He even

suggested eliminating the word monumental as a characteristic from the architectural vocabulary of buildings associated with democratic societies. He belabored this point by stating that the “totalitarian society had always taken monumentality into its service to strengthen its power over people, while the democratic society in conformity with its nature was anti-monumental,” and in fact, “intimacy not monumentality should be its emotional goal.”<sup>77</sup>

Paulsson gave special importance to the socio-psychological part of society and refuted Giedion’s premise that the human condition could be solved within the civic center. Paulsson insisted on addressing the town as an interdependent system and clearly stated that the civic center could not be the answer if the rest of the town were not improved with the same amount of inspired creativity. He further confronted Giedion by quoting Giedion’s words “strong emotional impact” in the following paragraph:

The next step for the modern architect is something much more important than the search for the expression of a strong emotional impact, call it monumentality or not. It is to find out the secret of the natural area, the growing conditions of the region and to give the milieu with a power of resistance to detrimental social influences. Only the architect has the possibility of taking the decisive step towards achieving it.<sup>78</sup>

Hitchcock grappled with the semantic meaning of the word monument which he defined as related to the qualities of durability, dignity, large size, and most importantly providing an emotional impact. In seeking examples of monumental buildings in a modern idiom, Hitchcock included large engineering works as well as large scale housing developments.

However, he excluded the Crystal Palace in Hyde Park (1851) as a monument

because of its demountable qualities which contradicted his definition of durability; conversely, Giedion would have probably applauded this design for its qualities of flexibility. Hitchcock again referred to the United Nations headquarters in New York as one of the few examples of monumental expression that encompassed a large scale and a sense of permanence. In the same vein as Giedion he placed the new monumentality within the urban context.

With a conservative description of monumentality as a classical formula based on the concept of permanence, Holford, nevertheless, suggested a new kind of monumentality to be found in mechanical reproduction, bringing to mind André Malraux's "imaginary museum" based on photo reproductions of works of art:

In some ways the most monumental column of the twentieth century is the column of figures. For centuries we have transferred the recording value of the monumental building to an ever increasing extent into the mechanical forms of reproduction. Posterity will have shorter sight. It need not gaze across the plain to tower and citadel; it can turn up a book or a photograph. It can store a lifetime of knowledge, or a panorama of an entire city in microfilm. Economic man may well regard a monumental work as a statistical digest, or a plan for full employment, thus transferring to the brain what was once an appreciation of the senses. In the strict meaning of the term, there will be fewer and fewer monuments.<sup>79</sup>

Gropius, appreciating Giedion's image of an "ephemeral architecture," said "that the equivalent for monumental expression is developing in the direction of a new physical pattern for a higher form of civic life, a pattern characterized by flexibility for continuous growth and change."<sup>80</sup> Also like Giedion, Costa called for a collaboration among architect, painter, and

sculptor as part of the process towards a new monumentality. He stated:

From the moment architects, in line with their increasingly advanced and complex technical apprenticeship, apply themselves also to the study of the problems of architectural expression, and take part in the current artistic debates, to the point of recognizing the plastic foundations common to all the arts, and of becoming imbued (similarly to painters and sculptors in their own spheres) with a passion to conceive, to plan and to build – from this moment, their wholly functional works will respond to the higher purpose animating them and will express themselves in appropriate plastic terms, acquiring, as a result of their symmetry and proportion, a noble and dignified grace. Architects will then have unconsciously attained monumentality.<sup>81</sup>

Costa recommended looking at Le Corbusier as the definitive model of professional teaching because Le Corbusier embraced three different essential problems of the time: “the technical problem of functional construction and of its equipment; the sociological problem of urban and rural planning, in all its utilitarian and lyrical complexity; and the plastic problem of architectural expression in its widest acceptance, including its relationship to painting and sculpture.”<sup>82</sup> Costa advised architects to move beyond the authorities, such as CIAM, to adopt social and building legislation because in the long run responsible professional authorities, both in the administrative field and universities, would be more accessible to the public seeking their advice. He also recommended not limiting monumental expression to the civic center for he saw monumentality taking on a significant role within rural populations.

Roth, like Hitchcock, looked in the direction of urbanism, including housing units as well as collective buildings, as the place where “the synthesis

of all creative forces and the image of the whole economic, cultural, and spiritual order of society” could be successfully represented.<sup>83</sup> He reinforced the idea of the democratization of society where differentiation and multiplicity of solutions would grow organically to equally address all building-types ranging from the individual house to collective structures. For him the emotional values associated with a new monumentality were to aesthetically affect the entire built environment.

Instead of producing a clear definition of the form of a contemporary monumental architecture, a questionnaire was handed out as a result of the different talks with the intention of helping determine what theories needed to be tested on a practical level [see Appendix 3]. However, a few important ideas were brought to light that affected the understanding of a new monumental expression. Namely, democracy seen as the favored social structure implied distinct formal characteristics that were to be more dynamic and flexible than the examples of the past, the general preference for engineering as the monumental language of the twentieth century, and the agreement that monumentality could be perceived at the scale of urbanism with the possibility of extending into the landscape rather than at the scale of a single structure.

This symposium marked the climax of the discussions on monumentality and was followed up by several publications within the following year and then the discussions on monumentality lost their momentum.<sup>84</sup> The underlying concern in both symposia to define an

appropriate aesthetic language reflecting the postwar human condition was similar to the Sixth CIAM Congress' preoccupation with changing the dehumanized environment in response to the emotional needs of the people. Giedion, as leader of the aesthetic debate at the Seventh CIAM, along with Le Corbusier and Van Eyck promoted a synthesis of the arts brought about by a collaboration among architects, painters, and sculptors to take the lead in reshaping a postwar urban architecture in contrast to Richards' "man in the street" approach. Though they differed regarding the appropriate language, they agreed that CIAM should advocate civic centers as symbols of community life. The topic of aesthetics led to animated debates at the Seventh CIAM in the medieval town of Bergamo in 1949.

#### **Seventh CIAM Congress in Bergamo - 1949**

It was evident from the start of the Seventh CIAM that a general malaise had overcome most of the CIAM groups because of the internal constitutional changes of the organization. The previous administrative functions of the CIRPAC, which had met consistently between Congresses, were devolved to a Working Congress that had not yet met; and matters were worsened by the lack of financial means for the Secretary to successfully accomplish his tasks. The members were no longer sure how and to whom to address their concerns. Divisions among the members also became stronger. Tyrwhitt described the presence of opposite tendencies expressed by the Nordic and Latin sensibilities; by those seeking a spiritual approach in

contrast to those wishing for a rigid and hierarchical organization; and by the elite representatives who believed the CIAM had already achieved major resolutions versus the newer representatives eager to face problems with new models.<sup>85</sup>

Sert opened the session by making a comparison between the old medieval center of Bergamo as a town built according to the human scale and the larger modern cities as victims of rapid growth without planning. He called for a revolt by urbanists and architects against the chaotic condition of large modern cities. Aware of the administrative difficulties within the CIAM structure, compounded by the demands of the different groups for diverse subjects, he underlined the importance of the participation of the young generation of architects whom he encouraged to help envision a new form for CIAM.

The inevitable situation of multiple themes occurred again at the Seventh CIAM. This time there were three major themes which headed a commission: "The Application of the Athens Charter" headed by Le Corbusier and Sert presented approximately thirty projects with the new CIAM Grid format; "The Synthesis of the Plastic Arts" was formed by Giedion and Richards with the special invitation of James Johnson Sweeney, Director of the Museum of Modern Art, and the Italian art historian and critic Giulio Carlo Argan; and "The Reform of the Teaching of Architecture and Urbanism" was presided over by Ernesto Rogers, former Director of Domus, Jane Drew from England, and Gropius who was unable to attend but

contributed a substantial paper.

In addition, three sub-commissions were also established:

“Industrialization of Construction” led by Well Coates of the MARS Group, “Legislative and Administrative Revision” headed by B. Merkelbach of Holland, and “Social Programs Useful to Urbanism” presided over by Helena Syrkus, one of the Directors of the Reconstruction of Warsaw. The idea was for these six Commissions to work on the problems assigned to them in order to prepare progress reports for the next Congress.<sup>86</sup>

Though this Congress was remembered as the “Congress of the Grid” because it was the first time the CIAM Grid was used for the presentation of projects, the discussions at the First Commission turned out to be a disappointment in many regards. As Eric Mumford has pointed out, not only was the relatively sparse turnout of projects not a good representation of the best urban projects by CIAM members at the time, the complexities of the Grid itself were criticized by Van Eesteren and Rudolf Steiger who said that “the Grid as a working method to clarify a great number of important problems does not function successfully.”<sup>87</sup>

On the other hand, the discussions of the Second Commission on aesthetics, which were a continuation of the issues taken up at the Sixth CIAM, were more stimulating and they broadened the scope from individual points of view to political attitudes towards society.<sup>88</sup> Nonetheless, they remained inconclusive and fragmented.

At a preliminary meeting the Second Commission presented two

reports summarized from the previous CIAM discussions and questionnaires in an attempt to establish some sort of position on aesthetics. The first report recognized the futility of trying to arrive at a definitive conclusion on the complex issue, especially given the limited time of the meetings, and thus chose to refer to the CIAM meetings as works of research. The Second Commission felt that the importance of the nature of the discussions obliged the CIAM to take a stance in promoting the creation of close ties among architects, painters, and sculptors in support of the development of a common language where all the arts could equally evolve. Regarding the problem of the lack of understanding of the modern idiom of art by the public at large, the report suggested further studies and recommended moving the discussions away from abstract problems which led to over-simplifications and toward more concrete studies.<sup>89</sup>

The second report addressed the lack of an architectural development in the spirit of CIAM in the recent past. It explained that this regression was due on the one hand to the tendency of many architects to follow the easy path, and on the other hand to the attitude taken by the authorities, who because of a lack of information and often for political reasons, followed the aspirations of the common man. In this report, CIAM made it clear that it would not stand for the debasement of the arts for either sentimental or political reasons. Taking an elitist point of view CIAM stated its goal was to sponsor art of the highest quality. Once this was said, the urban framework was established as the place where architecture and the other arts would

integrate. This could be based only on a tight collaboration among the different artists, such as a creative community within society that would have the difficult job of going against the grain of the predominant idea of the specialization of professionals.<sup>90</sup>

After reworking and adding on to the 1947 questionnaire on the sister arts, Giedion and Arp named the new questionnaire to be handed out at the Bergamo Congress "Questionnaire on the Synthesis of the Major Arts" [see Appendix 2]. Giedion recommended that the discussions should recapitulate the following three inquiries that had emerged from the 1947 questionnaire:

1. Do relationships among the major arts exist, if so, what are they? 2. Is a collaboration among architect, painter, and sculptor possible, if so, in what way? 3. Is the common man in condition to understand this synthesis?<sup>91</sup>

The issue concerning the common man in relation to contemporary art was the most controversial one at the Seventh CIAM.

The discussion on aesthetics took place on July 29, 1949 with the participation of eighteen people, including the Surrealist painter Roland Penrose, the sculptor Isamu Noguchi, and the following artists and planners: Le Corbusier, Sert, Rogers, Roth, Van Eesteren, Max Bill, Helena Syrkus, Marcel Lods, Flavio Regis from Brazil, as well as two invited guests, Sweeney and Argan. Giedion selected eight excerpts of the discussions for publication nine years later in Architecture, You and Me: The Diary of a Development in a section titled "Architects and Politics: An East-West Discussion" giving special focus to the paper presented by the Polish representative, Helena

Syrkus, "Art Belongs to the People."<sup>92</sup> She and her husband, Szyman Syrkus, an Auschwitz survivor, were Communist Jews who had been active CIAM members since its inception at La Sarraz. After the war, they drew up a new master plan for the almost totally destroyed city of Warsaw. Their Socialist plan for the reconstruction of Warsaw incorporated prewar functional concerns for zoning and circulation as well as the huge project of rebuilding the historic center of the city as an exact replica of what was there before.<sup>93</sup>

Helena Syrkus, who supported the Stalinist cultural policy, had strongly advocated the city of Prague as the choice city for the Seventh CIAM when along with Bergamo it was under consideration by the CIAM Council in 1948. Czechoslovakia's takeover by the Communist party made it an immediate Soviet satellite and Italy's election of the Christian Democratic party backed by the United States government made for a clear decision that the CIAM would hold its congress in Bergamo. Again, like the previous Congress, the site of a small picturesque town was chosen over a city. Similar to the political rift between East-West relations of the Cold War, Syrkus, who nevertheless had congenial relations with CIAM members, stood apart from them. She began her talk in defense of the common man:

We wish to see the transformation of man, of the human conscience, and the architect himself. We lack a fair attitude toward the people. Art belongs to the people and must be understandable by the people. It is false to believe that art has nothing to do with politics.... We need art, but an art which responds to human needs and uplifts the spirit of the people.<sup>94</sup>

Then, taking the position of a Social Realist she openly criticized the

formalist approach of CIAM:

The 'formalism' of CIAM was positive in the early days -- it was a revolt. It made use of analytical methods, which were also socialist methods. Functionalism discovered many good things, but its importance has gradually grown less and less. The book on minimal dwellings accepted this regrettable capitalist notion, and now we use it to show how deceptive our working method is. There is a sad difference between what we do and proclaim, on the one hand, and what we can do, on the other. The public recalls faults and failures more easily than successes. In spite of all that has taken place one reproaches Le Corbusier for his phrase 'machine à habiter.'<sup>95</sup>

She ended her talk with highly appreciative words regarding the past:

The countries of the East have come to the conclusion that we should have a greater respect for the past. We do not need to fall into eclecticism of drawing our material from the past but we should have greater respect for the spirit of the past... The new Warsaw will conserve its link with the past -- that is to say, it will preserve all that is good in lines of the roads, open places, the connections with the Vistula, and with all remaining evidences of its ancient culture. In defending and preserving our national culture we defend and preserve international culture. We at the CIAM must revise our attitude. The Bauhaus is as far behind us as Scamozzi.<sup>96</sup>

Affirming his position Giedion responded with the following words:

We have a love for the past. But the modern historian and the modern painter cannot reenact the past... We are for the past and modern artists have shown us why we should be so. Why? Because we can now see the whole of history as a single entity. Today we can see right across to the prehistoric period when man first began to 'feel' and to ask 'What is this around us?' This is the method that Miró has employed; it is the method of Picasso. Today more and more we see our connections with the past and most especially we see that modern painting (now declared in Russia to be a form of bourgeois decadence) is deeply rooted in the past... Another point. We believe profoundly in a modern tradition. We believe that we are developing this modern tradition. We believe further that we should have no inferiority complex when we are accosted by the common man.<sup>97</sup>

Siding with Giedion, Rogers said that rather than forcing art to come near the people, "the people must be given the means to come near art."<sup>98</sup>

Van Eesteren was “doubtful of the receptivity of the common man.”<sup>99</sup> In addition, Sweeney made the revealing comment that the “common man is found equally in all social classes”

Several talks that were concerned with how to achieve a collaboration among the arts proposed interesting ideas. Penrose proposed painting buildings to make them more beautiful by using techniques similar to the ones used by painters during the war who researched the effects of color and textures to camouflage buildings. Sert referred to his successful experience of a collaboration when in 1937 he had worked with Lucio Costa on the Spanish Pavilion at the Paris Exhibition. They cooperated with Alexander Calder who designed the “Fountain of Mercury” and Picasso who produced the mural “Guernica,” both impressive pieces of modern art that left a strong impression on the public. For Sert, the importance of this project lay in the public placement of works of art where many people could come together. He deplored the deficiency of such places and gave the example of New York City whose only center of public assembly, Times Square, was dominated by the heavily trafficked crossroads and “uncontrolled furors of publicity.” Once again, he called for the design of civic centers protected from lucrative advertising and more reminiscent of a medieval square where people could walk freely among structures of glowing colors (the cathedrals) and could frequent theatrical performances and civic ceremonies. Sert envisioned dynamic city centers designed by artists experimenting with new materials and techniques. There would be continually changing exhibitions allowing

artists to freely express themselves while creating scenic backdrops for public activities. Sert concluded by affirming that life would spontaneously express itself if the right kind of place were created for it.

Le Corbusier also implied that a true collaboration could be born organically from an initial design gesture -- a place of public assembly. For the first time at CIAM Le Corbusier alluded to the design of his *Porte Maillot Pavilion for the Synthesis of the Major Arts*:

I am hoping that a permanent center of the plastic arts may be inaugurated. This would be a center for experimental work which will be taken down and rebuilt each year. It will be a shell within which we could experiment with external and internal spaces in complete shadow, in full sunlight, and so forth; where one could develop examples of plastic art from the first drawings in their full scale expression in color and volume: a place where one could try out all that the plastic arts can do for architecture -- whether by rendering homage to their walls or by destroying them, or by evoking symbols, and so on. This center would become a manifestation of human poetry -- a manifestation of the sole justification for our existence: a center for which we must produce works that are noble and irrefutable witness of our age, and not works which are full of excuses for our failings.<sup>100</sup>

At the end of the session Giedion made a final point regarding the necessity to educate people in the realm of "feeling" since "thinking" was easier for them -- a fundamental step for the arts to flourish as an expression of culture. Addressing the education of architects and artists, earlier in the talks Penrose asserted that "the roots of all collaborations are in education" and mentioned two new schools in London where artists and architects worked on the same projects together.<sup>101</sup> These comments spilled over into the next discussions of the Third Commission on educational reform of architecture and urbanism. The Third Commission recognized that in order

to make a synthesis of the arts at all possible, synthesis had to be placed at the core of architectural education. To begin, the architect should be trained as a plastic artist and the three major arts should be taught in a joint manner.<sup>102</sup>

The issue of educational reform had already been taken up in the background of the Sixth CIAM. Two years earlier, in 1947, Giedion had presented a paper at the Princeton University Bicentennial Conference with a similar title to the Third Commission, "The Need for a Basic Reform in Architectural Education," in which he felt the need to completely restudy the basis of architectural education.<sup>103</sup> He underscored the significance of teaching architects how to collaborate with other specialists in allied fields. Given Unesco's mission to advance educational standards on a world-wide scale, Giedion led thirty-three supporters, among them, Le Corbusier, Gropius, and Sert, to sign a letter addressed to the Director-General of Unesco, Julian Huxley, requesting Unesco to set up a committee to formulate fundamental reform in the training of architects and planners. In dramatic terms Giedion praised Unesco:

No single organization, no university, and no country is in a position to perform this task. Unesco seems today the only agency in existence having the necessary means to accomplish this integration, which has to come about if our civilization is not to collapse.<sup>104</sup>

Huxley responded favorably by sending a Unesco representative to the Sixth CIAM. Shortly after, Giedion, Maxwell Fry, and Huxley met in Paris and agreed that CIAM would submit preliminary remarks on architectural education at the Unesco Mexico Conference in November 1947.

Rogers' report of the Third Commission began with a litany of problems on the present state of architectural education:

The schools of architecture are overrun. The practical teaching methods in most schools no longer correspond to the needs of modern society. No active relationship exists among the different disciplines of teaching. Many professors don't possess either the pedagogical qualities or the indispensable professional experiences. The number of professors is not in proportion to the number of students. The schools don't take part in activities of architecture nor those of urbanism. The contacts among professionals and artists are insufficient.<sup>105</sup>

Gropius' paper reiterated the problem of scientific reason that had taken precedence in education over any exploration of the imagination creating a breed of split personalities divided between the head and the heart and at the same time impoverishing culture. In the disrupted postwar world he saw the urgent need to educate individuals with a synthetic artistic mind and in this way -- by giving the arts as much weight as the sciences -- help them become integrated whole beings again. The way to do this would be to introduce an integrated approach from the very beginning of the architectural training where a whole range of knowledge integrating simultaneously design, construction, and economy would be combined with practical experience.

Gropius understood practical experience in the broad sense of the term to be "the medium for guaranteeing a synthesis of all the emotional and intellectual factors in a student's mind."<sup>106</sup> This practical experience would develop in the workshop where a stronger emphasis would be given to three-dimensional experimentation, moving away from a mostly intellectual

training. This process would aid the development of “an objective approach towards a language of vision,” giving the student creative confidence through “a key system of design.”<sup>107</sup> The interiors and exteriors of buildings would be studied through texture, color, and spatial relationships. Practical experience in the field would help the student learn ways of collaborating with others. Gropius believed that “teamwork would lead the students to good, ‘anonymous’ architecture rather than to flashy, ‘stunt’ designs.”<sup>108</sup> There would also be the added benefit of students experiencing a synthesis in close relationship to the people they served.

Overall, there were many problems with the Bergamo Congress. As mentioned earlier, the Grid proved not to be a successful tool and the internal organizational inefficiency of the Congress could not structurally deal with the diversity of issues and needs presented by the many international constituents. Instead, CIAM continued to herald the elitist ideas of the old guard who remained at the head of the organization. The main highlight of the Congress, the dynamic discussions concerning the role of the common man in relationship to the artist and aesthetic decisions, lost its momentum at the following CIAM because the main advocates for the common man backed off. Richards became less involved, and the Eastern European countries were not allowed to participate by their governments.

In regard to the problems facing the Seventh CIAM, the architectural historian Bruno Zevi wrote a highly insightful and critical essay titled “Concerning Architectural Culture.”<sup>109</sup> In the essay he named some of the

pitfalls of the Congress that would eventually lead to its disintegration. Zevi understood the complexities of the postwar need for international collaboration which the CIAM was not equipped to address. In calling for a more practical and synthetic approach, he stated:

The problems of planning can no longer be resolved by theoretical studies or by international congresses. Such a problem involves political, industrial, and legislative aspects which no specialized group of professionals can succeed in dealing with by itself.<sup>110</sup>

He saw the organizational limitations of CIAM and suggested that such large planning problems be taken up by a state structure like the United Nations that could more realistically undertake this unprecedented task on an international scale. In light of the international postwar world, Zevi was appalled by the continuously predominant European slant of the Congress and called especially for a stronger American representation which in his opinion was sorely missing.

He acknowledged that organizations were historically bound to their origins and could theoretically change only with a strong will and great difficulty. In this sense, CIAM was bound to the theoretical ideas of Le Corbusier and Gropius, and the historical perspectives and interpretations of Giedion. The overwhelming influence of these three men left little space for the growth of divergent opinions and “the development of a more appropriate and comprehensive culture.” Zevi rhetorically asked:

Can these Congresses organized by the CIAM accomplish today achievements of importance equal to those brought by the first Congresses? If these Congresses can not have a deep politico-social influence, can they at least attain a worthy cultural level?<sup>111</sup>

From Zevi's point of view, if CIAM were to have a "worthy cultural" influence on the world, it was obliged to allow a stronger voice for "the other branch of modern architecture, that which is no longer rationalistic, the movement which is called organic, or human architecture, or of the New Empiricism," and the adherents of the Wright school.<sup>112</sup>

While stating his admiration for Giedion's intellectual scholarship, Zevi asked for a historical revision of Giedion's book, Space, Time and Architecture. Zevi proceeded to enumerate the many omissions in the book starting with the Arts and Crafts movement which Zevi explained was due to "the classicistic or biological fallacy, that is, of a historical appraisal which tends to hold that Le Corbusier and the Bauhaus are the perfection and that everything preceding them was not capable of attaining any perfection."<sup>113</sup> With a sharp tone he criticized Giedion for looking primarily at the progress of technology in modern architecture and thereby "falling into a unilateral interpretation, similar to the kind of old technicistic positivism."<sup>114</sup> Giedion was accused of erroneously placing Expressionism in a secondary position to Futurism, and Zevi went so far to say that "the truth is that Giedion occupies himself only with visual media, with the mechanical formula of a plastic composition much more than with the moral world and inner inspiration of artists."<sup>115</sup> According to Zevi, Giedion was interested in artists "only when qualities of their inspiration can be expressed in logical formulae."<sup>116</sup> Since Eric Mendelsohn's work did not fall within a clearly labeled "ism," Giedion

inexcusably ignored him in his book.

Zevi, concerned that most of CIAM's leaders partook of Giedion's "programmatically and one-sided" historical outlook, forewarned the CIAM that if it did "not wish to become a nostalgic monument to the rationalist period,.... then it must discuss these historical themes, which.... are in reality most vital insofar as they help us to understand our origins, our predecessors, and thusly our historical function."<sup>117</sup>

### **Eighth CIAM Congress in Hoddesdon - 1951**

Disregarding Zevi's criticisms, at the Eighth CIAM, the theme of "the core," proposed by the MARS Group, was considered as abstract physical expressions of form without any relationship to political and economic legislative structures. Organized mostly by Tyrwhitt, still under the predominant influence of Sert, Giedion, and Rogers, and still not well attended by American representatives, the Congress took place in July of 1951 in the idyllic setting of a Victorian mansion located in a suburban village outside London called Hoddesdon, at the same time and in honor of the Festival of Britain.<sup>118</sup> As in the location of the two previous Congresses, the selection of this Congress site points to a discrepancy of romantic, retrospective settings for discussions that were mostly pro-cities and against suburban sprawl.

The underlying reason for the selection of "the core of the city" as the main theme was concern for the restoration of balance between the

individual and the collective spheres of behavior. Eventually the word “core” was substituted for the more evocative word “coeur” or “heart” which became part of the title of the Congress “The Heart of the City”<sup>119</sup> [Fig. 2.3]. The problem was not one of designing magnificent monumental civic centers but of creating places for human interaction, such as community centers, where spontaneous expression could be nurtured. To this end, Giedion pointed out that a doctor, a sociologist, an economist, a government official, and a historian were invited to share their expertise.

The contribution of Dr. Scott Williamson seemed particularly enlightening as he had already developed a community based on the spontaneous expression of his patients’ latent talents. His pioneer Peckham Health Center, founded in 1935, was based on two fundamental principles: first, the underlying force in biology “is nature’s tendency to wholeness, health or healing,” and second, the human organism is an expression of “the-family-in-its-home,” stressing in housing the importance of the hearth which became the community center in the broader sense of society.<sup>120</sup> Dr. Williamson’s observations supported Le Corbusier’s ideology that emphasized planning based on the functional unity of the human organism as a whole.

The health center was composed of a rectangular structure with a three story opening centered around a swimming pool with all sorts of facilities spinning off it such as a nursery, a self-service restaurant, a theater, a gymnasium, workshops, and more [Fig. 2.4]. Approximately 900 families used

the center on a daily basis. The families were allowed to do “as they liked, when they liked, with what they liked, and how they liked” within the confines of the building.<sup>121</sup> Dr. Williamson commented that it took a period of chaotic assimilation for families who arrived to the health center as purely instinctive individuals to become whole again as autonomous people. The center was a success; however, it folded in 1951 due to lack of funds. Regarding the urban core, this model confined to a single enclosed building system and supervised by a health care staff seems highly inadequate.

Nevertheless, this kind of information from other fields of study, like biology, not directly related to design, gave confidence to the CIAM planners treading on uncharted territory. They were sure of what they did not want to create. Sert projected the worst scenario for the city of the future as a place where people only work and endure. General antagonism toward suburbanism, responsible for the decentralization of cities, led to a call for the re-birth of centralized, vital cities. Regarding the center of the city, Rogers stated that it could neither be “the center of business, as in a capitalist organization, nor the factory, as in a proletarian society.”<sup>122</sup> There was also the general agreement that the center did not merely mean an agglomeration, or the crossroads of the busiest traffic; the essence of the new core was to be a place for rendezvous. Understanding the need for the restoration of human relationships appeared to be the way to recover a civic consciousness. Le Corbusier entrusted the CIAM to guarantee places where people could live full lives, both in body and mind, and in harmony with things: “man with

man, man with work, and man with nature.”<sup>123</sup> In the preamble of the Eighth CIAM book, “The Heart of the City: Towards the Humanisation of Urban Life,” while addressing the community at large, Le Corbusier set a metaphysical and utopian tone to the aspirations of CIAM:

CIAM will help you to be a citizen and an individual. It will put you in touch with the infinite cosmos and with the common forms of nature - - with God and with the spirits of the earth. It will provide you with places and buildings where you can live a full life, both in mind and body so that you will no longer be crushed, but can rise up and shine.<sup>124</sup>

Bakema stressed human relationships in his essay “Relations Between Men and Things” and advised the integration of diverse, culturally responsible activities in the core to bring people together. He gave the example of the sauna as an essential social condenser in Finland that should certainly be part of a Finnish core. Coming from an Italian tradition, Rogers said the core should be the center for human conversation and the “dolce far niente,”<sup>125</sup> in its highest expression, as leisure contemplation for the well-being of the human body and spirit. In this vein, the interest of the CIAM was to provide collective spaces that would enhance the full expression of human life.

As had been decided at the Bergamo Congress, urbanism was to serve as the framework for the location of man-made cores.<sup>126</sup> The human scale would remain constant while the size, quality, and quantity of the cores could differ from town to metropolis. The goal was to maintain the cores’ vitality, therefore very small communities were not recommended. In large cities

with secondary cores it was important to integrate in the single central core a number of diverse functions in order to assure a sufficient intensity of life. The central core would work as a hub with the secondary cores linked to one another by elements of urban landscaping. The life of the main core was most important and would preclude the existence of any other core. Characteristics of the core included the separation of cars and people with the center reserved for pedestrians to move about freely, the "royauté du piéton" or the "pedestrian's kingdom" as Le Corbusier put it, while cars would be limited to the periphery. Also, commercial advertising would be organized and controlled.

Sert, who had the strongest influence on the definition of what a core should be, categorized it into five different scale prototypes, from the rural village or urban housing project to the rural small market center or residential neighborhood, to the rural town or urban sector, to the city, to the metropolis. Advocating a democratic structure for these centers he advised they be established by a government branch and financed by the public rather than created by business and private enterprise. He envisioned the revival of pedestrian public squares incorporating loudspeakers and movie and television screens with the enormous potential to function as educational tools to service the world community. He called for an artistic collaboration to develop a more plastic expression of the core based on light and mobile elements permitting constant transformation within the community life. Rogers agreed with Sert that these centers should not be static or absolute, but

rather capable of flexible adaptation through time and gave the example of Calder's sculpture as a symbolic comparison.

In order to create these visually stimulating city cores, the CIAM's unanimous underlying plea was for designers to restore the synthesis of the arts, making it clear that artists must collaborate from the very outset of the project.<sup>127</sup> Given the specifics of each of the artists' talents, Giedion defined three main categories by which synthesis can occur: one, an integral approach in which architecture and sculpture are conceived as one, as expressed in Le Corbusier's Chapel of Ronchamp (1950-1954) [Fig. 1.5]; two, the applied approach wherein the architecture is conceived first with spaces delineated for painters and sculptors, as in Henri Matisse's designs for the Vence Chapel (1951) by Auguste Perret<sup>128</sup> [Figs. 2.5, 2.6]; three, a related approach where each work stands alone as exemplified in Carlos Raúl Villanueva's Caracas City University (1944-1957) with contributions by many artists including Calder, Victor Vasarely, Henri Laurens, and Léger<sup>129</sup> [Figs. 2.7, 2.8].

The Harvard Graduate Center dormitories and social center (1949-1950) by Gropius and his partners of TAC (The Architect's Collaborative) also fits in this third category, and showed a collaboration with the artists Josef Albers, Hans Arp, Herbert Bayer, Richard Lippold, and Joan Miró.<sup>130</sup> In reference to this project, Gropius said that while addressing the human scale in building an urban core, the most important element was the relationship between building masses and enclosed open space [Figs. 2.9, 2.10]. He spoke of the psychological effect of buildings related to space, form, color, and scale. At a

larger urban scale these same principles, applied to an open plan, can be found in one of the most acclaimed (by CIAM architects) postwar urban projects of the time by Le Corbusier, the Saint-Dié town plan in the Vosges of 1945 [Figs. 2.11, 2.12]. This plan was displayed along with Le Corbusier's plan for the new Indian capital of Chandigarh among a variety of other city plans categorized by Sert's five scale types for urban cores presented in the uninspiring CIAM Grid format.

The Saint-Dié project was considered a prototype of postwar urban planning when it was exhibited in November of 1945 at Rockefeller Center in New York City. At the end of the war, the central part of the town was systematically destroyed during three days and nights of continuous bombardment by the retreating German army, leaving only the cathedral standing. Located along the banks of the Meurthe river with the backdrop of rolling hills, Le Corbusier proposed the design of a new civic center on a platform with free-standing buildings surrounded by open spaces and related to an axis established by the landscape and the buildings. The high-rise administrative building signified the public space surrounded by a department store, a community center, a museum, a hotel, shops, cafés, and the old cathedral.

The modernist character of this proposal was strongly opposed by the working class sector of the community of Saint-Dié who preferred the proposals by the local architects maintaining the ancient historical massing of forms. Le Corbusier's response to this opposition was the necessity to educate

the people to appreciate the fundamental elements of modern urbanism, "air, sun, and green space." In the end, the local architects won and Le Corbusier's Saint-Dié project remained a paper plan. Maintaining an elitist position Giedion explained: "this is but one more example of the tragic gulf that still exists between creative solutions and the power of judgement of politicians and administrators."<sup>131</sup>

According to Sert the core would necessarily respond to changing social needs. The urban architectural framework would function as a shell within which a composition of both permanent fixed points and temporary mobile elements could exist. The combination of elements would create a complex and dynamic spatial expression. The fixed points could hold their value through symbols and monuments, sculpture being the most appropriate medium to achieve the required monumentality. According to Le Corbusier the architecture of the core should neither be conceived as temporal nor as eternal, but rather as laboratories for research on ideas. His use of laboratories included clubs of all kinds that would remain alive night and day throughout the year. Sert added that these clubs would not only be meeting places, but places where exhibitions, concerts, theater, and debates would take place. In smaller towns, open air radio and television centers could enable the core to encompass spontaneous discussions on a global scale.

The question of spontaneity was ever present in CIAM's discussions. The core itself would allow for entirely spontaneous creative activities. The designers would position the different parts in a space available to everyone

regardless of class. Ian McCallum discouraged over-designing in terms of architectural elements; instead, spaces should be left open for spontaneous events such as street markets to take place. He encouraged designers to pay more attention to street furniture, advertising, night signs, and lighting in order to provide a visual and functional background for the different activities. The parts of this urban core would allow for flexibility according to the people's needs, including theater-like platforms and display areas enabling people to express their spontaneous reactions. The purpose was to discourage people from being anonymous spectators in favor of active participation, sharing, and bonding with one another. With this in mind, Le Corbusier proposed the design of a simple cubic shell which he called the "boîte à miracle" or the "box of miracles" which he described as follows [Fig. 2.13]:

.... the real builder, the architect, can construct the most useful buildings for you, because he knows most about volumes. He can in fact create a magic box enclosing all that the heart desires. Scenes and actors materialize the moment the magic box appears; the magic box is a cube; with it comes everything that is needful to perform miracles, levitation, manipulation, distraction, etc.. The interior of the cube is empty, but your inventive spirit will fill it with everything you dream of -- in the manner of performances of the old Commedia dell'Arte.<sup>132</sup>

Le Corbusier wrote from his experiences about a variety of examples that could be used as models for a "spontaneous theater" in the core.<sup>133</sup> The idea actually came to him in 1936 on a trip to Brazil. There he saw a multi-racial society whose rich contrasts created a spectacle on the street that they dominated at the time of carnival. In Venice he was struck by the

performance of "The Merchant of Venice" acted out in a piazzetta. The piazzetta's harmonious proportions became a natural stage for spectators to feel at one with their surroundings. The experience of watching the Commedia dell'Arte at Castello Sant Angelo and a puppet show on a French cruiser were both expressive of intense human dramas acted out on a day-to-day basis. Le Corbusier envisioned workshops in which people would meet to produce scenes from their every day lives. Poets, orators, actors, comedians, singers, and dancers of all ages would spontaneously appear from the masses, possibly at night or on Sundays, to perform on the open stages. Viable stage settings he had already proposed in his designs include the roof of the great hall for the United Nations in New York and an open air theater for the Museum of Knowledge in India. This museum of varied functions is an example of his experimentation and research workshops ideas.

In addition to "spontaneous theater," Le Corbusier also wanted to create spontaneous art workshops which he had observed in his travels. For example, in the ballroom of the Taj Hotel in Bombay mural decorations were replaced at least three times a month. Here, artists were given the chance to express what they knew and felt on a regular basis. At the Unité d'Habitation in Marseilles he witnessed a spontaneous mural painting by three architectural draftsmen. Also important to Le Corbusier was the inclusion of children's art clubs in conjunction with photography, cinema, orchestra, cooking, and other clubs. Ultimately, Le Corbusier confirmed the need for lively forums in which people's latent talents could find impromptu

expression.

Banham's critical observations correctly showed the weaknesses of the Congress by highlighting the abstract quality of the discussions without a cohesive intellectual backbone:

.... the Congress report.... is little more than a compendium of fashionable clichés, such as the need to integrate painting and sculpture into architecture, while at the heart of these so-called studies appears an intellectual and urbanistic vacuum: the center of the city is considered simply as yet another functionally designated area, an open space, to which the citizens were to be attracted by some mysterious quality of 'spontaneity.'<sup>134</sup>

Incapable of maintaining a vanguard vision, the leaders began to retreat after the Eighth CIAM, and from this moment on there was a significant change in the history of CIAM. Aware of the need for a new direction if CIAM were to have a future, the senior members were concerned with how to include the younger generation into the organization. Giedion called for a CIAM Council meeting held at Le Corbusier's office at 35 rue de Sèvres on May 10, 1952 "to discuss the departure of the 'older members' of CIAM and passing the torch to the 'younger members,'" as well as to comment on the "Charte de l'Habitat" of André Wogenscky (a younger member) that would eventually dismiss the simplistic Athens Charter.<sup>135</sup>

Commenting on the downfall of CIAM which, according to Rogers, began at the Bridgwater CIAM with the admission of many diverse groups causing severe internal divisions and a lack of focus, Rogers felt that the older members should not leave the CIAM and, like Sert, asserted the older members were needed to guide the new generation. Honegger was clear that

CIAM had reached “a state of fossilization” and urged a gradual but active replacement of older by younger members. Le Corbusier also did not want to stall the immediate opening of the doors to the young, he said:

I believe that those present are too old and have finished ‘conquering.’ At the beginning, there were only architects at the CIAM, following there were architect-planners. I now believe that the problem of urban planning implies such a concord of diverse disciplines that we no longer have the necessary versatility. We are no longer the ‘conquering generation.’<sup>136</sup>

Gropius had the correct premonition that the Ninth CIAM would be a congress of transition where the older members would function primarily as spectators allowing in the new young leaders who would then organize the Tenth CIAM. At this point in the history of CIAM the discussion of the importance of artistic collaboration was abandoned and replaced by issues of aesthetics in relationship to habitats at the Ninth CIAM in Aix-en-Provence in 1953. The Eighth CIAM marked the last CIAM where issues on the synthesis of the arts were discussed. The Tenth CIAM Congress took place in Dubrovnik in 1956 and the final demise of CIAM occurred at the last CIAM in 1959 in Otterloo.<sup>137</sup>

### **Unesco and the Venice Conference on the Arts - 1952**

From the outset Unesco was aware of the problems, some of which Zevi had expounded on with his criticisms of the Seventh CIAM, facing international organizations. It was evident that if Unesco was going to be a productive organization it had to take a more practical and synthetic

approach. In contrast to CIAM's struggle with changing what appeared to be an old, hardened structure to adapt to postwar needs, Unesco was creating a new program and starting with a clean slate in the postwar milieu. It is significant to note that the last CIAM to focus on issues of the synthesis of the arts was the Eighth CIAM of 1951 and that similar discussions were carried through to the first Unesco Conference on the Arts in Venice in 1952. It is at the Venice Conference that Le Corbusier presented the most concrete views of his Porte Maillot Pavilion of the Synthesis of the Major Arts as "workshops" which he had already alluded to at the Seventh CIAM. A brief background into the history of Unesco will help give an understanding of its philosophy and its emphasis on a practical approach.

The premise for Unesco was first conceived in London in November, 1942 at the introductory meeting of the CAME (Conference of Allied Ministries of Education) initiated by R.A. Butler, President of the Board of Education of England and Wales, and Sir Malcolm Robertson, Chairman of the British Council.<sup>138</sup> From CAME's regular sessions that lasted through 1945, the idea gradually emerged of creating an organization that would ultimately promote educational matters, through cooperation, among all the nations of the world. Subsequently, in San Francisco in the spring of 1945 the UNCIO (United Nations Conference on International Organization) in conjunction with its discussions on the organization of postwar security recommended that another conference convene to design an international "intellectual organization."

Since 1925 France had played an important role in the development of an “intellectual organization” when the IIC (International Institute for Intellectual Cooperation) of the League of Nations was founded in Paris and served as a perfect prototype for Unesco. Paul Valéry, who played an important role in developing the ideas behind the French delegation at the 1945 UNCIO Conference, had been also an active member of the IIC, together with Albert Einstein, Henri Bergson, Sigmund Freud, Marie Curie, Gabriel Mistral, Aldous Huxley, Thomas Mann, Miguel de Unamuno, and Rabindranath Tagore. This impressive group of people believed that the recovery of the world was possible through the empowerment of the intellect in the matters of the world, a concept that took an eminent position in the minds of the leaders of Unesco.<sup>139</sup>

Finally in San Francisco in October, 1945 the United Nations Charter was adopted, containing article 57 that provided for the creation of a satellite agency in the educational, scientific, and cultural fields. This agency was christened Unesco the following month when its constitution was drafted by delegates of forty-four nations. The constitution was then ratified in November, 1946, and in the same month the first session of the General Conference was held at the Sorbonne under of the presidency of Léon Blum. Julian Huxley,<sup>140</sup> who was elected Director-General of Unesco, presented a paper at the Conference entitled, “Unesco -- Its Purpose and Philosophy,” proposing ideas on which Unesco should be based.<sup>141</sup>

Huxley stated the twofold aims of Unesco: first, it was to serve the

international objectives of the United Nations that were to contribute to peace and security for the welfare of humanity as a whole; and second, it was to foster, in the broadest sense, all aspects of education, science, and culture. These aims were further developed in the preamble of the constitution that began with the noble words of the British Prime Minister Clement Attlee “since war begins in the minds of men, it is in the minds of men that the defenses of peace must be constructed.”<sup>142</sup> It continued by stressing “that ignorance of each other’s ways and lives” leads to mistrust between peoples of the world which in turn often times breaks out into war.<sup>143</sup>

The preamble then proceeded to define the cause of the last world war as the obfuscation of democratic principles based on the promotion of the dignity, equality, a mutual respect among men that were replaced by ignorance, prejudice, and doctrines of inequality. From this premise it asserted “that the wide diffusion of culture, and the education of humanity for justice and liberty and peace.... constitute a sacred duty which all nations must fulfill,” and further stated that peace founded exclusively on the political and economic arrangements of governments would not last unless that peace was founded “upon intellectual and moral solidity of mankind.”<sup>144</sup> Finally, all state members agreed on the following:

... believing in the full and equal opportunity for education for all, in the unrestricted pursuit of objective truth, and in the free exchange of ideas and knowledge, we are agreed and determined to develop and to increase the means of communication between their peoples and to employ these means for the purposes of mutual understanding and a truer and more perfect knowledge of each other’s lives.<sup>145</sup>

Regarding the field of the arts, including painting, sculpture, music, dance, theater, literature, film, architecture, interior design, and industrial design, Huxley stated Unesco's commitment to the common man versus the highly educated elite; clearly because its constitution advocated the advancement of the common welfare of mankind. This implied a world humanism both in the sense of including all the peoples of the world, and of treating each individual person equally in terms of "human dignity, mutual respect, and educational opportunity." Nevertheless, Huxley was skeptical of slogans like "the age of the common man" because they had the tendency to promote mediocrity and discourage high quality which went counter to Unesco's belief in raising man to the highest level attainable. Therefore, Unesco also encouraged the harnessing of genius however incomprehensible it appeared to the masses.

According to Huxley the successful work of art always produced an aesthetic emotional impact that was physiological, irrational, and intuitive in nature. Art had important social functions on both individual and community levels. On an individual level the aesthetic creative urge was seen by Huxley as fundamental to healing an incomplete personality, because the practice of artistic expression could liberate, resolve conflict, and promote self-confidence. Communally it could serve to express the life and spirit of a society, evoking its traditions and aspirations. Especially significant, in light of the dangers of conflict between nationalism and internationalism, art had the potential to provide a beneficent outlet for national feelings.

Huxley described the existing egregious physical environment of many industrial cities around the world as lacking in planning and aesthetic values that he thought deprived its citizens of an entire aspect of life, leading to a general malaise with feelings of frustration and unhappiness. To remedy this condition, Huxley recommended the basic study of the history of art as well as its direct creative expression in general education. In addition, he saw the indispensable role of both central and local governments in taking responsibility for the physical, aesthetic environments of their communities; meaning that government officials needed to be educated to be made aware of the value of art for the community. Summing up his ideas on the arts Huxley stated:

I will conclude by recalling that Unesco is the first agency expressly charged with concern for the arts; and by reiterating the fact that the rise of science and technology have led the modern world to lay undue emphasis on the intellect as against the emotions and on the material as against the spiritual satisfactions, with the result that the arts to-day are neglected or distorted. It will be for Unesco to help see that in the world of tomorrow art takes its place on terms of equality with science, and plays an equally important role in human affairs.<sup>146</sup>

Huxley also discussed Unesco's commitment to the improvement, preservation, and international exchange of culture through cultural institutions manifested in their various forms such as museums, art centers, art galleries, libraries, reading rooms, zoos, botanical gardens, natural reserves, and historical monuments. Unesco was also committed to the study of methods for making culture available to the widest possible public, whether by interchange among institutions, by rotating cultural artifacts among storage rooms and exhibition galleries, or by loan or traveling

exhibitions. Equally important was the exploration of ways to improve the techniques of exhibitions, including mass media, notably by radio, film, television, and improved methods of reproduction. Mass media were seen to have tremendous potential in achieving world peace through rapid and wide dissemination of cultural information, demonstrating that common interests could transcend national boundaries and that international cooperation was possible.

Huxley referred to the development of “living museums” in reaction to the traditional concept of museums as repositories of collections with the inclination to pay more attention to the past than the present. One of the ideas of a “living museum” was to encourage museums and art galleries to exhibit and thereby financially support the works of contemporary artists. Another way to bring museums and art galleries alive was to provide facilities within these institutions for ordinary people to learn about art and to produce their own creative artistic expressions. Through the establishment of diverse workshops and studios the common man could enjoy the creative work in one of the arts of his choice. Unesco was to study ways and means of setting up art centers or cultural centers in close relationship with other public institutions, most importantly, libraries, museums, and schools. CIAM’s civic centers with multiple cultural public buildings and spaces had been similarly conceived to humanize society. Le Corbusier clearly adapted his design of “workshops” as part of his Porte Maillot Pavilion of the Synthesis of the Major Arts to comply with Huxley’s idea of “living

museums.”

In his concluding statement Huxley said the task of Unesco was “to help the emergence of a single world culture, with its own philosophy and background of ideas, and with its own broad purpose.”<sup>147</sup> He addressed the problem of two opposing philosophies of life, from the West and the East, that could become the reason for conflict and the cause of a third world war. These two philosophies could be categorized as individualism versus collectivism which, according to Huxley, could be reconciled through a kind of “evolutionary humanism” by moving away from rigid social dogmas and towards a focus on the development of the individual within the community. He believed that by the most complete self-development of the individual, one could establish one’s relationship to others. Unesco’s approach to these social problems needed to be dealt with equally philosophically and practically. Huxley, advocating for the foundation of a unified philosophy, called for the highest standards in the promotion of education, science, and culture.

Huxley’s points of view on Unesco did not find unanimous support from the Commission; on the contrary, they caused a wide range of debates. Paralleling some of the debates of the CIAM it was clear that the ideas of the leadership concerned with concepts of synthetic unification did not ring true with many of the members. The writer and philosopher Jacques Maritain, head of the French delegation, rejected Huxley’s “evolutionary humanism” and his desire to provide Unesco with a unified philosophy; emphasizing the

practical goals of Unesco, Maritain noted:

In the tower of Babel of modern thought, dig as deeply as we will, there are no common foundations left to speculative thought.... Because the end purpose of Unesco is a practical one, agreement between minds can be reached spontaneously, not on the basis of common abstract concept, not on the affirmation of one and the same vision of the world,... but upon the affirmation of a single body of beliefs for guidance in action.... This is little enough, no doubt.... It is, nevertheless, enough to enable a great task to be undertaken.<sup>148</sup>

The optimistic idea of a world congress of philosophers whose purpose was to provide humanity with an agreed philosophy was also abhorred by the Neapolitan philosopher, Benedetto Croce. Croce pointed out that Unesco was a Western institution founded on the laws of human liberty. He was repelled by Unesco's single-minded ideas based on the premise of true good intentions that in the long run would lead to sterile propositions and boredom.

Realistically, he emphasized the point that philosophical agreement was lacking between the two opposing currents, the liberal and the totalitarian, that divided the world. In his view, Unesco could only take the practical form of public, world debate searching for principles to enhance the dignity of human life and civilization. He did not doubt that the principles of freedom of thought would win over authoritarian ones, but it was inconceivable to him to establish a world organization based on preconceived ideas of truth. He suggested Unesco have the courage to willingly dissolve itself in homage to world liberty, and in so doing, redeem itself from its mistakes. Croce explained, "it will thereby give proof that our Western world of liberty knows how to correct its errors, even though, and this is humanly unavoidable, this

involves a corresponding mortification.”<sup>149</sup> Although Unesco tried to mediate between individualism and collectivism, it seems to have endorsed a program that was closer to the ideas of Western democracy, where community is achieved through individual development. It is also significant to note that no Russian artists appear to have been included in the first International Unesco Conference on the Arts in Venice in 1952.

In spite of strong criticisms of its philosophical stance, Unesco continued to forge ahead most successfully in the practical realm. It established liaisons with international non-government organizations such as the ICSU (International Council of Scientific Unions) and founded subsidiary branches like the ICOM (International Council of Museums) entrusted to run a unique documentation center holding information on all types of museums.

In the third Unesco session of 1948 in Beirut, a resolution was adopted to design a questionnaire with the co-operation of artists from around the world in order to discuss the way artists could serve the goals of Unesco. The foremost concern for Unesco was the artist's freedom in relation to the conditions within which the artists exercised their creativity and to obstacles that could interfere. Unesco affirmed the importance of the arts and the humanities in society in article 27 of the Universal Declaration of the Rights of Mankind which stated that “every person has the right to freely partake in the collective life of the community and to enjoy the arts.”<sup>150</sup>

The object of Unesco's questionnaire was to improve the artist's condition and situation within modern society by ensuring the artist's absolute freedom to create without political, social, moral, religious, and aesthetic censorship. Within the domain of the material and financial security of the artist, Unesco could help by partaking in international and national legislative decision-making. The essential goal of the questionnaire was to find the means to give the artist more freedom for creativity and more material and spiritual security.

Article 29 of the Universal Declaration of the Rights of Mankind introduced the notion of a fundamental relationship between the individual and the community, as discussed at CIAM, by stating that "the individual has an obligation towards the community to fully and freely express his personality, and equally important, the community has the obligation to favor the full and free expression of the individual personality."<sup>151</sup> The questionnaire was created in two days, the 5th and 6th of April, 1949, by a private group of eminent writers, painters and musicians residing in Paris. A total of twenty-eight questions were grouped in two divisions. The first eighteen questions addressed economic obstacles while the following ten questions concerned problems of a social and a political nature. Compared to the theoretical nature of the CIAM questionnaires, all questions of this Unesco document possessed a more precise and concrete character [see Appendix 4].

A very high response to the questionnaire indicated that artists the

world round encountered the same fundamental obstacles, clearly, each with variations corresponding to the different countries. In summation, five fundamental obstacles appeared to effect all artists: lack of sufficient aid from public and state sources; insufficient conditions such as contracts, copyright laws and financial possibilities available to the artist; difficulties on an international level including barriers created by customs, judicial, and economic laws making it difficult for artists to be recognized abroad as well as finding material support once abroad;<sup>152</sup> difficulties because of the high cost of materials and studio space to work in; difficulties caused by different types of censorship and discrimination.

In addition to the questionnaire, a committee was created to research other sources such as official declarations, statements from artists, and newspapers and magazines which confirmed the results of the questionnaire. This served as a serious and indispensable documentation complementing the questionnaire. On February of 1950, in response to the results of the questionnaire, the Director-General, Jaime Torres Bodet<sup>153</sup> set up the Committee of Experts on the Freedom of the Artist in Paris, to specifically address the freedom of the artist and to give suggestions on how to approach solutions to the five problems that had been identified. This Committee was asked to continue the research, in order to keep the information up to date and to write up a statute of the artist to be approved by the member states.

The issues raised by the questionnaire served as a backdrop for the Organizing Committee of the International Conference of Artists held in

Paris in December of 1951. Torres Bodet defined the aims of such an international conference of artists, to be held in Venice in 1952 on the occasion of the XXVIth Biennial, as an opportunity to study the practical conditions required to ensure the freedom of artists and to seek means of associating artists more closely with Unesco's work.<sup>154</sup> He explained the need for an International Association of Visual Arts and warned the Organizing Committee not to wander off in philosophical discussions but to concern itself with the actual day-to-day problems of artists.

The Organizing Committee agreed upon the creation of seven sections, representing music, theater, literature, cinema, painting, sculpture, and architecture and invited nine artists of recognized authority to present general statements to serve as a basis for discussion.<sup>155</sup> These statements were published two years after the Conference in the book The Artist and Modern Society which stands today as the primary source and testimony of the Conference.<sup>156</sup> An overview of these statements along with the introductory speech by the Director-General echo many overlapping themes discussed at the postwar CIAM Congresses such as a concern for community, the synthesis of the arts, and the importance of state support in the arts; but, from a more concrete perspective. These issues as presented at the 1952 Unesco Venice Conference on the Arts strongly influenced Le Corbusier's design for the Porte Maillot Pavilion of the Synthesis of the Major Arts and played an important role at the Conference.

In his opening speech, Torres Bodet exalted masterpieces of art and

literature as lasting assets which nations handed on to posterity, calling them “monuments of stone, color, sound, and words.”<sup>157</sup> Compared to the conferences within an exclusive architectural and visual arts milieu that dealt with issues of monumentality, this Conference included literature which extended the issue of monumentality to include the written word: books. In Torres Bodet’s mind the greatness of monuments was their endurance beyond the memory of empires and wars.

He pointed out the communal aspect of works of art that increased in value through being shared. A kind of fraternity could be established by admirers of the same artists -- made the most evident in the context of the theater where the audience participated in a spontaneous emotional response. The artists, as the ultimate bearers of culture exemplified by the city, could touch people at large, creating a sense of unity.

In an age when private patronage was diminishing, Torres Bodet believed the state should support the arts but not interfere in the work of creation. The states’ task was to develop individual talent by increasing the number of schools and museums, study and travel scholarships. The state could also facilitate the training and apprenticeship of artists as well as publish their works and get them performed or exhibited. It was incumbent upon the state to encourage the dissemination of works of art and to ensure the education of the public in the visual arts, music, and literature. According to Torres Bodet, the noblest task of the state was to ensure that the arts were not undermined because of poverty, lack of leisure or lack of

knowledge.

He showed concern for the isolation of the arts from one another and suggested a synthesis in which the painter and sculptor worked in collaboration with the architect, because in his view, such a synthesis defined the character of each of the great epochs in human culture. He saw the danger in the specialization of different fields where working in isolation was bound to have considerable negative repercussions on civilization as a whole. Fragmentation as was experienced at the time seemed to be on the increase and a strain on world culture.

In light of this condition, Unesco saw itself, according to Torres Bodet, as an intergovernmental organization, with its own limitations, but with the potential to foster discussion between experts and specialists in the most widely differing branches.<sup>158</sup> Addressing the participating artists directly, he asked them to express their hopes and desires, to suggest solutions to a broad range of problems related to artistic activities that formed part of social relationships and that took place in the general life of the community. In addition, the Organizing Committee asked the artists to handle their subjects in their own way so as to inspire a spontaneous response. What the organizers did not want to do was to create a systematic survey of the problems to be discussed; instead, they sought a genuine expression of opinion. The result of the papers presented was a wide range of approaches to each of the seven subjects, demonstrating a variety of different attitudes and concerns. However, there was both a personal and pragmatic tone to each

paper.

The Brazilian architect Lucio Costa, who led a team of architects with Le Corbusier as the consulting architect for the design of the Ministry of Education and Health Building in Rio de Janeiro between 1936 and 1943, gave the paper "The Architect and Contemporary Society." In discussing the imminent need for housing after the war Costa praised Le Corbusier for best addressing in contemporary society the combined issues of technology, sociology, and art in architecture, especially in Le Corbusier's Unité d'Habitation housing scheme for Marseille (1947-1952). The most difficult problem in Costa's mind, however, was the lack of preparation and indifference of the public at large to modern schemes of architectural planning. He suggested the public be educated through two media that had not yet been exploited: film and toys. These media could be developed under the guidance of Unesco and the personal supervision of experts in the field like Le Corbusier.

He observed that most people at all social levels had a negative attitude towards modern architecture for three main reasons:

First, the markedly different appearance of modern constitutes a breach of the natural laws of evolution; second, modern architecture does not respect national tradition; third, its eminently utilitarian and deliberately functional character is incompatible with architectural expression and makes it incapable of producing the impression of dignity which is desirable.<sup>159</sup>

He countered these points by first stating that modern technology had developed from the industrial revolution and had a different evolution from that of traditional techniques, so the appearance of modern architecture was

naturally diverse. Next, he argued that “native” variants inevitably did enter the architectural design process of modern structures as a genuine expression of the national character of the designer. Lastly, he affirmed that the modern architect was an artist fully capable of creating a plastic expression that deeply affected human feelings. Costa emphasized the concept of plastic quality as an essential element of architectural design, a concept that needed to be given priority by architects and professional education. While praising Le Corbusier on the one hand, he acknowledged the lack of a developed sense of plastic quality in contemporary architecture.

After expounding on the idea that the plastic aim was what distinguished architecture from mere building, Costa concluded that in light of the contradictions of the modern world, he predicted a new balance of forces gradually coming together which he termed “the theory of convergent consequences.”<sup>160</sup> For example, all the countries gathered at international conferences seemed incompatible, each with a different set of problems and needs. Despite the seeming impossibility of reconciliation among them, Costa believed that they would slowly “converge toward a common meeting ground and towards a new world wide synthesis.”<sup>161</sup> He ended with the following optimistic words: “the evolutionary process will then shift to another plane, to the healthy rhythm of a cycle without precedent -- the most productive and the most human in history.”<sup>162</sup>

The Italian artist, Giuseppe Ungaretti’s paper, “The Artist in Present-day Society,” began with a discussion on the essence of poetry as the unifying

ingredient of all the arts. Together with poetry Ungaretti brought up the concept of impermanence as an element that allowed the breadth of poetry to be perceptible to people, dealing with thoughts of life and death, the infinite and the ephemeral, as could be found in the writings of Blake, Leopardi, and Baudelaire. Ungaretti highlighted the characteristics of impermanence regarding his times which he described as laden with a kind of restlessness and confusion, causing the widening gap between the artist and the public.

Ungaretti explained that since the Romantic period the artist had a fixation on impermanence brought about by the constant transformations thrust upon society by technological advances. Just as technology had been coming up with innovations, the artists, deeply engrossed in the realities of their times, were constantly obliged to invent a new language to express themselves. He pointed out that architects must understand their role as artists and must be especially sensitive to balance their understanding of technological discoveries with their poetic imagination. The sense of impermanence created by the industrial revolution was heightened by the experience by numerous artists of both world wars in which they saw the instant destruction of many works of art. Ungaretti's main recommendation for bridging the relationship of the public to art was to bring the critical thinking of the arts into the school system and to publish critical articles in the public press.

The American playwright Marc Connelly in his paper "The Theater and Society" described theatrical activities in different countries from a

historical perspective as well as those in the postwar era. In his opinion, the French and the German theater stood out as fine examples. The French had a strong theatrical tradition established by the government. In addition to a plethora of commercial theaters in Paris there were four national theaters: the Opéra, the Opéra-Comique, the Odéon, and the Comédie-Francaise, all of which depended on the National Ministry of Education and whose deficits were paid by the state. There were also four state subsidized young companies that took plays to the theaters in towns in the French provinces. But more interesting and related to Le Corbusier's ideas for "workshops" of the pavilions of synthesis of the arts was the French tradition of the "study theater." These "study theaters," such as the National Popular Theater led by Jean Vilar, provided an environment for new ideas. They traveled to their audience and experimented with bringing the public closer to the theatrical experience by holding social gatherings where the audience met the artists and by arranging balls where they could dance together.

In Germany throughout the Weimar Republic the theater was solidly organized and an integral part of everyday life. After the Second World War the state theaters which were the very foundation of German dramatic culture were reintroduced in makeshift theaters located in beer halls, clubs, stock exchanges, and even within the ruins. Connelly also praised Scandinavia for its healthy theatrical network that covered the entire country and served approximately three- hundred communities. The main companies were financed by the state and municipalities while a few other

touring companies and open-air theaters were financed by trade unions. In contrast to the prestige the theater received as a respectable and cultural art in the above mentioned countries, Connelly pointed out that in the United States the major theatrical system radiated from Broadway in New York City and was almost entirely funded by private financing, giving the impression to Europeans that the theater had been completely supplanted by the movies in the United States.

In his conclusion, he drew upon the ancient Greek understanding of the theater as "a hospital of the spirit," where a cathartic cleansing and reflective stimulation could aid people in examining themselves more deeply.<sup>163</sup> He called for government assistance, but naturally free of political control, and saw the theater as part of the human rights objectives as sponsored by Unesco.

Henry Moore's paper "The Sculptor in Modern Society" saw sculpture more than painting as a public art, and he therefore addressed the issue of the relationship between of the artist and society. He contrasted the simpler communal and hierarchical societies of the past, which had a unified structure, to the complex and fragmented contemporary society. In the past, artists had a definite place and function in society while twentieth century artists did not have a clear position nor a defined patronage. Moore saw complexity in having to deal with a number of different patrons ranging from private individuals to some form of organized individuals such as a public corporation, a museum, an educational institution or the state. He stated that

the diversity of patronage required of the contemporary artist a kind of adaptability that was not required of the artist of a unified society. He asked artists to be flexible and to see their changing role in a society. Having worked in the public domain, Moore mentioned the significance of a team of artists and planners collaborating in the design of the whole project. Ideally this collaboration should begin with the initial participation of all the artists and designers involved. He complained that more often than not art works were seen as an afterthought, like added pieces of decoration.

Moore ended his talk by endorsing Unesco as an organization with the potential to provide the appropriate conditions for the flourishing of the arts. Unesco could investigate the laws of cultural development in different countries to encourage the organic vitality of the arts while at the same time guaranteeing the freedom and independence of the artist.

Jacques Villon chose to address the position of artists in France in relationship to their patrons and audiences from a practical standpoint in his paper "The Painter in Modern Society." He advocated an appeal for financial aid, including social security from the state, without interfering with the freedom of the artist. In addition, he recommended the creation of an "arts fund" which would receive contributions from all who benefited from art works and a tax exemption granted to all donors to museums and galleries. He also believed the state should support the arts by establishing commissions, study and travel fellowships, and national prizes.

Regarding the general public he stated that architecture, as an everyday

setting, was the main link to the arts. Architecture served as the frame for public art and had a direct educational influence. He asked for permanent contracts for painters, sculptors, and architects with international organizations, using Unesco as a model.

Also with a realistic point of view George Rouault presented the paper "The Painter's Rights in His Work." From his first-hand experiences of the risks and dangers in the handling of his work he made a list of six points to protect the artist: the artist's rights in his work before sale, the artist's rights over his work after it has been handed over, reproduction of the artist's work, the artist's right in exhibiting his work, the rights of heirs and executors, and the fate of works of art in case of war.

The Swiss composer Arthur Honegger in his paper "The Musician in Modern Society" spoke of the many difficulties young composers faced when attempting to get their works performed or printed. He presented three solutions to the situation: music should be a required course beginning in primary school and musical education should direct audiences towards an appreciation of modern music, increased grants to symphony orchestras (and at least one modern composition should be included in every program), and the state should commission works for theaters, schools, and radio.

In the paper "The Writer in the World of Today," the Egyptian writer Taha Hussein presented a dark and pessimistic view of the world affected by two world wars. Concerning the integrity of the writer he discussed the many ways a writer could make a living from his profession and the importance of

taking a social role.

Discussing his experiences in the Italian film industry Alessandro Blasetti in his paper "Is Cinematography a Collective or an Individual Art?" concluded that film was a practical collaboration among individuals and as a natural expression of its times was essentially a collective art form.

Immediately following the papers presented on the 23rd of September, 1952, under the umbrella of the Committee of the Arts, a discussion addressed the philosophical and social problems that had been raised. In addition, the delegations from France, Switzerland, Yugoslavia, and Norway presented reports that looked at the activities of each of their national organizations and the existing collaboration among architects, painters, and sculptors as well as the resources needed to develop an understanding of the arts through education. The German and Italian delegations made reference to the various systems that associations of artists were trying to introduce in their respective countries to regulate artistic competitions.

The Committee of the Arts then decided to create three sub-commissions. The first headed by Caes, a representative of the International Union of Architects, was asked to study the problem of a collaboration among architects, painters, and sculptors and their relationships with countries abroad. Issues of state assistance, legal procedures and the need to create common interests on these grounds were addressed. The second headed by Alfred Roth, another representative of the International Union of Architects, was in charge of studying the internal problems of a collaboration among the

different arts. Hence, they saw the need to look for a general understanding among the artists in order to create a collaboration toward a synthesis of the arts. The third was composed of fifteen members from various countries headed by Severini. Their job was to examine the problems in the creation of an International Association of Plastic Arts.

After an extensive and in-depth discussion of the various problems, the Sub-Commissions worked out several resolutions that were approved by the Committee of the Arts. In particular, the Third Sub-Commission requested Unesco to unconditionally support the preparatory committee for the creation of an International Association of Plastic Arts. This resolution was unanimously approved by the thirteen delegates present.<sup>164</sup>

The Committee of the Arts then examined a statute which it submitted to all the national organizations and artists that were present. The document set forth the general aims of the International Association of Plastic Arts. Among the aims was the encouragement of international collaboration in the cultural field that superseded any aesthetic or national preconception of artists from the various countries, and the protection of the economic and social conditions of the artists on an international level. The Committee of the Arts discussed the creation of a committee of the Association open to all the artists present at the Conference, and nominated the Executive Committee and Secretary of the Association.<sup>165</sup> This led to the foundation of the International Association of Plastic Arts in 1954 which can be singled out as the most important outcome of the Conference.

The American novelist and playwright Thornton Wilder, serving as a reporter at the Conference, emphasized the fact that the Venice Conference was the first conference attended by a truly international group of artists from many different creative fields. Most of all, he said, the artists wished to reaffirm two principles:

... that the artist through his creation, has been in all times a force that draws men together and reminds them that the things which men have in common are greater than the things that separate them: and that the work of the artist is the closest example of the operation of freedom in the human spirit.<sup>166</sup>

He described the Conference as “filled with anxiety or enormous expectations” during the first three days when hundreds of extremely individualistic people from diverse traditions felt some sort of responsibility towards the issues expressed by the Director-General in his opening speech. The anxiety increased as the participants separated and withdrew into committee rooms. After moving from committee to committee several times a day during the length of the Conference, Wilder felt the most important fact of the Conference was a general sense of joy that increased as contact developed among artists expressing their sincerest convictions. Wilder discovered that when artists discussed their problems at an international level certain clarifications and solutions presented themselves which were not apparent when considered solely from a national point of view. The Conference as a whole was a success as he explained:

These reunions have taken the form of spiritual progress, a development, and a test or trial. After some insecurity in method and focus, after some false start, we have shown that we can think internationally and that -- extreme individualists though we are -- we

can think and plan and act cooperatively.<sup>167</sup>

Another reporter, N.C. Mehta concurred with Wilder when he characterized the Conference:

.... by so marked a spirit of co-operation, solidarity and fraternity among artists from all parts of the world -- an encouraging omen. Not only did this Conference, as someone put it, represent a kind of review of the situation, but it also marked the first stage of a continuing program of action.<sup>168</sup>

During the Conference the following recommendations were constantly reiterated: "Let us begin doing something practical. Lets get down to concrete facts. Let us put an end to such generalities."<sup>169</sup> Wilder understood that at the moment of laying the foundations of a great work as projected by the Conference, simple and self-evident principles would arise. He advised the participants not to despise these principles because they were not self-evident to the non-artist, or to the world at large, but were a fundamental part of establishing the cornerstone of the structure of an international arts organization. Wilder observed the striking fact that all committees exhibited an unquestioning confidence in the competence of Unesco to collect and allocate funds, to select committees for their distribution, and to supervise a wide variety of projects.

The only participant Wilder referred to in his report was Le Corbusier because, according to him, Le Corbusier was a notable example of someone envisaging an international activity organized around the co-operation of several arts. It was within this context that Le Corbusier presented his idea for pavilions of the synthesis of the major arts as "workshops." Their

purpose was to provide an architectural environment for artists to respond to while they were working together and then to serve as exhibition space. The closest Le Corbusier ever came to realizing one of these international “workshops” was the project for the Paris exhibition for the Synthesis of the Major Arts at the Porte Maillot. It is clear that Le Corbusier was using the Unesco platform to raise support for his project that was first conceived in 1950 and that was still struggling to get built.

Even though Le Corbusier’s design for “workshops” was not realized, Unesco developed, independently from Le Corbusier, a successful program for traveling exhibitions. From the beginning of its history Unesco’s advisers for museums and exhibitions promoted international exchange of exhibitions as a means of intellectual and cultural exchange. They were aware of the few ongoing large traveling exhibitions that moved among a limited number of important cities around the world. However, they advocated an increased number of traveling exhibitions that were more diversified and smaller in scale, and that would go to towns in the countryside as well as to the large cities. Recognizing that some countries had experience in organizing and preparing different kinds of traveling exhibitions while others had very little or no experience, Unesco decided to publish a set of standard technical guidelines in a book, Manual of Traveling Exhibitions.<sup>170</sup> Elodie Courter Osborn, the Director of the Circulating Exhibition Department of the Museum of Modern Art in New York, was recommended to write the manual by the American Federation of Arts.

The prototype for traveling exhibitions used by Unesco dates back to 1855 when the Victoria and Albert Museum first lent art to the Central School of Design and to various provincial schools.<sup>171</sup> In 1857 a separate Circulation Department was opened to direct these loans, and since its foundation the Victoria and Albert Museum has served art students as well as the general public through loans to museums and galleries. Unesco's ambition was to not limit traveling exhibitions to the arts but also to include architecture, urban planning, natural sciences, history, science, and so on.

What was new was the development of the completely packaged traveling exhibition which incorporated its own wooden frame installation units for easy installment. This system made it easier for traveling exhibitions to reach underdeveloped countries with no pre-existing installation facilities. Compared to Le Corbusier's sophisticated design for the pavilions of the synthesis of the arts, this design was rudimentary but significantly more practical.

Unesco's first traveling exhibitions were of color reproductions of works of art, perhaps alluding to André Malraux's "imaginary museum" -- the use of color reproductions in illustrated art books. Malraux described his idea as follows:

Alongside the museum a new field of art experience, vaster than any so far known (and standing in the same relation to the art museum as does the reading of a play to its performance, or hearing a phonograph record to a concert audition), is now, thanks to reproduction, being opened up. And the new domain -- which is growing more and more intellectualized as our stock-taking and its diffusion proceeds and methods of reproduction come nearer to fidelity -- is for the first time

the common heritage of all mankind.<sup>172</sup>

Unesco's idea was to use reproductions that could easily reach the remotest places in the world as a medium for information and education. Surely, Torres Bodet would have referred to this idea as monumental in scope. The first Unesco traveling exhibition was comprised of fifty reproductions of art works from 1860 to 1949 chosen by experts in the field. Eleven similar collections of the same reproductions were prepared to travel to the member states and were accompanied by a catalogue with a historical summary of the period and biographical notes of the artists whose works were being shown.<sup>173</sup>

The success of these exhibitions was exemplified by the 1950 Unesco Traveling Science Museum that went to Lima, Quito, and Havana.<sup>174</sup> In Lima it was visited by approximately five thousand people per day. The intention was to explain the newest developments in science. The most popular attraction was the astronomy section with a portable planetarium that could hold up to sixty people at a time and took the visitors on a trip to the stars. The demountable planetarium folded up into units no larger than a table. Another successful exhibition was done in 1952 in commemoration of the five-hundredth anniversary of the birth of Leonardo Da Vinci. Unesco prepared a series of forty-five traveling exhibitions each containing one hundred and fifty facsimile reproductions of Da Vinci's drawings.<sup>175</sup>

Within the context of these postwar international conferences and symposia one can observe the issues around the ideas of a synthesis of the

arts. These ideas originated with the end of the war and culminated at the time of the 1949 Seventh CIAM and the 1951 Eighth CIAM with Le Corbusier's 1950 design for the Porte Maillot Pavilion of the Synthesis of the Major Arts. The Eighth CIAM was the last one to address issues of the synthesis of the arts because the theoretical and abstract quality of the discussions seemed obsolete in a rapidly changing world needing concrete solutions to new urban problems. Founded on a more practical approach toward the arts and humanities, the first Unesco Conference on the Arts of 1952 served as the subsequent forum for Le Corbusier to develop and espouse his ideas for the Port Maillot Pavilion building-type. The significance of this pavilion-type must be understood within this conjunction of conferences concerned with issues of collaboration among the different arts, popular taste versus elite art, internationalism, and traveling exhibitions.

## Notes to Chapter 2

<sup>1</sup> Reyner Banham, "CIAM," Encyclopedia of Modern Architecture, Gerd Hatje, ed. (London: Thames and Hudson, 1963), p. 70.

<sup>2</sup> In addition to the above cited source, for a general overview of the history of CIAM see Sigfried Giedion, "Les CIAM," L'Architecture d'aujourd'hui (April-May, 1964), pp. 36-37. For the most extensive and illuminating look at the history of the CIAM's see Eric Mumford, The Discourse of CIAM Urbanism, 1928-1959 (Ann Arbor: UMI Dissertation Services, 1996). Regarding the early, pre-World War II CIAM's see Giorgio Ciucci, "The Invention of the Modern Movement," Oppositions, no. 24 (1981), pp. 68-91, and by the same author, "Il Mito Movimento Moderno e le Vicende dei CIAM," Casabella (Nov.-Dec., 1980), pp. 28-35. Also see CIAM: Dokumente 1928-1939 (Basel/Stuttgart: Birkhäuser Verlag, 1979).

<sup>3</sup> Le Corbusier oeuvre complète, 1910-1928, vol. 1 (Zurich: Boesinger, 1964), p. 175.

<sup>4</sup> CIAM, Die Wohnung für das Existenzminimum (Frankfurt: Englert and Schlosser, 1930).

<sup>5</sup> CIAM, Rationelle Bebauungsweisen (Stuttgart: Julius Hoffmann, 1931).

<sup>6</sup> Concerning the Athens Charter see Le Corbusier, "Discours d'Athènes," L'Architecture d'aujourd'hui, special issue (1933), pp. 81-89; Sigfried Giedion, "CIAM at Sea: The Background of the Fourth (Athens) Congress," Architect's Year Book, no. 3 (1949), pp. 36-39; and Anthony Eardley, "Giraudoux and the Athens Charter," Oppositions, no. 3 (May, 1974), pp. 79-80.

<sup>7</sup> Banham, "CIAM," Encyclopedia of Modern Architecture, p. 70.

<sup>8</sup> Though the outcome of Fourth CIAM Congress has been characterized as dogmatic in tone and rigidly conceived by Banham, it is interesting to juxtapose Giedion's experiential account of the Congress in his article, "CIAM at Sea: The Background of the Fourth (Athens) Congress," Architect's Year Book, no. 3 (1949), pp. 36-39, which gave the impression of a loose and open exchange among the various participants with moments of poetic reflection. He described a merry company of painters, poets, musicians, and writers among whom were Léger, Moholy Nagy, the Surrealist painter, Kurt Seligman, and Christian Zervos, the editor of Cahiers d'art. He related his conversations with Moholy Nagy around issues of light, color, and the plastic effect of the landscape, and described Le Corbusier sitting behind a column drawing in his sketch book.

<sup>9</sup> Fernand Léger, "Discours aux architectes," Quadrante (August, 1933), pp. 44 and 47. Translated into Italian in, "Discorso agli architetti," Casabella (Sept.-Oct., 1955), pp. 69-70.

<sup>10</sup> José Luis Sert, Can Our Cities Survive? (Cambridge, MA: Harvard University Press, 1942).

<sup>11</sup> Paul Zucker, ed., New Architecture and City Planning (New York: Philosophical Library, 1944).

<sup>12</sup> José Luis Sert, "The Human Scale in City Planning," New Architecture and City Planning, Paul Zucker ed., p. 395.

<sup>13</sup> *Ibid.*, p. 404.

<sup>14</sup> For a partial overview of the development of ideas on architectural monumentality in the twentieth century see Christiane and George Collins, "Monumentality: A Critical Matter in Modern Architecture," The Harvard Architectural Review IV: Monumentality and the City, MIT Press (Spring, 1984), pp. 15-35.

<sup>15</sup> This essay was originally written for publication by the AAA (American Abstract Artists) who asked Giedion as an art historian to collaborate with the painter Léger and the architect-urbanist Sert. Even though the AAA never published this essay they did publish Léger's essay "Modern Architecture and Color" in 1946.

<sup>16</sup> Sigfried Giedion, "The Need for a New Monumentality," New Architecture and City Planning, Paul Zucker ed., p. 550.

<sup>17</sup> *Ibid.*, p. 553.

<sup>18</sup> *Ibid.*, pp. 556-557.

<sup>19</sup> *Ibid.*, p. 551.

<sup>20</sup> *Ibid.*, p. 552.

<sup>21</sup> *Ibid.*, p. 553.

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*, p. 563.

- <sup>24</sup> George Nelson, "Stylistic Trends in Modern Architecture," New Architecture and City Planning, Paul Zucker ed., p. 573.
- <sup>25</sup> Louis I. Kahn, "Monumentality," New Architecture and City Planning, Paul Zucker ed., p. 577.
- <sup>26</sup> *Ibid.*, pp. 585-586.
- <sup>27</sup> Philip L. Goodwin, "Monuments," New Architecture and City Planning, Paul Zucker ed., pp. 589-601.
- <sup>28</sup> Ernest Fiene, "Figurative Arts and Architecture: Mural and Architectural Sculpture," New Architecture and City Planning, Paul Zucker ed., pp. 602-604.
- <sup>29</sup> Carol Aronovici, "Civic Art," New Architecture and City Planning, Paul Zucker ed., p. 369.
- <sup>30</sup> At the Second CIAM the Frankfurt statutes were drawn up defining the three operative organs of CIAM: first, the general assembly of members; second, the CIRPAC a committee elected by the general assembly; and third, working groups designated to address specific subjects in collaboration with specialists in fields other than architecture.
- <sup>31</sup> Two outstanding articles covering the development of the postwar CIAM's are: Jos Bosman, "CIAM After the War: A Balance of the Modern Movement," Rassegna (Dec., 1992), pp. 6-21, and Eric Mumford, "CIAM Urbanism After the Athens Charter," Planning Perspectives (1992), pp. 391-417.
- <sup>32</sup> "Document présenté par J.L. Sert," VI CIAM Congress to be held in St. Albans, London, in CIAM 6, Bridgwater, FLC, D3-16 p. 1.
- <sup>33</sup> Sigfried Giedion, A Decade of New Architectur (Zurich: Girsberger, 1951), p. 23.
- <sup>34</sup> Mary Jaqueline Tyrwhitt joined her first CIAM Congress at Bridgwater as a member of the MARS Group. In 1948 she began a twenty year association with Giedion as translator and editor of his numerous books and papers, including Space, Time and Architecture (1941) and Mechanization Takes Command (1947). Although she was not part of the old guard she played the important role of a mediator for them. Helena Syrkus of Poland was also nominated as one of the Vice-Presidents.
- <sup>35</sup> Three articles published shortly after the Sixth Congress (Sept. 7-14, 1947), each compiled by an unidentified journalist, accentuated the international

make-up of the Congress. "Bridgwater Occasion," The Architect's Journal (Sept. 18, 1947), pp. 245-249, gave a list of the different members identified by name and country as well as a group photograph. It portrayed a positive outcome due in part to "the strength of the world community of ideas among contemporary architects and town planners." Eric Mumford credits the enthusiastic impetus of the new members who were addressing the CIAM ideals on a world wide scale for keeping it alive for the following few years, see The Discourse of CIAM Urbanism, 1928-1959, p. 329. "CIAM 6 Congress," The Architect's Journal (Sept. 25, 1947), pp. 276- 279, provided a concise synopsis of the most important lectures presented, and "Modern Architects Hold First Postwar Congress," Architectural Forum (Nov., 1947), p. 15, emphasized the reconstruction of cities after the war hand in hand with the design of new cities around the world.

<sup>36</sup> Jacob Berend Bakema, "Architecture and Public Opinion: Social Architecture -- New Architecture," FLC, D3-16, pp. 225-226.

<sup>37</sup> *Ibid.*, p. 226.

<sup>38</sup> "Entrait de Comission, Buts de CIAM," FLC, D2-16, p. 61, and "Reaffirmation of the Aims of CIAM," FLC, D2-16, p. 65.

<sup>39</sup> Le Corbusier underlined and wrote notes on the margins of the article "Nous autres meurtriers" by Albert Camus in Franchise 3: Le Temps des assassins (Nov.-Dec., 1946), p. 12, in FLC, D2-16.

<sup>40</sup> Giedion, A Decade of New Architecture, p. 36.

<sup>41</sup> *Ibid.*, p. 1. Translated by author from French text: "enfin l'imagination entre les CIAM."

<sup>42</sup> See Eric Mumford, "CIAM Urbanism After the Athens Charter," Planning Perspectives, p. 402, for a more detailed overview of the MARS Group foundation and members. Also see Jos Bosman, "My Association with CIAM Gave Me a New Perspective," Ekistics, Sep./Oct.-Nov./Dec., 1985, pp. 478-479.

<sup>43</sup> Giedion, A Decade of New Architecture, pp. 16-17.

<sup>44</sup> J.M. Richards, "Architectural Expression," FLC, D2-16, p. 56.

<sup>45</sup> Aldo van Eyck, "Report concerning the interrelation of the plastic arts and the importance of cooperation," FLC, D3-16, p. 229.

<sup>46</sup> J.M. Richards, "New Empiricism: Sweden's Latest Style," Architectural Review (June, 1947), pp. 199-120.

- <sup>47</sup> Giedion, A Decade of New Architecture, p. 8.
- <sup>48</sup> Clement Greenberg, "Avant-Garde and Kitsch," first published in Partisan Review (Fall, 1939), reprinted in The Collected Essays and Criticism, Volume I, Perceptions and Judgments, 1939-1944, John O'Brian, ed. (Chicago/London: The University of Chicago Press, 1986), pp. 5-22.
- <sup>49</sup> Greenberg, "Avant-Garde and Kitsch," The Collected Essays and Criticism, Volume I, Perceptions and Judgments, 1939-1944, p. 8.
- <sup>50</sup> Eric Mumford covers the political implications of Greenberg's essay in light of the postwar CIAM in The Discourse of CIAM Urbanism, 1928-1959, pp. 262-265 and pp. 326-327.
- <sup>51</sup> Patrick Weiser, "L'Exposition internationale, l'Etat et les beaux-arts," Paris-Paris 1937-1957 (Paris: Gallimard, Centre Georges Pompidou, 1992), pp. 91-102.
- <sup>52</sup> Giedion, A Decade of New Architecture, p. 35.
- <sup>53</sup> Aldo van Eyck, "Report concerning the interrelation of the plastic arts and the importance of cooperation," FLC, D2-16, p. 231.
- <sup>54</sup> Le Corbusier hand written notes in "The Impact of Contemporary Condition Upon Architectural Expression," FLC, D3-16, p. 275.
- <sup>55</sup> Letter from Marcel Lods to Le Corbusier, Aug., 28, 1947, in FLC, D3-16, p. 38. Lods presented a critical view of the Athens Charter model to which Le Corbusier affirmatively responded by immediately proposing ASCORAL the task of modifying it. Also see, Tyrwhitt, "CIAM and Delos," p. 470, for a line by line description of the criticisms of the main failures of the Athens Charter. For other primary sources see, L'Architecture d'aujourd'hui (Jan., 1949); Le Corbusier, "Tools of Universality," Transformation, (1950), pp. 40-42; Giedion, A Decade of New Architecture, pp. 30-35; and, Le Corbusier oeuvre complète, 1946-1952, vol. 5 (Zurich: Girsberger, 1953), p. 40.
- <sup>56</sup> In line with a discussion on the postwar design symposia, it is relevant to mention the Bicentennial Conference at Princeton University that took place in the Spring of 1947 while the Sixth CIAM was being planned. Selected papers from the Conference were edited by Thomas H. Creighton, architect and editor of Progressive Architecture, and published under the title Building for Modern Man: A Symposium (Princeton, NJ: Princeton University Press, 1949). This Conference covered a broad spectrum of topics from the environmental needs of man as an individual and as part of the collective, to the physical, technical, and economic factors imposed on the designer, to the study of aesthetic form, to an inquiry into design education, and to the

methods of application of the principles of design on the environment and building. Among the twenty-four papers including, the stellar participation of Frank Lloyd Wright, Walter Gropius, and Richard Neutra, Giedion presented two talks : "Aesthetic Values" and "The Need for Basic Reform in Architectural Education." Giedion explained that the reason for the absence of a discussion on the synthesis of the arts was due to the Conference's regulations that did not allow the formulation of any resolutions or propositions, but, admitted that the talks on aesthetics had an influence on the subject. Giedion published a revised version of the "Aesthetic Values" paper with the new title "On the Force of Aesthetic Values" in Architecture, You and Me: The Diary of a Development. Creighton summarized the Conference as follows: "There is very nearly unanimous agreement that the axioms have been established. They are fairly well defined by the topics discussed: that there is a humanistic basis for all planning; that the new technical possibilities carry certain limitations with them; that the new aesthetic is based on physiological and psychological grounds. There is agreement about these attitudes, and the discussion is of ways and means to apply them."

<sup>57</sup> Lewis Mumford, "The Skyline (Bay Region Style)," New Yorker (Oct. 11, 1947), pp. 106, 109. Relevant portions of the article are reprinted in "What is Happening to Modern Architecture?" Museum of Modern Art Bulletin, vol. 25 (Spring, 1948), p. 2, and in Architecture Culture 1943-1968, Ockman with Eigen, eds., pp. 107-108.

<sup>58</sup> Ockman with Eigen, eds., Architecture Culture 1943-1968, p. 108.

<sup>59</sup> "What is Happening to Modern Architecture?" Museum of Modern Art Bulletin, p. 4.

<sup>60</sup> The symposium at the Museum of Modern Art was attended by: Alfred H. Barr, Peter Blake, Marcel Breuer, Walter Gropius, Frederick Gutheim, Talbot Hamlin, Henry-Russell Hitchcock, Philip C. Johnson, Gerhard Kallmann, Edgar J. Kaufman, Albert Mangones, Lewis Mumford, John McAndrew, Walter McQuade, George H. Nelson, Matthew Nowicki, Eero Saarinen, Vincent Scully, Edward D. Stone, Christopher Tunnard, Mario H.G. Torres, Ralph T. Walker.

<sup>61</sup> For a specific explanation of the participants divided positions see Eric Mumford, The Discourse of CIAM Urbanism, 1928-1959, p. 363, and "What is Happening to Modern Architecture?" Museum of Modern Art Bulletin, p. 4.

<sup>62</sup> "What is Happening to Modern Architecture?" Museum of Modern Art Bulletin, p. 5.

<sup>63</sup> Ibid., p. 6.

<sup>64</sup> Ibid.

<sup>65</sup> Ibid., p. 11.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid., p. 15.

<sup>68</sup> Ibid., p. 16.

<sup>69</sup> Ibid., p. 21.

<sup>70</sup> Ibid., p. 19.

<sup>71</sup> Ibid., p. 9.

<sup>72</sup> The undelivered speech by Carl Koch was published in "What is Happening to Modern Architecture?" Museum of Modern Art Bulletin, p. 20.

<sup>73</sup> "In Search of a New Monumentality: A Symposium," by Gregor Paulsson, Hitchcock, William Holford, Giedion, Gropius, Lucio Costa, and Alfred Roth," Architectural Review (Sept., 1948), pp. 117-128.

<sup>74</sup> Ibid., p. 117.

<sup>75</sup> Ibid., p. 118.

<sup>76</sup> Ibid., p. 123.

<sup>77</sup> Ibid.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid., p. 125.

<sup>80</sup> Ibid., p. 127.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

<sup>83</sup> Ibid., p. 128.

<sup>84</sup> See Thomas Creighton, "Architecture – Not Style: An Editorial," Progressive Architecture (Dec., 1948); "More Replies to 'Architecture -- Not Style,'" Progressive Architecture (Jan., 1949, and Feb., 1949); Matthew Nowicki, "Composition in Modern Architecture," Magazine of Art (March, 1949), pp. 108-111; and Lewis Mumford, "Monumentalism, Symbolism, and Style," Architectural Review (April, 1949), pp. 173-180. According to Christiane and George Collins in "Monumentality and the City," p. 32, the next significant articles on monumentality were: Henry Hope Reed, Jr., "Monumental Architecture: Or the Art of Pleasing in Civic Design," Perspecta 1 (Summer, 1952), pp. 51-56, and P.E. Peacock-Loukes, "Monumentality," Journal of the Royal Architectural Institute of Canada (Oct., 1957), pp. 407-409.

<sup>85</sup> Notes by Tyrwhitt in "Compte Rendu des Reunions du Conseil des 4 au 6 Mars, 1949, à Paris au Siège de l'ASCORAL -- Boulevard Suohet," FLC, D2-17, pp. 298-299.

<sup>86</sup> "Progress Report" Progressive Architecture (Feb., 1950), p. 15, and "CIAM 7, Séance d'ouverture," FLC, D2-17, pp. 38-44.

<sup>87</sup> See Mumford's chapter on CIAM 7 in The Discourse of CIAM Urbanism, 1928-1959, pp. 365-388. Quote taken from "I Commission, Report of Subcommittee b," CIAM 7 Documents Bergamo, 1949 (Nendeln: Krauss Reprint, 1979).

<sup>88</sup> The following paragraph taken from preparatory notes for the Seventh CIAM emphasized the importance of the aesthetic debates at the postwar CIAMs. "The architectural aesthetic debate introduced at Bridgwater following the sending of the questionnaire to groups was reported as being perceived by all those who attended it as one of the most intense moments in the life of CIAM. These debates must be pursued, and if their place becomes secondary at the Bergamo Congress, it is only because these debates have an importance that considerably exceeds the limits of CIAM." Translated by author from French text: "Le débat sur l'esthétique architecturale amorcé à Bridgwater à la suite de l'envoi aux groupes du questionnaire s'y rapportant est apparu à tous ceux qui y ont assisté comme étant un des moments les plus intenses de la vie des CIAM. Ces débats doivent être poursuivis, et si leur place dans le congrès de Bergamo est secondaire, il n'en reste pas moins que ces débats ont une importance qui dépasse de beaucoup le cadre des CIAM." See "Compte Rendu des Reunions du Conseil des 4 au 6 Mars, 1949, à Paris, au siège de l'ASCORAL -- Boulevard Suohet," "Continuation du débats sur l'esthétique architectural," FLC, D2-17, p. 299.

<sup>89</sup> "II Commission, Rapport A," FLC, D2-17, pp. 146-147.

<sup>90</sup> "II Commission, Rapport B," FLC, D2-17, p. 148.

<sup>91</sup> Giedion, A Decade of New Architecture, translated by author, pp. 38-39.

<sup>92</sup> Helena Syrkus "Art Belongs to the People" in Giedion, Architecture, You and Me: The Diary of a Development, pp. 86-90. For a more complete text see CIAM 7 Documents Bergamo, 1949, pp. 8-9, and Architecture Culture 1943-1968, Ockman with Eigen, eds., pp. 120-122.

<sup>93</sup> For a more detailed account of Helena Syrkus' relationship with CIAM see E. Mumford, The Discourse of CIAM Urbanism, 1928-1959, pp. 365-367.

<sup>94</sup> Ockman with Eigen, eds., Architecture Culture 1943-1968, p. 121.

<sup>95</sup> Ibid. One can note here that the Communist architect, Hannes Meyer, practiced the most dogmatic form of functionalism, one which was prevalent in the Soviet Union in the late twenties.

<sup>96</sup> Ibid., pp. 121-122.

<sup>97</sup> Giedion, Architecture, You and Me: The Diary of a Development, pp. 89-90.

<sup>98</sup> Ibid., p. 88.

<sup>99</sup> Ibid., p. 86.

<sup>100</sup> Ibid., p. 84.

<sup>101</sup> Ibid., p. 80.

<sup>102</sup> Text in the report "Continuation de l'enquête sur l'enseignement de l'architecture:" "The council is in agreement that to recognize this desirable synthesis it must be put into practice at the beginning of the architectural education. The teaching of the three major arts cannot be unrelated and the architect, since it is extremely rare that he personally is able to achieve this synthesis, must be above all a plastician. The actual term of the architect is surpassed. The multiple tasks he is responsible for necessitate a precise orientation at the foundation of his studies, an orientation which reserves the task of constructor in the largest sense and the most complete to the only elements which, thanks to their sentiment of plastic emotions, will be susceptible to favor this synthesis." Translated by author from French text: "Le conseil est d'accord pour reconnaître que cette synthèse est souhaitable elle doit être mise en pratique dès les débuts de l'enseignement de l'architecture. L'enseignement des trois arts majeurs ne peut être dissocié et l'architecte, s'il est extrêmement rare qu'il arrive à réaliser personnellement cette synthèse, doit être avant tout un plasticien. Le terme même d'architecte est actuellement dépassé. La multiplicité des tâches qu'il représente nécessite une

stricte orientation à la base des études, orientation qui réservait le Tâche de constructeur dans son sens le plus large et le plus complet aux seuls éléments qui, grâce à leur sentiment de l'émotion plastique, seraient susceptibles de favoriser cette synthèse." See "Compte Rendu des Reunions du Conseil des 4 au 6 Mars, 1949, à Paris au Siège de l'ASCORAL -- Boulevard Suohet," FLC, D2-17, pp. 230

<sup>103</sup> Giedion, "The Need For Basic Reform in Architectural Education," Building for Modern Man: A Symposium, Thomas H. Creighton, ed. (Princeton, NJ: Princeton University Press, 1949), pp. 118-124. Reprinted with the new title "On the Education of the Architect" in Architecture, You and Me: The Diary of a Development, pp. 102-104.

<sup>104</sup> Giedion, Architecture, You and Me: The Diary of a Development, pp. 102.

<sup>105</sup> "Rapport de la IIIème Commission: Réform de l'enseignement de l'architecture et de l'urbanisme," FLC, D2-17, p. 151. Translated by author from French text: "Les écoles d'architecture sont envahies. Les méthodes d'enseignement pratiquées dans la plupart des écoles ne correspondent plus aux besoins de la société moderne. Aucune relation active n'existe entre les différentes disciplines d'enseignement. Bien des professeurs ne possèdent ni les qualités pédagogiques ni l'expérience professionnelle indispensables. Le nombre de professeurs n'est pas en rapport avec le nombre des étudiants. Les écoles ne prennent pas part aux activités de l'architecture ni à celles de l'urbanisme. Les contacts entre les milieux professionnels et artistiques sont insuffisants."

<sup>106</sup> Giedion, A Decade of New Architecture, p. 41.

<sup>107</sup> *Ibid.*, p. 42.

<sup>108</sup> *Ibid.*, p. 46.

<sup>109</sup> Bruno Zevi, "A Message to the CIAM. Della cultura architettonica/la culture en architecture/concerning architectural culture," Metron, no. 31-32 (1949), pp. 5-30. Zevi studied at Harvard University during the war at which time he was strongly affected by the architecture and writings of Frank Lloyd Wright. In 1945, inspired by Wright's concept of "organic architecture," he wrote Verso un'architettura organica (Towards an Organic Architecture, 1950 English publication), that same year he founded the review Metron, and the Association of Organic Architecture. See "Constitution of the Association of Organic Architecture Rome; APAO," Architecture Culture 1943-1968, Ockman with Eigen, eds., p. 61-69.

<sup>110</sup> *Ibid.*, p. 8.

<sup>111</sup> Ibid., p. 9.

<sup>112</sup> Ibid.

<sup>113</sup> Ibid., p. 14.

<sup>114</sup> Ibid.

<sup>115</sup> Ibid., p. 15.

<sup>116</sup> Ibid., pp. 15-16.

<sup>117</sup> Ibid., p. 17.

<sup>118</sup> H.T. Cadbury-Brown, "CIAM 8: Report," The Architect's Journal (July, 19, 1951).

<sup>119</sup> See J. Tyrwhitt, J.L. Sert, E.N. Rogers, eds., The Heart of the City: Towards the Humanisation of Urban Life (London: Lund Humphries, 1952), for an overview of the Congress. This book is divided into primarily two parts consisting of a selection of essays and examples of urban cores. E. Mumford in The Discourse of CIAM Urbanism, 1928-1959, p. 397, has pointed out that essays by Pierre Emery and Lewis Mumford were not included in this selection, reiterating the fact of the biased leadership which is evident in the decision to start the book with a preamble by Le Corbusier and essays by Sert and Giedion. Also problematic was the leadership's inability to address the diversity of CIAM as Le Corbusier stated in his preamble: "Inspired by a common faith and determination they (CIAM) offer you a solution..." Included in the book are the following essays: "Centers of Community Life" by J.L. Sert; "Historical Background of the Core" by Giedion; "The Past and the Present" by Gregor Paulsson; "The Individual and the Community" by G. Scott Williamson; "Conversation on the Core" by CIAM 8; "A Meeting Place for the Arts" by Le Corbusier; "The Human Scale and the Core" by W. Gropius; "Sculpture at the Core" by J.J. Sweeney; "Old and New Elements at the Core" by J.M. Richards; "Spontaneity at the Core" by Ian McCallum; "Relations between Men and Things" by J.B. Bakema; "The Heart: A Human Problem" by E.N. Rogers; "Discussion on Italian Piazzas" by CIAM 8; "New Trends will affect the Core" by P.L. Wiener; "The Idea and its Realisation" by M. Fry; "A New Community Core in California" by R.J. Neutra; "Satisfying Human Need at the Core" by A. Ling; and "The Commercial Core of London" by W.J. Holford.

<sup>120</sup> J. Tyrwhitt, J.L. Sert, E.N. Rogers, eds., The Heart of the City: Towards the Humanisation of Urban Life, p. 31.

<sup>121</sup> *Ibid.*, p. 33.

<sup>122</sup> *Ibid.*, p. 73. For original Italian text see Ernesto Rogers, "Il Cuore: Problema umano della città," Esperienza dell'architettura (Milan: Giulio Einaudi, 1958).

<sup>123</sup> *Ibid.*, p. xii.

<sup>124</sup> For original French text see FLC, D2-18, p. 142.

<sup>125</sup> Italian saying that refers to the human need for the "sweetness of leisure time."

<sup>126</sup> For the resolutions of what the core should encompass see list by Alaurant, Sert, Coates, and Emery in FLC, D2-18, p. 119.

<sup>127</sup> "Commission 2: Reunion of the Arts at the Core," FLC, D2-18, p. 110.

<sup>128</sup> See H. Matisse, M. A. Coutuireir, and L. B. Rayssiguier La Chapelle de Vence: Journal d'une création (Paris: Cerf, 1993), and Les Chapelles du Rosaire à Vence par Matisse et de Notre-Dame-du-Haut à Ronchamp par Le Corbusier (Paris: Cerf, 1955).

<sup>129</sup> See Sibyl Moholy-Nagy, Carlos Raúl Villanueva and the Architecture of Venezuela (Stuttgart: Verlag Gerd Hatje, 1964), and Obras de Arte de la Ciudad Universitaria de Caracas, Gasparini, Marina, ed. (Caracas: Monte Avila Editores, Universidad Central de Venezuela, Consejo Nacional de la Cultura, 1994).

<sup>130</sup> Both the Caracas City University and the Harvard Graduate Center are exemplary projects of the time demonstrating a collaboration among architects and artists. They deserve a detailed assessment and further archival investigation that would give insight into the forces at play in the successes and failures of such a collaboration.

<sup>131</sup> See Giedion, Architecture, You and Me: The Diary of a Development, p. 162. Also see Edouard Mure and Nathalie Régnier, "Saint-Dié: Chronique d'un échec," Le Corbusier une encyclopédie, Jacques Lucan, ed. (Paris: Centre Georges Pompidou, pp. 363-364), and Le Corbusier oeuvre complète 1938-1946, vol. 4 (Zurich: Boesinger, 1953), pp. 132-139.

<sup>132</sup> J. Tyrwhitt, J.L. Sert, E.N. Rogers, eds., The Heart of the City: Towards the Humanisation of Urban Life, p. 52.

<sup>133</sup> Le Corbusier, "Théâtre spontané," La Revue Théâtrale, (1950), pp. 17-22.

<sup>134</sup> Banham, "CIAM," Encyclopedia of Modern Architecture, p. 72.

<sup>135</sup> "Conseil CIAM Mai 1952," FLC, D3-01, pp. 12-18.

<sup>136</sup> *Ibid.*, translation by author, p. 12.

<sup>137</sup> Without a clear definition of its title, "Human Habitat," the Ninth CIAM, took place at Aix-en-Provence in July of 1953. This was the largest CIAM attended by more than 3000 delegates. The problem of diversity was aggravated as more members from the Third World discussed their extreme differences in local traditions and circumstances. At the Ninth CIAM the discussion of the importance of artistic collaboration in the development of community cores was abandoned; instead, issues of aesthetics were discussed in relationship to habitats. The CIAM report on "The Role of Aesthetics in the Habitat" began with the following statement: "We are not discussing the role of painting and sculpture in the habitat but trying to awaken in the architect and urbanist the sense of the plastic form of contemporary towns, whose essentials we have been trying to deduct in the study of the Grids." ("Commission 2; The Role of Aesthetics in the Habitat," FLC, F1-06, p. 169.)

Of concern here was the need to develop a plastic vocabulary with the sense of rhythm and the play of volumes in space within a Cartesian structure, to preserve the human scale in light of the problem of rapid population growths in developing countries, to address the individual traditions of each culture, and to stimulate an integration of the individual in the community by providing multiple functions for interaction within the habitat. There was particular attention given to the role of aesthetics and primitive cultures as presented by the African office of ATBAT (Atelier des Bâtitisseurs -- located in Casablanca, the ATBAT group was under the direction of Michel Ecochard and included the association of Vladimir Bodiansky, George Candilis, and Sharach Woods; all followers of Le Corbusier) which analyzed the conditions of the squatter bidonvilles in Algiers. They concluded that contemporary housing for these primitive cultures needed to evolve organically and be sensitive to the local climate and building systems. In praise of primitive aesthetics, the CIAM report affirmed the often quoted statement, "a hut in the Cameroons has more dignity than most prefabricated houses." ("Commission 2; The Role of Aesthetics and Primitive Culture," FLC, F1-06, p. 171.)

From a similar point of view, two young MARS group representatives, Peter and Alison Smithson, presented their Golden Lane housing project for a working class neighborhood in London in which they stressed "the problem of reidentifying man with his environment." (Alison Smithson, The Emergence of Team X out of CIAM; Documents [London: Architectural Association, 1982], p. 7.) Formally this translated into looser, organic structures responding to the traditional elements associated with the English working class such as the traditional street and two story dwelling units.

Clearly, at the Ninth CIAM, the concern for the common man as discussed in the Seventh CIAM was brought to the fore, but under new regionalist terminology. Nevertheless, there remained the aesthetic problem of how to combine a high modernist aesthetic with a regionalist one.

In the summing-up of the CIAM report, there was a last reference made to a collaboration among the arts, seemingly more like a vestige from the past, which implied that the architect should design with the fully developed sensitivity of an artist: "The new liberty of spatial creation attained by the architect demands of him a specific sensibility and a mastership in coordinating spaces and volumes which in many cases is still missing today. In the transitory stage before acquiring this mastership it is important that he collaborate from the beginning with the painter and the sculptor as the specialists of surface and space organization." ("Commission 2; The Role of Aesthetics and Primitive Culture," FLC, F1-06, p. 172.)

From this point on it is evident that the favored themes of the old CIAM leaders were replaced by the issues regarding the problems of habitat relevant to the new young elite members who led the committee for the Tenth CIAM held in Dubrovnik in August, 1956. Supported by the advice of Le Corbusier and Giedion, the CIAM committee which called itself Team Ten consisted of Peter and Alison Smithson, J.B. Bakema, George Candilis, Shadrach Woods, Aldo van Eyck, William Howell, John Voelcker, and Rolf Gutmann. Their decision to limit the CIAM membership to its governing council of approximately thirty members and to dissolve the federation of national groups marked the end of CIAM for most of its members until its final demise after the last CIAM in 1959 in Otterloo.

<sup>138</sup> For a comprehensive survey of the history of Unesco see Michel Conil Lacoste, The Story of a Grand Design, Unesco 1946-1933 (Paris: Unesco, 1994), and Fernando Valderama, A History of Unesco (Paris, Unesco, 1991, 1995).

<sup>139</sup> In December of 1946 the IIC ceased its activities and the following year handed over to Unesco all of its assets including its library, archives, and publications with their copyright and publication rights in agreement with Unesco to continue the work accomplished by the institute.

<sup>140</sup> Julian Huxley was born in England in 1887 into a family of eminent scholars. When he graduated from Oxford University he led an active life inquiring primarily in the natural sciences which influenced his Darwinian outlook on life. He was a zoologist, philosopher, and educator with a penchant for writing. As Executive Secretary of the Preparatory Commission he played a leading role in the creation of Unesco. After his two year mandate as Director-General, in 1950 he took the position of Vice-President of the International Commission for the History of the Scientific and Cultural Development of Mankind for approximately twenty years.

<sup>141</sup> Julian Huxley, Unesco -- Its Purpose and Its Philosophy (London: Preparatory Commission of Unesco, 1946).

<sup>142</sup> "Constitution of the United Nations Educational, Scientific and Cultural Organization," Basic Texts -- Manual of the General Conference and Executive Board (Paris: Unesco, 1994), p. 7.

<sup>143</sup> Ibid.

<sup>144</sup> Ibid.

<sup>145</sup> Ibid.

<sup>146</sup> Huxley, Unesco -- Its Purpose and Its Philosophy, p. 55.

<sup>147</sup> Ibid., p. 61.

<sup>148</sup> Lacoste, The Story of a Grand Design, Unesco 1946-1933, p. 32.

<sup>149</sup> "Croce Puts the Liberal Case Against Unesco," The Manchester Guardian Weekly (Thursday, July 27, 1950), p. 10. I would like to thank Jens Boel, the Chief Archivist at the Unesco archives for showing me this article.

<sup>150</sup> "Rapport sur la liberté de l'artiste," translated by author, Unesco file 707.91, p. 2.

<sup>151</sup> Ibid., p. 6.

<sup>152</sup> In general terms, since works of art were considered a luxury item, the laws made it difficult for the works to leave their country, and fiscal laws took a heavy toll on artists who in some countries were arbitrarily taxed.

<sup>153</sup> Jaime Torres Bodet was born in Mexico City in 1903. He was a professor, diplomat, essayist, poet, and novelist. From 1924-1928 he was appointed Professor of French Literature at the University of Mexico City. In 1929 he joined the diplomatic service and represented his country in Spain, the Netherlands, France, and Belgium. He was appointed Minister of Education in 1943 and is remembered for his remarkable campaign on an unprecedented scale to fight illiteracy in his country. In 1948 he was elected Director-General of Unesco, a post he held for four years. He died in 1974.

<sup>154</sup> "Organizing Committee of the International Conference of Artists," Unesco file: Unesco/CUA/35, p. 3.

<sup>155</sup> *Ibid.*, see "Annex 1," "Themes of the general papers to be read in plenary meetings and work plans for the meetings of sections," pp. 9-21.

<sup>156</sup> The Artist in Modern Society: Essays and Statements Collected by Unesco, International Conference of Artists, Venice, 22-28 Sept. 1952 (Paris: Unesco, 1954).

<sup>157</sup> "Speech delivered by Mr. Jaime Torres Bodet, Director-General of Unesco, to the International Conference of Artists," Unesco file: Unesco/DG/186, p. 1. This speech was not included in the book The Artist in Modern Society.

<sup>158</sup> *Ibid.*, p. 7. Unesco had given much support to the natural sciences at the International Council of Scientific Unions, whose origins date back to 1919. Unesco set up the International Council of Philosophy and Humanistic Studies in 1949, and it was in the process of establishing an International Social Sciences Council. Regarding the arts, the idea to create an International Association of Visual Arts seemed complex because Unesco did not have sufficient support to establish it. Nevertheless, it had numerous contacts with different kinds of associations. Unesco helped establish the International Theater Institute in 1948 and the International Music Council in 1949. It also had contacts with the PEN Club, the International Union of Architects, and the CIAM.

<sup>159</sup> The Artist in Modern Society, p. 91.

<sup>160</sup> *Ibid.*, p. 96.

<sup>161</sup> *Ibid.*

<sup>162</sup> *Ibid.*

<sup>163</sup> *Ibid.*, p. 45.

<sup>164</sup> "Synthèse des Arts," Arti Visive (Sept.-Oct., 1952). However, the delegate of the Low Countries declared that even though he had given his vote towards the creation of an International Association of Artists, he had to express his reservation. In reference to this last comment it must be noted that Brussels already had in existence an International Confederation of Professional Artists.

<sup>165</sup> *Ibid.* The following delegates were elected members of the Executive Committee: H. Billings (United States), Celebonovic (Yugoslavia), Leplae (Belgium), Lhote Vice-President (France), Severini President (Italy), Skold (Switzerland), G. Sutherland (Great Britain). Three other delegates were elected as members of the Executive Committee with the right to mail in

their votes: D. Dundae (Australia), Y. Masuda (Japan), C. Steynberg (South African Union). B. Lardera was elected General Secretary.

<sup>166</sup> Ibid., p. 121. Also in "Annex I -- Report of the General Rapporteur," by Thornton Wilder in Unesco files: 7C/PRG/26, p. 1.

<sup>167</sup> Ibid.

<sup>168</sup> Ibid., p. 125.

<sup>169</sup> Ibid., p. 122.

<sup>170</sup> Elodie Courter Osborn, Manual of Traveling Exhibition (Paris: Unesco, 1953, 1963).

<sup>171</sup> The original Victoria and Albert Museum, which was called "Brompton Boilers," was designed in 1855-1856 by Charles D. Young and Co. as a temporary Museum of Science and Art for Henry Cole's Department of Practical Art. The building was eventually moved from South Kensington to the East End of London where it has since housed the Bethnal Green Museum. In 1859, in its original location a permanent building followed which forms part of the present Victoria and Albert Museum.

<sup>172</sup> André Malraux, "Museums Without Walls," The Voices of Silence, translated by Stuart Gilbert (New York: Doubleday and Co., 1953), p. 46. Originally published as Le Musée imaginaire de la sculpture mondiale: La Statuaire (Paris: Gallimard, 1947, 1952).

<sup>173</sup> "Colour Reproduction: Unesco's First Traveling Exhibition," Unesco Courier (Aug., 1949), p. 1.

<sup>174</sup> "A Science Museum Goes on Tour in Latin America," Unesco Courier (Nov., 1950), p. 3.

<sup>175</sup> "Leonardo Da Vinci: The Universal Genius," Unesco Courier (April, 1952), p. 6.

## Chapter 3 - The Porte Maillot "Synthèse des Arts Majeurs" Exhibition Pavilion

### The Development of a Project

The preliminary meeting of l'Association pour une Synthèse des Arts Plastiques took place in Le Corbusier's apartment on September 30, 1949, and was attended by Le Corbusier, André Bloc, and Renée Diamant-Berger. This was yet another attempt on the part of Le Corbusier to work on a collaborative project toward the promotion of the synthesis of the arts. Bloc, the influential editor of L'Architecture d'aujourd'hui and a primary advocate for integrating the arts after the war, provided with his magazine the required patronage to organize and promote their ideas. Diamant-Berger, a close associate of Bloc, served as the General Secretary. The outcome of the meeting was the proposal of a list of notable names of critics, artists, and architects for the creation of a committee for the Association.<sup>1</sup>

Soon after, on October 2, a second meeting followed at which the objectives of the Association were discussed under the heading of CESAP (Centre Experimental de Synthèse des Arts Plastiques). Four important structures which Le Corbusier illustrated in a sketch as four separate building-types were discussed as part of the idea of establishing a permanent arts center in Paris [Fig. 3.1]: first, the design of permanent laboratories for the synthesis of the arts with separate studio spaces; second, the design of an experimental museum for Paris (which the sketch shows to be of the Museum of

Unlimited Growth-type); third, the design of a permanent exhibition space to promote research in architecture and urbanism; and fourth, the creation of a center for receptions and conferences with the main purpose of establishing a link between Paris and the world.

The first official meeting of the Association, which marks the date of its foundation, took place at the Grand Palais, Salle du Conseil du Salon des Arts Ménagers on October 14, 1949. A statute for the Association was drafted with two articles. The first article described the goals of the Association as follows: "The research of the most efficient conditions toward a collaboration among architects, sculptors, and painters by all appropriate means such as exhibitions, demonstrations, publications, conferences, etc."<sup>2</sup> The second article described the membership structure of the Association and presented an impressive list of international artists' names, surely to guarantee the success and elite standards of the Association.<sup>3</sup> The Association was composed of a three-tier membership status: active, benefactor, and honorary. In order to become a member it was necessary to be recommended by two existing members and to be approved by the committee. Annual fees were 2000 francs for active members and 10,000 francs for benefactors. The committee also had the option of waiving annual fees at its discretion. Selected artists were given honorary memberships and were invited to participate in an exhibition, "Art et Architecture," that was to take place in Paris in June of 1950.<sup>4</sup>

Bloc and Le Corbusier worked closely together and were in complete

accord with the ideas for the exhibition. However, there was a repeated objection from the members who questioned Le Corbusier's role in the exhibition: "Isn't it going to be an exhibition of Le Corbusier, isn't he an architect, painter, and sculptor?" Bloc reassured the members that the exhibition would be based on collaboration and experimentation: "No, it is going to be an exhibition on the synthesis of the plastic arts in which Le Corbusier will participate and prepare the general plan. What concerns him is the realization of some kind of museum surrounded by other buildings conceived by different architects with the well defined goal of researching forms, colors, and movement which will give an experimental character and the power of suggestion."<sup>5</sup>

By the end of 1949 the Association was established, complete with letter head paper and an Executive Committee. The main change from the preliminary committee was the nomination of Henri Matisse as President replacing Henri Laugier.<sup>6</sup> The role of the President was not an active one; it was primarily an honorary position that, in this case, solely gave prestige to the Association. Matisse at this time was not in good health and there is no evidence that he ever attended a committee meeting or that he took an active role in any decision-making efforts.<sup>7</sup> Le Corbusier was First Vice-President and Bloc was Second Vice-President. The member list included names of artists such as Jean Arp, Henri Laurens, Georges Braque, Léger, Pablo Picasso, Auguste Herbin, and Victor Vasarely; and architects such as Badovici, Prouvé, André Wogensky, and Bernard Henri Zehrfuss. Foreign advisers included

Giedion, Henry Moore, Niemeyer, Rogers, Junzo Sakakura, Sert, and Sweeney.

From the outset Le Corbusier, Bloc, and Diamant-Berger were in contact with the city of Paris administration officials in order to obtain land for the intended exhibition spaces. Two meetings took place under the auspices of the MRU (Ministère de la Reconstruction et de l'Urbanisme) and the Prefecture of the Seine on October 7 and 21, 1949.<sup>8</sup> At the first meeting the specifics of the site for the exhibition were discussed. The transcripts show the first site that was considered at cours Albert 1er was not accepted and the next site of choice, the lot that used to be occupied by the old Luna-Park at the Porte Maillot, received a general consensus of approval from all parties involved. The Porte Maillot is located in the south-western corner of the 17th arrondissement and is the oldest gateway which had existed for more than five centuries to the western sector of the city. Given its privileged location it had been the stage for numerous historical celebrations and was an appropriate site for a new cultural center in Paris.

In the eighteenth century, during the Revolution, under Maximilien Robespierre it was decided to turn the area into a military camp. Then it became an artillery camp under Jean Paul Marat. In the following century, it was through the Porte Maillot that the tomb with the remains of the Emperor Napoleon were taken towards the Arc de Triomphe by way of the avenue de la Grande Armée. In the same grand manner, on July 14, 1919, the *maréchaux* Joseph Jacques Césaire Joffre and Ferdinand Foch entered the

capital followed by their troops in a triumphant ceremonial march. Because of the site's proximity to the Bois de Boulogne it was a perfect place for promenades which towards the end of the last century transformed the Porte Maillot into a center for amateurs of modes of transportation; first the bicycle, then the automobile. It is from the Porte Maillot, in an atmosphere of euphoria, that the first car races took off: Paris-Rouen in 1894 and Paris-Bordeaux in 1895. In the 1900's the Porte Maillot became the site for passing spectacles such as the circus, and once the area was transformed into a modern naumachia, where electrically run battle ships played out the great naval battles of the Russian-Japanese War. After the large pool Buffalo Bill followed with a full cast of cowboys and Indians with wild horses, which in turn was replaced by the Luna-Park called "Printania" whose main attraction was an air balloon. During the First World War the Luna-Park deteriorated and continued to barely exist for the next twenty years. And during the occupation from 1940 to 1944, the site served as a battle ground for both sides and the Luna-Park was demolished soon after the war. The site was then used for temporary housing, a police commission, and a parking lot.<sup>9</sup>

Le Corbusier's concept was to transform the site into a permanent research center for the arts composed of modest structures assuring the park-like characteristics of the site. Le Corbusier confirmed that trees would not be removed, but rather would contribute to the disposition of the exposition. As part of a detailed assessment of the condition of each edge of the site, it was agreed that the commercial garages on the side of boulevard Pershing would

be demolished and that a visual link would be maintained towards the Bois de Boulogne [Fig. 3.2].

At the second meeting Le Corbusier presented a scheme composed of covered and semi-covered elements dispersed within the existing vegetation. He proposed a permanent structure in the north-west section of the site next to the Chapelle St. Fernand which was to be preserved [Fig. 3.3]. The central area of the exhibition was to be an open green space. On the large terrain at the edge of boulevard Gouvion St. Cyr the MRU proposed an open area of lawn. At this meeting it was understood that Le Corbusier and M. Gautruche, architect of the Prefecture of the Seine, would maintain close contact in order to propose the project without delay to the Direction of the Architecture and Urbanism Services of the Prefecture of the Seine. Moving at an efficient pace, on November 8, 1949, a letter from E. Grevel, the MRU Chief Architect, to Pierre Thiebaut, the MRU Chief of Services in Charge of Redistributing Administrative Properties presented a study for the layout of the Porte Maillot by the architects of the city, Gautruche and Jacques Greber. The sum of 8,473,872 francs was established for the primary objective of removing all existing pavements from the site, including concrete terraces to be replaced by greenery, creating an open space. Le Corbusier was asked to follow up this study with a financial plan to cover the expenses for the project. The city representatives suggested that support for the project could be found in three parts: the state, the city, and L'Architecture d'aujourd'hui.<sup>10</sup>

On December 29, 1949 the Municipal Council voted to make available

for a limited duration of time the allotment of a triangular site between the canteen of the cité des Ternes and the commercial garages situated on boulevard Pershing at the Porte Maillot for the exhibition of a Synthesis of the Arts.<sup>11</sup> Diamant-Berger described the enthusiasm she saw in Bloc and Le Corbusier on their first visit to the site:

On my behalf, I will never forget that January morning in 1950 when the three of us went to visit the site at Luna Park. It was very cold, the sun pierced the gray sky, the trees and the shrubs were covered with frost, the streams were frozen. Young, enthusiastic, laughing, Le Corbusier looked over the terrain in all directions, placing the buildings: here the museum in the form of an escargot, there a structure 'very original' with sculptures by Laurens, here a Henry Moore, there the young.... André Bloc followed also expressing his ideas with the same joy concerned with finding the predominant sites and creating a harmonious organization of the ensemble. Eighteen years have passed since then, but I will never forget that morning where so much joy and hope connected these two men.<sup>12</sup>

However, the success of acquiring this site went hand in hand with the failure to raise sufficient funds to sponsor the project. In fact, having the land made it all the more difficult to give up the project as financial obstacles presented themselves one after another. Financing, the most difficult problem to solve, was sought through many venues such as the President of the Republic, the Municipal Council of the City of Paris, the MRU, the Foreign Affairs Cultural Relations, the Minister of Finances, the National Education, and the Unesco Cultural Relations. In order to facilitate the financing of the project Le Corbusier proposed a program made up of four parts, the first part of which corresponded to the initial intention of the Association -- producing an exhibition of the Synthesis of the Arts at the Porte

Maillot. The other three parts, which were discussed at the second preliminary meeting, included an experimental museum, a permanent exhibition space for architecture and urbanism, and a center for receptions and conferences; these implied a more or less direct sequel to the first, but no definitive plans were made. Nevertheless, more land still needed to be allocated for each of the four parts<sup>13</sup> [Fig. 3.4].

The theme, "Art et Architecture," was to serve as the first exhibition of the Association. Following this first exhibition, others could take place, using all or part of the equipment of the first. Le Corbusier proposed that the design of the first pavilion be followed by three consecutive yearly exhibitions which could be treated differently, depending on the theme.

In order to further alleviate the financial burden of the project, Le Corbusier did not request any sort of payment for his ideas, personal effort, and experience, but he was very clear that his office and all consultants involved in the execution of this project must be reimbursed. On November 14, 1949, Le Corbusier wrote a passionate letter to the Minister of Finances requesting 10 million francs for the project. The letter played up the importance of France, and particularly Paris, as the leader in the arts where the synthesis of the major arts would reunite harmony and beauty in all of the built environment: "For that, a little money, a useful mite so that the breath of life can be given. Given by whom? By the country that will bring forth life, strong and brilliant resources. Resources of France, unique in the world and immensely exploitable."<sup>14</sup> A response ensued from Thiebaut

explaining the grave financial situation of the administration. He stated that the Department of Budget had taken a restrictive position on the requests for credits for administrative structures for 1950, and even more severe controls had been placed on structures that did not have a necessary function for the administration of cities.<sup>15</sup> Nevertheless, on December 6, 1949, the Association received the approval of 4 million francs from the MRU with the stipulation that the monies be spent by March 20, 1950. This was a sign of confidence from the state in hopes that other government and private sources would promptly follow suit.<sup>16</sup>

Le Corbusier continued to approach other institutions for their support. On January 7, 1950 he met with a group of Unesco representatives led by Jean Thomas. The main problem for Unesco, as an international organization, was how to intervene on behalf of a local association. Le Corbusier was fully aware that the project was "terriblement française" and that Unesco was already criticized for its presence in Paris and for its support of French ideas and the arts.<sup>17</sup> Le Corbusier emphasized the prestigious role of France in the arts and pointed out how the Parisian art laboratories would benefit the fifty-eight member states.<sup>18</sup> The Unesco representatives proposed that they could find a route to be involved through the Seventh CIAM Congress. They also contemplated the idea that Unesco could participate by publishing the results of the projected 1950 Porte Maillot summer exhibition.<sup>19</sup> Aside from a possible small financial subsidy, no significant financial support was discussed. Le Corbusier always found an open ear at

Unesco and maintained close contact with various representatives who helped guide him through appropriate channels, but he never received the financial support that he needed from them.

At a March 13, 1950, meeting it was made clear that the Minister of National Education, Yvon Delbos, was not interested in supporting this endeavor because he felt that excessive expenses had already been considered for the re-opening of the Salon des Artistes Français. He hoped this exhibition would be under the sole patronage of the Minister of Reconstruction. Marcel Roux, who was both Joint-Chief of the cabinet of the MRU and General Secretary of the Association, responded with the statement that the MRU could not commit to further financial support.<sup>20</sup>

By this time Le Corbusier described the Porte Maillot design as six covered pavilions with two open walkways located under trees; however, the specific plans and technical solutions had not been fixed. Before Le Corbusier left on a trip to Colombia, with optimism founded on his meetings with Unesco officials, he circulated a letter to all interested artists announcing the construction of the pavilions during his absence. Needless to say, while he was in South America the design of the pavilions was not finished nor were the pavilions built.

The Association found itself in the seriously difficult situation of not having met the MRU March 20th dead line. Because of this problem, Roux proposed two possible solutions to which Bloc added a third: first, to cancel the exhibition; second, to postpone the opening date of the exhibition by one

year, which would raise the problem of whether they would still have access to the site; and third, to hold the exhibition so that the artists could sell their works in order to establish enough credit for the project. The commitment from the artists would give incentive to other institutions to invest capital in order to realize the entire project as well as other future projects.<sup>21</sup>

In reference to the third solution, Le Corbusier had been working the month before on a similar idea in a letter he wrote to his friend Raoul Simon.<sup>22</sup> In the letter Le Corbusier mentioned a list of artists who would make up a team called "Hommes de Mains."<sup>23</sup> They would be modestly paid or asked to volunteer their efforts in order to realize the painting and sculpture for the exhibition. Le Corbusier asked Simon to be the chief in charge of the artists, "the greatest contemporary artists," who would be given up to 80 square meters to paint. Simon, however, declined this offer because he was too busy working on other assignments in Avallon.

Realizing the lack of a full support from the government this last effort to ask the artists to pay their part also fell short of producing revenues to pay for the 1950 exhibition. Having missed the June 1950 date the exhibition was put on hold with the hopes that it would take place the following Spring. Nevertheless, these obstacles did not deter the inexhaustible enthusiasm and the desire of the main protagonists of the Association to keep on trying to make the exhibition happen.

On November 25, 1950 Diamant-Berger wrote a hopeful letter to Le Corbusier in which she recommended that he contact the president of the

organization planning the summer festivities for the Paris Bi-Millenaire.<sup>24</sup> Later in January of 1951 in an interview with Le Corbusier and Pierre Olivier Lapie, the Minister of National Education, Le Corbusier mentioned that he had encountered much opposition from this Ministry and stated the need for 14 million francs. Lapie said he approved of the project, but could not offer any financial help. Le Corbusier insisted, but to no avail, that 2 or 3 million francs and Lapie's support could help create more financial contacts.<sup>25</sup> Even though Le Corbusier was not able to find sufficient support from the ministries of the city of Paris to build the pavilion, the idea had been launched and was taken up in 1951 by the international Groupe Espace, headed by Bloc, but this effort again failed to produce results.<sup>26</sup> In 1952 Le Corbusier presented a transformed idea of the project at the Unesco Venice Conference on the Arts.

One of the purposes of the pavilion was to house changing exhibitions of works by artists named by the Association. However, Le Corbusier developed the idea further; these pavilions were not conceived as permanent frameworks destined to exhibit only pre-determined works of art, they were created as a place for many different kinds of interactions among the artists, the public, the architecture, and the works of art. The pavilions were designed to show traveling exhibitions, where the works of art and the public were always changing.

Working with Wogensky, Le Corbusier proposed two design options dependent upon economic circumstances. The more economical and

impermanent design, Project-A, was the more difficult to read of the two because it remained in a schematic design stage and was designed for the first projected exhibition "Exposition des Arts Plastiques." It was to be constructed of a series of standard wooden frameworks shaped like umbrellas. These umbrellas would function as shelters underneath which a circulation system would organize "a succession of coordinated sensations" and provide space for the exhibition of the artists' works.<sup>27</sup> The general layout of Project-A included three kinds of individual pavilions depending on their roof heights: (3) small, (1) simple and (1) double height; all five pavilions were placed in a designated area at right angles to one another [Fig. 3.5]. In addition, the roofs were either flat or slanted. The structure of the double-height pavilion was a post and cable system.

The idea was to create a plurality of volumes that allowed for space to flow around the exhibition panels located below the roofs and to connect the inside with the outside. The sub-dividing panel system would use the Modulor to ensure human scale and allow for a variety of shapes and sizes. Preliminary drawings of the exhibition spaces showed that Le Corbusier above all envisioned a display of his own works, once again demonstrating his inability to fully accept collaboration with other artists and his constant need to dominate any given project<sup>28</sup> [Fig. 3.6].

Project-B was a modified version of Project-A with an umbrella-like structural system built permanently of metal designed by the structural engineer Robert Le Ricolais<sup>29</sup> [Fig. 3.7]. Jean Prouvé designed the aluminum

sheathing for the roof and the partition system for the exhibition space.<sup>30</sup> The project got as far as the estimated cost stage of the metallic construction provided by specialists in the field.<sup>31</sup> The intention was to show temporary exhibitions that could be dismantled and could travel to other cities with similar pavilions. The pavilions would form part of an international organization led by Unesco, and Paris would serve as the central hub.

On September 25, 1952 Le Corbusier presented his ideas for Project-B at the Unesco Venice Conference on the Arts:

What I propose is a limited problem with a realizable objective, that is, to create in an architectural work the presence that provokes emotions, essential factors of the poetic phenomena. Therefore, essentially and exclusively resulting from the common presence of architecture, painting, and sculpture indissolubly united by harmony, discipline, and intensity. Since architecture today is completely mutated in its conception, there is no doubt that painting and sculpture are of the same nature. It is not a matter of establishing utilitarian contracts between numerous painters and numerous architects, it is rather a matter of creating favorable encounters fecund on the plane of reality, in other words, the creation of 'workshops.' However architects, sculptors, and painters live separately, indifferent one from the other, in effect, they only have casual contacts. It is necessary to transform this passive situation into an active one by the introduction of 'workshops.' This may seem like a fanciful dream. The question is how to address the difficulties?<sup>32</sup>

Influenced by the Eighth CIAM discussions Le Corbusier differentiated two types of "workshops": one for common people which he described as the "box of miracles" and the "spontaneous theater" (discussed in pp. 133-134 and pp. 213-214 ) and the other for elite artists which was his Porte Maillot Pavilion prototype. Le Corbusier, who was committed to an elitist tradition, can be seen in the postwar era toying with populist concepts that were gaining

adherents but without completely embracing them. At the Venice Conference he described the purpose of the Project-B artists' "workshops" as providing an "architectural context" for artists to engage actively with each other and to exhibit their work. He acknowledged the success of the Triennial and Biennial as a means for the public to come in contact with the work of painters and sculptors, but criticized the lack of integration of architects. In response, he proposed an "architectural context" to encourage the collaboration of diverse artists. The architectural form would be flexible and multi-form. This "workshop" would constitute a format in which painters and sculptors would deal with the architectural materials and dimensions. There could then be a reciprocal exchange among artists and architects teaching one another anew, making possible the start of a synthesis of the arts. The education of artists, architects, and the public was an important factor.

The "workshops" would be financially run, like traditional exhibitions, where the works would be sold in order to serve the interests of the group. As a profitable program, half of the profits would go to the public exhibition and the other half to the artists. Works not sold by the end of the exhibitions would be dispersed or destroyed, ensuring continuous activity and change. Le Corbusier envisioned similar "workshops" throughout the world, allowing for international exchange of the work and serving some of the same functions of travelling exhibitions. He imagined the "workshops" eventually incorporating all of the arts including music and dance.

Compared to Project-A, Project-B was a more unified concept composed of two 14 square meter umbrella-like pavilions set side by side as the single main shelter [Fig. 3.8]. Each umbrella was supported by four metal columns placed at the center of each of the four facades rather than the more traditional placement at the corners. The roof profile alternated between a gable shape and its inversion as one moved around to each side. Below the free-standing umbrellas -- the underside of which slanted in different directions -- stood a separate structure forming a variety of spaces with different ceiling heights; the lowest space being 2.26 meters high, the ideal height of a room according to the Modulor [Figs. 3.9, 3.10].

With an architectural promenade in mind Le Corbusier designed a circulation system that included a staircase and a ramp. Le Corbusier described what the experience might be like for a visitor: "Along an esplanade, through a two-storied covered space, then through lower spaces, by a garden with monumental sculptures and over a ramp under the umbrellas, with open spaces above and below."<sup>33</sup> Without any concerns for the security of the art works, the space under the roof flowed out into the surrounding environment and was manipulated by isolated niche-like wall structures standing away from the main building that also helped determine controlled views. All of the architectural elements were designed within an orthogonal grid and with the Modulor proportioning system.

From all of the documentation on the Porte Maillot Pavilion it is impossible to conclude what the synthesis of the major arts was precisely to

consist of. The exact function of the pavilions remained ambiguous, and it kept changing, like a chameleon, as Le Corbusier attempted to adapt to the exterior forces that had a role on the project. Either they were practical factors such as responding to the ideas of the organizations from which he was seeking financial help such as the French government, Unesco, or the individual artists; or they were theoretical factors that he was encountering in discussions with colleagues at conferences such as CIAM which made him question his elitist stand; or his individual single-handed approach to projects versus a collaborative one.

In light of these factors Le Corbusier's basic program for the pavilions remained unclear, raising more questions than answers. What were the different kinds of interactions among architects and artists to be like? Were architects and artists asked to work in teams to produce exhibitions underneath the umbrella-like structures? Or were artists asked to respond solely to Le Corbusier's architectural space ensemble? Were artists asked to work in situ in direct relationship to the architecture? Or were the pavilions merely intended to display art works? What were the different kinds of interactions among the artists and the public to be like? Was the common man to partake in the workshops? Or were the workshops strictly to be the domain of elite artists? Was public education to come from elite artists? Or were the workshops intended to educate the common man artistic sensibility through spontaneous self expression? How were these pavilions to be financed? Who was going to organize these pavilions? Where were the

pavilions to be placed around the world?

Because of lack of financial support, the vagueness of any clear vision of the project, and Le Corbusier's autocratic personality, the Porte Maillot Pavilion of the Synthesis of the Major Arts never became a concrete reality. Nevertheless, two organizations at the time successfully developed international exhibitions dealing with issues revolving around the Porte Maillot project. As we have already seen in the previous chapter, Unesco established an economical traveling exhibition for cultural programs based on the use of reproductions to educate people around the world. And to be discussed in the last section of this chapter, the Groupe Espace founded an international organization of architects and artists to promote ideas of the synthesis of the arts through mutual collaboration and held exhibitions in various European cities.

### **Precedents, Influences, and Formal/Symbolic Analysis**

Even though the pavilion for Porte Maillot<sup>34</sup> never came to fruition its direct influence can be observed in two buildings by Le Corbusier: the Maison de l'Homme of 1965, now called the Centre Le Corbusier, for Heidi Weber in Zurich, and the Pavilion for Temporary Exhibitions of 1986 in Chandigarh. In other variations one can trace the idea of exhibition pavilions back to 1928 with the Nestlé Pavilion and the 1939 exhibition pavilions for the Saison de l'Eau Exposition in Liège and for the San Francisco Pavilion. The pavilion idea can also be seen in his postwar works such as the 1957-1959 Tokyo

Museum project, the 1962 floating Exhibition Hall in Stockholm, and the 1963 International Art Center at Erlenbach near Frankfurt-am-Main.

Le Corbusier's umbrella pavilion-type with a butterfly roof structure had evolved through various forms.<sup>35</sup> Its first manifestation appeared in the Nestlé company's demountable pavilion designed to exhibit its products at the Paris Commercial Fair of 1928 and intended to last for at least nine expositions in three consecutive years<sup>36</sup> [Figs. 3.11, 3.12]. The main structure of the pavilion was composed of two rows of metal columns sheathed in iron along the perimeter of the structure, holding up a roof made of two wedge-shaped trusses meeting on a row of thin columns at the longitudinal center of the building, thereby forming a v-shaped profile on the short exterior elevations.<sup>37</sup> The influence of Russian Constructivism can be seen in the bold graphic advertisement on the exterior, made up of over-sized letters and large facsimiles of chocolate containers projecting out from the wall surface, held between two flag poles more than twice the height of the structure and standing at either end of the structure.

In order to defend his Centrosoyuz project Le Corbusier actually visited Moscow for the first time in the same year he designed the Nestlé Pavilion.<sup>38</sup> Le Corbusier had a growing relationship with the Soviet avant-garde that had begun in the early 1920's through his friend Ozenfant and the publication of L'Esprit Nouveau, which included reports on the new political and cultural movements in Russia; and through personal correspondence with El Lissitzky; and through the 1925 Exposition Internationale des Arts Décoratifs et

Industriels Modernes that included the Soviet Pavilion by Konstantin Melnikov [Fig. 3.13] and the Esprit Nouveau Pavilion by Le Corbusier with Pierre Jeanneret<sup>39</sup> [Fig. 3.14]. Although the two pavilions were quite different from one another they both were examples of “functional” architecture and stood out in a category apart from practically all other decorative buildings in the Art Deco style.

Both pavilions were an expression of the machine aesthetic based on industrial processes combined with a pronounced lyrical intention.<sup>40</sup> Their differences lay in their ideological underpinnings and aesthetic expression seen in the dynamic sculptural forms of the Constructivist pavilion with diagonal circulation intersecting rhomboidal volumes versus the classicizing vocabulary of the Purist pavilion based on pure geometric forms within an orthogonal grid. Their intended function were also diverse; the Melnikov pavilion was designed as a demountable show-case of industrial goods while Le Corbusier’s pavilion was an example of a standardized model apartment equipped with furnishings made of industrial materials.

Le Corbusier was surely inspired by Melnikov’s pavilion when he designed the portable showcase pavilion for the Nestlé company three years later. The immediate influence can be spotted in the poster-like exterior made up of lettering and emblems in vigorous colors. Other similarities can be noted in the industrial aesthetic of lightweight structural elements, the application of large planes of glass, and flat wall surfaces meeting at sharp angles. In addition, both had corresponding circulation systems of a corridor

cutting through the length of the building allowing views to see the exhibits on either side, and creating an interpenetration between inner and outer spaces. Nevertheless, Le Corbusier's less energetic design maintained the stabilizing orthogonal grid and simple forms of Purism to organize the volumes.

The next projects to show the umbrella pavilion-type were the 1939 Saison de l'Eau Exhibition Pavilion in Liège<sup>41</sup> which was the same conceptual design as the San Francisco Pavilion of the same year [Fig. 3.15]. Both were rooted in the grand tradition of universal exhibition halls of the nineteenth century like the Hyde Park Crystal Palace of 1851, made of a modular system of metal and glass allowing for vast open spaces with good visibility and circulation, and creating "an architectural emotion derived from the sincerity of the solutions proposed."<sup>42</sup> Le Corbusier described the chief concept of the Liège pavilions as follows [Fig. 3.16]:

The exhibition: the history of water in nature and in human civilization, instead of being dispersed and divided among the many buildings, was assembled in an altogether new type of building: an infinite nave occupied by thin columns supporting a partially adaptable ceiling, stretched out like a metal awning, and providing, by its design, abundant sources of necessary light. Closed in the rear and on the sides, the building opens onto the landscape of the Meuse and mounds of earth like pyramids that crown the plateau.<sup>43</sup>

The idea of an immense nave was made possible by a repetitive square module of approximately 36 square meters composed of a light steel frame roof, recalling the truss construction of an airplane wing, supported by four thin metal columns placed at the center of each of the four facades similar to

the Porte Maillot Pavilion design [Figs. 3.17, 3.18]. The profile of this roof was convex and formed a concave dip where it met the adjacent module.

Structurally, it was an inversion of the concave profile of the Nestlé Pavilion roof.

By observing these umbrella-like roofs one can begin to appreciate Le Corbusier's formal play of inversions and rotations. At Porte Maillot the relatively small pavilion roof became more plastic than the huge Liège roof: first, by straightening the curved outline and second, by differentiating each roof by a rotational movement. Here Le Corbusier was playing his right angle game by introducing a double orientation in each umbrella that allowed for alternating combinations by turning them 180 degrees.

The image of the elevation of the roof as an icon translated into the diagram of the solar movement Le Corbusier often depicted, for instance on the cover of his booklet L'Urbanisme est une clef<sup>44</sup> [Fig. 3.19]. The diagram also appeared in Le Poème de l'angle droit "iconostase" in zone A-milieu-green which represents nature and is characterized in the first square A.1 by the solar process of the year, the month, and especially the 24 hour day [Figs. 1.17, 3.20].<sup>45</sup> The image is composed of a lower square form above which is an amorphous shape. The lower square is divided into two parts by the earth's horizon along which is depicted the sun's path as a horizontal S, beginning and ending with a solar burst. A yellow semi-circle is above the horizon and next to it, below the horizon, is a purple semi-circle. Le Corbusier explained this sign of equilibrium in a tapestry he designed for Chandigarh, as a passage

from positive to negative with the point of inflection at zero and the extreme points above and below the zero. He said: "Zone of the good (above); zone of the bad (below); zone of germination (below); zone of blossoming (above) .... and so on."<sup>46</sup>

Within the square form, underneath the passage of the sun is a thick black area representative of all that belongs to the underworld or the unconscious. The large blue amorphous cloud-like shape above the square is referred to as "espace" or "space" by Le Corbusier.<sup>47</sup> The cloud in relation to the sun's passage implies the concept of time in space, an important aspect of Le Corbusier's concept of "ineffable space." This part is representative of all that belongs to the upper world or consciousness. By turning the image 90 degrees the same dualistic symbolism can be applied to another solar image Le Corbusier drew in 1945 that was part Medusa and part Apollo [Fig. 3.21].

In the poem Le Corbusier first referred to the sun, the main player in nature in the unfolding of each day, as "master of our lives".<sup>48</sup> It seems most appropriate that Le Corbusier began the poem with a eulogy to the sun in reference to the forces of nature. In an earlier text he had written:

This tiny and pathetic adventure, lived out daily by a tiny leaf, by the billions of tiny leaves that form part of the complex existence of hedgerow or great forests, always obeying and turning their faces to the great warm star, proclaims the fundamental law of this earth we live on: that the sun is our dictator.<sup>49</sup>

In the poem he then referred to the sun as "a lord" and later as an "exact machine." He was probably referring back to his concept of the "mécannique spirituelle" of the early 1920's when he wrote about an art

consciousness that transcended the technological viewpoint of the times.<sup>50</sup>

Here one can observe how Le Corbusier imbued an architectural image such as a pavilion roof profile with rich personal symbolism.

The large expanse of roof structure at Liège, defined by three modules in length, functioned as a unified concept. Underneath the roof were two levels determined by an independent post and lintel concrete structure. The ground level incorporated a reconstruction of a lake, river, hill, and waterfalls as part of the exhibition and also served as a waterway circulation system traveled by boat. The second level was reached by monumental ramps directing the visitors to a viewing platform where one could look down upon the exhibition below or beyond to the natural landscape. This level also functioned as another circulation system with optional routes to the ground level exhibition space<sup>51</sup> [Fig. 3.16].

It was the mature form of the Porte Maillot Pavilion, composed of two umbrella roof structures covering two levels of orthogonally disposed intersecting planes as exhibition space, that became Le Corbusier's exhibition pavilion prototype for a number of postwar projects. In 1962 Le Corbusier praised his client, an independently wealthy Swedish art collector, Theodor Ahrenberg, for proposing the special addition of an exhibition hall to the urban context of the city of Stockholm. The exhibition hall was to house primarily a permanent exhibition of art works from his private collection. According to the authors Folke Edwards and Gunnar Lindquist the exhibition hall was to be divided into four sections respectively for Matisse, Picasso,

Chagall, and young international artists. Le Corbusier, who was introduced to his client by the Swedish gallery director Agnes Widlund, supposedly accepted the commission under the condition that a section be dedicated to his art work, even if it meant reducing the size of the section for Chagall.<sup>52</sup>

In the Le Corbusier oeuvre complète, Le Corbusier presented a different account by stating that Ahrenberg chose Matisse, Picasso, and himself as the artists to be exhibited in three sections. Then, in parenthesis, as if he were hiding the true facts, he wrote: "I give you my word, I did not know anything about this choice."<sup>53</sup> Could it be that Le Corbusier actually persuaded Ahrenberg to exhibit his own work in place of Chagall's? Or could it be that Le Corbusier was manipulating historical fact to promote his own art work by placing it next to the works of Picasso and Matisse? And the exclusion of the young international artists altogether could be interpreted as keeping them apart from the "masters."

In this case, the Porte Maillot Pavilion prototype required the most structural and formal modifications because Ahrenberg asked the building to be placed in the sea and to be connected to the quay at Norr Mälarstrand by a sixteen-meter long gangway. The exhibition hall was structured on piles set in the water and supporting a load-bearing wall system above [Fig. 3.22]. The entire perimeter of the building was encased in a wall clad in colored enameled sheets of metal and with a generous amount of windows [Fig. 3.23]. The two umbrella roof structures were separated by a space, probably to increase the square footage of the plan lengthwise. Curiously, Le Corbusier

had maintained the columns which were not indispensable to the main structure on the centerline of the umbrella roof facades, and here the columns alternated between a round shape and a fin shape projecting out at right angles to the wall surface along the exterior elevations.

Because of the restraints determined by the site and the structural system there were fewer circulation options [Fig. 3.24]. The entrance plank guided the visitor to the second level where service-oriented amenities and a small space for temporary exhibitions were located. At the second level, views opened to the exhibition spaces below and two staircases allowed for circulation to the first level, which was evenly divided into three areas for each of the artists of the permanent exhibition; from this level visitors were asked to exit.

Minor modifications were made to the *Porte Maillot Pavilion* prototype when it was incorporated in the following three museum building complexes: the 1957-1959 National Museum for Western Art in Tokyo, the 1963 International Art Center at Erlenbach, and the 1964-1968 Museum and Art Gallery project at Chandigarh. All three projects were exemplary of the type of cultural center to be placed among other public buildings discussed at the Eighth CIAM. However, the circumstances of each of these commissions located the three projects not in urban centers but in idyllic natural settings on the outskirts of each of their respective cities.

The Tokyo Museum was commissioned by the Japanese government which had obtained a substantial art collection of Impressionist paintings and

sculptures. The art collection was originally amassed by Kojiro Matsukata, a wealthy Japanese resident in Paris, and during the Second World War it was confiscated by the French government because it considered it a war prize. The French government negotiated to return the art collection to the Japanese under specific conditions, stating that the art collection was to be relocated to a new museum in Tokyo called "Le Musée National des Beaux Arts de l'Occident" (the National Museum of Western Arts) with the main purpose of acquainting the Japanese public with western art.<sup>54</sup>

The Japanese government provided a picturesque site in a park overlooking the city of Tokyo located on the edge of a plateau where several museums such as the Museums of Natural History, of Fine Arts, and of Sciences had already been built. Le Corbusier designed a unified complex of buildings around a central esplanade [Fig. 3.25]. Starting from the left of the main entrance and moving clockwise were a library, a museum, a restaurant next to an amphitheater, a "box of miracles," and a pavilion for temporary exhibitions of the Porte Maillot prototype. Recalling the site and the composition of buildings on the Athenian Acropolis, each building was individually designed to express its meaning and function and all buildings were harmoniously disposed in a sculptural manner around a central space.

In terms of typology, the museum was the other building-type within the Tokyo building complex that had a long evolutionary history in Le Corbusier's work. The general concept originated in 1928-1929 in the (unbuilt) Mundaneum World Museum in Geneva as part of a center of

intellectual cooperation. The World Museum was a seven-story square spiral in plan and a stepped pyramid in section, resembling an ancient Mesopotamian ziggurat<sup>55</sup> [Fig. 3.26]. Its formal and ideological program was developed by the Belgian industrialist and sociologist, Paul Otlet, who wanted to show a comprehensive history of the various stages of human civilization in continuous development.

This early museum design by Le Corbusier with Jeanneret was a precursor of the international ideas of postwar synthesis of the arts but ensconced in the broadest sense ideas of a synthesis of humankind. Le Corbusier collaborated on a design following Otlet's pacifist thoughts that had developed out of the experience of the First World War. Otlet's hope was to create an international association to facilitate communication among nations in order to avoid another human tragedy.

The innovative concept of the World Museum was based on a broad method of representation that included geography, history, science, education, commerce, sociology, culture, and civilization. In addition, regarding the arts, Otlet provided an International House of Artists so architects, painters, sculptors, and musicians could comfortably interact with philosophers, historians, and poets. By establishing an all inclusive methodology, the World Museum would engender a more synthetic critique of humanity. Otlet explained:

It is important now to present in a single point the systematic exhibition of the total reality, a World Museum that is a museum of the encyclopedia and of synthesis, disposed to be an instrument of science, of the study of culture, to inspire in each of us, by a single

spectacle, the grand and elevated impressions that can instigate the discovery of the vast universe in which we move.<sup>56</sup>

The spiral shape of the building was to encompass an evolutionary history, starting from the top of the spiral with prehistoric times and revolving down chronologically through every civilization to present times. Congruent with Otlet's viewpoint, Le Corbusier's architectural description of the World Museum ended with the following words:

The world will find there the place where the sense of human solidarity elevates itself to the highest, where the consequences of faults and benefits are demonstrated, where analysis will provide precise information, where synthesis will show the way, where the means of coordination and harmonization are present.<sup>57</sup>

Within a hierarchical layout of many diverse buildings the World Museum was designated as the principal structure holding the most important collection. At the northeastern end of the site Le Corbusier placed a structure with five small pavilions, each with a different shape, to function as permanent or temporary exhibition spaces [Fig. 3.27]. Le Corbusier's description of the purpose of the pavilions invoked the experimental and multi-functional aspects of the Porte Maillot Pavilion, but in a different context:

The concern here is to build a fast, instantaneous, innumerable, multi-form system of world investigation presenting man in his creative, conceptual realizations -- *Man lives in society, man submits to the laws of the city, the state, the continent.* These are objects, specimens, models, curves, photographs, schemes, etc.<sup>58</sup>

From the inception, Le Corbusier's plan for an international cultural center included both a museum for permanent exhibitions and a separate

pavilion structure for more flexible exhibitions, reflecting the multi-form expression of the pavilion itself. The World Museum plan was modified in 1930 into the Museum of Unlimited Growth, a two-story structure conserving the spiral movement of the Mundaneum [Fig. 3.28]. The main idea was a simple modular structural system that would start at a central point and gradually expand without limitations into a square form. Le Corbusier also called it the Frontless Museum.<sup>59</sup> Le Corbusier tried to implement this building in numerous projects starting with the Cité Universitaire of Rio in 1936 to the Musée du XX siècle in Paris of 1965. Only three versions were realized: in Ahmedabad (1952-1957), in Tokyo (1952-1957), and in Chandigarh (1960-1965).<sup>60</sup>

The “box of miracles” was another structure within the Tokyo building complex that was incorporated in various cultural center plans.<sup>61</sup> At the Eighth CIAM Le Corbusier presented the “box of miracles” together with his ideas on the urban core and the “spontaneous theater.” He described the “box of miracles” as a simple rectangular hall for diverse usage whose emptiness would invite human expression and creativity. Events such as conferences, audio visual projections, music, dance, theater, and electronic games were suggested. As the title implied the interior was designed for the unexpected to happen and to stimulate the human spirit toward “all that the heart desires” and “everything you dream of.”<sup>62</sup> In the ancient tradition of the Greek theater, and in the spirit of postwar concerns for the re-humanization of society, the “box of miracles” was conceived as a sort of healing ground for

the soul.

Designed primarily as an interior space, the “box of miracles” and the Philips Pavilion<sup>63</sup> of the 1958 Brussels World Fair were similar in conception. Although their exterior expressions lay at opposite ends of the spectrum -- the “box of miracles” [Fig. 2.13] as pure geometric form and the Philips Pavilion [Fig. 1.19] as a tent-type pavilion made with an innovative and complex hyperbolic-paraboloidal structure -- both their interior spaces were conceived with the same intention -- to create magic. Designing for Philips, one of the world’s leading manufacturers of electronic equipment, Le Corbusier was given complete access to their advanced technology in order to create a pavilion as publicity for the corporation. Le Corbusier took this unique opportunity to exploit the latest technology in audio-visual media to create a synthetic work of art he called “Le Poème électronique.”<sup>64</sup>

Even though Le Corbusier controlled every detail from inception to completion the project was a collaboration among many specialists including engineer and composer Iannis Xenakis, composer Edgard Varèse, author and publisher Jean Petit, filmmaker Philippe Agostini, and acoustical engineer Willem Tak. Lasting eight minutes “Le Poème électronique” synthesized sound, colored lights, and film in the round as the audience stood in the center of the space. Images ranging from the primitive to the civilized were collected by Le Corbusier from museums and books and were manipulated by Agostini, who worked with the two dimensional pictures to create a dynamic assemblage by using various techniques including juxtaposing opposing

images in a fast rhythmic pattern. The music composed by Varèse of synthesized and natural sounds was piped through approximately 325 loudspeakers and was set without any direct coordination to the randomly projected images.<sup>65</sup> The idea was to produce a total work of art with the new media which Le Corbusier described as “the electronic games, limitless synthesis of color, of image, of music, of the word, of rhythm.”<sup>66</sup> This successful electronic spectacle stimulated and astounded the audience at the same time. The Philips Pavilion was the closest Le Corbusier ever came to realizing his vision of a technologically advanced synthesis of the arts. However, it was not a spontaneous environment but rather a very controlled one, nor did it elicit creativity from the spectator as he had suggested for the “box of miracles.”

The rectangular volume of the “box of miracles” at the National Museum of Western Arts [Fig. 3.25] was a solid box with one side left completely open and another with a single entrance. The facade seemed to have slid to the side to create the open elevation and at the same time, by extension, to create a blank wall that helped frame the exterior space. The space was evenly divided into an indoor and outdoor theater with an ambiguous boundary between the two.

The exterior of the “box of miracles” lent itself to optical illusion created by the slightly slanted parapet that formed an accentuated oblique perspective when viewed from the high corner recalling the effect of foreshortening [Fig. 2.13]. A similar condition was found in the volumetric

disposition of the library next to the museum. Also at Ronchamp the south-east corner was heightened for spatial drama. Le Corbusier was adding illusionistic qualities perceived by the observers depending on their point of view and the particulars of the lighting affected by the solar movement and clouds. In other words, "ineffable space" was evoked by the constantly changing vantage points and shifting momentary impressions. Colin Rowe discussed in detail a similar condition found at the north-west corner of the chapel at the Monastery Sainte-Marie-de-la-Tourette<sup>67</sup> (1957-1960) in Eveux-sur-Arbresle near Lyon [Fig. 3.29]. In this case, the foreshortened effect was augmented by the downward slope of the ground. The buildings were perceived in constant flux as the observer moved around them.

Le Corbusier's atelier presented the International Art Center in Erlenbach of 1963 in the format of a 21 X 33 cm portfolio complying to the CIAM Grill.<sup>68</sup> This project, more than any other cultural center designed by Le Corbusier, sustained the ideas discussed at the Eighth CIAM, albeit it was not situated in an urban core and rather was planned in the open countryside. Nevertheless, its location was the crossing of the axes among important European cities where perhaps other similar centers would be placed in the future [Fig. 3.30]: the north-south axis between Stockholm and Rome, and the east-west axis formed by Paris, Vienna, Belgrade, and Bucharest. Thereby it was seen, not convincingly, as an international project. It was too contrived and limited in global scope.

This project, like the Tokyo project, included a Museum of Unlimited Growth, a “box of miracles,” and a Porte Maillot Pavilion-type for temporary exhibitions. In addition, it also incorporated a sculpture garden, studios, and depositories for the museum and a “spontaneous theater,” all loosely arranged around a central esplanade [Fig. 3.31]. The “spontaneous theater,” which Le Corbusier had extensively discussed at the Eighth CIAM, was an independent structure primarily composed of a covered backstage with a mostly uncovered stage area. The design allowed for at least six different audience arrangements depending on the use for either theater, dance, film, conferences, reunions, or electronic games [Figs. 3.32, 3.33]. Without any kind of permanent seating the audience was free to congregate around and on the stage depending upon the function.

The last cultural center building complex to include a Porte Maillot Pavilion-type was the Museum and Art Gallery at Chandigarh conceived in 1964-1968. Other main structures on the long site following the contours of the Vallée des Loisirs were a Museum of Unlimited Growth, a “box of miracles,” a “spontaneous theater,” and an art college<sup>69</sup> [Fig. 3.34]. The Pavilion of Temporary Exhibitions was completed in 1986 by the Architect’s Establishment following the research conducted by the first Indian appointed chief architect at Chandigarh, Manmohan N. Sharma [Fig. 3.35]. This structure was the second version of the Porte Maillot Pavilion-type to be built posthumously -- approximately nineteen years after its Swiss counterpart, the Centre Le Corbusier. Both pavilions are formally very similar; the main

difference lies in their materials and method of construction: the Chandigarh pavilion is entirely made of concrete, while the Swiss version is mainly steel.<sup>70</sup>

Constructed in 1967, two years after Le Corbusier died, the Centre Le Corbusier summarized his ideas for a synthesis of the arts.<sup>71</sup> It was first designed in 1964 to provide the dual function of a home for Heidi Weber as well as a private museum dedicated to her collection of artworks by Le Corbusier. In the end, although elements of the house design, such as a kitchen and bathroom remained in the plan, the pavilion became primarily an architectural setting for exhibiting Le Corbusier's artwork and a place for social events and meetings. The pavilion is located close to Lake Zurich in a wooded site near the city's old medieval center [Figs. 3.36, 3.37]. Its strong presence proclaims a plastic architectural form rupturing from the past and evoking the experience of "ineffable space." A sense of limitlessness is provoked by the ambiguous and expandable space created below the roof structure and around the semi-opaque and semi-transparent modular wall system. Boundaries between the inside and outside of the structure are unclear. As Le Corbusier would say, the pavilion participates in an "acoustical event" whereby its form radiates into the landscape while being receptive to vibrations from its surroundings [Figs. 3.38, 3.39].

The building is composed of two metal umbrella roof structures measuring 12 square meters, each functioning as "brise-soleils" or "sun breakers" that define the main perimeter of the structure. Beneath this lies a

basement level with a system of glass and enameled polychromed modular steel panels that establishes a grid matrix for two stories and a roof terrace [Figs. 3.40 - 3.46]. In addition, there is a concrete ramp outside the perimeter that intersects the grid plan at a right angle along the north side of the structure. A gap between the two roofs was necessary to accommodate the ramp. As its original name implies, *Maison de l'Homme*, the pavilion was designed with human scale in mind while also being determined by the mathematical proportions of the Modulor. The Modulor establishes the harmonic, ordering grid within which different architectural elements respond to an intimate scale dictated by the panel system, while the seemingly large hovering roof and concrete ramp incorporate a monumental scale. Le Corbusier achieved a similar condition at Ronchamp where a relatively small chapel appears to have a monumental impact created by the effect of the large hovering roof; at a larger scale at the High Court of Chandigarh another similar effect is achieved by the roof proportions. In all cases there are two forces juxtaposed; the bottom part of the structure is solidly grounded in the earth while the roof structure is dramatically projected towards the sky.

In terms of technology, the building is notable for its light weight and flexible qualities. It reflects Le Corbusier's earlier investigations of cellular growth in the unbuilt projects for the Roq and Rob (1949) dwelling units as well as the Venice Hospital (1964-1965) in which he rejected traditional values of static form in favor of an expandable architecture composed of repetitious standard units. With the advice of Prouvé, Le Corbusier developed a

structural system based on prefabricated, L-shaped one size steel angles bolted together to form cubes infilled with panels. The steel angles corresponded to the Modulor dimensions he had already proposed for the Roq and Rob project called Le Brevet [Figs. 3.47 - 3.49].

Even though the Centre Le Corbusier was not built as a pavilion for the synthesis of the arts with the visionary intentions articulated at the 1952 Venice Conference on the Arts, it nonetheless stands today as a memory of the idea. In certain ways, it contradicts the idea of a “workshop” for international collaboration among artists, and is instead a museum for the works of one man who happened to be a painter, a sculptor, and an architect. Built under the ideal auspices of a dedicated and wealthy art gallery proprietor, the pavilion is somewhat of a folly, an autobiographical essay, and a memorial to Le Corbusier. However, as a public museum it provides a unique opportunity to experience an architectural plastic event where the arts of one man come together.

### **Bloc and the Groupe Espace**

André Bloc was a highly individual man of tremendous stamina and integrity who influenced the development of the synthesis of the arts after the war; his life and work deserve special attention.<sup>72</sup> Bloc was a primary spokesperson in the promotion of the synthesis of the arts which he propagated through a number of postwar venues: as writer and editor of L'Architecture d'aujourd'hui and L'Art d'aujourd'hui, as Second Vice-

President of the Association pour une Synthèse des Arts Plastiques, as founder of the Groupe Espace, and as sculptor, painter, furniture designer, urban planner, and architect. The integration of the arts was the avowed aim of his entire work. Bloc attempted to redefine the synthesis of the arts freed from traces of utopian idealism that were at the root of its theoretical underpinnings before the war and that were still evident in Giedion's postwar rhetoric. For Bloc the problem was a practical one that served as the keystone of his ideas and artistic work.

The strong practical streak in Bloc was probably developed in his formative education as an engineer at the Ecole Central de Paris from which he graduated in 1920 with the title of Engineer of Arts and Manufactured Products. His first jobs were in the industry of motors and turbines. In 1922 with a strong penchant for publishing he edited the Revue Science et Industrie and in 1923 added the Revue de l'Ingénieur before founding the Revue Générale de Caoutchouc in 1924. He devoted himself to the issues and problems of manufacturing rubber products through 1939.

At the same time that he was fully immersed in the promotion of industrial production he dabbled in the arts as a Sunday painter and was a regular reader of L'Esprit Nouveau. He also came into contact with a number of architects, beginning with Le Corbusier whom he met in 1921 and Frantz and Francis Jourdain, Auguste Perret, and Henri Sauvage. These interactions increased his interest in the arts and architecture and inspired the creation of an international magazine specializing in architecture. In 1930, with the

main intention of giving a voice to modern architecture he founded the periodical L'Architecture d'aujourd'hui located at 5 rue Bartholdi in Boulogne-sur-Seine which remained the seat of activity for the magazine and other related associations throughout Bloc's life.

L'Architecture d'aujourd'hui was not an avant-garde periodical but rather served as the main publication of modern French and international architecture with an even-handed coverage, recalling the similar role The Architectural Review played in England at the same time. Organized by themes, each issue covered a rich and eclectic array of materials. The editors worked to provoke discussions over contemporary topics through organized evening conferences, organized opinion polls among group of professionals, and sponsored study trips abroad for members and students. In addition, the publication played an important role in promoting new methods of construction and building materials apparent in the abundant pages of colorful advertising and sections including new technical information.

The magazine was run by a committee of twenty-four members that included two generations, for example, the veterans Perret, Jourdain, Hector Guimard, and Alphonse Dervaux, and the younger Robert Mallet-Stevens, Georges Henri Pingusson, Jean Ginsberg, and André Lucart. Le Corbusier joined in 1936. Bloc was successful in managing the difficult task of publishing contributions from many important people with strongly opposing views, namely the modern versus the academic. The magazine's first special number on Perret created a schism following which more

attention was paid to Le Corbusier, signalling the committee's parting from Perret.<sup>73</sup>

The magazine suffered numerous financial difficulties and during the German occupation was shut down and plundered, thereby losing all of its documents and library. In 1940 Bloc took refuge in Biot in the south of France, an area known for its pottery makers, and at the age of forty-four began a more serious artistic career working in clay sculpture and exploring architecture and urbanism.

After the war Bloc produced a substantial amount of sculptural and architectural works.<sup>74</sup> His most important sculptural commissions were "Signal" (1949) twelve meters high made of concrete and placed at Place d'Iéna in front of Perret's Musée des Travaux Publics de Paris to celebrate the centenary of concrete; this sculpture was followed by a series of other "Signal"<sup>75</sup> sculptures and two polished brass sculptural columns (1960) twenty-five meters high for the Senator's Palace in Teheran designed by architects Mohsen Foroughi and Heydar Ghiai [Fig. 3.50]. Bloc made numerous sculptures in varying dimensions, demonstrating both a dynamic and balanced expression of abstract geometric forms, and experimented with different materials such as marble, clay, bronze, concrete, plastic, copper, iron, steel, and wood.

Bloc's early architectural project in collaboration with Claude Parent and the artists Margaret Tallet and Walter Munz was his own house, *Maison du Sculpteur* (1949), in Meudon -- a good example of a total work of art done

in the aesthetic of postwar abstract geometric art.<sup>76</sup> The plan of the house was an obtuse V shape that opened up toward the garden [Figs. 3.51, 3.52]. Bloc worked with the juxtaposition of opaque stone walls in contrast to transparent glass walls that defined the simple geometric form of the structure. The interior was polychromed by Bloc who painted abstract murals based on the Golden Section creating an even balance between the vibrant strong colors and the calming monochromatic ones, aware of their psycho-physical properties [Figs. 3.53, 3.54]. Bloc also designed the furniture with curving forms upon the suggestion of Perriand and even designed the bird cage [Fig. 3.55].<sup>77</sup> Other projects that followed were his 1962-1966 sculpture-objects which he called "sculpture-habitacle" [Fig. 3.56], 1963 studies for the Iranian Pavilion at the Cité Universitaire de Paris, 1963 studies with Parent of a theater in Dakar, 1963 house with Parent in Antibes, 1963 studies in prefabrication, 1964 house in Palomeras, Málaga, and 1960 urban studies Paris Parallèl.

When Bloc returned to Paris in 1945 he was supported by the Minister of Reconstruction and Urbanism, Eugène Claudius-Petit, who supported the reinstatement of L'Architecture d'aujourd'hui at the Chamber of Deputies which granted Bloc access to paper that was strictly rationed at the time. With the collaboration of Bloc's co-founders Pierre Vago and Alexandre Persitz and the principal assistance of Diamant-Berger and Danielle Valiex, L'Architecture d'aujourd'hui was back on its feet again and set the platform for discussions on the synthesis of the arts. The first issue after the war

incorporated a section with the heading "Arts et Architecture,"<sup>78</sup> meant to follow the developments in contemporary art related to architecture, and declared: "The harmonious and pure orchestration of the plastic arts is not possible in all cases, but it is desirable. An architect who ignores the essential facts of contemporary art will never be but a simple technician of construction."<sup>79</sup>

In the same issue Bloc contributed an article describing the problem of the separation of architecture and sculpture, due in large part to the economic constraints facing architects of the reconstruction.<sup>80</sup> In light of this, architects placed the arts and especially sculpture at the end of the list, frequently considering aesthetics altogether unnecessary, creating a division between the arts and architecture. The responsibility for this divorce, according to Bloc, was also shared by sculptors who were satisfied to work in isolation and who catered primarily to the wealthy bourgeoisie. And when there was an attempt toward a collaboration both parties were ill prepared for the task. This problem was further compounded by a lack of interest from the public. With the understanding that the architect was the master planner the responsibility to take the first step toward a successful collaboration was up to him or her. Bloc demanded that architects collaborate with artists and to this end L'Architecture d'aujourd'hui took the initiative of publishing contemporary sculpture.<sup>81</sup>

Bloc believed that an intellectual association among L'Architecture d'aujourd'hui, CIAM-France, ASCORAL, and UAM<sup>82</sup> (Union des Artistes

Modernes) would serve as a definitive step toward the making of a synthesis of the arts within the community at large and encourage the flourishing of a new French art:

This synthesis ought to be considered as a genuine work to be accomplished for the country, in this period of such prodigious liberation of the major arts, architecture, sculpture, and painting. An international reverberation will result, as well as a masterly flourishing of French art.<sup>83</sup>

In the following issue in an article entitled "A Propos d'humanisme" Bloc asserted the architect was above all an artist.<sup>84</sup> And the first special issue was called "Art," dedicated to modern architecture, sculpture, and painting.<sup>85</sup> Another special issue of 1948 was devoted to Le Corbusier, who wrote a full manifesto on his synthetic art work in the long article "Unité." In 1949 Bloc launched a new periodical dedicated to modern art called L'Art d'aujourd'hui meant to parallel L'Architecture d'aujourd'hui. With the hope of influencing architects to become more involved in the contemporary art discourse, advertisements in L'Architecture d'aujourd'hui<sup>86</sup> urged readers to subscribe also to L'Art d'aujourd'hui, and in 1955 the latter changed its name to Aujourd'hui: art et architecture.

At the first general assembly meeting of L'Architecture d'aujourd'hui that took place on December 27, 1949, right about the same time the Association pour une Synthèse des Arts Plastiques was coming together, Léger underlined the need for collaborations among artists and architects.<sup>87</sup> Claudius-Petit confirmed the government decision to allot one percent of their construction costs of state buildings to works of art.<sup>88</sup> Even though the

one percent law was a positive legislative step toward supporting the integration of the arts, it was a meager attempt. Bloc later criticized the law by pointing out that the outcome was often the works of bad artists whose works were not integrated with the architecture. In addition, he noted that not all architects requested this one percent and in fact only forty percent of this one percent was used for the arts.<sup>89</sup>

L'Art d'aujourd'hui addressed all the creative arts in the context of contemporary manifestations and problems, exemplifying the eclecticism of ideas apparent in the period after the war. The magazine served as a means of clarification and looked at abstract art in its successive phases. Numerous works were published defining the position of L'Art d'aujourd'hui as well as unfolding the polemic through analyses, commentaries, and interviews. It was under the directorship of Bloc that the new aesthetic of the synthesis of the arts was explored in this periodical.

The first issue included contributions by prominent art critics such as Edgard Pillet, Michel Seuphor,<sup>90</sup> Daniel-Henry Kahnweiler, Julien Alvard, Gaston Diehl, Pierre Guéguen, and Léon Degard. Though abstract art took the spotlight in the magazine, it also included contemporary primitive art, the only figurative art they deemed to be of the times as well as children's art and the art of the insane.<sup>91</sup> Abstract art was chosen as the aesthetic that had qualities in accord with architecture: geometry and space. They advocated a synthesis of modern art that lay within the realm of abstraction.

Bloc, who was almost a decade younger than Le Corbusier, held Le

Corbusier's ideas and works in high esteem. However, on a personal level their relationship was always difficult, understandably so, as Bloc explained, because Le Corbusier hardly liked anything and stayed away from artists and intellectuals who could challenge him.<sup>92</sup> At the time of the founding of the Association pour une Synthèse des Arts Plastiques their relationship became more distant, as happened with many others who worked closely with Le Corbusier, because of his egocentric personality that could not withstand criticism and because he thought himself the only person capable of solving the problem of the integration of the arts. Bloc made it clear that Le Corbusier's approach to the synthesis of the arts was not the best nor the only one. Embittered by Le Corbusier's personal exigencies and autocratic approach, Bloc decided to join Félix Del Marle in October of 1951 to create the Groupe Espace.<sup>93</sup>

Le Corbusier was incorrectly convinced that Bloc's initiative to start the Groupe Espace was solely a personal one and felt rancor toward Bloc which was never dispelled. Despite this, Bloc continued to respect Le Corbusier's work and never cut him off completely.<sup>94</sup> Needless to say, Le Corbusier never participated in the Groupe Espace. Independent of Le Corbusier's ideology the Groupe Espace was nevertheless a direct outcome of the Association pour une Synthèse des Arts Plastiques and under the leadership of Bloc (Del Marle died about a year after its foundation) survived a number of successful years until its gradual demise around 1957.<sup>95</sup>

At the first reunion of the Groupe Espace, Bloc emphasized the

importance of artists collaborating with architects at the inception of a project and developing all resources that favored such a collaboration. Bloc also proposed competitions as a means of publicizing and of serving as experimental arenas for an integration of the arts.<sup>96</sup> Sharing the same address as L'Architecture d'aujourd'hui and L'Art d'aujourd'hui, the Groupe Espace established a meeting place and published its manifesto in both magazines.<sup>97</sup>

The manifesto announced the creation of the Groupe Espace in order to consciously disengage itself from certain disastrous conditions that overwhelmed the public at large as well as many artists, architects, and builders. It stated that the problem was a general lack of preparation of professionals in their own fields. For example, architects and people involved in the development and construction of cities were often not qualified to make decisions about new problems, and specialization did not work for people involved in urban planning who required experience in various fields such as sociology, psychology, and aesthetics. The Group declared that all people responsible for the built environment must consult technicians and artists adept at handling spatial problems and must be supported by laws and regulations.

The manifesto recommended a non-figurative art that was constructive and that engaged with three-dimensional space while responding to necessary functions and thereby servicing both the private and collective community. This spatial aesthetic was to be one inextricably linked expression within the ideal proportional relationships of architecture.

The Group called for the creation of close ties among all people involved in architecture and urban planning. And as a means of familiarizing the public with innovations in aesthetics, the artists of the Groupe Espace proposed to engage in public competitions, festivals, and exhibitions. They ended the manifesto by claiming the fundamental importance of the arts for the harmonious development of all human activities. The manifesto was signed by thirty-nine architects, engineers, and artists.<sup>98</sup>

The manifesto received severe criticism from the architect Georges Labro, who characterized it as daring literature representative of an excessive pride with commercial intentions.<sup>99</sup> He attacked the French members for taking part in a group with foreigners and for orienting architecture toward abstract art in the name of French art. This criticism of the Group clearly pointed to Labro's xenophobia which, according to the Group, was representative of the general mind-set present in the French public. The Group accused Labro of inflammatory and damaging language and took its case to the courts where it won with monetary compensation.<sup>100</sup> Nevertheless, Labro's criticism of the Group's presumptuous and narrow focus on non-figurative art was true.

The minutes of the members and committee meeting that took place on December 12, 1951, were published in L'Architecture d'aujourd'hui revealing the establishment of an organization divided into five commissions.<sup>101</sup> The First Commission "Work" was in charge of internal

affairs of the Group and assigned specific tasks to the different members. The Second Commission "Architecture" was headed by Jean George. The Third Commission "Dimensions," headed by Bernard Laffaille, focused on the studies of standardization in construction and industrial design with the human scale and aesthetics in mind. The Groupe Espace was influenced by the studies of proportions and of the Golden Section by the Israeli architect Alfred Neumann.<sup>102</sup> The Fourth Commission "Exhibitions and Festivities" was headed by Luc Arsène-Henry and the Fifth Commission "Design of Objects" was headed by Nicolas Schöffer. Bloc stated the Groupe Espace was not created only to study theoretical issues, but also to form teams to research the most favorable conditions for architects and artists to collaborate. To this end a series of visits to artists studios was organized for architects to attend.<sup>103</sup> The intention was to promote a climate of exchange and better understanding among architects and artists.

A year later the Groupe Espace held a general assembly on December 16, 1952 presided over by the honorary guest Claudius-Petit and attended by approximately eighty people.<sup>104</sup> As the Group was rapidly growing Bloc announced the formation of Groupe Espace satellites in Belgium and Finland with the future possibility of one in Cuba. Eventually the Group had affiliations in England, Switzerland, Italy, and Sweden.<sup>105</sup> However, the English group, including the artists and architects John Mc Hale, Constant, and James Stirling, was short-lived because it refused to submit to ideas it thought were too idealistic and dogmatic such as a synthesis of the major arts.

Instead they joined the Independent Group in England which focused on popular culture and its implications and organized two independent exhibitions "Parallel of Life and Art" (1953), followed by "This is Tomorrow" (1956).<sup>106</sup>

At the general assembly Bloc was confident enough to present seven projects representative of the Association's efforts. The first three projects considered the most successful were: Usine Renault and housing project in Flins by architect Bernard Henri Zehrfuss and artist Del Marle,<sup>107</sup> Usine Mame in Tours by architect Zehrfuss and artist Pillet<sup>108</sup> [Fig. 3.57], and the Maison de la Tunisie at the Cité Universitaire in Paris by the architect Jean Sebag and various members from the Group.<sup>109</sup> The other four projects were: Ecole Paul-Bert in Havre by the architect Guy Lagneau and the artist Etienne Béothy,<sup>110</sup> an apartment building on rue Chardon-Lagache in Paris by architect Jean Ginsberg and artist Wilfredo Arcay<sup>111</sup> [Fig. 3.58], the Maison de l'Etudiant in Paris by interior designer Perriand and artist Béothy,<sup>112</sup> and the Caisse des Congés Payés in Paris by the architect Zehrfuss and sculptor Emile Gilioli.<sup>113</sup> Bloc then cited the example of the City University in Mexico (1953) by chief architects Mario Pani and Enrique del Moral as a poor result of a collaboration.<sup>114</sup> By the end of 1953 the Group was fully established with an international list of one hundred and sixty-one members from sixteen different nationalities.<sup>115</sup>

All members of the Groupe Espace were invited to participate in a

major open air exhibition in Biot in the Côte d'Azur near Antibes from July 10 to September 10, 1954. Claudius-Petit was the main sponsor and André Bruyère was the chief architect with the assistance of Arsène-Henry, Pillet, and Cicero Dias.<sup>116</sup> The exhibition entitled "Espace - Architecture - Formes - Couleur" included many different kinds of art works such as painting, sculpture, furniture, architecture, mosaics, and stained glass.<sup>117</sup> In the catalogue Bloc gave special honor to the Venezuelan member Carlos Raúl Villanueva for setting an outstanding example with the City University in Caracas,<sup>118</sup> [Figs. 2.7, 2.8] and summed up the purpose of the Group:

The exhibition at Biot constitutes a start, a tentative barrier to the sea of indifference. The artists intend to organize themselves attempting to reunite around the best among them in order to integrate within life. Instead of remaining confined to their studios, to be bound to convince the art critics, to solicit the collectors and art buyers, to struggle with the system of the times in order to survive, they try to create teams, to partake in life by showing that they are capable of creating through their imagination a world where dreaming can still find its place.<sup>119</sup>

Other exhibitions were planned in 1955 for Brussels, Zurich, and Parc de Saint-Cloud in Paris.<sup>120</sup>

The Groupe Espace was originally composed of artists who showed in the section "salle espace" at the Salon de Réalités Nouvelles of 1950.<sup>121</sup> Led by Del Marle and Jean Gorin,<sup>122</sup> other important artists of this Group were Nicolaas Warb, Bloc, Béothy, and Schöffer, among others. Since the 1950 Salon de Réalités Nouvelles exhibition Del Marle's main proccupation was abstract art and its expression in three-dimensional space which he interpreted as a liberation from the canvas and described as color in space: "in

the present time, spatial color seems to manifest itself in three different ways: either through the object itself, or through the functionalist object with a utilitarian and urgent destination, or lastly through architecture."<sup>123</sup>

These artists were part of a French movement of postwar abstract geometric art that was primarily rooted in Dutch Neo-Plasticism and also in the German Bauhaus and Russian Constructivism. Their premise was to integrate art with everyday life by moving away from the canvas and toward the three-dimensional object and architecture. Fundamental to their approach was to represent the latest technology in their aesthetic. Del Marle recapitulated the influence of Constructivism and Neo-Plasticism in his, Gorin's, and Burgoyne Diller's works in the following statement:

These elements like color conceived spatially, the different materials, a narrower tie with functionalism, and above all the large penetrations in the works, of light and of space, are certainly strongly influenced by Constructivism, but utilize the severe discipline and austere rigor of the neo-plasticians; today they allow Neo-Plasticism, and are grateful to this vitalizing sharing, continuing brilliantly its sculptural-architectural evolution toward a monumental and collective style.<sup>124</sup>

Gorin and Del Marle promoted a collective monumental architecture following the precepts of a synthesis of the arts discussed at the Seventh CIAM which Gorin quoted: "The realization of this synthesis must be considered an essential duty in this period of such prodigious liberation of the major arts: architecture, sculpture, and painting. It is interested in communal buildings as well as in individual housing units."<sup>125</sup>

Gorin saw the entire built environment, from the urban scale to the individual housing unit, as the dwelling place of people that affected their

mental, spiritual, and physical formation. Socially committed to address the collective community Gorin and Del Marle believed the Neo-Plastic movement was a positive means to bring harmony and unity to cities, and that architecture was the most important vehicle for the expression of a synthesis of the arts. Del Marle proposed the project of a polychromed city [Fig. 3.60]. Gorin proposed monumental constructions from twenty to thirty meters high to be placed in urban public centers [Fig. 3.59]. Based on the ideas of circulation through time and space and the use of color within an orthogonal grid Gorin aspired to create a kinetic architectural composition. With high hopes for the reconstruction of postwar cities Gorin reflected the social idealism of early twentieth century De Stijl:

We are entering today a great epoch of architecture; entire cities are going to be reconstructed. Modern techniques place at our disposition gigantic means. Unsuspected possibilities open in front of us. It is a unique moment for the greatest realizations in urbanism. But only the public authorities can make an appeal to the young teams of a new style, the style of the twentieth century man, the century of universal and collective art.<sup>126</sup>

The discourse on the integration of the arts presented by the Groupe Espace was associated with ideas of liberation through abstraction and reconstruction of the new environment. Like the CIAM, it was confronted with enormously complex sociological, political, financial, and theoretical problems which, within its relatively narrow focus of the synthesis of the arts, it could not realistically embrace. Ultimately, the Groupe Espace was left behind as the last vestiges of a modern utopia.

### Notes to Chapter 3

<sup>1</sup> Most postwar documents are inconsistent in giving full names; usually they only give the last names and occasionally give the first name or first initial. In the endnotes I have listed the names as they appear in the documents. In the text I have attempted to track down as many first names as rendered possible within the confines of my research. "Association pour une Synthèse des Arts Plastiques -- Comité de Direction Eventuel," FLC, F2-10, p. 95. The proposed committee was as follows: President: Henri Laugier; Vice-Presidents: Le Corbusier and André Bloc; General Secretary: Marcel Roux; Treasurer: Paul Breton; Adjunct Secretary: Renée Diamant-Berger; Members: Léon Degand, Eyraud, A. Farcy, Mac Even, and A. Philip; Consulting Architects: Badovici, A. Bruyère, L. Mirabaud, A. Pers, Pierre Jeanneret, Wogensky, Sert, and B. Zehrfuss; Consulting Sculptors: Arp, Gilioli, H. Laurens, and Pevsner; Consulting Painters: Henri Matisse, Pablo Picasso, Fernand Léger, and Magnelli; Consulting for Events: M.R. Rodel; Law Consulting: M. Pierrard.

<sup>2</sup> "Status de l'Association pour une Synthèse des Arts Plastiques," FLC, J1-5, p. 88. Translated by author from French text: "rechercher les conditions d'une collaboration efficace entre les architectes, les sculpteurs et les peintres par tous moyens appropriés tels que: expositions, manifestations, publications, conférences, etc."

<sup>3</sup> *Ibid.*, the list of artists/honorary members included: Simon, Arp, Brancusi, Chauvin, Miró, Pevsner, Herbin, Chagall, Moore, Giacometti, Bloc, Dewasne, Picasso, Gilioli, Braque, Léger, Laurens, Vasarely, Adam, Jankowski, Helion, Bill, Magnelli, Savina, Le Corbusier, Matisse, Villon, Masson, Manès, Steinberg, Del Marle, Gorin, Béothy, Ben Nicolson, Schneider, Díaz, Hartung, Pillet, Davis, and Proveler.

<sup>4</sup> Announcements for the exhibition were published in L'Architecture d'aujourd'hui (Dec., 1949), p. XIX, and in Art d'aujourd'hui (Jan., 1950), n.p.

<sup>5</sup> Renée Diamant-Berger, "De l'Union pour l'Art à l'Association pour une Synthèse des Arts Plastiques et au Groupe Espace," Aujourd'hui: art et architecture, (Dec., 1967), p. 54. Translated by author from French text: "Est-ce que cela ne sera pas une exposition Le Corbusier, n'est-il pas lui-même architecte, peintre et sculpteur?" -- "Non, ce sera une exposition sur la synthèse des arts plastiques à laquelle Le Corbusier participera et dont il préparera le plan général. En ce qui le concerne il réalisera une sorte de musée et autour seront édifiées d'autres constructions conçues par divers architectes dans des buts bien définis de recherche de formes, de couleur, de mouvement qui auront un caractère expérimental et un pouvoir de suggestion."

<sup>6</sup> "Association pour une Synthèse des Arts Plastiques," FLC, F2-10, p. 99. The committee on the letter head of the Association read as follows: President: Matisse; First Vice-President: Le Corbusier; Second Vice-President: Bloc; Treasurer: Paul Breton; General Secretary: Marcel Roux; Adjunct Secretary: Renée Diamant-Berger; other Members of the Directorship: Marie Cuttoli, Léon Degand, Andry Farcy, and François Le Lionnais; French Counsellors: Jean Cassou, Maurice Jardot, Louis Joxe, and Georges Henri Rivière; Architects: Jean Badovici, André Bouxin, André Bruyère, Pierre Jeanneret, Lionel Mirabaud, Jean Prouvé, André Sive, André Wogensky and Bernard H. Zehrfuss; Sculptors: Jean Arp, Emile Gilioli, and Henri Laurens; Painters: Georges Braque, Auguste Herbin, Fernand Léger, Alberto Magnelli, Pablo Picasso, Joseph Sima, and Victor Vasarely; Foreign Counsellors: Peter Bellew, Frank Mac Even, Sigfried Giedion, Henry Moore, Oscar Neimeyer, Ernesto Rogers, Junzo Sakakura, W.J.H. Sandberg, Sigurd Schultz, José Luis Sert, Minette da Silva, and James John Sweeney.

<sup>7</sup> The Matisse archives have no information on Matisse's affiliation with the Association pour une Synthèse des Arts Plastiques.

<sup>8</sup> "Projet d'Exposition pour une Synthèse des Arts Plastiques," FLC, F2-10, pp. 80-83, and "Note -- Pour Monsieur le Chef du Service de l'Amenagement de la Region Parisienne," FLC, J1-5, pp. 13-15.

<sup>9</sup> For a history of the events that took place at the Porte Maillot see Roger Cloutier's "Porte Maillot" articles in Journal des Ternes: (Nov., 1963); (Dec., 1963); (Jan., 1964); (Feb., 1964); and (March, 1964).

<sup>10</sup> Letter from "L'Architecte en Chef des Cités Administratives à Monsieur Thiebault, Chef de Service chargé de regroupement des locaux administratifs," translated by author, FLC, J1-5, p. 16.

<sup>11</sup> "Association pour une Synthèse des Arts Plastiques -- Convocation par Diamant-Berger," FLC, F2-10, p. 99.

<sup>12</sup> Diamant-Berger, "De l'Union pour l'Art à l'Association pour une Synthèse des Arts Plastiques et au Groupe Espace," Aujourd'hui: art et architecture, pp. 54-55. Translated by author from French text: "Pour ma part, je n'oublierai jamais ce matin de janvier 1950 où nous sommes allés tous les trois visiter le terrain de Luna Park. Il faisait très froid; le soleil perçait dans un ciel gris; les arbres et les arbustes étaient couverts de givre, les ruisseaux gelés. Jeune, enthousiaste, rieur, Le Corbusier parcourait le terrain en tous sens, implantant les bâtiments: ici le musée en escargot, là une construction 'toute bête' avec des sculptures de Laurens, ici Henry Moore, là les jeunes.... André Bloc suivant aussi son idée et l'exprimait avec la même joie se préoccupant de rechercher les dominants et de créer une organisation harmonieuse de

l'ensemble. Il y a dix-huit ans de cela, mais jamais je n'oubliera cette matinée où tant de joie et d'espoir liaient ces deux hommes."

<sup>13</sup> "Contrat pour le Musée des Arts Plastiques -- Porte Maillot, FLC, J1-5, pp. 41-42.

<sup>14</sup> "Note complémentaire à l'attention bienveillante de Monsieur le Ministre des Finances," FLC, J1-5, p. 9. Translated by author from French text: "Pour cela, un peu d'argent, l'obole utile por que le souffle de la vie soit donné. Donné par qui? Par le pays qui tirera vie, sève et brillantes récoltes. Récoltes de France, unique au monde et immensément exploitables."

<sup>15</sup> "Note -- Pour Monsieur le Chef du Service de l'Amenagement de la Region Parisienne," FLC, J1-5, p. 15.

<sup>16</sup> Letter from "Ministère de la Reconstruction et de l'Urbanisme à Monsieur le Président de l'Association des Arts Plastiques," FLC, J1-5, p. 25.

<sup>17</sup> Le Corbusier notes "Maillot 50," FLC, J1-5, p. 51.

<sup>18</sup> Ibid., p. 63.

<sup>19</sup> Ibid., p. 51.

<sup>20</sup> "Association pour une Synthèse des Arts Plastiques -- Réunion du Bureau du 13 mars 1950," FLC, J1-5, p. 85.

<sup>21</sup> Ibid., p. 87.

<sup>22</sup> Letter fom "Le Corbusier à Monsieur Raoul Simon, 10 février 1950," FLC, J1-5, p. 57.

<sup>23</sup> List of names of "Hommes de Mains" included Sert, Even, Niemeyer, and Sweeney as part of the head committee; names of other members included Moore, Miró, Giacometti, Gilioli, Picasso, Chagall, Steinberg, Pevsner, Bill, Jankosky, Vasarely, Baumeister, Brancusi, Manès, Bloc, Léger, Helion, Masson, Villon, Arp, Matisse, and Braque.

<sup>24</sup> Letter fom "Le Corbusier à Diamant-Berger, 25 novembre 1950," FLC, F2-10, p. 49.

<sup>25</sup> "Entrevue avec Monsieur Lapie, Ministre de l'Education Nationale au sujet de la Porte Maillot," FLC, J1-5, p. 92.

<sup>26</sup> Arnolde Rivkin, "Synthèse des Arts: Un Double paradox," Le Corbusier

une encyclopédie, Jacques Lucan, ed. (Paris: Centre Georges Pompidou, 1987), pp. 387-388.

<sup>27</sup> Le Corbusier oeuvre complète, 1946-1952, vol. 5 (Zurich: Boesinger, 1953), p. 68.

<sup>28</sup> For a more detailed explanation of Le Corbusier's self appointed exhibition for the Porte Maillot Pavilion see Christopher Eric Pearson, Integrations of Art and Architecture in the Work of Le Corbusier: Theory and Practice from Ornamentalism to the "Synthesis of the Major Arts" (Ann Arbor: UMI Dissertation Services, 1995), pp. 361-362.

<sup>29</sup> Letter from "Le Ricolais à Le Corbusier, 12 janvier 1950," FLC, J1-5, pp. 109-110, and "Porte Maillot, Exposition 50, Devis estimatif," FLC, J1-5, pp. 119-120.

<sup>30</sup> "Commandes à passer pour: L'Exposition des Arts Plastiques (Porte Maillot)," FLC, J1-5, pp. 74-75.

<sup>31</sup> See construction estimate of Nov. 28, 1950 in "Etablissements Dubois, Lepeu et Cie -- Constructions Métalliques," FLC, F2-10, pp. 358-361.

<sup>32</sup> Le Corbusier, "Synthèse des Arts," Arti Visive (Sept.-Oct., 1952), translated by author, p. 1.

<sup>33</sup> Le Corbusier oeuvre complète, 1946-1952, vol. 5, p. 70.

<sup>34</sup> When referring to the Porte Maillot Pavilion it is always Project-B that is addressed, unless otherwise noted.

<sup>35</sup> One can also associate the umbrella roof structure with the tent that appears continuously in Le Corbusier's work starting with the nomadic tent depicted in Vers une architecture of 1924 as the archetypal primitive hut, the most ancient source for the house or sanctuary, to the 1937 Temps Nouveaux Pavilion at the Porte Maillot, and the 1958 Philips Pavilion. Steven W. Hurt categorized the Nestlé Pavilion as an impluvium roof form-type that was repeated in the 1930 Errazuris house, the 1935 Maison aux Mathes, the 1937 Maison Joaul, and the 1964 Centre Le Corbusier. See Steven W. Hurtt, "Le Corbusier: Type, Archetype, and Iconography," Type and the (Im)Possibilities of Convention, Garth Rockcastle, ed. (New York: Midgård Monograph, 1991), pp. 77-78.

<sup>36</sup> "Nestlé Pavillion," FLC, H1-10, p. 85-89.

<sup>37</sup> Le Corbusier oeuvre complète, 1910-1929, vol. 1 (Zurich: Boesinger, 1929), p. 174.

<sup>38</sup> For a close look at Le Corbusier's relationship with the Russian Constructivists see Jean-Louis Cohen, Le Corbusier and the Mystique of the USSR: Theories and Projects for Moscow 1928-1936, translated into English by Kenneth Hyton (Princeton, NJ: Princeton University Press, 1992).

<sup>39</sup> For a look at Le Corbusier's pavilion of L'Esprit Nouveau within the context of the 1925 Art Deco exhibition see Nancy J. Troy, Modernism and the Decorative Arts in France: Art Nouveau to Le Corbusier (New Haven/London: Yale University Press, 1991), Chapter 4, "Reconstructing Art Deco: Purism, the Department Store, and the Exposition of 1925," pp. 159-226. Also see Le Corbusier oeuvre complète, 1910-1929, vol. 1, pp. 98-108.

<sup>40</sup> Le Corbusier found a strong kinship with the Russian Constructivists when he discovered in 1928 their common concern for "lyricism" born from industrial technology, he wrote: "I say that Constructivism, which denotes a revolutionary intention, is in reality the vehicle of an intensely lyrical intent, one that is even potentially transcendent. It reveals with fervor the exhilarating prospect of the future. My feeling in that what interests all these Russians is in fact a poetic idea." From Le Corbusier, "L'architecture à Moscou," L'Intransigeant (Dec. 24 and 31, 1928), p. 1, quoted in Cohen, Le Corbusier and the Mystique of the USSR: Theories and projects for Moscow 1928-1936, pp. 115-116.

<sup>41</sup> Le Corbusier was approached in August of 1937 by the committee of the Liège exhibition to present a design concept for them. Although the committee approved Le Corbusier's design, the Prime Minister of Brussels vetoed it, stating: "A French man must not intervene here." Translated by author. See Le Corbusier oeuvre complète, 1934-1939, vol. 3, p. 172.

<sup>42</sup> *Ibid.*, p. 173. Translated by author from French text: "une émotion architecturale venue de la franchise des solutions proposées."

<sup>43</sup> *Ibid.*, p. 172. Translated by author from French text: "La démonstration: histoire de l'eau dans la nature et la civilisation humaine, au lieu d'être dispersée et morcelée dans des Palais nombreux, était rassemblée dans un type tout à fait nouveau de bâtiment: une nef infinie occupée par de rares poteaux supportant un plafond semi-souple, tendue comme une banne d'acier, et fournissant elle-même, par son dessin, les abondantes sources de lumière nécessaire. Fermé derrière et sur les côtes, le Palais ouvrait sur le paysage de la Meuse et les terrils dont les pyramids couronnet le plateau."

<sup>44</sup> Le Corbusier, L'Urbanisme est une clef (Paris: Editions Forces Vives, 1966).

<sup>45</sup> On the page preceding the lithograph Le Corbusier showed two line drawings depicting the sun's relationship to the earth. The first drawing was

a circular diagram of the earth's and moon's movement around the sun, written next to the sun is  $365 = 1 =$  (circle), next to the earth  $24 = 1 =$  (square), and next to the moon  $30 = 1 =$  (triangle) thus, making a symbolic analogy to the three primary forms of the world in relation to the cosmos. The second drawing showed the sun's relationship to the earth's horizon during three different times of the year, similar to the lithograph's idealized version.

<sup>46</sup> André Malraux, ed., Tapisseries Le Corbusier (Geneva: Musée d'Art et d'Histoire and Paris: La Fondation Le Corbusier, 1975), p. 14. Translated by author from French text: "Zone du bien (au-dessus); zone du mal (au-dessous); zone de la germination (au-dessous); zone de l'épanouissement (au-dessus) .... et ainsi de suite."

<sup>47</sup> John Alazard, Le Corbusier (New York: Universe Books, 1960), p. IX.

<sup>48</sup> The entire section of Le Poème de l'angle droit (translated by author) that pertains to this image reads as follows:

Des hommes peuvent tenir  
un tel propos  
les bêtes aussi  
et les plantes peut-être  
Et sur cette terre seulement  
qui est nôtre  
le soleil maître de nos vies  
indifférent loin  
Il est visiteur -- un seigneur  
il entre chez nous.  
Se couchant bon soir dit-il  
à ces moisissures (ô arbres)  
à ces flaques qui sont partout  
(ô mers) et à nos rides  
altièrès (Alpes Andes et nos  
Himalayas). Et les lampes  
sont allumées.

Ponctuelle machine tournante  
depuis l'immémorial il fait  
naître à chaque instant des  
vingt-quatre heures la gradation  
la nuance l'imperceptible  
presque leur fournissant  
une mesure. Mais il la romp  
à deux fois brutalement le  
matin et le soir. Le continue  
lui appartient tandis qu'il

Some men can hold  
such a discourse  
as well as beasts  
and even the plants perhaps  
And only on this earth  
which is ours  
The sun master of our lives  
indifferent far  
He is a visitor -- a lord  
he comes to us.  
Setting good night he says  
to molds (oh trees)  
to pools which are everywhere  
(oh seas) and to our folds  
lofty (Alps Andes and our  
Himalayas). And the lamps  
are lit.

Exact machine turning  
from time immemorial gives  
birth at each instant of the  
twenty-four hours the gradation  
the nuance the imperceptibility  
almost giving them  
measure. But he breaks it  
twice brutally the  
morning and the night. The perpetual  
belongs to him while he

nous impose l'alternatif --  
la nuit le jour -- les deux temps  
qui règlent notre destinée:

Un soleil se lève

Un soleil se couche

Un soleil se lève à nouveau

imposes on us the alternative --  
night and day -- the two rhythms  
which regulate our destiny:

A sun rises

A sun sets

A sun rises anew

<sup>49</sup> Le Corbusier, Croisade ou le crépuscule des académies (Paris: Editions Crès, 1933), p. 24.

<sup>50</sup> See Le Corbusier and Amédée Ozenfant, La Peinture moderne (Paris: Editions Crès, 1925), p. 151. As a means to transcend the modern technological society and industry Le Corbusier advocated the spiritualization of mechanical law which formally translated as simple geometric forms.

<sup>51</sup> Le Corbusier oeuvre complète, 1934-1939, vol. 3, p. 172.

<sup>52</sup> Folke Edwards, "Theodor Ahrenberg: Le Provocateur," pp. 131-132, and Gunnar Lindquist, "Le Palais Ahrenberg," p. 139, both in Ahrenberg Collection, exhibition catalogue (Linköping: Ostergötlands Länsmuseum, 1993).

<sup>53</sup> Le Corbusier oeuvre complète, 1957-1965, vol. 7, p. 178.

<sup>54</sup> Le Corbusier oeuvre complète, 1952-1957, vol. 6, p. 168. The museum was the only structure built on the site and its construction was supervised by two Japanese architects, Kunio Maekawa and Junzo Sakakura, who had worked for an extended time in Le Corbusier's 35 rue de Sèvres atelier. Also see: "Le Corbusier's International Museum, National Museum of Western Art in Tokyo," Architectural Forum (Sept., 1959), pp. 104-106; Yasuro Kamon, "The National Museum of Western Art in Tokyo," and Junzo Sakakura, "The Architecture of the National Museum of Western Art," both in Museum Unesco, 13, no. 2, (1960), pp. 124-126; Junzo Sakakura, "On the Opening of the National Museum of Western Art," The Japan Architect, (Aug., 1959), pp. 36-50.

<sup>55</sup> The critic, Karel Tiege strongly objected to the historicist formalism of this twentieth century secular building. His unfavorable review of the Mundaneum World Museum was published in the Czech journal Stavba of 1929. See Tiege, "Mundaneum," translated by L. Holovsky, Oppositions, 4, (Oct., 1974), pp. 88-92. Le Corbusier responded to Tiege's criticism by confirming his design was determined by functional concerns and Euclidean solid geometry. See Le Corbusier, "In Defense of Architecture," translated by N. Bray, Oppositions, 4 (Oct., 1974), pp. 99-108. For a look at Tiege's critical

motives see G. Baird, "Architecture and Politics: A Polemical Dispute," Oppositions, 4 (Oct., 1974), pp. 80-82, and Thilo Hilpert, "Una polemica sul funzionalismo: Tiege-Le Corbusier 1929," Casabella, no. 44 (Nov.-Dec., 1980), pp. 20-26. For other points of view on the symbolic and historical references of the World Museum see: Marcello Fagiolo, "Mundaneum 1929: La Nuova babilonia secondo Le Corbusier," Ottagono, 13, no. 48 (March, 1978), pp. 22-29; Stanislaus von Moos, Le Corbusier: Elements of a Synthesis (Cambridge, MA: MIT Press, 1979), p. 24; Alfred Willis, "The Exoteric and Esoteric Functions of Le Corbusier's Mundaneum," Modulus, (1980), pp. 13-21; Giuliano Gresleri and Dario Matteoni, "La Citta Mondiale e la Construzione della Nuova Babilonia," Le Corbusier: La Ricerca paziente (Lugano: Stampa S.A. Natale Mazzuconi, 1980), pp. 69-86; Giuliano Gresleri and Dario Matteoni, La Citta Mondiale: Andersen, Hébrard, Otlet, Le Corbusier (Venice: Polis/Marsilio, 1982); Aléna Kubovka, "Le Mundaneum erreur architecturale?" pp. 48-53, and Pierre Saddy, "La Pyramide du Mundaneum," pp. 44-47, both in Le Corbusier le passé à réaction poétique (Paris: Hôtel de Sully, 1987-1988); Alessandra Ponte, "Building the Stair Spiral of Evolution: The Index Museum of Sir Patrick Geddes," Assemblage, no. 10 (1989), pp. 47-64.

<sup>56</sup> Paul Otlet and Le Corbusier, Mundaneum, no. 128 (Brussels, Union of International Associations, Aug., 1928), p. 10. Translated by author from French text: "Il importe maintenant de présenter en un point la démonstration systématique de la réalité totale, un Musée mondial qui soit musée de l'Encyclopédie et de la Synthèse, disposé pour être un instrument de science, d'étude et de culture, pour faire naître chez tous, par son seul spectacle, les impressions grandes et élevées que peut susciter la découverte du vaste Univers où nous nous mouvons."

<sup>57</sup> *Ibid.*, p. 39. Translated by author from French text: "Le monde trouverait là le lieu où s'élève au plus haut, le sens de la solidarité humaine, où se démontrent les conséquences des fautes et des bienfaits, où l'analyse fournit ses informations précises, où synthèse montre les directions, où les moyens de coordination et d'harmonisation sont présents."

<sup>58</sup> Le Corbusier oeuvre complète, 1910-1929, vol. 1, p. 192. Translated by author from French text: "Il s'agit ici d'édifier un système d'enquête mondiale rapide, instantanée, innombrable, multiforme, présentant l'homme dans ses réalisations créatrices, conceptives, --- L'homme vivant en société, l'homme subissant la loi se la ville, de l'Etat, du Continent. Ce sont des objets, des spécimens, des modèles, des courbes, des photographies, des schémas, etc." For a more detailed description see Paul Otlet and Le Corbusier, Mundaneum, p. 35. Also see: Paul Otlet, Cité Mondiale, Genève: World Civic Center: Mundaneum, no. 133 (Brussels: Union of International Associations, Feb., 1929); Le Corbusier, "Un Projet de centre mondial à Genève," Cahiers d'Art, no. 7 (1928), pp. 307-312; Le Corbusier, Précisions sur un état présent de

*l'architecture et de l'urbanisme* (Paris: Editions Crès, 1930), pp. 215-232; Catherine Courtiau, "La Cité International 1927-1931," pp. 53-69, and Giuliano Gresleri, "Le Mundaneum: Lecture du projet," pp. 70-78, both in *Le Corbusier à Genève 1922-1932* (Lausanne: Payot, 1987); Giuliano Gresleri, "The Mundaneum Plan," *In the Footsteps of Le Corbusier*, Carlo Palazzolo and Ricardo Vio, eds. (New York: Rizzoli, 1991), pp. 93-114.

<sup>59</sup> Le Corbusier, *Le Corbusier My Work*, translated by James Palmes (London: The Architectural Press, 1960), p. 101.

<sup>60</sup> Le Corbusier included the Mundaneum Museum form in the urban plans of Barcelona of 1932 and Anvers of 1933. The Museum of Unlimited Growth was first published by Christian Zervos in *Cahiers d'arts*, no. 1 (Dec. 8, 1930), and appeared in the Exposition International (Project C) Centre d'Esthétique Contemporaine of 1937, and later in plans for Philippeville of 1939, for Hollywood of 1939, for Mme Guggenheim of 1939 (see FLC, F1-9), for Saint Dié of 1945, for the Exposition Universelle in Brussels of 1958, for Berlin of 1961, and for Erlenbach of 1963.

<sup>61</sup> *Le Corbusier oeuvre complète, 1952-1957*, vol. 6, pp. 168-173, and *Le Corbusier oeuvre complète, 1957-1965*, vol. 7, p. 170.

<sup>62</sup> J. Tyrwhitt, J.L. Sert, E.N. Rogers, eds., *The Heart of the City: Towards the Humanisation of Urban Life*, p. 52.

<sup>63</sup> *Le Corbusier oeuvre complète, 1952-1957*, vol. 6, pp. 200-201.

<sup>64</sup> For the most complete analysis of the Philips Pavilion see Marc Trieb, *Space Calculated in Seconds: The Philips Pavilion, Le Corbusier, Edgard Varèse* (Princeton, NJ: Princeton University Press, 1996). Also see Le Corbusier, *Le Poème électronique* (Paris: Editions de Minuit, 1958).

<sup>65</sup> Attempting to integrate sound into his projects, Le Corbusier's design for the (unbuilt) belltower at Ronchamp was planned to emit electronic music by Varèse to the assembled congregation standing in the exterior pilgrim's yard and to the four directions.

<sup>66</sup> *Le Corbusier oeuvre complète, 1952-1957*, vol. 6, p. 200. Translated by author from French text: "les jeux électroniques, synthèse illimitée de la couleur, de l'image, de la musique, de la parole, du rythme."

<sup>67</sup> Colin Rowe, "La Tourette," *The Mathematics of the Ideal Villa and Other Essays* (Cambridge, MA/London: MIT Press, 1976, 1984), pp. 185-104. Also see Hurtt, "Le Corbusier: Type, Archetype, and Iconography," *Type and the (Im)Possibilities of Convention*, pp. 63-68.

<sup>68</sup> Le Corbusier oeuvre complète, 1957-1965, vol. 7, pp. 164-177.

<sup>69</sup> Le Corbusier oeuvre complète, 1965-1969, vol. 8, p. 92.

<sup>70</sup> Charlotte Ellis, "Sculptures and Pavilion Added to Corb's Chandigarh Complex," The AIA Journal (Sept., 1986), p. 17. Aside from this cursory article I have not been able to find more information on this pavilion at the Fondation Le Corbusier and other libraries.

<sup>71</sup> Le Corbusier oeuvre complète, 1957-1965, vol. 7, pp. 22-31, and Le Corbusier oeuvre complète, 1965-1969, vol. 8, p. 142-157. The primary collaborators on this project were Jullian de la Fuente, José Ouberie, Alain Tavès, and Robert Rebutato with structural engineer M. Fruitet (who also consulted for the Stockholm Exhibition Hall), steel roof construction consultant M. Wartman, and technical consultant Jean Prouvé.

<sup>72</sup> Bloc was born in Algeria on May 23, 1896, and died on November 8, 1966, from a tragic fall from the ruins of a temple in New Delhi. To date there is no comprehensive text on Bloc. The Dec., 1967, issue of Aujourd'hui: art et architecture dedicated to him is a good compilation of snapshots of his life and work. Because there isn't an archival center of his work, and because his work is scattered in many different places, some in private hands, it is difficult to do research on Bloc. I have compiled bibliographical information from the following sources: Pierre Guéguen, André Bloc et la réintégration de la palastique dans sa vie (Courbevoie: Chanove, 1954); Pierre Guéguen, André Bloc, and Gillo Flores, André Bloc, both in exhibition catalogue (Milan: Galleria Pagani del Grattacielo, May, 1960); Gérald Gassiot-Talabo, "Le Cas André Bloc," Quadrant, exhibition catalogue (Nov. 10-Dec. 5, 1962); Lawrence Alloway, André Bloc Recent Works, exhibition catalogue (London: Drian Gallery, April 18-May 8, 1962); Roger Bordier, De la sculpture à l'architecture (Boulogne-sur-Seine: Editions Aujourd'hui, 1964), pp. 13-20; Mathias Goeritz, André Bloc, and Carlos-Antonio Arean, La Obra de André Bloc, both in exhibition catalogue (Madrid: Ateneo de Madrid, Oct., 1964); Gérald Gassiot-Talabot, "André Bloc," Cimaise (Nov. 1964-Jan. 1965), pp. 21-29; Bloc, exhibition catalogue, Galerie Jacques Massol, (1965); Denys Chevalier, "Bloc, André," New Dictionary of Modern Sculpture, Robert Maillard, ed. (New York: Tudor Publishing Co., 1970), pp. 35-36; Claude Parent, "André Bloc et l'architecture," Architecture mouvement continuité (April, 1986), pp. 24-25. The most recent publication on Bloc by Frédérique Migayrou, ed., Bloc le monolithe fracturé (Orléans: Editions HXX, 1996), presents a critical overview of Bloc's architectural and sculptural works.

<sup>73</sup> For a survey of Le Corbusier's publications in L'Architecture d'aujourd'hui see Pierre Vago, "Retour aux sources et L'AA," L'Architecture d'aujourd'hui (Feb., 1987), p. 7.

<sup>74</sup> For a chronological listing of Bloc's works see Aujourd'hui: art et architecture (Dec., 1967), p. 5.

<sup>75</sup> Perret and other officials who disapproved of geometric abstract art had Bloc's "Signal" sculpture at Place d'Iéna removed after the commemoration. The other "Signal" sculptures that followed were: the 1958 nine meters high made of metal at Ville d'Avray, the 1960 twelve meters high made of three different metals at the housing project of Lods and Beufé at Marly, and the 1963 fifteen meters high made of stainless steel and red copper in Jacksonville, Florida.

<sup>76</sup> "La Maison d'un sculpteur," L'Architecture d'aujourd'hui (Oct., 1953), pp. 28-37.

<sup>77</sup> Bloc, Parent, and Perriand exhibited their works together in an exhibition titled "Art et architecture" at the Stedelijk Museum in Amsterdam (March-April, 1958).

<sup>78</sup> "Arts et Architecture," L'Architecture d'aujourd'hui (May-June, 1945), p. 78.

<sup>79</sup> Ibid. Translated by author from French text: "L'orchestration harmonieuse et pure des arts plastiques n'est pas possible dans tous les cas, mais elle est souhaitable. Un architecte qui ignorerait les données essentielles des arts contemporains ne serait jamais qu'un simple technicien de la construction."

<sup>80</sup> André Bloc, "Sculpture d'aujourd'hui," L'Architecture d'aujourd'hui (May-June, 1945), pp. 79-80.

<sup>81</sup> For a more in-depth look at the problems confronting sculpture see André Bloc, De la sculpture à l'architecture (Boulogne-sur-Seine: Editions Aujourd'hui, 1964), pp. 1-12.

<sup>82</sup> The UAM was founded in 1930 by René Herbst (who remained President after the war), Hélène Henry, Francis Jourdain, Raymond Templier, and Mallet-Stevens. Its main initial goal was to find the appropriate aesthetic of the times within technology and it believed that art and architecture should be conceived as one. After the war the synthesis of the arts was one of its main postulates. See "Un Manifeste de l'Union des Artistes Modernes: La Raison dans l'art," L'Architecture d'aujourd'hui (March, 1949), p. XI, and René Herbst, 25 années U.A.M.: les formes utiles: l'architecture, les arts plastiques, les arts graphiques, le mobilier, l'équipement ménager (Paris: Editions du Salon des Arts Ménagers, 1956), and Les Années U.A.M. 1929-1958, exhibition catalogue (Paris: Union des Arts Décoratifs, 1988).

<sup>83</sup> Ibid., p. 81. Translated by author from French text: "Cette synthèse doit être

considérée comme un véritable devoir à accomplir envers le pays, en cette période de si prodigieuse libération des arts majeurs, architecture, sculpture et peinture. Un retentissement international en résultera, ainsi qu'une floraison magistrale de l'art français."

<sup>84</sup> André Bloc, "A Propos d'humanisme," L'Architecture d'aujourd'hui (July-May, 1945), p. 77.

<sup>85</sup> "Art," L'Architecture d'aujourd'hui, special issue (May-June, 1946). For a review of the "Art" issue see Gaston Diehl, L'Architecture d'aujourd'hui, (May-June, 1946), p. 100, also in La Gazette des Lettres (July 6, 1946).

<sup>86</sup> "Art d'aujourd'hui," L'Architecture d'aujourd'hui (Aug., 1949), p. V.

<sup>87</sup> "Une réception de L'Architecture d'aujourd'hui," L'Architecture d'aujourd'hui (Dec., 1949), p. XVII.

<sup>88</sup> For the history of this law in France, see Art et architecture: Bilan et problèmes du 1 pourcent (Paris: Ministère d'Etat Affaires Culturelles, 1970).

<sup>89</sup> Bloc, De la sculpture à l'architecture, p. 6. Bloc wrote editorial notices alerting his subscribers of the down side of the one percent law in the following issues of Aujourd'hui: art et architecture (Nov., 1955), p. 3; (Jan., 1956), p. 3; and (June, 1956), p. 3.

<sup>90</sup> Michel Seuphor, born in Anvers in 1901, wrote the first reliable French text on the history of abstract art in Dictionnaire de la peinture abstraite: Précédé d'une histoire de la peinture abstraite (Paris: Fernand Hazan, 1957). In his prolific writing career on the arts he is also recognized for his biography on Piet Mondrian.

<sup>91</sup> The Nov. 1951 issue of L'Art d'aujourd'hui was dedicated to art of children and the insane, and both the March 1951 and July 1951 issues were dedicated to modern primitive art.

<sup>92</sup> André Bloc, "Le Corbusier," La Torre, Revista General de la Universidad de Puerto Rico, no. 52 (Jan.-April, 1966), pp. 101-105.

<sup>93</sup> To date there is no comprehensive text on the Groupe Espace. At most one can find one to two pages of general information in survey-type books covering the art scene at the time in France such as Damaz, Art in Latin American Architecture, pp. 76-77; Paris-Paris 1937-1957 (Paris: Gallimard, Centre Georges Pompidou, 1992), p. 423- 425; and Alain Bonfrand, "Le Groupe Espace," L'Art en France (Paris: Nouvelles Editions Françaises, 1995), p. 158. The best sources for information on the development of the Groupe Espace

are the issues of L'Architecture d'aujourd'hui and L'Art d'aujourd'hui as well as exhibition catalogues which have served as my primary sources.

<sup>94</sup> André Bloc, "Le Corbusier," Aujourd'hui: art et architecture, (Nov., 1965), n.p.

<sup>95</sup> Pearson in Integrations of Art and Architecture in the Work of Le Corbusier: Theory and Practice from Ornamentalism to the "Synthesis of the Major Arts" on p. 366 states that "the activities of the Groupe Espace lasted until about 1955." My primary research based on L'Architecture d'aujourd'hui shows that the Groupe Espace was still very active in March of 1956 when it held a general assembly in Paris. See L'Architecture d'aujourd'hui (March, 1956), p. IX. After this date there are no direct references made to the Group in the magazine. My guess is that the Group continued to be active after this date until it gradually dissolved the following year in 1957.

<sup>96</sup> The young members of the Groupe Espace, Claude Parent and Ionel Schein, as part of the architectural office of G.L. Bureau, won first place in a competition sponsored by the magazine La Maison Française. They designed a low income house prototype that would have included furniture and aesthetic elements done in collaboration with other members of the Groupe Espace. See "Groupe Espace," L'Architecture d'aujourd'hui (Aug., 1952), p. XXII.

<sup>97</sup> "Le Groupe Espace Manifeste," L'Art d'aujourd'hui (Oct., 1951), n.p., also in L'Architecture d'aujourd'hui (Feb.-March, 1953), p. VII, and in Aujourd'hui (Dec., 1967), p. 55, and in Paris-Paris 1937-1957, p. 423.

<sup>98</sup> The first signatures of this manifesto were: architects: André Bruyère, Jean Fayeton, Jean George, Jean Ginsberg, Pierre Guéret, Guevrekian, Paul Herbé, Arne Jacobsen, Jean de Mailly, Richard J. Neutra, Alfred Roth, André Sive, and B.H. Zehrfuss; engineers: Bernard Lafaille, Le Ricolais, and Jean Prouvé; artists: Aagard Andersen, Ollé Baertling, Etienne Béothy, André Bloc, Silvano Bozzolini, Bourgoyne-Diller, Del Marle, R. Desserprit, Cicéro Dias, Piero Dorazio, P. Etienne-Sarison, Pierre Faucheux, A.R. Fleischmann, G. Folmer, Jean Gorin, Berto Lareda, Georges L.K. Morris, Edgar Pillet, Nicolas Schöffer, S. Servanes, and Nicolaas Warb.

<sup>99</sup> Georges Labro, La Journée du bâtiment (Feb., 15, 1952).

<sup>100</sup> L'Architecture d'aujourd'hui (Dec., 1953), p. XI.

<sup>101</sup> "Groupe Espace," L'Architecture d'aujourd'hui (Dec., 1951), p. XIX.

- <sup>102</sup> Bloc mentions Neumann's influence at a general assembly meeting, see "Groupe Espace -- Assemblée Générale du 18 Décembre 1953," L'Architecture d'aujourd'hui (Dec., 1953), p. XI. Also see Alfred Neumann, "L'Humanisation de l'espace -- le système Mø," L'Architecture d'aujourd'hui (May., 1956), p. XXIX.
- <sup>103</sup> "Groupe Espace," L'Architecture d'aujourd'hui (Oct., 1953), p. XXXI and "Groupe Espace -- Assemblée Générale du 18 Décembre 1953," L'Architecture d'aujourd'hui (Dec., 1953), p. XI, lists dates for architects to visit the studios of Léger, Sonia Delaunay, Etienne Béothy, and J. Arp.
- <sup>104</sup> "Groupe Espace," L'Architecture d'aujourd'hui (Feb.-March, 1953), p. VIII.
- <sup>105</sup> For short descriptions of the Groupe Espace affiliations in Switzerland, England, and Italy, see L'Architecture d'aujourd'hui (May-June, 1954), p. IX. Also see "Création du Groupe Espace Suisse," L'Art d'aujourd'hui (June, 1954), p. 64, and "Groupe Espace -- Italien, Finlandais, Anglais," L'Architecture d'aujourd'hui (Nov., 1955), p. XII.
- <sup>106</sup> Migayrou, "Pour une architecture du factuel," Bloc le monolithe fracturé, p. 17.
- <sup>107</sup> L'Architecture d'aujourd'hui (April-May, 1953), pp. 21-25.
- <sup>108</sup> Edgard Pillet, "Mise en couleur et peintures murales -- Usine Mame à Tours," L'Art d'aujourd'hui (Oct., 1952), p. 26. Also see Damaz, Art in European Architecture, Synthèse des Arts, p. 100.
- <sup>109</sup> L'Architecture d'aujourd'hui (April-May, 1953), pp. 61-68.
- <sup>110</sup> L'Architecture d'aujourd'hui (Feb.-March, 1951), pp. 21-23, and in L'Architecture d'aujourd'hui (April-May, 1953), pp. 52-54.
- <sup>111</sup> L'Architecture d'aujourd'hui (Feb.-March, 1951), p. 39.
- <sup>112</sup> L'Architecture d'aujourd'hui (April-May, 1953), p. 72.
- <sup>113</sup> L'Architecture d'aujourd'hui (Nov., 1952), pp. 87-89.
- <sup>114</sup> Damaz also gave a negative critique of the City University in Mexico see Art in Latin American Architecture, pp. 134-139.
- <sup>115</sup> "Groupe Espace -- assemblée générale du 18 décembre 1953," L'Architecture d'aujourd'hui (Dec., 1953), p. XI. Also see "Groupe Espace --

assemblée générale," L'Art d'aujourd'hui (Dec., 1953), p. 18.

<sup>116</sup> For announcement and coverage of the Biot exhibition see the following articles in L'Architecture d'aujourd'hui: "Groupe Espace -- Exposition de Biot" (July-Sept., 1954), p. X, "Exposition Biot" (May-June, 1954), p. IX, and "Architecture - Formes - Couleurs - Exposition du Groupe Espace à Biot" (July-Aug., 1954), pp. IV-VI. Also in Pierre Guéguen "Une démonstration du Groupe Espace l'exposition 'architecture couleur formes' à Biot," L'Art d'aujourd'hui (Sept., 1954), pp. 18-21.

<sup>117</sup> The participants of the "Architecture - Formes - Couleurs" exhibition of Groupe Espace at Biot were four invited guests: Jean Dewasne, Robert Jacobsen, Alberto Magnelli and Victor Vasarely, and fifty-eight members: Aagaard Andersen, Willy Anthoons, Jean Arp, Fernand Beck, Etienne Béothy, Jean Berg, André Bloc, André Borderie, Roger Boucoiran, Silvano Bozzolini, Denis Brihat, Roger Catherineau, Michel Chauvet, Adee Chemineau, Jean Chemineau, Georges Dedoyard, Sonia Delaunay, Del Marle, Maxime Descombin, Cicero Dias, Natalia Dumitresco, Ettore Falchi, Antoine Fasani, Claude Ferrand, Adolphe Fleischmann, Jean George, Emile Gilioli, Jean Gorin, Maximilien Herzele, Alexandre Istrati, Joseph Jarema, Berto Lareda, Alain Le Breton, Remy Le Caisne, Fernand Léger, Jean Leppien, Morice Lipsi, Jean Megard, M.P. Nejad, Eric H. Olson, Parent-Schein, Edgard Pillet, Rocher-Pyros, Renalo Righetti, P. Etienne-Sarison, Day Schnabel, Nicolas Schöffler, Jean Sebag, Servanes, Gino Severini, Marie Sperling, Françoise Stahly, Pierre Szekely, Pierre Vago, Albert Vallet, Nicolaas Warb, Etienne Weill, and Jean Weinbaum.

At this time the Groupe Espace was composed of Honorary President: Eugène Cladius Petit; Active President: André Bloc; Vice-Presidents: Paul Herbe, Fernand Léger, and Bernard Henri Zehrfuss; General Secretary: Sonia Delaunay; Treasurer: Bernard Laffaille; Advertising: Luc Arsène-Henry and Edgard Pillet; Secretary: Renée Diamant-Berger; General Committee: Etienne Béothy, Silvano Bozzolini, Cicero Dias, Pierre Faucheux, Jean Fayeton, Jean Gorin, Berto Lardera, Robert Le Ricolais, Paul Nelson, Marcel Roux, Michaël Patout, and Paul Etienne-Sarison

<sup>118</sup> The City University of Caracas was described in "Cité Universitaire de Caracas: Essai d'intégration des arts au centre culturel," L'Architecture d'aujourd'hui (July-Aug., 1954), pp. 52-59, and in Léon Degand, "Essai d'intégration des arts au centre culturel de la Cité Universitaire de Caracas" and in Roger Bordier, "Les Oeuvres de Caracas," both in L'Art d'aujourd'hui (Sept., 1954), pp. 1-6, also in "Synthèse des Arts -- expérience valable à la Cité Universitaire de Caracas," L'Architecture d'aujourd'hui (Jan.-Feb., 1954), pp. 96-99.

<sup>119</sup> André Bloc, "Pour survivre," Espace - Architecture - Formes - Couleur,

Groupe Espace Biot exhibition catalogue, Société Parisienne d'Imprimer, (1954), p. 16. Translated by author from French text: "L'Exposition de Biot consitute un sursaut, une tentative de barrage à la marée de l'indifférence. Les artistes songent à s'organiser essayent de se réunir autour des meilleurs d'entre eux pour s'intégrer dans la vie. Au lieu de rester confinés dans leurs ateliers, de se borner à convaincre les critiques d'art, de solliciter les collectionneurs et les marchands de tableaux, de lutter par les méthodes du siècle por survivre, ils essayent de constituer des équipes, de prendre part à la vie en montrant qu'ils sont capables de créer par leur imagination un monde où le rêve peut encore trouver sa place."

<sup>120</sup> The Parc de Saint-Cloud exhibition was covered in "Les Expositions, Groupe Espace, Paris," Aujourd'hui: art et architecture (Sept., 1955), pp. 21-22.

<sup>121</sup> The association Abstraction-Création, founded in 1931, was renamed Salon des Réalités Nouvelles in 1946. The first salon addressed the multiple points of view on abstraction evident in the title "Salon des Réalités Nouvelles. Art abstrait, concret, constuctivisme, non figuratif" and was dedicated to the memory of different abstract artists who had died: Robert Delaunay, Théo Van Doesburg, Duchamp-Villon, Eggeling, Otto Freundlich, Kandinsky, Lissitzky, Malevitch, Mondrian, Rossiné, Sophie Taeuber-Arp, Georges Valmier, and one art critic Yvanhoé Rambosson. See Dominique Viéville, "Vous avez dit géométrique? Le salon des Réalités Nouvelles 1946-1957," Paris-Paris 1937-1957, pp. 407-439. For a discussion on the polemic of abstraction in France see Michel Seuphor, L'Art abstrait, ses origines, ses premiers maîtres (1949), and Pierre Descargues, "L'International de l'art abstrait," Arts (1950). To place the Salon des Réalités Nouvelles in a broad context see Frances Morris, ed., Paris Post-War: Art and Existentialism, 1945-55 (London: Tate Gallery, 1993).

<sup>122</sup> Jean Gorin had formulated his idea of a synthesis of the arts linked to abstract art in "La Fonction plastique dans l'architecture future" in Cercle et Carré, no. 3 (June 30, 1930), reprinted in Michel Seuphor, ed. (Paris: Pierre Belfond, 1971), pp. 11-12. After the war he joined Del Marle whom he had known since 1926 when they shared their discovery of Neo-Plasticism and Constructivism. In a 1949 letter to Gorin, Del Marle discussed his work: "On my part, after struggles and very difficult efforts to break loose from the plan and gain space, after attempts.... the easel-object, I won over the architectural plan with color free from all romanticism, impressionism, symbolism, esotericism," in Paris-Paris 1937-1957, p. 421, taken from L'Art d'aujourd'hui (Jan., 1953), p. 2. Translated by author from French text: "Pour ma part, après des luttes et des efforts très durs pour m'évader du plan et gagner l'espace, après des essai.... de tableaux-objets, j'ai gagné le plan architectural avec la couleur dégagée de tout romantisme, impressionisme, symbolisme, ésotérisme."

<sup>123</sup> Del Marle, "La Couleur dans l'espace," L'Art d'aujourd'hui (April-May, 1951), pp. 11-12. Translated by author from French text: "actuellement, la couleur spatiale semble se manifester de trois façons différentes: ou avec l'objet gratuit se suffisant à lui-même, ou avec l'objet fonctionnaliste à destination utilitaire et immédiate, ou enfin avec l'architecture." Also see Bonfrand, "Le Groupe Espace," L'Art en France, p. 158.

<sup>124</sup> Del Marle, "Le Néoplasticisme -- le Constructivisme .... et son influence," L'Art d'aujourd'hui (Jan., 1951), pp. 9-11. Translated by author from French text: "Ces éléments tels que la couleur conçue spatialement, les matériaux différents, une liaison plus étroite avec le fonctionnalisme, et surtout de larges pénétrations dans l'oeuvre, de la lumière et de l'espace, étaient, certes fortement influencés par le Constructivisme, mais utilisé avec la sévère discipline et la rigueur austère néo-plasticiennes, ils permettent aujourd'hui au Néo-Plasticisme, et grâce à cet apport vitalisant, de continuer brillamment son évolution sculpturo-architecturale vers un style monumental et collectif." Also see Gorin, "Influence de Mondrian," L'Art d'aujourd'hui (Dec., 1949), p. 3.

<sup>125</sup> Gorin, "Influence de Mondrian," L'Art d'aujourd'hui, p. 3. Translated by author from French text: "La réalisation de cette synthèse doit être considérée comme un devoir essentiel en cette période de si prodigieuse libération des arts majeurs: Architecture, Sculpture, et Peinture. Elle intéresse l'édifice communautaire aussi bien que le logis du particulier."

<sup>126</sup> Ibid. Translated by author from French text: "Nous entrons aujourd'hui dans une grand Epoque d'architecture, des villes entières vont être reconstruites. Les techniques modernes mettent à notre disposition des moyens gigantesques. Des possibilités insoupçonnées s'ouvrent devant nous. Le moment est unique pour les plus grandes réalisations d'urbanisme. Mais seuls les pouvoirs publics peuvent faire appel aux jeunes équipes d'un style nouveau, le style de l'homme de XXIème siècle, le siècle de l'art universel et collectif."

## Conclusion

The post-World War II period was a time of crisis in Europe, a time of spiritual crisis that extended to all fields including arts and architecture. It was a time of questioning the general purpose of art and architecture and the aesthetic and social roles of artists and the architects. The main concern for many architects after the war was a program of reconstruction focused on rebuilding the war-torn cities and towns and providing mass-produced housing for dislocated people while at the same time trying to redefine postwar society.

The prewar concepts advocating functionalism and technology appeared again in the hands of modernist architects and critics such as Le Corbusier and Giedion who understood the formidable role of prefabrication, standardization, and mass-production in the potential of a reconstruction program. However, the devastating results of a mechanized war based on precisely those elements of technology drove architects and urban planners to look at industrial production with a re-humanized vision. One of the main premises of re-humanizing society as stated by Giedion and Damaz was to move away from what appeared to be a one-sided rationalism of prewar thinking and to move towards incorporating the emotions and a poetic response through the integration of the arts within the built environment.<sup>1</sup>

The end of the war was also a time that heralded an unprecedented internationalism and global communication made possible by the airplane

and mass media. As the sense of "one world"<sup>2</sup> was coming about, the most powerful countries were going through major political shifts while great changes were taking place in underdeveloped countries. Within this rapidly transforming and volatile world climate, the postwar CIAMs addressed issues of urban planning that tried to include countries from all over the world. At the first CIAM after the war, Giedion and Sert led a campaign to focus on the civic center where new monumental structures would be placed to create a physical environment through which the emotional and spiritual needs of people would be satisfied. Giedion described these democratic monumental structures as open, dynamic, and flexible, designed by a collaborative team of architects and artists. Thereby these ideas of synthesis of the arts based on artistic collaboration entered the postwar discourse in urbanism and were seen as a fundamental means to heal the human spirit.

Within the international atmosphere of the postwar CIAM conferences and Giedion's promotion of a synthesis of the arts, Le Corbusier's design for the Porte Maillot Pavilion of the Synthesis of the Major Arts fits within Giedion's formal description. Addressing the importance of the civic center and suggesting the placement of prefabricated and technologically advanced exhibition pavilions conceived to promote the arts in cities around the world and to promote human interactions and cultural exchange -- whether through the use of reproductions, as workshops for artists or the common man, or as museums of art -- was a "monumental" idea in a similar way that Malraux's museums without walls were also "monumental."

However, Giedion's idea for monumental civic centers and Le Corbusier's proposal for the Porte Maillot project had their shortcomings, one of which was that they both advocated a theory of unification rooted in late nineteenth century ideas of architectural dominance and utopic modernist ideals. The postwar conferences covered in this thesis clearly point to a time period of questioning and complexity with a lack of a unified consensus among the different participants who were dealing with different crucial social, political, and aesthetic problems that needed immediate solutions. The desire to lead with a unified theory was flawed and not appropriate for the times.

Another problem with the promotion of the Porte Maillot project was Le Corbusier's vision of a postwar synthesis of the arts that was a particular one, based solely on an individual expression. When he joined the discourse on the problem of promoting new collaborations among artists and architects, he was not explicit about his position. This was demonstrated by Le Corbusier's different ideas centering on the purpose and function of the Porte Maillot Pavilion. As such, though unbuilt, the Porte Maillot project is a paradigm that represents the pros and cons around the postwar synthesis of the arts discourse. In a microcosm it reflects the entire problematic of the discourse as Le Corbusier struggled to integrate his ideas within the synthetic issues addressed at the CIAMs and Unesco.

Le Corbusier's writings of the twenties and thirties discussed the separation among the artistic fields, and rather than seeking to work on a

collaboration, he saw the difficulty of such an endeavor as preventing any real interaction among artists and architects; instead he chose a personal ideal, that of the Nietzschean superman. His late work of synthesis was shrouded with a complex personality showing signs of self-centeredness, paranoia, jealousy, a superiority complex, as well as a rejection complex which led to a non-collaborative approach and an idiosyncratic self absorbed design vocabulary that was too difficult to duplicate. Although his personal synthesis of the arts produced notable examples, his isolated approach did not fit in with the more practical and realistic need for artistic collaboration.

Postwar ideas of a synthesis of the arts were rooted in Le Corbusier's earlier beliefs but were brought to the foreground by the historical circumstances at the end of the war. Aligned with Giedion's modernist theory rooted in Cubism and technology and the failed premise that society could be transformed by formal decisions in art and architecture, Le Corbusier believed that art was the forerunner of developments in architecture and promoted the need to integrate art and architecture as a fundamental part of the new postwar machine civilization. Le Corbusier had an innate desire for unity and harmony throughout his career. He was constantly preoccupied with the dialectical concept of the balance of opposites which was not only demonstrated in his work but also in his personal life. Le Corbusier's double identity as artist and as architect had remained more or less separate until the end of the war when the opportune time arose for a mature man in his mid-fifties to find a resolution between his two personas, the architect-artist.

Although Le Corbusier never achieved public success as a postwar painter, his easel paintings and drawings were fundamental to his design process as an architect. For Le Corbusier the synthesis of the arts occurred in a hermetic formal and symbolic language that drew on itself from two-dimensional paintings into three-dimensional architectural space and vice versa, equally, by working and reworking the same themes within the multiple media. Ronchamp, Le Poème de l'angle droit, and the Centre Le Corbusier, as a built version of the Porte Maillot Pavilion, stand out as three outstanding examples of Le Corbusier's particular synthesis of the arts. Ronchamp was a synthesis of forms derived from Le Corbusier's design process as well as an example of the integration of the arts where the architecture, furnishings, and art works were conceived together. Le Poème de l'angle droit conceptually addressed his postwar symbolic themes in the different media and showed how they overlapped, intermingled, and mutated. And the Centre Le Corbusier was an excellent example of a building and a museum encompassing the ideas of the synthesis of the arts in the work of one man. All three works represent Le Corbusier's fiercely individualistic personality and each can be read as an autobiographical work.

The Parisian artistic scene was yet another forum where the synthesis of the arts was the focus of much discussion. Synthesis of the arts coincided with a spark of optimism and renewal in the years after the war as promoted by the modernist idea of a new and better world. The synthetic impulse was widespread in the Parisian artistic milieu with artists such as Bloc, Gorin, and

Del Marle who remained faithful to prewar abstraction, many of whom participated in the Salon des Réalités Nouvelles exhibitions. Postwar France was in a creative lull, losing its lead in the vanguard art scene to the American Abstract Expressionists. Synthesis of the arts played an important role in France and became part of an international movement as seen in the membership list of the Groupe Espace. However, synthesis of the arts as promoted by the French abstract modernist artists was to be primarily a French movement with the nationalistic intentions of maintaining the eminent status of French art.

This was not a period of new movements in Paris but rather the rebirth of previous movements reinterpreted, and this retardataire movement of late abstract geometric modernism started to lose its wind shortly after the war.<sup>3</sup> In retrospect Gorin's utopic visions of the city seem out of touch with the problems of reconstruction that needed practical solutions to new problems. The ideas of synthesis of the arts when narrowed down to a theoretical viewpoint based on prewar modernists movements, such as the De Stijl movement, as was the case in postwar France, lost its relevance in a world with new and complex issues.

Nevertheless, postwar ideas of the synthesis of the arts were not always so out of touch with society. The difficulty lay in finding a practical means, as Bloc tried to do through debates, conferences, and publications, of how to bring the genuine human need of art into the life of people and into the built environment. Of all the successful postwar examples of a collaborative

project that can serve as a model today, the Caracas City University (1944-1957) by Carlos Raúl Villanueva and especially the Aula Magna auditorium stands out [Fig. 2.7]. From the inception of the design, the architect, Villanueva, the technical engineer, Robert Newman, and the sculptor, Alexander Calder, worked closely throughout the design process influencing each other until they reached a completely synthesized solution. Positive aspects of the synthesis of the arts discourse in postwar culture were the numerous issues that were raised, many of which are still relevant today. Several can be summarized as follows: by discussing ways to re-humanize society by promoting collaboration among artists and architects while at the same time allowing for multiple viewpoints; by looking at educational systems in order to advocate more cross-pollination among different fields and to teach teamwork; by moving away from extreme theoretical ideas that isolated the elite from the common man and that kept art and architecture inaccessible to the public; and by suggesting instead a practical and concrete perspective to realistically, financially, politically, and socially integrate the arts.

## Notes to Conclusion

<sup>1</sup> Paul Damaz, Art in European Architecture, Synthèse des Arts, preface by Le Corbusier (New York: Reinhold, 1956), p. 9, and Sigfried Giedion, A Decade of New Architecture (Zurich: Girsberger, 1951), p. 34.

<sup>2</sup> Wendell L. Willkie, One World (New York: Simon and Schuster, 1943). The American politician, Willkie in his visionary and influential book addressed the rapid changes occurring after the war and the unification of the globe as modern means of transportation and communication diminished distances among people.

<sup>3</sup> See Herbert Read, "The Situation in Art in Europe," The Philosophy of Modern Art (New York: Meridian Books, 1955).



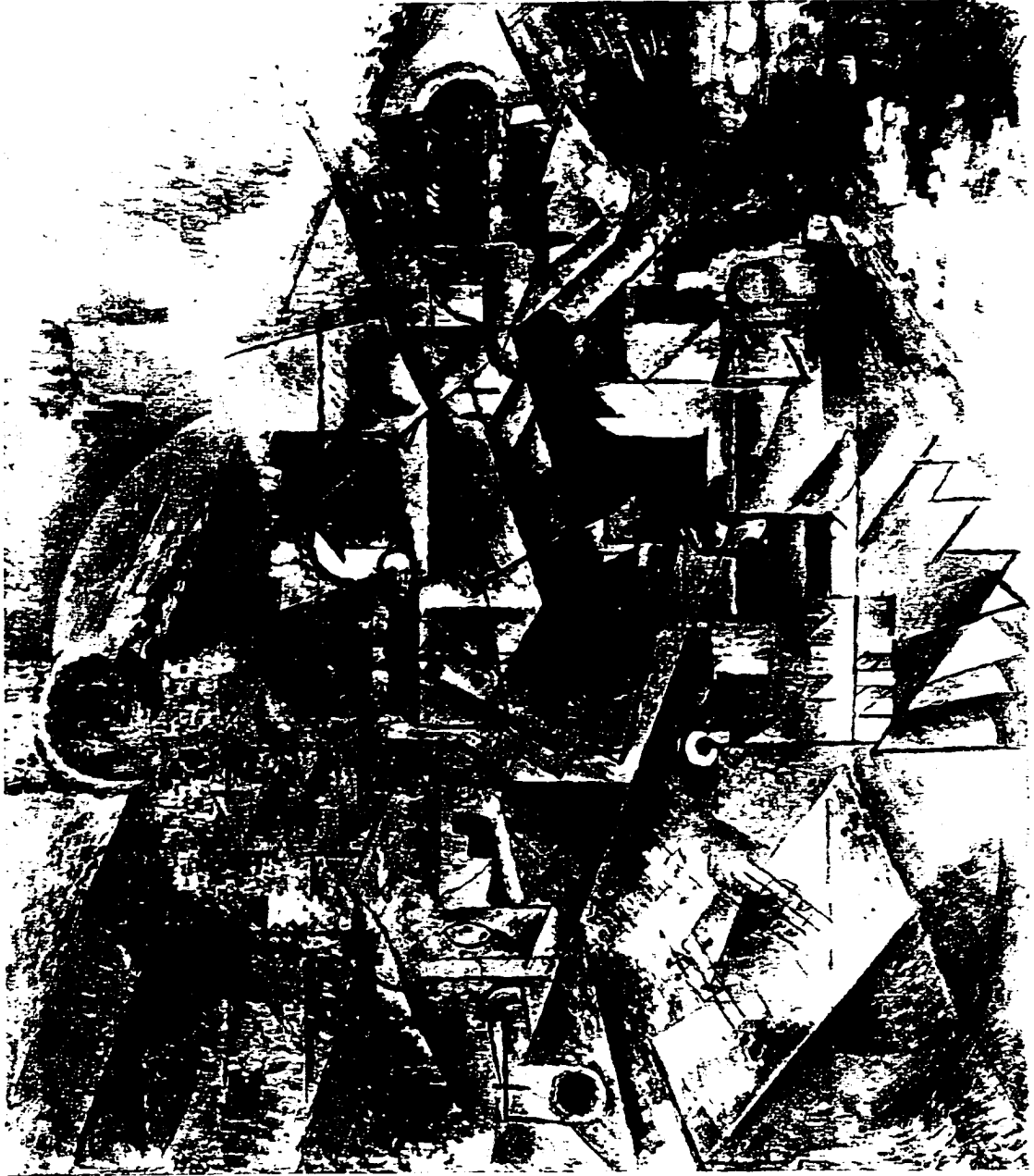
1.1. Photo of Fernand Léger and Le Corbusier, ca. 1935.

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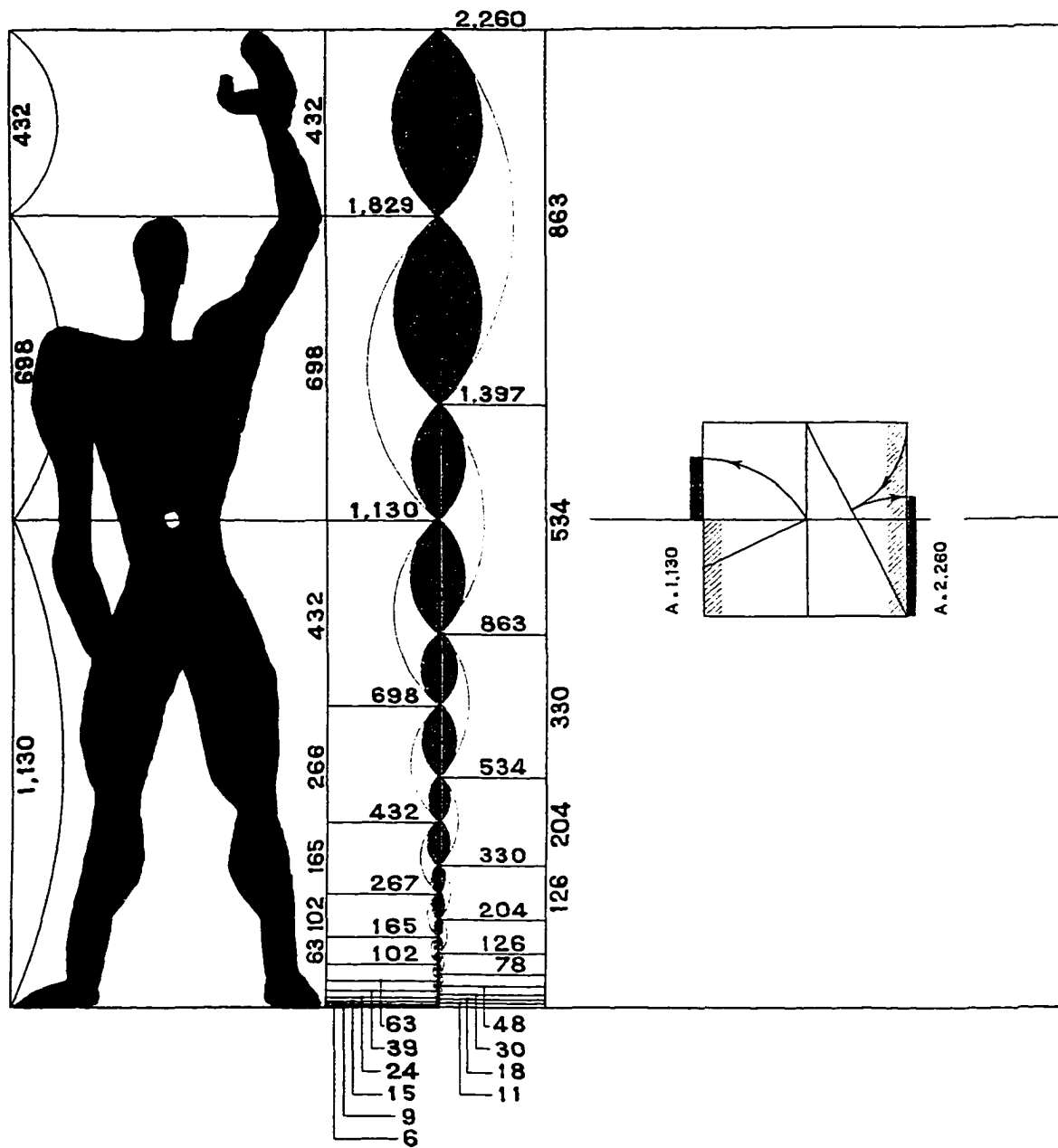
**1.2. Interior of the Palais de Fer et de l'Aviation at the 1937 Exposition International des Arts et des Techniques designed with the collaboration of Robert Delaunay.**

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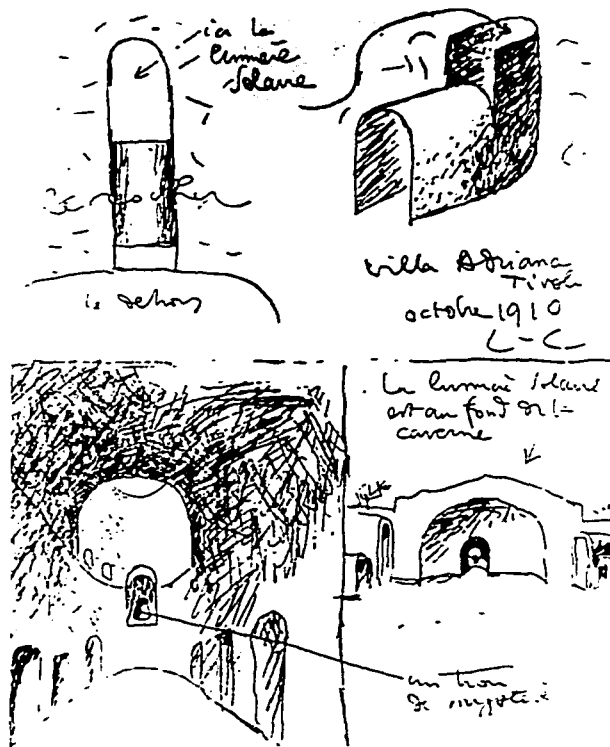
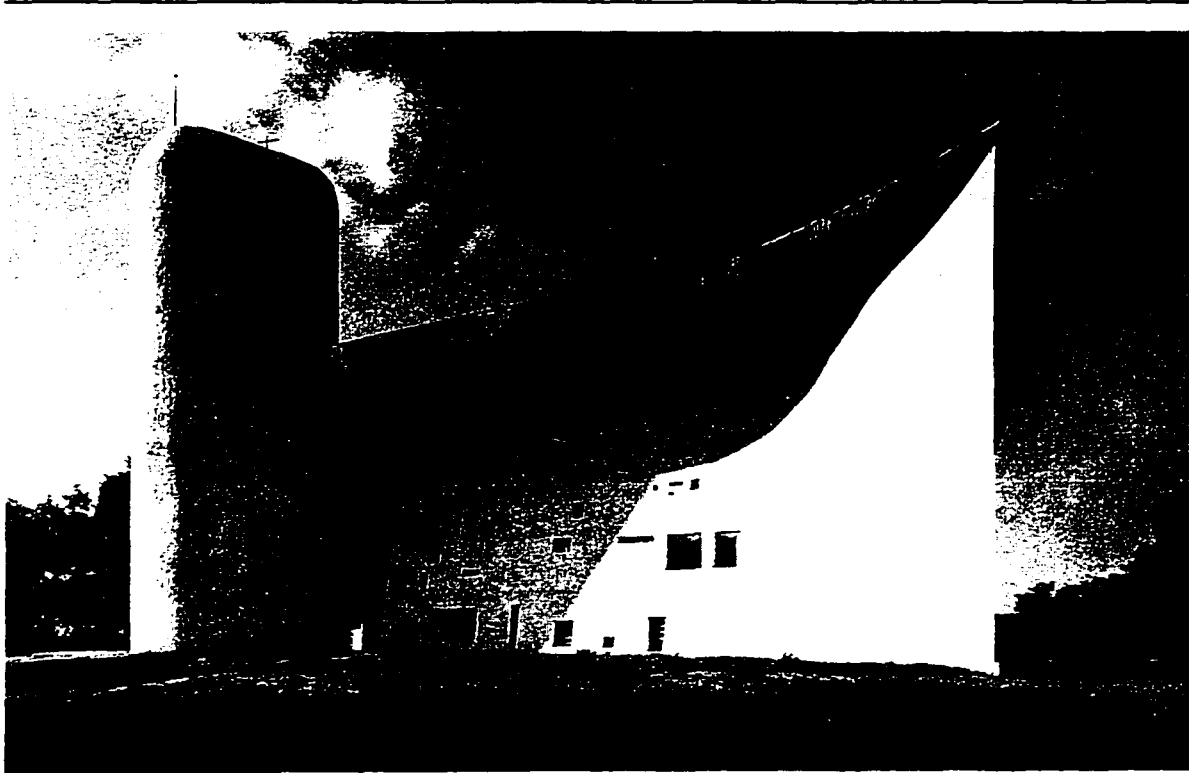


1.3. Pablo Picasso, "The Clarinet," 1911, oil on canvas.

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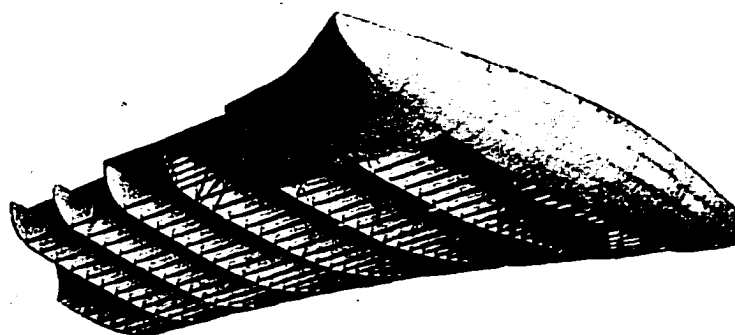
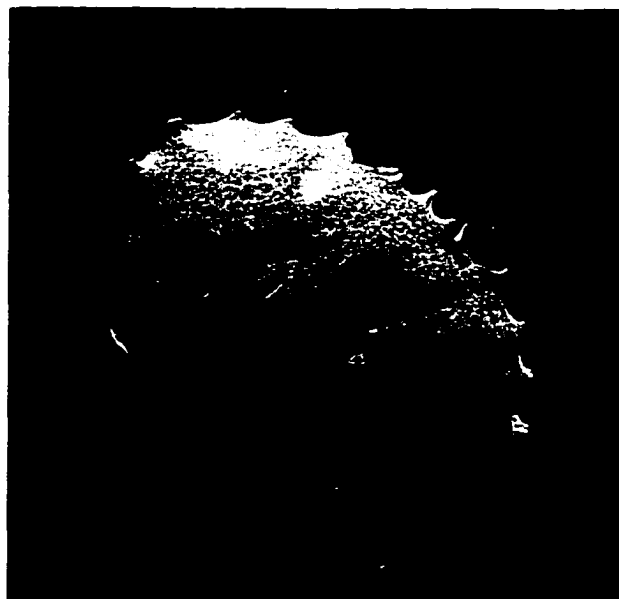


1.4. Le Corbusier, the Modulor, 1945.



1.5. Le Corbusier, the chapel of Notre-Dame-du-Haut at Ronchamp, 1950-1954, exterior south view.

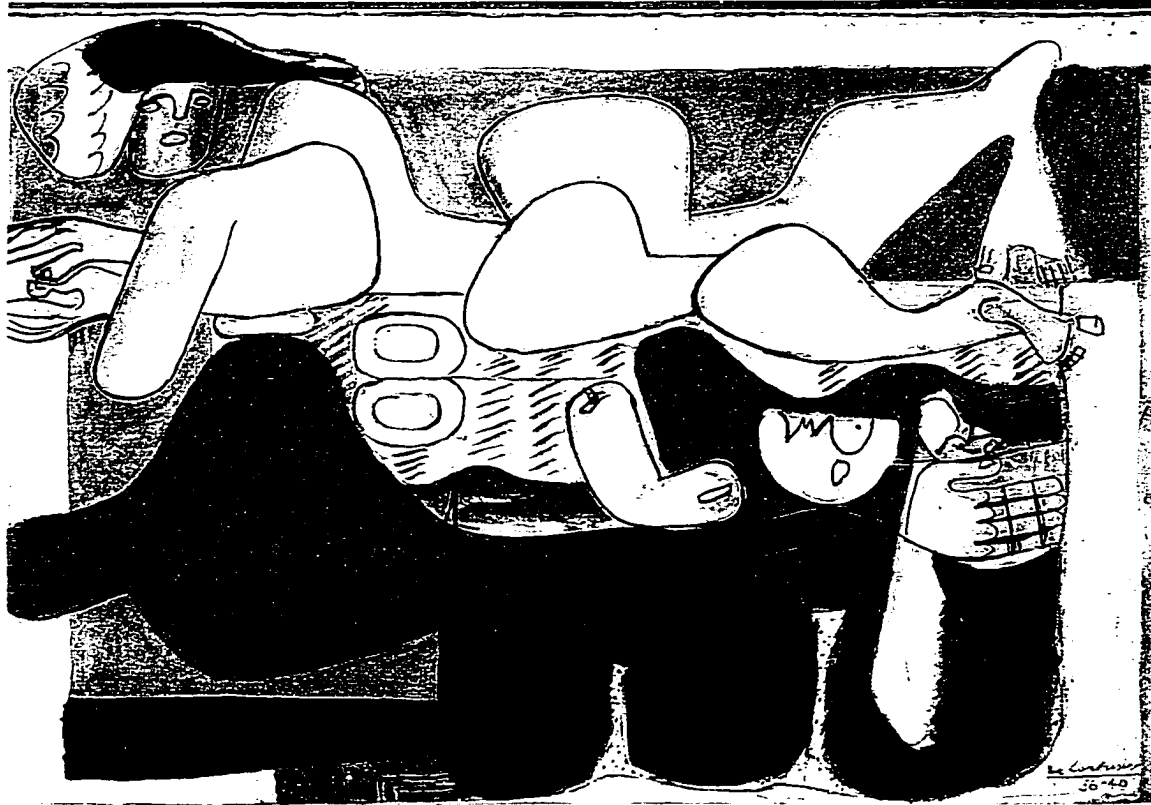
1.6. Le Corbusier, sketches of the serapeum of the Villa Adriana, 1911.



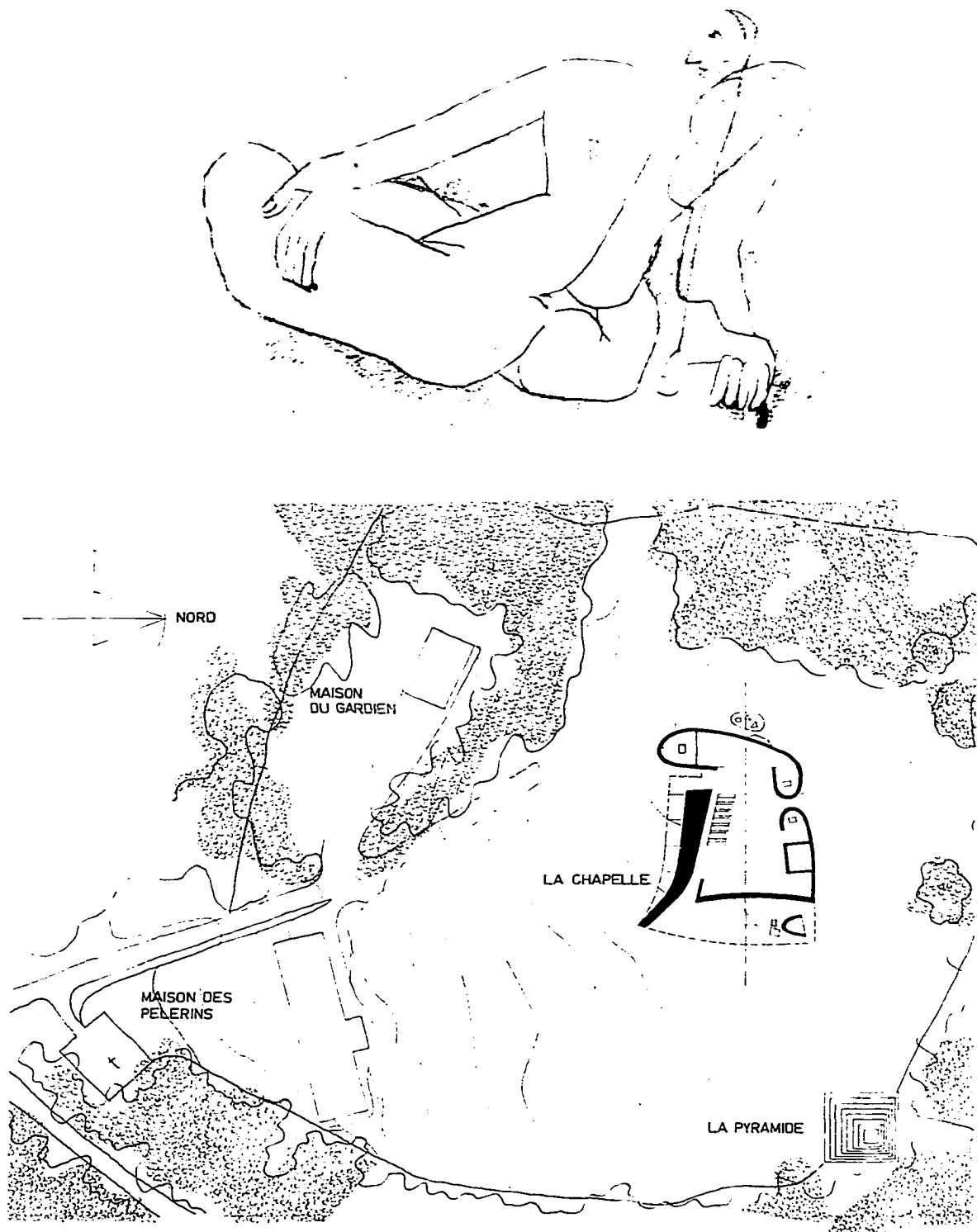
1.7. Horseshoe crab shell source of inspiration for the roof of the chapel of Ronchamp.

1.8. Airplane wing source of inspiration for the roof of the chapel of Ronchamp.

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1.9. Le Corbusier, "Deux femmes étendues," 1936-1940, oil on canvas.  
1.10. Le Corbusier and Jeanneret, Plan Obus for Algiers, 1930.

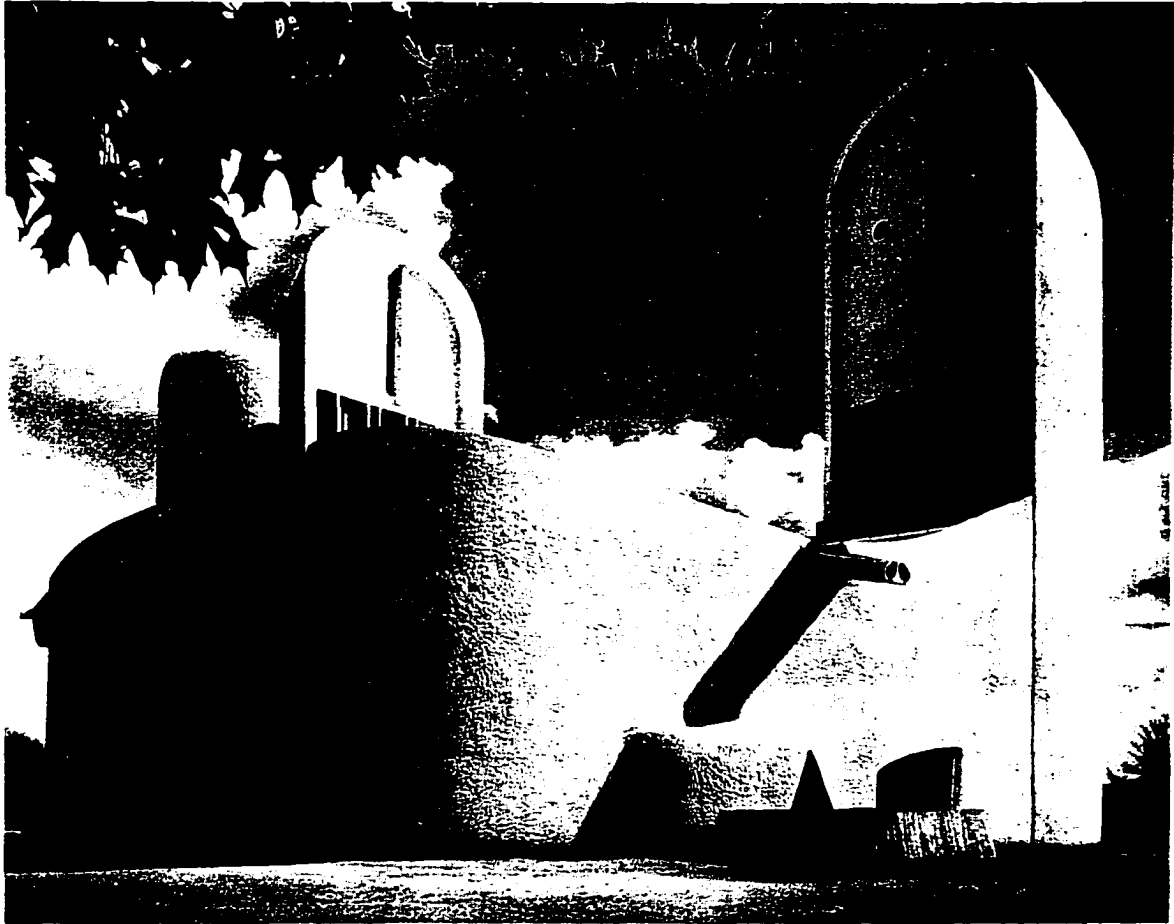


1.11. Le Corbusier, Algerian studies for a monumental mural, ca. 1931.

1.12. Chapel of Ronchamp, plan.

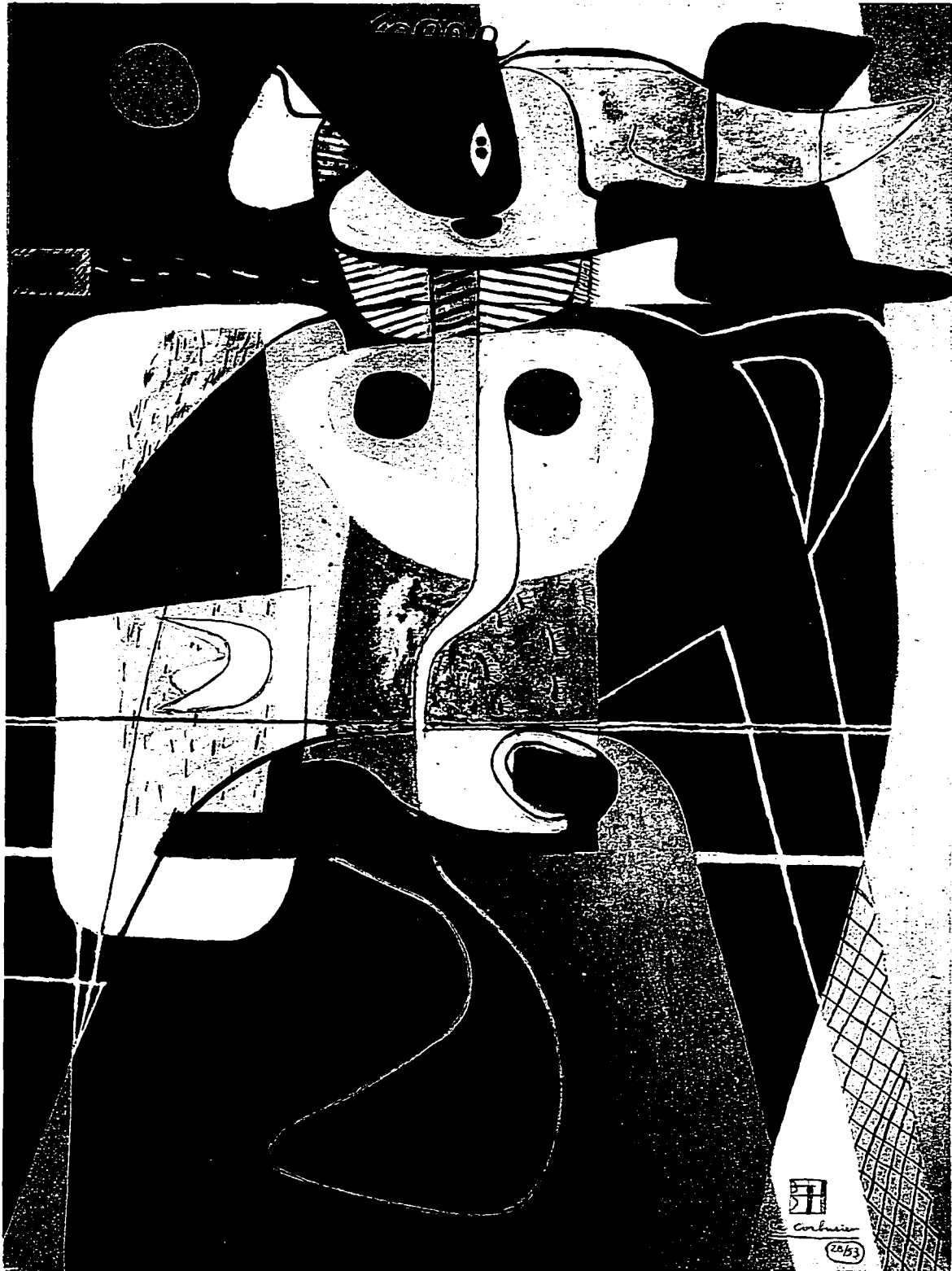


1.13. Le Corbusier, "Acoustic Forms," 1946, pastel on paper.

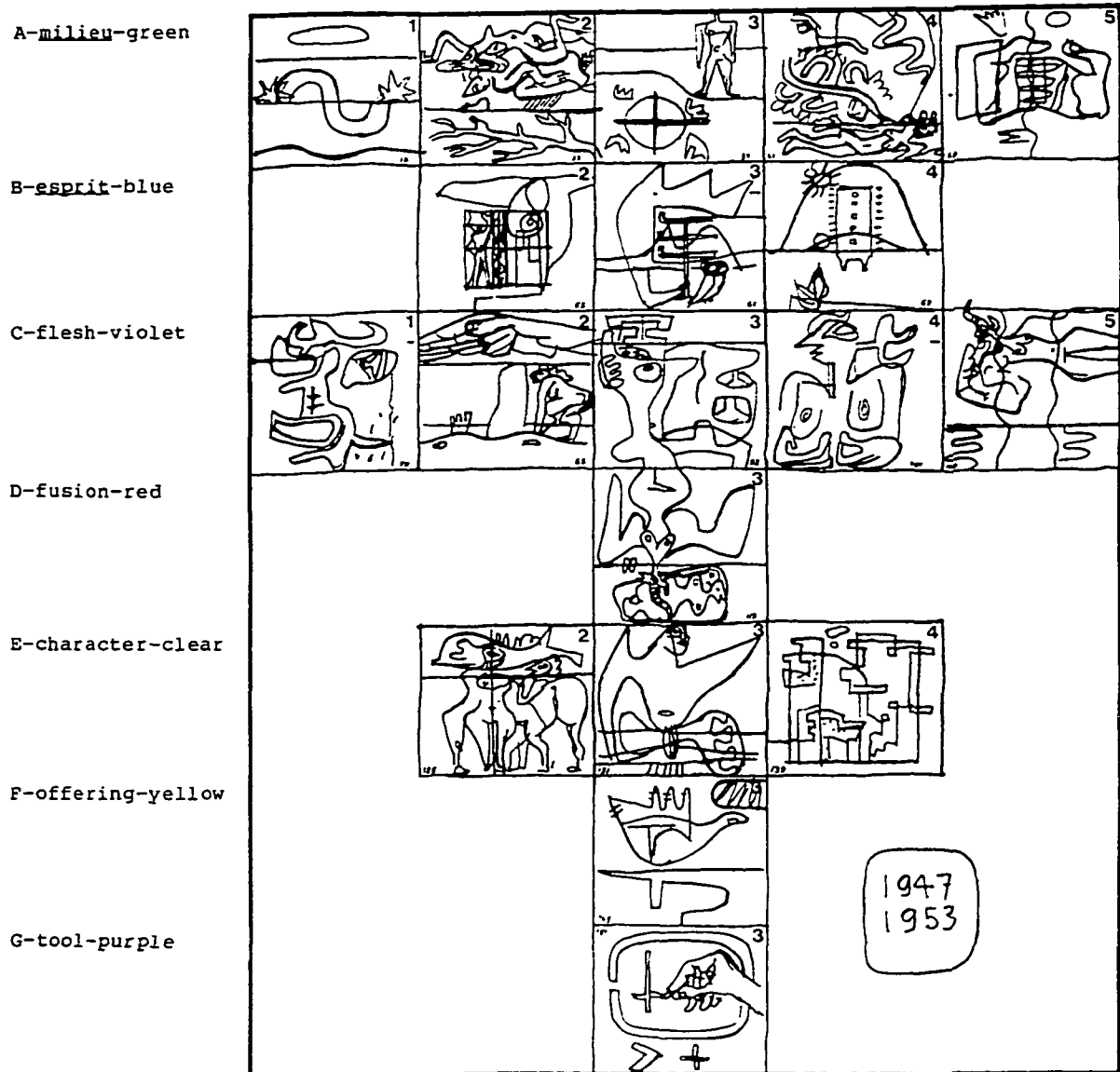


1.14. Chapel of Ronchamp, exterior west view.

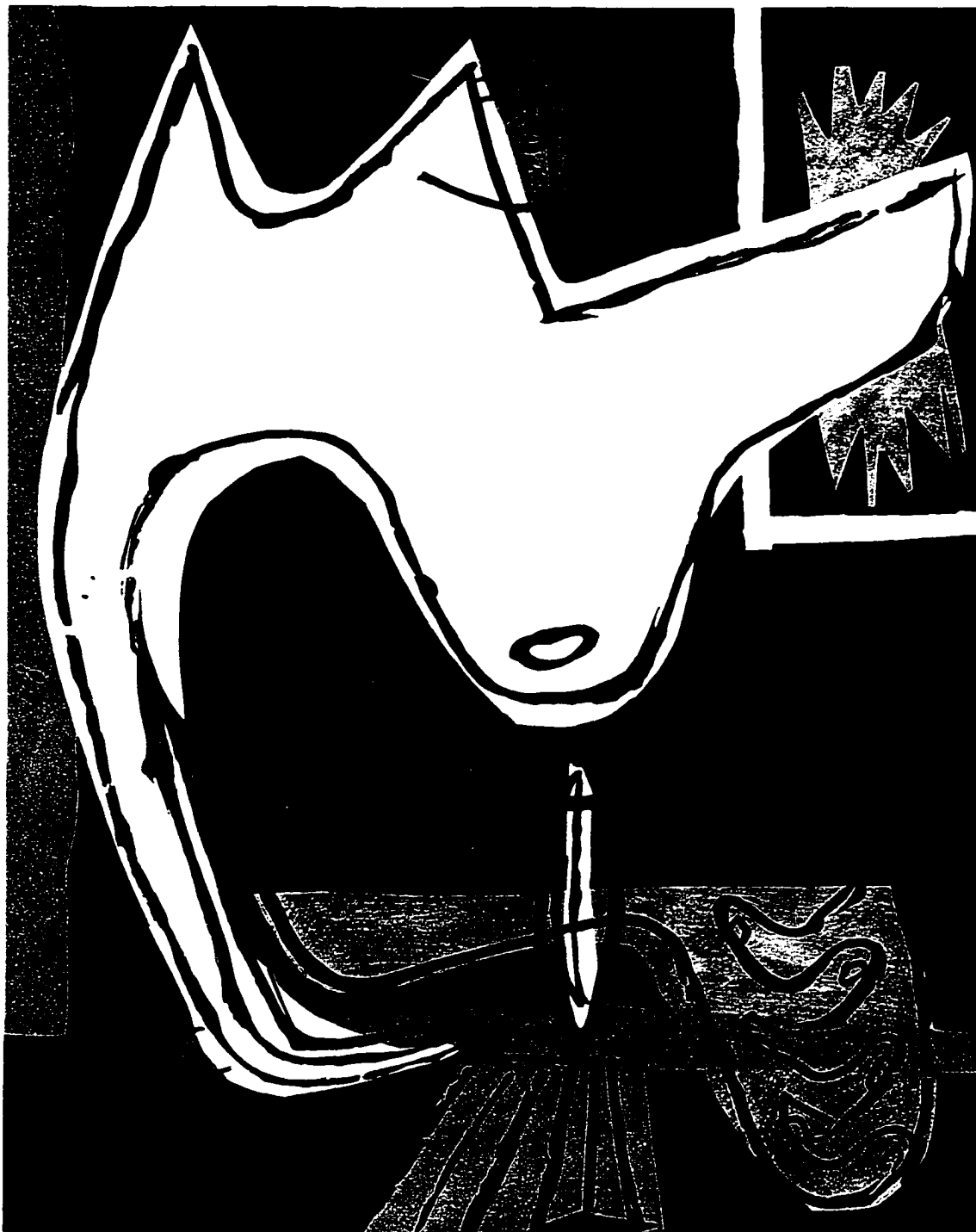
1.15. Le Corbusier and Savina, "Ozon," 1946, polychrome sculpture in wood.



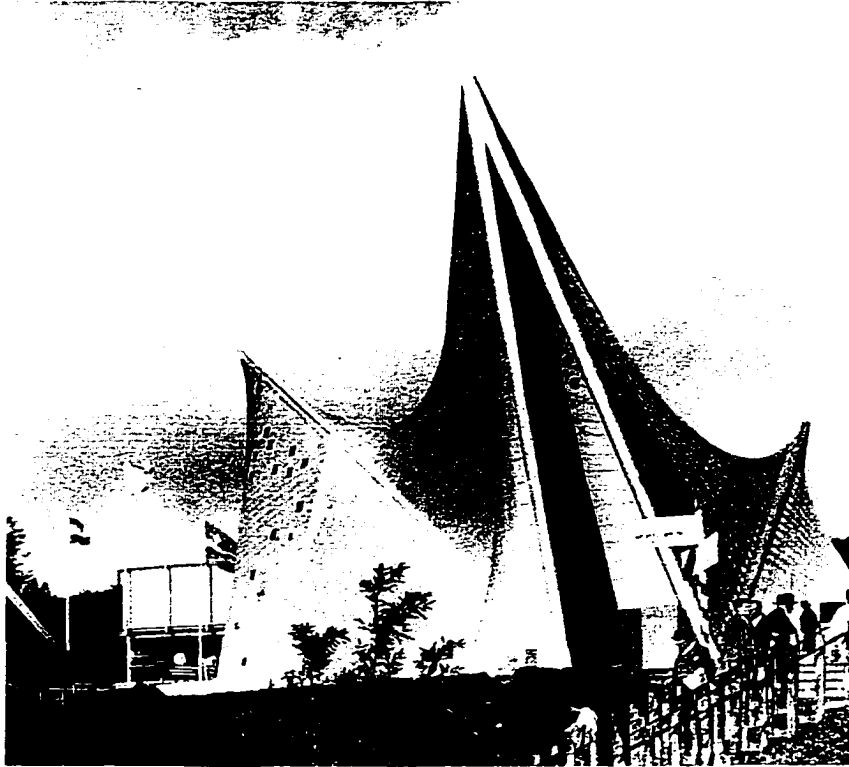
1.16. Le Corbusier, "Taureaux VIII," 1954, oil on canvas.



1.17. Le Corbusier, *Le Poème de l'angle droit*, 1947-1953, "iconostase."



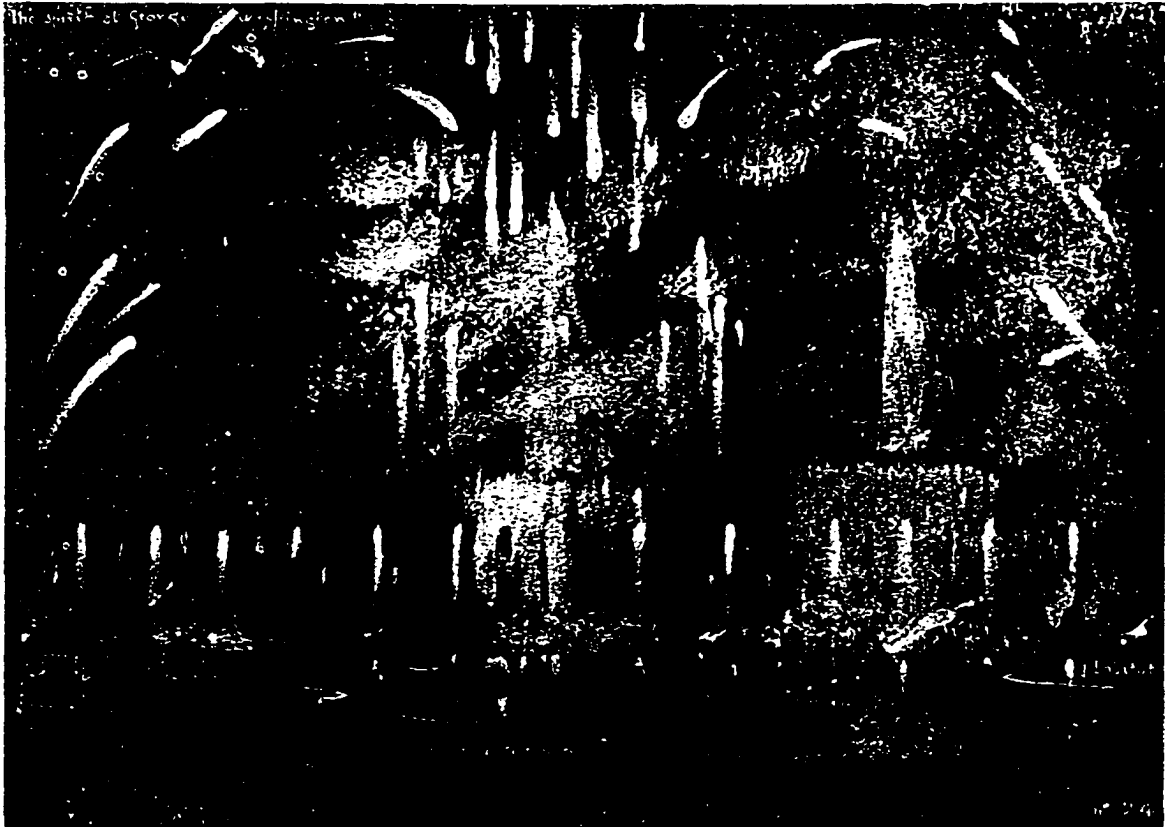
1.18. Le Corbusier, "Icône," (Woman with Candle), lithograph from Le Poème de l'angle droit.



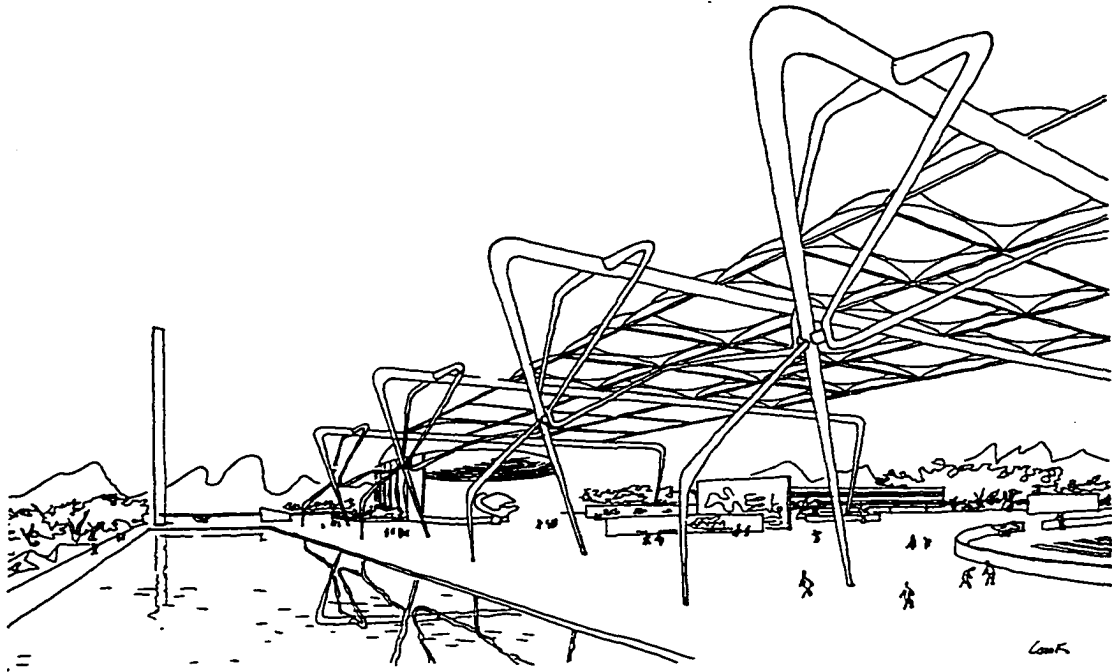
1.19. Le Corbusier, Philips Pavilion at the Brussels World Fair, 1958, exterior view.

1.20. Le Corbusier and Savina, "Icône," no. 33, 1963, polychrome sculpture in wood.

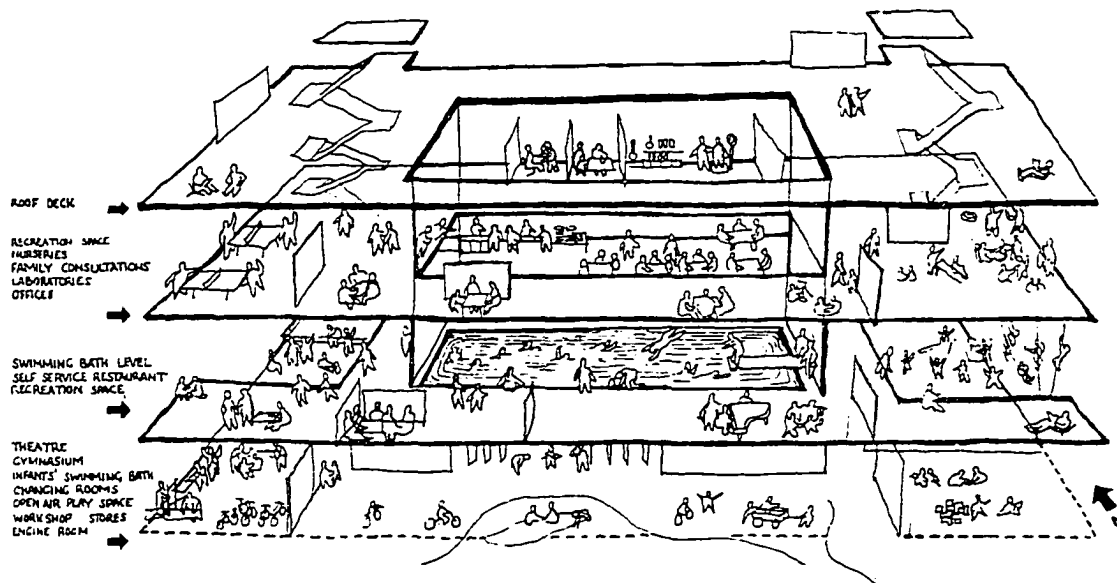
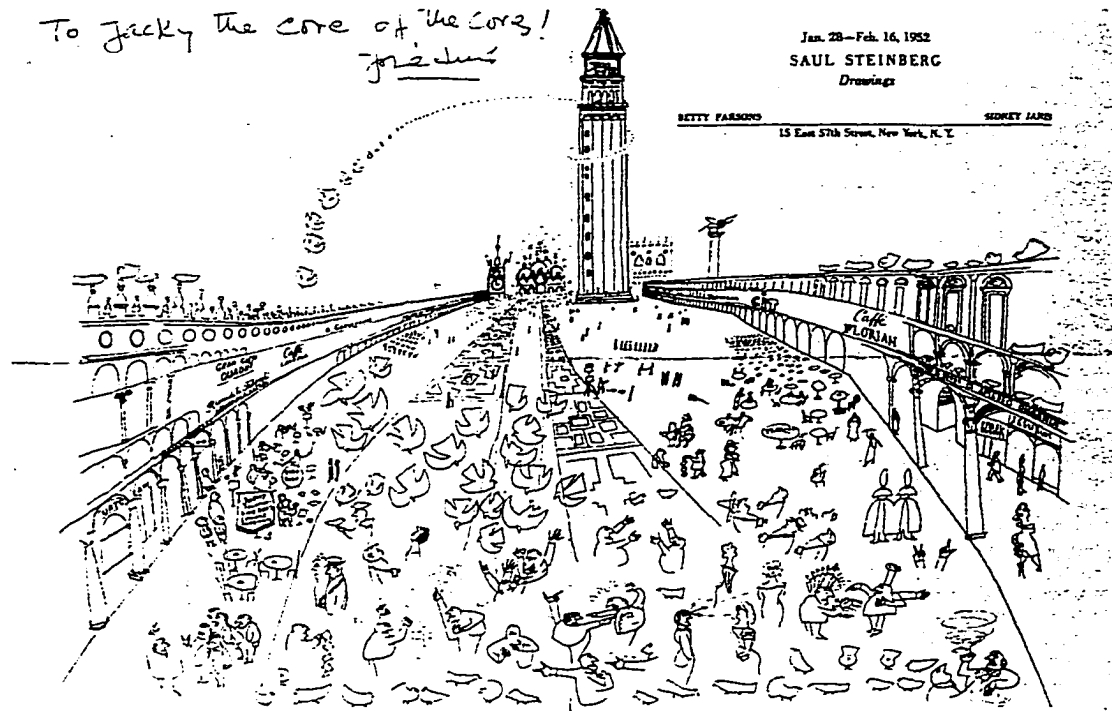
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2.1. Jean Labatut, "The Spirit of George Washington" fountain spectacle at the New York's World Fair, 1939-1940.

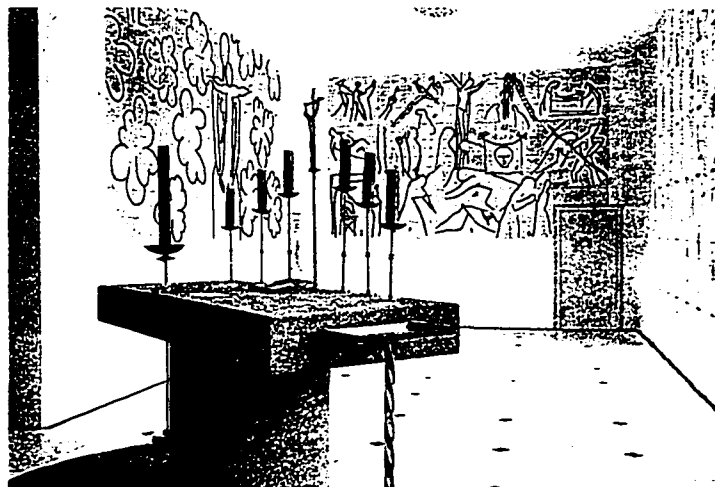
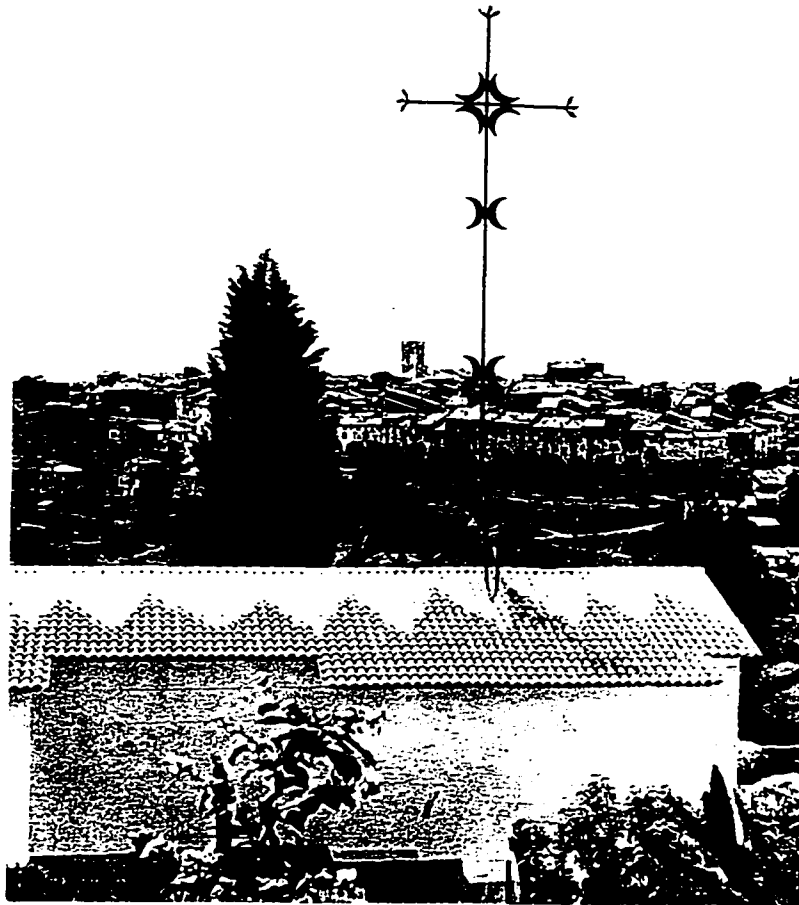


2.2. Louis I. Kahn, drawing of monumentality in architecture, 1944.



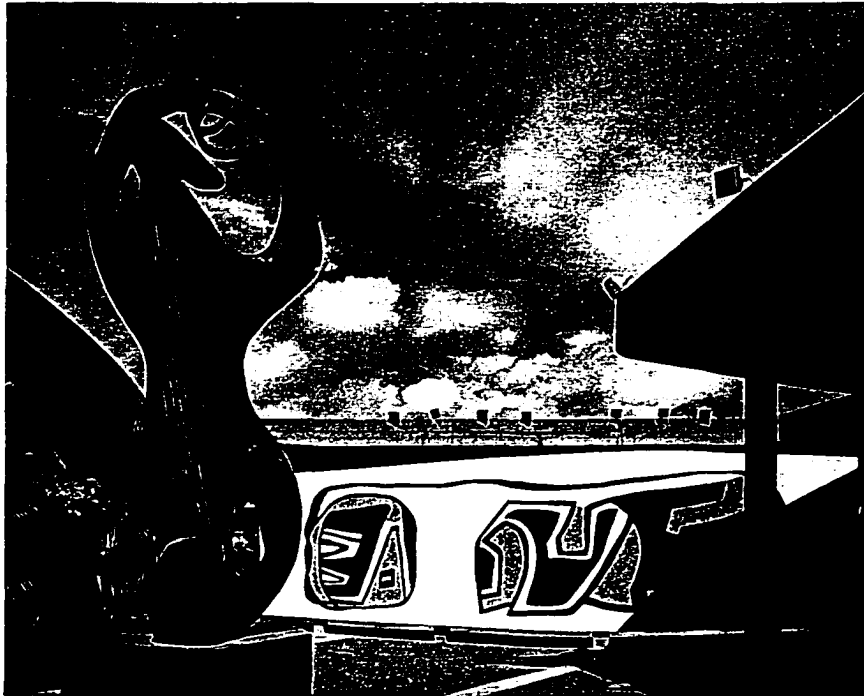
2.3. Saul Steinberg, drawing of Piazza San Marco, 1952. Illustration suggested for the cover of *The Heart of the City* by Sert to Trywhitt.

2.4. The Peckham Health Center, drawing of the central core, 1935-1951.



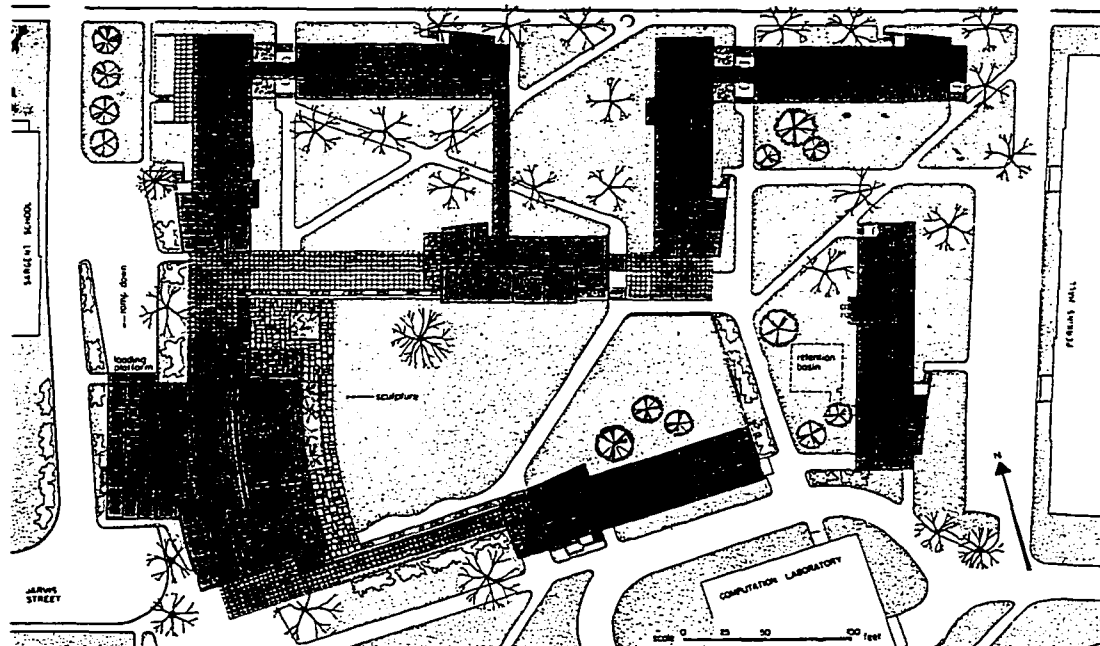
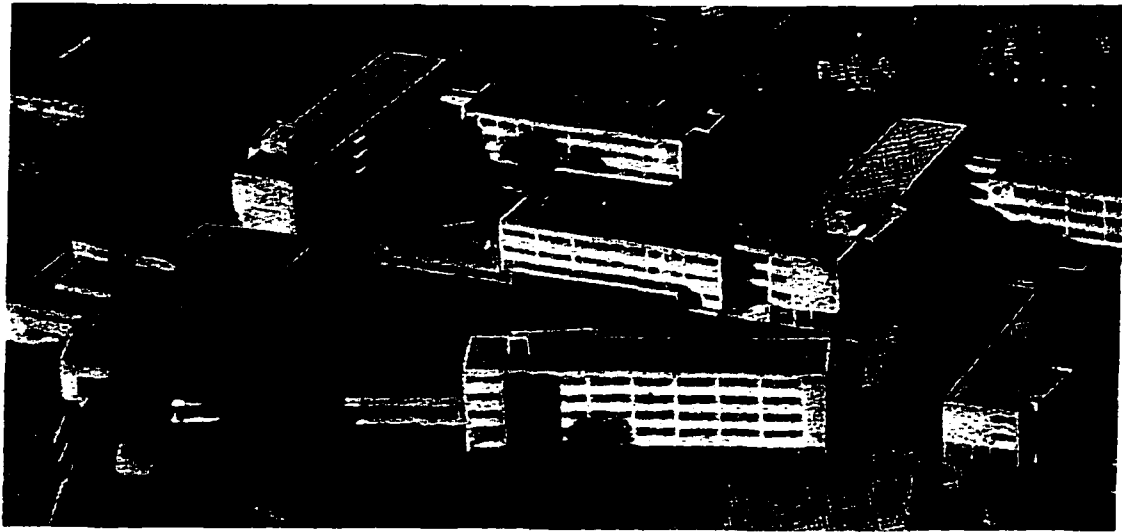
2.5. Auguste Perret and Henri Matisse, Vence Chapel, 1951, exterior view.  
2.6. Vence Chapel, interior view.

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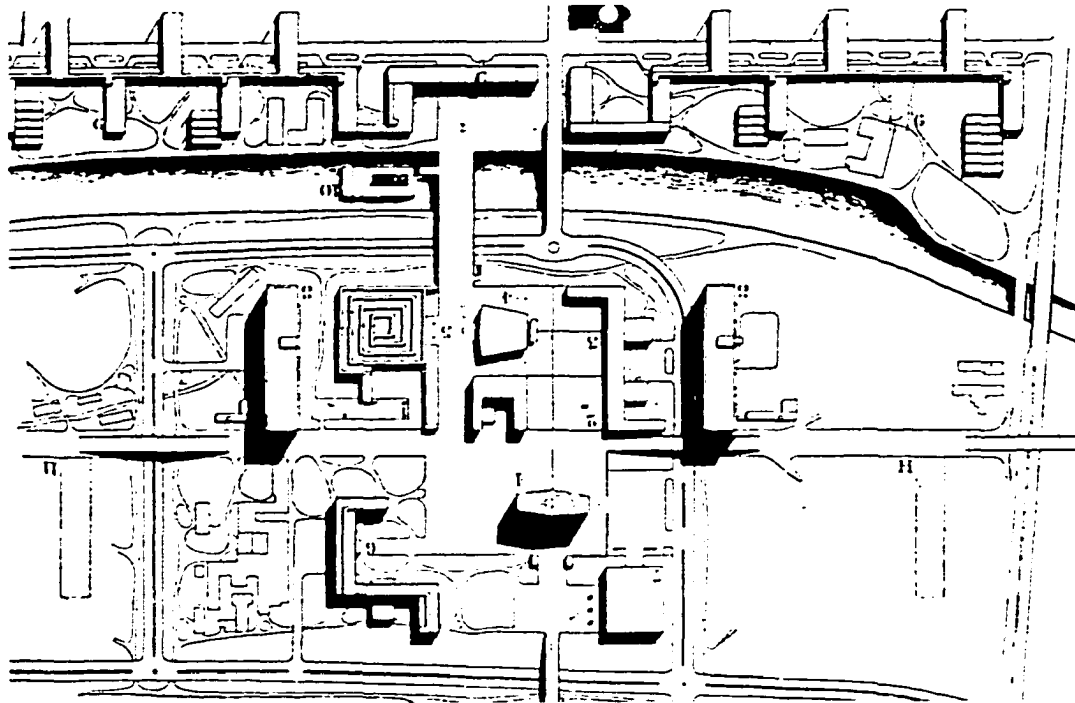
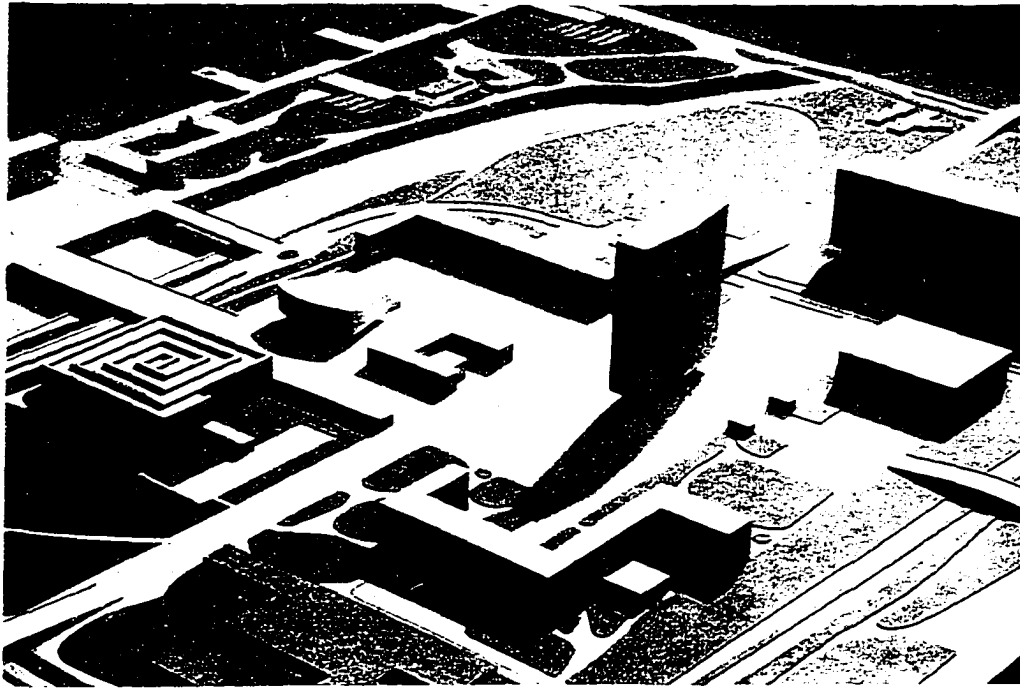


2.7. Carlos Raúl Villanueva, Henri Laurens, and Léger, Caracas City University, 1944-1957, covered plaza.

2.8. Villanueva, Alexander Calder, and Robert Newman, Caracas City University, interior of the Aula Magna auditorium.

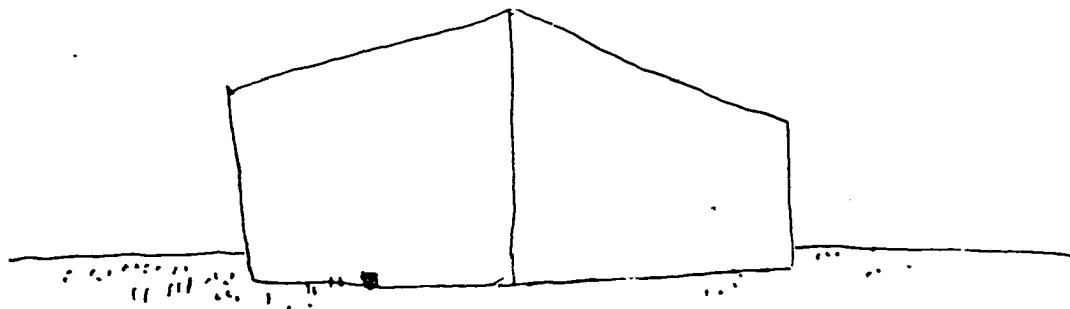


2.9. Walter Gropius and TAC (The Architect's Collaborative), Harvard Graduate Center dormitories and social center, 1949-1950, aerial view.  
2.10. Harvard Graduate Center dormitories and social center, plan.



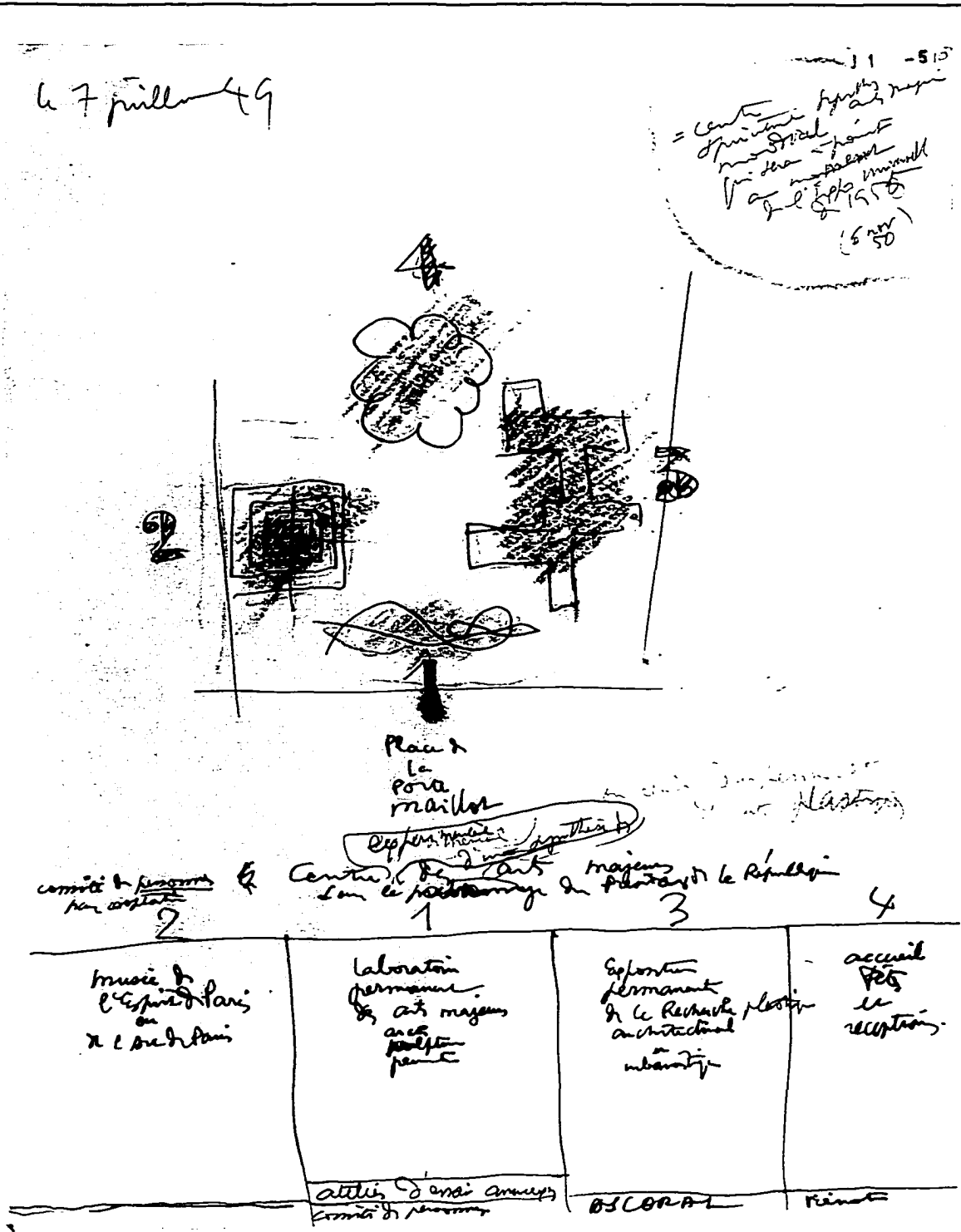
2.11. Le Corbusier, photograph of model of the city center for the Saint-Dié town plan in the Le Corbusier exhibition in Zurich in 1957.

2.12. Saint-Dié city center, plan.

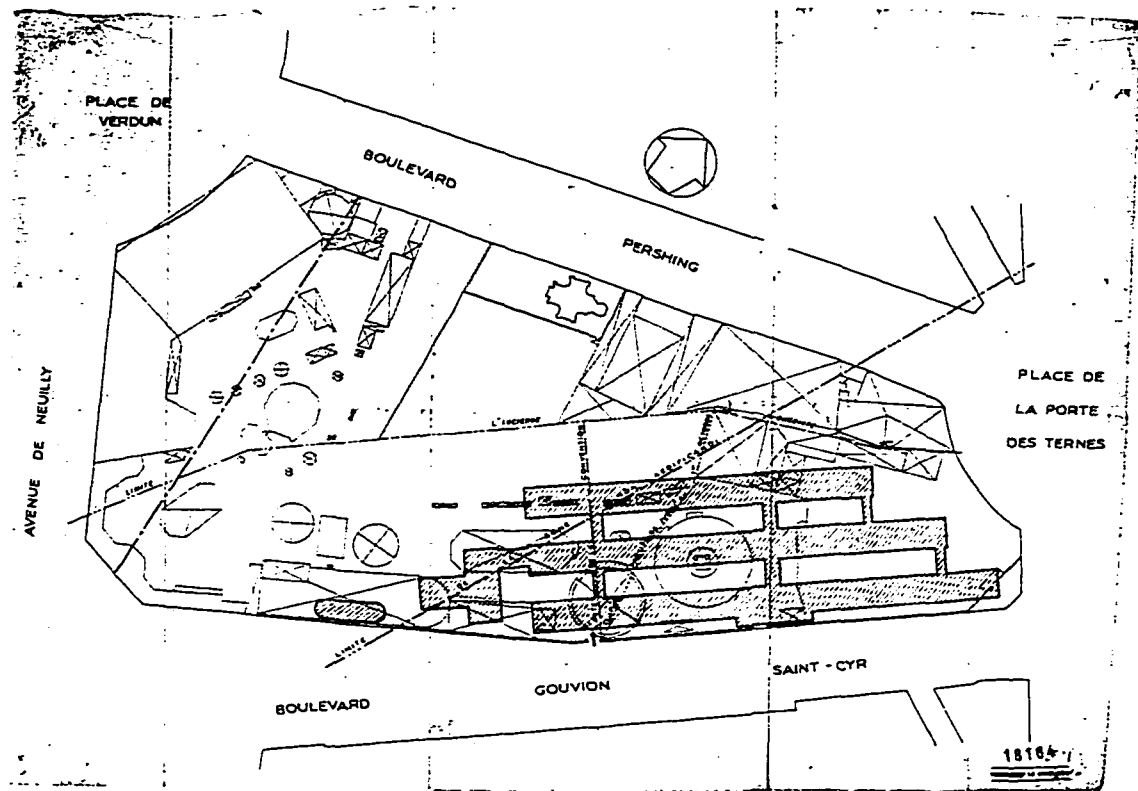


La "Boîte à miracles"

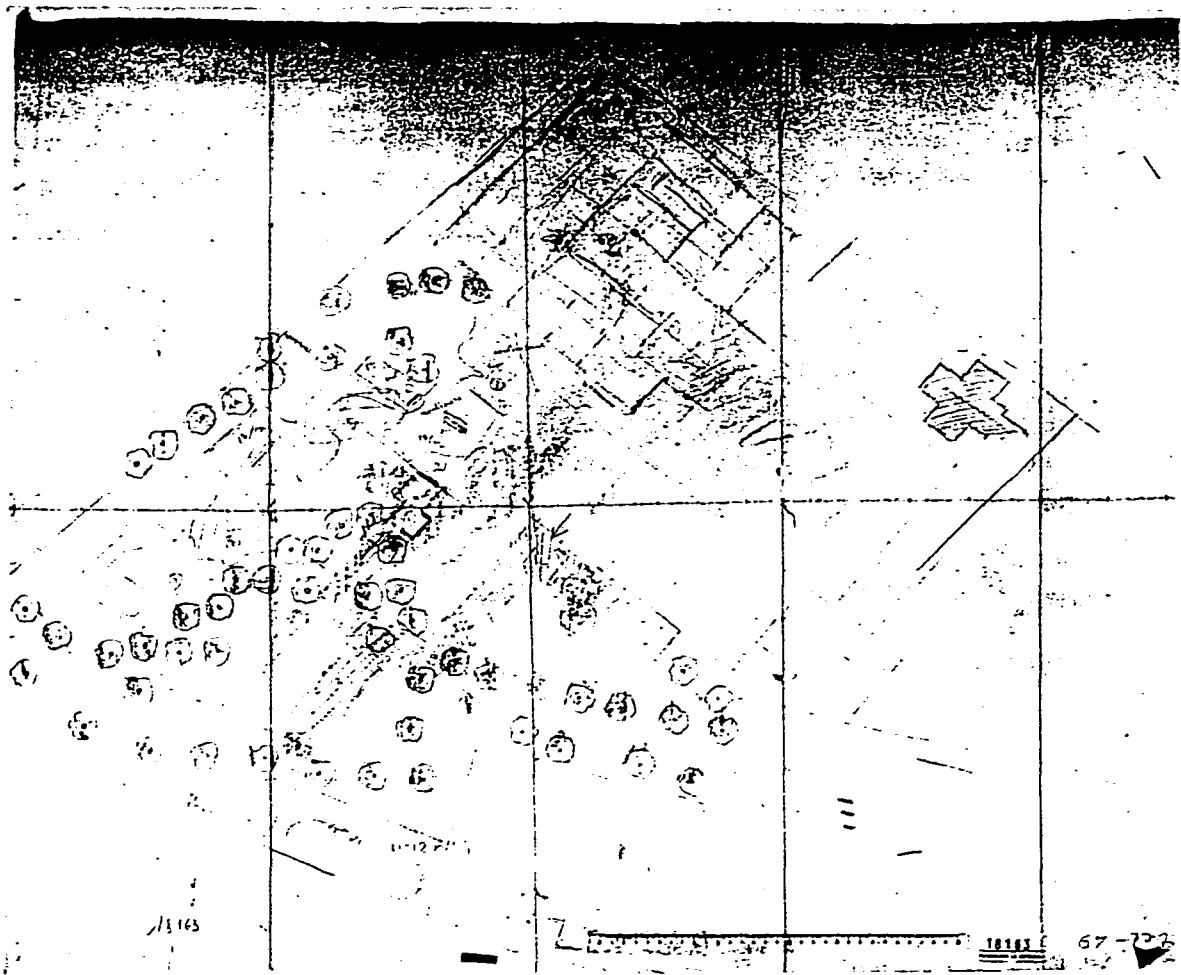
2.13. Le Corbusier, drawing of the "box of miracles."



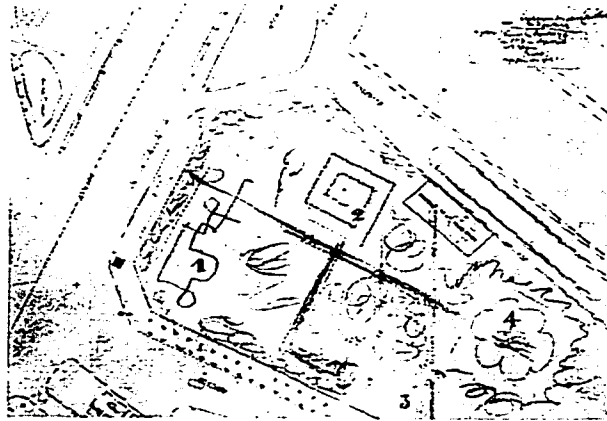
3.1. Le Corbusier, sketch for the Porte Maillot center of the arts in Paris, July 7, 1949.



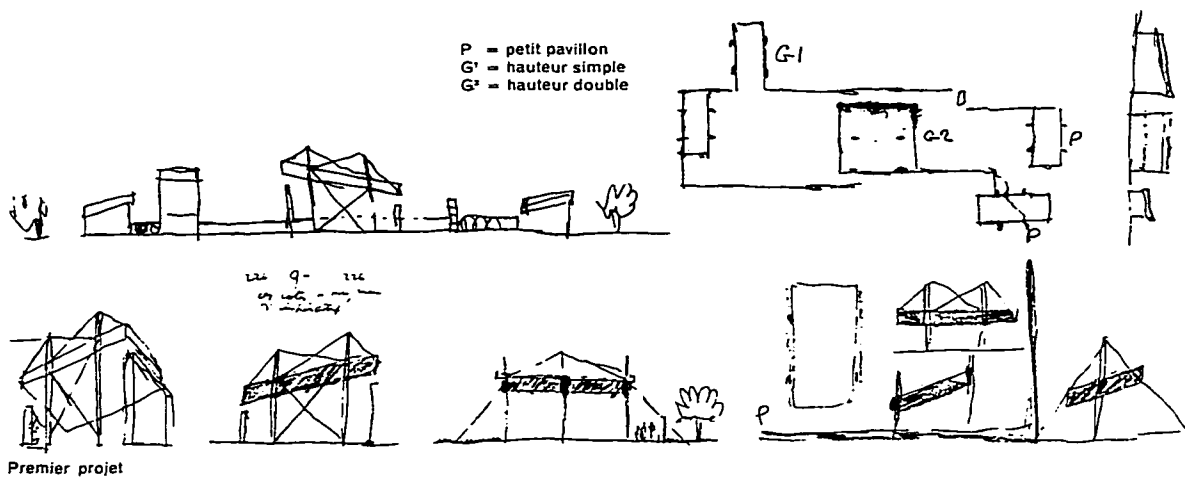
### 3.2. Porte Maillot, site plan.



**3.3 Porte Maillot, sketch of building layout on western end of site.**

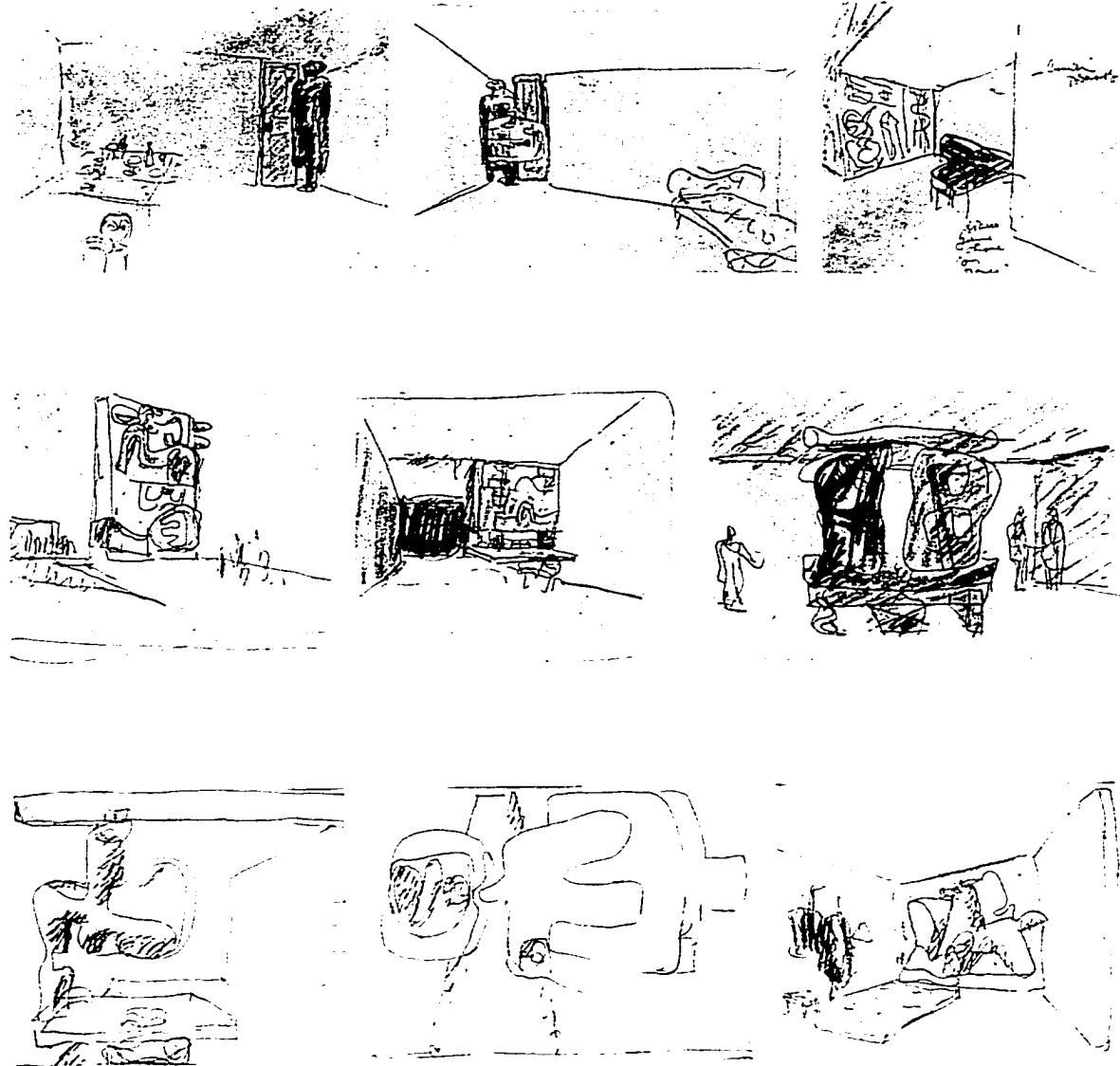


Esquisses de plan, coupes et vues du premier projet

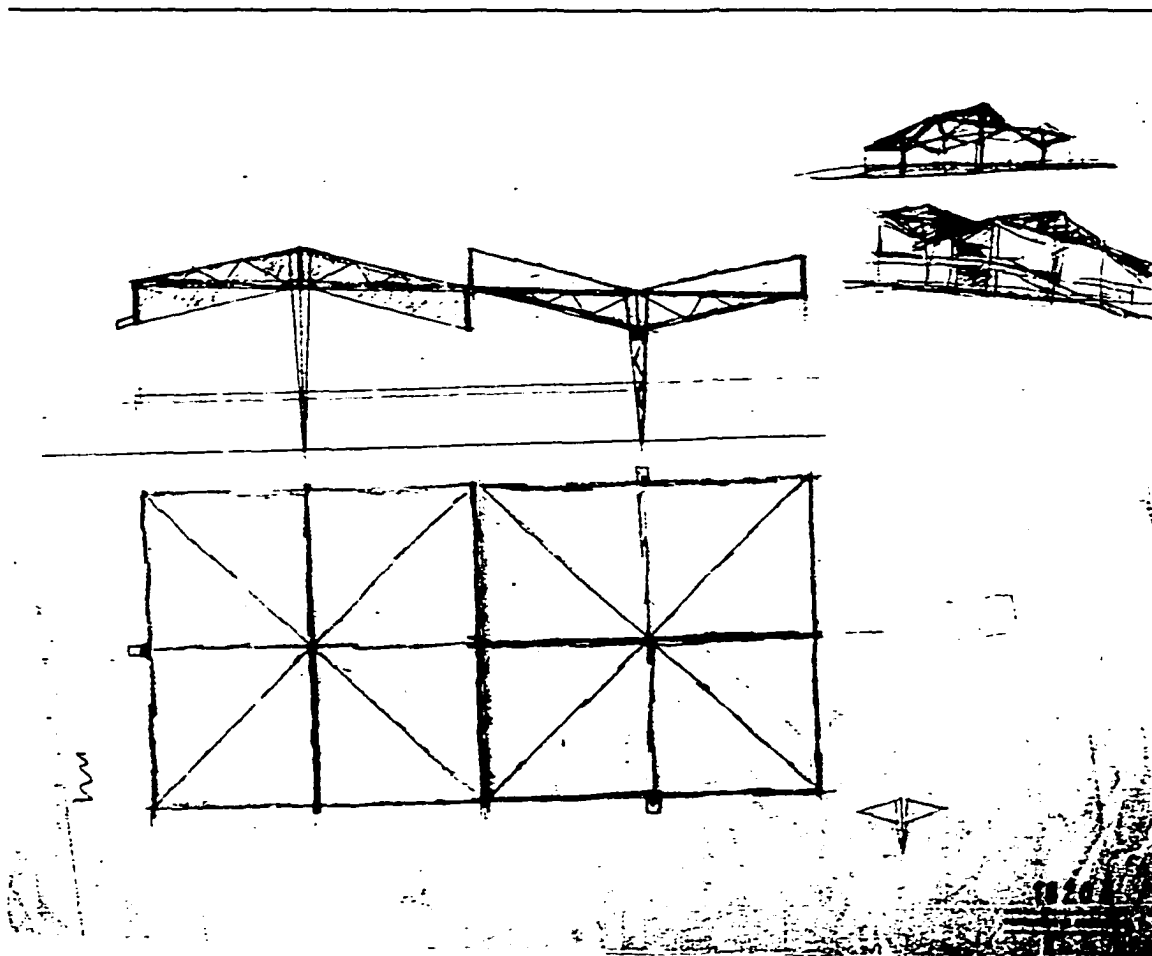


3.4. Porte Maillot, proposal of building layout for all four parts utilizing the entire site.

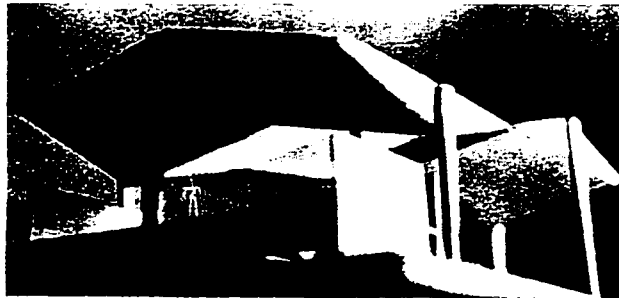
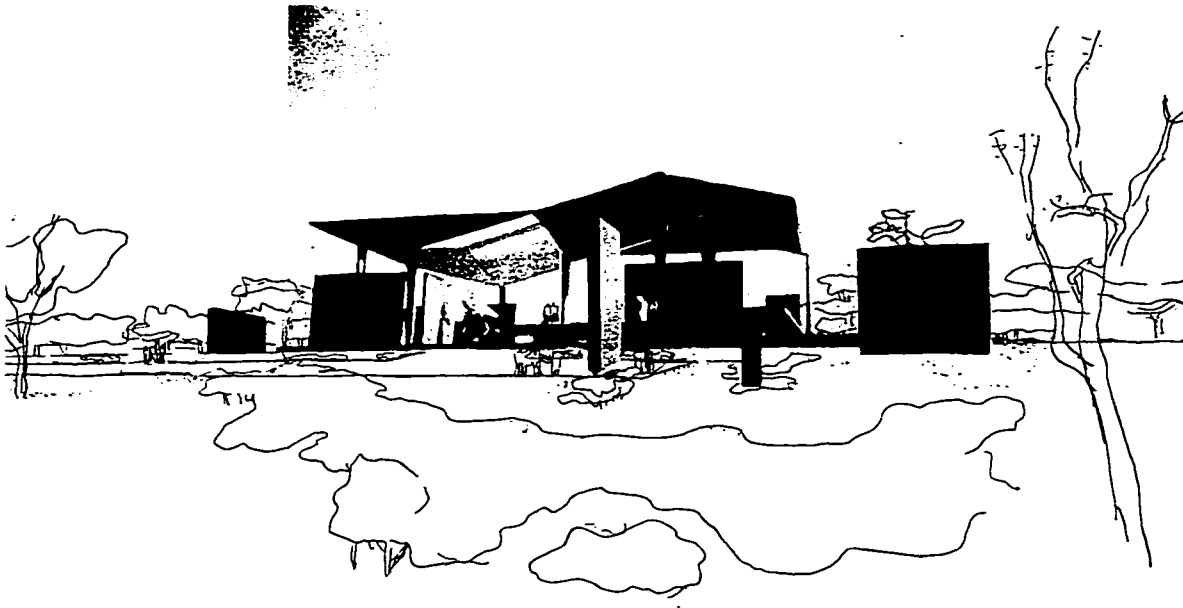
3.5. Porte Maillot Project-A proposal, sketch of plan and elevations.



3.6. Porte Maillot Project-A, elevations of modular panels.

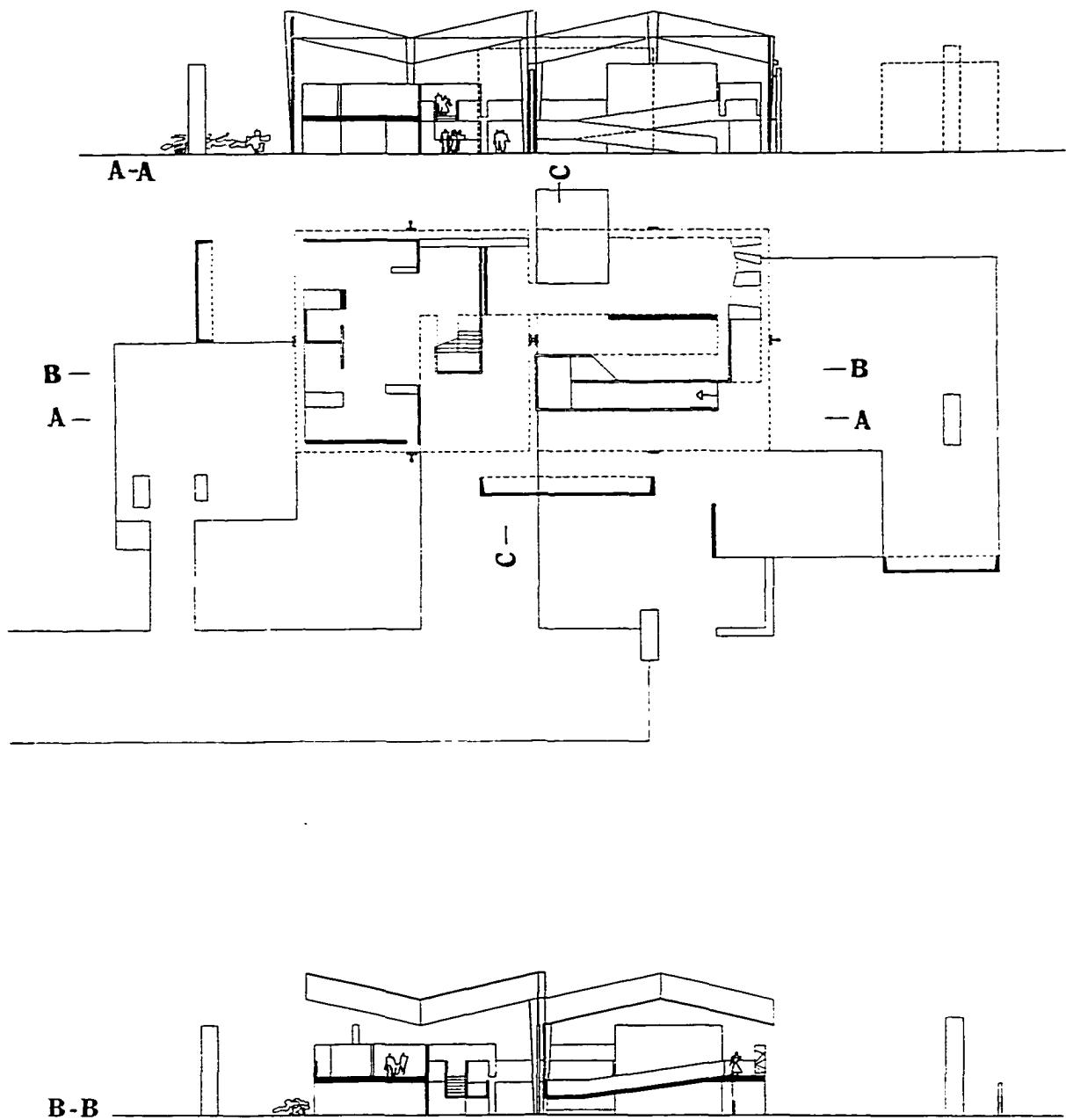


**3.7. Porte Maillot Project-B, sketch of structural system.**



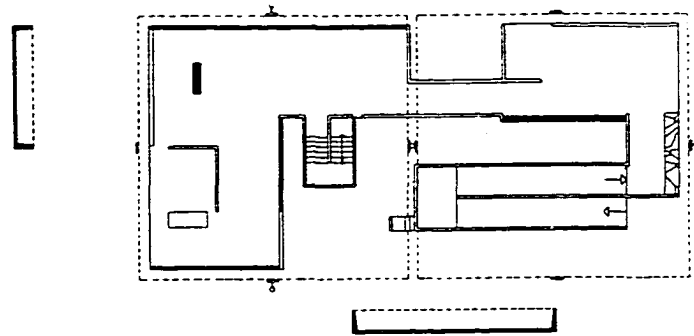
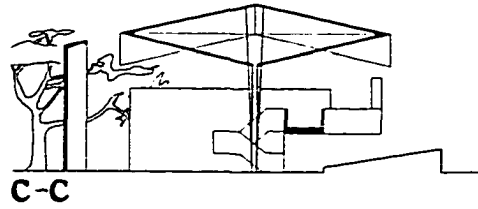
**3.8. Porte Maillot Project-B, views of model.**

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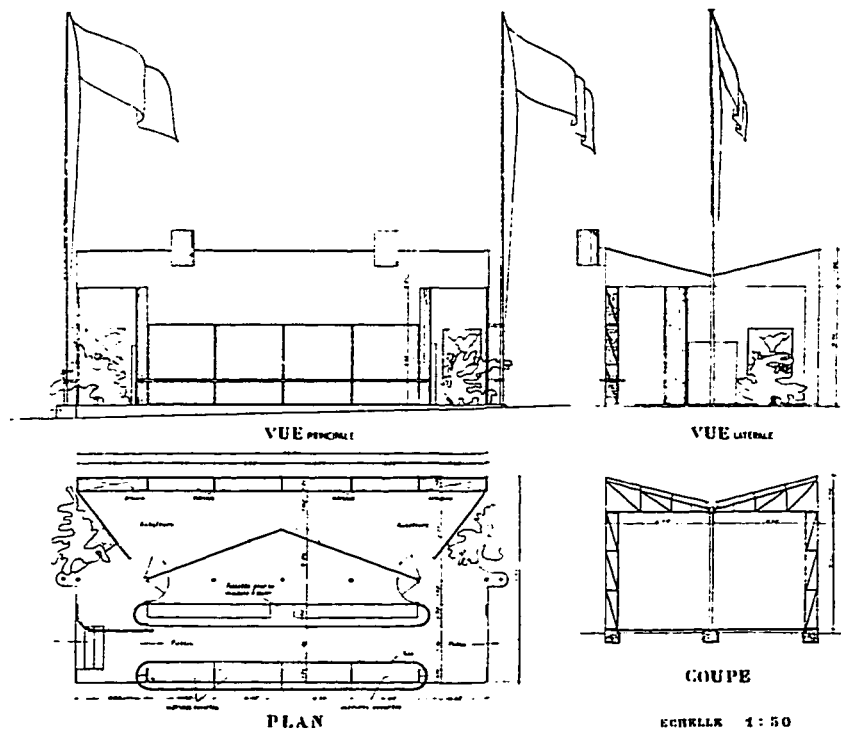
Plan au sol et coupes (second projet)

### 3.9. Porte Maillot Project-B, ground floor plan and longitudinal sections.



Plan de l'étage supérieur et coupe

### 3.10. Porte Maillot Project-B, first floor plan and transversal section.



3.11. Le Corbusier, Nestlé Pavilion, 1928, oblique view.  
 3.12. Nestlé Pavilion, plan, sections, and elevation.

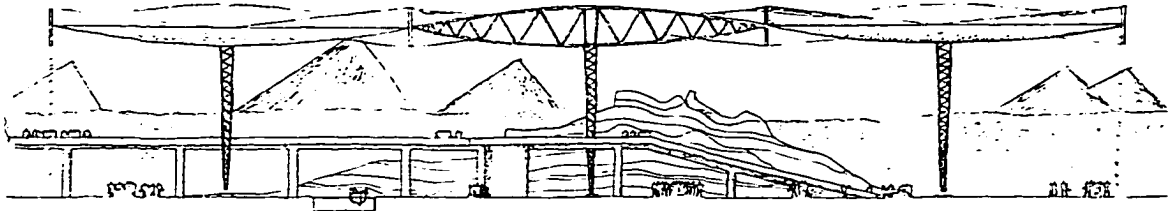
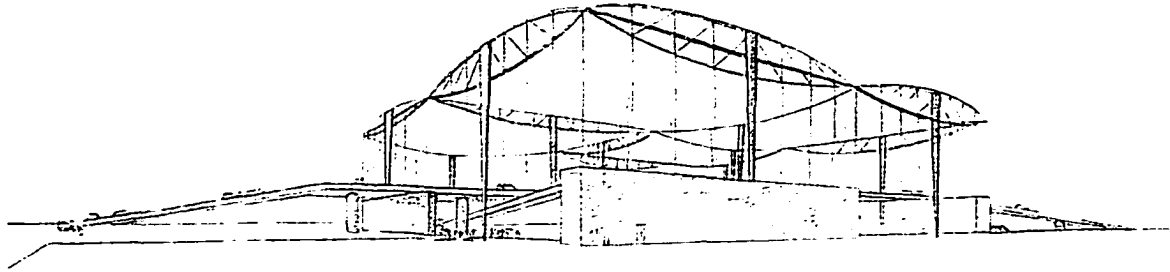


3.13. Konstantin Melnikov, USSR Pavilion, Exposition des Arts Décoratifs, Paris, 1925, exterior view.

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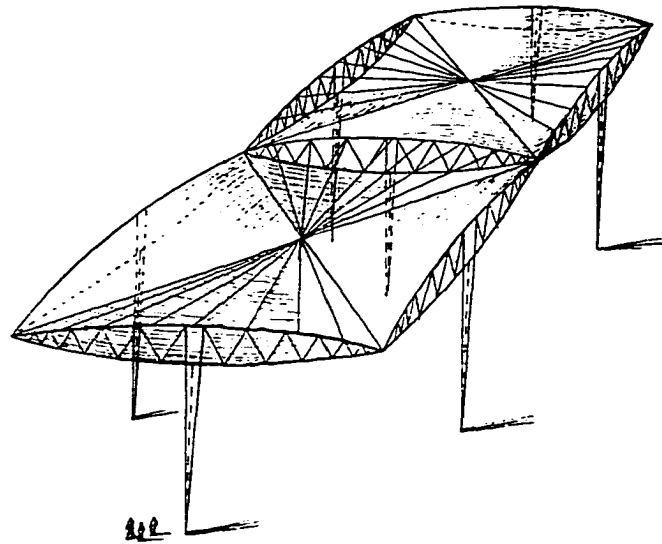


3.14. Le Corbusier, L'Esprit Nouveau Pavillon, Exposition des Arts Décoratifs, Paris, 1925, exterior view.

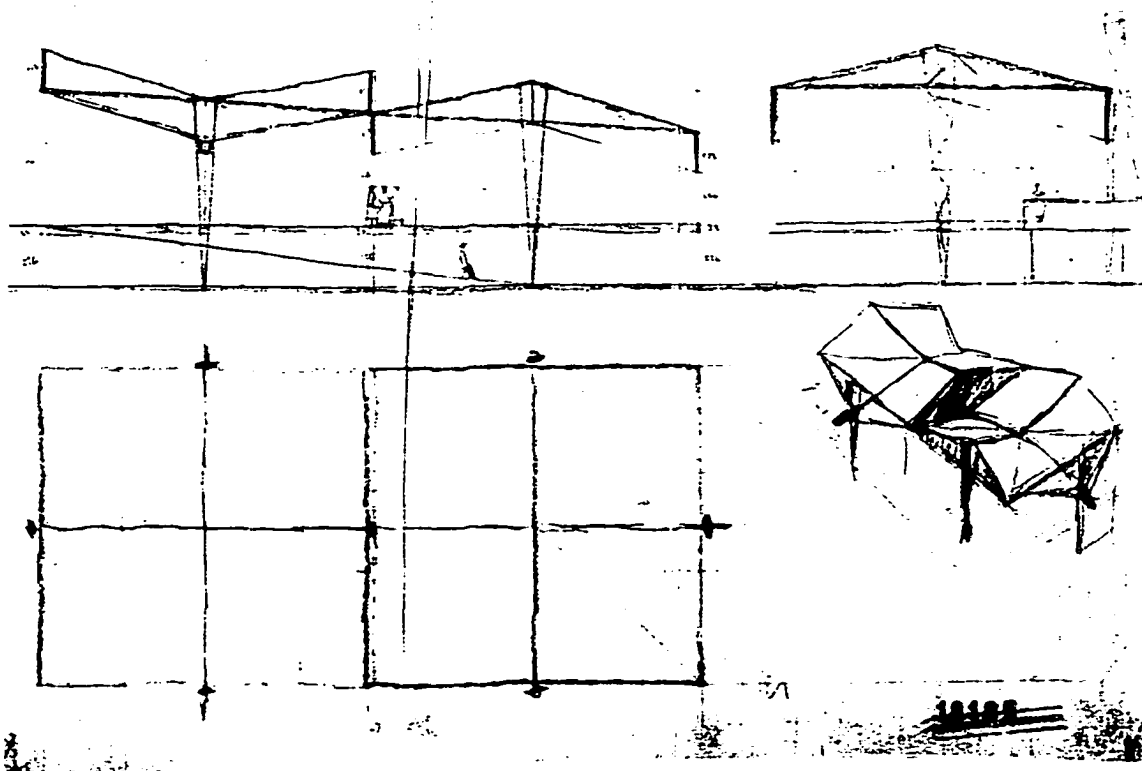


Des toitures d'acier lournes

- 3.15. Le Corbusier, Saison de l'Eau Pavilion in Liège and the San Francisco Pavilion of 1939, prototypical design.  
3.16. Saison de l'Eau Pavilion, section.
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Le mécanisme

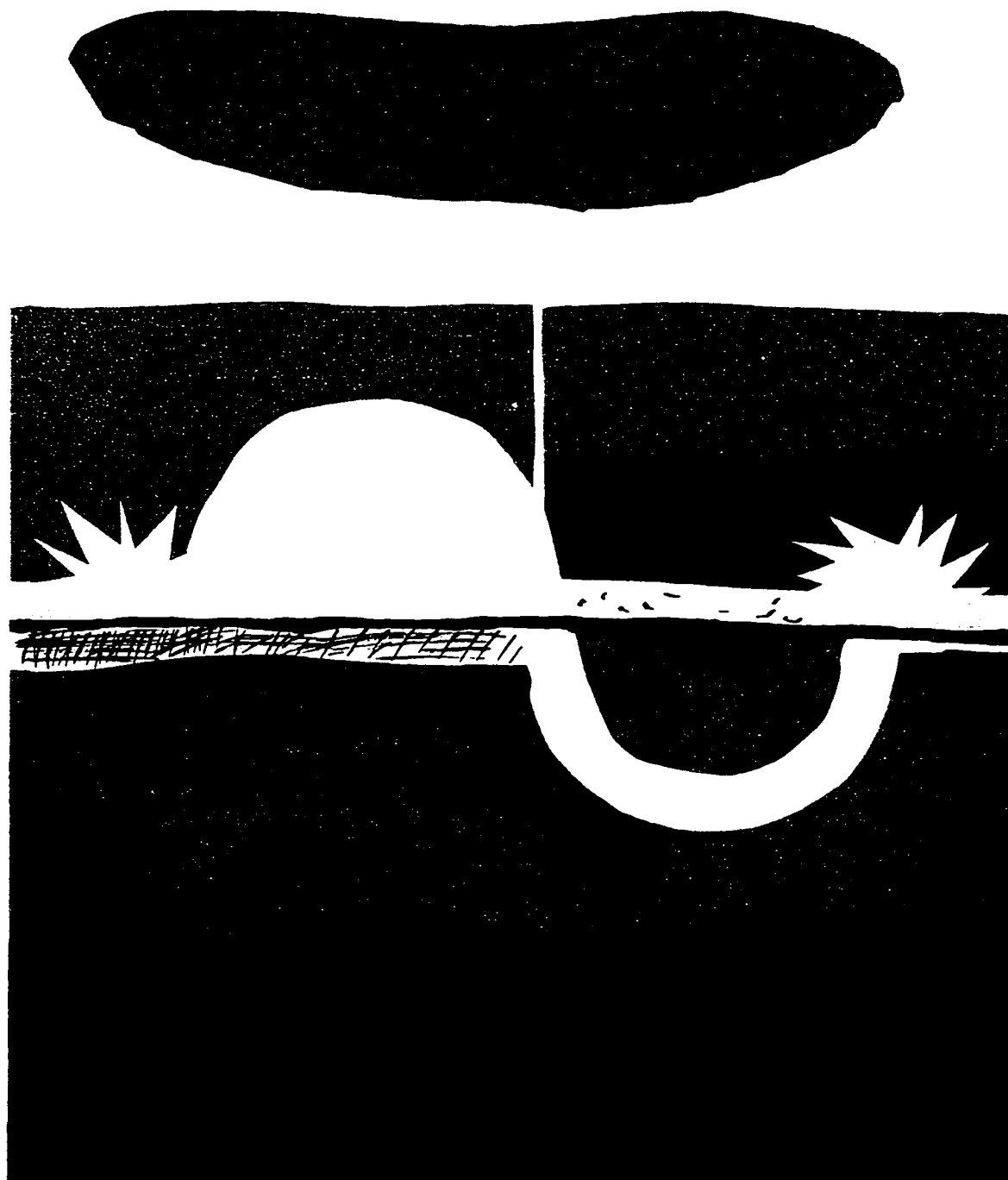


3.17. Saison de l'Eau Pavilion, structural roof system.

3.18. Porte Maillot Project-B, sketch of structural roof system.

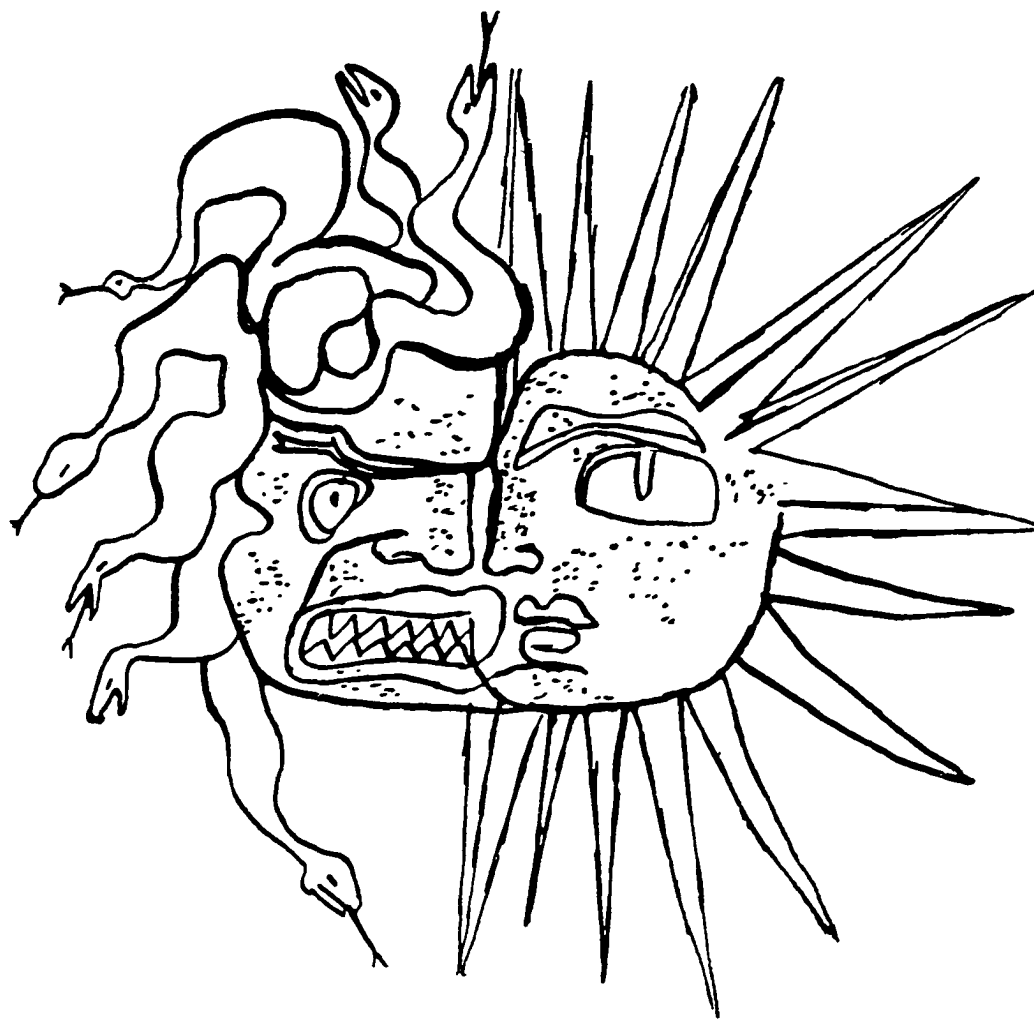


3.19. Le Corbusier, image of solar movement on cover of L'Urbanisme est un clef booklet, 1966.



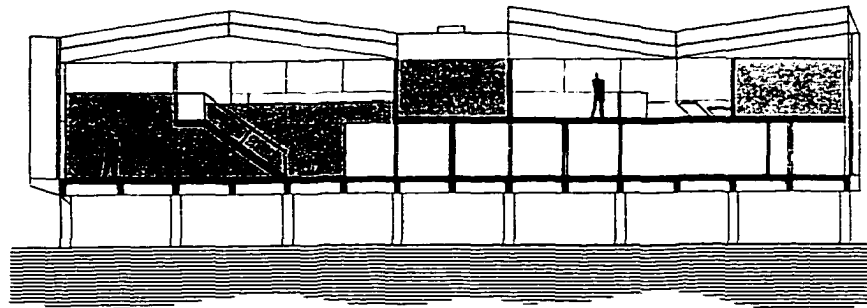
3.20. Le Corbusier, "A.1 solar process" lithograph from Le Poème de l'angle droit.

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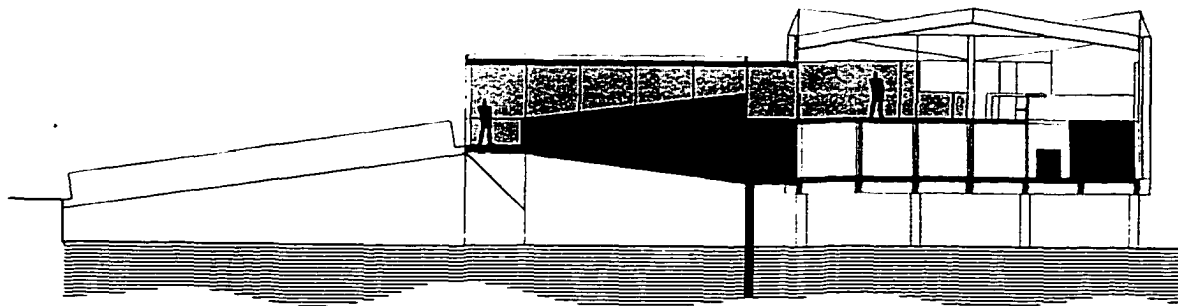


3.21. Le Corbusier, 1945, solar image.

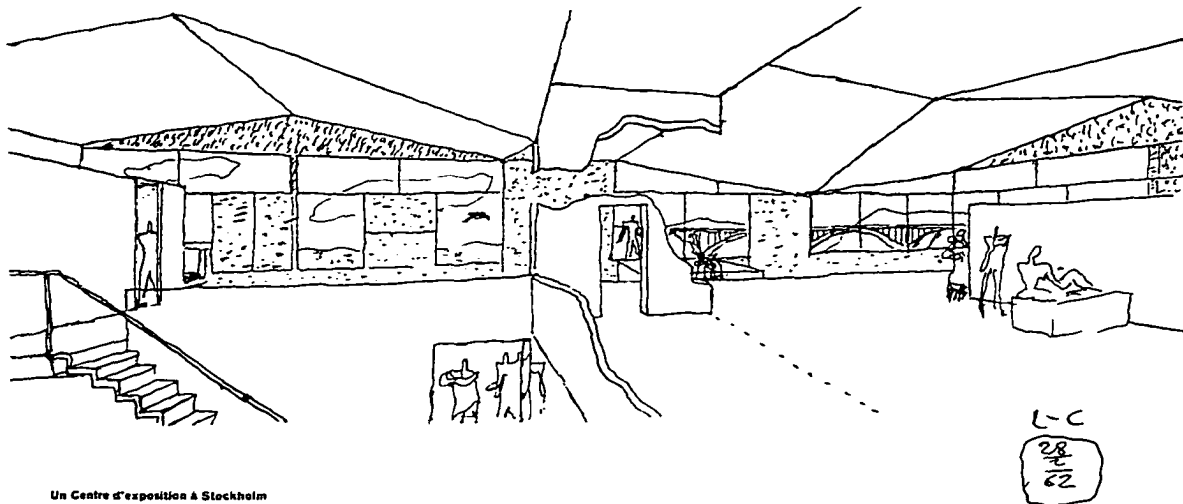
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Coupe longitudinale est-ouest. Echelle 1: 250



Coupe transversale nord-sud. Echelle 1: 250

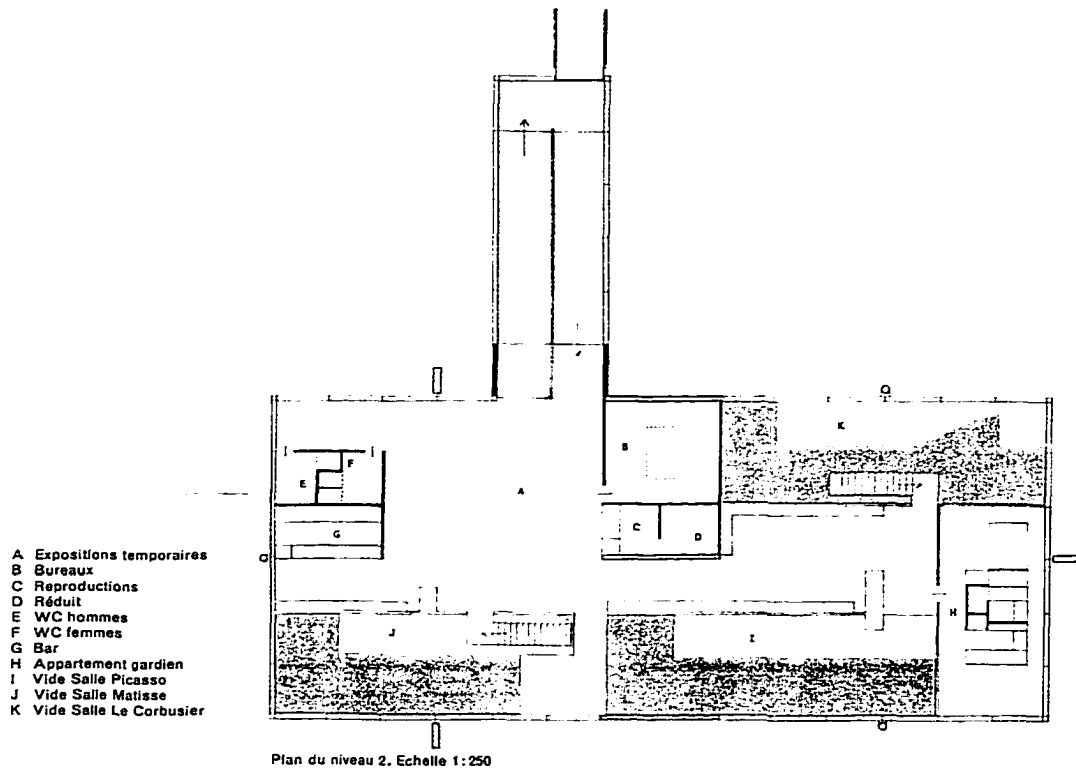
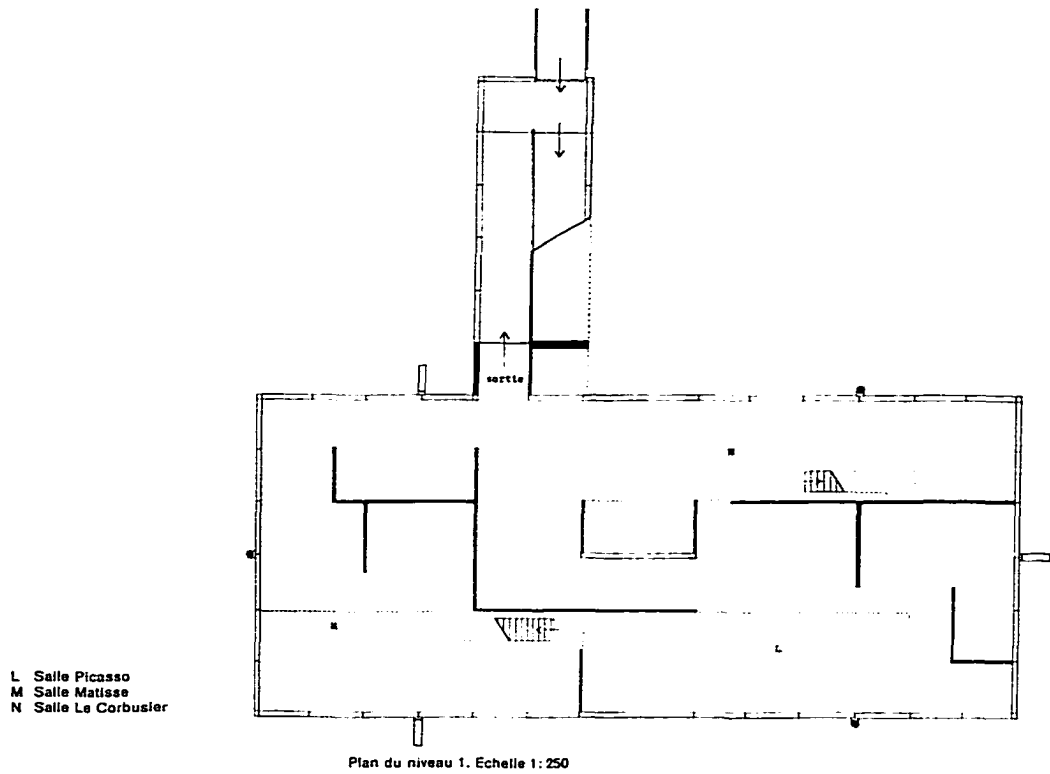


Un Centre d'exposition à Stockholm

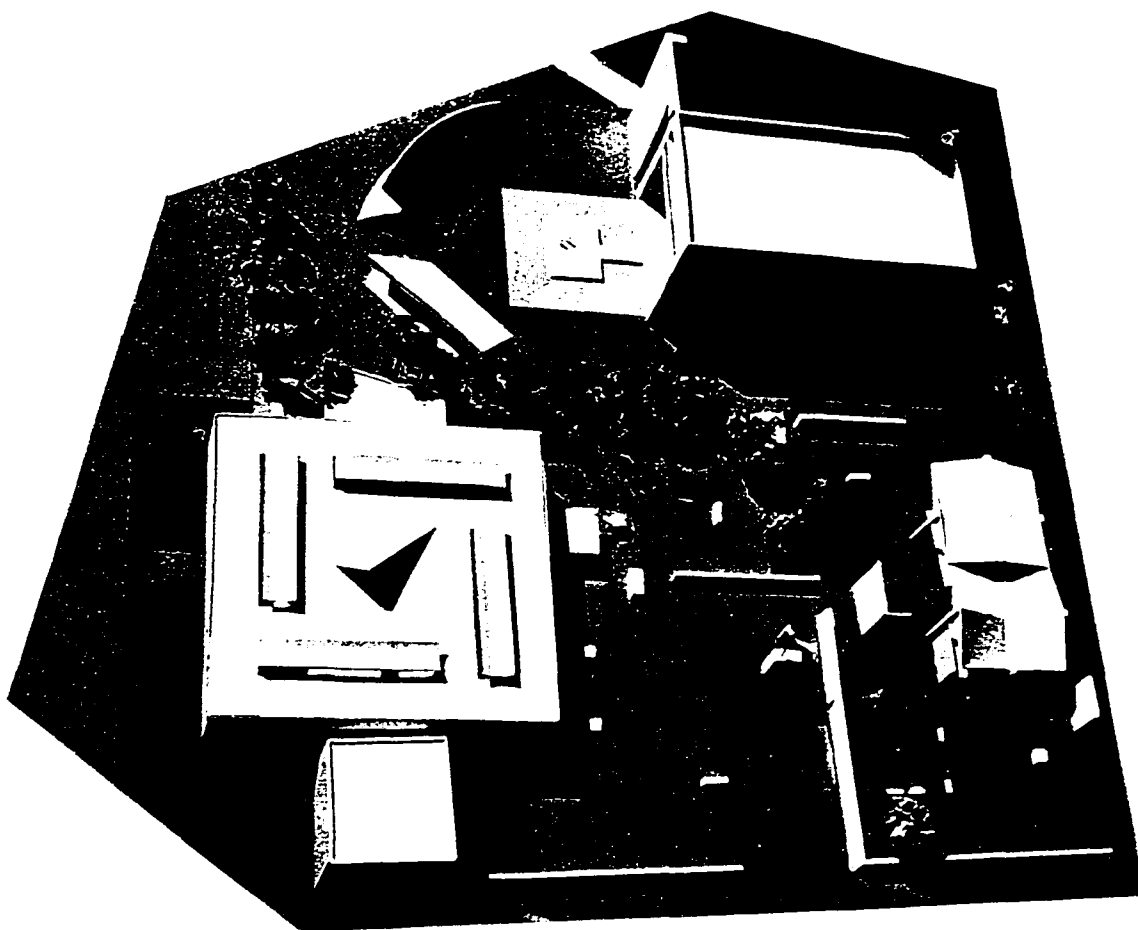
L-C  
28  
62

3.22. Le Corbusier, Exhibition Hall in Stockholm, 1962, east-west longitudinal and north-south transversal sections.

3.23. Exhibition Hall in Stockholm, interior sketch.

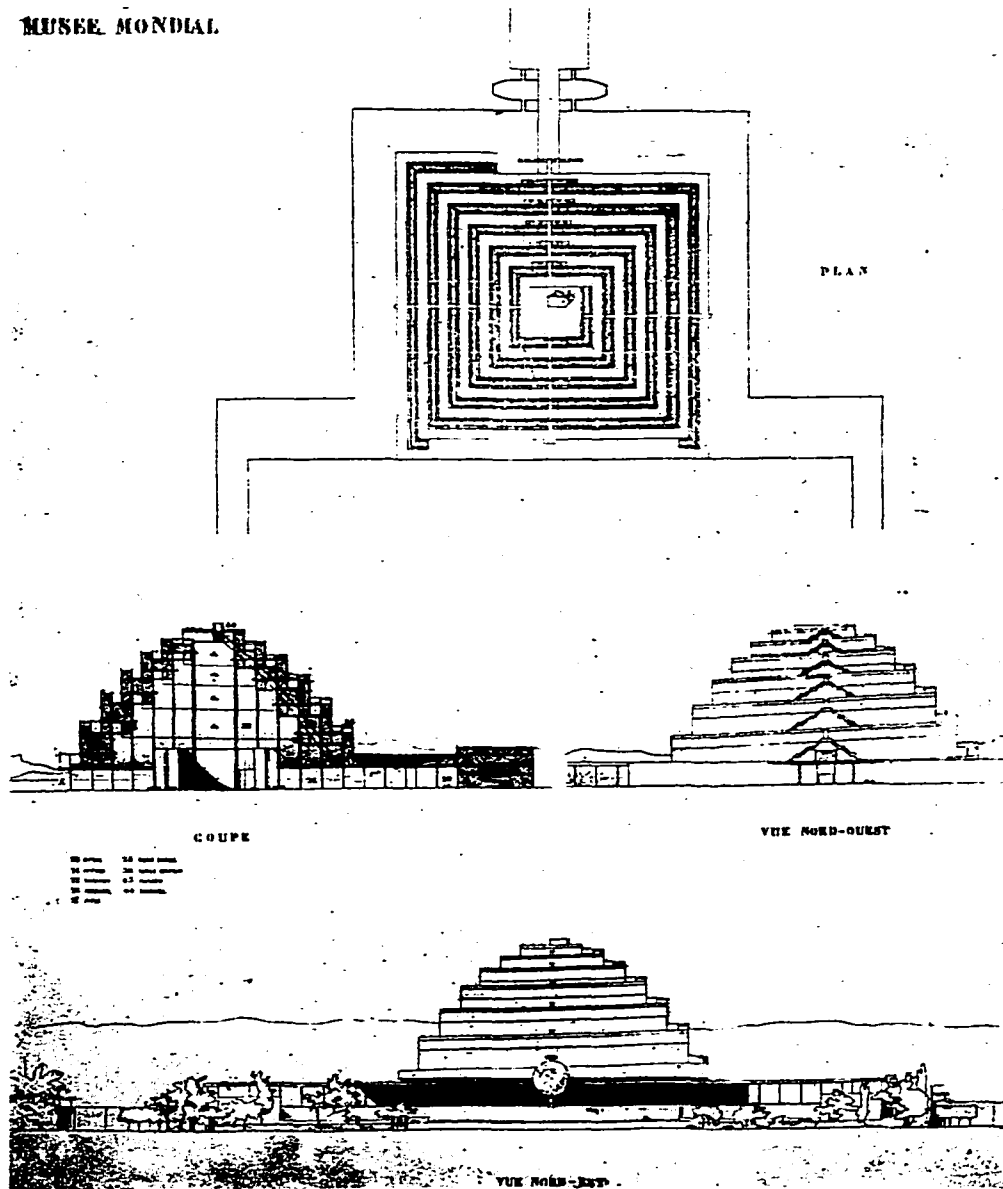


### 3.24. Exhibition Hall in Stockholm, second and first level plans.

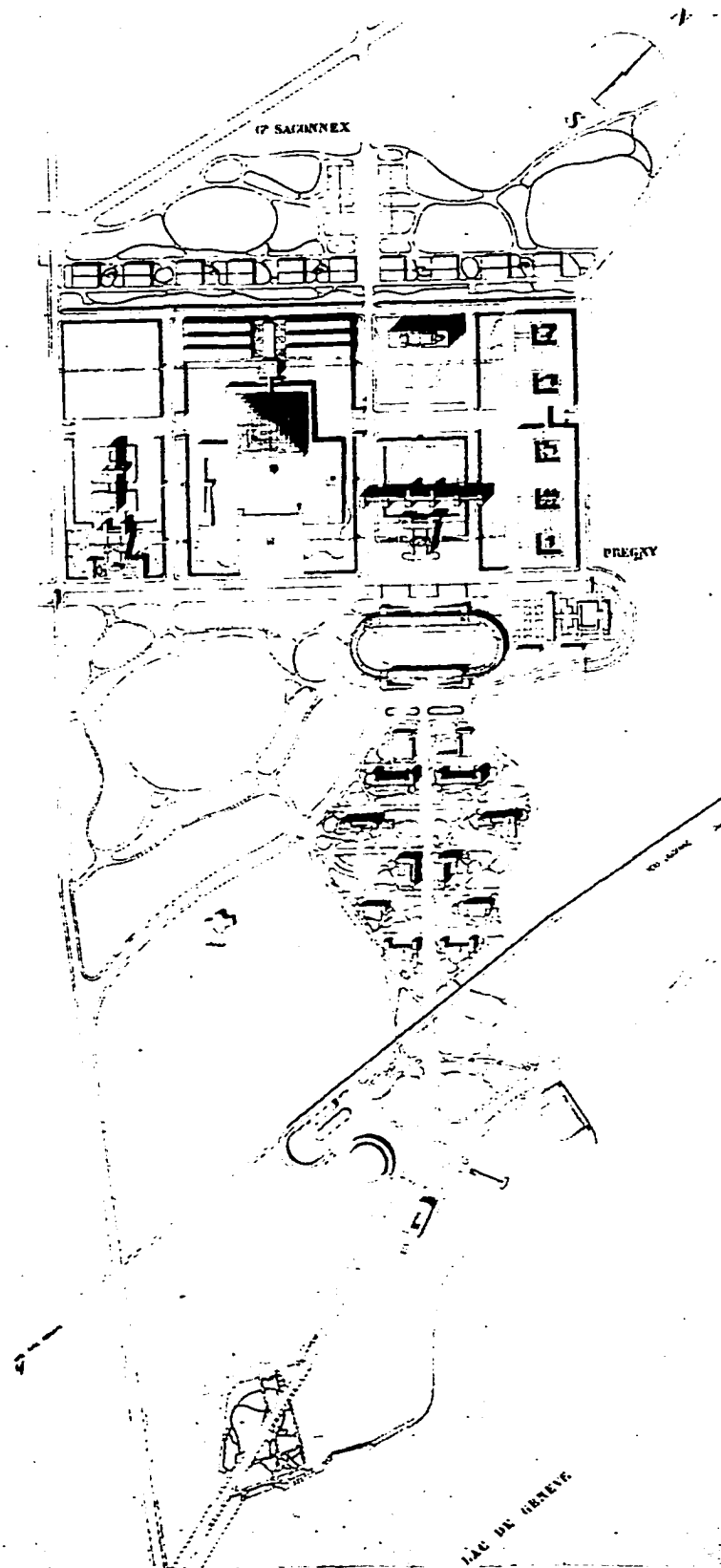


3.25. Le Corbusier, National Museum of Western Arts in Tokyo, 1957-1959, model.

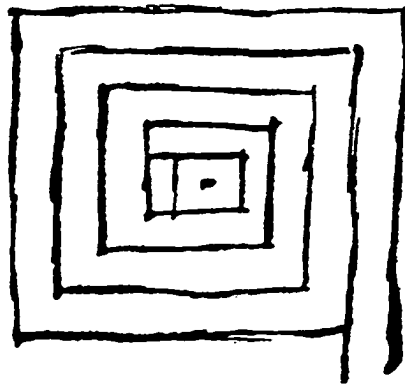
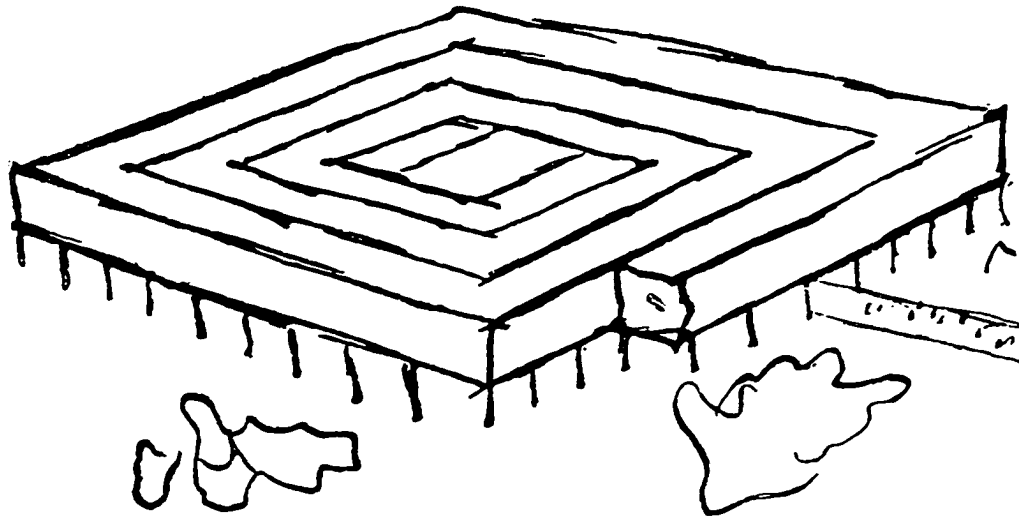
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**MUSEE MONDIAL**

3.26. Le Corbusier, Mundaneum World Museum in Geneva, 1929, plan, section, and elevations.



3.27. Mundaneum, site plan.

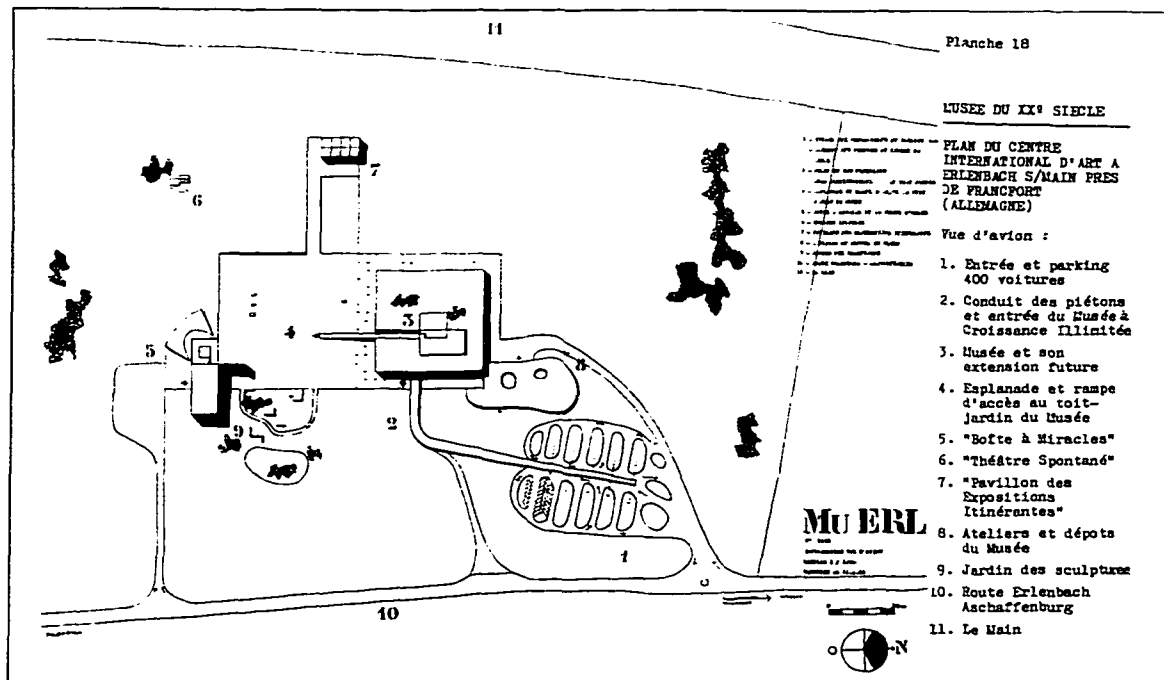
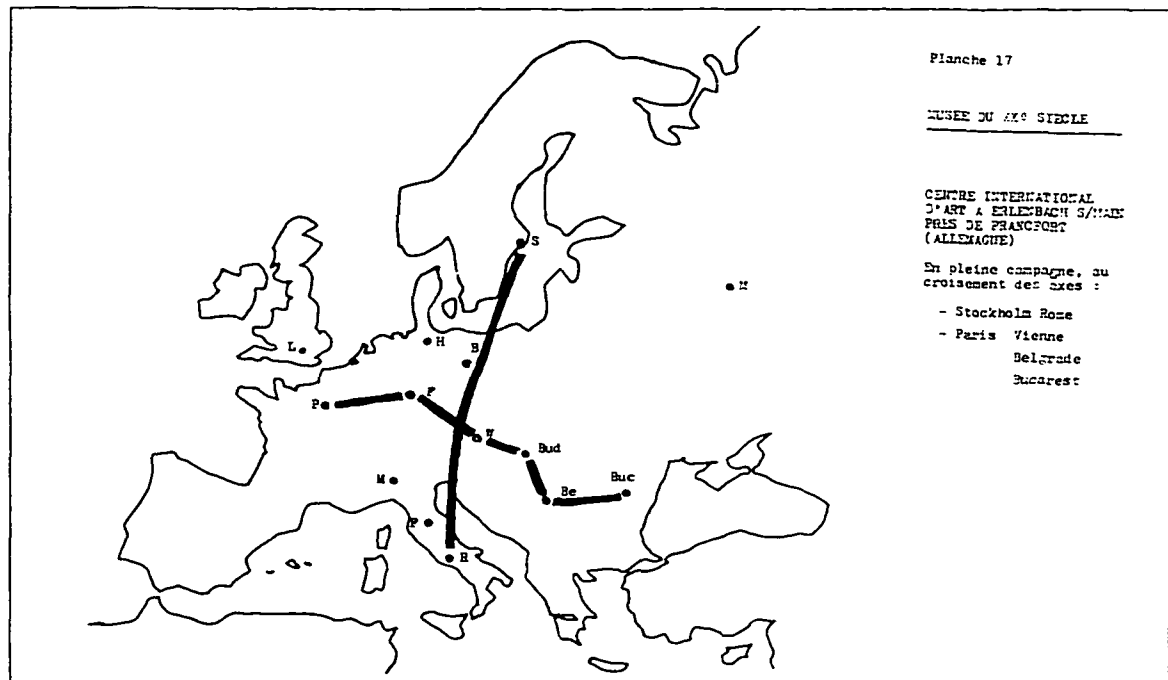


3.28. Le Corbusier, Museum of Unlimited Growth prototype, 1930.

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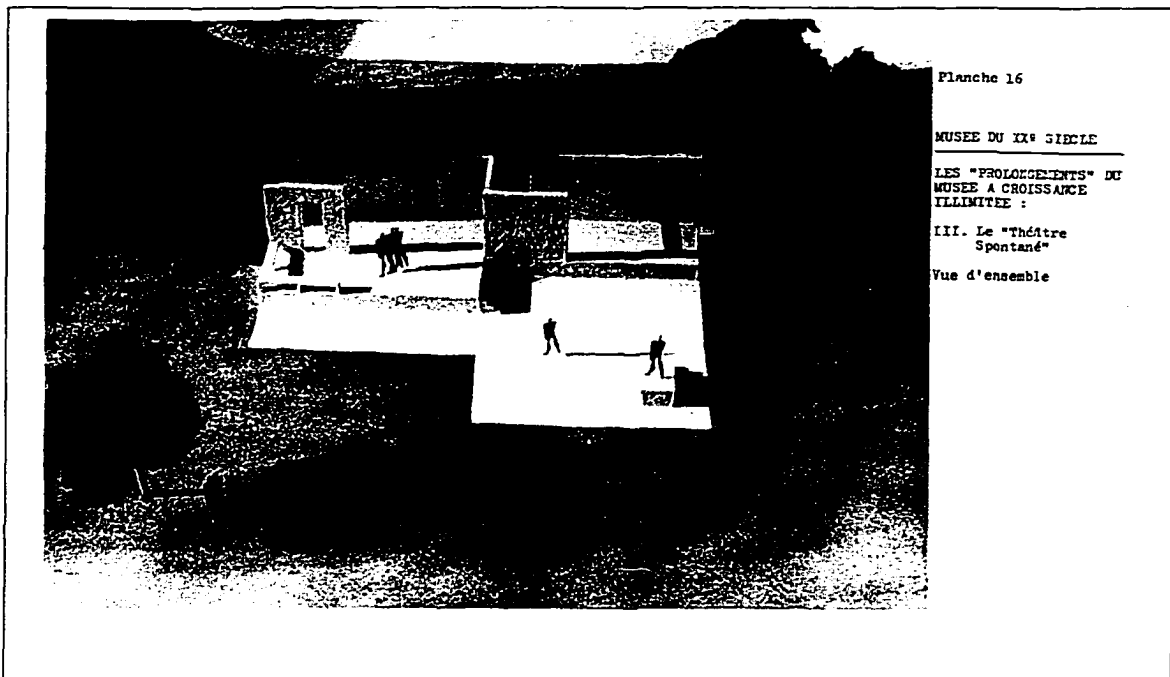
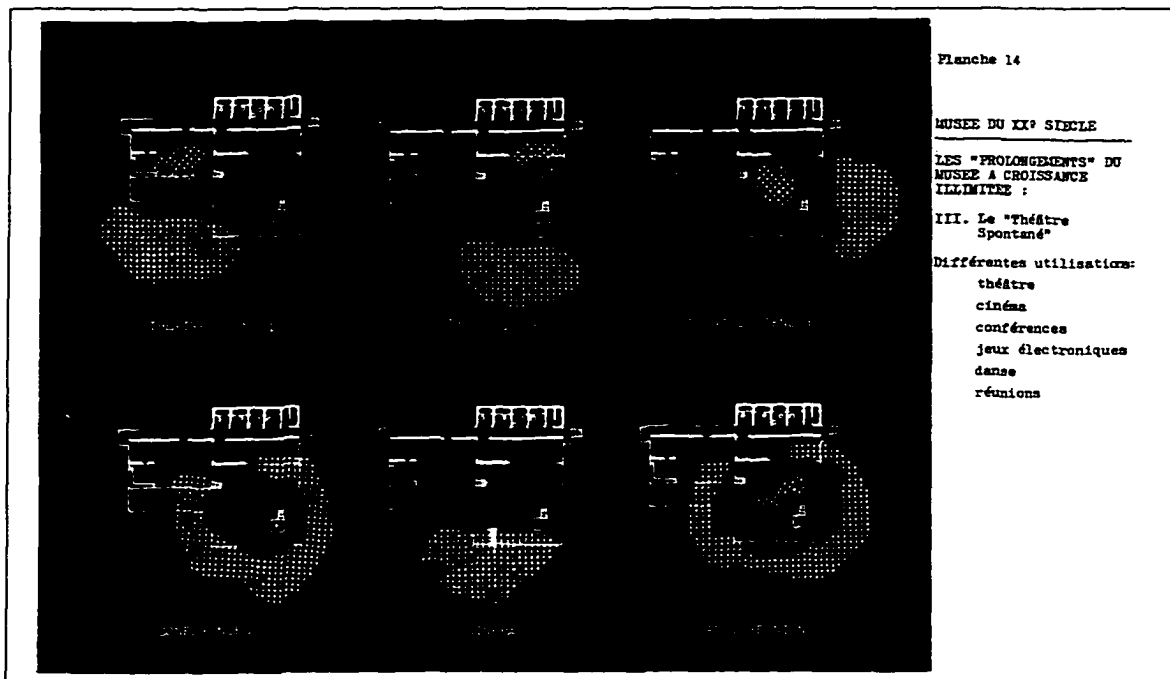


3.29. Le Corbusier, Monastery Sainte-Marie-de-la-Tourette in Eveux, 1957-1960, north-west corner view of the chapel.

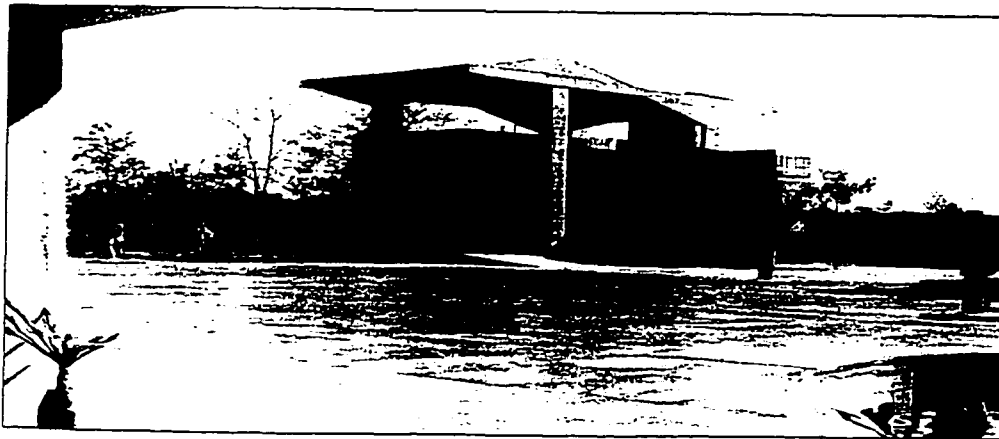
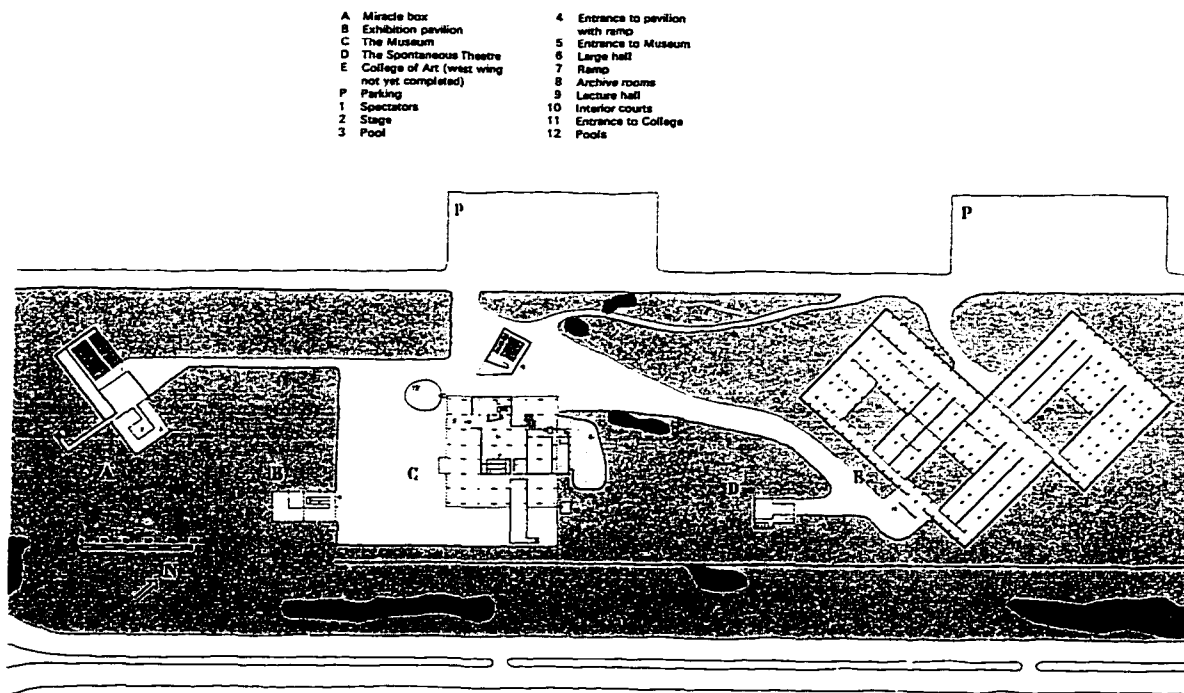


3.30. Le Corbusier, International Art Center at Erlenbach, 1963, map showing Erlenbach situated at the crossing of important European cities.

3.31. International Art Center at Erlenbach, site plan.



- 3.32. International Art Center at Erlenbach, "spontaneous theater," plan.  
 3.33. International Art Center at Erlenbach, "spontaneous theater," model.

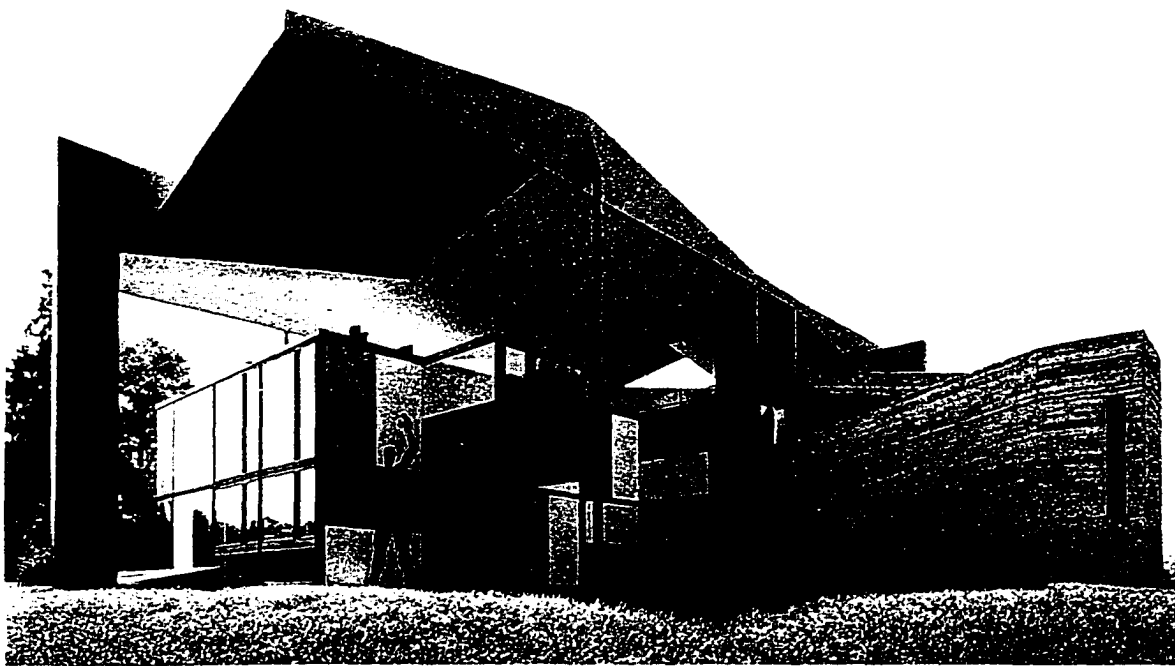
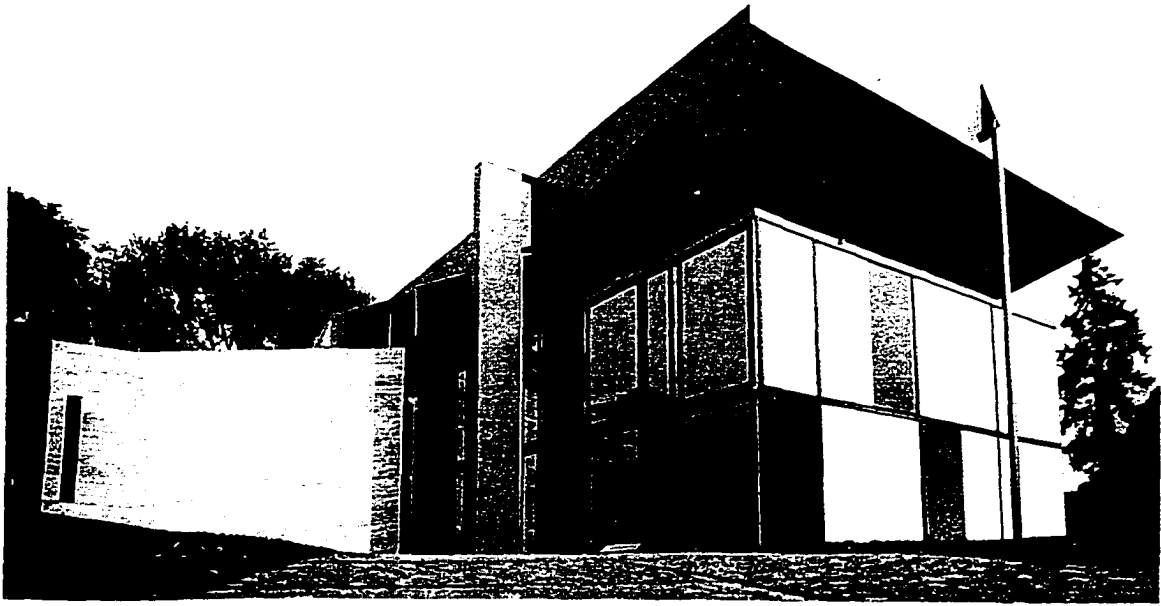


3.34. Le Corbusier, Museum and Art Gallery in Chandigarh, 1964-1968, site plan.

3.35. Museum and Art Gallery in Chandigarh, Pavilion of Temporary Exhibitions, 1986, exterior view.



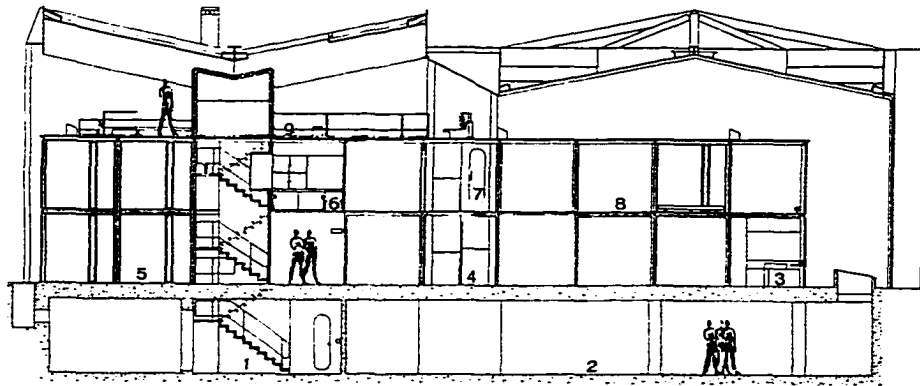
3.36. Le Corbusier, Centre Le Corbusier in Zurich, 1964-1967, aerial view.  
3.37. Centre Le Corbusier, exterior south view.



3.38. Centre Le Corbusier, exterior north-east view.

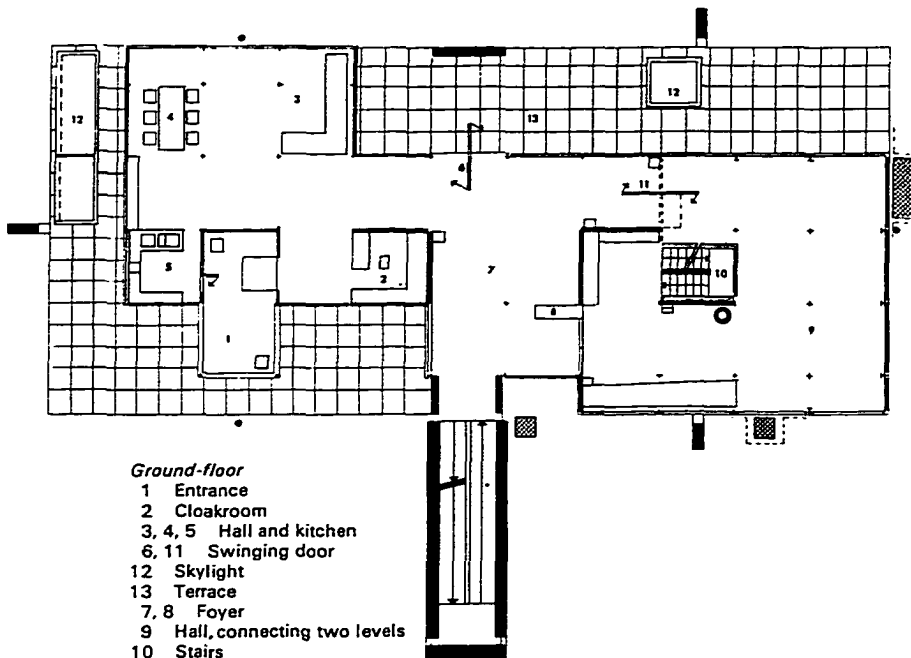
3.39. Centre Le Corbusier, exterior north-west view.

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*Longitudinal section*

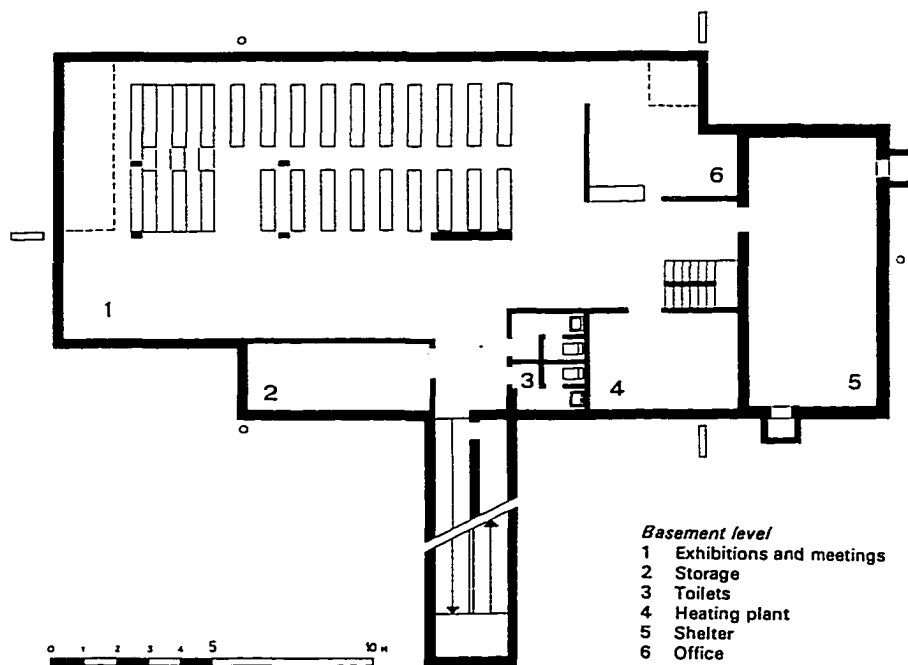
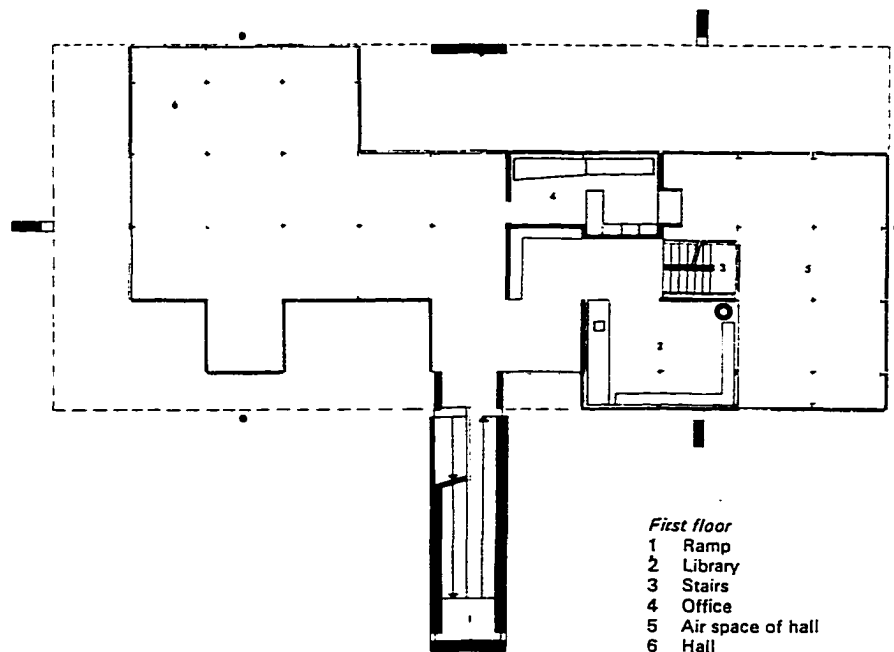
- 1 Stairs
- 2 Exhibitions
- 3 Hall on ground-floor and kitchen
- 4, 7 Ramp
- 5 Hall, connecting two levels
- 6 Office
- 8 Hall on first floor
- 9 Rooftop terrace



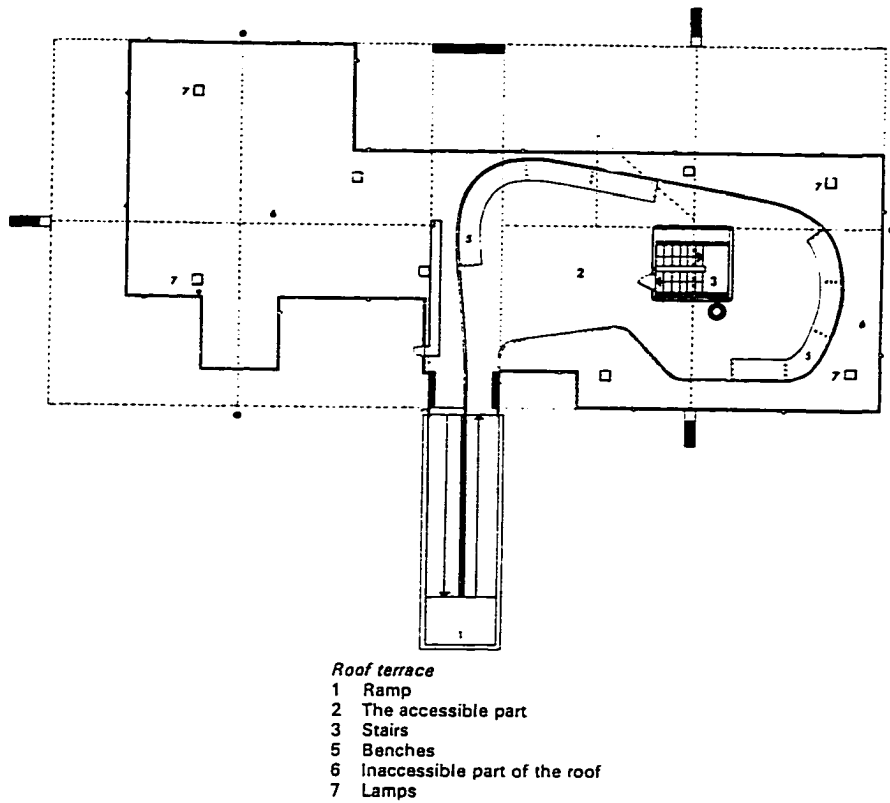
*Ground-floor*

- 1 Entrance
- 2 Cloakroom
- 3, 4, 5 Hall and kitchen
- 6, 11 Swinging door
- 12 Skylight
- 13 Terrace
- 7, 8 Foyer
- 9 Hall, connecting two levels
- 10 Stairs

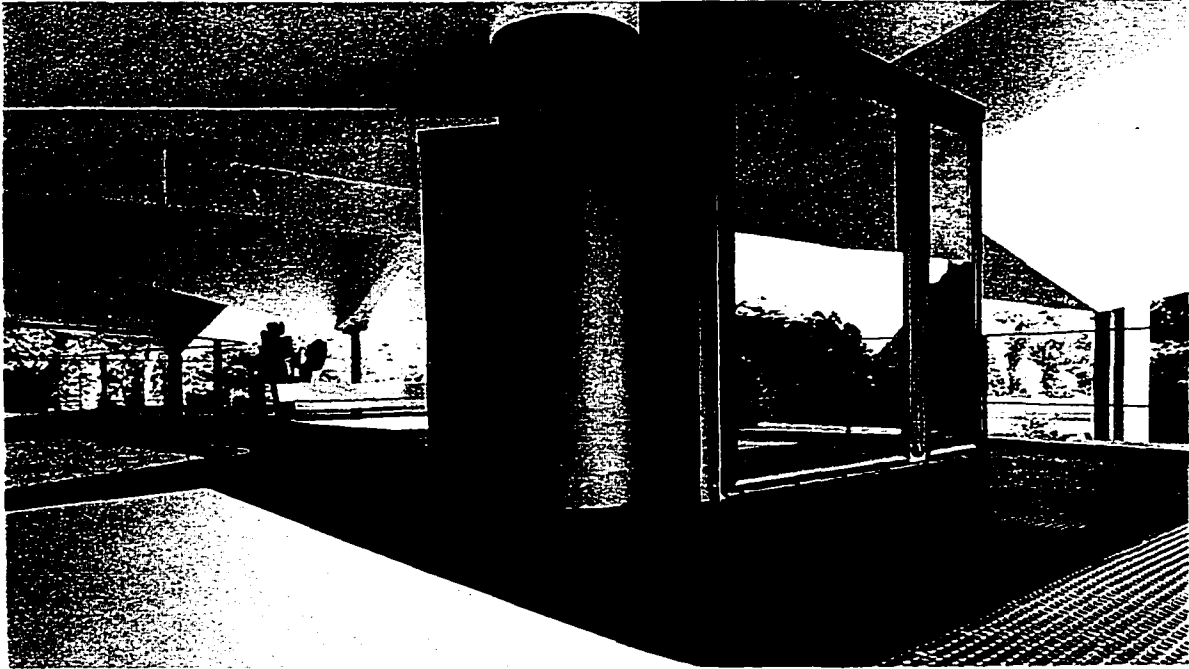
3.40. Centre Le Corbusier, ground floor plan and longitudinal section.



3.41. Centre Le Corbusier, first floor and basement plans.

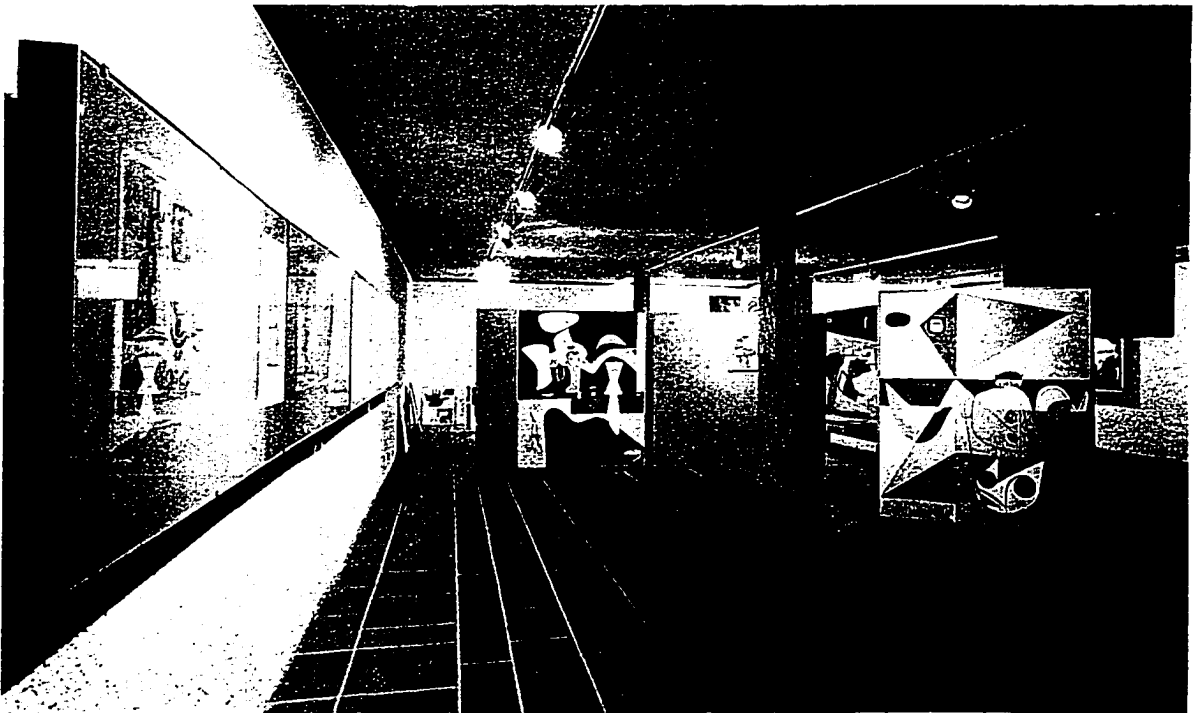
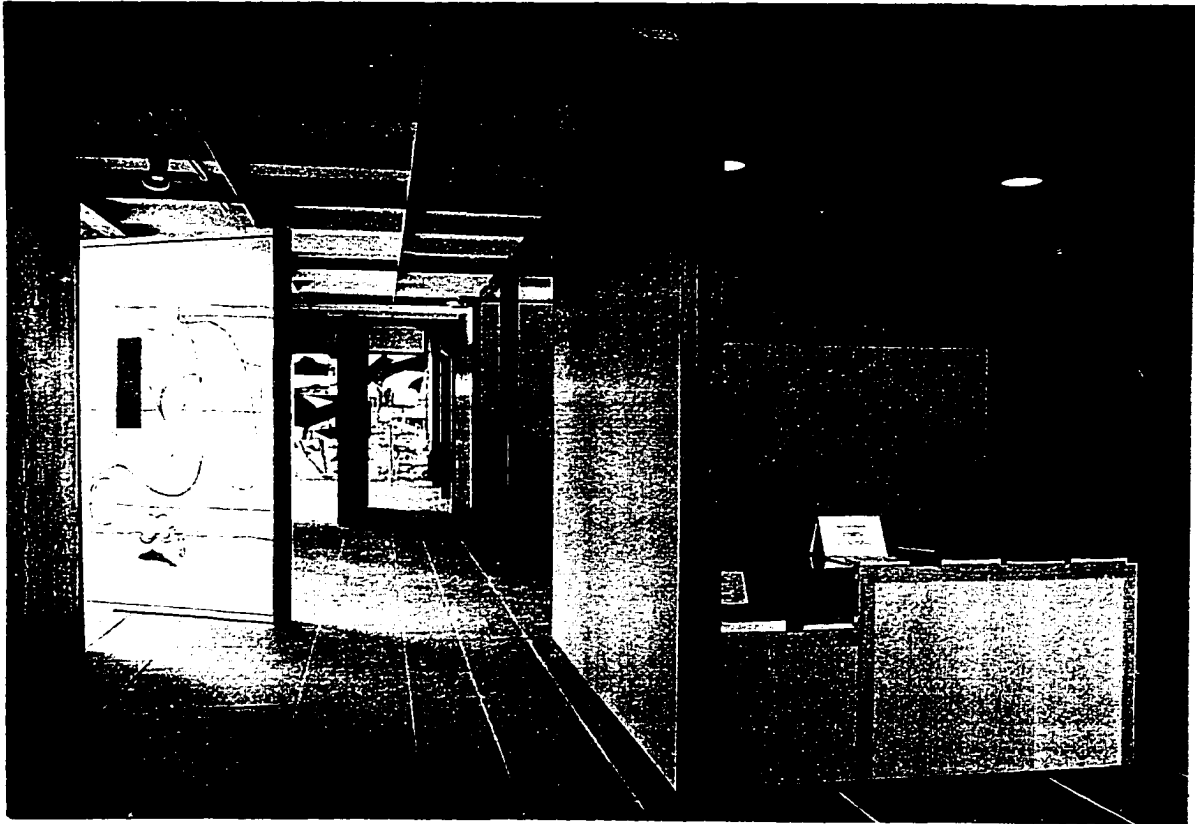


### 3.42. Centre Le Corbusier, roof terrace plan.



3.43. Centre Le Corbusier, roof terrace view.

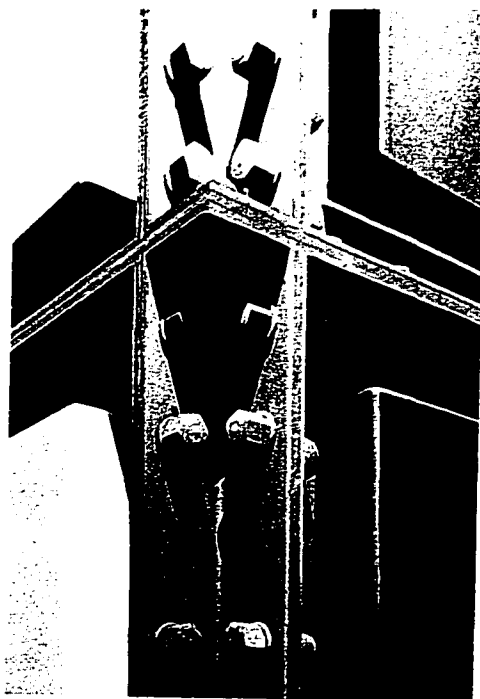
3.44. Centre Le Corbusier, roof terrace view.



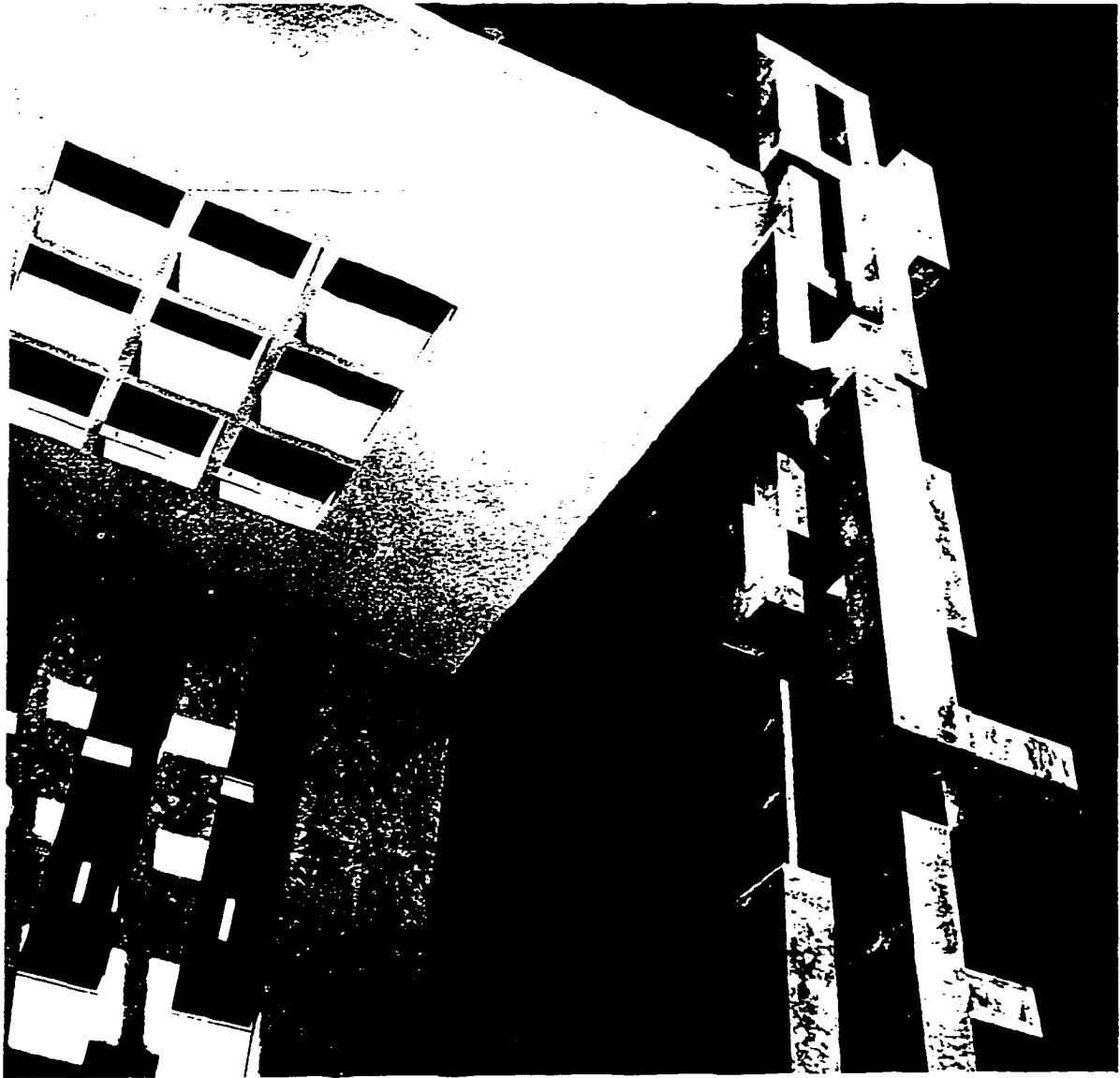
3.45. Centre Le Corbusier, ground floor interior view.

3.46. Centre Le Corbusier, basement floor interior view.

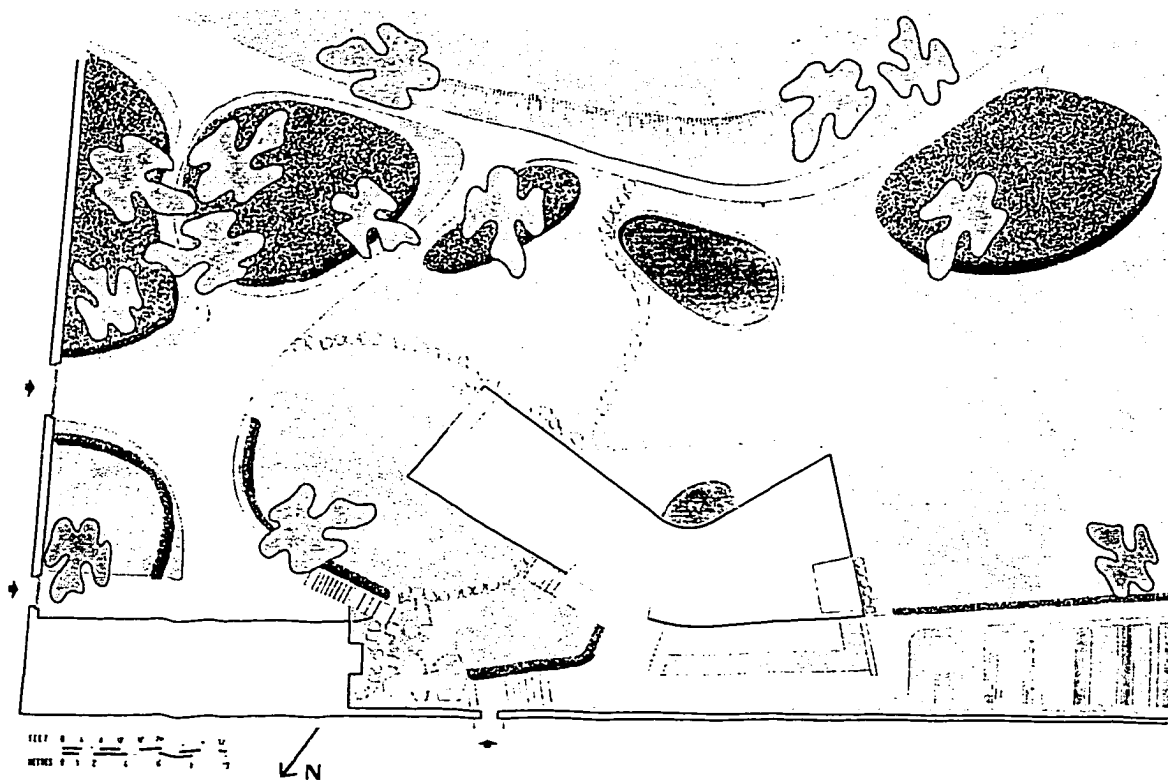
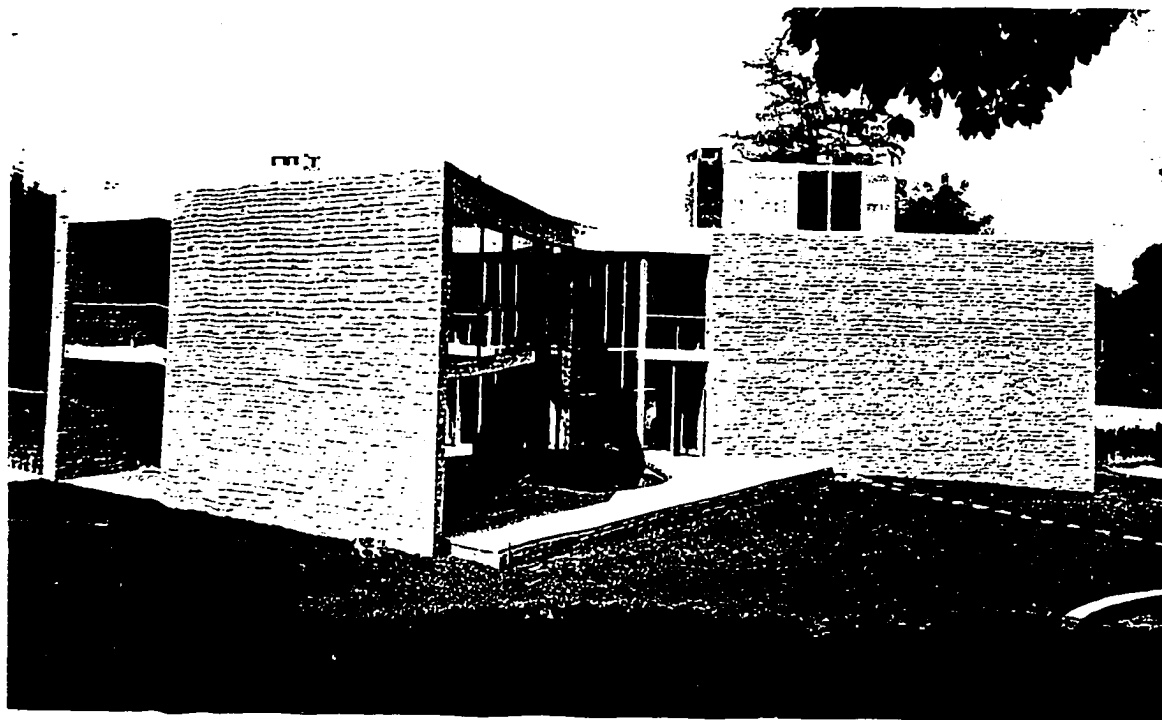




3.48. Centre Le Corbusier, north hall interior view.  
3.49. Centre Le Corbusier, entrance detail.

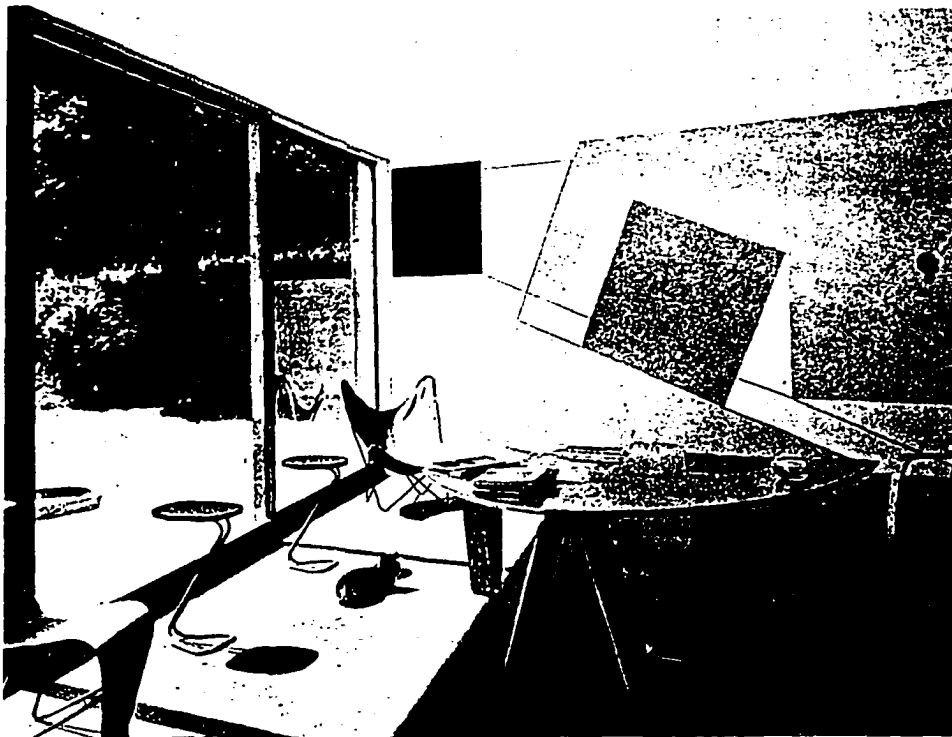
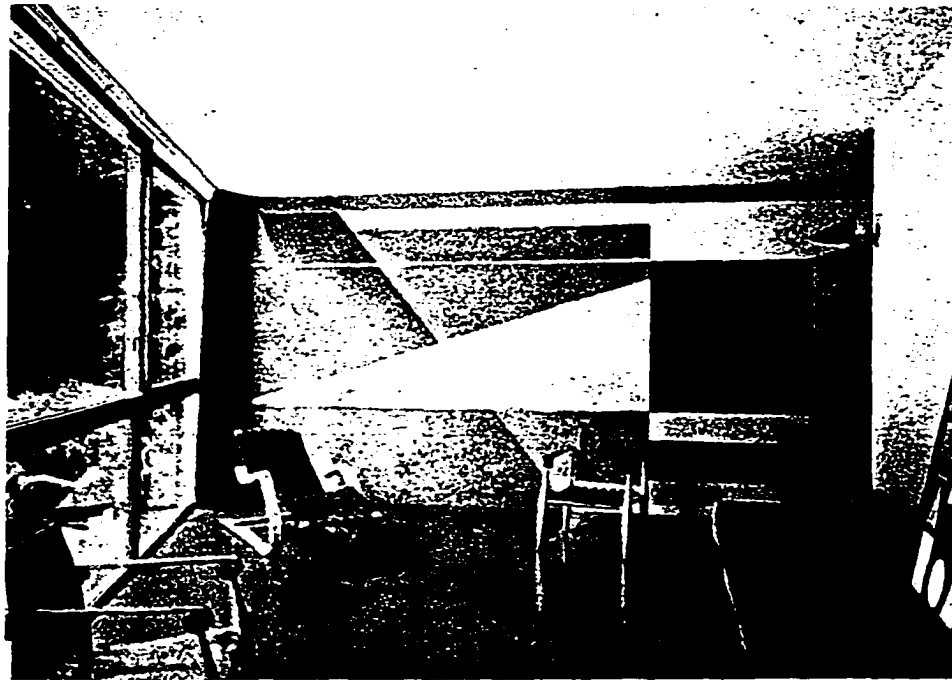


3.50. André Bloc, "Signal" concrete sculpture placed at the Senator's Palace in Teheran, 1949.



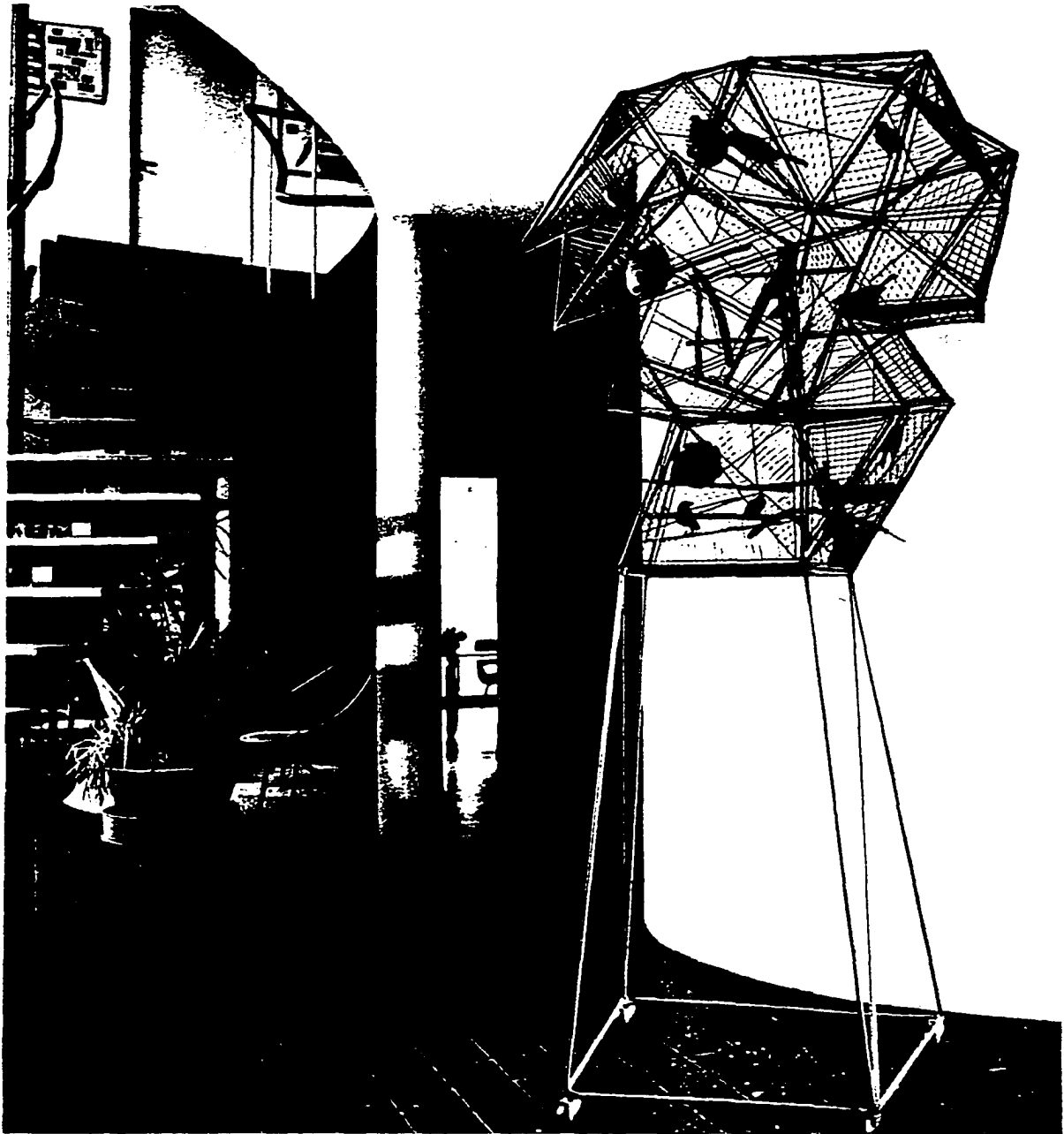
3.51. Bloc, Maison du Sculpteur in Meudon, 1949, exterior view.

3.52. Maison du Sculpteur, site plan.



3.53. Maison du Sculpteur, interior view.

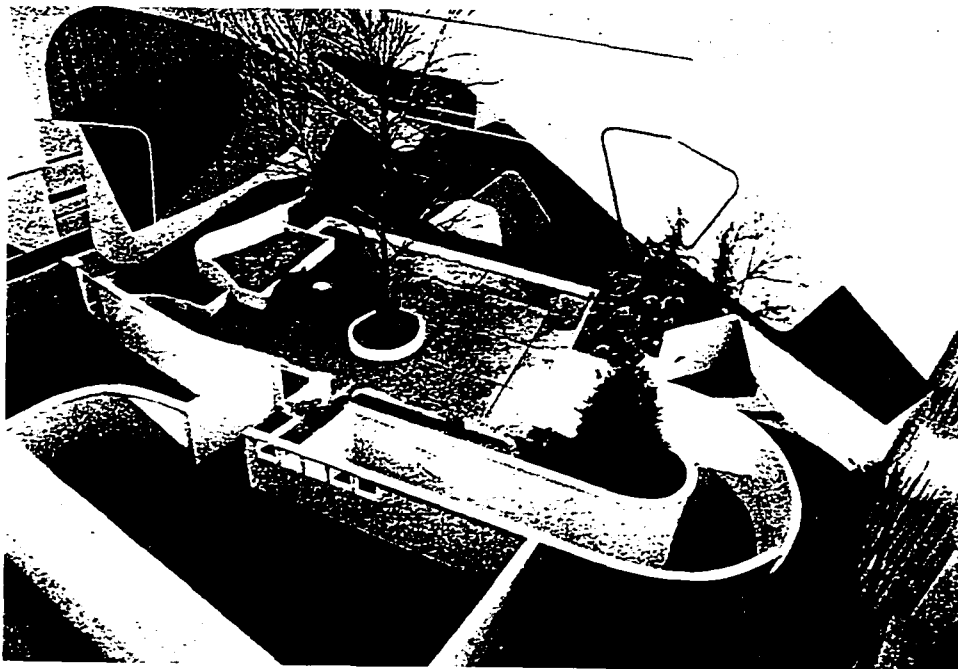
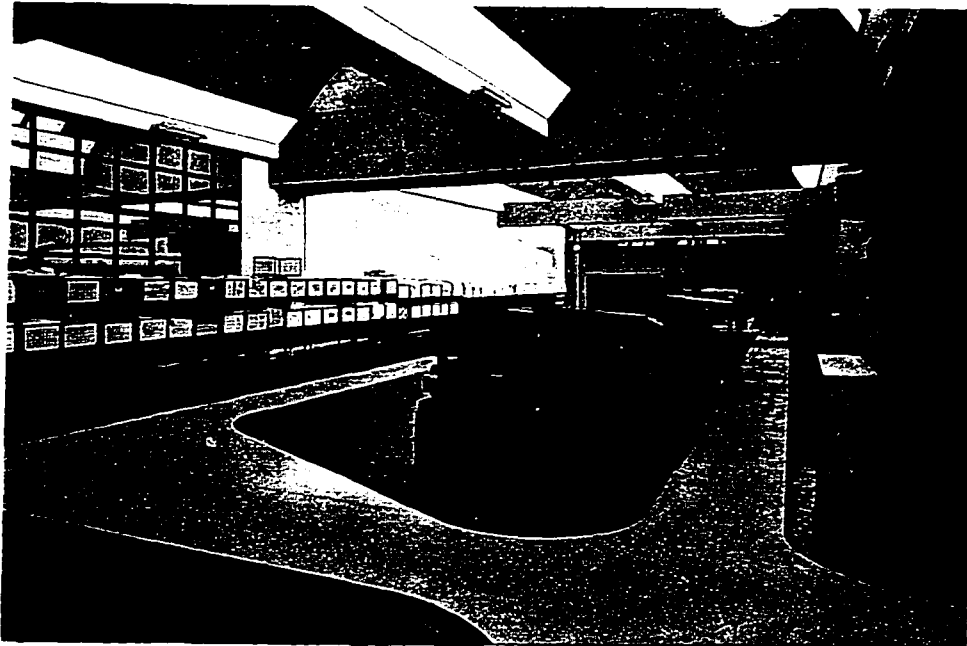
3.54. Maison du Sculpteur, interior view.



3.55. Maison du Sculpteur, bird cage.

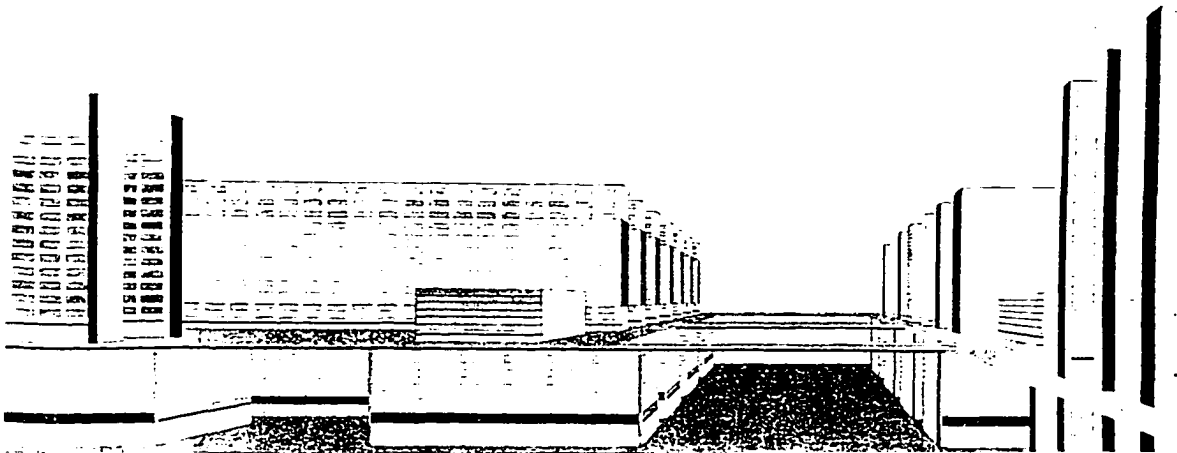
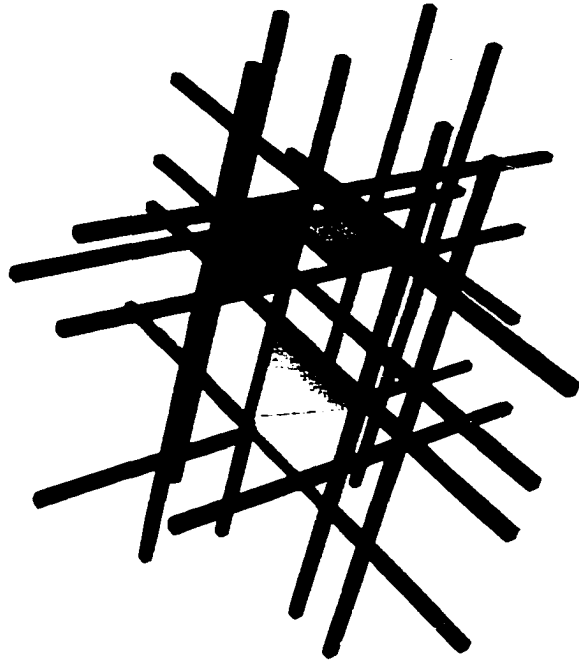


3.56. Bloc, "Sculpture-habitacle," interior view with Bloc standing within.



3.57. Architects Bernard Henri Zehrfuss and Drieu Rochelle, and artist Edgard Pillet, Usine Mame in Tours, interior view.

3.58. Architect Jean Ginsberg and artist Wilfredo Arcay, Rue Chardon-Lagache apartment building, garden view.



3.59. Jean Gorin, model of a monumental construction for a modern city, 1950.

3.60. Félix Del Marle, project to polychrome a city, 1950.

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## Appendix 1

### Bridgwater Questionnaire - 1947

#### Introduction

There is no doubt that art has a different meaning for our period than it had for the previous periods. The purpose of this questionnaire is to crystallize that meaning.

To beautify a building is an eternal emotional need of the people and how to satisfy that need today is an urgent problem. It is no longer possible to cover walls indiscriminately with murals as during the Renaissance or to open up the ceiling with celestial illusions as during the Baroque period. The floor must certainly be treated differently from the mosaics of Roman times.

Many of the most creative architects of our time are only able to execute a small fraction of their life's work, and artists inspired by the modern spirit are normally completely banned from public work. How can they develop contact with people, if all public works are in the hands of "routiners" and businessmen? In earlier periods it would have been possible for the artists to tackle the problems upon the site from the very beginning of the work. Under present conditions it seems necessary for the general problems to be clarified by a homogeneous international body, such as the CIAM, one accustomed to show the way, before their importance will be realized.

It has always been the duty of CIAM to take the lead in vital and urgent problems.

### The Impact of Contemporary Conditions Upon Architectural Expression

#### 1. The Impact of Technical Developments

- a) What are the particular aesthetic problems presented to the architect who designs in standard units?
- b) What part should the architect play in the standardization of building components by government or other authorities?
- c) Are there any systems of proportion and scale which can be fruitfully applied to the manufacture of components or the composition of buildings?

#### 2. The Impact of Social Developments (by Richards and MARS Group)

- a) Are the creative opportunities of the individual architects threatened by the centralization necessary to build on a large scale?
- b) Does modern architecture require the operation of a single dominating mind, or should it be the product of team-work?
- c) Should the architect investigate the reasons behind the public's expressed opinions on matters of architectural expression and allow himself to be influenced by them?
- d) Or should the architect, taking account of the fact that, as had been vividly shown in years of war, man is a rapidly adaptable creature, pursue with all his force the crystallization of his own architectural concepts?

e) Can architectural expression, in the case of focal buildings be developed so as to satisfy people's emotional needs by the use of allied contemporary arts?

3. The Impact of the Sister Arts: "Relation between architect, painter, and sculptor" (by Giedion and Arp)

a) What do you consider could be the function of painting and sculpture in the domain of architecture?

b) Do you believe that co-operation between architect, painter, and sculptor is really possible, in the present stage of development? And if so what new results might be achieved from this? How in your opinion could this practical co-operation be achieved?

i) Should the architect, painter, and sculptor co-operate from the very beginning, so as to strengthen the emotional and symbolic content of the architecture?

ii) If so, how do you propose to overcome the obvious difficulties resulting from the present day separation of the three arts?

iii) To what extent, if at all, should the initiative be given on particular projects to the painter or sculptor, rather than the architect?

(From Giedion, A Decade of New Architecture, pp. 31-32.)

## Appendix 2

### Bergamo Questionnaire - 1949

#### Questionnaire on the Synthesis of the Major Arts (by Giedion and Arp)

1. What do you think is the role of art (painting and sculpture) in the domain of architecture?

a) Should it be limited to a purely decorative function?

b) Is the function of art to express symbolically, in a concrete form, the spirit that enlivens an architectural work?

2. Is it possible today to envision, from the beginning, a teamwork between architect, painter, and sculptor, leading to a stronger bond between the three?

3. If a creative collaboration between architect, painter, and sculptor is possible, in what way should the work be regulated?

a) Should it intervene from the start, in order to intensify the spiritual and emotional potential of architecture?

b) Should the architect have finished his project before contacting the painter and the sculptor, as has been done since the decline of architecture in the nineteenth century?

c) Do you believe that in certain projects the initiative should be given to the painter or sculptor rather than to the architect?

d) Do you have any suggestions how a collaboration should be differentiated according to the specific requirements of a building (structures of collective interest, theaters, museums, townhouses, etc.)?

4. Can a collaborative work be done before the preponderant mind of the individual is profoundly transformed (the vain and egocentric specialist and his disregard for anonymity, leniency, respect for others)?
5. Can a collaborative work be done neglecting the primordial forces of the individual?
6. What do you expect, if a new synthesis of the arts happened between architecture, painting, and sculpture, and what experiences or suggestions to you have to offer regarding the use of painting or sculpture in the domain of architecture, landscape architecture, and urban planning?

(Translated by author from French text in Giedion, A Decade of New Architecture, pp. 38-39.)

Questionnaire sur la synthèse des arts majeurs

1. Que pensez-vous du rôle de l'art (peinture et sculpture) dans le domaine architectural?
  - a) Est-ce qu'il doit se limiter à une fonction purement décorative?
  - b) Est-ce qu'il est la fonction de l'art d'exprimer symboliquement, sous une forme concentrée, l'esprit qu'anime une réalisation architecturale?
2. Est-ce qu'il est possible aujourd'hui d'envisager, dès le commencement, un "team-work" entre architecte, sculpteur et peintre, conduisant à une amalgamation de plus en plus forte?
3. Si une communauté créatrice entre architecte, peintre et sculpteur est possible, de quelle manière pourrait être réglé le travail commun?

- a) Est-ce qu'elle doit intervenir dès le début, afin d'intensifier le potentiel spirituel et émotionnel de l'architecture?
- b) Est-ce que l'architecte doit avoir fini son projet avant de recourir au sculpteur et au peintre, comme c'est l'usage depuis la décadence de l'architecture au 19<sup>me</sup> siècle?
- c) Est-ce que vous croyez que l'initiative doit être dans certains projets donné au sculpteur ou peintre plutôt qu'à l'architecte?
- d) Est-ce que vous avez des propositions comment travail en communauté devrait être différencié d'après les exigences d'une bâtisse spécifique (constructions d'intérêt collectif, théâtre, musée, maison de ville, etc.)?
4. Un travail en communauté pourra-t-il se faire avant que la mentalité prépondérante de l'individu se transforme profondément (le spécialiste egocentrique, vaniteux et son dédain pour l'anonymat, l'indulgence, le respect pour l'autre)?
5. Le travail en communauté peut-il se réaliser en négligeant les forces primordiales de l'individu?
6. Qu'est-ce que vous attendez, si une nouvelle synthèse des arts s'effectuerait entre architecture, sculpture et peinture, et quelle expérience ou proposition avez-vous à communiquer concernant l'emploi de la peinture et de la sculpture dans les domaines de l'architecture propre, de l'architecture paysagiste et de l'urbanisme?

## Appendix 3

### In Search of a New Monumentality Symposium Questionnaire - 1948

1. How would you define Monumentality in architecture?
  - a) Is it identical with architecture of strong emotional impact?
  - b) Or would you emphasize other qualities?
2. Is the quality of Monumentality present in certain buildings of the twentieth century?
  - a) Is it confined to buildings in traditional idioms?
  - b) Is it present in buildings in the contemporary idiom?
  - c) May it be present without our noticing it, i.e., may future generations recognize Monumentality in buildings of ours which we do not to us seem to possess that quality?
3. Is the quality of Monumentality possible in buildings of the twentieth century?
  - a) If it is impossible, is it impossible because of the present form of society, i.e., does the possibility of monumental architecture depend on the social structure of an age? Or, perhaps, a unity of purpose in an age?
  - b) Is it impossible because the contemporary idiom is tantamount to functionalism, and functionalism excludes Monumentality?
  - c) Is it impossible, because the new materials (steel, concrete, glass, plastics, etc.) and the new techniques of construction exclude Monumentality?

4. Is the quality of Monumentality desirable in buildings of the twentieth century?

a) If so, should all types of buildings, or which specific types of buildings, possess that quality?

b) Should it be developed consciously, if need be. Or must it grow naturally?

c) Is it desirable regardless of the aesthetic value of the results obtained, i.e., does the social value of Monumentality justify aesthetic deficiencies?

5. Is Monumentality in certain buildings necessary, because an age cannot be considered healthy unless it is capable of monumental expression?

6. Is it possible that Monumentality in the twentieth century does not find expression in the individual building, but instead in:

a) the new town as a whole, the reconstructed urban area, etc., or the large-scale treatment of the landscape typical of the twentieth century,

- or -

b) painting, sculpture, and perhaps also, the non-visual arts?

7. Do you see signs of a gradual conquest of monumental expression in architecture in the contemporary idiom?

(From "In Search of a New Monumentality," Architectural Review [Sept., 1948], p. 128.)

## Appendix 4

### Unesco Freedom of the Artist Questionnaire - 1949

- A. 1. At the beginning of your career did you meet with any difficulties in the exercise of your art?
2. Have you received help from the public authorities, private institutions, or from private persons? In what form and in what manner?
3. Are you at the present moment receiving help from public authorities, private institutions or individuals? If so, in what form and in what manner? Prizes; grants; scholarships; orders; direct purchase by museums, libraries, etc.; publication by public authorities, private institutions or individuals; dissemination abroad by public authorities, private institutions or individuals; public displays organized by public authorities, private institutions or individuals?
4. What advantages do you derive from the help given by public authorities in the exercise of your art? Does it enable you to devote yourself to it with more freedom?
5. What advantages do you derive from the help given by private initiative in the exercise of your art? Does it enable you to devote yourself to it with more freedom?
6. Does the aid given by public authorities impose limitations on the exercise of your art? What kind? Subject matter? Form? Or does it, on the contrary, allow you full freedom of expression?

7. Does the help given by private initiative impose limitations on the exercise of your art? What kind? Subject matter? Form? Or does it, on the contrary, allow you full freedom of expression?
8. Which aid -- that given by public authorities, by private institutions or by individuals -- seems to you most compatible with the requirements of your art?
9. In your country, what are the conditions and financial possibilities offered to you in your particular branch of art by: publishing contracts; working contracts; copyright; rights of reproduction; rights of adaptation; rights of translation; other?
10. Do the contracts and agreements binding you and governing the relations on the commercial plane between your creative work and the commercial firms which have undertaken to disseminate it and serve as intermediaries between you and the public -- guarantee: your material independence; your freedom as an artist? If not, how do they encroach on either or both of them? What changes would you like to see made in the conditions imposed upon you?
11. What is your attitude to the use of your work for publicity purposes?
12. Have you had cause for dissatisfaction or satisfaction with those who by press articles, criticism or broadcasts, etc., have been the intermediaries between your work and the public?
13. Do the present legal and economic regulations on the international level enable you (or your publishers or commercial agents): to make your work

known abroad? to earn money abroad? in particular, do you encounter difficulties resulting from customs barriers?

14. How does taxation affect your professional activity? (In particular, income tax, social security or social insurance, state taxation, municipal taxation, taxation for relief purposes, etc.)

15. What obstacles arise between your conception of the work and its material realization or production before the public. (For instance difficulty of the painter in purchasing canvases and colors; difficulty for the sculptor in purchasing materials of all kinds; difficulty for the composer in obtaining the reproduction of scores, interpreters, etc.)

16. Are you easily able to find the premises necessary for the normal exercise of your art (for instance, a studio, if you are a painter or sculptor)? Is housing a policy in your country (including regulations, legislation, custom) favorable to you or not? What suggestions have you to make in this respect?

17. Does your creative work provide for your material existence or do you engage in other work? In the latter case, is it purely from necessity or by your own choice?

18. Are there professional associations in your country belonging to your field of art? Is affiliation with these groups obligatory or optional? Does the exercise of your art depend on them? What are the resulting advantages or disadvantages?

19. Do you consider that you are free, in the exercise of your art, to deal with any subject whatsoever and in any manner whatsoever? If not, what positive

or negative constraints or limitations do you consider to be imposed upon you as regards: inspiration, subject, style, technique, the public which you address?

20. Do you feel free to examine, uphold or attack any institutions, ideologies, opinions, beliefs, prejudices, customs, fashions, etc., existing in your country or in your professional sphere?

21. Does the support which artists give to them involve for them, in your country, material or moral advantages? What are they? Or does it on the contrary, discredit them?

22. Does the fact of attacking them or not subscribe to them involve for the artist, in your country, difficulties or penalties? What are they? Or does either attitude bring the artist additional prestige or facilities?

23. Are there in your country one or more forms of censorship? Of what kind? Are they imposed by: the law? the influence of civil organizations? the influence of religious organizations? the influence of social organizations? the influence of political organizations? the influence of patriotic organizations? the influence military organizations? public opinion? other...? Do these forms of censorship encroach on the free exercise of your art? In what field: morals, public decency, politics, religion, aesthetics?

24. Is the dissemination of your work in foreign countries hindered by comparable censorship? Or what kind and to what extent?

25. Conversely, are you aware of obstacles in your own country to the dissemination of foreign works?

26. Is there freedom of competition between aesthetic formulas in your country?
27. Is the indifference of the artists in your country to moral, social, political, patriotic or religious questions desired, tolerated or frowned upon?
28. Is the making known of your work (painting, publication, stage or screen performances, musical performances, exhibitions, etc.) free or controlled (private enterprise, subjected to licensing, government monopoly)?

(From Unesco files 707.91, CL/238, Annex)

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