

LE CORBUSIER'S PATHS

How the magic is set in motion

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Elisabeth Blum

LE CORBUSIER'S PATHS

How the magic is set in motion

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Die Weg-Thematik bei L E C O R B U S I E R und ihre weltanschaulich-kulturellen Hintergründe

Thesis for the award of the title
Doctor of Science of the ETH Zurich
(Dr sc. ETH Zurich)

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“The gods perhaps, did they lead me by the hand at the beginning of this endeavour? (...) Pardon me, but since all my efforts since 1922 have been unceasingly based on the discovery of the virgin territory of the new age, can you imagine that such an effort can be explained by arguments of usefulness?”

Le Corbusier, *Le lyrisme des temps nouveaux*



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Foreword

Even before its publication, this book triggered reactions. One immediately understands why: Elisabeth Blum proposes an unexpected interpretation of Le Corbusier, which no longer emphasises the Cartesian rationality of the housing machine, the lyricism of the “volumes composed in light” or other traits of the master that have been elevated to the level of hagiography, as it were, but rather fundamental aspects of his education, which – according to the thesis – provided material for design throughout Le Corbusier’s entire life.

Le Corbusier’s most intimate, carefully concealed stance is revealed here, which has never been uncovered before. The starting point was an examination of the world of bourgeois decadence that has become alien to our mindset and that emerges so powerfully in the morbidly academic painting of Gustave Moreau, for example. By means of many quotations from researchers, theorists and romantics, such as J. L. M. Lauweriks, Maurice Denis, but especially Henry Provensal (*L’art de demain*, Paris 1904) and Edouard Schuré (*Les Grands Initiés*, Paris 1908), who were all influenced by the esoteric theories of the turn of the century and were known to Le Corbusier. Elisabeth Blum shows what function the “cosmic laws,” the “sublime” role of the artist, the superiority of geometry, the “cosmic reintegration” of man and building, even the concept of vibration and not least the *Grand Architecte de l’Univers* have in these circles. In his 1971 book *The Education of Le Corbusier. A Study of the Development of Le Corbusier’s Thought, 1900–1920*, Paul V. Turner had already referenced the works of Provensal and Schuré. The purpose of his dissertation, however, was to analyse the formative phase of Corbusier’s architecture. Turner has written an intellectual biography, whereas Elisabeth Blum attempts to describe the philosophical ideas and currents that determined Le Corbusier’s mindset. “The fact that this study concentrates on the intellectual themes of the young Jeanneret, and particularly on the books he read, in no way minimises the importance of other forces that helped to shape his work,” says Turner. According to him, it would even be “very necessary” to open up this unexplored area; this is precisely what the author has accomplished. She has placed Le Corbusier in a larger context. Her achievement is to have recognised the unexpectedly fundamental role of the many, in part unexplored, more or less reputable movements, groups, schools, artistic communities and also charlatans who dealt with the problems of esotericism between 1880 and 1914 in the education of the young Jeanneret. It also shows that Le Corbusier not only read Provensal and Schuré, among many other works, but that these two books were influential for him. After reading Provensal, Jeanneret decided to

become a “lighthouse” among artists himself, which may explain the megalomania of certain projects. Le Corbusier’s aim was therefore to embody the sublime representations of Provensal and Schuré. Hence the many texts by him that sound so mortally idealistic, even slightly exaggerated.

Here one could reply that the influence of such a world view, if any, came to an end with Jeanneret’s arrival in Paris. In the short biography that Le Corbusier wrote for the first volume of the *Oeuvre complète*, Germany is only mentioned in passing. Since living in Paris, he almost exclusively emphasised French events and personalities. However, the attitude of many French people towards Germany after the First World War is hardly sufficient to explain this fact. In my opinion, Le Corbusier wanted to conceal the true and deepest motives behind his architecture and his entire activity. In this debate, Elisabeth Blum presents her *pièce maîtresse* (key element), the analysis of the *Mundaneum* and the *Musée Mondial* (World Museum), both designed in 1929. Together with Paul Otlet, the *Mundaneum* was proclaimed as an “efficient instrument of the great worldly affairs of mankind”; its floor plan corresponds (in Werner Müller’s sense) to that of a “holy city.” Here, the comparative material is rich, which allows Blum to categorise this project in the series of historical *haute architecture*, in other words to ascribe to Le Corbusier the intention of indirectly asserting himself as the successor to the greatest *maîtres d’oeuvre* with this project. The presence of the crossroads and the right angle, laden with intrinsic meaning, on the one hand, and the concept of the navel of the world on the other, which underlie the organisation, or more precisely: the spiritual structure of the project, are the instruments chosen by Le Corbusier to create a *haut lieu* (significant place) for humanity. This special place would therefore not only be characterised by the worldly business of the programme but would rather serve to realise the human spirit. The *Cité Mondiale* is to be equated with the “monument of the great synthesis” in the sense of Provensal, which can and may only be realised by architects with a divine calling.

After the description of the cosmopolitan city, the *Musée Mondiale* is recognised as the heart and core of the complex. The word education must be understood here in its highest sense; it is not a matter of training and even less of merely offering information or even of establishing communication. The interpenetration of the step pyramid and the labyrinthine double spiral forms a kind of poetic machine which, by means of an initiation process, aims to profoundly change the user: Education as awakening. This penchant for enlightenment can be seen as typically French-speaking Swiss-Protestant.

The use of the original pyramid and spiral forms was severely criticised by Karel Teige as they were completely outside modernist thought. Blum’s analysis makes it clear that Le Corbusier

applied the theses of Provensal and Schuré more extensively in this project than in any other and that he probably had high hopes for this project in order to be able to realise the ideals of his own previous history (“*quand j’étais gamin*,” “when I was a child”). It also shows that he suffered particularly badly from failure. And finally, that Le Corbusier had nothing to do with pure functionalism – as he repeatedly affirmed.

The discerning reader will raise objections here. They might ask themselves whether it is legitimate to isolate one aspect of Le Corbusier. To me this seems reasonable, because the case analyses confirm the connection between this aspect of his work and the entirety of Le Corbusier’s problematic. I would like to emphasise that Elisabeth Blum in no way restricts Le Corbusier to any occult dimension, but simply traces the hidden foundations of his world view, which the eminent architect almost always neglected in his explanations.

The reader might reject the author’s basic thesis as being exaggerated and cite many passages in Le Corbusier’s writings that contradict it: “*Je m’occupe des choses ‘saisissables’*” (Carnet 3, 128) – “I occupy myself with the ‘tangible’ things”: The late Corbusier very often defended himself against certain interpretations...

After the description of Le Corbusier’s views, one must ask oneself whether the so-called “backgrounds” are only part of his framework or whether they really characterised, influenced and determined his conception of architecture. After noting the many points of contact between Le Corbusier and the idealism of the turn of the century and, above all, after Elisabeth Blum’s architectural analyses, one may come to the conclusion that there is indeed a very close relationship, not to say an affiliation between Le Corbusier’s philosophical and architectural concepts. With a series of excerpts from Le Corbusier’s writings, Elisabeth Blum is able to demonstrate his affinity to the ideas prevailing at the turn of the century.

Such an interweaving of design and ideological credo is surprising in a modernist. An overly positivist conception of science meant that subjects such as occultism or astrology were not considered worthy of research. Moreover, the old CIAM guard would have considered it dishonourable to no longer treat Le Corbusier solely as a representative of reason.

Reading this book, one gets the impression that Jeanneret, despite his language, fully shares the world view of the Expressionists. Before 1914, he was much more influenced by Osthaus than by Perret. His spiritual home at that time had nothing to do with any French or even Latin movement. The fact that this relationship to German Expressionism encompassed not only his ideas but also his designs is shown with extraordinary clarity in the project of the Three Million City, which Le Corbusier exhibited in Paris in 1922: the concept and morphology are derived

from the Tautschen *Stadtkrone* – in part even literally (cf. my essay “*Le Corbusier als Raubtier*,” ETH, Zurich 1987).

(In this context, it would of course be necessary to clarify how Le Corbusier experienced and survived the failure of idealism around 1925.) But Jeanneret’s passion for the Mediterranean, for the “volumes in light,” is also typical of a northerner who is only exposed to sparse sun during the year.

Finally, as far as the confusion of late idealism is concerned, it must be emphasised that Le Corbusier only selected and compiled the positive, the inspiring. He completely omits any gloomy aspects. This rare characteristic must be emphasised; the way of thinking of the Protestant from the Jura easily provides an explanation.

The light that Elisabeth Blum’s book sheds on Jeanneret significantly changes what we thought we knew about him. Instead of diminishing him, it reveals an additional dimension of his cultural-historical roots that arguably characterises him as the most complex architect of the century.

André Corboz, Zurich, 1986

Introduction

1. It is rather puzzling that the duality of the theme of the path has not been the subject of any previous study of Le Corbusier. This statement probably results from the fact that the interests brought into this work, the concentrated focus on the object of investigation, made it shine in such dazzling colours that it became a fundamental element in penetrating the essence of Le Corbusier's work. "*Quand j'ai découvert mes principes, tout ce que je cherchais est venu à moi,*"¹ ("When I discovered my principles, everything I was looking for came to me.") wrote Montesquieu, thus succinctly characterising the interaction between the researcher and his subject.

The results of the research reflect, as Corboz² says, the questions that we ask and the methodological frameworks that constitute them, as well as the intellectual structure of the researchers who have chosen these frameworks, "*[l'opéra] non prenderà la parola senza esservi pregata.*"³ ("[the opus] will not take the stage without being asked.")

The opus does not speak unless it is asked to do so, Corboz further notes, pointing to the intrinsic kinship with the particular aspect of the object of research as a prerequisite for making contact. The opus reveals itself to observers only insofar as their questions address the opus. Every observation has a fragmentary character; it is the respective attitude of perception with which we approach things that decisively determines the insights gained from the interaction.

We see or recognise only those parts of reality, which, for whatever reason, prove worthy of our attention or devotion. If our results of investigation turn out to be limited, this is not necessarily due to the nature of the matter in question.

Each examination chooses a particular method of observation. The aim of the present study is to bring to light latent qualities or connections of meaning by means of a perspective that is shifted from the foreground to the background.

2. The "*promenade architecturale*" as one aspect of Le Corbusier's theme of the path has often been mentioned in architectural discourse, but not its structure or foundation. But it is precisely the metaphysical aspect of "being on the way" that endowed Le Corbusier with an unshakable belief in the possibility of perfecting the human being. It is the translation of tension generated by his worldview that gave rise to his immense body of work and made Le Corbusier the leading figure of 20th century architecture.

This is essentially what this publication is about.

That Le Corbusier did not himself choose this theme as the subject of one of his books is already evident from a quotation from Michel Bataille's biographical novel *La ville des fous*, where it says about the character Victor Sauvage (Le Corbusier): "*Sauvage avait toute sa vie refusé sa foi à ces gens qu'il méprisait.*"⁴ (All his life Sauvage had no faith in these people whom he despised.) Harsh words from Bataille. I would prefer Le Corbusier's "*âmes soeurs*" (soul sisters).⁵ Both, however, point to the same central characteristic of Le Corbusier: reticence towards outsiders. For Le Corbusier, outsiders are all those who do not fall under the category that he coined of soul sisters or soul mates. He would never reveal secrets that could be misunderstood by "ears that do not hear." This explains the clear discrepancy between inner being and outer appearance in Le Corbusier. It is this inconsistency, moreover, that makes him a contemporary. The fact that the artistic personalities of the time witnessed divergent and contradictory ideological views and saw themselves, in accordance with their understanding of their role at the time, as "*les phares*," as beacons⁶ of evolutionary development allowing them, on the one hand, to unite in small circles, and on the other hand, these very conditions fostered a degree of prejudice that led the artists to wear a protective mask.

3. Two preconditions were decisive for the realisation of this book: on the one hand, a profound interest, a fascination or, in other words, an *a priori* love for the dual nature of this subject; on the other hand, the fortunate coincidence of events or circumstances which connected strands between the isolated, selective speculations and hypotheses and allowed the individual pieces of the mosaic to appear in an image outline.

The first requirement was met in my case. To put it immodestly, I can describe this as a soul sister characteristic. The second involves a process of several years, characterised by many milestones, which in turn could have been starting points for fascinating detours, that would have led my research in a different direction.

An important connection in this process came about during a conversation with Bernhard Hoesli about the *Musée Mondiale*: Hoesli referred me to Paul Venable Turner's book based on my speculations.⁷ In one fell swoop, my hypotheses turned into more reliable facts. Turner's book formed a fruitful basis for my work. His references to the significance of Le Corbusier's philosophical and ideological background seem all the more important because Le Corbusier's education was to a considerable extent autodidactic. This autodidactic education points directly to his own interests, and to friendships and relationships that had a decisive influence on him.

L'Eplattenier, in particular, was an important mentor to Le Corbusier in his youth and introduced him to the books that were fundamental to him, the contents of which reappear in

Le Corbusier's later theoretical writings and practical works, in part almost unchanged, in part modified. It was also L'Eplattenier who taught Le Corbusier how to "learn to see," which would later become so important to him: "I had a drawing teacher [L'Eplattenier] whom I admired (...) and who made us discover. Discover is the right word. To begin to discover. To discover one day and never stop discovering."⁸

One of the most important results of this early education is, as Turner notes, "that his attitude towards architecture was fundamentally intellectual and 'idealistic,' that architecture for him was primarily a means of expressing transcendental principles, in contrast to most modern architects of the XXth century, for whom architecture was a way of giving form to those 'rational' aspects such as function, structure, integrity of material or economy."⁹

4. The choice of the *promenade architecturale* in analysing Le Corbusier and its ideological background offers the possibility of observing and understanding the transformation of ideas and transcendental principles mentioned by Turner with regard to both the written word and the architectural work.

The fact that there were hidden creative forces to be discovered in Le Corbusier is already evident from the distinctive nature of his linguistic expression, which, already present in his early writings, represents a mixture of manifesto and implied knowledge, a kind of sermon even, which attempts to touch the reader in powerful metaphorical language.

But what was the foundation of such intimations? How were the traces of these backgrounds to be determined? Le Corbusier's description of the concept for the *Musée Mondiale* project from 1929, which, as a stepped hill or *omphalos*, accentuates the centre of the *Cité Mondiale* (cosmopolitan complex) and indicates an initial direction. Le Corbusier does not speak unintentionally of the museum path as a path of knowledge; it is no coincidence that he places the figures of the Great Initiates at its end, which also represents the inner centre. This project is the most precise illustration of the ambiguity of the concept of the path.

No one seems to have followed the "thread of Ariadne" that would have led to the heart of Le Corbusier's statement. Despite the material on the *Musée Mondiale* project and Turner's references to the role of Schuré's book *Les Grands Initiés*,¹⁰ the direct link between this book and the conception of the *Musée Mondiale*, which Le Corbusier made surprisingly clear, seems to have gone unnoticed. This study attempts to bring some of the fragmented parts together into a pattern. I am pleased about this, quite simply because I am convinced that it helps to bring to light a central and most persistently overlooked fact. For Le Corbusier and his work cannot be understood without an insight into the importance of the ideological-religious background.

This potential forms the inner fire from which Le Corbusier worked, “*la petite flamme*,”¹¹ (“the small flame”) as Provensal calls this inner strength, which during the course of his life became a fire and later perhaps an inner glow.

5. I have approached the subject on two levels, in line with its two-pronged approach: as an external phenomenon in his projects and buildings, and as an internal phenomenon, as an essential characteristic of Le Corbusier’s personality. In his architectural statements, Le Corbusier resorts to the artistic principle of slowing down and thus intensifying perception in order to master the concept of the path. The architectural devices he uses to realise this principle were the “*promenade architecturale*” and the use of symbolic images.

If we want to understand the theme of the path as an inner phenomenon, we can refer on the one hand to Le Corbusier’s ideological background, and on the other to the “*zeitgeist*”¹² of that generation of artistic and cultural circles with whom Le Corbusier was in closer or wider contact as a contemporary. For Le Corbusier, the path, or “being on the path,” became an omnipresent symbol of maturing, of learning, of constantly re-seeing and re-learning, i.e. a symbol of the infinity of life itself, which manifests itself in the successive cycles of life-death-life. The deep anchoring of ethical and moral principles, which allowed this incredible energy and power to unfold in Le Corbusier and always made him an opponent, a voice and at the same time led him to assume an extraordinarily high level of personal responsibility and to a sometimes seemingly arrogant self-assessment, is not tied to a specific phase of his life. Rather, it can be recognised as a fundamental trait of his character.

Le Corbusier, who in a passage in the *Almanach d’architecture moderne*¹³ speaks of artists as those who want to turn people into God-like creatures, tries in this image as a “voice of his time” with missionary zeal to give others a push in order to shake them out of their entrenched positions. It is characteristic of him, and evident in his writings, how he repeatedly pauses to perceive his own path, to account for the distance he has already travelled and to anticipate an image of the future section of the path. Le Corbusier’s life is a reflection of the constant endeavour to break through traditional boundaries in order to penetrate new spaces. When we talk about spaces here, we are not only referring to their physical dimensions. The psychological and spiritual dimensions are also addressed here. The advance into new spaces is meant here literally and metaphorically. Since we are talking about an architect here, the first half of this explanation may seem rather ordinary, but the second is by no means conventional. The great fascination with being on the move in the less obvious categories of space far surpasses the average architect’s interests.

6. This study aims to shed light on the relationships between Le Corbusier's educational sources, his view of the world and humanity and his demands on the art of architecture. It is not a question of analysing a single project or building in its entirety; the primary intention is to show the multi-layered interconnections of the theme of the path and their mutual relationships and to make us aware of the different forms they take in architectural design.

The intention of this book is to reveal the influence of ideological backgrounds; in other words: as Maximilien Gauthier¹⁴ put it, we are trying to encounter Le Corbusier as a “*poète à l'âme religieuse*,” a poet with a religious soul.

1 Preservation of traces

“The architecture is ‘wandered through, walked through.’ It is by no means (...) that purely graphic illusion that crystallises around an abstract centre. A centre point that pretends to be a human being (...) equipped with a fly’s eye and a corresponding circular field of vision. There is no such person, and because of this erroneous idea, classicism led to the shipwreck of architecture. (...) Our human being has (...) two eyes that are positioned 1.60 metres above the ground and look forwards. This biological feature is justification enough to condemn the plans that expand around an unnatural centre. With his two eyes, looking ahead of him, our human being walks, moves forward, acts, pursues his occupation and at the same time registers all the successive architectural manifestations and their details along the way. He senses inner movement, the result of successive vibrations. This goes so far that the architecture can be categorised into the dead and the living, depending on whether the law of wandering has not been observed or whether, on the contrary, it has been perfectly followed.”¹

“But the work is masterly, it is tumultuous like the mountain stream; the mountain stream is outside the individuals who struggle. The mountain stream is in man, it cannot be equated with personalities (...). People in general seem to follow a precisely prescribed path like the cogwheels of a machine. Their labour is regular and fixed within rather narrow limits; their timetable is inexorably exact; (...) Man performs his regular work, hour by hour, day by day; but one little flame or ember animates him: the emotional life. This determines his fate, apart from the result and quality of his labour (...) But the poet lives (...). Exalted above finite ends, he explores the imperishable: the human being (...). The poet sees the entire sequence: sees the individual beings with their intellect and their passion; and behind them he finds the entity man. This entity is capable of perfection; theoretically, there is no reason why it should not become the most universal.

This divine, this immortal, has revealed itself at various times and left points of reference by which we still measure the God of our longing: Images of God of the Negroes, the Egyptians, the Parthenon frieze, the magnificent music...

This truly counts, this endures.”²

For Le Corbusier, the theme of the path encompasses his physical and metaphysical universe. For him, it is an instrument for measuring and experiencing external and internal spaces. The introductory text excerpts are two statements by Le Corbusier that span a broad arc and show

us the complexity and depth of the concept of “being on the way”: from the *promenade architecturale* to the *instrument of human perfection*.

With the lesson for students from the first quote, Le Corbusier gives us the guidance for judging the architectural qualities of an object. For him, observing the “law of wandering through,” as he describes it, is so fundamental that he even makes the life or death of an architectural work dependent on it.

In *Vers une architecture*³ he calls architecture an artistic fact, a “phenomenon of inner movement” that is there to “seize us.” For him, this seizure occurs as soon as certain relationships prevail, through which the “pure creation of the spirit” becomes visible.

Everything, even in architecture, is a question of designing the *promenade architecturale*. It is the person standing and walking upright, endowed with two eyes, 1.60 metres above the ground, who must or may experience the adventurous routes on the plans designed and drawn by architects. It is the awareness of these future adventures that architects try to bring to life through their design work. They should realise the responsibility behind this. The dynamic person who rushes through the space, whose eyes are directed forwards and who always wants to or can turn his head, whose life therefore consists of a tireless sequence, a succession, an accumulation of facial impressions and who has a material body, takes possession of the space through the movement of his limbs.

For Le Corbusier, this “taking possession of space” is the mark of human existence in general and must therefore be urgently recognised. In his works, man needs a way to perceive his existence in space and time.

In a “theorem of nature and architecture,” as Le Corbusier calls it, he gives us an impression of the power of this theme of the path when he equates “being on the path” with architecture and says that “architecture” understood in this way occurs everywhere and always: a lamp, the light of the sun that shines through the windows, separating the shadow from the light and juxtaposing these two extremes that so strongly influence body and soul: the light and the dark that surround the walls, the entrance to the house, the street, the outside... Not for a second has architecture left man, his every emotion is influenced by architecture and urban design, architecture is everywhere.⁴

According to Le Corbusier, if you want to do justice to the human being, you have to strive for a dynamic architecture that corresponds to the dynamic human being, in contrast to the ideas of classicism, which were based on the proportions of the static human being and produced a static architecture.

Le Corbusier showed the pictorial system of the dynamic human being – in reference to the “Purusha of the Brahmins,” which he says is very appealing to him as a layperson and which, like Le Corbusier’s Modulor, depicts a human being stretched out lengthways with his arms extended from his body – at the entrance to his “Unité d’habitation” in Marseille.

In his observations,⁵ Le Corbusier says that architecture is an “act of conscious will,” that building means “putting in order”: functions and objects must be put in order in such a way that they can have an effect on our mind and our senses. This effect is achieved through the forms offered to our eyes and their relationships as well as the distances between our steps. “Architecture is volume and movement,” he states⁶ and among the “*facteurs émotifs*,” the moving moments in architecture, he includes everything that the eye sees.⁷

In order to make these evocative forms, the lines, the relationships, the rhythms and proportions perceptible, to make them visible to users and viewers, to realise the “*machine à émouvoir*,” (“a machine to inspire”) Le Corbusier uses the “*promenade architecturale*,” which organises both the reciprocal relationships of the elements involved and the coherent unity. For architecture means using raw materials to create relationships that touch the viewer.

“Passion builds a drama out of inert stones,”⁸ says Le Corbusier, making it clear that architecture lies beyond questions of utility, that it is a matter of design.

Le Corbusier placed a whole host of expectations on the architectural design instrument of pathways. The architectural promenade determines the way in which the architectural work is perceived by placing the users in certain positions and sequences, directing the view of the observer, imposing the speed of movement through the work on them, presenting certain parts of the whole and concealing others or only allowing them to appear at a later point in time. It is responsible for the user’s expectations and their fulfilment or non-fulfilment. The architectural promenade is the means to cause astonishment by surprising or shocking. It reveals secrets and challenges users to actively participate on all levels of perception and experience. It emphasises spatial, physical and interactive aspects and regulates the relationship between interior and exterior space. It incorporates both material and immaterial compositional elements into the process of perception. It eroticises the events.

Le Corbusier used this interplay of perceptions, which is intended to engage and move, as a means of achieving a level of “architectural lyricism.”

When the elements constituting the architectural work have been “put in order” through the means of the promenade we have reached the highest level of creation, the work of art. Le Corbusier calls this process of transforming reality through art the “alchemical process,”⁹ the

art that is capable of transforming the unconscious masses into an architectural object of an artistic nature through a process of transformation and refinement.

It is this process that leads the work towards its actual goal, namely to become a “radiant being.” According to Le Corbusier, architecture expresses itself in this function of radiance, which is conditioned by the imperishable aspects of architecture and draws our attention.¹⁰

As an example of how this “*mise en ordre*” can be experienced, Le Corbusier refers to the green mosque in Broussa, which one enters through a small gate that is intended to indicate the change in scale. Passing through this small gate and then entering a small vestibule are the architectural means that are intended to lend the necessary dignity to the dimensions of the architecture, which reflect the far more powerful scale of the landscape. Le Corbusier describes the experience of those entering as follows:

“It is good to be convinced of the existence of certain things – the following, for example, is essential (...). I draw a small man (...) and let him enter the house. The man observes a certain size, a certain shape of the room – and above all a certain incidence of light (...). He goes further: he sees other rooms, other light passages. He goes even further: a different light source. And still further: places that are flooded with light and half-shadows (...). One is directly penetrated by these successive, differently lit spaces, one breathes them in. I have always liked to reference the section of Brouse’s Green Mosque; it is a masterpiece – a rhythm of space and light (...).”¹¹

In his description, Le Corbusier draws our attention to the importance of the first impression, to the changes in scale that occur along the continuous course of the path. He draws our attention to the fact that the rhythms, pauses and tempos of architecture are different outside than inside and that this interplay of different dimensions requires mediation in the architectural design. Each section of the path must be considered and the effects of the relationships between all the elements must be carefully planned. All spaces in the spatial sequence use the appropriate means to trigger stimuli and emotions.

In *architecture de l’époque machiniste*¹² Le Corbusier writes that architectural achievement consists in creating the conditions for the “emotional turmoil” of the users.

It is very important not only to organise the sensations, the events on the “*promenade architecturale*,” but also to measure them out. The design of the path is not about creating an endless chain of random experiences, quite the contrary: selected events should be carefully coordinated with one another. They should make it impossible for users to play the role of passive consumers. The path should be designed in such a way that it involves the user in an active and engaged process of discovery.

“Architecture is a sequence of successive events that have been led from analysis to synthesis – events that the mind seeks to sublimate through the creation of precise connections that are so stimulating that they provoke the deepest physiological emotions, give real spiritual pleasure in contemplating the solved problem and give us the realisation of a harmony made possible by mathematical precision; this mathematical precision brought about the union of all the elements of the work with each other and with this other entity: the environment, the landscape. This is something that goes beyond all utility and usefulness. Something superior: Creation. A phenomenon of lyricism and wisdom: beauty.”¹³

In order to make this sequence of successive events, as Le Corbusier characterises the “*promenade architecturale*,” into a real creation, the relationship between quantity and quality must be carefully examined.¹⁴ The eye should not be constantly stimulated in the same way on the promenade. The spectacle must be structured so that the promenade does not tire you or even make you sleepy. What is presented to the eye should give pleasure, since, according to Le Corbusier, what lies behind the visible is that which is imaginative, fruitful, noble... is that which is called spirit.

The secrets are gradually revealed through the way in which the users enter into a relationship with the architectural work, by placing themselves in the unity of the artistic structure, by measuring and comparing in their minds, by participating in the ecstasies and agonies of the creator.

The users should be so captivated that they forget their petty everyday stories, the comforts and the aggravations, money for a moment.

The work is designed in such a way that it always provides the user with new, successive sensations.¹⁵ It is the combinations that constantly emerge anew as the path is travelled that give rise to the symphony – the symphony whose elements can be described by such diverse terms as nuance, calm, tenderness, sensation, clamour...

“*L’art est nuance*,” says Le Corbusier in *une maison – un palais*;¹⁶ by this he means that the sensitive user, who is prepared to respond to the play of perceptions and who loves to uncover nuanced intentions, would be repulsed by stupid, crude solutions. Le Corbusier calls the finely graduated nuances he is striving for “*l’infiniment perceptible*,” the (never quite) perceptible infinity of the work, the nuanced abundance that is able to involve the viewer in the complexity of the architectural structure, in that it only reveals its potential in the course of a continuous game of perception or a continuous work of perception.

After an initial phase of engagement, the mind may believe itself to be satiated. Suddenly it discovers new intentions of the creator. Through the use of the architectural object, or by

walking or strolling through it, new perceptions are constantly being revealed – a richness that has nothing to do with arbitrariness. Art is to be understood as the expression of an order behind the forms of appearance. “And the truly great architectural work, which at the same time participates in its surroundings, never speaks its last word, because the light conditions change, and the seasons change and because the inexperienced are not able to see the same as those with experience.”¹⁷

This remark leads us to one of Le Corbusier’s central thoughts. Here we encounter the demand that architecture should be a means of education, that there is a form of “initiation” on both the aesthetic and the spiritual level, that architecture is an “instrument of initiation.” The more advanced the individual is in his sensibility, the further and more intensely the artistic power. The fullness of the work is revealed to him. Le Corbusier uses the term intuition“” to describe the ability to perceive a work of art, which in his opinion is an indicator of one’s own maturity and experience. For him, intuition is that quality of man which provides insight about the path he has travelled so far, about the work he has accomplished. Intuition cannot be acquired in any other way than through one’s own experience; it can neither be bought nor stolen.

The individual’s approach to works of art thus reveals his or her own level of development. For in a successful work, according to Le Corbusier, lies a myriad of intentions that reveal themselves to those who have access to them.¹⁸ In this context, we are reminded of Le Corbusier’s elitist pyramidal model of society, which declares the artistic work to be something indispensable for some and a learning tool for others.

In Le Corbusier’s view, the work of art becomes something challenging: It makes demands on the user. They have to make an effort and specialise in the field of art appreciation just as much as, for example, in physics. The more developed their perceptive ability, the more richly they are rewarded by the encounter with artistic works. The work reveals only as much to each person as they are able to absorb. At the same time, however, the work of art is also the instrument through which artistic receptivity can be developed. This view of art as an instrument of initiation can also be found in the work of one of Le Corbusier’s spiritual fathers, Provencal. He writes about this:

“All art has an initiatory character, which means that the opening angle of the ‘gateways of understanding’ is not the same for all viewers. Educating the visual organ alone is not enough. In every work of art there are hidden meanings that are not revealed at first glance. These secrets must be revealed and understood. There is no doubt that the average person with a musical ear cannot immediately appreciate the sublime heights of Beethoven. (...) It is equally obvious that a painting, a sculpture or a cathedral only gradually unfolds the full power of its

expression; it often takes years for the full beauty of a work to be grasped. But what a high and sublime joy the viewer experiences when he succeeds in uniting his soul with that of the artist!”¹⁹

This kind of understanding of art leads us back to the second of the introductory quotations; its statement is to be found at the other or inner end of the wide-ranging thematic arc.

The outer path, the “*promenade architecturale*,” corresponds to the inner path that every individual has to take in the course of evolutionary development, the “*promenade de conscience*,” as it could perhaps be called, which is intended to reveal the imperishable divine core of the human being. This second quotation refers to the second type of alchemical process; it is the transformation of consciousness which aims at the perfection of humankind and for the initiation of which the artistic-symbolic architecture is to be regarded as an external aid. For this second type of conception of the path, which is tantamount to a transformation and ennoblement of one’s own inner reality, architecture must fulfil ethical and moral requirements in addition to the external prerequisites. It should be an artistic means of education, an instrument of initiation; in Le Corbusier’s eloquent words:

“Many, however, do not realise that this is a matter of ‘brotherly concern’ dedicated to one’s neighbour, that architecture is a mission that demands a calling from its followers (...), an act of love and not a theatrical stunt. Committing oneself to architecture, in these times of the transformation of a civilisation in decay into a new civilisation, means taking a religious vow, believing, sacrificing, giving oneself. But for those who have given themselves to it body and soul, architecture will reward them with a state of happiness, a kind of trance that springs from the labour pains of the idea and its radiant birth. The power of invention, of creation, which allows us to give our purest self to bring joy to others, to bring daily joy to their homes.”²⁰ To today’s ears, it seems almost presumptuous to hear Le Corbusier say that architecture is a mission that demands everything from architects: a religious vow, sacrifice, devotion, acts of love. This mission has no less a goal than the renewal of civilisation, in other words, the renewal of humanity.

In order to meet these requirements, architecture must touch people, move them, set them in inner motion and turmoil, make them perceive what is present beyond the direct stimuli. Such architecture must even be able to evoke changes in the consciousness of its users.

For Le Corbusier, architecture is the art that is able to move people most comprehensively on all their levels of perception and cognition: physical, emotional, spiritual, ethical, moral and so on. “But one day (...): a feeling of gratitude, admiration, enthusiastic approval, an outcry of emotion. And suddenly the discussion is no longer about usefulness, but about love; the focus

is no longer on function, but on attitude (...), beauty, ethics, harmony. Our feelings have entered the picture. Now it is poetry. And what remains of human endeavour is not that which serves a purpose, but that which moves people.”²¹ For Le Corbusier, the immortality of architectural works of art lies not in their utility, but in their ability to seize the “inner person,” to stir us and move us spiritually. Architecture must inspire love and radiate an ethical attitude. It is like a work of poetry that captivates people and triggers processes of consciousness.

Architecture serves all aspects of the human being: “*servir à la bête, et au coeur, et à l’esprit*”²² (“serve the beast, and the heart, and the mind”). For Le Corbusier, fulfilling these requirements is the motivation for architectural work in general. He distinguishes very clearly between the “*machine à habiter*” (“a machine for living”) and the “*machine à émouvoir*” (“a machine to inspire”). If architecture is limited to being a “*machine à habiter*,” it is dead architecture for Le Corbusier. It does not count. It gives humans no spiritual nourishment and must therefore remain ineffective, because architecture begins beyond the “*machine à habiter*.”²³ Le Corbusier seems to be constantly fighting against the misinterpreted or even today misunderstood statements concerning the “*machine à habiter*.” The concise formulation seems to have garnered an incredible amount of applause from the wrong side. Time and again we hear Le Corbusier speak of the question of utility in architecture. Time and again, however, we find him endeavouring to point beyond the question of utility. In his statements he also refers to the two levels of architectural impact; the architectural work is characterised by the fact that it rises from the level of the living machine to the level of sensation, where contact first takes place²⁴ – an extreme rejection of an architecture of pure utility. What seems unnecessary to some is indispensable to others. For Le Corbusier, it is precisely the combination of the two contradictory intentions, the utilitarian function and the emotional potential of a work, that sparks and demands our awareness. Only the interplay of “*machine à habiter*” and “*machine à émouvoir*” is able to arouse the users, to induce them to consciously interact with the work.²⁵ In addition to the living machine, man needs the “*lieu utile pour la méditation*,” (“a useful place for meditation”) as Le Corbusier calls it.²⁶

It is interesting to refer to Provensal again here: for Provensal, the “principle of the necessity of the superfluous,” the very possibility of desiring the so-called superfluous, is a central distinguishing feature between humans and animals and one of the noblest attributes of humans.

This desire for the seemingly superfluous is directly related to the inner path theme; the individual path, the individual track of each person differs from the path of other people precisely according to the way in which this seemingly superfluous is chosen. The quality of

this desire, of the choice made, determines the quality of the individual's path of development. Biographies or life paths differ according to the choice or selection made in life.

Provencal writes that animals left to their own devices do not know the excess that humans constantly strive for and emphasises the ethical and moral aspect of this choice.²⁷ The desire for the superfluous expresses the desire for a more fulfilling future. One of the most important tasks of the "teachers of humanity," as Provencal calls architects, is to guide this development potential in the right direction.

At a later point in his book²⁸ Provencal returns to the subject of the non-utilitarian in connection with beauty and mentions Immanuel Kant's view that beauty is something detached from any utilitarian purpose. Provencal concludes from this that neither the beauty of a work nor the aesthetic judgement of a work can be derived from its usefulness. In essence, beauty is independent of practical utility. It manifests itself through the human touch, or, to put it another way: the usefulness of a work of art is not limited to the physical; the work must also be effective on the psychological and spiritual level. This broader definition of usefulness or utility would include the "*machine à émouvoir*."

Le Corbusier clearly demonstrates the relationship between the technical and spiritual standpoints from which works of architecture can be viewed. These points of view do not create a contradiction, they are mutually dependent, like the originating principle or the conception of a work and the material necessary for its realisation.²⁹

The theme of the path, of being on the move, becomes the key concept for understanding Le Corbusier's architecture. The design of the architectural promenade is a multi-purpose instrument of architectural design. At the same time, it provides us with the means to tap into the richness of an architectural work of art.

To examine Le Corbusier from this perspective gives us the opportunity to approach the diversity of his work in a coherent way. People who do not close themselves off from their existential reality will one day, with the awakening of the corresponding consciousness, find themselves on their path through life, even if for them the origin of the path and its future disappear into darkness. The path becomes a symbol for a multi-layered reality and at the same time an instrument for gaining experience in space and time, both physically and metaphysically.

In Le Corbusier's work, these different levels of reality of the path are reflected in his writings and in the different approaches in which the path appears as a design theme.

The following sections deal with the unfolding of this wealth. Using the example of Villa La Roche, we will see how this theme is used aesthetically, how the path is used in urban design

projects for South America and in the Mundaneum complex as a means of cosmic reintegration and the harmonisation of opposites and how, in the case of the *Musée Mondiale*, the path is both a means of knowledge and a reflection of ideological ideas. For Le Corbusier, path design is the answer to the demand that architecture is the art of movement. We must regard this demand as a superordinate one that implies all subsequent claims; its wording resembles an oracle that must first be brought to the various levels of expression by those who wish to use it as a working tool. The following three approaches show how Le Corbusier's "conception of architecture as the art of moving" offers possible solutions to three fundamental demands on architecture at the level of design:

Architecture as a work of art (aesthetic approach)

La Roche-Jeanneret House (1923)

Architecture as a means of realising the principle of cosmic integration (symbolic approach)

South American urban design projects (1929) and the Mundaneum complex (1929)

Architecture as a means of education (cultural approach)

Musée Mondial (1929)

If we distinguish between these three levels, then we must be aware that we are dividing up a complex whole – an endeavour that must always remain unsatisfactory (because the whole is more than its parts). Nor is it the case that the three parts can really be separated from each other in terms of content, because the individual phenomena are in fact mutually dependent.

Only in order to become comprehensible in its complexity will the path theme be discussed in this study from the three (perspectives and/or) points of view.

In order to give an idea of how we can visualise the respective shift in optics, we will use a concept from linguistic research. This instrument is suitable as a visualisation aid for our intention insofar as the concept of multifunctionality developed there can also be applied to the field of architecture.

Roman Jakobson³⁰ provides a means of understanding the interplay between the various functions of language – such as emotive, relative, referential, linguistic, meta-linguistic, poetic, communicative and constitutive. These different functions can be found in almost every text. We are therefore dealing with the coexistence of all these functions in the totality of language.

Within this multifunctional conception of language, Russian formalism developed a further instrument, the so-called dominant, which became the key concept of Prague structuralism.

The dominant³¹ helps to identify the mutual relationship between the simultaneously present, partly mutually serving and partly conflicting functions of language. The dominant governs and transforms all other components and thus guarantees the integrity of the entire work. It contributes to the visualisation of the internal value hierarchy of the functions involved.

The model proposed by Jakobson also offers a visualisation aid for the study of architecture. Architecture also has to fulfil several functions at the same time. The functions that are simultaneously present in an architectural work also interact with each other in a specific way. The concept of the dominant also allows us to determine the internal value hierarchy of the functions involved in a work of architecture.

With the help of our differentiating framework, we want to focus our attention on three cases in which the design of the path/promenade theme helps a changing dominant function within the value hierarchy. The separation should enable us to see the aspect of totality that is illuminated by the chosen perspective. To a certain extent, the definition of these points of view resembles a consciously chosen restriction of perception, which we are prepared to accept temporarily in order to reveal the potential of the artistic object.

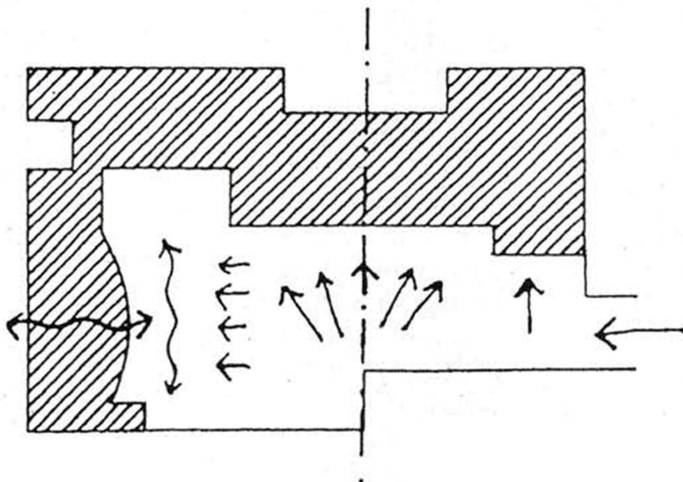
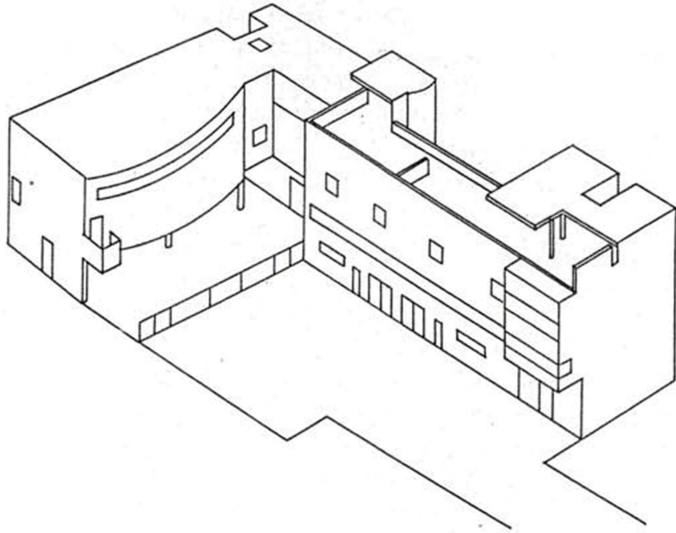
It is this interplay in the perceptual attitude, the shift of our attention from the whole to the part and from the individual aspects back to the overall view, that reveals the richness and fullness of a work.

The process of perception is thus slowed down and intensified at the same time, or, as Umberto Eco expresses it in his book *Introduction to Semiotics*:³² The process of perception is subject to increased complexity and duration.

This principle of slowed perception is characteristic of dealing with works of art. In contrast, the conditions for this more difficult form of perception are not present in the perception of non-art works. The content of the message is unambiguous, in contrast to the ambiguity of the artistic message. There is no “abundance” to unfold. One glance suffices.

This single glance is not enough for a work of art. With Eco, the work of art resembles an “*opera aperta*,” an open – though not arbitrary – simultaneously ambiguous and complex structure which, if it is to be fully realised, demands “its time” from the viewer.

Every insight into the work is a partial insight which, as a link in a chain of insights, leads to the next partial insight. The perception of the work is like a chain reaction. As soon as the rules of the game appear, the game is won and one realises that behind the “smooth and rough box,” as Le Corbusier puts it, there are infinite possibilities of perception.³³



1, 2 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Axonometric and arrival

2 Architecture as a work of art (the aesthetic approach)

The path as an expression and, at the same time, as a demand of a process of sensitisation: the Villa La Roche-Jeanneret, Paris 1923

“...because the various effects of the building – the symphony that resonates – only become tangible to the extent to which our steps carry us forward, how they place us, lead us on and offer our gaze to the expanse of the walls and perspectives, the expected or the unexpected behind the doors that reveal the secret of new spaces, the play of shadows, half-shadows or the light that the sun shines through windows and doors. Every single step offers the eye a new tonal element of the architectural composition, be it the view of the built or green distances or the view of the gracefully organised nearby surroundings. The quality of the internal circulation will be the biological force of a building, the internal arrangement depends on the purpose of the building. Good architecture is > wandered through, walked through, < inside and outside – that is living architecture. Bad architecture is frozen around a fixed point, is unreal, blind, alien to human law.”¹

Le Corbusier’s house La Roche-Jeanneret, Paris 1923, is the object of our investigation.

The artistic work reveals itself through the dominance of the aesthetic function² without excluding the other functions. Jakobson’s definition allows us to distinguish artistic from non-artistic objects. The aesthetic function causes an object, forms and their mutual relationships to refer primarily to themselves (i.e. to be auto-reflexive) and not to be perceived as mere representatives of practical functions. The forms and their reciprocal relationships should direct the attention of the user or viewer to themselves, to their reciprocal influences and to their meaning. This could also be expressed as follows: a simple staircase would suffice to reach the various floors of Villa La Roche. However, in order to involve the users of this villa in an engaged process of perception, to allow them to feel the full richness of the architectural concept of the house, to present the architectural project in the fullness of its perceptual possibilities, Le Corbusier introduces the “*promenade architecturale*” with the element of the ramp, via which the diverse events can be explored.

“Art architecture differs from mere functional architecture in that the practical function of the individual rooms and furniture becomes secondary and primarily serves to configure the space symbolically by directing the visitor’s gaze and movement accordingly.”³

Thus Elmar Holenstein, who together with Tarcisius Schelbert edited Jakobson's aforementioned book, *Poetik*, in the introductory essay deals with the possibility of transferring the instruments offered to the field of architecture.

The question "But why all this? Why is it necessary to show that the sign does not merge with the signified object?"⁴ Jakobson's answer is similar to that of Le Corbusier (who repeatedly emphasised that art should not only serve, but also guide people to learn to see): "Therefore, because in addition to the immediate awareness of the identity of sign and object (...), the immediate awareness of the imperfect identity (...) is also necessary; this dichotomy is indispensable, because without contradiction there is no movement of concepts, no movement of signs, the relationship between concept and sign is automatised, events come to a standstill, the awareness of reality dies."⁵

Here, we are confronted with the demand that recognises the contradiction between sign and signified as an artistic means of generating a movement both on the side of the sign and the signified and on that of the viewer or user of the artwork.

Through the means of estrangement, the awareness of reality is to be heightened. Here, we find the same basic attitude towards the artistic as with Le Corbusier. The artistic work has the task of moving people (in the broadest sense of the word), of causing shocks in the act of perception and of pointing out the rules to the viewer by breaking them.

Without these movement-inducing moments, there is no development – the death (both of the work and of the viewer's perception) begins. The "automatisation" of perception and the interaction with works indicates their "emptiness."

For Le Corbusier, the "*promenade architecturale*" is the means of introducing the artistic principle of "dis-automatisation" into the process of perception and experience.

Thus, depending on the point of perception, the artistic object creates a certain expectation in the viewer (= most prominent ways of reading the object), which is, however, disturbed by the aesthetic messages of the work (= further ways of reading the building, which only come to light at a "second" glance, i.e. only after a longer or more intensive examination of the work).

Roman Ingarden⁶ says in "*Prinzipien einer erkenntnistheoretischen Betrachtung der ästhetischen Erfahrung*" ("Principles of an Epistemological View of Aesthetic Experience") that a "concretisation of the aesthetic object," under which the work of art appears, must be distinguished from the work of art itself, from its overall artistic potential. This "itself" allows the "realisation of several aesthetic experiences that lead to different aesthetic objects on the basis of one and the same work of art."

In his aesthetics, Ingarden involves the viewer in the “handling of (art) works” in a similar way to C. G. Jung in his psychology or Le Corbusier and Provensal in their observations. The richness and abundance that result from the confrontation with works of art depend not only, but to a significant extent, on the creative-cultural potential of the viewers themselves.

This is where the views of aesthetics, psychology, philosophy and modern physics converge. The statements made about an object not only cast the object but also the people making the statements in a special light.

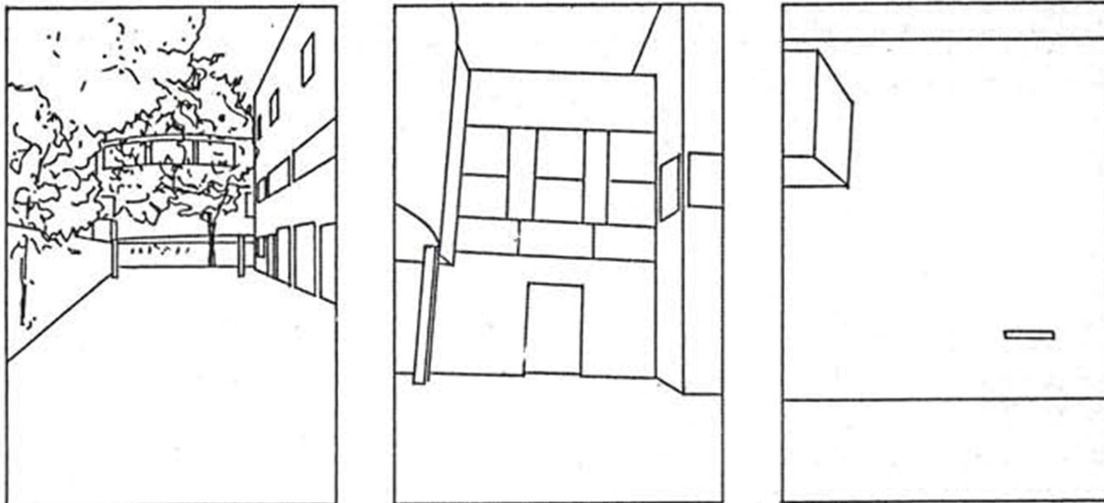
To continue with our example: it is only by walking along the “*promenade architecturale*,” the path, that the sum of several ways of reading the object is made possible. The tension created by the combination of the familiar and the unfamiliar leads the viewer or user to a more intensive form of exploration.

In principle, the object can be a work of music, painting, architecture, poetry, etc. Each of these artforms has its own specific characteristics. Each of these artforms has its own means of bringing about these alienating effects. We will call the resulting phenomenon the *principle of slowed-down perception*.

The design of the “*promenade architecturale*” is used at La Roche-Jeanneret as a means of realising the “principle of slowed perception.” As visitors can see for themselves, it is both an expression and a requirement of a sensitisation process.

Unfortunately, the relationship of the “*promenade architecturale*” to an extended outdoor space is largely absent in this example, as the house stands on a narrow property. In other examples, such as the headquarters of the cotton industry association in Ahmedabad, this element plays a vital role.

In describing the “*promenade architecturale*” at Villa La Roche, we are following a procedure that Le Corbusier gave us. In line with his comments on the Green Mosque in Broussa, we will walk along the path with our two eyes at a height of around 1.60 metres above the ground. We will try to see and describe the “sound elements of the architectural composition” presented to our eyes and other senses with each step, to observe how our steps take us through, how they place us, lead us on and offer our gaze ever new perspectives, expected and unexpected sequences, revealing secret after secret of the architectural spaces and their relationships to one another.



3-6 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Pictorial elements of the path and entrance hall (below)

The “*promenade architecturale*”

If you are looking for the Villa La Roche at 8 Square du Docteur Blanche in Paris, you almost need detective skills. There is no grand architectural gesture like the Villa Savoye, no wide pathways.

Tucked away at the end of a small Parisian cul-de-sac, invisible from the street, is today’s *Fondation Le Corbusier* concealed behind greenery and garden hedges.

Enclosing the small square at the end of the cul-de-sac from the front and side, the semi-detached house has an L-shaped floor plan. If one looks at the entrance side of the house, the contradiction in the appearance of the entrance features immediately catches the eye: on the one hand they appear sparsely designed, modest, without great sculptural gestures, on the other hand they nevertheless attract the eye through their contrasting scale (large garage doors directly next to particularly small servants’ entrances). The eye, experienced in dealing with scale conventions, is irritated by the unexpected juxtaposition.

At first you are confused and unsure as to which entrance to the house you should or must choose. Several possible entrance options compete with each other, none of them particularly inviting. As a semi-detached house, it presents all the entrances in duplicate: the two garage doors, which immediately catch the eye in terms of scale, right next to them the two servants’ entrances with the small canopies, a first indication of the social status of the residents, then the two main entrances, which are moved to the edge of the axis of symmetry indicated by the façade structure, of which only one is visible at first glance.

On the one hand, the entrance emphasises the symmetry of the entire complex due to its mirror-image position in relation to the entrance of the Jeanneret house, but on the other hand it is an indication of the “play with broken symmetry.” Initially separated by a garden, which can be read as a threshold to a part of the building not subject to the order of symmetry described above, it is hidden in a recessed part of the building. This recessed part both completes the symmetry and at the same time destroys it, as it simultaneously leads to the gallery area, which disrupts the order and is curved at right angles.

Viewed as a whole, this square in front of the house could be seen as the first major stop along the way. Caught or held up by two white walls at right angles to each other, which enclose visitors on two sides and appear imposing in terms of their dimensions, those arriving at the end of the small access path are abruptly slowed down. They pause in astonishment, looking at the two white walls, which appear extremely flat and are perforated by a series of black holes that do not seem to obey an order that immediately catches the eye.

The wall at the front of the square follows a convex arch in its basic shape, which curves towards the visitors and, despite its defensive gesture, also has an orienting function. It guides visitors towards the hidden entrance to the La Roche house. At the top and bottom, this curved part of the building, which houses the gallery area inside, is almost dematerialised by dimly lit zones: at the top by a band of windows, on the ground floor by the inclusion of the outside space, which is only interrupted by thin “pilotis” and two wall elements. This type of design allows visitors to experience the presence of the white structure, which seems to float and indicates a deflection of the path, on the one hand, and the outdoor area separated by the structure, on the other.

An initial realisation of the interplay between the components with contrasting allusions: large, white walls placed in the way, which deter and captivate the visitor, but also – through their form or their openings – refer to what is taking place beyond the walls. They slow you down – and at the same time invite you to move on.

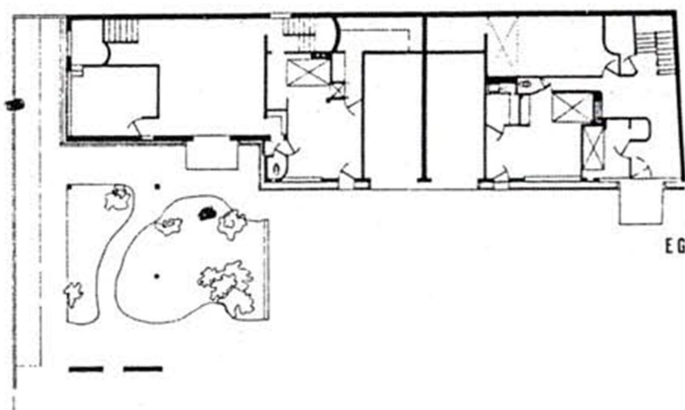
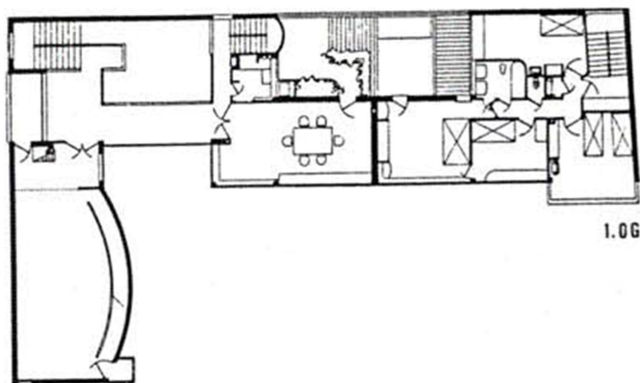
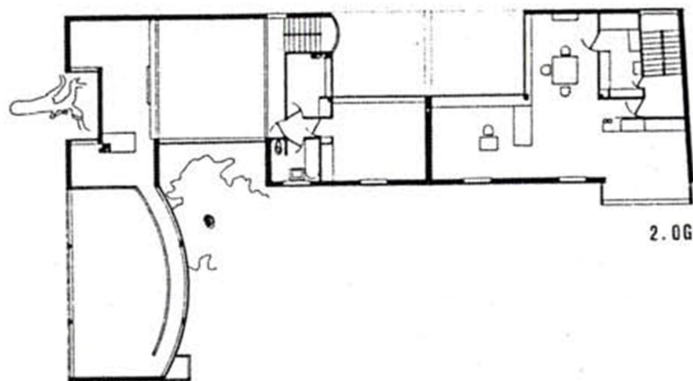
Once you have left the square in front of the house and have walked through the garden, which is designed as a threshold in front of the arched gallery area and thus defines an outdoor zone of heightened intimacy, you are guided by the gentle curve of the raised, white volume to the front door of the La Roche house.

Once again you are stopped. A third, again oversized white wall, like a picture, welcomes those arriving. Impressed by the simplicity of the structure of the white surface and the intense effect it exerts, one is at the same time astonished by the unequal size of the two dark openings: an entrance door lying in the central axis, unadorned and resembling a black painted surface, and above it a huge, horizontal window which, compared to the size of the door, must be storey-high. Framed in black like the door and structured with black mullions, it is surmounted by the last third of the entire height of the building, which is kept in pure white – altogether an unusual distribution of the light and dark components of the overall surface and a provocation for the well-trained eye. With this design of the surface, the door appears to be an insignificant feature.

You enter the entrance hall through a strikingly small opening compared to the other architectural elements, which has a special function. It is intended to guide those arriving from the scale of the exterior space into the different scale of the interior space. The small opening is intended as a bottleneck, an eye of a needle that introduces the dignity of the spaces beyond the door. This effect of the temporary bottleneck is reinforced by a lower, single-storey zone formed by the passageway running directly along the outer façade in the entrance hall.

And indeed, once you have passed the spatially constricted entrance zone for the first time, you are stunned by the new dimensions of the entrance hall and its visual appearance. The rear wall is gleaming white, while the side passages are coloured and dimly lit. You stand in the room as if spellbound and initially forget to move on.

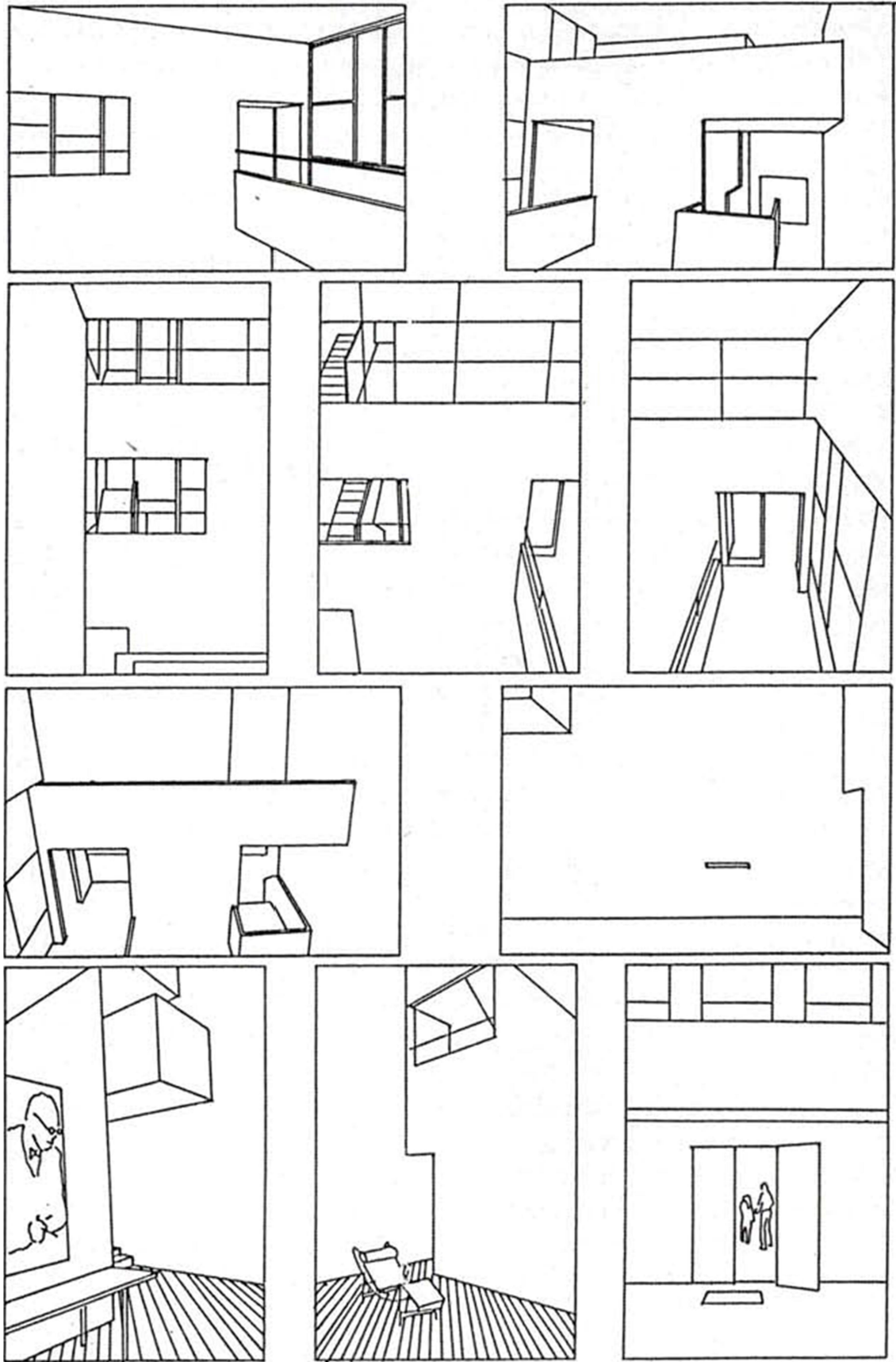
If the traces of the movements carried out in this place were to be visible on the floor, they probably would have left behind a confused disarray of circling sequences. You are forced to turn round in all directions in order to perceive the complexity of the new spatial arrangement step by step.



7-9 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Plans

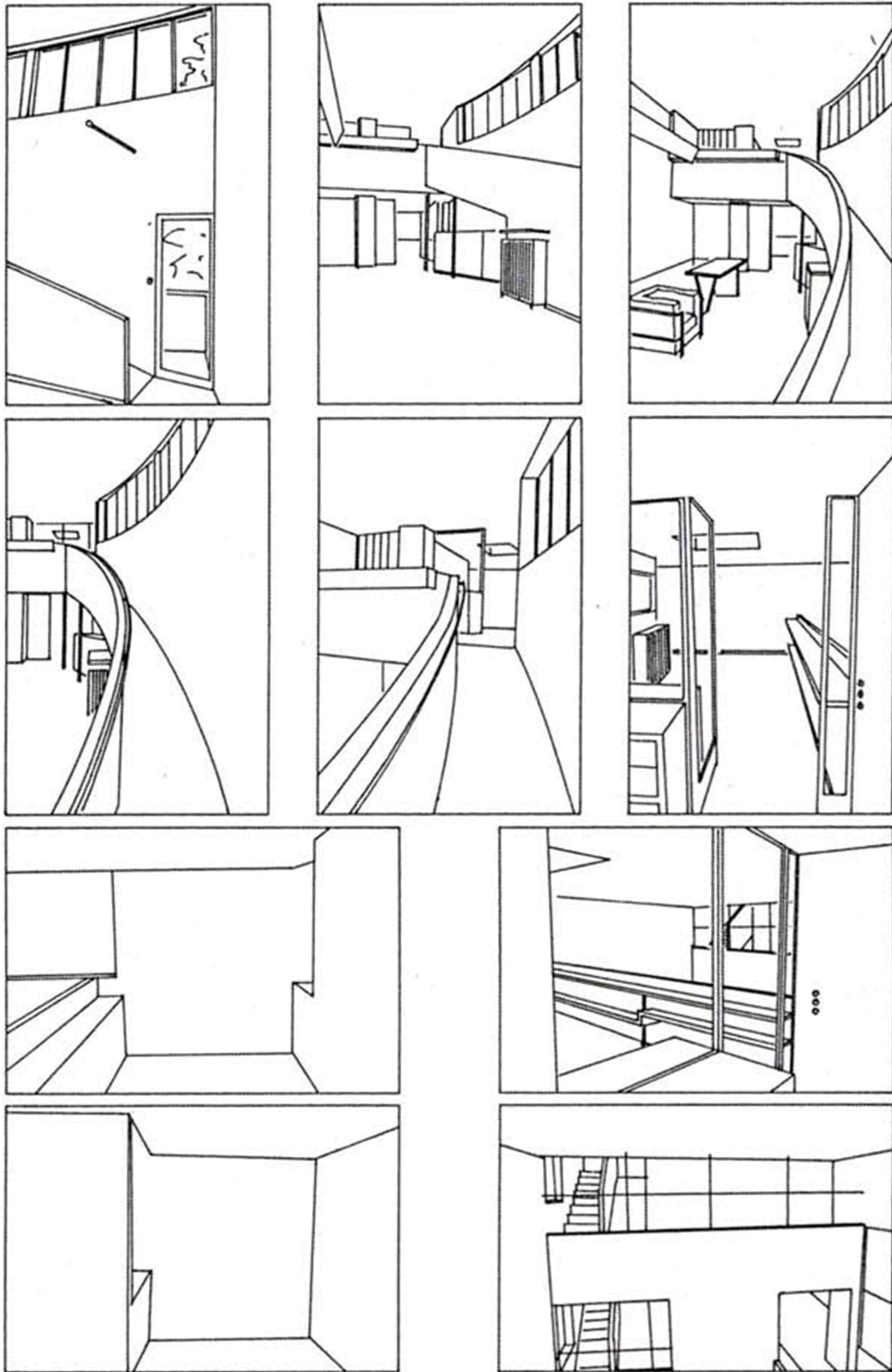
While visitors to the previously described outdoor space are framed by two white walls at right angles to each other, the degree of spatial definition increases inside. We are surrounded on all sides by triple-storey white walls, as we are familiar with from the outdoor area. You are aware that you have just passed through a door and are in an interior space – and yet this place evokes associations with an exterior space. You notice a small balcony protruding from one of the side walls towards the hall and involuntarily look back again, go through the entrance door into the garden once more to make sure that there really is a counterpart to this interior balcony in the curved outer wall. The idea that the interior space can be understood as a continuation of the exterior space one has just passed through is confirmed. This double play of interior and exterior space is further emphasised by the nature and design of the interior walls. In addition to the white colour, which shows the continuity of the exterior space in the interior, the façade character of the interior walls is striking. The memory of a medieval square emerges; one feels as if one is in a relatively confined space, surrounded by lateral façades, whose wall openings, partly protruding, partly receding or connected by a passageway crossing the square, imperceptibly tempt the visitor to speculate about the further possible course of the paths, about the spatial relationships of the partly hidden, partly implied rooms behind the walls.

These walls, “perforated” by carefully inserted openings, which in principle can be read as triple-storey, continuous elements, are an excellent means of involving visitors in an active dialogue with the architectural conditions in their dual function as separating and connecting elements of spaces assigned to one another. They are able to generate the richest ideas about possible events that they might encounter on their journey. After an initial orientation, one feels the need to make an assessment, a comparison of the walls surrounding the entrance hall. The wall facing the entrance is unrivalled, it is unique. Running over three storeys, without disturbance or interruption, in the purest white, with only a small panel that can be used to display a sculpture, it is another example in the series of walls that abruptly halt and divert visitors on their “promenade.” As an almost awe-inspiring vis-à-vis, it abruptly places itself in the path and gives it a different direction. The fact that it receives light from the three remaining walls lends it a noticeable dominance despite its barrenness. Despite its muteness, its presence is convincing. The rear wall in particular, with its storey-high north window, seems to be in a special dialogue with it. The two incidence of light at the end of the hall also indicate the passageways leading to both sides, which are a continuation of the two adjacent staircases.



10–19 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Entry Hall





20–39 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Course of the path

Seen from the hall, one has the impression that the path leading to the left is the more important one. If you try to find out how this impression is created, you immediately notice the clearer relationship between the left-hand part of the house behind the wall and the triple-storey hall: the larger and more differentiated openings, the more direct relationships. There is a double-storey spatial area at the junction, which develops an ambiguous and richer relationship to the hall through the balcony element located in it. As a “vantage point,” the balcony projecting into the space lends particular weight to the rooms behind it. It refers to a special dialogue between the rooms connected by it. The light penetrates more intensely into the hall area from this side, as it is granted greater access.

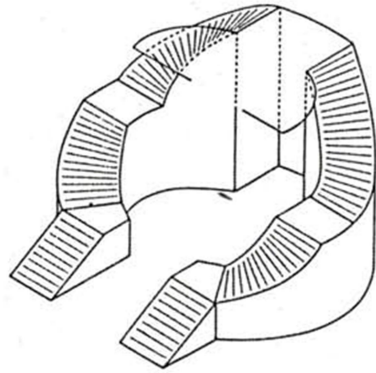
The path leading to the right doesn't seem to call for the same kind of connection. The wall is less conspicuously perforated, flat and rather sparse. There is no sculptural architectural element projecting out into the hall area. The openings, which are already small in themselves, are additionally provided with a latticework which, although designed as thin, dark rods, nevertheless creates a lattice effect and characterises the area beyond the wall as being less important.

Viewed from the hall, one has the impression that by leaving the hall one is entering into more intimate areas of the house, that one is going from the outside to the inside. This idea is supported by the discovery that the rooms to the rear of the hall façades are painted in colourful paint; one turns away from the anonymous white surface shown on the outside and enters into the intimacy of the colourful rooms.

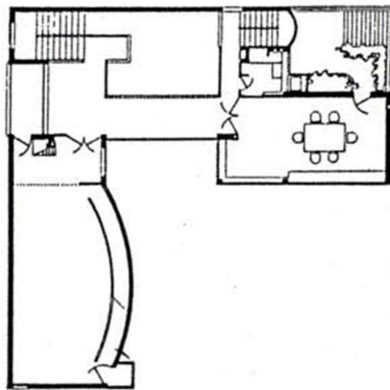
Link to the entrance hall: “Une maison – un palais”⁷

“The reception ceremony has always been and still is an essential part of courtesy among rulers and the staircase is its most charming setting (...). Was a guest received standing at the top? Did you come down a few steps to receive him? Did you even greet him at the bottom and ascend with him to the upper floor? Or did you stay in the chamber and let him go up the stairs and through a succession of increasingly magnificent rooms, only to receive him, intimidated, in the most beautiful of them all? (...) Elsewhere (than at Versailles; the author), the reception ceremony may have served more the pomp than the exaltation or humiliation of man.”⁸

In fact, after spending some time in this reception hall, memories of baroque entrance halls come to mind, of course not because of the white walls and their dimensions or because of the lack of grand staircases, but because one cannot overcome the feeling of being watched.



40 Bruchsals Castle, sketch of staircase



41 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Plan of the hall design

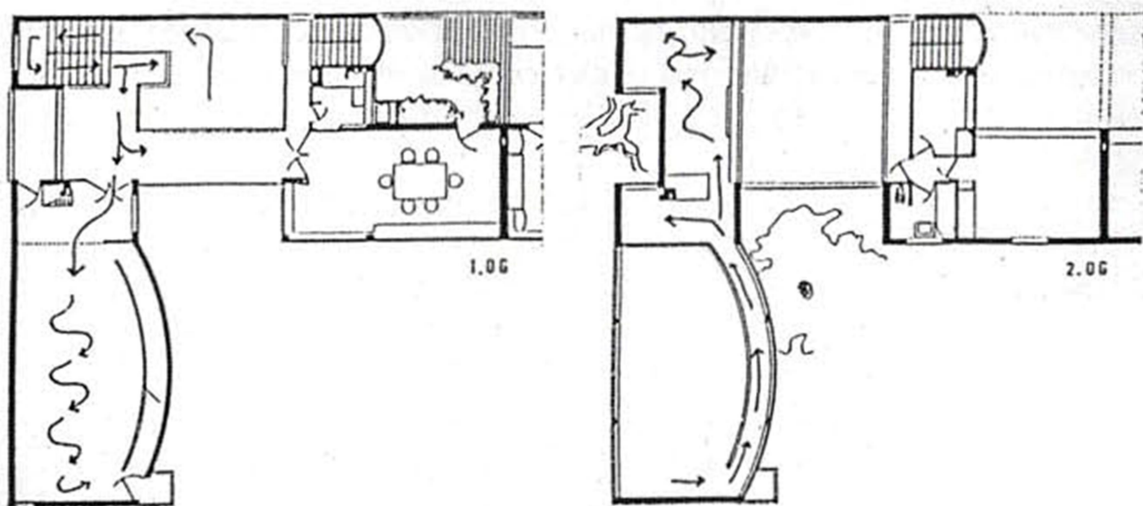
The connections to hidden rooms, which appear through the openings in the walls and the varying degrees of incident light in different light-dark shades, create a certain sense of intimidation in the visitor. In contrast to a baroque building, where the full splendour of the architectural spectacle unfolds before the visitor's eyes, here all they encounter at first is a forbidding, gleaming white wall. They feel unsettled and search for further spatial references, which only become apparent to them as they move through the space. In the entrance hall of Villa La Roche, the architectural splendour tends to reveal itself on both sides and at the back of the visitors arriving; the overview is not immediately apparent. Once visitors have walked around the room for the first time, they notice the side galleries and the passageway behind them. The architectural elements that are decisive for contact with the residents are therefore located behind or to the side of the arrivals. At their rear, they now also notice the enormous light source that gives the wall that welcomes them its bright lustre. Involuntarily, one is reminded of the tactic of disconcerting new arrivals.

If one could say of the Baroque arrival with regard to the visitors who are welcomed on three sides with “open arms” formed into staircases, one would have to say the opposite of Le Corbusier’s villa, that visitors are halted by a blank wall, only to realise that they are surrounded on three sides by galleries and vantage points to the rear. In the Villa La Roche, the typical display staircases of the Baroque complex have been transformed into hidden, secret staircases. They have been removed from the hall and relocated behind the façades that form the square.

The staircases, which have been relocated to the rear side of the building and are not noticeable at first glance, make the rooms that can be seen from the hall all the more mysterious. Certain elements of the stately architecture of villas and palaces can obviously be found in the design of the entrance hall of Villa La Roche, albeit in a modified form.

The hall can be described as an “excellent” place, as a special element of the “*promenade architecturale*,” for the experience of which architectural preparations, special staging aids and a potential for tension that points to the further progression of the promenade are mobilised. A stop along the way that gives visitors pause and sensitises them to what is to come.

The white wall acts as a guide for both passageways leading away from the rear end of the entrance hall; both passageways run along it and are deflected by it.



42, 43 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Plans

The remaining passage to the left: to the gallery and library area

If we follow the path on the left, which continues behind the sculpturally projecting balcony, we are led into a double-volume niche, which is further constricted by a solid balcony railing. At the end of the first flight of stairs, the path is visually extended into the green space through a window opening but is also stopped on a narrow landing and turned 180 degrees.

The reference to the outside is replaced by a renewed reference to the inside. Breathing in is followed by breathing out. The completed U-turn leads visitors to the balcony protruding from the wall, which they have already discovered from the hall. The one path ends at the vantage point, which allows the design qualities of the façade opposite and the passageway running along the outer wall to be seen from a different angle. Protected by the solid balustrade that continues to the balcony, the viewer experiences a new staging of the hall. Its dimensions appear in a different way.

Visitors now have the impression of looking from an interior space into an exterior space. The differentiation between the various degrees of intimacy of the interior spaces becomes a conscious experience. The spatial relationships behind the opposite wall allow for somewhat clearer speculations. The passageway, as the only connection to the opposite wall, can be viewed as an overview, so to speak. The exposed nature of the earlier section of the passageway has given way to a sense of security.

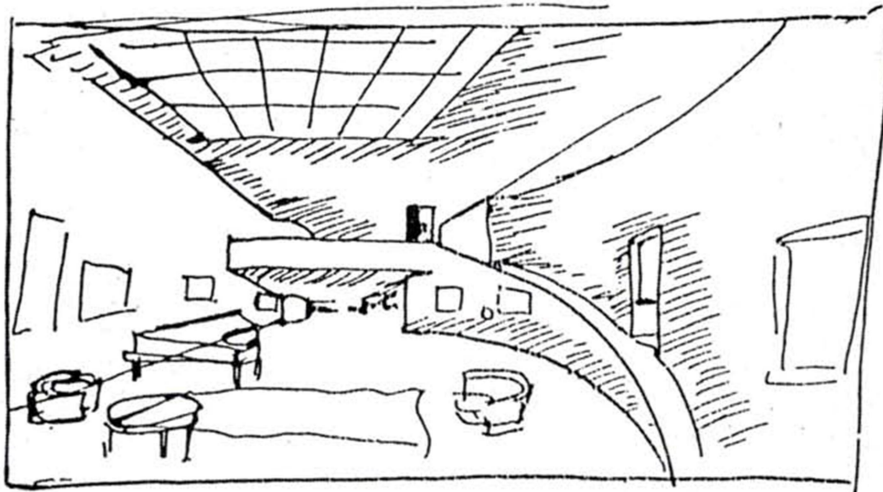
Nevertheless, this balcony zone, which is customised to the dimensions of a single person, is not a place to linger. After the irresistible attraction that emanates from this “lookout,” one turns to the extended spatial arrangement. The space in which you find yourself makes an ambiguous impression; a precise description is difficult. We are undecided as to whether we should describe it as a lounge or a passageway. To the left, towards the hall, it is completely closed, while to the right there is a large window. Two passageways lead on from here: one – the passageway already mentioned – leads to the other side of the hall to the private living areas. It is defined from the outside by an enormous window, which has become a window of light and vision.

Towards the hall, a solid railing provides visual protection. The passageway is reminiscent of a bridge that connects two areas across a large space in between. One witnesses the intense tension created by the constant interplay between the two opposing walls. Walking along the “*promenade*” constantly creates new images, which impress one with the ever-changing dimensions and proportions of the interplaying surfaces and spaces.

The passageway on the other side leads into the “*salle à manger*” and is only visually defined by the rear wall of the living/dining area, which also demarcates the end point of Villa La Roche.

From the vestibule on the first floor, the other passageway leads directly into the spacious gallery space with its subtle colours. Double-storey in its vertical extension, its two longitudinal boundary surfaces, which appear in different shades of grey, are provided with skylights in the form of “*fenêtres en longueur*” just below the ceiling. The right-hand wall, which primarily serves as a “picture wall,” stands out due to the light blue aperture mounted slightly below the full-length skylight, which reflects the incident light back onto the picture wall. Although it only features a tiny opening, the front, short side of the room, appears bright and friendly thanks to its yellow colouring. The curved, left-hand wall appears both sculptural and spacious and, when you stand in front of it, like a carefully designed picture surface. The spatial, sometimes even sculptural impression is created by the ramp running along the wall, which creates a marvellous interplay of directions on this wall surface. Charlotte Perriand’s later alterations emphasise this interplay of right-angled and diagonal lines by again tracing the lower slope of the ramp. In this cut-out – and thus spatial – ramp wall, she places slightly recessed furniture elements in three spatial layers, supports running in the wall plane and a radiator in a third layer slightly in front of the ramp wall. The aesthetic function of the ramp is celebrated with sophisticated means. It differs from the other architectural elements in terms of direction, colour and dimension. The aforementioned “ramp wall” is further emphasised by the change of colour and has a strong spatial effect. The incline introduced with it – unique in this building – draws and gives rhythm to the wall and the rest of the room and creates an immense tension with the skylight windows that extend down to their maximum height and reinforce the horizontal. The parapet band of the ramp leading to the next floor is continued in the balcony zone in front of the library on the second floor, which is still part of the gallery.

The gallery space primarily has the character of a hall and contains a few pieces of furniture: the screen, the table with its fixed plinth and, in a certain sense, the ramp with its aforementioned additions. The ramp could actually be said to be at least two things: part of the curved wall on the one hand and a piece of furniture in the gallery space on the other. The ramp also plays a further role as a guiding element that indicates the next section of the path. Its shape indicates the progression of the path; it is a sign for the path and the path itself.



44 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Perspective of the gallery

Furthermore, the familiar interplay of successive imposing walls continues in this area of the villa. The narrow side opposite the entrance is again multi-storey, monochrome and, apart from the small opening already mentioned, blank. Once again, it stops the path taken and guides visitors in a different direction. The interplay between the blue screen running along the wall, the yellow wall at the end of the room and the gently rising, curved ramp on the other long wall could be seen as a cleverly calculated game of movement, as a gentle route through this gallery space, which contains two opposing paths that are very markedly different in character:

A first section of the path can no longer really be described as such in the strict sense. The situation in the gallery space is in some respects comparable to that in the entrance hall; the path temporarily becomes a spacious area, it expands into a square or a place to linger. If one imagines the traces left behind by the people who are here, their movement would result in a confused network of paths. Visitors have a wall in front of them again and are surrounded from the side (left) and from behind. They first have to make sense of the new spatial situation by pacing the room, walking back and forth, turning and rotating. The intended use of the room as a gallery also requires a different kind of movement. You take a few steps towards a picture, go back again to examine the work of art from a distance, step closer again to study the details and then move on to the next picture. This first part of the gallery space is designed in accordance with these spatial and functional conditions. Almost the entire width of the room is available for this appropriation of the space. Visitors can temporarily disperse and be distracted by the architectural and artistic details, sit down or stand still.

The second section of the walkway in this room, the ramp path, is quite different. As a “channelled” path, it forms a strong contrast to the spacious “scattered path.” Its curvature shows even more clearly that it belongs to the wall and at the same time expresses its orientation towards the interior, to which it turns. Its curved line is also reminiscent of those of the Baroque period. Although its peripheral position in relation to the room would create maximum distance for viewing the pictures hanging on the opposite wall, its – narrow – dimensions do not invite the viewer to linger.

In this way, this space offers the visitor walking along the path two extremely contrasting experiences, which in their close succession further intensify the experience of the “*promenade architecturale*.”

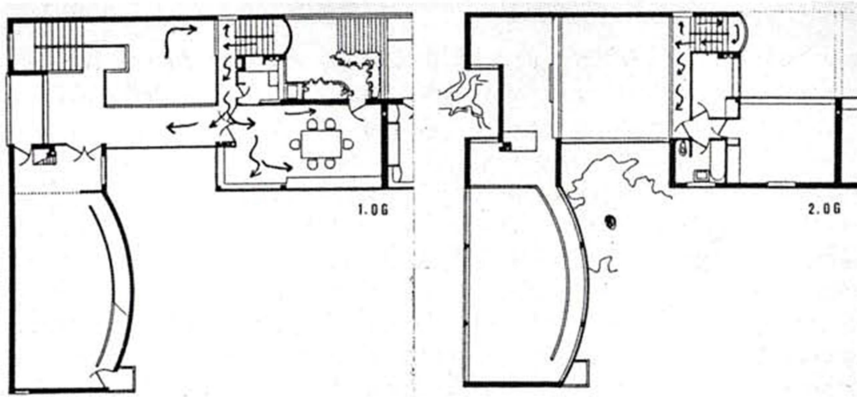
The first path could be described as space-consuming, the second as space-saving. The ramp path initially leads to a gallery area in front of the library, raised by one storey, which can be regarded formally as an element associated with the ramp due to the aforementioned continuation of the balustrade. This gallery area is located above the entrance and, like the ramp, is orientated towards the gallery space and ends with a wall element flanked on both sides by window openings.

There is a second route from the end of the ramp: you enter the L-shaped library room through a glass door. It is defined on the left by a windowless wall, but at the end there is a small niche with a window that is not visible from the front of the library. This room offers a new and final perspective of the entrance hall from this side of the house.

The dimensions and proportions that present themselves to the eye from up here astonish the visitor once again: one sees the staircase in the opposite part of the house as a continuous element that must lead beyond the total height of the section of the house on this side and subsequently surmises a roof garden.

One senses the access zone on the other side as a wall-containing space and realises that on that side, rooms or sections of rooms are formed by walls standing parallel, one behind the other. One also realises that the huge transverse window of the outer wall reaches just as high as the massive wall opposite. These relationships between the architectural elements and their arrangement can be easily appreciated from up here. The library has the character of a cul de sac, there is no way on from here, there is only the way back. One is amazed at the length that library users have to walk to get to the living area and the lavatory. The library, characterised on the one hand by a direct visual and auditory reference to the entrance hall, is nevertheless architecturally formulated as a retreat area.

The second, less “spectacular” route: from the hall into the living area of Villa La Roche and to the roof gardens of the two houses



45, 46 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Plans

A second path leading away from the hall, opposite the first, is introduced by a deliberately smaller wall incision and is clearly subordinate to the first through this design measure. This assumption is also supported by the fact that the niche into which one is led only receives light from the side instead of from the front and is kept to a minimum in terms of its dimensions. The dimly lit staircase leads along bare, white walls to the upper floor, which offers the first window-like view of the façade opposite. For the first time, you are facing the protruding balcony on the opposite side at the same height and perceive the relationship to the outside space through the window behind it. The entire splendour of the opposite side appears in a new light: the passageway and balcony prove to be elements that relate directly to the viewer and approach them. They provoke possible interactions with the vis-à-vis. Once you have been able to detach yourself from this fascinating view and follow the passageway running between two closed walls in a narrow space, you are stopped again at the end by a white section of wall, albeit this time in more modest dimensions. The passageway forks: on the right it leads over the previously seen passageway to the other part of the house, thus completing the cycle of the two parts of the house that only exist on this floor. This path across the passageway visually extends into the outside space, as there is a window opening in its extension in the other part of the house. This three-sided pathway through the hall, oscillating from one part of the house to the other, entices visitors to constantly walk back and forth; ever new details of the design, ever new lighting conditions, ever changing relationships between architectural features, spatial

variations that only reveal themselves over time and from which ever new secrets can be elicited, captivate the viewer.

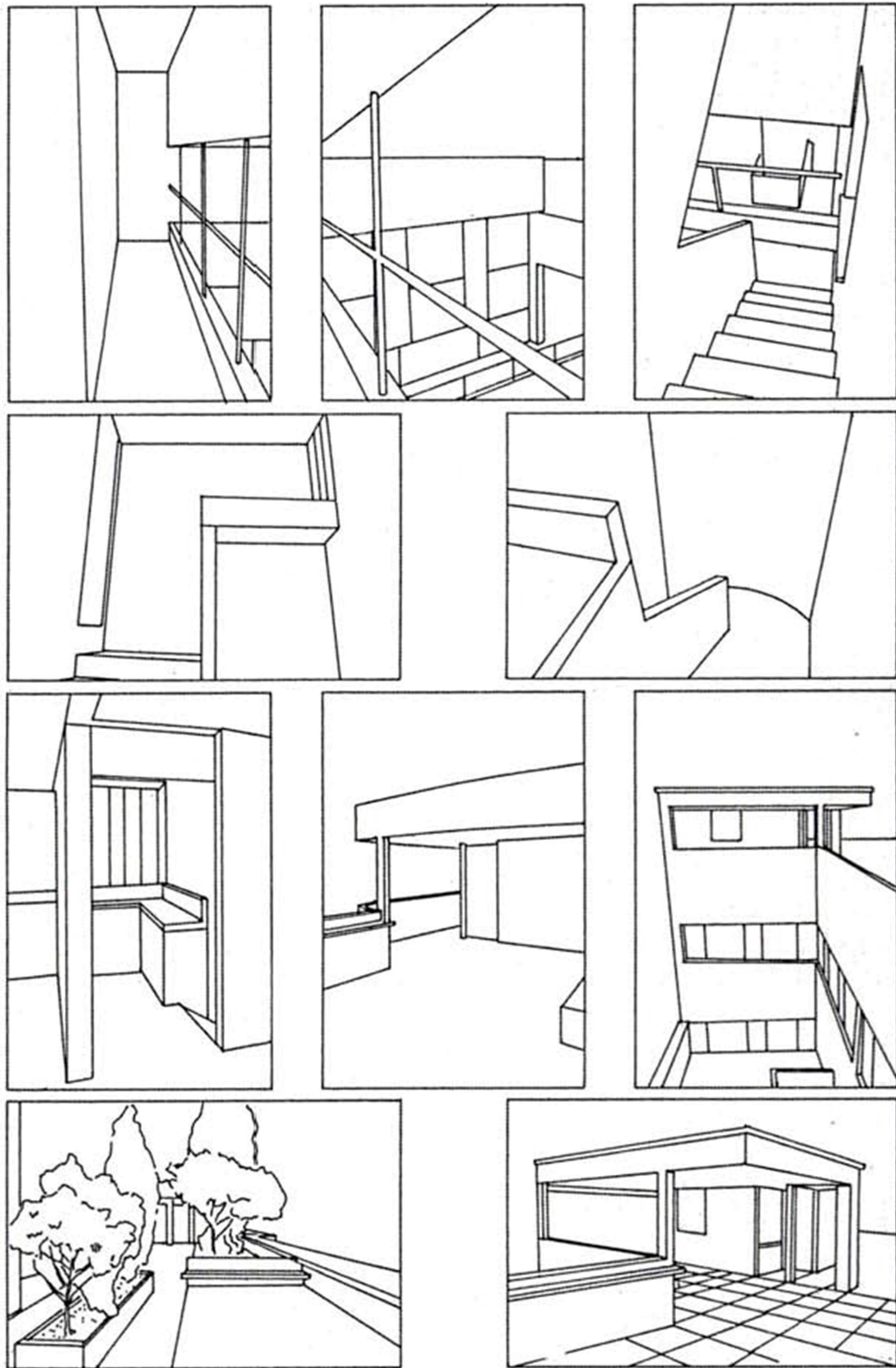
Every step you take here presents you with new images that are characterised by the ever-changing proportions and compositions of light and dark, of surface and space.

From the staircase described at the beginning, however, the path of this part of the house leads two storeys higher. The second upper floor differs from the first in the degree of opening towards the hall. The balcony area here extends over the entire length. This opening, like that of the lower storey, is provided with a latticework between the balustrade and the ceiling, a measure that serves to give the façade greater unity.

As a result, it contrasts with the other façade wall. This contrast proves to be beneficial and meaningful, as the two walls, identical in colour, enhance each other in their contrasting effect. They do not primarily compete with each other but emphasise their different functions and effect. On this second floor, the dimensions and proportions of the hall and its elements look completely different: The view from above creates – distorted – a different hierarchy of architectural elements. The library opposite, which previously did not particularly catch the eye, now becomes the actual vis-à-vis. Only now do we notice the chair standing there. Two related zones are situated opposite each other. You are standing at a balustrade that extends the entire width of the building. The balcony and the passageway have lost some of their grandeur. You get the same impression from the huge window that has been moved downwards. The ground floor has receded into the distance and is partially immersed in shadow. From here, too, the path continues in two directions: on the same floor, at the end of the gallery, again diverted by a small wall element placed in its path, it leads into the sleeping area above the living area and concludes there.

The other route leads up the same staircase from the hall to the upper storey, which towers above the opposite part of the house, onto the roof and to the roof gardens of the two villas. It leads visitors out into the open air, via a covered forecourt from where the semi-detached house can be seen for the first time from above in its external spatial context. This is where the rear of the house and its courtyard-like incision and the arrival side with the square in front of the house and the garden first become apparent. Roof garden furniture offers the opportunity to recover from the “*promenade architecturale*” and to reflect on it. The return journey can remedy the shortcomings of memory by experiencing it again in reverse.





47-66 Le Corbusier, Maison La Roche-Jeanneret, Paris 1923, Path

There is only one way to fully grasp Le Corbusier's architectural work of art: by repeatedly walking the "*promenade architecturale*," the "*poème de l'architecture*."

Villa La Roche was chosen here because this is where the ramp first appears as part of the "*promenade architecturale*" and because here we can observe the status of aesthetic demands on architecture in private villas. We tend to expect ramps in public buildings, but in a private context they surprise us. Let us remember Le Corbusier's demand that architecture should not only serve the "animal, but also the spirit and the heart within us." Closely related to these demands is the view that, in architecture, there is no distinction between important and unimportant projects, whether it be a weekend house, a palace, a dam or a factory.⁹ Everything is an architectural topic, from the house to the palace. Every building project has its significance, as it influences people as well as the immediate and wider environment. Le Corbusier's "*rendre le temple dans la famille*" ("making the temple a family home") belongs in this context. It is about showing that the ordinary house also needs the same attention as the palace did in earlier times.

"... when we called for the '*machine à habiter*' (living machine), we have since revised our still very recent opinion to the effect that we have claimed that this living machine could also be a palace. By palace we meant that each element of a house could have such a moving effect on us solely through its arrangement within the whole that it revealed the grandeur and nobility of an intention. And for us, this intention was synonymous with architecture. To those who were now concerned with the problem of the 'living machine' and who declared that 'architecture means serving,' we replied: 'architecture means to seize' and we were scornfully dismissed as 'poets.'"¹⁰

3 Architecture as a means of realising the “principle of cosmic integration of man and building” or: a call for architecture to become a player in the cosmic drama (the symbolic approach)

“Art is a performance of the cosmic drama, in which cosmic events are shown in moving images, symbolic signs, in eloquent, deeply convincing acts. The cosmic story, the cosmic drama, the cosmic figure, the cosmic image, the cosmic building, in short, the harmony, the entire cosmos, brought together in a single view, like a photograph depicting the entire scene.”¹

J.L.M. Lauwerik’s remark could be seen as representative of a view of artists that was widespread at the beginning of the 20th century, particularly in Expressionist circles. Art was seen as a mediator of overarching contexts and orders, as a translator of cosmic realities into earthly ones.

“It is cosmic laws that determine the plan – those laws that have connected humans with nature for ages. (...) This environment of sun, space and greenery, which embodies the human law of nature, is also the law of human’s nature,”² writes Le Corbusier, thus demonstrating that it is the same laws, the same fundamental principles that govern humankind as part of the cosmos, but which can also be discovered by humans in their external world. For humankind it is a matter of searching for and rediscovering these connections of which they are no longer aware, of recognising the principles that govern human works and the elements of nature together and expressing them through art. Humans thus discover themselves and their surroundings as a microcosmic image of the macrocosm. The order “on a large scale” can be found in the order “on a small scale.” This “law of correspondence” has a firm place and a name in the history of mystical wisdom. It is attributed to the Egyptian Hermes Trismegistos and reads in its shortest form: “As above, so below.”

Le Corbusier was certainly aware of this law, which points to the intrinsic relationship of all parts to the whole and of the whole to its parts, through Schuré’s book *Die Grossen Eingeweihten (The Great Initiates)*,³ where an entire chapter is dedicated to Hermes. The interest of the artists of that time in the study of natural phenomena – such as the search for regularities in the structure of leaves, snail shells, etc. – can thus be understood. It was believed that in these principles underlying the manifold manifestations of nature, one could find images or allegories or, in other words, symbols for the eternal laws, for the orders on a cosmic scale.

This explains, for example, the fascination of the artists with the “*Gläserne Kette*” (“Glass Chain”) which could be understood as crystals.

The use of pure crystal forms was intended to refer to the purity of cosmic laws and to evoke those inner vibrations in users or viewers that were supposed to evoke a reflection on true human nature and its purpose. The moral claim of art and artists becomes transparent here. As Maurice Denis says in his book published in 1912, that was read by Le Corbusier, art had the task of expressing universal laws.⁴ Provensal, too, sees the foremost task of artists as being to create values that reflect what they find in themselves, a synthesis of the universe.⁵

For Le Corbusier, it was also natural phenomena whose laws fascinated him, such as spiral shapes, which found expression in the form of path concepts in his museum projects, or leaf shapes, such as those of the watercress. He says in a sketchbook from the 1950s that he had to live to be 70 years old to discover that the growth of these leaves was based on right angles.⁶ Le Corbusier formulated this “law of correspondence,” an important basis of his work, very precisely:

“Nature is perfectly organised, from the infinitely large to the infinitely small. And man’s heart will be strengthened and his spirit fortified because through his works he has brought himself into harmony with the universe and the laws of nature, which say that everything is regulated by birth, growth, death and eternal return. Technology need not be an opponent of the spiritual.”⁷

For Le Corbusier, it is important to find these “principles” behind things and express them through art. Art therefore has nothing to do with chance. It is a rigorous materialisation of a “conception,” as Le Corbusier calls it.⁸

Le Corbusier points out how this law of correspondence is to be understood as a design instrument; that it cannot be a question of reproducing individual phenomena in minute detail, but on the contrary of discovering the patterns that constitute them among the infinite number of manifestations of reality and translating these into artistic works. According to Le Corbusier, these eternal principles can be expressed in symbolic form. Geometry as the material carrier of symbols is the appropriate means of expressing the relationships between microcosm and macrocosm. Geometry, he writes, is “the means we have created for ourselves to grasp the environment and to express ourselves. Geometry is the foundation. It is also the material carrier of the symbols that denote perfection and the divine. It gives us the sublime satisfaction of mathematics.”⁹

Geometry, which can help these principles to find adequate material expression, thus becomes a human language, a means of communicating with non-material reality. For Le Corbusier, it is an expression of the spiritual or, as he says in *une maison – un palais*,¹⁰ an expression of “spiritual structures,” linked to universal rhythms, which are therefore also geometric in nature: figures that are characters.

Le Corbusier ascribes such an eminently important role to geometry as a carrier of symbols. He is convinced that he can have a direct effect on people through these symbols; they belong to them and thus touch them. For him, it is a certainty that the spirit manifests itself through geometry, that this geometry is even his language, that order is a property of geometry and that humans manifest themselves through order.¹¹

As Le Corbusier says, a fundamental prerequisite for humans to be moved by the works of architecture is the “concept of the cosmic reintegration of humans and building.” The task of artists is to give adequate expression to cosmic laws through their works. The human being connects with the laws of the cosmos through the work of art. True art is therefore a link between humans and the cosmos, a mediator between eternal and transient orders: “Man, creature of the universe, fulfils the universe from his point of view; he carries out its laws, he believed he could read them; he has formulated them and brought them into a coherent system. He is in a state of rational knowledge according to which he can act, invent and create. This knowledge does not place him in opposition to the universe, but in harmony with it.”¹²

Le Corbusier sees the human being as part of the cosmos, living or carrying out its laws consciously or unconsciously, since they are also his laws. By consciously developing themselves further, human beings have the possibility of achieving a human existence in which they know they are in harmony with the laws of the cosmos as well as with their own.

Le Corbusier often used an expression for this affinity between humans and the cosmos that we encounter not only in his work, but also in that of Provencal, Kandinsky and other artists of the time. In this context, he speaks of a mysterious vibration of the human soul, of an “inner axis” of the human being that is touched when confronted with true works of art. Vibration means accordance. Le Corbusier says that we possess within us a vocal range or vibrational range that forms a ground of resonance and harmony and begins to vibrate when confronted with true works of art.¹³ This “inner relationship” between humans and the cosmos can be compared to a vibrational relationship that can reveal itself in works of art and is able to place humans in a state of “inner resonance.” Creating this vibrational relationship is one of the main objectives of Le Corbusier’s architecture.

However, the prerequisite for the realisation of this “inner relationship” is “a unified conception of creation.” Works of art appear related to humans when they bring them into a harmonious relationship with the microcosm and macrocosm. Consequently, we call works of art beautiful when they are based on the same principles that underlie the diverse manifestations of the world. Le Corbusier writes about this:

“A face is said to be beautiful when the delicacy of the modelling and the structure of the features have proportions that are perceived as harmonious, because they resonate within us beyond the sensual effect, they make a sounding board vibrate within us, as it were. Traces of an indefinable absolute that has always lived at the core of our being.

This resonating sounding board within us is our criterion for harmony. It must be the axis on which man is built, in full harmony with nature and presumably also with the universe; it must be the axis that aligns all phenomena, all things of nature, that suggests to us to assume a unity in world events and to presuppose a single will of creation. The laws of physics would therefore be derived from this axis, and if we recognise (and love) natural sciences (...), it is above all because we may assume that they have been prescribed by that one will at the origin of creation. (...) From here, a definition of harmony becomes possible: the moment of conformity with the axis that rests in man, that is, conformity with the laws of the universe, return to the world order. This could explain the causes of satisfaction at the sight of certain objects (...). If we stop in front of the Parthenon temple, it is because the sight of it makes an inner chord within us resound; the axis is touched.”¹⁴

The idea of a single creative will, from which both the arts and the sciences spring and which has left traces of itself, traces of an indefinable absolute, in the act of creating the universe, harbours a progressive-evolutionary world view whose aim is to enable the elements of creation to “return to the world order” via a process of consciousness and cosmic re-integration. The human soul forms a sounding board, so to speak, which is able to react to cosmic vibrations or to works of art that are able to express these relationships of order if it is attuned accordingly. For Le Corbusier, a lifelong theme became the study of the science of numbers, proportions and geometry, which includes the discovery of the inner relationship between man and building (microcosm) and the universe (macrocosm) as one of its fields of investigation. He was convinced of the possibility of rediscovering a language that could connect us with ancient wisdom, with the “language of the gods,” as he calls it: “Architecture and music are sisters, both of which place time and space in a balanced relationship to one another.

Proportion is the instrument that brings about enchantment. The emotions of the soul are so closely linked to it that it touches on the esoteric in its extreme possibilities, on the language of the gods. The sensation that seizes us before great architecture is evoked by the measure of distances, dimensions, heights, volumes – a mathematics to which there is a key (...). This key (...) – proportion – has been lost (...). The proportion that was everything to certain epochs, that led to the mysteries, has been lost (...).”¹⁵

Edouard Schuré’s book, which attempts to recount the history of the ancient “Mystery Wisdoms,” i.e. the hidden esoteric knowledge that was only gradually accessible to the initiates or students of the initiation centres, according to their personal level of development, also talks about the “sacred science of numbers.” In the section on Pythagoras, we learn more about the “school of initiation” in the town of Krotona on the Gulf of Taranto in southern Italy. This institute, a school for moral, ethical and spiritual education run by Pythagoras, like the Academy of Sciences, attempted to bring those to be initiated on a four-stage initiation path to that perfect harmony of the soul and mind with the universe which is based on the conscious realisation of the laws underlying all being. For the Pythagoreans, numbers contained the secrets of things, and for them God meant universal harmony. The seven keys corresponded to the seven colours of light, the seven planets and the seven ways of being, as they are found in all spheres of the material and spiritual world. The melodies of the musical tones were intended to make people’s souls vibrate. According to the teachings, constant repetition brought about a purification of the soul.¹⁶

The idea of the perfection of the human soul through being touched by the inner vibrations evoked by works of art is not only found in Le Corbusier. It can be concluded that the book by the theosophist Schuré was probably one of the most widely read and profoundly known works in artistic circles. Kandinsky wrote in the introduction to the stage play “*Der gelbe Klang*” (*The Yellow Sound*) in 1911/1912:

“Every art form has its own language (...). It is a realm unto itself. That is why the means of different arts are outwardly entirely different. Sound, colour, word (...) in the inner essence these means are identical: the final objective erases the outer differences and exposes the inner identity. This final objective (realisation) is achieved in the human soul through its finer vibrations. These finer vibrations, which are identical in the ultimate objective, have different inner motions in and of themselves (...).

The indefinable and yet definite soul reaction (vibration) is the objective of the individual artistic means. A certain complexity of vibrations – the objective of a work. The refinement of

the soul that occurs through the accumulation of certain processes – is the objective of art. Art is therefore indispensable and appropriate (...).”¹⁷

And in it Provencal says: “Doesn’t creating beauty mean making the inexhaustibility of the mysteries accessible to humanity in an abstract form borrowed from the essential forms of nature? Does it not mean (...) making the moving soul of all humankind vibrate? That which is truly beautiful, true and great is eternal and universally valid.”¹⁸

If we compare the intellectual stances on which these statements are based – we could easily add further statements by contemporary artists¹⁹ – we immediately sense a striking “spiritual affinity.” It is therefore not surprising that both Le Corbusier and Kandinsky repeatedly emphasise the relationship between architecture and music. Music is probably the purest form of translating vibrational relationships – and consequently also spiritual relationships.

Within this ideological context, spirit and matter are only seen as different stages of one and the same being, as different vibrational states of the divine being. As we shall observe later, artists of this era saw themselves as being in complete accord with the latest scientific findings; the possibility of the transformation of mass into energy appeared to them as empirical confirmation of their ideas. Thus, the eternally valid laws recognised in the spiritual can be expressed through the various “artistic means,” as Kandinsky calls them. The artistic friendship between Kandinsky and Schönberg was based largely on their shared interest in searching for ways of translating spiritual content through their art. Jelena Hahl-Koch writes about this:

“Schönberg’s and Kandinsky’s basic approach is religious, even if not in a narrowly ecclesiastical or dogmatic sense. Both firmly believe in another, incomprehensible world that must be made visible in art.”²⁰ This also applies to Le Corbusier. The religiosity meant here is not of a confessional nature, not bound by external rules, but represents an inner state, an inner openness towards all phenomena of reality, not just those that can be grasped with the five senses. This kind of religiosity is not anti-scientific; however, it does not impose the narrow limits of the so-called “positive sciences” on knowledge but extends the scientific capacity for knowledge to the spiritual, non-sensory realms. It has an expanded concept of science that also includes the arts and does not exclude those aspects of reality that cannot yet be categorised in our limited thought patterns.

In this sense, Schuré’s book clearly demonstrates how content can be uncovered behind the places of initiation that have appeared in different guises over the course of history. For Le Corbusier, too, the common crystallisation points of Schuré’s and the Cathars’ outwardly seemingly different teachings emerge without any difficulty:²¹

The stages and events of the path to be travelled, which is equivalent to a process of spiritual perfection, find their expression in art or, to put it more precisely, in the various branches of art, which also include the sciences when they have reached their full potential. Pythagoras called his pupils mathematicians because his teaching began with the “sacred numbers” or the “science of principles.” However, a number was not regarded as an abstract quantity, but “as the essential and active quality of the supreme One, God, the source of universal harmony. The science of numbers was that of the living forces, of the divine qualities active in the worlds and in man, in the macrocosm and in the microcosm (...). By analysing them, distinguishing them from one another and explaining their relationship, Pythagoras created nothing less than a theogony or a rational theology (...). It [the science of numbers] claimed to provide the key to being, science and life.”²²

This excerpt from Schuré’s book illustrates how closely Le Corbusier studied this subject. We know from Turner²³ that Le Corbusier was particularly interested in the chapter on Pythagoras, that he was fascinated by the inaccessible, hidden aspects of Pythagorean mathematics. A note from 1929 shows how much he was impressed and guided by the ideas of this work: “Architecture and music are the instinctive manifestations of human dignity. Through them man confirms himself: ‘I exist, I am a mathematician, I am religious. This means: I believe in some sublime ideal high above me that I can potentially achieve...’ Architecture and music are close sisters: matter and spirit; architecture is in music, and music is in architecture. In both beats a heart that strives to sublimate itself.”²⁴

Like Provensal, Kandinsky and others, Le Corbusier proceeds from the assumption that the knowledge of the eternal laws of human and cosmic evolution has always been reflected in great works of art, in other words: that real “art-architecture” has served and could serve again as a means of expression for these truths and insights.

For Le Corbusier, one of the tasks of architect-artists is to create the conditions for the “cosmic reintegration” of people and work. In fulfilling their actual responsibility and task of becoming images of the “*Grand Architecte de l’Univers*,”²⁵ of experiencing an education of the heart and mind that enables them to evolve into the laws of the universe, the work of architect-artists is fulfilled. These ethical and moral demands place the highest expectations on people. In *Modulor I*, Le Corbusier says: “The architect alone is capable of creating harmony between man and his environment (man = a psychophysiology; the environment = the universe: nature and cosmos).”²⁶

Provensal formulates his demands on the artist in a similar way: “But just as the plucking of a string causes all objects of the same resonance to vibrate, so the artist must touch in man that

which is capable of vibrating and harmonising with the artist's intention. It is therefore a kind of state of mind that the artist tries to evoke in the viewer."²⁷

Art, or rather the artist, thus has the great task of stimulating and promoting the evolutionary development of human beings. It is in this context that we understand Kandinsky's statement, which coincides almost literally with that of Le Corbusier, that art is therefore indispensable and expedient. Within this world view, which aims at the perfection of man and thus his cosmic reintegration, the "pathfinders," as the artists of this time saw themselves, have an eminently important role to play. When we use the term "symbolic approach" in our reflections to characterise Le Corbusier's attempts to realise the "principle of cosmic classification" in his designs, we want to understand this term in his sense: as an expression of cosmic laws or spiritual realities, as a symbol of the universal principles underlying the infinite manifestations of the material world.

According to C. G. Jung,²⁸ symbols illustrate a kind of individual mythology that has its analogues in collective mythologies, legends and fairy tales. They appear to have both an individual and a collective character and must therefore be interpreted and evaluated both individually and collectively. They belong in both a subjective and an objective context. Le Corbusier himself emphasised the objective content of the symbolic forms he used. In his "*poème de l'angle droit*" (*The Poem of the Right Angle*) a homage to the geometry of the right angle, he beautifully expresses the connection between the individual and collective content of symbols (section G.Outil):

*"On a
avec un charbon
tracé l'angle droit
le signe
Il est la réponse et le guide
le fait
une réponse
un choix
Il est simple et nu
Mais saisissable
Les savants discuteront
de la relativité de sa rigueur
mais la conscience*

en a fait un signe
Il est la réponse et le guide
le fait
ma réponse
mon choix.”²⁹

“One has
with a piece of coal
traced the right angle
the sign
It is the response and the guide
the fact
a response
a choice
It is simple and naked
But graspable
Scholars will discuss
the relativity of its rigour
but consciousness has made it a sign
It is the response and the guide
the fact
my response,
my choice.”

Each individual chooses, according to their inclination, from the ever-present, eternally valid symbols, “his” ones that he needs as working tools. Le Corbusier distinguishes the two levels mentioned by his choice of the article, the indefinite for the collective level and the possessive pronoun for the designation of the individual level. We are talking here about the path as an image of spiritual orders, of the realisation of intellectual ideas and processes in architectural concepts. The symbols used by Le Corbusier can be analysed according to the twofold approach mentioned above – firstly as an expression of an individual mythology or individual choice. We can follow his explanations, try to understand his use of terms, immerse ourselves in his use of symbols and try to comprehend his thought and work processes. Le Corbusier provides us with a wealth of material for this. Looking at the individual aspect requires us to be

prepared to recognise the complexity and contradictions in the use of the same symbols for different contents in his projects and to see them as the fruit of Le Corbusier's rich and creative character as well as part of a more comprehensive mythology. Secondly, this enables us to categorise Le Corbusier's individual approach to solutions in further intellectual and spiritual fields of reference, to understand them as spiritually related parts of a historical environment.

The fact that we include both approaches seems all the more justified as Le Corbusier, himself, gives us an indication of his frame of reference. He, himself, does part of the cultural categorisation process in his explanations: through allusions that only become perceptible through knowledge of the context or by directly naming his role models.

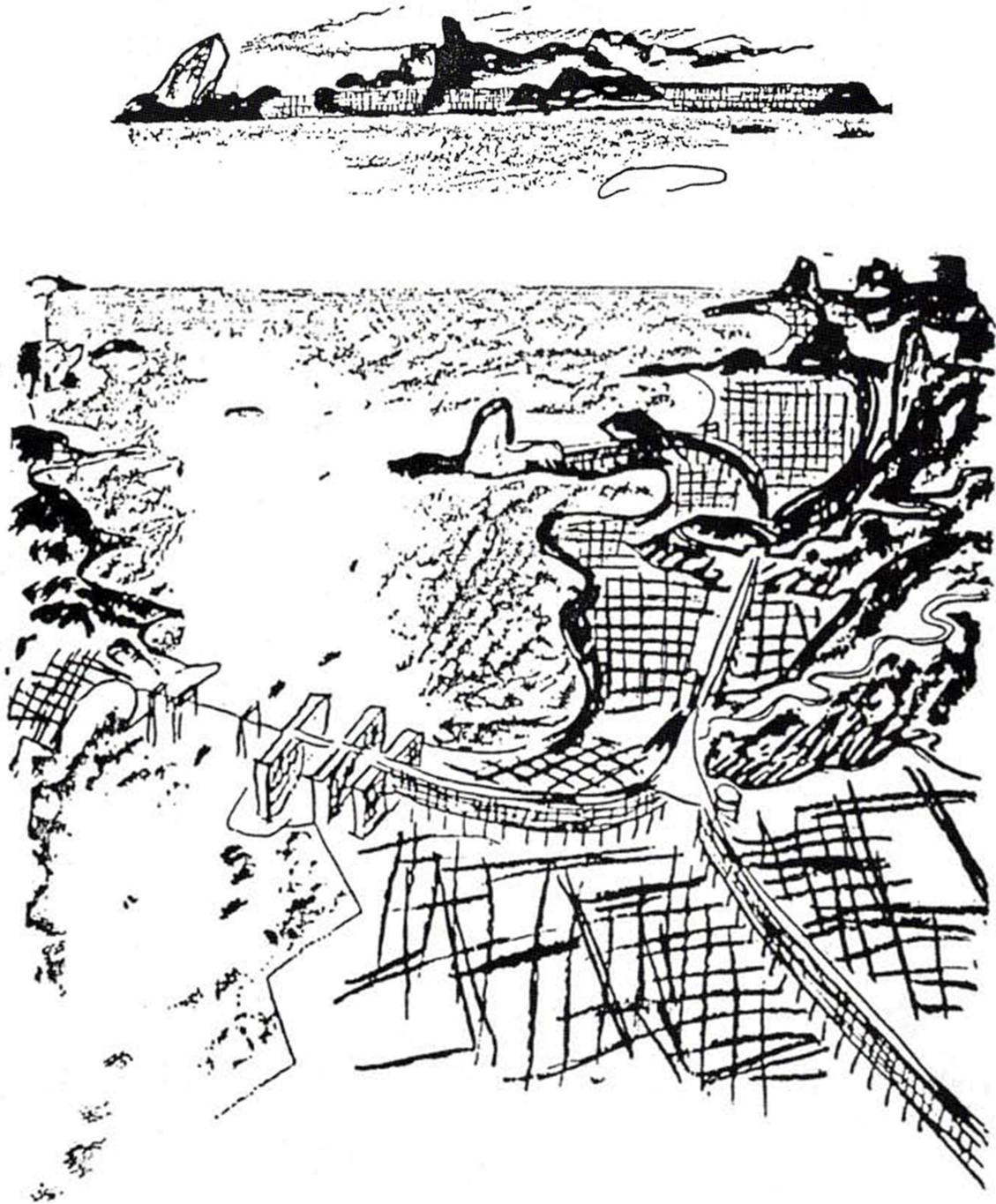
According to C. G. Jung, symbols are "images of meaning"; the term itself indicates that they originate from both spheres – the rational and the irrational. They cannot be grasped rationally alone. Jung distinguishes between allegory and symbol. He describes the former as a synonymous expression for a known content, the latter as something that always contains a residual meaning of something that cannot be expressed. This part eludes discursive reproduction, it is only accessible to intuition. Here we are reminded of Le Corbusier's definition of the term "intuition," which for him is synonymous with the individual power of cognition.

Whether something is ultimately a symbol or not depends, according to Jung, on the observing consciousness, i.e. on whether a subject has the gift, or is in the inner state of mind, to grasp an object not only in its concrete form, but also as a symbol for other realities.³⁰ It is a question of the observer's cultural fields of reference as to whether they are able to grasp a rich treasure in its various spectrums of meaning. Le Corbusier gives us clues to his uses of these symbols; it is up to us to see them.

If we turn in the next two sections to the path concepts in the urban design projects for South America and the cosmopolitan city project for Geneva, it is for two reasons: Firstly, because these projects are proof that a single principle – clothed in different manifestations – can appear in design; secondly, because both works date from the same period and are also mentioned together by Le Corbusier, as challenges of both rational and absurd ideas, as the initiators of great lyrical endeavours and, not least, as the results of the past twelve years, when his studio, according to Le Corbusier, never tired of revelling in the will to discover and mould the "substance of the now."³¹

It is clear from the joint mention of these tasks that the different use of the same symbolic form is probably to be seen as the result of a conscious examination of the possibilities of fully utilising these working tools. The importance that these works, which remained merely

projects, had in Le Corbusier's studio is shown by the fact that Le Corbusier speaks of the design period as a twelve-year period in which "modelling work" was carried out on the "substance of the now." The approaches from this period were brought to further maturity in the urban design projects for Algiers.

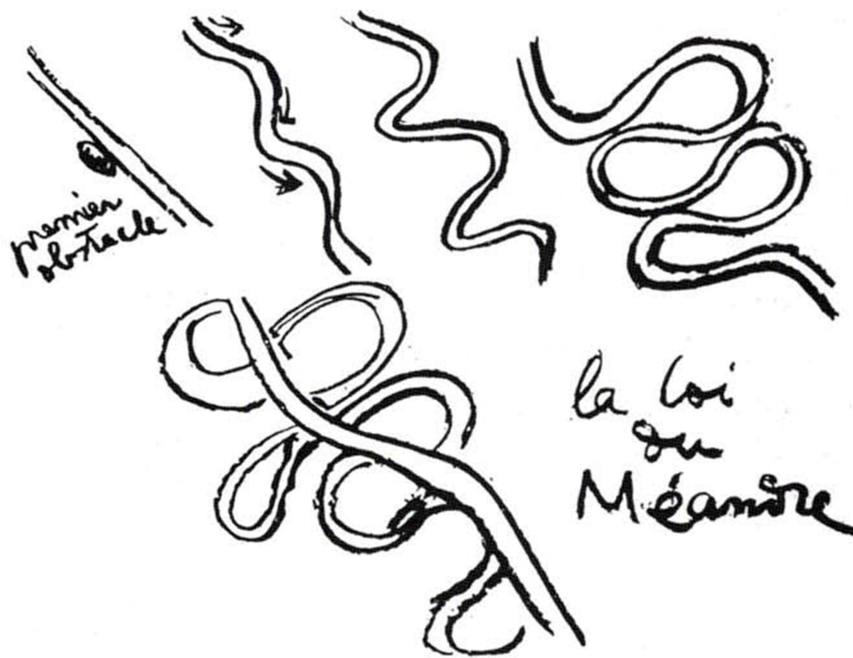


67, 68 Le Corbusier, Rio de Janeiro, 1929, travel sketches

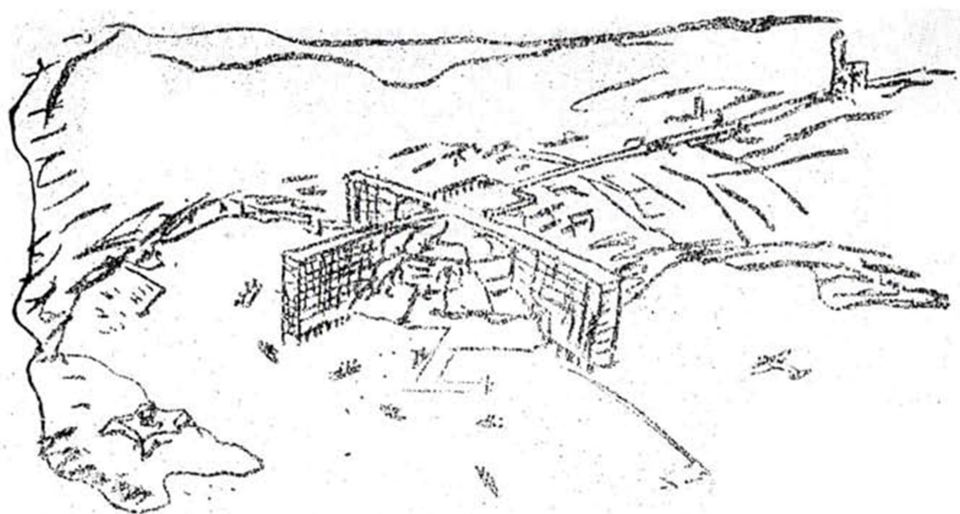
**The South American urban design projects of 1929:
Sao Paulo, Rio, Montevideo, Buenos Aires**

The “law of the meander”: a path problem

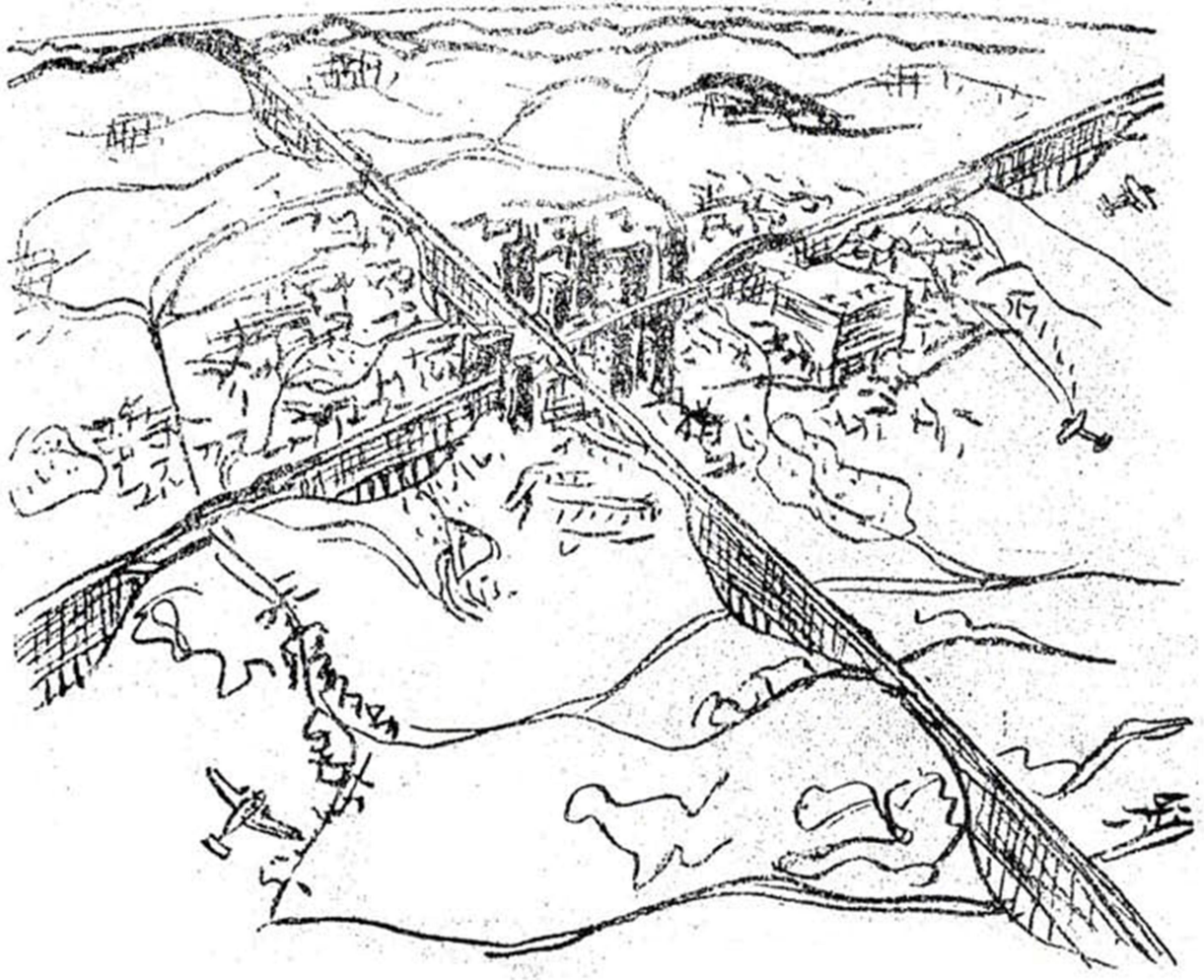
Le Corbusier writes that the South American lectures of 1929 had opened the door for him in all humility. Sketches, created under the gaze of the audience, would have enabled the spectators and also the author to once again be content with asking questions and giving the most candid answers.



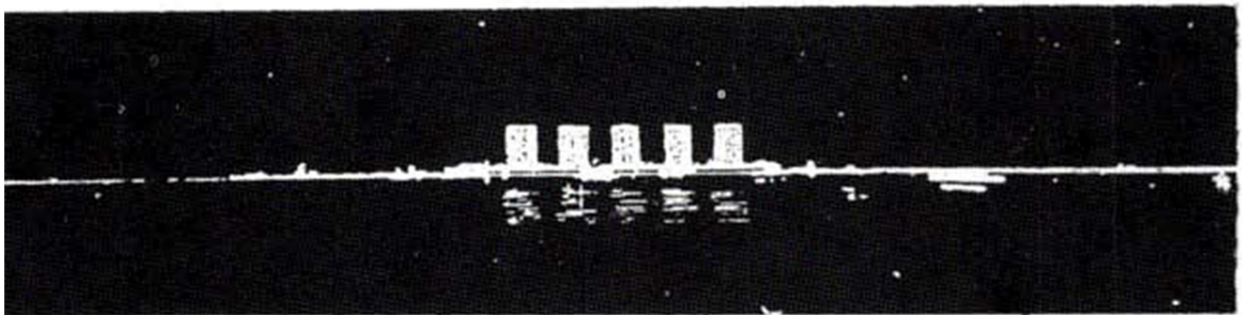
69 Le Corbusier *La loi du meander*



70 Le Corbusier, Montevideo, 1929, travel sketch



71 Le Corbusier, São Paulo, 1929, travel sketch



72 Le Corbusier, Buenos Aires, 1929, travel sketch

Incidentally, he would have discovered something very comforting in the profession of the “improvising travelling speaker.” He had experienced moments of almost painful clarity in which thoughts crystallised. The audience’s hostility was understandable; it found itself in the unpleasant position of eating a chicken without chewing. The audience had been overwhelmed by too many new ideas and their capacity for comprehension had been overwhelmed. However, this itinerant speaking enables the emergence of “momentary crystallisations,” which you are hardly ever challenged to do in your daily work. Here, on the other hand, you have to “explain, clarify, formulate” with ever new words. Although this is tiring, it is also the “healthy training of the improvising speaker.”¹

One of these “momentary crystallisations” that can be seen as a result of the South American journey, particularly the way in which it was undertaken, is what Le Corbusier called the “law of the meander” or the “law of the meandering line.” It is the common principle underlying the South American designs. It is twofold: on the one hand, it contains the realisation that all these urban design situations are based on the same problem, described by Le Corbusier with the term “city-centre disease,”² and on the other hand, the view that this problem can be met in all four cases with the same conceptual solution, the grand gesture of the “principle of the Pont-du-Gard.”

The diagnosis of “city centre disease” refers to the traffic crisis caused by the rapid growth of cities and the associated insufficiency of the old, small-scale, intricate road system: “Buenos Aires is one of the most beautiful things in my life. Buenos Aires is the most inhuman city I have ever known; no, really: the heart of this city is shattered. For weeks I walked through these ‘streets without hope’ as if in a dream. I was depressed, dejected, angry, desperate.”³

On Montevideo, he noted: “streets and a crush of cars foreshadow the deadly fate of today’s Buenos Aires in the near future. Urgent necessity in Montevideo – as everywhere: – the creation of a business district. But where?”⁴

And about São Paulo: “In the geographical centre (...) one can no longer move.”⁵ In solving these confusing traffic situations, this accumulation of “donkey paths,” as he also calls them, which at first glance appear to be a completely hopeless confusion, Le Corbusier remembers his journey to these countries and the insights he gained from them.

The mode of arrival plays a decisive role in these designs and at the same time marks their weak point. It corresponds to that of a traveller who, depending on the geographical situation of the city, attempts to reach his destination either by ship from the sea or by plane. The “viewer’s point of view” is correspondingly distant, in contrast to the point of view of the city dwellers, who are enclosed in the situation. The urban situation can be viewed from an overview; the

elements that constitute it move closer together, opening up new and more comprehensive readings of the spatial conditions.

The following statements confirm that this distant view of the situation became a source of new inspiration for Le Corbusier's urban design projects:

“The gaze of a man who has a wide horizon before him is proud; a wide horizon lends dignity. These are the observations of an urban planner. You get into an aeroplane and soar like a bird over all the bays, hover around all the peaks, penetrate the innermost parts of the city, snatch all the secrets from it with a single bird's-eye view, which it could easily conceal from the poor, crawling earth worm – and now you have seen everything, understood everything; you turn and fly back again (...). So now everything has become clear to you from the aeroplane, you have now understood this landscape – this moving and complex body; after the difficulties have been overcome, you are seized with enthusiasm, you feel ideas growing within you, you have penetrated the heart and soul of the city, you have grasped part of its destiny.”⁶ As later passages will show, these statements – they apply to Rio – also apply to the other urban design configurations that Le Corbusier also studied from the aeroplane. It seems that no effort was too great for him to grasp the problems posed by a design. Only the sum of the insights that result from the various viewer standpoints allows for convincing solutions in new dimensions and contexts. How else could one come to the realisation that a landscape can be compared to a moving and complex body?

Analogue thinking as a design aid

How this complex body could be integrated into the design concept, taking into account the complex traffic problems, the liberation of the city from its “city centre disease,” how this complicated interaction of the individual factors can be brought to a uniform, satisfactory urban design solution – that is the problem of the South American urban design projects.

Le Corbusier discovered the solution suitable to the four designs by observing an analogous situation. By consciously perceiving and reconsidering the phenomenon of the meandering line of rivers while flying over the broad design area, he succeeded in translating an existing potential into an urban design in an astonishing and precise manner. The phenomenon of the developing course of a river and its underlying laws inspired Le Corbusier to transfer his findings into a path design. Le Corbusier expressed his experiences as follows:

“From the aeroplane I saw scenes that could be described as cosmic. What food for thought, what a return to the fundamental truths of our earth! From Buenos Aires we flew over the delta of the Parana, one of the largest rivers in the world (...) We flew upstream for hours (...). The

course of these rivers in the infinite flat land peacefully explains the inexorable logic of physics: the law of the greatest angle of inclination and later, where everything has become flat, the law of the meandering line. I say ‘theorem’ – because the meandering caused by erosion is a cyclical phenomenon that is similar to that of creative thought, to that of human ingenuity. As I follow the course of the meanderings from a lofty height, the obstacles that human things encounter, the dead ends into which they fall, and the sudden unravelling of tangled situations, which seems like a miracle, explain themselves to me. For my own purposes, I have named this phenomenon ‘the law of the meander.’ During my lectures in São Paulo and Rio, I used this marvellous symbol when I presented my proposals for urban design or architectural reforms in order to be able to invoke nature in the face of an audience that, under the circumstances, I considered likely to accuse me of bravado.”⁷

The “law of the meander” shows the attentive observer the dual aspect of the challenging design situation: the problem and the solution. At the same time, it is also a symbol for the course of intellectual processes, such as creative thought and creative processes, and in this respect also symbolises an essential character of Le Corbusier’s work: the withdrawal, the introspection, in order to have time and peace, to transform disorderly situations from mental and spatial distance into simple and clear questions, to ask how and why. As Le Corbusier notes, this process – an intensifying problem and the solution that emerges from it – is a cyclical phenomenon that alert people are constantly confronted with. The correct observation of the problem heralds the solution. The river behaves like the idea, the idea like the river. It is the troublemaker himself, as Le Corbusier says, who provides the solution:

“I draw a river (...); the goal is clear, the course goes from one point to another: River or idea. A (...) difficulty of the mind: as a result, a tiny bend (...). From left to right the water flows, ever deeper it carves, bores and feeds; the idea blurs into the breadth. The straight line has become a meandering line (...). The meandering line becomes a characteristic feature, the meander becomes apparent; the idea has become fragmented. (...) the solution (becomes) terribly complicated.”⁸ “The troublemaker himself provides the continuation of the phenomenon and the solution: every obstacle melts into nothingness and disappears (...). The irritating ulcer breaks open – and the path runs straight on. This is the doctrine of the meander, of victory over oneself.”⁹

Le Corbusier applied the metaphor of the meander to his urban design projects. The idea of the large path gesture, the utilisation of the principle of the Pont-du-Gard, which Le Corbusier repeatedly cites as exemplary,¹⁰ allows him to transfer the phenomenon of meandering rivers into architecture in such a way that a benefit can be achieved on several levels:

- > Enhancement of the old town by creating a strong overall architectural form that emphasises the characteristics of the given situation, the existing elements through their contrasting position and appearance and links them to new visual and spatial contexts;
- > Optimal traffic flow for the new city at a certain height: the principle of the Pont-du-Gard is designed as a motorway spanning the city;
- > the Pont-du-Gard as an antithetical element to the natural conditions and also to the existing town, which does not form a contrast to the topography but, on the contrary, winds its way along the undulations of the terrain;
- > the Pont-du-Gard as a “plastic phenomenon in the heart of nature”;
- > the Pont-du-Gard as the horizontal added to the vertical elevations of nature, structuring and emphasising them;
- > the new, superordinate unity created by the harmonious interaction of the existing and newly added parts.

In the face of such enormous problems (traffic chaos, topography), urban planners and landscape architects are either at a loss or are saved if they know how to utilise the technical means and appeal to their creative lyricism. In an indescribable symphony, nature, united with geometry, will create a “*poème plastique*.”¹¹ The Gordian knot has been untied; the overarching unity does not seek to destroy the contradictions, but rather to create a new equilibrium through an exciting juxtaposition, through the mutual delineation of the elements, the balance of the contrasting parts. These contradictory parts reinforce each other in their own value; in their interaction they produce something else, something new that is more than the sum of its parts, or, as Le Corbusier puts it, a concert that stirs our hearts and minds.¹²

The aim of South American urban design projects is to create such astonishing syntheses. The aim is to create a moving concert of new unity consisting of opposites, solutions that, if they are truly great, marry nature with serenity¹³ and lead to the unity to which uninterrupted and transcending labour would lead. The principle of the Pont-du-Gard, deployed as a straight line, as a motorway spanning the city, distinguished as the horizontal line opposed to the topographical conditions, is intended to create the new unity. Le Corbusier writes about Rio:

“I imagined this view from afar: the beautiful wide row of buildings – and the motorway running horizontally across them, reaching from mountain to mountain and stretching from one bay to the other (...). Now – with this distant view of Rio – I picked up my sketchbook again; I drew the mountains and between the mountains the future motorway and the row of buildings that will carry it; and your mountain peaks, your Sugar Loaf, your Corcovado, your Gavea, your Gigante Tendido – they were all emphasised by this clear horizontal (...). The whole

landscape would begin to speak – water, earth, air; it would speak the language of architecture. A poem would emerge from human geometry and the imagination of nature. The eye would see two things: nature and the result of human labour. The city would be indicated by the only line whose song harmonises with the fiery caprice of the mountains: the horizontal.”¹⁴

By incorporating nature into the urban-architectural concept or, conversely, by integrating the architectural idea into the surroundings, both thesis and antithesis begin to express themselves in the language of the other: The architecture would speak of the landscape, and the landscape would speak of the architecture. Both would formulate each other, specify each other and intensify their expressive value. In the case of Rio, the symbol of the right angle appears as the underlying principle of the more complex external manifestations – the curved motorway (the horizontal) and the elements of nature fragmented into an infinite number of verticals. The horizontal and vertical are only present as abstractions; the path (the motorway) itself only claims one half of the symbol in order to create the new, overarching unity in interaction with the other.

This is also the case in Buenos Aires. The projects for São Paulo and Montevideo also show the form of the right angle in their ground plan, although in the latter case one wing of the complex is extended. It is important to point out the complex way in which the same symbol is used in these designs. In the case of Buenos Aires, for example, Le Corbusier was inspired by the memory of his arrival on the ship, which gave him the idea of the “majestic horizontal” – formed by the single line created by the meeting of the land and the sea – to enrich the city with another, additional horizontal – formed by a huge platform projecting into the sea, the support for the new commercial city and the motorway. All of Le Corbusier’s South American urban design projects are characterised by the idea of the erected right angle – formed by nature (symbolised by the abstract vertical) and the added geometry (road system/building: symbolised by the abstract horizontal). The erected right angle is to be seen as an abstract symbol of the newly won unity of opposites.

Regarding the project in São Paulo, Le Corbusier wrote: “What if you did the following: if you created a horizontal link 25 kilometres long from hill to hill, from peak to peak, and then a second link at roughly right angles, touching the other main points? These horizontal connections at right angles to each other are the great access and transit motorways of the city (...). These motorways I am proposing to you are huge viaducts (...). A precise project, a resolution. (...) What a marvellous sight the landscape would be! What an enlarged aqueduct of Segovia, what gigantic Ponts du Gard! Lyricism would be at its expense here. Is there anything more elegant than the clear line of a viaduct in a moving landscape, is there anything more

diverse than these substructures that plunge deep into the valleys in an endeavour to meet the ground?”¹⁵

The new horizontal, designed as a right-angled path system, is directly linked to the cultural reference points that serve as models: the Segovia aqueduct, the principle of the viaduct. Architecture is described as an element that treats the natural environment with respect, that engages with it and creates a new elegance together with it. Le Corbusier also emphasises the importance of having the opportunity to respond to an urban situation with a “decree.” However, this would require a “genius” who could be trusted with such a holistic solution, indeed, who could be entrusted with the fate of an entire city or region. The Montevideo project also strives for the mutual valorisation of building and context. The project envisages an extension of the promontory, again in the form of a system of paths (motorway) that extends over the harbour and ends abruptly. Le Corbusier described the visual enhancement of the promontory as a “spectacle of architecture.” Again, he cites his historical role models: Marseille – Vieux Fort, Antibes – the fortress, the Villa “Hadriana” in Tivoli (the large platform above the Roman plain).

We can state that in Le Corbusier’s South American designs, the idea of the overarching unity of the parts constituting the design is central. It is a question of integrating the building, which in the four cases discussed consists essentially of a system of paths, into the context. The elements of the situation play a decisive role here; as components of the design, they are integrated into the overall concept in such a way that the “built structure,” as a static contrasting form, consciously contrasts with the moving forms of the given situation.

The building appears as the powerful (additional) horizontal, which, through its striking – straight or curved – line, allows the surrounding elements to unfold and derives its effect from the formally deviating, moving elements of the context. According to Le Corbusier, the vertical lends meaning to the horizontal, or conversely, the horizontal lends meaning and significance to the vertical.¹⁶

For Le Corbusier, the horizontal and vertical are instruments for harmonising opposites. However, this presupposes two things: firstly, the ability to see horizontals and verticals in their abstraction. Le Corbusier comments: “I would like you to learn to appreciate the omnipotence of lines (...), the place of all dimensions (...); the clear line is the boundary between sea and sky (...): a vertical cliff. (...) Its vertical forms a right angle with the horizontal of the sea. Crystallisation – a landmark in the landscape. Here is the place where man stands still – for here is perfect symphony, the miracle of relationships – nobility. The vertical gives meaning to

the horizontal. The one lives from the other. Here you have the power of synthesis. (...) this 'place of all measures' (...) here is the key to the poems of architecture."¹⁷

Secondly, a useful concept for realising this superordinate unity in a design, as Le Corbusier succeeds in doing with the transfer of the meander principle to an architectural path. The problem is a dialectical one; a synthesis must be developed from the confrontation of thesis and antithesis.

The South American urban design projects have the effect of a multi-layered statement:

The city is to be seen as a "vast image" that, as Le Corbusier writes, challenges us to actively engage with and relate to it. In *Städtebau (Urbanism)* he states:

"Poetry is the work of man – agreed interrelations between perceptible images. The poetry of nature is, strictly speaking, nothing but a construction of the mind. The city is a powerful image that activates our spirit. Why shouldn't the city be a source of poetry, even today?"¹⁸

The city as a "source of poetry" is probably the most apt description for characterising Le Corbusier's South American urban designs. He attempts to fulfil the demands made in *Vers une architecture (Toward an Architecture)* – "we need cities (...) whose overall structure is beautiful."¹⁹ In *Feststellungen (Findings)*²⁰ Le Corbusier complains about the city founders, who had still not realised that the street was no longer a surface, but "a structure stretched out in length, a building – a body and not a skin"; in *Städtebau*²¹ he speaks of the modern street as a kind of "factory of length," which must be a masterpiece of engineering, no longer a product of excavators. Here, Le Corbusier clearly refers to the character of his urban design street concepts. At the same time, he points to the role of technology and engineering, which serve as contemporary instruments to realise the architectural masterpiece of poetry, but never represent it themselves – technology in the service of "art architecture."

Le Corbusier's South American urban designs are based on both horizontal and vertical images: "The flat and placid coast of Argentina will bear the mark of the creative spirit."²² Le Corbusier speaks of the "clear horizontal," of Rio's chain of lights visible from afar, of the elegance of the viaducts in São Paulo, of Montevideo's "finger-shaped" hand spread out towards the sea as images that are created from different perspectives.

What is added is also a statement that enables different interpretations with regard to the role of the object in the context or the context in relation to the object:

"I have gone in search of greater architectural truths. I realise that the work we build is not alone, not isolated; that the atmosphere of the surroundings forms walls, ceilings, floors; that the harmony that made me stand still so suddenly before the cliff in Brittany exists – can exist

everywhere and always. The work is not something that emerges on its own: there is an outside. And this outside encloses me in its entirety like in a room. Harmony arises in the distance – everywhere, from everything.

How far away we are from the ‘styles’ (...). We are on a plain, a flat, open plain. Can you imagine how the landscape is poetic to me? (...) The same house is a completely different one here (...) Each time our sensitive heart discovers new treasures. These immanent realities make up the architectural atmosphere, and they are always present to those who know how to look (...).”²³

The house of which Le Corbusier speaks is replaced in the designs discussed here by the idea or image of the “right angle” and the straight or curved horizontal, which change form and meaning in the form of “path images” according to their surroundings, but always attempt to create a symphony, a poetic composition with the surrounding volumes and elements. In a lecture for students, Le Corbusier names the elements that enable the composition of a symphony: “the law of the sun, the landscape, the topography, the scale of the buildings, the external circulation (...), the internal circulation, the countless tools of technical inventions (...), the introduction of new building materials and the preservation of ancient materials.”²⁴

On his “*voyage d’Orient*” in 1911, he discovered architecture adapted to the landscape. “Even more, the architecture was an expression of the landscape, was the language, the eloquence of man (...).”²⁵ The Parthenon and the Acropolis had taught him a lesson. He urges his listeners to proceed in the same way, to extend the realm of confined, square rooms to the limits of the horizon. As Le Corbusier tried to do in his urban designs for South America, the architectural work should add something to the outside, but at the same time incorporate this outside into the inside. This is called “atmospheric” composition.²⁶ For Le Corbusier, a situation is something that changes through architectural interventions. Types of landscape die and rise again.²⁷ The architectural work and the situation are to be considered as a whole, like head and body. By joining them together, they change each other: not by opposing each other, but by creating a contrast of equal weight. Through its contrasting stance, the architectural object draws attention to the qualities of the context and, conversely, the contrasting elements of nature give it a different meaning. In order to lend weight to the landscape, one would have to limit it, give it a measure.²⁸ This idea is perceptible in the South American projects. With the respective horizontal organisational structure, the path pictures, Le Corbusier attempts to tie the elements of the situation together, to place them in precise relation to each other and to the architecture. The “*objets trouvés*” of the situation are arranged by the architectural element of the path structure to form an ensemble, an overall composition.

Le Corbusier's "*La maison, qui fait le paysage*" (The house that makes the landscape) could be supplemented by: "*Le paysage, qui fait la maison*" (The landscape that makes the house) – this would be a precise description of the artistic work that Le Corbusier achieved in his South American urban designs. "The building may be 100,000 cubic metres, but what is in the surroundings is millions of cubic metres and must be considered."²⁹

Furthermore, these projects contain more significant statements on the subject of path and movement.

On the one hand, the urban designs show the static representation of the phenomenon of movement in the plane, in the form of enormous horizontals. On the other hand, effective movement through the same architectural elements is also made possible by the fact that these elements are roads, motorways, i.e. paths. The third reference to the phenomenon of movement is the fact that architectural objects cause the viewer's eyes to move, following the horizontal profile of the shapes and the surrounding elements that differ from them. The viewer's eye is constantly in motion in order to grasp the spectacle of contradictions in harmony.

In addition, the path concepts are "multifunctional" elements. The South American projects are not just motorways and roads, they are promenades, "Gardens of Semiramis," roofs that can be driven on and walked on, also the "line against the sky," profile of the city: "Urban surface for gardens and promenades. To put it poetically: the gardens of Semiramis are there; (...) The line that the city draws against the sky is pure, and it allows us to organise the urban landscape in a broad generosity. And this is fundamental. I repeat, this line against the sky is decisive for the perception; it is nothing other than the sculptor's profile, the outline (...) principle of line formation."³⁰

The skyline of the city, this line so important to the eye, which can cause pain or pleasure, the enormous second contour, which is juxtaposed against the first, formed by nature, is intended to be a place for people to linger, a walkway and a poetic element in addition to facilitating traffic. But these multi-purpose pathways are even more than that: they are supported by blocks of buildings designed for people, blocks of villas that would enhance the city's landscape. Viaducts on reinforced concrete structures could be converted into offices in the city centre and apartments on the periphery.

"We will superimpose what can be called the soul of the city on what constitutes the mechanism of the city. The soul of a city is that which turns out to be unnecessary for practical gestures of existence, which is quite simply poetry; the soul of a city is an absolute feeling linked to our being, an absolutely unique state (...). Urban design that is concerned with

happiness or unhappiness, that sets itself the task of creating happiness and eliminating unhappiness, would be a worthy science in this time of confusion. (...) For once it renounces the bitter, foolish storm of individualism after selfish desires. (...) Rather, it demonstrates the coming to one's senses at the critical moment; (...) everything (...) is driven towards a powerful creative goal.”³¹

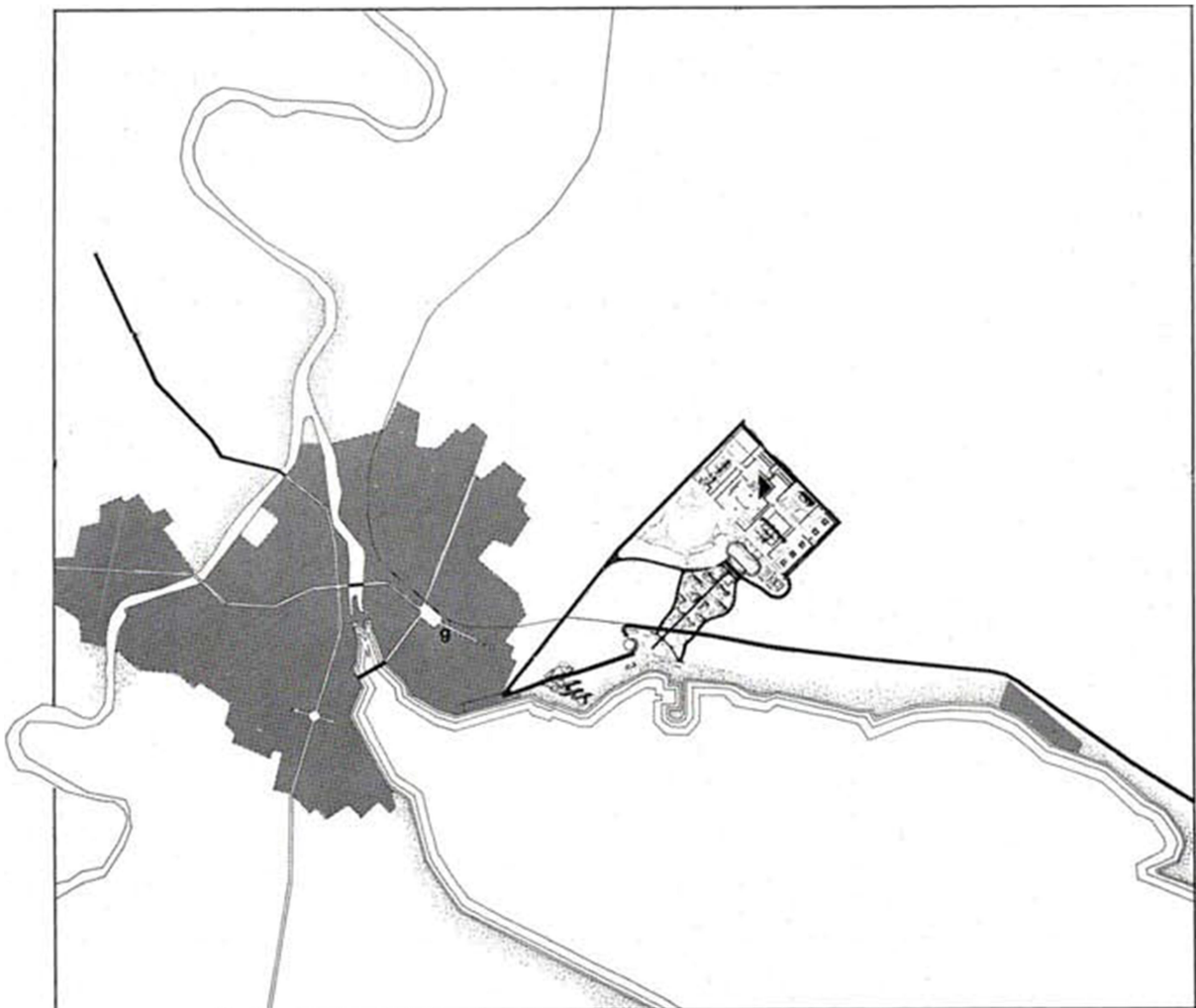
It is by no means enough to fulfil the functional and structural requirements. A city is like a structure that has a soul and a radiance. Le Corbusier focused his attention on this essence of the city. The laws of the city are subject to the same cosmic conditions that apply to man and nature. The “principle of cosmic integration” is part of the new science that is appropriate and worthy of today's world and taking it into account opens up ways for people to relate to architecture and nature. What more remains to be done, asks Le Corbusier in *Städtebau*,³² when the geometric elements of architecture and the picturesque elements of vegetation converge, in the face of such a wealth of form-giving elements, than to unfold these treasures? This is what Le Corbusier endeavours to do with the greatest dedication – even if it must be mentioned that for the people of the city the perceptual positions on which these urban designs are based remain an exception, that they essentially live “in the picture” instead of viewing it from a bird's eye view. Le Corbusier's visions remain on the scale of the territory. They are not concerned with the huge shadows that the monstrous urban design projects would cast on life at the foot of the new Ponts-du-Gards, nor with the possible changes to the microclimate, etc.

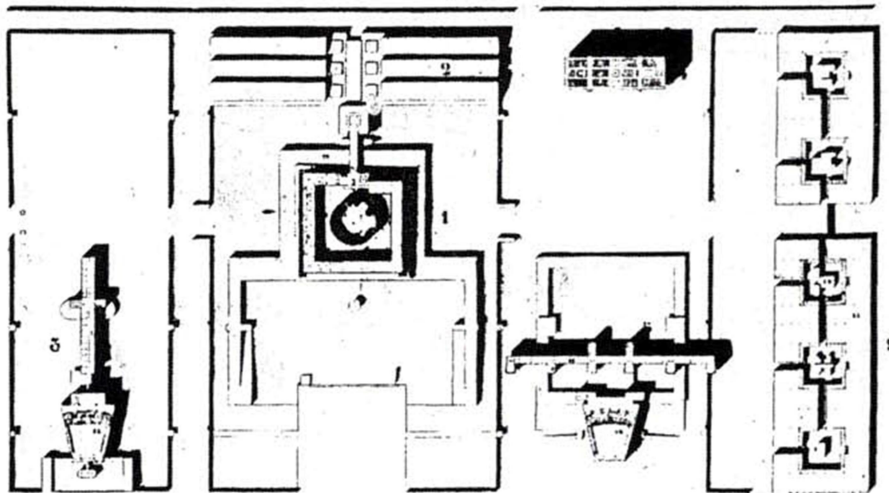
The “Mundaneum Project,” Geneva 1929: a reformulation of the “Holy City” typology

Of the path-cross as a world-defining architectural formula

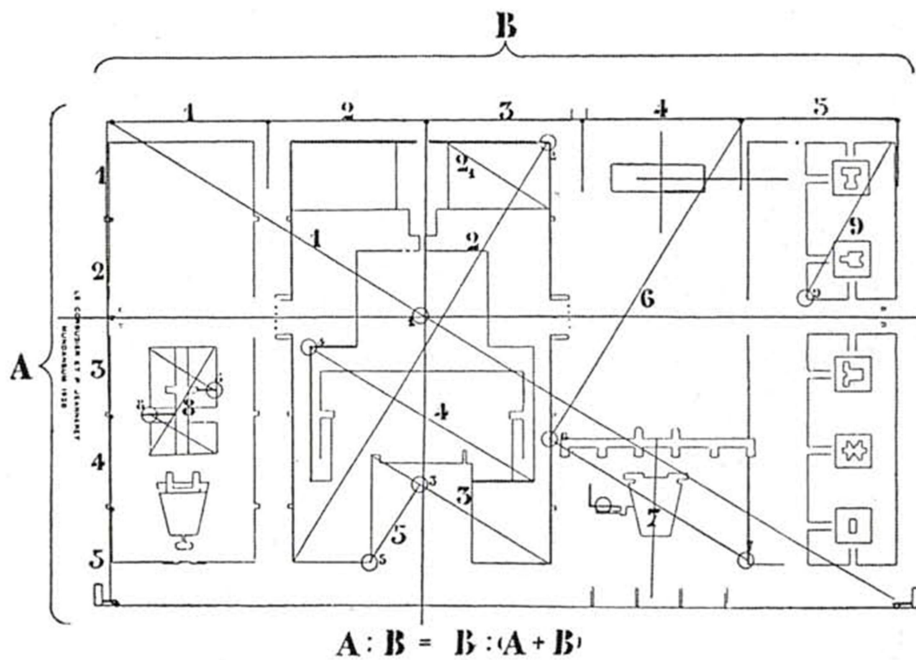


73, 74 Le Corbusier, Mundaneum project, 1929, Aerial perspective and site plan





75, 76 Le Corbusier, Mundaneum project, 1929, site plan and proportional studies



In 1929, celebrating its tenth anniversary, the “*Société des Nations*” formulated the idea of a “world city project.”¹ Paul Otlet wrote: “This historical moment – ours – could it not be the one that, coordinating facts, projects and circumstances, would allow us to join forces to build, at the entrance to Geneva, that powerful instrument of contemporary humanist concerns that call for peace and progress: the world city?”²

The concern for intellectual and moral coexistence on an international level deserves special attention within this project. Otlet argues that universal life is not limited to political, economic and social aspects, but that the sciences, the arts, education, the moral and spiritual questions of the time, as central components of human life, also require international co-operation.

Le Corbusier was invited to design a proposal for the urban concept, which consisted of fourteen different sections. The Mundaneum, in which we are interested, is the part of the “*Cité Mondiale*” dedicated to the artistic, moral and spiritual aspects of human life, an educational centre that brings together five major institutions: library, museum, scientific associations, university and research institutes.³ In *Extraits de l’architecture vivante*, Le Corbusier writes about the Mundaneum project:

“From an architectural point of view, this is an attempt at ‘*haute architecture*’ (...). The site chosen lies between the Grand-Saconnex and Prefny, on an elevated plateau, dominating the whole of Geneva’s surroundings and offering the most majestic views from its four main vantage points. (...) . The diagonals of the Musée Mondial, on which the architectural composition is based, rigorously mark the four cardinal points (...). The longitudinal axis opens on one side onto the upper part of the lake and on the opposite side onto the mountains of Ain. The view is dominant on all sides. The Mundaneum is designed as a rectangular city. The ratio of width to length (...) is given by the golden section. All other internal subdivisions of the rectangle obey the same module of the golden section; thus, great unity and balanced proportions prevail. The four corners of the Musée Mondial precisely denote the four cardinal points. (...). The functions of the Mundaneum are very different. Each building is a unit that is more or less surrounded by formal perimeters. These perimeters open up as required, in particular along the two main axes, the intersection of which forms the top of the Musée Mondial pyramid. The two axes result from the division of the sides of the main enclosure in the golden section; due to the slope of the terrain, the two axes open up the composition to the two most striking aspects of the landscape: Mont Blanc and Haut-Lac.”⁴

With this characterisation of the Mundaneum complex, Le Corbusier provides an exact description of the type of *Die heilige Stadt* (The Holy City), as Werner Müller describes it in his book of the same name.⁵ In his research work, he traces the presence of the cross of paths or axes in connection with the stepped monument, the emphasised centre, as a “world-forming architectural formula”: from the ancient Italian (Roma quadrata) via the Germanic (the Heavenly Jerusalem, medieval ideal city) and Indo-European (Uranopolis, Indian and Iranian royal cities and cities in the hinterland of India and Africa) back to the megalithic (Mount Zion and the Rock of Creation, stepped forms in Western Europe) cultural sphere.

Müller considers it inconceivable that such an accumulation of the same cosmological architectural form, the “four-world picture,” as he calls it, is due to chance. The fact that different manifestations have a common principle points to related spiritual and historical foundations.

Characteristics of the “Holy City” typology

1. The right angle, the crossing or the cross-path

Le Corbusier says that everything that comes from man is expressed in a system of forms that is a “reflection of the spirit” that ordered its construction.⁶ He claims that the use of the straight line and the right angle in particular bear witness to power and will. The use of these forms, he argues, falls within the peak epochs of humanity. Culture is a state of mind of perpendicularity; one must be strong enough to be able to draw straight lines and to want the moment of the straight line in history to mark an end point, comparable to the Parthenon or the Voisin car.

As examples, Le Corbusier names Babylon, Beijing, the Egyptian temples, the rectangular cities of North Africa, the holy cities of India and cities of the Roman Empire.⁷

The principle of “quadripartition with an emphasised centre” does indeed seem to be a kind of “primordial element of religions”:

“The prehistoric settlement on stilts, the hut of the savage, the house and temple of Egypt, Babylon (...), the Chinese city of high culture, Peking, all show how the right angle and the straight line are inextricably linked to every human deed (...), then prove how the spirit at the height of its ability and greatness expresses itself through the right angle, (...) a single, fixed, pure system, capable of linking itself and the idea of glory (...) to the idea of the highest purity, the primal essence of religions.”⁸ Le Corbusier is attempting here to understand a symbol as the collective good of humanity. The use of the symbol does not seem to be limited to the scale of the city; individual buildings – temples, churches, huts – can also be cited as examples. In the Mundaneum project, the central pyramid is also described as relating to this order.

We cannot give an even remotely comprehensive answer here to the question of what possible collective content or ideas underlie this symbol or meaningful image of the right angle, the fourfold division; this would perhaps not even be possible in a separate study. Pennick’s description⁹ should therefore serve us here as a possible answer:

“A human being sees the world (...) by means of his physical presence in it, and, like a bisymmetrical animal, he has four basic orientations or directions: front, back, left, right. These correspond in miniature to the macrocosm of the earth (...), which by its structure presupposes four directions, which are determined by the two poles of the axis around which it rotates,

north and south, and the directions of the rising and setting sun, east and west (...). Just as the individual (...) is the centre of his experience, which is perceived in relation to four directions, so in geomantic tradition the *omphalos* (navel) is the central point of reference from which the four directions are viewed. (...) The four directions symbolise the stability of the *omphalos*, where they begin (...). Just as the four directions were ascribed their sacred correspondences, the cosmological scheme of the four quarters of the earth served as the basis for the geometric design of cities as well as (...) for the ideal design of entire countries. The concepts of the fourfold division of the world and the corresponding protective powers have emerged in almost all cultures.”

In contrast to Pennick, who emphasises the representational function of the four quarters of the earth in connection with the fourfold division, Werner Müller and Aniela Jaffe, a colleague of C.G. Jung,¹⁰ particularly emphasise the relationship of the right angle to the axial cross, the navel of the world or *omphalos*. What is interesting, however, is the idea of the stabilising function attributed to the axial cross with the *omphalos* in the centre, which all three authors write about.

An equivalent statement based on the same ideas can also be found in Le Corbusier’s work:

“To us the law of gravity seems to determine the battle of forces and keep the universe in balance; thanks to it we have the vertical. On the horizon, the horizontal is visible; a line that for us epitomises immobility. The vertical forms two right angles with the horizontal. There is only one vertical, there is only one horizontal: they are two fixed quantities. The right angle is, as it were, the integral of the line from the transcendental ground plan of immobility. The vertical and the horizontal create two right angles. There is only one vertical, there is only one horizontal; there are two constants. The right angle is, so to speak, the dead centre of the forces that keep the world in equilibrium. There is only one right angle, but there is an infinite number of all the other angles.”¹¹

The term “transcendental floor plan” points to the non-material origin of this symbol, which refers to a specific point in the cosmos. With the statement that there is only one right angle, Le Corbusier demonstrates in the most concise form the multi-directional or, in other words, universal applicability of this symbol.

In his description of this symbol, Le Corbusier goes beyond this collective content when he says that this symbol corresponds to the “gesture of human consciousness,” i.e. it is a symbol of the human spirit.¹² The architectural concept of the “four paths” was born with the concept of quartering. As paths to the centre or destination, whose prominent place in the Mundaneum design is occupied by the “*Musée Mondial*,” and as paths leading away from the central point,

from the place of equilibrium in the four directions, which either corresponded to the four cardinal points or referred to them in a certain way, they required special orchestration.

Le Corbusier chose the term “*Réponse aux quatre horizons*” for the relationship between the “four paths” or the two main axes and the surrounding landscape. In his description of the Mundaneum project, he referred to this reference, to the opening of the axes to the two most poignant aspects of that landscape.

Le Corbusier never realised his architectural ideas in just one way. Even in his project for Ronchamps, which does not show the presence of two axes in the same way, he makes reference to the four cardinal points:

“A chapel of pilgrimage on the far foothills of the Vosges, will be a place of gathering and prayer. It overlooks the Saone plain to the west, the Vosges mountain range to the east and two small valleys to the south and north. The landscapes of these four points of the compass are a presence, are the guests. The chapel addresses these four points of the compass through the ‘power of an acoustic miracle introduced into the realm of forms.’”¹³

2. The “dead centre of forces” or the point of intersection or *omphalos*

The “death point of forces,” as Le Corbusier calls the intersection of the two intersecting lines or axes, this “distinguished place” has always been the subject of an infinite number of mythological narratives, related to each other and yet appearing in different guises. It is called the navel of the world, the pit, mundus, etc. in specialist literature. It is always a remarkable “place”: by setting a stone, for example, the unbridled, “untamed energy of a place” is fixed. *Omphalos* legends are always about the establishment of order instead of chaos; battles with the serpent power of the earth are often depicted. The setting of the *omphalos*, designed as a ritual, presupposes the ability to locate certain “energetic places” and then marks a place where the earthly and the heavenly converge. Le Corbusier has placed an instrument of cognition in such a “place,” which is intended to give materialistically minded people the opportunity to refer back to their spiritual origins: the *Musée Mondial*.¹⁴

3. “*Hauts-Lieux*” or “special places”

Le Corbusier uses the term “*Hauts-Lieux*” in connection with the location of an architectural work and the choice of special places. This refers to places that have special physical and ethical qualities or appeal and are characterised by particular purity. As an example, Le Corbusier mentions Ronchamps, a chosen place, a “*haut lieu*,” where there used to be pagan

temples and later Christian institutions. In his description, which remains shrouded in allusions, Le Corbusier speaks of sacred places whose background is difficult to understand.¹⁵

Perhaps he is thinking of the remains of Cathar castles. The Cathars chose the term “*hauts-lieux*” for the particular location of their castles, such as Montsegur, which is literally “*en plain air*,” with the four horizons spread out at its feet. Obviously, these chosen locations include the elevated viewpoint, which offers a view in all directions. This requirement was of course particularly important for those installations that were intended as “observatories.” The sun had to have free access to the architecture of the site. In his research on the two Cathar castles of Montsegur and Queribus, Niel¹⁶ attempts to prove their intended function as observatories.

4. The carefully harmonised dimensions of the entire architectural complex

We are reminded of the importance of the harmonious coherence of all parts with the whole both in the literature already mentioned and by Le Corbusier in his description of the project. Le Corbusier emphasises that the Mundaneum is not only built on the cross of paths and the dead centre of forces, but that all dimensions, both of bodies and spatial structures, relate to the harmonious reference system of the golden section.

The following two passages are intended to illustrate how old the theme of the “Holy City,” is – the “city as an image of the cosmos”:

“And the city lies foursquare, and its length is as great as its breadth. And he measured the city with a rod twelve thousand yards. The length and the breadth and the height of the city are equal.”¹⁷

“The great age of the quadripartite plan, which is the overwhelmingly most common image of the ideal city, is proven by the ancient Egyptian hieroglyph for city, which is a four-part circle.”¹⁸

The realisation that the architecture of past epochs is an expression or symbol of the respective religious or spiritual conception is fundamental to Le Corbusier’s thinking.

In a letter to his former friend and teacher L’Eplattenier from 1908, he addresses this subject. At the age of twenty-one, in Paris for the first time and constantly busy broadening his horizons, he wrote in inner turmoil and full of reproach: “You, Grasset, Sauvage, Jourdain, Paquet and others, you are liars – Grasset, a paragon of honesty, liars, because you don’t know what architecture is all about – but you others, you architects, liars, yes, and even more, imbeciles. The architect must be a man of logic; (...) a man of science and even more of the heart, an artist and a scholar. I know it – and none of you have told me: the ancestors speak well to those who ask them for advice. Egyptian architecture was like this because the religion

was like this, as were the materials available. A religion of secrets, (...) Egyptian temples. Gothic architecture was like that because the religion was like that and also the materials. A religion of expansion and small materials – the cathedral. (...) One speaks of an art of tomorrow. This art will be. Because humanity has changed its way of life and its way of thinking. The programme is new.”¹⁹

Le Corbusier calls his teachers and masters “liars” not because he thinks they deliberately lied to him; they are liars because of their “ignorance.” This statement, which is reminiscent of Platon, who described ignorance as a sin, shows in its vehemence how emotional the young Le Corbusier was as a result of his discoveries, how engaged he was with the relationship between spiritual content and external form in architecture. This type of architectural reference to spiritual and religious backgrounds could be described as “religious symbolism.”²⁰ Of course, in order for such architecture to be created at all, it is not enough to be able to build; the architects of such works must have psychic and spiritual powers in addition to the power of thought, they must be artists and “knowers.”

The expression “savants” used by Le Corbusier in this context is to be understood as a clear reference to his Cathar background;²¹ the Cathars called their experts or initiates “savants.” A further statement from 1942, 34 years after the above-mentioned letter, shows us that such considerations became a lifelong theme for Le Corbusier. He speaks of the medieval architect as a privileged “*maître d’oeuvre*” whose knowledge is rooted in a religious tradition and who is therefore initiated into the secrets of ancient knowledge. In his opinion, the masters of the Middle Ages knew how to lay the foundation stone, how to orientate it and how to arrange the meaningful, interrelated elements in order to give precise expression to the hierarchical order. Le Corbusier cites Chartres Cathedral as an example of how the underlying relationships of order (which incidentally also occur in nature) can be visualised through numerical proportions.²²

In connection with the Mundaneum project – from an architectural point of view an “*essai de haute architecture*,” an attempt to create significant, “higher” architecture – it can be pointed out here that Le Corbusier saw himself in a situation comparable to the medieval “*maîtres d’oeuvres*.” As we know from Paul Otlet’s explanations, the Mundaneum part of the *Cité Mondiale* was to be dedicated to the intellectual, educational, artistic and moral aspects of human interests. Otlet even addresses the idea of a possible new international faith that could, as it were, form a worldwide common spiritual basis for nations:

“In the spiritual and religious sphere, internationalism is quite old. Christianity was founded as a universal religion twenty centuries ago. Buddhism, Judaism and Islam are also no longer

bound by national borders (...) In the area of churches and social problems, mutual understanding and respect between different religions, people are constantly working together, also for a common religious basis, which could consist either in a basic set of common principles or a new faith. The importance of this movement was underestimated for a long time (...). A permanent interreligious organisation was called for; the idea of a temple of all religions was formulated (...).”²³

The situation in which Le Corbusier found himself with the commission to conceive a design for a cosmopolitan city represents one of those rare “moments” in history that Provencal repeatedly refers to in his book *L’art de demain*, a “turning point” that must be recognised. The time has come that calls for those alert, conscious contemporaries, described by Provencal as “*phares*,” who, as Le Corbusier puts it, are ready to achieve something great. A new era begins: art is offered the opportunity to return to its source and take a new direction. It is called upon to translate the great mysteries into the world of materials through artists in the service of humanity, to give them expression. Our era, says Provencal, offers an excellent terrain for the blossoming of new ideas and thoughts that could form a solid basis for the “Colossal Monument,” for the “*monument de la grande synthèse*”²⁴ that could represent the splendid moral content of religions and philosophies.

At this point, Le Corbusier saw himself in a position to realise in a design what he had already mentioned in his letter to L’Eplattenier in 1908 with regard to Provencal’s ideas: “the new programme.” He sees the moment as having arrived when all the means have been tested and the perfect tool guarantees perfect realisation:

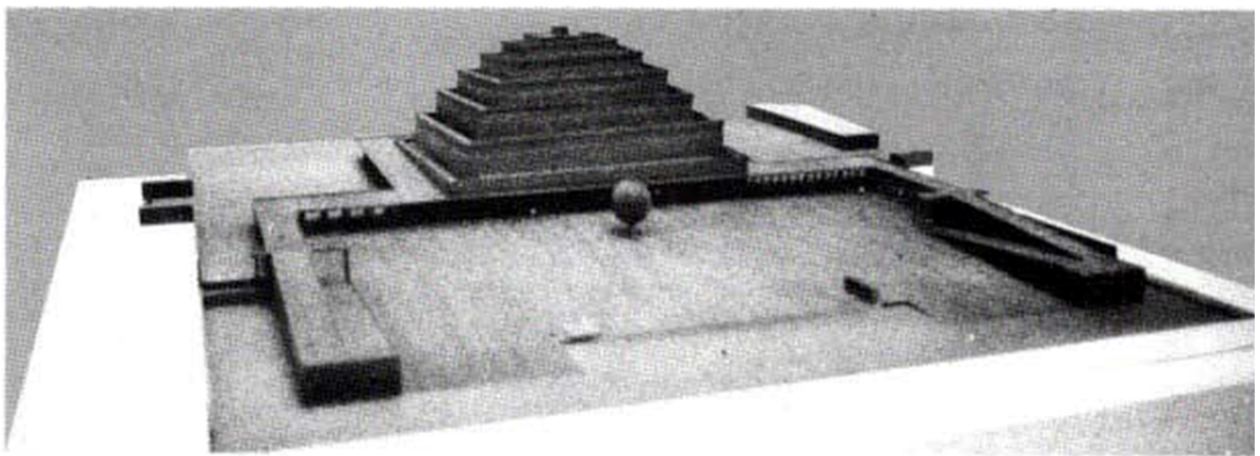
“The time of struggle is over (...) and as we construct in our minds, (...) we recognise the best; (...) we create in proportion. (...) Among the mass of forms (...) we choose the purest (...), our creations are perfect in form and pure, (...) a reflection of the spirit.”²⁵

For Le Corbusier, formulating this “new programme” meant creating an orientation aid through his architecture that indicated the “state of things.”

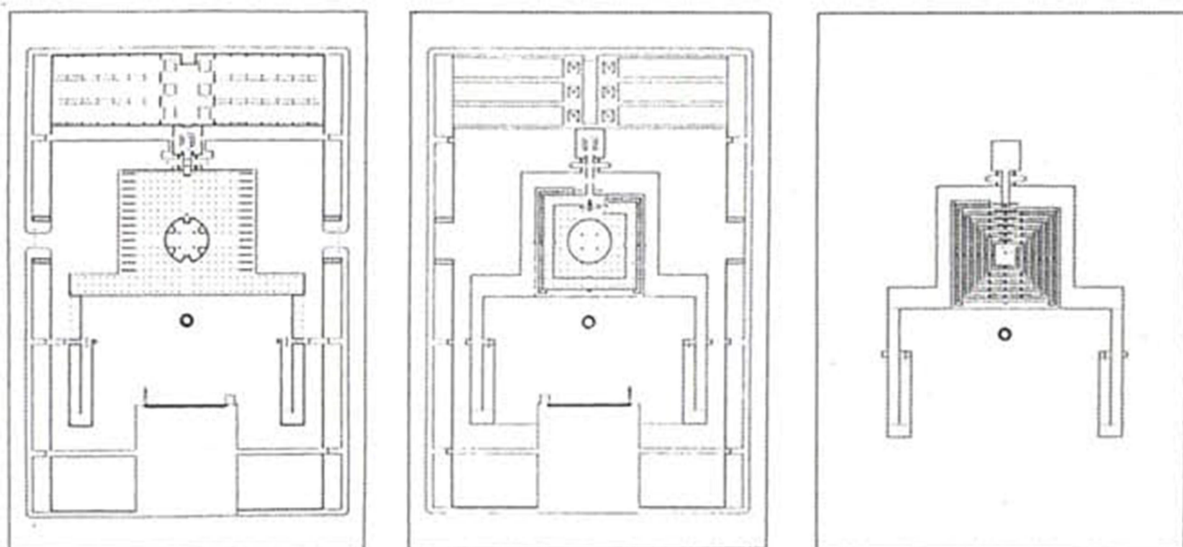
4 Architecture as a means of education (The cultural approach)

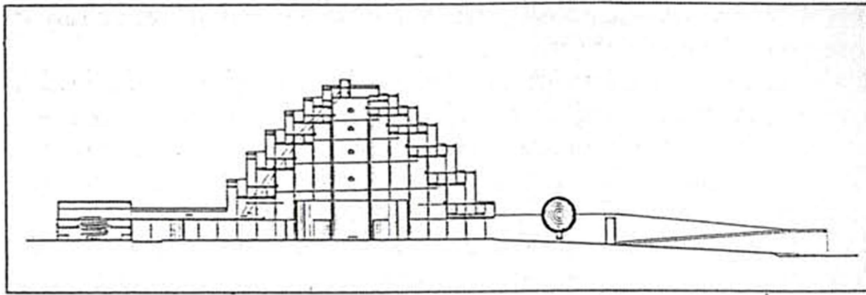
The path as expression, simultaneously as a demand of a process of experience and knowledge: the “*Musée Mondial*,” Geneva 1929

“The life of every human being is a path towards himself, the attempt of a path, the suggestion of a path. No human being has ever been wholly himself; nevertheless, everyone strives to become so (...). Some never become human.”¹

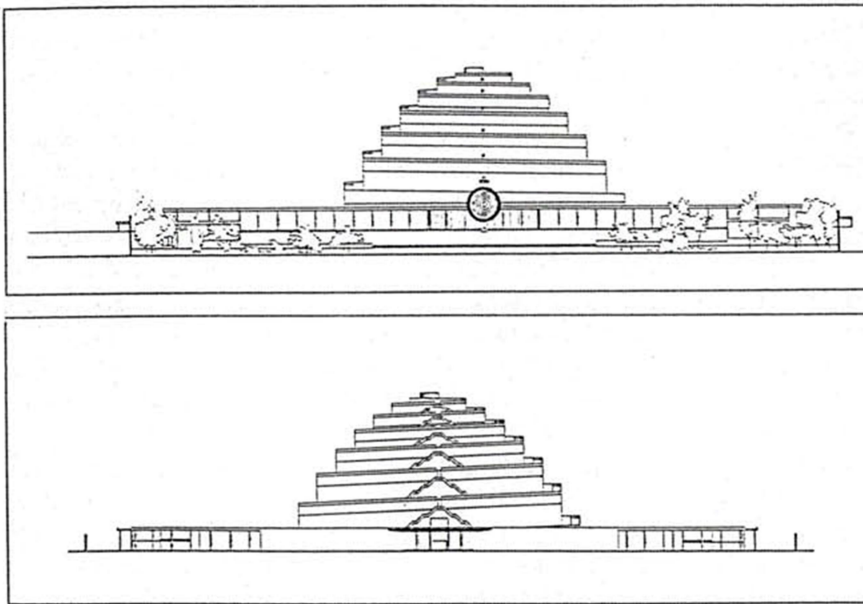


77–80 Le Corbusier, *Musée Mondial*, 1929, perspective and floor plans





81–83 Le Corbusier, *Musée Mondial*, 1929, section and elevations



The third approach leads us to the core of Le Corbusier's cultural-political-pedagogical intentions, which he tries to convey through architecture. In accordance with the demands on architecture and architects, his conception of history and his view of humankind, one of the most important demands on architecture for Le Corbusier is of a cultural-pedagogical, didactic nature.

The "new era" needs alert artists who recognise the circumstances of time, the maturity of time, who are capable of action and are willing to translate the quality of time into artistic works. The "new era" also needs new works of art that make that era visible, that awaken people and set them on the path of time and self-knowledge. The *Musée Mondial* (World Museum) is Le Corbusier's contemporary answer. As part of the Mundaneum complex, it occupies a special position within this architectural concept: Formally, i.e., in relation to its special position in the

architectural plan of the entire complex, the *Musée Mondial* is located in the centre of the cross-path, or, in Müller's terminology,² occupies the stepped hill: it represents the prominent centre of the axial complex. Its shape is indeed reminiscent of the shape of a stepped hill.

In terms of content, as a "tool of enlightenment," as Le Corbusier calls the *Musée Mondial*, it has a very special significance: it is a teaching and learning instrument par excellence or, as Fagiolo says, an "*S.O.S.lanciato alla coscienza.*"³ It is supposed to formulate the "new programme of the present time." For Le Corbusier, this formulation means reproducing an adequate image of the current spiritual condition of the world by means of an architectural concept. The *Musée Mondial* should be an orientation aid for people, its form should translate the contemporary contents into a plastic form. In order to do justice to this task and to make the present state of humankind comprehensible, the reference to the past and the future must not be disregarded. As a "tool of enlightenment," the *Musée Mondial* shows the historical process as a "path-process" with underlying laws and responsibilities for the individual. Furthermore, it should make the path tangible as a means of learning and knowledge for the individual as well as for humanity as a whole and contain a vision of the objectives that underlie this historical conception of the path.

The World City Project is an important undertaking – a worldwide one at that. The material form that conveys contemporary thought, the symbol, must move and stir the hearts of viewers, and it must be universally comprehensible. The symbol must be able to be read – an extraordinary task that requires extraordinary means. It can be assumed that Le Corbusier, in setting himself this task, remembered Provensal's appeals in particular. He could never identify more strongly with the type of artist described by Provensal and his task as a "*phare,*" as a "light of humanity," who is called upon at certain historical moments to serve through his art by enabling people to take a step forward through the "educational means of art." Le Corbusier seems to have regarded himself to be in a position to give the world its new, contemporary monument – once again: an extraordinary task and, with it, an extraordinary self-appraisal.

According to Provensal, people expect nothing less meaningful from their artists than the materialisation of the "spiritual potential" of a time. The plastic form to be chosen should be comprehensible to the people of all nations. It must be an infinite joy for them to create an indestructible work that lives with the planet, breathes with it and contributes to the resurrection of the expressions of ancient knowledge, whose character is as universal as the world, as fundamental as nature.⁴ In Provensal's description of the "monument of tomorrow," the work of art of the future, Le Corbusier probably found some of the most important references and ideas for his later work. What Provensal assured as early as 1904 in the form of

visions for artistic activity in the future became relevant for Le Corbusier when he was commissioned in 1929.

The task of planning a world museum yields a surprisingly direct reference to Provensal's visions insofar as he, too, speaks quite openly of the "*monument de la grande synthese*" as a monument to humanity that restores continuity with the historical "religious monuments": "From the beginnings of humanity up to the Renaissance, we can be assured that religious monuments are the only places through which the human soul has expressed itself over the centuries. So let us try to see through these places where man has lifted the veil of mystery. Let us ask them to reveal to us what they have hidden in their innermost sanctuary, for it is only through a thorough knowledge of the various phases of humanity that we can once again create a solid basis for the buildings through which the religious consciousness of peoples can communicate itself anew."⁵

When Le Corbusier says that the "history of culture" can be equated with the "history of spiritual architecture,"⁶ it seems reasonable to assume that he is referring to Provensal and talking about the "common thread" in the history of architecture that is formed by all those buildings that have attempted to translate "spiritual or religious content" into a material form.

Provensal calls for "religious monuments" to reveal their secret, to lift their veil; they are the only places where the essence of the human soul has been revealed. Provensal also mentions the "sanctuary" or "sacrarium" as a specially designated place within the architectural complex, as a "place of mystery." The same term and its translation into an architectural element of the overall complex is encountered in the *Musée Mondial*. Provensal recommends that architects uncover the underlying meanings of such architectural complexes and their basis in order to find the foundations on which people's "religious consciousness" could rise again today in the form of a monument. The true work of art has the character of eternity, it is the expression of eternal spiritual values, art is "*religion purifiée de l'homme cultivé*" (purified religion of the cultured man).⁷

By "religious," Provensal does not mean a particular denominational influence. Rather, he understands it to mean the spiritual orders and realities underlying external, material reality, which form the legacy of the mystical sites and have clothed themselves in various guises over the course of time. Art, like mathematics or music, is one of the ways to manifest these "spiritual principles" on the level of physical reality. However, insight into these principles and their laws is a prerequisite for this. In order to be able to create real works of art, true artists would have to be "initiates" – thoughts that we encounter in a very similar vein in Le Corbusier's work. The contemporary museum, a "tool for the perfection of man," does not yet

exist, according to Le Corbusier. Its preconditions – such as the perception of the educational responsibility of the state, the new educational pursuit, the goal of which is to be a free, self-determined, and responsible individual – these preconditions must first be created. Le Corbusier describes the new museum as follows:

“The true museum is one that is able to convey information about everything that has happened through the centuries. It should be an accurate and truthful museum; it would be beneficial because it would make it possible to understand the causes of events and thus inspire them to progress. This museum does not yet exist.”⁸

The true museum takes the form of a universal teaching and learning tool. It not only informs about historical facts, it also aims at understanding their historical context. Le Corbusier emphasises the question of the “how” and the “why” of the things and facts to which the future museum tries to draw attention. When walking through the museum, users should be encouraged to understand. This evocation of an inner involvement, of becoming moved and wanting to know should shift from external facts to internal facts as well. By learning to understand the principles underlying collective historical events, a similar awareness of the chains of events in individual history and their inner connections and links would arise in parallel. Individual history would be understood as an analogous process of collective history, subject to the same laws. On the basis of the insight that every human deed has its consequences, people would be called upon, both in relation to their own lives and as responsible members of the community to perfect themselves as human beings in order to become worthy participants and contributors to human evolution.

We can approach the question of the architectural means with which Le Corbusier attempts to translate his demanding requirements into plastic form on two levels: on the level of the description of the formal elements used and the ideas and intentions underlying them (1); on the level of the collective meaning underlying these elements, i.e. that of the symbolic content that has become imprinted in the collective memory due to their historical use (2).

The formal elements and their underlying ideas and intentions

We recall the statement made in the introduction that the *Musée Mondial* has a special, chosen position in the overall concept of the Cosmopolitan City project. The cross-path layout is elevated by the placement of the *Musée Mondial* in its centre. The shape of the path (cross-path) is superimposed on a second one, which becomes the elevated centre of the architectural concept in the form of a stepped pyramid. For the design of the *Musée Mondial*, Le Corbusier chose the archetypal form of the stepped pyramid formed by a path laid out as a double spiral:

a twofold built path system constituted by three or four elements characteristic of the double spiral.

The outer path

The square spiral path that accompanies the pyramid form in the outer area leads from the periphery to the upper centre of the pyramid on a 2500-metre-long ascending path. From each new level reached, a new horizon spreads out before the viewer's eyes. Each new step climbed opens up an even more extensive view of the natural beauty of the surroundings. Having reached the top of the pyramid, one enjoys a magnificent panorama and the view from the top to the bottom: "Let us imagine the visitor of the museum: He has entered the forecourt of the *Musée Mondial*; the cars have stopped at the barrier of the long staircase which, after a few steps, dominates the great avenue of the Mundaneum. From here he walks through the forecourt, where he grasps the architectural layout; the pyramid, perpendicular above the poignant void of the peristyle, towers above. He uses one of the wide ramps to the left or right and reaches the first large platform. He sets off along the path (...). At every turn, a new horizon; with every spiral step, a view reveals even more. The surroundings grow constantly. At the top, the whole scene appears like a panorama: the sublime Alps, the wildest lake, the city in the background; at the foot, the Rhone, that great river of the world, descending towards the sea..."⁹

As we can see from Le Corbusier's description, this outer part of the double spiral path has an "threshold." Visitors first enter the forecourt, which can be reached via a flight of steps. The avenue and the adjoining staircase are intended to celebrate access to the slightly elevated monument with its forecourt. The enormous dimensions of the raised forecourt, which can also be seen as the base of the monumental complex and which supports the ramps leading to the pyramid on the left and right, create the necessary surrounding space from which those entering can appreciate the monument from all sides. The two peripheral ramps take visitors to another platform from which the outer spiral path begins. This is conceived as a "*promenade architecturale en plein air*," a walk in the open air. The idea of two intersecting axes and the resulting four cardinal points is enhanced by the element of the "promenade." Conversely, the experience for the users is intensified by the views of the surroundings, which always recurs in a different perspective and is divided into four sections. Here again we find the principle of the "mutual enhancement" of the elements. The visitors, apart from the exertion that a 2500-metre-long, slightly uphill path can bring, enjoy the promenade. The whole splendour of the architectural and natural environment is presented to them in manifold variations. It is the

visitors themselves who discover the variety of possible references of the elements involved in the architectural composition by walking along the path.

The Centre or the “Place of Return”

Since the shape of the *Musée Mondial* is not only horizontal, but also follows the form of a stepped mountain, rising and falling vertically in a double spiral, the centre is divided into an upper and a lower part. The centre of the stepped pyramid at the end of the outer spiral path is designed as a platform, which on the one hand allows a panoramic view and on the other hand a view through the entire museum complex from above. The platform is also the starting point for the second stage of the path, the inner spiral.

The inner path

It first leads from the centre to the periphery, and at the end of the spiral path it leads once more to the centre, and now to the one below. The development of this inner path corresponds to that of the outer path, but in the opposite direction. Le Corbusier describes it as follows: “And now (...), here stands man, alone, facing the universe. Man in time and space. The human work, placed precisely in the era of its creation and in the context of the places that saw it come into being. The time – the place – the work. How to put this exhibition together through an ‘immediately effective’ visualisation? Because it will indeed only be captivating and useful if the display is manageable at a glance.”

A museum in three sections: three parallel aisles unfold, side by side, without a dividing wall in between. In the first aisle, is the work of humankind that tradition, respect for memory or archaeology have handed down to us; in the adjacent aisle are all the documents that determined that time, represented graphically, in representational images, in reconstructions of scientific treatises, etc. Immediately following is the third aisle, which introduces us to the place in question, its conditions and its natural and artistic products, etc.

This chain of knowledge, which shows the human work through the centuries, begins in prehistory and extends its increasingly important connections to the present time, when history has already classified the facts.

To ensure the continuity of the museum’s three aisles and to express the uninterrupted succession of the expanding connections, a fundamental architectural conception was required that produced this organic form. This form is a tripartite aisle unfolding along a spiral. At the beginning of the spiral: above, the prehistoric times with the brief, yet poignant, depiction of

what we know of them. Then comes the first so-called “historical epochs.” And descending the spiral, successively, all the civilisations of this world.

Through the accumulation of historical and archaeological documents we know how humankind has survived through the various forms of organisation and cultures. “The diorama expands and becomes more and more precise. The spiral expands its unwinding, the space becomes larger. (...)”

From time to time, at each axis and at each step of the spiral, the dazed visitor has stepped onto a balcony opening outwards to breathe a sigh of relief: the vastness of nature surrounds him (...). Or, opposite the outer door, he passes through an inner door which opens onto a dim room; he gazes into the darkness which gradually, from within the pyramid, brightens: A forest of slender supports rises into the night; glass floor panels trace in a luminous spiral the 2500-metre path he has walked.”¹⁰

The inner spiral path differs from the outer path at first glance. Visitors are no longer primarily in the role of carefree *bon vivants*. The casual walk, which invites visitors to stop and linger at will, is given a stricter form by an order immanent to the museum and the objects exhibited in it. The amount of time an individual spends has to give way to what is required by the respective exhibition object. Users are encouraged to open themselves up to certain intentions brought to them from outside and to engage with predetermined relationships of the individual sections of the path.

Le Corbusier’s idea is to involve visitors to the *Musée Mondial* in a learning process. He tries to make the cultural-historical development of humankind understandable and comprehensible. The museum is to become the representative conveyor of human cultural achievements. To this end, the history of the origin and development of humankind is to be presented in chronological order, beginning in the upper centre of the pyramid: starting with the first primordial bones formed from the material of the sun and the separation of the elements up to the first plants, animals and humans.¹¹ It is precisely this apparently linear sequence that earned Le Corbusier harsh criticism.¹²

The significant stages of development – such as the appearance of graves, the first stones shaped into architectural structures (the moment when humans become architects), the development and the high points of civilisation – are to be represented in the *Musée Mondial* and are to testify to the path that has been travelled.

The elements of the exhibition are not to be presented together in an isolated and incoherent way. Rather, it should be possible to recognise the patterns and structures that underlie their

interdependent, complex relationships. The laws that produce and at the same time regulate them should become evident.

The three parallel aisles are not separated by rigid walls and contain representative works, documents of history – art, science, everyday life – as well as documents of the place where the respective exhibit belongs.

Now we can better understand why it is the inner spiral path that takes on the function of a museum. It begins symbolically at a point, thus corresponding to the idea of a so-called “zero point” at the beginning of creation: the emergence of creation from unity.

The beginning, at the point where the smallest amount of space is available, corresponds to the representation of the historical sequence in that the supply of available material decreases rapidly with increasing distance from the present. In the opposite direction, where documentation becomes possible in ever more precise form, the spiral grows continuously. This inner path leads along the time axis through the events of the history of human development, embedded in the respective context of time and place.

Only from time to time can this inwardly directed path, which demands one’s full attention, be interrupted by stepping out onto one of the balconies on each level of the spiral, to allow a moment in the vastness of nature. Then the inner path draws one’s attention again. “*Voici l’homme seul, face à l’univers*” is how Le Corbusier describes the fundamentally different attitude in which one finds oneself on the inner path. One no longer promenades through a wonderfully staged natural environment. The human being is now alone, exposed to the history of the universe. One is introverted. The extroverted view on the outer spiral path has transformed into an introverted one. History, of which one learns to understand oneself as a component in the course of the path, is able to evoke ever more violent reactions in one’s inner being. Gradually one understands the systems of rules underlying the chains of events. One sees that all human activity bears fruit. One learns the *principle of the individual’s responsibility*.

“The exhibition of objects in space and time provokes an ever-increasing outcry. Everything is interlinked; all crazy, selfish, reckless or careless deeds have their impact; this occurs either immediately or in a hundred or two hundred years or even later. The map of the world grows, changes, trembles like a blossoming in slow motion. What an education!

What a philosophy reveals itself to those who are able to understand! In the midst of space and time, the human soul, a constant torn between the efforts of reason, which try to correct what passion unleashes, produces those works that are immortal to us – the works of art, unalterable

testimonies. Let us assume that the countries of the world understand the great concept of the Musée Mondial (...). What a unique museum it will be.”¹³

In this description, Le Corbusier alludes to his ideological background. What is to be revealed to visitors corresponds to Le Corbusier’s progressive-evolutionary understanding of history: a complex cause-and-effect structure governs the continuation of the path taken, the backward and cross connections of events. The spiral path of the *Musée Mondial* is staged as a path of knowledge, as a symbol of a path of initiation progressing from step to step. If one recalls Paul Otlet’s idea of a new religious attitude uniting all the peoples of the earth, it is easy to assume that Le Corbusier is attempting to react to Otlet’s visions with his philosophy. With the project for the *Musée Mondial*, he intends to give shape to a utopian vision of the future that unites all peoples and requires a humanity that has progressed so far on its path of knowledge that it has reached the cosmic laws underlying reality.

The Sacrarium

At the end of the interior spiral path, you are led back to the centre of the complex, this time to the lower part of the centre at the foot of the pyramid. This is what Le Corbusier named the “Sacrarium.”

“Returning to the earth, he [the visitor] discovers, overwhelmed by a light coming from afar, a circular enclosure, a high and smooth wall that contains something: the sanctuary.

Stepping out of this museum (...) he stands under a shaded roof, on a platform that extends generously on all sides. (...) He enters this cylindrical, smooth and silent wall, which he has already noticed from above, and inside he finds, carved in the stone of the epoch from which they emerged and hewn by the hands of those who admired them, the figures of the Great Initiates through whom humanity has in the course of time expressed all its mystical power, its need for sublimity, devotion and altruism.”¹⁴

What is striking about this description is the special attention Le Corbusier paid to the design of the Sacrarium. The enormous ground plan at the base of the stepped pyramid, lightly shrouded in shadow and populated with a forest of supports, is touched by light falling from far away. The architectural elements are intended to give the space a special sensual atmosphere. In the centre of the space is a cylindrically defined area, the “sacrarium,” the “*sanctuary*” of the monumental complex. In this sanctuary stand the *statues of the Great Initiates*.

These sculptures are the *initiates of Edouard Schuré*. Le Corbusier chooses the same designation as Schuré for these monumental figures of cultural history.

Le Corbusier's reference to the figures of the Great Initiates is unambiguous with regard to the ideological thought underlying the conception of the *Musée Mondial*. It may come as a surprise that Le Corbusier is so clear about his world view in the context of this project. His usual restraint gives way here to a clear statement. It is quite possible that with this reference to his cultural-historical ideas he counted on reaching precisely those who he felt were important in connection with this project and who he could assume would understand this message.

At the same time, he seems to have been prepared to accept disapproval from all those who had long since forgotten Schuré's book, which had been published a quarter of a century earlier. The *Musée Mondial* is to be seen as an image for Le Corbusier's historical conception, for his idea of human evolution in general. History aims at the perfection of humankind, an idea that shows itself in the "Great Monuments of Humanity." In their time, they act as reminders for the individual and for humanity as a whole. By virtue of their "meaningfulness" they have an inspirational character.

"*Quel enseignement!*" exclaims Le Corbusier in his description of the museum; what an education for those who are interested to understand. What is distinctive about the architectural "path symbol" chosen by Le Corbusier is that the movement does not go in circles, but is directed, a movement that expresses meaningful purposefulness through its centripetal orientation.

A final note: Le Corbusier's formulation "*Grands et indiscutables moments de l'histoire humaine*" (great and indisputable moments in human history) is not free of absolutes. There is no doubt that at the same time there are other ways of looking at history besides the one conveyed in history books. The absoluteness of the one concept in the form of the planned monument not only points to Le Corbusier's ignorance of the (scientific) knowledge of his own time, it also points to blind spots caused by ideological agendas.

According to Provensal,¹⁵ true works of art represent high human ideals and inspire people. The purpose of such works is to lead people towards glorification. For only art has the power to translate human knowledge. Provensal understands the work of art as a means of advancing the perfection of humankind, as a force that promotes development, that directs human thought into future paths and is able to formulate it. He even goes one step further when he describes true art as the purified religion of cultivated man. He tries to clarify the relationship between art and religion, which for him are two expressions of one and the same motivating force.

We can easily recognise Provensal's views in Le Corbusier's statements on the role of art and its relationship to ideological-religious contexts. A central characteristic of the *Musée Mondial* is its enlightening function. In order to see the same body of thought in a broader field of

reference, let us quote a contemporary of Le Corbusier's, who expressed himself on the same subject as follows: "This art, which holds no potencies of the future within itself, which is therefore only the child of time and will never grow into the mother of the future, is a castrated art. It is short-lived and dies morally the moment the atmosphere that formed it changes.

The other art, capable of further development, is also rooted in its spiritual period, but at the same time is not only an echo of it and a mirror, but has an awakening, prophetic power that can have a far-reaching and profound effect. Spiritual life, to which art also belongs (...), is a movement forwards and upwards. This movement is that of knowledge."¹⁶ In Kandinsky's work we also encounter the idea of "being on the way." For him, too, the most noble task of art is to inspire people. Like Le Corbusier, he sees artists as pioneers and "enlighteners."

On the collective-cultural meaning of the architectural forms chosen for the Musée Mondial

Spiral/double spiral

Karl Kerényi, the myth scholar and sometime companion of C. G. Jung, says in his book on the spiral, published on the occasion of Jung's 50th birthday: "The spiral is not only a primordial human gesture, but as a movement it is a primordial process in which one participates. One does not construct the solar spiral geometrically: one recognises it as a similar line to the one to which one surrenders oneself as a celebration of the circular movement to embrace death and to overcome it. The path of the sun and the spiral are here 'allegories' in the Goethean sense (...). The reason for this movement may lie very deep within the human being. For what is it? (...) the same thing that causes the embryonic plasma in the living being: the infinity of life in mortality itself (...): what is function in the plasma (...) is here the meaning (...), a reality, (...) as a mythological idea (...) realising (...) the infinity (...) of life–death–life (...), the actual source [lies] in the innermost depths of the human being (...). The origin of the line is movement (...). Such a movement has its meaning in itself. It is just as meaningful as any musical expression of the human being. The spirals winding in and out correspond to such movements."¹⁷

A double spiral occurs when the return path from the centre is the same – double spiral: "the eternally continuing and repeating line of birth – death – rebirth."

In his research work, Kerényi shows that the spiral is to be understood as an expression and image of a "spiritual reality" existing behind the material partial reality, just as the ancient "labyrinth dances" must be understood as a form of religious practice in order to make this spiritual reality tangible. This is probably also where the original meaning of dance as a form

of experiencing spiritual realities is to be seen. Kerényi also points to the importance of “walking the path” as a process of cognition. The spiral or double spiral is thus an expression of “movement as a primordial human gesture,” which is ultimately an image of the infinity of life itself. The path of knowledge is like an initiation or inaugural path, which brings humankind the exposure of the “eternal secrets” as an inner experience. In the various religious cultures, this inner path process is reflected in an outer path formation.

In the phenomenon of medieval processions, we have another significant conception of the way, in which not a single place of worship is the point of reference for religious action, but the way itself, the whole processional way is seen as a place of worship. The procession, the walking along the path, becomes a form of worship, as Oskar Sengspiel notes in his book *Die Bedeutung der Prozessionen für das geistliche Spiel des Mittelalters in Deutschland (The Significance of Processions for the Spiritual Spectacle of the Middle Ages in Germany)*.¹⁸

The parallels between the concepts mentioned here and Le Corbusier’s *Musée Mondial* can be seen above all in the staging of processual knowledge.

The theme of “movement as a primordial gesture,” as a mystery inherent in humankind and to be rediscovered, is revived in this project.

The outer movement is to be seen as an image of a constantly occurring inner movement, which is an original, undefinable form of reality, continuity, “life behind lives.” Cognition is not understood as a momentary event. It does not resemble an unconditional and especially not a random coincidence without consequences. Every individual insight is embedded in the stream of perception that is life itself.

The *Musée Mondial* is far more than a mere performance or an extraordinary creative idea. It is also, contrary to Karel Teige’s¹⁹ opinion, more than an outdated revisiting of archaic remains or forms. For Le Corbusier, the visualisation of his ideas is as un-anachronistic as the use of the right angle. Both forms are useful symbols for him to make intangible facts visible.

The misunderstanding lies in the fact that Le Corbusier does not take into account that these symbolic forms are no longer generally understood in 1929. Teige’s criticism does not get to the heart of the matter. It argues from a point of view that is perhaps not even close to that of Le Corbusier. The polemic shows once again how far Le Corbusier’s ideological views were from those of some of his contemporaries.

On the form of the stepped pyramid

In a passage in his book, Provencal describes a Chaldean temple that corresponds to a square pyramidal ramp with a terrace at the top that served as a support for the altars of the priestly

ceremonies. In this context, he mentions that this type of tower construction represents a form consecrated to religious monuments that occurs in various cultures.²⁰

Provencal need not have been Le Corbusier's only source in choosing the stepped pyramid. In the period after the turn of the century, there were several studies on the subject. However, we know from Turner's writing that Le Corbusier knew Provencal's views very early on.²¹ During the course of his life, Le Corbusier returned several times to the theme of the museum as an instrument of knowledge.²² However, external circumstances did not always allow him to translate his ideological views directly into architectural symbols.

In the case of Ahmedabad – in 1951, i.e., at the age of 64 – he seizes the opportunity offered to him once again and ties in directly with the *Musée Mondial*. Again, he calls it the “Museum of Knowledge” and in his description he again refers to the complex cause-and-effect patterns underlying external reality:

“In 1951, the administration of the city of Ahmedabad (...) commissioned me to build such a museum, to be called the Museum of Knowledge. The intention is to make known to the inhabitants of the city what they have been and what they have already done, what they are doing today and what they could do tomorrow.”²³

The fact that these thoughts were part of his daily life is clear from Le Corbusier's statements in *Modulor 2*, where he refers to the continuity of this discussion with various anecdotes.²⁴

Synthesis of forms

With the *Musée Mondial* project, Le Corbusier creates a kind of architectural pleonasm: he synthesises the characteristics of the spiral or double spiral and the stepped pyramid.

In contrast to Provencal's description of the step pyramid as the type dedicated to religious buildings, which takes up a “one-way spiral,” Le Corbusier's step pyramid is a clearly articulated double spiral with an outer and an inner path, expressing the dual aspect of the path theme, the physical and the metaphysical. The superimposition of the two architectural symbolic forms makes it clear how Le Corbusier uses the principle of mutual enhancement to reinforce his statements.

With the project of the *Musée Mondial*, he joins a very specific tradition in the history of architecture.

Architecture becomes both an expression and an image of non-material contents and ideologies. To quote Kandinsky once again, with this design, Le Corbusier also represents – but not only – the aspect of *the metaphysical conception of art*:

“This metaphysical conception is given by the realisation that all artistic production is nothing other than a continuous recording of the great process of struggle in which humans and the outside world have been engaged since the beginning of creation and will continue to be engaged in the future. Thus, art is only another form of expression of those psychic forces which, anchored in the same process, determine the phenomenon of religion and the changing world view.”²⁵

5 Philosophical and cultural backgrounds in Le Corbusier's work

“Behind the wall, the gods play with the worlds, with the souls. Sometimes, when people pass by, they hear sounds, hear words and steal a few crumbs; they are the crumbs that fall from the rich man's table.”¹

“It is good to know that utopia is never anything but tomorrow's reality, and that today's reality was yesterday's utopia.”²

How can we explain Le Corbusier's fascination with the physical and metaphysical theme of the path? In order to understand this fascination as a “characteristic feature” of Le Corbusier, we will examine the ideological and cultural background of his thinking and work. Cultural backgrounds are both (in the narrower sense) familial and (in the broader sense) of the “zeitgeist.”

For Le Corbusier, the fundamental law or criterion of all life – of all living things – is movement. For him, movement means being active in the most comprehensive sense, on a physical as well as on a psychological and spiritual level. Being human means having the consciousness to perceive oneself as a being on the path, then to ask oneself the question of where from and where to on this path and to try to find possible answers during the course of one's life. Non-movement, non-action, and non-creation lead to death; the world does not wait. It becomes limp and dissolves.

“Movement is our law: Never does anything stand still, for what stands still falls and decays (this is the definition of life).”³ We find the same succinct formulation of the idea of the living in Provensal, who understands movement as a “sign” of life.⁴

Just as life, as a precondition for history, is movement,⁵ history itself resembles an immense, multi-layered form of movement. This shape is a changing one, directed towards the future, which takes up old knowledge and passes it on to the future, enriched by the innovations of the present. Passing on, for Le Corbusier, is the meaning of the word “tradition.”⁶

For Le Corbusier, the individual or collective steps of the path of development take place in three-stages. The first stage marks the “unconscious,” original state of equilibrium. The second stage is the state of disequilibrium of the turbulent phase, in which the old is broken, opens up and is ready to accept the new. The original state thus undergoes a transformation or a growth, at the same time a maturing, which inevitably brings about a phase of uncertainty.

The third stage is a new state of equilibrium, the result of the successful integration of the new, but at the same time the beginning of a new gradual process.

There is no growth without the willingness to live through crises. The path of growth and maturation is characterised by the constant shift between balance and imbalance, security and insecurity, calm and restlessness.

This principle is fundamental to Le Corbusier's view of life. He equates what is created by humankind with a "reflection of the spirit":

"Everything that originates from the human being (...) expresses itself in a system of forms that is a reflection of the spirit."⁷

For Le Corbusier, the spiritual itself is the principle that causes movement and "being on the path." Time and again, one encounters his search for the spiritual principles underlying reality.

The relationships between the material world and the spiritual world characterise his work. Thus, it is to be understood that the movement, the "being on the path" in Le Corbusier's writings as well as in his architecture appears, as it were, as a translation of spiritual facts into other levels of reality.

For Le Corbusier, human participation in this exchange between reality and spiritual reality, which leads to a linking and re-integration of the different levels of reality in consciousness, is a form of religious practice. It is the treading of one's own path that is appropriate to each individual, of searching for answers to the "most beautiful of all questions," to the question of the meaning of life.⁸

Le Corbusier is nevertheless cautious; he describes his way of working as the quasi-religious side of his being.⁹ Paul Venable Turner refers several times in his work to Le Corbusier's increasing caution over the years in revealing his inner world.¹⁰

Nevertheless, even in the older Le Corbusier, there is always the fiery nature of his participation and his spontaneous reactions.

In order to properly assess the extent of Le Corbusier's profound engagement with the fundamental questions of existence, one must break through the camouflage structures built up for self-protection, take in what is said between the lines and refer back to referenced sources.

Paul Venable Turner's work on Le Corbusier's early education opens up Le Corbusier's character to us in compelling descriptions. Turner tries to familiarise us with Le Corbusier's early experiences, with the spirit of the time during which Le Corbusier was a youth. Of the important influences, two can be mentioned here as essential.

The Cathar Mindset

“I come from the south of France, and the name Jeanneret in the “pays d’Oc” is written Janeret, and we are simply Albigensians. They wanted to massacre us in the past (...). By the way, this is only written to explain once and for all the deeper reason for my irresistible attraction to the Mediterranean. The exploration of my origins makes me understand the unshakeable attraction pure forms in space and purity of thought exert on me, as well as my complete freedom of thought and that idealistic side that has always marked the fundamental character of those who live in the harsh mountain climate of Neuchâtel.”¹¹

What is striking is the particular emphasis with which Le Corbusier and his family refer to their origins and thus implicitly to the religious-ideological views that underlie the Cathar doctrine. Throughout his life, Le Corbusier seems to have been proud of his origins and to have personally studied it. According to his brother Albert, this interest not only existed from his earliest youth and in his family circle but was to a certain extent part of that regional culture.¹²

Le Corbusier’s personal library contains corresponding books, the pages of which, overflowing with notes and comments, demonstrate the extent of his involvement with this subject. However, these texts date from Le Corbusier’s late years. I have not discovered any traces of the early debate mentioned by Turner.¹³

Reflections on his own life, his own ethics and his own work clearly indicate that his origins were an inner, spiritual matter. Le Corbusier believed he possessed something of the spirituality of the Cathars. The entries dated in the texts show that this debate lasted until the end of his life and that his world view and his work – an inseparable unity – were strongly influenced by it.

The library collection also makes it clear that Le Corbusier’s interest in the spiritual dimensions of reality extended far beyond the scope of Cathar literature.

Schuré and Provensal’s texts

In the early period, his encounter with L’Eplattenier,¹⁴ a tutor at the School of Arts and Crafts in La Chaux-de-Fonds, which Le Corbusier attended at the age of thirteen and a half, is probably the defining experience. Far from teaching his pupils superficial stylistic history, L’Eplattenier, who was something of a master to his pupil Jeanneret, placed the emphasis of his lessons on making the principles underlying external manifestations tangible, on “learning to see.”¹⁵ Le Corbusier writes about him:

“It was he who opened the doors to art for me. With him we studied the masterpieces of all eras and all countries. I remember his modest library, arranged in a simple cupboard in our art room, in which our tutor had brought together everything that he considered necessary for our spiritual nourishment.”¹⁶

This “spiritual nourishment” included, among others, the two books already mentioned, *L’art de demain (Art for Tomorrow)* by Henry Provensal and *Die Großen Eingeweihten (The Great Initiates)* by Edouard Schuré.¹⁷ These two publications, which were decisive for Le Corbusier’s thinking, share a non-materialistic conception.

Provensal, who had studied at the Ecole des Beaux-Arts and whose ideas can be traced back to currents in 19th century German philosophy,¹⁸ assumes the reality of a spiritual world that underlies the material one.

The subtitle of his book – *Vers l’harmonie intégrale (Towards Holistic Harmony)* – shows his intention to formulate a harmony between spiritual and material reality, between art and science, and to reunite man with the “eternal principles” of the cosmos. In this context, artists have the central role of mediators. With his book, Provensal cultivates the “cult of genius” in a pronounced way and thus provides Le Corbusier with the opportunity to identify with the ideas. Schuré’s book, which Le Corbusier received from his teacher in 1907 with a heartfelt dedication,¹⁹ is very similar. Edouard Schuré (1841–1929), a French playwright and critic from Alsace, played the role of a mediator between French and German culture. As a theosophist, he was on friendly terms with Rudolf Steiner,²⁰ who had Schuré’s mystery dramas performed in Munich between 1907 and 1913.

Schuré’s book, *L’histoire secrète des religions (The Secret History of Religions)* attempts to show that “eternal truths” have in principle been passed on in two ways during the course of human history: on the one hand in exoteric, externalised form, clothed in the most diverse confessional forms, on the other hand in esoteric, i.e., secret form, in the most diverse mystery or initiate schools.

The same conception is found among the Cathars; they too have two forms of tradition, the esoteric form for the so-called “*savants*” or “*parfaits*,” as the initiates were also called, and the exoteric form for the “mass of believers.”²¹

Central to Schuré, Provensal and also to the Cathars is the idea that the process of evolution is to be seen as a “path of perfection.” This “path theme” presupposes a starting point and a goal. Schuré describes the “pathways” of the “great initiates” of our history: Rama (the Aryan cycle), Krishna (India and the Brahman initiation), Hermes (Egyptian mysteries), Moses (the mission of Israel), Orpheus (the mysteries of Dionysus), Pythagoras (the mysteries of Delphi), Plato

(the mysteries of Eleusis) and Jesus (the mission of Christ). The “initiatory paths” described by Schuré start from the divine descent of man and see the conscious re-integration of man into the divine or cosmic consciousness as the goal of the evolutionary path. In the comprehensive study of the Cathars by Nelli, Niel, Duvernoy and Roche,²² Roche points out the connections between Cathar teachings and the views practised at the initiation sites. He describes how the initiates received teachings within the Mysteries; through knowledge of man’s past, present and future, the path of liberation was to become comprehensible. These spiritual sciences found expression in numerous schools and their followers are called Gnostics. According to Roche, their philosophy was that of Pythagoras and Plato; it was based on spiritual experience. For Roche, the teachings inspired by Pythagorean and Platonic philosophy form the basis of the Cathar views.²³

As Gnostics, the Cathars believed in the path of self-knowledge and self-redemption. This path is based on a multi-layered structure of the human being: the immortal (divine) core, often called spirit or, more nuanced, spirit and soul, and the physical being.

Roche cites several studies that deal with these themes in Plato, for whom the soul comes from another place, another world, and has fallen into the body as into a grave. Plato places true life beyond death, from where the “pure souls” are not obliged to return. Only those who have not behaved well enough in previous life experience a new existence.²⁴ The doctrine of rebirth, a matter of course for the Cathars,²⁵ according to Nelli²⁶ represents “*un espoir ‘progressiste’ de libération,*” a hopeful “path of self-liberation” for humankind, on which individual lives are to be regarded as places of learning. For Nelli,²⁷ this theory of evolution is the only one that can explain the inequality in human destinies in a reasonably satisfactory way. The single life then represents only a fragment in the history of individuality, comparable to a day in the course of a week or a year. Just as the individual days, though separated by the nights, are connected, so are the individual lives connected in the process of development of the human spirit. This was the only way to understand the strict moral and social attitude of the Cathars, their strict ethics and high level of personal responsibility. Suicide made no sense as a way of escaping the world and the thread of life would not be broken by it.²⁸ The body was understood as a shell for the human soul during its sojourn on earth. For example, in his *Geschichte der europäischen Philosophie (History of European Philosophy)*, published in 1897,²⁹ the contemporary philosopher Weber describes the human body as a place of improvement, created with the perfection of the human soul.

Le Corbusier also has the idea of the multi-layered structure of the human being, which is sometimes formulated as a two-part division – Dieu/Diable³⁰ – or as a tripartite division “*servir*

à la bête, au coeur et à l'esprit"³¹ (serving the beast, the heart and the mind). He too speaks of the inner struggles of humans on their path of development, of the "subduing' of feelings and instincts for the sake of the preconceived goal."

In *Städtebau (Urban Design)*³² he speaks of man's need to tame the animal within him. In *Mise au point* he describes the goal in the poetic words "*tout retourne à la mer*" (everything returns to the sea):

"For in the end everything returns to the sea (...). At the end of the reckoning there is the following debate: Man faces himself, Jacob's struggle with the angel within man. There is only one judge. His own conscience, that is, himself with his detestable and sublime sides. That depends on each individual, since the beginning (...). One has the choice: the worthy path (...) [or] money. My whole life has been dedicated to discovery. That is a choice. You can drive beautiful Cadillacs or Jaguars, you might as well be passionate about work (...). The exploration of truth is not easy. Because there is no ultimate truth. Truth flows between two shores (...) and each day differently."³³

Le Corbusier impressively describes his "path experiences" and mentions the keen awareness necessary to be able to evaluate one's own path, the "self-distance" required for this, and the many distractions that can lead away from the search for truth. In particular, he hints at his goals, which assign him to the elite group of "truth seekers." At the same time, he clearly distinguishes himself from mediocrities in the hierarchy of possible levels of consciousness that let themselves be diverted from their path and thus lose sight of their actual goal.

Le Corbusier was often described as a rationalist and his religious worldview was ignored. That he, himself, knew how to clearly distinguish himself from rationalism is reflected in the following passage: "One can say that he (is a humanist) in whom, in this epoch consecrated to rationalism, a sense that has been numbed or extinguished in most people has remained awake: the sense for the unity of being behind the manifold external manifestations (...). Only the one who has understood this unity, which is elevated above the rational world, is capable of making his neighbour understand it."³⁴

Death, the law of life

*"In the course of the years, through his struggles, his work and his efforts related to himself, step by step man acquires a certain (intellectual) wealth, makes individual (...) conquests (...). But (...) this wealth, this hard-won experience will disappear. The law of life: death. Nature ends all activity through death. Only thinking (...) is transmissible."*³⁵

“Yes, nothing is transmissible except thought (...). [It] may or may not become a victory over fate beyond death and perhaps takes on an unforeseen dimension (...). But life can be reborn.”³⁶

Death is not the extinction of life, but its transformation into another form. Like birth, death is ascribed the function of a transit station from one form of existence of life to another. Thus, the importance of the experience of “mystical death” in the initiation schools or in the spiral dance rituals of older cultures³⁷ is understandable. Students experience the double aspect of death, they experience themselves as a “phoenix rising from the ashes.” Death thus becomes a “milestone on the path,” not the end of the path.

For Le Corbusier, too, death seems to have this “threshold character.” He speaks of death as the transition from one reality to another. In his characteristic manner he formulates cautiously: “More and more we are approaching areas in which I do not trust myself to judge. I am losing my footing. Once again, I declare my profession of faith: I am an architect, builder of houses and public buildings from earthly materials for people on this earth. I am enough of an artist to be able to feel that there are continuations of everything material, but I stop at the threshold of metaphysics and symbolism, not out of disdain, but because my way of thinking does not impel me to advance beyond it. ‘Gods play in the background’ (...). The very word says that I am not able to do as they do, for I am only a human being.”³⁸

Death is the point on the path where value systems undergo a change. It is like the “moment of truth” that brings the essential into the light and relegates the non-essential to its place. In this process of the “reassessment of all values,” Le Corbusier concedes no significance to material goods, but an outstanding significance to human thought and creative work. What is saved across the threshold can lead beyond death into “unforeseen dimensions,” as Le Corbusier expresses himself in the second of the introductory quotations. One clearly senses the parallels to the Cathar conception, according to which the conduct of one’s life is decisive for one’s further fate. Every decision, every choice at every moment of life shapes the future. Everything unimportant is important because, as a fragment of the mosaic of life, it influences its overall pattern and colouring. Only the alert consciousness is aware of the responsibility for all expressions of life.

The importance of personal responsibility

“What is not superfluous? The essential. Attention, here the sophists: ‘Everything is useful, everything is exciting.’ Answer: ‘The day only has 24 hours.’ Here the indisputable (...), the

enduring. That which judges everything. You can't let yourself be attracted by everything: you don't have the time. One must choose."¹⁹

An essential aspect of this worldview is the importance of the individual's personal responsibility. For each consciously or unconsciously made choice, one is solely responsible. The insight into the importance of choosing one option or deciding not to take others is decisive for Le Corbusier.

In the year of his death, Le Corbusier describes how we encounter fate: as an "inscription" of individuality: "Youth means resilience, indomitability, purity. The spring jumps (...). It is inscribed in a person's destiny from the very beginning. From childhood to the age of 30, what intense turmoil (...). He never knew it, the little one. He went his own way."⁴⁰

The idea of individual responsibility plays a central role in the development of cultural history: Le Corbusier is not afraid to claim that cultures are inconceivable without individual effort:

"So cultures are built up: On the personal effort of the individual, on incorporation and digestion. Once you have absorbed them, you have a feeling for things. This feeling is nourished by what you have ingested. One does not rob when it is a matter of works of the spirit."⁴¹ For Le Corbusier, the driving force behind the process of cultural development is an alert consciousness. In his opinion, one should not passively wait for things to develop on their own; the conscious and active participation of the individual is decisive in historical development:

"One must think, be sensitive to every challenge, all the time, every minute. To be sensitive means to be aware, the opposite of what one would usually like to attribute to sensitivity."⁴² An indispensable quality of alert individuals can perhaps be described most precisely with an expression from Ernst Bloch's *Prinzip Hoffnung (The Principle of Hope)*.⁴³ The characteristic of those who are capable of perceiving particularly favourable moments in history and acting accordingly is called "sober genius." History apparently has different "qualities of time" at its disposal. They must be perceived with particular sensitivity and a constant "willingness to make sacrifices."

In every moment, according to Le Corbusier, one must have the ability to recognise and overcome inertia. Le Corbusier sees the possibility of intervention in these special moments. He uses the term "irretrievability of lost time" to describe the fact that missed opportunities do not simply return. To utilise such irretrievable moments, or to avoid missed opportunities, prophets are needed who are capable of adding something new to the old, of giving a historical situation a new direction:

“What is a prophet? A prophet is someone who, in the midst of the turmoil, is able to foresee and interpret things, who sees through connections, explains, instructs and preaches.

It is the poet who reveals the new truth (...).

Everything is fatal for those who cannot judge but tolerate – for those who have their feet firmly planted on yesterday. They are dislocated, torn, tattered. For them there is only the inevitable catastrophe and the death of the good days....

The present day? The most marvellous epic, unknown heroism, revolutionary discoveries, sensational encounters. Useless, O poet, are graceful minuets; the whole world is full of life, rebirth, real deeds. It is enough to see and admit: ‘A great age has begun.’ As soon as we turn our backs on the funeral chamber, we look into a flaming dawn.”⁴⁴

In his book, which characterises the turn of the century as such a threshold moment, Provensal’s reflections take us back to the various eras of the past and, via a critical commentary on the last hundred years, characterised as the “silent age of architecture,” back to the present when the tasks of architecture and the arts need to be reconsidered. At the same time as the expected innovations in the arts, a new generation of artists and architects is expected. The time of mediocrity is over. “Prophets” are expected, harbingers or messengers of new or rediscovered truths.

Provensal appeals to all those who are able to hear him, in Le Corbusier’s words, to all those who have ears to hear. Le Corbusier is one of them, as Turner points out several times, especially where he notes that the “expectation of this time” emphasised by Provensal is still waiting for its redeemers and innovators, pervades the entire book.⁴⁵ Turner attempts to show how Le Corbusier feels addressed by Provensal’s words, how this reading becomes the driving force behind his work.

For Provensal, the work of the artist is primarily of a missionary nature. This mission consists of passing on the heritage enriched by one’s own contribution (Le Corbusier also understands tradition as passing on). The true artist combines the truth of yesterday with the truth of tomorrow. Together with other artists, they form an “invisible chain of initiates” who have connected their “core of being” with the eternal “principles of the absolute.” Through their works, they also convey these principles to others. Artists are messengers of eternal truths and beauty, bringers of light to the future. By taking on new tasks, they had a revitalising effect. Although they initially only address an intellectual minority, they act as “germinating seeds” in the darkness of the consciousness of the masses. By understanding the “sacred,” they convey its essence in their works, translating aesthetic ideals into tangible material forms. Uniting science and art, they satisfy both the physical and moral needs of humankind.⁴⁶

The mission of the creative human being consists in taking over the “guidance” through the cultural-historical process: “For the artist, the most sublime mission that can be entrusted to him is to pass on the expanded heritage of the ancestors to future people and thereby to contribute to the perfection of humanity.”⁴⁷

In his foreword to Schuré’s book, Rudolf Steiner writes that the author is inspired by the belief that a future of spiritual culture is imminent in which science will struggle through wisdom to recognise the visionary of truth, when he maintains that art will experience an epoch in which the inspiring power of the archetypes of things will prevail beyond the imagination, he is speaking from the hearts of the artists of the time, putting their vision of the future into words.

The pyramid as a “symbol” of society

“A large acute triangle divided into unequal parts, with the most acute, smallest section turned upwards – this is the correct schematic representation of spiritual life. The further downwards, the larger, broader, more extensive and higher the sections of the triangle become. The whole triangle moves slowly, barely visibly forwards and upwards (...), what today is only comprehensible to the uppermost tip (...) will tomorrow become the (...) content of the life of the second section. Sometimes there is only one human being at the apex. His joyful vision is equal to the inner immeasurable grief (...). Artists can be found in all sections of the triangle. Every one of them who can see beyond the boundaries is a prophet of his surroundings and helps the movement, the unruly cart. But if he does not possess this keen eye, or if he abuses or closes it for base purposes (...), then he is completely understood and celebrated by all his colleagues. The larger this section is (i.e., the lower it lies at the same time), the larger the crowd (...). It is clear that each such department hungers consciously or (much more often) completely unconsciously for the corresponding spiritual nourishment. This nourishment is given by its artists (...). The lonely, starving and visionaries are ridiculed or considered spiritually abnormal. The rare souls, however, who cannot be wrapped in sleep (...), sound in a coarse physical chorus, desolate and lamenting (...). The invisible Moses comes down from the mountain and sees the dance around the golden calf. Yet he brings a new wisdom (...) to the people.”⁴⁸

Wassily Kandinsky’s image of the pyramid, an expression of the social distribution of intellectual and creative potential, and the resulting isolation of artists, but also their special position as the “top of the pyramid,” help the “cult of genius” to flourish.

We encounter this symbol not only in France, but also in Germany, and it is particularly widespread in expressionist circles. Within this view, it is not the masses that move the cultural revolution; it is the creations of geniuses that set the cultural revolutions in motion. The important patron Karl Ernst Osthaus supports this view by pointing out that today there is a lack of respect for artistic creation, to which only few are called:

“The relationship between genius and missions is regulated by presage. But they [the building councils] force the genius to languish over small commissions or to experience disappointment after disappointment [sic!] The people have a right to their artists. And you [the building councillors], who have the power to distribute and hinder, bear the responsibility for the fate of our culture. Give space to genius. Florence would never have become Florence if the Medici themselves had had the ambition to be Brunelleschi or Michelangelo.”⁴⁹

For Le Corbusier, too, the image of social order resembles a pyramid with the “well-behaved people” at the base and a small “elite” at the apex.⁵⁰ The result of the efforts made by this artistic elite is the “gift of intuition”:

“Intuition can (...) be defined and, for our reassurance, traced back to rational elements; one could say: intuition represents the sum of acquired knowledge. (...) If intuition is the sum of acquired knowledge (...), then feeling is an outflow of acquisitions that have become permanent. Feeling is based on rights (...). One does not steal a feeling.”⁵¹

For Le Corbusier, intuition is the result of the most strenuous effort. Art is only important to those who prove themselves worthy of it:

“Art is not a matter for the people, still less a ‘luxury item.’ Art is vital only for the people of the elite; they need peace and quiet in order to be able to take the helm. By its very nature, art is proud.”⁵²

In contrast to the almost arrogant description of this elitist group, Le Corbusier characterises the masses referred to as the base of the pyramid as obedient and comfortable. He does not say this without bitterness. The crowd “obeys because it is easier.”⁵³ Or: “We will calmly go back to the daily grind, bow to the compulsion of prevailing opinion, let ourselves be slowed down by the all-conquering power of habit. It is not for nothing that we belong to an organised society: we are guided by the thoughts of other people.”⁵⁴

Henry Provencal calls the “elite” the “lighthouses” of society that illuminate the path of humanity.⁵⁵ For him, the “elite” is the group of geniuses who have earned the opportunity to walk the “path of initiation or knowledge.” Ordinary people, however, remain at the “threshold of the golden gate”; the light frightens them off. The deeper secrets of life would only be granted to those who prove themselves worthy of them. Worthy are those who have changed

their life plan, separating the important from the unimportant. They no longer care about external honour, fame and prestige. They count only on themselves, as Le Corbusier says, and act out of their own conscience.⁵⁶

Figures of identification

“I wish architects would even become the elite of society – the most spiritually rich people (and not the most needy, the most bland, the most narrow-minded), that they would be open to everything (and not closed in like the philistines in their specialisation). Architecture is a state of mind and not a profession.

I see further: the architect should be the most sensitive, the best educated among the connoisseurs of art. He should be able to judge the plastic and aesthetic products even better than his technical calculations. Through its spiritual radiance, charm and dignity, architecture should bring the people of the new machine age joy and not strict utility. Today it is a question of igniting this light and ridding oneself of stupidity.”⁵⁷

Figures of identification have the function of a mirror for the individual on the path. They reflect ideals and characteristics that one is in the process of developing in oneself or discovering in these figures. The discovery of an inner or outer kinship, of parallels in the biography, allows them to become orientation aids for one’s own life. The loneliness in which one has lived up to now is alleviated; the path ahead takes shape.

In his study, Turner was able to show how Le Corbusier, influenced by Schuré’s description of the path of knowledge or initiation, sought to identify and accept characteristic features of his own life. He also points out that the descriptions of the visit to Mount Athos (“*voyage d’Orient*”) were not primarily concerned with architectural conditions, but with the “solitary experiences” of the self. It was no coincidence that L’Eplattenier’s gift, the *Buch der Großen Eingeweihten* (*The Book of the Great Initiates*), came out in 1907, the year in which Le Corbusier’s journeys to Italy, Vienna and Paris began. With this gesture, L’Eplattenier had wanted to draw Le Corbusier’s attention to journeys in Pythagoras’s life that had led him to the ancient centres of the schools of initiation.⁵⁸ According to Turner, the period around 1908, which he marks as the second phase of the early education, includes Le Corbusier’s reading of Nietzsche’s *Zarathustra* and Ernest Renan’s *Vie de Jésus*, books that both nourish the cult of genius and see in the genius an “*Übermensch*,” someone “sublime” above the ordinary masses. During his time in Paris, Le Corbusier experienced, himself, for the first time in the role of the “lonely seeker.” At the age of 21, he wrote to L’Eplattenier: “Parisian life is lonely for me. And

for eight months I have been living alone – alone with this strong spirit that can be found in everyone and with which I want to deal with every day and today I can talk to my spirit – fruitful hours of solitude, hours during which one is worn out and tormented (...). I have 40 years ahead of me to achieve the great things that lie ahead of me, blurred against my still smooth horizon (...). I want to fight with the truth myself. It may torture me – it certainly will. It is not comfort that I am focusing on today and that prepares me for the future (...). It is the strength that is in me that speaks, and when I speak of these things, they are by no means mere reveries (...). Oh, how I would like my friends (...) to throw away the petty life with its everyday satisfactions (...). One must go into solitude. (...)

I would no longer agree with you (...), I could not. You want to turn young people of 20 years of age into cheerful, active and productive people (...). Because you feel full of productive vigour, you believe you can also find this in young people. This vigour does exist in them, but it must first be developed. (...) In order to be effective, one must know (...). They have not yet experienced pain or tribulation: without having experienced them, one does not make art. (...) Their heart has never lived, because they do not even know that they have a heart (...), that they exist at all – why they exist – (...).

You alone may have foreseen (...). You have known what it means to know yourself; you have known what it demands of you in terms of pain and cries of rage – and enthusiastic outbursts (...). Wanting to sing when you don't even have lungs yet! (...) My attack against you, my beloved teacher, is directed against this error (...). You constantly believe you see comparable forces around you (...). My fight against my friends will be my fight against their ignorance; not that I know anything, but at least I know that I know nothing (...). They do not know what art is: intense love of one's own being; one tries to find it in seclusion and solitude, this divine being that can become an earthly one if one tries – through the struggle – with all one's strength (...). It takes place in solitude, the struggle with oneself (...). Never doubt me, I am too attached to you to forget you even for a single day (...). Sincerely, your pupil (...)."⁵⁹

These passages from his letter reveal the full extent of the grief and anger of the lonely eccentric who, despite his great insecurity, feels called to do something extraordinary.

For Le Corbusier, the prerequisite for an artistic mission is the naked “pure human being.” In order to open oneself to spiritual realities, one must have cast off material desires. One must keep oneself free for new truths to be discovered and translate them into a work of art. He is completely devoted to the “why” of things!⁶⁰

Simply living out one's creative potential, using and artistically transforming one's own powers means fulfilment: “I will realise that happiness – that my happiness – lies in the

creative power that everyone (...) carries within them (...): our happiness depends on our honesty.”⁶¹

Accordingly, Le Corbusier harshly and consistently judges the inauthenticity, the superfluous in the lives of most people and the cultural and historical catastrophes that result from this.⁶²

In trying to understand Le Corbusier’s high demands on the artist’s ideal image, Provensal’s visions are an indispensable aid. Le Corbusier places the architects alongside Provensal’s artists and Schuré’s initiates. He endows them with the same supreme qualities. He does not distinguish between architects and artists. He believes in a progressive-evolutionary development of humanity and assigns artists the important role of “movers of the unruly cart”⁶³ as Kandinsky put it.

Now we understand why Le Corbusier says that architects should be the elite of society, the most spiritually rich, not the most deprived, the most sensitive, the most educated in the arts. Through their spiritual radiance, architects should kindle a light of joy in the world.

Elsewhere, Le Corbusier emphasises that only those who feel a special grace in themselves – in the religious sense – may become architects.⁶⁴ In *La maison des hommes (The house of men)*, Le Corbusier goes one step further. In response to the question he posed himself as to what a “*maître d’oeuvre*” was, he replied:

“The ideal *maître d’oeuvre* is a humanist who should embody within himself two different entities: architect and engineer. This trinity, if it could one day be fully realised in a human being, would allow a ray of that light to flash on earth for a moment. Thanks to this we owe the creation and maintenance of the world at a time when the sublime symbols had not yet fallen victim to stupid hands, one had the right to call the “great architect of the universe.”⁶⁵

The reference is, of course, to the Trinity of God. We do not know whether this reference should only to be understood metaphorically or whether Le Corbusier really wanted to be compared to a – worldly – creator.

If you compare Le Corbusier’s writings with Provensal’s book, you will easily find confirmation of Turner’s assertion that Provensal exerted a powerful influence on Le Corbusier with his appeals to “those who have ears to hear.” We even encounter the imploring form of Provensal’s appealing speech again in Le Corbusier’s manifestos. It is not only the content, but also the style of communication, the same missionary zeal that characterised his pronouncements.

The process of identification is about defining the role of the artist in society. The new self-image of artists is that of “prophets,” “heralds of new messages,” educators of the people. In this context Le Corbusier says:

“The poet will revive! Because the poet is that being who is enthralled by perfection and wants to make a god out of man (...). The poet holds a polished steel ball in his hand and thinks: here is the proof that the God I seek exists.”⁶⁶

Most contemporary artists saw themselves as solitary, as “callers in the desert.” In fact, many of them lived in remote places or, like Gauguin, withdrew from civilisation from time to time. Pehnt writes about the difficult situation in which the artists at the turn of the century found themselves:

“The mixture of humility and arrogance in the relevant manifestos can be explained by the dual function that the architects ascribed to themselves. They considered themselves to be mediums who, as the philosopher Henri Bergson, who was important for Expressionism, put it, grasped the forces of life in a state of perfect “submissiveness.”

From this experience they derived their active role as chosen executors of the will to live. The fact that this sense of mission did not correspond to any actual influence resulted in frustration, which soon caused the more active and critical members of the community to reconsider their positions.”⁶⁷

Representatives of other movements also made similar claims with regard to their function in society. Hiller’s characterisation of the man of letters as a prophet and leader⁶⁸ and Sokel’s remark: “The crucified is also the redeemer. Persecuted today, he will inherit the kingdom of the chosen ones,”⁶⁹ reflect the general situation. Such a self-image is indeed a form of self-evaluation that can be regarded as being arrogant. On the one hand, it is understandable as a form of compensation for the outsider role that artists were often forced to live as a result of their changed value system through their work, which usually led them to pursue goals that were no longer in harmony with those of society.

6 The zeitgeist

“Our soul, which is only at the beginning of its awakening after the long materialistic period, harbours within it the seeds of despair of non-belief, of futility and purposelessness. The whole nightmare of materialistic views, which have turned the life of the universe into an evil, futile game, is not yet over. The awakening soul is still strongly under the impression of this nightmare. Only a faint light dawns like a single dot in an enormous circle of black. This faint light is merely a premonition which the soul does not have the courage to see, in doubt as to whether this light – the dream and the circle of black – is the reality.”¹

The title of Wassily Kandinsky’s *Über das Geistige in der Kunst (On the Spiritual in Art)* could be seen as a characterisation of the zeitgeist of artistic circles at the turn of the century. Kandinsky, one of its representatives speaks of his home in Munich-Schwabing as a “spiritual realm,” a spiritual island of the larger world, in which abstract art, Cubism, Futurism, Dadaism and Expressionism and the twelve-tone music of his friend Arnold Schönberg manifest themselves simultaneously.² In the text quoted at the beginning, he expresses his perception of the threshold and the faint hope of a turning point associated with it. Kandinsky saw his art as a means of translating spiritual realms into reality, of making the intangible visible in the sensual³ – a view that can also be found in Le Corbusier’s work. A close examination of his life and work reveals that he was deeply connected to the turn of the century.

In this phase of upheaval and change, deep dissatisfaction and great inner turmoil became apparent in cultural circles. Reactions were directed against views that robbed people of their roots. In his book on Expressionism, published in 1914 – and described by Ian Boyd White⁴ as being “ground-breaking,” Paul Fechter explained that the 19th century had seen an accelerated development towards materialism and an increasing de-spiritualisation in all areas of human activity. As a result, he explains, “the metaphysical need...was lost under the impression of scientific success....”

A time of reflection begins on the threshold of the 20th century: dissatisfaction awakens a creative energy in the alert spirits of the time that calls for a “clarification of stance.” The continuation of the well-trodden path has come to an end – and this requires, on the one hand, looking back, taking stock, understanding the path travelled and, on the other hand, a conscious grasp of the present, a new orientation for the future path.

To paraphrase Ernst Bloch,⁵ the belief in the advent of a new age sets the task of a “real-utopian design,” the vision of a better future. As Iain Boyd Whyte⁶ notes in his study of Bruno

Taut, this attention to the new age is revealed in Heinrich Hart's volume of poetry published in 1872 with the noteworthy title *Weltpfingsten, Gedichte eines Idealisten (World Pentecost, Poems of an Idealist)*. A significant stanza reads:

“Throw open the gates: Century, come down, welcomed, admired, sunlit, morning clear. You wear no golden crown, but a wreath of fragrant spring roses adorns your hair.”⁷

This contemporary trend, which manifests itself in a new orientation towards the spiritual, goes hand in hand with a revolutionary upheaval in the natural sciences. The German physicist, Heitler notes:

“While in the view of classical physics the universe is subject to strictly causal and deterministic laws and follows its prescribed path independently of man and his sensory perceptions, it turned out (...) that (...) the observer of the experiment can no longer be isolated from his object of research (...), a fact that unhinges the thinking of classical physics, since the validity of the laws of nature is based precisely on their independence from the human subject. The concept of truth in the exact sciences, their epistemological situation, has fundamentally changed (...). Physical research has experimentally proven the energetic nature of matter. It has penetrated into the force fields of the invisible atom...”⁸

The concept of solid matter has been replaced by mathematical equations:

“Isolated particles of matter are abstractions, their properties can only be defined and perceived through their connection with other systems.”⁹ The traditional concept of time is outdated. The physicist, de Broglie says:

“In space-time, everything that represents past, present and future for each of us is given in one go.... Every observer discovers, as it were, as his time passes, ever new slices of space-time, which appear to him as successive aspects of the material world, although, in reality, the totality of events that space-time represents exists before he knows anything about it.”¹⁰

These upheavals in the natural sciences were very important for artists. Vogt writes in his book *Der Blaue Reiter*: “The world expanded beyond its hitherto seemingly fixed boundaries into the immeasurably small and large, but also into the indescribable, for which new symbols had to be found. Kandinsky expressly emphasised how important this confirmation by natural science (...) was to him, because it meant that ‘one of the largest obstacles on the path to the realisation of my wishes dissolved and disappeared by itself.’”¹¹

The artists' task was to make the expanded creation visible in their own way, to advance from the material into the world of the non-material or the über-material. This goes hand in hand with an acceptance of the “questions of meaning” in life. Death is no longer accepted as an end that can no longer be questioned, one's own life is no longer regarded as a mere isolated

“coincidence.” People try to find their way back and forwards in order to position their own existence and the existence of things in an overall context. Hugo Häring says in one of his pieces:

“Human thought revolves around the question of the meaning of events (...). In the Genesis of Moses there is the sentence that [you!] man was created in GOD’s own likeness. If we take this remark as an indication of high spiritual knowledge, then an answer can be given to the question of the meaning of man’s existence and creation(Ω). This reference revealed GOD’s intention to also give the human being created by him the power to accomplish a work of creation himself, in the image of the work of creation of the divine spirit.”¹²

Bruno Taut, who, as Pehnt mentions, often cites the mystics as witnesses to his world view, comments on the subject of death and the role of art:

“Art (...) seeks to be an image of death, to provide the boundaries where limited interest in earthly things dissolves in seeing that which opens up beyond the threshold of death.”¹³

In this situation of new orientation, the search for the origins and meaning of life, a revival of religious and ideological interests can be observed. Esoteric ideas and philosophers experienced a significant upsurge in the course of the 19th and at the beginning of the 20th century in both German and French-speaking countries.

Around 1890, for example, Jules Doineau founded a neo-Cathar (neo-Gnostic) church in France. Gérard Encausse, also known as “Papus,”¹⁴ a famous esoteric scholar, was also a member of this church.¹⁵

Many renowned artists of the time were devoted to esoteric philosophies. They were characterised by a mixture of artistic and esoteric circles. The Theosophical Society, founded by Helena Petrova Blavatsky in 1875, and the Anthroposophical Society, founded by Rudolf Steiner in 1913, proved to be particularly significant for artists of the time.

In his book *On the Spiritual in Art*, Kandinsky mentions his respect for the Theosophical Society, describing it as “one of the greatest spiritual movements that today unites a large number of people (...) who (...) are trying to approach the problems of the spirit.”¹⁶ Rudolf Steiner in particular, who was trained as a natural scientist and spiritual scientist, was predestined to be the figurehead of the new ideal, the holistically developed human being. For Steiner, the cognition of higher “worlds, the comprehension of spiritual beings and facts behind physical reality were facts of experience that had to be grasped using spiritual scientific methods.” His entire work bears witness to the attempt to allow natural and spiritual scientific knowledge to enrich each other.

If one attempts to capture the variety of expressions of the creative potential of that time in one term, one inevitably comes up with the word “Expressionism,”¹⁷ the collective term for the utopian-visionary reactions to the “*fin-de-siècle*,” characterised by a new spirituality. The early Bauhaus serves as the most important example of this zeitgeist.

As one of the cradles of modernism, it is a stronghold of Expressionism for friends and foes alike. Pehnt even calls the Bauhaus an academy, even though Expressionism was opposed to the academy system, and Theo van Doesburg saw himself confronted with expressionistically distorted freaks in Weimar.¹⁸ According to Pehnt, the fact that the Bauhaus developed into an intellectual and artistic centre of the Weimar Republic was not due to the construction of the institute, but to Gropius’s intuition and courage in choosing his staff. The Bauhaus thus became an example of the persuasive power that ideas can gain when they are represented by the intrepid and the right people at the right time.¹⁹ During the Bauhaus period of the first phase, the most diverse religious and mystical tendencies were represented – from theosophy and anthroposophy to New Buddhism, New Platonism and the secret doctrine of Mazdaznan (Itten). Max Berger, the city planning officer in Breslau at the time, is said to have described it as an “alchemist’s kitchen.”²⁰

The writings of the mystics were used as a source of inspiration. We can regard Johannes Itten (1888–1967) as the outstanding educational figure of this early period. He ran a public school in Vienna and attracted a number of students to the Bauhaus. In Weimar, he was the only person with extensive teaching experience. As his preliminary course was compulsory for all Bauhaus students in the first semester, he played a key role for this reason alone.

Itten’s achievements cannot be seen independently of his life teachings and practices. Itten believed in an original, creative state of each individual human being. The relaxation and concentration exercises, as well as the moral chants and sayings, which seemed strange to more sober Bauhaus students, especially in later years, were part of his pedagogical method. Pehnt emphasises that Itten wanted to release the creative forces in the individual and guide them to an almost mystical experience of things.²¹ The extent to which Itten was supported in his endeavours by Bauhaus director Gropius is shown by an entry in Oskar Schlemmer’s diary from 1921, which states: “Itten is Gropius.”²²

If the intellectual reorientation of the time was to be described as radical, then, according to Pehnt, it was radical in the sense that it sought the origin of creative work. Taut spoke of a “mystical current” that was concerned with universal origins.²³ Architecture was understood in his sense as the “emergence” of a mysterious elemental force. There was even talk of a mystical return to one’s own roots.²⁴

This search for the origins and meaning of existence brought hope for a new religion of the future. In 1914 Gropius wrote: “Only when the great joy of a new faith is bestowed on people again will art also be able to fulfil its highest goal and reinvent the bright, decorative form from the initial austere forms as a sign of inner refinement.”²⁵

Poets and painters, philosophers and critics spoke of an unknown religion of the future, in which new art would be realised.²⁶ Thus, in German literature around 1910, a turn towards transcendental Christianity of the Middle Ages and similar religions (Buddhism, Hinduism, Taoism) was evident. According to Whyte, the new edition of Meister Eckehardt’s mystical writings by Landauer (1903) helped to prepare this turnaround.²⁷

Expressionist religiosity, however, was not bound by confession. One could, as Pehnt says, speak of an expressionist religiosity without religion. Taut thought of his glass houses as “empty vessels” of an as yet unknown faith, because the “return of the divine” in the view of the mystics presupposed emptiness and silence. Taut explicitly referred to Meister Eckehardt: “If I were empty and pure, God would also have to give himself to me out of his own nature and be united in me.”²⁸

In connection with the spiritual reorientation of this period, the question of meaning in relation to art and artists was also posed anew. The role of art and artists as transmitters of the new spiritual content had to be reconsidered and experienced. The relationships between art and artists on the one hand and the ideological-religious backgrounds of the world of manifestations on the other developed into fascinating areas of thought and creation for the cultural elite of the time.

Pehnt counts the demand for “symbolisation,” for the expression of the new convictions, among the design-determining factors of Expressionist architecture. Gropius writes: “Where a new truth of salvation, a new religious idea is born, the shift to art must most likely also occur, for this is nothing other than the transformation of transcendental thoughts into something perceptible to the senses.”²⁹

Pehnt points out that Lionel Feininger’s woodcut, which adorns the title page of the Bauhaus Manifesto, is a crystalline symbol with clear references to the “coming new faith” of which Gropius speaks. The Bauhaus also appears to the outside world as a place where secrets are guarded and passed on. The idea of the “*Bauhütte*” is revived: In 1918 Gropius writes to Karl Ernst Osthaus:

“I am in the process of realising something completely different that has been playing on my mind for a long time – a *Bauhütte*! with a few like-minded artists.”³⁰ The idea of the *Bauhütte* and the “idea of the new cult building,” based on the medieval models of life and community

evoked by Landauer and Taut, was also met with renewed interest in the ‘*Arbeitsrat für Kunst*.’”^{31, 32}

The question of art and its close rootedness to the society of the future, which had to be reconsidered, gave architecture a new status as the mother of all arts. “Architecture is art and should be the highest art,”³³ wrote Taut, thus representing the opinion of the architects of his time, according to which architecture, not least due to its greater closeness to life and effectiveness, was able to fulfil the meaning of the new art without constraint, namely to help the “outburst of the soul”³⁴ and the “belief in the spirit as the divine in man”³⁵ to take shape more emphatically than the other arts. The unification of all the arts in architecture, which appeals to more than one sense and is at the same time an “image of the cosmos,” is envisaged as the goal. Whyte’s formulation is even more exaggerated when he describes the artists’ aspirations as an “elevation of architecture to a religious status.”³⁶

For Le Corbusier too, as we have seen in particular with the example of the *Musée Mondial*, architecture is the central means of demonstrating or establishing the relationship between the spiritual world and historical reality. In his *Feststellungen* (1929), he describes architecture as “the result of the intellectual trends of an epoch.” In a remark from 1928, he even dared to equate the “history of culture” with that of “spiritual architecture”³⁷ in a dramatic formulation. We encounter the same thoughts in Provensal, who sees the art of the future, like that of the past, as a “brilliant résumé of the collective moral idea of the religious consciousness of the peoples.”³⁸ He sees the history of art as the history of religions and, like Gropius, suggests that the path to the future should be preceded by a new faith. Lack of faith among artists should be replaced by a new cult, the cult of true humanity. In this context, we are reminded of Otlet’s idea of the “*Cité Mondial*,” the vision of a new, global religion.³⁹

Another central idea of this mindset can be seen in the belief in the “social potential of art.” For the artists of the time, who sought to translate the “evolutionary” forces released by breaking out of the narrow materialistic view of the world into artistic deeds, the idea that the revolution in art must necessarily also result in a revolution in society was self-evident.⁴⁰ This conviction was shared by artists from all fields. Associated with it was the emphasis on the “morality of aesthetics” or, as Giedion describes this tendency: “The movement received its true impetus from the demand for morality.”⁴¹

In connection with Le Corbusier, Karl Ernst Osthaus and the so-called “Hagen Impulse”⁴² are particularly important. Osthaus gives even more succinct expression to the zeitgeist of the time when he presents the *Deutsche Museum* (German Museum) at the third annual meeting of the *Deutscher Werkbund* and emphasises that it is based on “the belief in the world mission of

culture, which bridges political and social differences.”⁴³ Culture becomes a substitute for politics. Osthaus is an art politician, who believes that culture can only flourish where art and life form a unity. He sees one of his main missions as discovering and promoting young talent. He endeavours to acquire commissions in order to give them the opportunity to prove themselves.

With the conviction that a new art would also bring about a change in life, Karl Ernst Osthaus began an “art mission” that lasted his entire life and was without precedent. He initiated an incredible number of cultural achievements in all fields. With his Museum Folkwang,⁴⁴ his art collection, travelling exhibitions and lecture series at the *Deutsches Museum für Kunst in Handel und Gewerbe* (German Museum for Art in Trade and Industry), which he founded, book publications by his own publishing house, building commissions and numerous contacts with industry and commerce, the Hagen banker’s son and millionaire developed an impressive cultural and promotional activity. In Hohenhagen garden suburb an “experimental site of modern building,” Osthaus wanted to provide the artists he had appointed with commissions that others were denying them, thus giving them the chance to realise their ideas.

The leading architects of the time were involved in these projects. Henry van de Velde, Peter Behrens and J.L.M. Lauweriks were able to realise some of their plans; Josef Hoffmann, August Endell and Adolf Loos, Walter Gropius, Bruno Taut and Fritz Kaldenbach worked on designs or were commissioned to do so. Peter Stressig⁴⁵ writes that it is precisely the experimental character of this unfinished experiment, with all its weaknesses and ambiguities, that makes it interesting and significant, as the various views that led to the emergence of a new architectural concept between Art Nouveau and Bauhaus can be seen here in the designs and buildings.

A trip to Germany,⁴⁶ which Le Corbusier was able to combine with a commission from the School of Arts and Crafts in La Chaux-de-Fonds secured by Charles L’Eplattenier, took him to the most important cultural centres in the German-Dutch region in 1910–1911, including Munich, Berlin, Dresden, Düsseldorf, Weimar, Hanau, Hamburg and Stuttgart as well as Hagen. This visit seems to have been of decisive importance for Le Corbusier, especially for his later work on the Modulor and for his design with the “*tracés régulateurs*”⁴⁷ (regulating lines). Through a vague mention of the Thorn-Prikker House in the Modulor, this visit aroused the interest of important architectural theorists.⁴⁸ At the time when Le Corbusier was working for Peter Behrens, the latter was building various villas in Hagen that were in the immediate vicinity of the construction site of J.L.M. Lauweriks’s project, who was busy building the Thorn-Prikker House. Lauweriks, who was regarded as a pioneer of “design by system,”⁴⁹ was

himself influenced by the Beuron School of Art in addition to his theosophical studies.⁵⁰ This had been founded by Didier Lenz, a Benedictine monk called Father Desiderius. The teachings of the Beuron School not only had an impact in the German cultural milieu, but also in France via Paul Serusier and Maurice Denis.⁵¹ Kenneth Frampton comments on the significance of the Beuron School as follows:

“One of the subliminal myths of the early history of modernism is undoubtedly the Beuron School of Religious Art and its obvious influence on Peter Behrens’ work after 1905, an influence that first became apparent in his Oldenberg Pavilion of the same year. In fact, Behrens had come into contact with this school a year earlier when, as director of the School of Applied Arts in Düsseldorf (since 1903), he appointed the Dutch architect J.L.M. Lauweriks, theosophist and aesthetic theorist, to the teaching staff. The extent of Lauweriks’s influence can also be seen in some of Adolf Meyer’s early designs, particularly in a house he designed in 1911, which was obviously based on Lauweriks’s proportional square system (...). Incidentally, it is interesting to note that all the architects of the Dutch Geometric School, i.e., Cuijpers, Berlage, de Groot, Lauweriks and de Bazel, were concerned with the revival of Christian art, with Lauweriks even curating an exhibition on this theme for K.E. Osthaus in 1909.”⁵²

Whether Lauweriks’s theories and those of the Beuron School are to be seen as the main source of influence on Le Corbusier’s fascination with harmonic numerical relationships or just a few elements in the rich mosaic that forms the cultural background to Le Corbusier’s work is not decisive in view of this wealth of material for discussion. For example

Le Corbusier’s study of the “secrets of numbers” is mentioned in works such as Ghykas’s *Le nombre d’or*⁵³ (*The Golden Section*) or A. Fournier des Corats’s *La proportion égyptienne et les rapports de divine harmonie*⁵⁴ (*Egyptian Proportion and the Relationships of Divine Harmony*). From this it can be concluded that these mystical themes attracted their own circle of researchers.

The meeting with Karl Ernst Osthaus and the artists’ colony in Hagen, the further development of which is reflected in an exchange of letters published by Herta Hesse-Frielinghaus in 1977 in a special publication of the Karl Ernst Osthaus Museum, also appears to have been significant for Le Corbusier in other respects.

Le Corbusier’s first letter to Karl Ernst Osthaus is dated immediately after his visit: “I am still under the spell of what you allowed me to see yesterday. I felt so strongly the impression of harmony that unites the neighbourhood with the walls and the evocative walls and the people that I am very happy to have spent a few pleasant hours there.

A Parisian friend told me about the small, little-known German town where otherwise unrecognised geniuses would have found an asylum. So, I made my pilgrimage there. And lo and behold, my expectations were exceeded!

Allow me therefore, dear Sir, to express my grateful feelings once again, and have faith in the deep respect of Ch.E. Jeanneret.”⁵⁵

Following his stay in Germany, Le Corbusier embarked on his “*voyage d’Orient*” with his friend August Klipstein, from where he again turned to Karl Ernst Osthaus:

“I’ve been talking about myself and this trip all this time. And I haven’t said anything about what’s in my heart, about the visit I made to you. I have said nothing because you have seen how touched I was by your reception. This certainty of my gratitude is everything at the moment. I always hope one day to be able to prove to you the reality of my feelings.

Please accept, dear, honoured sir, the respectful greetings of your very devoted Ch.E. Jeanneret.”⁵⁶

Following this journey, Le Corbusier’s life took a surprising turn. According to Turner, it may have been due to his reading of Alexandre Cingria-Vaneyre’s *Les entretiens de la Villa du Rouet* during his time in Germany.⁵⁷ Le Corbusier returned to La Chaux-de-Fonds, apparently at the request of his former teacher L’Eplattenier. There he became a teacher at the “Nouvelle section” of the School of Arts and Crafts founded by L’Eplattenier in 1911.

According to his letter to Osthaus dated 27 March 1912, this must have been a desperate time for Le Corbusier:

“I had to go back. I wanted to return to Paris. But then, almost without my knowledge, my teacher and friend, L’Eplattenier, had me appointed teacher at a new school he had just founded. I had to obey, prompted solely by friendship, overwhelmed by sorrow and upset that I had to go to such a provincial place. I wanted to go to Paris to my old patrons, the Perret brothers (...). I repeat, you can imagine how terrible it was for me to return to La Chaux-de-Fonds. (...) And I, I want to cry that I am here when I could have been there! I have taken the liberty of speaking of you with much respect and admiration in newspaper articles. This was because your kindness touched my heart and I will not forget that you welcomed the stranger, the unknown, the humble passer-by that I was. Yes, I mentioned in my report for the authorities the admirable work you have begun in Germany. Your modern Germany is marvellous, full of devotion, full of energetic resolutions, full of civil courage. France, you are stoning your prophets!”⁵⁸

In the last documented message to Karl Ernst Osthaus, a picture postcard dated 7 August 1913, the tone is even more desperate. One notices the quiet hope that the famous patron from Hagen, who had reacted relatively reservedly to Le Corbusier's warm letters, might help him:

“This is the land of Courbet. Marvellous, strong, healthy. The land of beautiful France. It's been two years since I tried to work here in La Chaux-de-Fonds. But nothing can be done, and I am looking to travel to America. I feel the need for a big job where art plays a big role, where my strength and talent are needed. I always keep a warm memory of your hospitality. I send you my best regards.”⁵⁹

Le Corbusier, who not only wanted to remain a thinker and author of manifestos, found the pressure of his pent-up energy unbearable and urgently sought opportunities to design and build. His immense thirst for action needs an outlet. He sees his chance in Hagen, and in Karl Ernst Osthaus he meets a patron who has the authority and the means to help realise Le Corbusier's ideas and potential. He tried everything to attract the attention of Karl Ernst Osthaus, but to no avail. Le Corbusier's path took a different direction. In the Parisian period from 1917 to 1926, which Turner described as the fifth phase of his early education, a new phase in his life began to emerge. Le Corbusier met Amedée Ozenfant, a painter of the same age but already established in the Parisian avant-garde.⁶⁰ Ozenfant introduced Le Corbusier, who according to his own accounts was “blind” to contemporary art, to this world. At this time, Le Corbusier seems to have been in an insecure phase full of fear and self-doubt, which Turner attributes to the realisation of the now thirty-one-year-old: he must have been aware that urgency was required if he wanted to become the “prophet of a new art.”⁶¹

Le Corbusier organises his first exhibition at the age of 31. *Après le cubisme* (After Cubism), the first fruit of the collaboration between Le Corbusier and Ozenfant, was published in 1918. For Le Corbusier, this time seems to be a period in which he attempted to synthesise the elements of his early education into a coherent conception of architecture and an inner wholeness, and also the time in which he began to distinguish clearly between what was suitable for public ears and what should be kept confidential.

With the founding of *Esprit Nouveau* in 1920 – Jeanneret now used his pseudonym “Le Corbusier” – a new phase began; Le Corbusier became a well-known personality and took great strides towards his early goal of becoming the “prophet of a new order.” The first phase of a journey accompanied by great obstacles and self-doubt has been completed. The first stage of maturity has been reached and the next stage can be embarked upon.

The path once embarked upon, which began with great enthusiasm, led many of the artists of the time to detours full of obstacles and seems to be symptomatic of their biographies. The rapturous belief in a new and better, more humane future gave way to doubts, inhibitions and uncertainties, which were fuelled by the outbreak of war. The fact that the sense of mission was not matched by any influence in reality caused many to exercise restraint. Unexpectedly, the bearers of the new ideas found themselves in unfamiliar territory. Their voices became quieter. Slowly a shift began to emerge. The heat of expression gave way to a matter-of-fact coolness. According to Westheim,⁶² Expressionism became fashionable after 1920, especially in Berlin. Mass culture superficially appropriated the forms of expression and symbols of the avant-garde and used them for its own purposes, which were alien to the original aims. Pehnt and Whyte cite Taut and Behne as the first to sense the change in climate and turn against “all-round expressionism.”⁶³ In 1921, Behne published an article that drew a particular distinction between popular expressionist fashion and the ideals of the former avant-garde:

“The goal is a building and thus an art that knows nothing of Expressionism. Architecture that would be expressionist, in the sense of today’s universal expressionism, would be appalling (...). We have nothing in common with that.... The goal is the objectively won form that rises above the haze of personal feelings.”⁶⁴

If we try to understand the reasons that could have led to the “crisis of idealism” in these artistic circles, we notice the simultaneous occurrence of several mutually favourable circumstances. On the one hand, the aforementioned use of expressionist language, the resulting departure from “externalisation” and, as a consequence, a new void. On the other hand, the openness caused by this situation has a particularly inviting effect on ideas that had previously been more subliminal.

As a reaction to the idealistic tendencies, a new turn towards practical values, towards everyday, concrete, political-economic goals can be observed.

From the “ashes” of the former avant-garde (Whyte), Behne gave rise to a new direction and new goals. The belief in redemption found a new form of mysticism, that of function, performance and material. At the same time that mass culture had taken over elite culture, the innovators had to look for new territory. According to Whyte, they found it in functionalism.⁶⁵

The views and values that had been valid up to that point did not disappear, but only emerged from time to time, either eruptively or in poetic disguise. This can be observed with Le Corbusier, and probably also with other contemporaries:

“The path continues. We, the others, are on the way and would be happy to cover a distance.”⁶⁶

Notes

For the titles mentioned in the notes, see the bibliography p. 137ff. Citations marked with * are translations by the author.

Introduction

1 André Corboz, Canaletto. Una Venezia immaginaria, p. 50

2 cf. idem, p. 500

3 Idem, p. 503

4 Michel Bataille, La ville des fous, p. 43

5 Jean Petit, Le Corbusier lui-même, p. 178

6 cf. Henry Provensal, L'art de demain, p. 26. The expression "les phares" could be an allusion to the poem of the same name by Charles Baudelaire; see *Les fleurs du mal*, Paris 1857

7 Paul Venable Turner, The education of Le Corbusier (A thesis presented to the Department of Fine Arts, Harvard University Cambridge), New York and London 1977

8 Le Corbusier, Modulor 2, p. 310

9 Paul Venable Turner, idem, p. 2

10 Edouard Schuré, Les Grands Initiés

11 cf. Henry Provensal, idem, p. 175

12 cf. Kapital 6, The zeitgeist

13 cf. Le Corbusier, Almanach, p. 78

14 Maximilian Gauthier, Le Corbusier ou l'architecture au service de l'homme, p. 56

1 Preservation of traces

1 Le Corbusier, An die Studenten (To the Students), p. 29

2 Idem, Städtebau (Urbanism), p. 39 ff.

3 cf. idem, Ausblick auf eine Architektur (Toward an Architecture), p. 33

4 cf. idem, An die Studenten, p. 23 f.

5 cf. idem., Feststellungen (Findings), p. 74

6 Idem, p. 212

7 Cf. idem, Almanach, p. 36 (The section "L'Esprit Nouveau en Architecture" is a lecture by Le Corbusier, given on 12 June 1921 for the philosophical and scientific study group at the Sorbonne, which was repeated on 10 November 1921 for the "Ordre de l'Etoile d'Orient." Le Corbusier's comment on this:* "This lecture was improvised and recorded in shorthand. The

Order ‘l’Etoile d’Orient’ is a worldwide grouping that believes in the advent of a new era that will bring with it the radical transformation of all forms of study that contribute to the emergence of the new zeitgeist. That is why I was asked to give this lecture again in the ‘Salle Rapp’ of the Sorbonne.” This order was founded in 1911 by the Theosophical Society and the sixteen-year-old Krishnamurti was its head; Krishnamurti dissolved the order on 3 August 1929. See also: Mary Lutyens (ed.), *Jiddu Krishnamurti*, p. 9; Maximilian Gauthier, *op. cit.*, p. 141; in connection with this lecture in the Theosophical Circle, Le Corbusier met Krishnamurti personally and was invited by him to India.

8 *Idem*, *Ausblick auf eine Architektur*, p. 23

9 Cf. *idem*, *Architecture d’époque machiniste*, p. 21/329

10 Cf. *idem*, p. 18 f./326 f.

11 *Idem*, *Feststellungen*, p. 127

12 Cf. *idem*, *Architecture d’époque machiniste*, p. 37/345

13 *Idem*, *Feststellungen*, p. 149 f.

14 Cf. *idem*, *Städtebau*, p. 54 ff.

15 Cf. *idem*, *Les tendances de l’architecture rationaliste*, p. 7

16 *Idem*, *Une maison – un palais*, p. 10

17 **Idem*

18 Cf. *idem*, *Modulor 2*, p. 25

19 *Henry Provensal, *op. cit.* p. 134 f.

20 Le Corbusier, *An die Studenten*, p. 24

21 **Idem*, *Le lyrisme des temps nouveaux*, pp. 7-63

22 *Idem*, *Extraits, 1ère série*, p. 11

23 Cf. *idem*

24 Cf. *idem*, *Feststellungen*, p. 86

25 Cf. *idem*, *Extraits, 1ère série*, p. 8 ff.

26 *Idem*, *Architecture d’époque machiniste*, p. 28/336

27 Cf. Henry Provensal, *op. cit.* p. 43

28 Cf. *idem*, *op. cit.* p. 298

29 Cf. Le Corbusier, *Manière de penser l’Urbanisme*, p. 25

30 Cf. Roman Jakobson, *Poetik (Poetics)*. The anthology used here brings together his most important theoretical writings on this subject from five decades (1921–1971).

31 Cf. *idem*, p. 212 ff.

32 Cf. Umberto Eco, *Einführung in die Semiotik (Introduction to Semiotics)*, p. 164

33 Cf. Le Corbusier, *Une maison – un palais*, p. 74

2 Architecture as a work of art

1 Le Corbusier, *An die Studenten*, p. 30

2 Cf. Roman Jakobson, *idem*, p. 67 ff. The definition of the artistic work as a work in which the aesthetic or poetic function appears as the dominant allows us to distinguish artistic from non-artistic objects. The dominant represents an aid to judgement and allows us to perceive the shift in the interrelationship between the functions involved in a whole. So, what is the aesthetic function according to Jakobson? Jakobson cannot give us a simple answer to this question. What makes an expression aesthetic or poetic can neither be defined in terms of content – everything can in principle be made the subject of an aesthetic statement – nor formally by specifying certain procedures. The terms of art are in constant flux. According to Jakobson, it is not possible to draw a strict, absolute line between works of art and other works, but it is possible to draw a line between the dominance of aesthetic and other functions. “What we emphasise is not the separatism of art, but the autonomy of the aesthetic function.”

3 Elmar Holenstein, *Von der Poesie und der Plurifunktionalität der Sprache = Einführung zu: Roman Jakobson, Poetik*

4 Roman Jakobson, *Poetik*, p. 79

5 *Idem*

6 Cf. Roman Ingarden, *Prinzipien einer erkenntnistheoretischen Betrachtung der ästhetischen Erfahrung*, in: *Theorien der Kunst*, Frankfurt am Main 1984, p. 70 ff.

7 This expression is the title of a book of the same name by Le Corbusier from 1928

8 Rolf Hellmut Foerster, *Das Barockschloss*, p. 92

9 Cf. Le Corbusier, *An die Studenten*, p. 33

10 *Idem*, *Ausblick auf eine Architektur*, p. 18

3 Architecture as a means of realising the “principle of cosmic integration of man and building”

1 Peter Stressig, *Hohenhagen – “Experimentierfeld moderner Bauens”*, in: Karl Ernst Osthaus, *Recklinghausen 1971*

2 *Le Corbusier, *Le lyrisme des temps nouveaux*, pp. 17–73

3 Edouard Schuré, *Les Grands Initiés*, Paris 1908, a gift from L’Eplattenier to Le Corbusier or a piece of the “spiritual nourishment” that Le Corbusier speaks of in connection with L’Eplattenier.

- 4 Cf. Maurice Denis, *Théories*, quoted from: Paul Venable Turner, *idem*, pp. 117, 219
- 5 Cf. Henry Provensal, *idem*, p. 160
- 6 After a lecture by Stanislaus von Moos, held on 4 December 1984 at the University of Zurich
- 7 *Le Corbusier, *Manière de penser l'Urbanisme*, p. 56
- 8 Cf. *idem*, *Après le Cubisme*, p. 56
- 9 *Idem*, *Städtebau*, p. VII
- 10 Cf. *idem*, *Une maison – un palais*, p. 3
- 11 Cf. *idem*, *Almanach*, p. 25
- 12 *Idem*, *Städtebau*, p. 16
- 13 Cf. *idem*, *Une maison – un palais*, p. 20
- 14 *Idem*, *Ausblick auf eine Architektur*, p. 151 ff.
- 15 *Idem*, *An die Studenten*, p. 34
- 16 Cf. Edouard Schuré, *idem*, p. 270 ff.
- 17 Jelena Hahl-Koch, Arnold Schönberg, Wassily Kandinsky, p. 138
- 18 *Henry Provensal, *idem*, p. 145
- 19 Cf. Chapter 6
- 20 Jelena Hahl-Koch, *idem*, p. 186
- 21 Cf. Chapter 5
- 22 Edouard Schuré, *idem*, p. 271
- 23 Paul Venable Turner, *idem*, p. 27 ff.
- 24 Le Corbusier, *Feststellungen*, p. 24
- 25 “Grand Architecte de l’Univers” as an expression for the creator of the universe can be found among the freemasons, among others
- 26 Le Corbusier, *The Modulor*, p. 113
- 27 *Henry Provensal, *idem*, p. 128
- 28 Cf. Jolande Jacobi, *Die Psychologie von C.G. Jung (The Psychology of C. G. Jung)*, p. 98
- 29 Le Corbusier, *Le Poème de l’Angle Droit*, section G.3
- 30 Cf. Le Corbusier, *Le lyrisme des temps nouveaux*, pp. 19–75

The South American urban design projects

- 1 Cf. Le Corbusier, *Feststellungen*, p. 32 f.
- 2 Cf. *idem*, p. 222
- 3 Cf. *idem*, p. 187
- 4 Cf. *idem*, p. 219

- 5 Cf. idem, p. 220
- 6 Cf. idem, p. 217
- 7 Cf. idem, p. 17 f.
- 8 Cf. idem., p. 135 f.
- 9 Idem
- 10 Cf. idem, Städtebau, pp. 46, 56 and cf. idem, Sur les 4 routes, p. 44
- 11 Cf. idem, Le lyrisme des temps nouveaux, pp. 16–72
- 12 Cf. idem, Une maison – un palais, p. 26
- 13 Cf. idem, Feststellungen, p. 225
- 14 Idem, p. 224
- 15 Idem, p. 222
- 16 Idem, p. 80 ff.
- 17 Idem
- 18 Idem, Städtebau, p. VII
- 19 Cf. idem, Ausblick auf eine Architektur, p. 43 ff.
- 20 Cf. idem, Feststellungen, p. 231
- 21 Cf. idem, Städtebau, p. 136
- 22 Cf. idem, Feststellungen, p. 194
- 23 Idem, p. 82
- 24 Idem, An die Studenten, p. 33
- 25 Idem, p. 27 f.
- 26 Cf. idem, Feststellungen, p. 58
- 27 Cf. idem, Almanach, p. 84 f.
- 28 Cf. idem, Une petite maison, p. 4
- 29 Idem, Ausblick auf eine Architektur, p. 144
- 30 Idem, Städtebau p. 192
- 31 Idem, p. 52 ff.
- 32 Idem, p. 196

The Mundaneum project

- 1 Detailed research material on the history of the project can be found in the publication “La città mondiale” by Giuliano Gresleri and Dario Matteoni, among others.
- 2 *Paul Otlet, Cité Mondiale, p. 1
- 3 Idem, p. 14

- 4 *Le Corbusier, *Extraits*, 2ème série, p. 27 ff.
- 5 Cf. Werner Müller, *Die Heilige Stadt (The Holy City)*, Stuttgart 1961
- 6 Cf. Le Corbusier, *Städtebau*, p. 32
- 7 Idem, p. 74 ff. It is interesting to note that the examples of “haute architecture” mentioned by Le Corbusier can be found in the two studies by Werner Müller and Nigel Pennick, among others.
- 8 Idem, p. 23
- 9 Nigel Pennick, *Die alte Wissenschaft der Geomantie (The Ancient Science of Geomancy)*, p. 95 ff. and Mircea Eliade, *Traité d’histoire des religions*, passim
- 10 Cf. Aniela Jaffé, *Bildende Kunst als Symbol*, in: *Der Mensch und seine Symbole*, Olten and Freiburg im Breisgau 1981, p. 232 ff.
- 11 Le Corbusier, *Städtebau*, S. 18 f.
- 12 Cf. idem, *Pièces à conviction*, in: Jean Petit, *Le Corbusier lui-même*, p. 172
- 13 Ders, *Modulor 2*, p. 265 f.
- 14 Cf. Chapter 4
- 15 Cf. Le Corbusier, *Pièces à conviction*, in: Jean Petit, idem, p. 184
- 16 See Chapter 5 as well as Ferdinand Niel, *Montségur (dernière forteresse cathare et temple solaire)*, et le sac de Béziers, in: *Les cathares*, Paris 1964, pp. 288–389
- 17 *Offenbarung des Johannes, (The Book of Revelation) XXI, 16*, quoted from: Nigel Pennick, idem, p. 157
- 18 Idem, p. 158
- 19 *Jean Petit, idem, p. 35
- 20 Cf. Chapter 5
- 21 Idem
- 22 Cf. Le Corbusier, *La maison des hommes*, p. 110
- 23 *Paul Otlet, idem, p. 8
- 24 Cf. Henry Provencal, idem, p. 10
- 25 Le Corbusier, *Städtebau*, p. 32

4 Architecture as a means of education

- 1 Bernhard Zeller (ed.), *Hermann Hesse*, p. 78
- 2 Cf. Werner Müller, idem, p. 93 ff. and Marcello Fagiolo, *Mundaneum 1929, La nuova Babilonia secondo Le Corbusier*, in: *Ottagono*, Marzo 1978, p. 22
- 3 Marcello Fagiolo, idem, p. 24

- 4 Henry Provensal, *idem*, p. 110 ff., 301 ff.
- 5 **Idem*, p. 182 f.
- 6 Cf. Le Corbusier, *Une maison – un palais*, p. 28
- 7 Cf. Henry Provensal, *idem*, p. 139
- 8 *Jean Petit, *idem*, p. 196
- 9 *Le Corbusier, *Extraits*, 2ème série, p. 30 f.
- 10 **Idem*, p. 29 ff.
- 11 Cf. *idem*, p. 31
- 12 *Idem*, *Défense de l'architecture*, written for the magazine “*Stavba*” in Prague, in: *L'architecture d'aujourd'hui*, 10/1923, pp. 38–62, letter to Karel Teige; Teige's *Mundaneum* essay appeared in 1929 in “*Stavba*” no. 10/p. 145–155
- 13 **Idem*, *Extraits*, 2nd series, p. 30
- 14 *Idem*, p. 32
- 15 Cf. Henry Provensal, *idem*, p. 139 f.
- 16 Wassily Kandinsky, *Über das Geistige in der Kunst (Concerning the Spiritual in Art)*, p.26f.
- 17 Karl Kerényi, *Labyrinth-Studien*, p. 49 ff. On the distinction between the terms spiral/double spiral/meander/labyrinth, see Hermann Kern, *Labyrinthe*, p. 13 ff.
- 18 Cf. Oskar Sengpiel, *Prozession im Mittelalter*, p. 8 ff.
- 19 Cf. note 12
- 20 Cf. Henry Provensal, *idem*, p. 192
- 21 Cf. Paul Venable Turner, *idem*, pp. 4–30, Chipiez's reconstruction attempts were also very widespread in the French-speaking world.
- 22 e.g.,
- 1931: Musée d'art contemporain, Paris
- 1937: Two projects of this type Musée à Croissance illimitée (Museum of Unlimited Growth), Exposition internationale, Paris
- 1939: Museum of Unlimited Growth 1952: Ahmedabad: Museum of Knowledge
- 1957: The National Museum of Fine Arts in Tokyo (the National Museum of Western Art NMWA)
- 1964: The Fine Arts Museum and Gallery, Chandigarh (Government Museum and Art Gallery)
- 1965: The Museum of the 20th Century
- 23 Le Corbusier, *Modulor 2*, p. 241 and Jean Petit, *idem*, p. 128,131 ff.
- 24 Cf. Le Corbusier, *Modulor 2*, p. 238 ff.

25 Wassily Kandinsky, *idem*, p. 11

5 Philosophical and cultural backgrounds

1 Le Corbusier, *Modulor 2*, p. 212

2 *Idem*, *The Modulor*, p. 125

3 *Idem*, *Städtebau*, p. 205

4 Cf. Henry Provensal, *idem*, p. 168

5 Cf. Le Corbusier, *Städtebau*, p. 75 ff.

6 Cf. *him*, *An die Studenten*, p. 23

7 *Idem*, *Städtebau*, p. 32

8 Cf. *idem*, *Feststellungen*, p. 88

9 Cf. Jean Petit, *idem*, p. 183

10 Cf. Paul Venable Turner, *idem*, p. 118 ff.

11 *Jean Petit, *idem*, p. 23 and Michel Bataille, *idem*, p. 40

12 Paul Venable Turner, *idem*, p. 202 f.

13 The following titles on this subject can be found in the “*bibliothèque personnelle*” Le Corbusier (Fondation Le Corbusier): *La croisade contre les Albigeois et l’union du Languedoc à la France 1209–1249* by Pierre Beiperron; *Esclarmonde de Foix, Princesse cathare* by Coincy St. Palais; *Le bûcher de Montségur* by Zoé Oldenburg.

14 Cf. Paul Venable Turner, *idem*, p. 197, from: Note 3: “Charles L’Eplattenier (1874–1946), born in Neuchâtel, studied drawing and painting, travelled through Italy, Tunisia, Germany, to Budapest and London; studied briefly at the Ecole des Beaux-Arts in Paris (1893), became a drawing teacher at the School of Arts and Crafts in La Chaux-de-Fonds in 1898 and the director there in 1903.

15 Cf. Le Corbusier, *Modulor 2*, p. 310

16 *Maximilien Gauthier, *idem*, p. 19 and Paul Venable Turner, *idem*, p. 198, note 13

17 Cf. Paul Venable Turner, *idem*, p. 10, 24

18 Cf. *idem*, p. 200

19 Cf. *idem*, p. 202, quoted from note 43: “A mon cher élève Edouard Jeanneret/Souvenir affectueux-/Ch. L’Eplattenier/Sept. 07.”

20 Rudolf Steiner wrote the foreword for each of the first three German editions of Schuré’s book “*The Great Initiates*”; they were translated from French by Steiner’s second wife Marie Steiner von Sievers (who also translated other works by Steiner); Edouard Schuré, on the other

hand, wrote the foreword to the French edition of Steiner's book "Christianity as-Mystical Fact;" he was also in the audience when Steiner gave his 18-part lecture series in Paris in 1906.

21 Cf. René Nelli, *Le phénomène cathare*, p. 66

22 Cf. Déodat Roche, *Philosophie platonicienne des Gnostiques et des Cathares*, p. 410 ff., in: *Les cathares*, Paris 1964 and Coigny-St. Palais, Esclarmonde de Fois, *Princesse cathare*, p. 27 ff. It is particularly interesting to read Le Corbusier's private copy, which contains many annotations made during a flight from Paris via Zurich and Cairo to Bombay on 1 December 1957. This text mentions, among other things, the Cathars' family ties, in particular to the Celts, to Christian groups (Essenes, Knights of St John...) and figures (Christ, St Mary, apostles, in particular St Jean...) and to brotherhoods such as the Knights Templar, Rosicrucians and others.

23 Cf. Déodat Roche, *idem*, p. 432

24 Cf. *idem*, p. 413; further research on the subject can be found on p. 446 ff.

25 Cf. René Nelli, *Les réincarnations*, p. 215 = Afterword to: Arthur Guirdham, *Les cathares et la réincarnation*

26 René Nelli, *Le phénomène cathare*, p. 13

27 Cf. *idem*, *Les réincarnations*, *idem*, p. 214

28 Cf. Déodat Roche, *idem*, in: *les cathares*, Paris 1964, p. 442

29 Cf. *idem*, p. 414

30 Cf. Le Corbusier, *Mise au point*, p. 53

31 Cf. *idem*, *Extraits*, p. 11

32 Cf. *idem*, *Städtebau*, p. 6

33 **Idem*, *Mise au point*, p. 12

34 **Idem*, *La maison des hommes*, p. 112

35 **Idem*, *Mise au point*, p. 7

36 **Idem*, p. 60

37 Cf. Karl Kerényi, *idem*, *passim*

38 Le Corbusier, *Modulor 2*, p. 85 f.

39 **Idem*, *L'art décoratif d'aujourd'hui*, p. 168

40 **Idem*, *Mise au point*, p. 16

41 *Idem*, *Städtebau*, p. 30

42 *Jean Petit, *idem*, p. 53

43 Cf. Ernst Bloch, *Das Prinzip Hoffnung (The Principle of Hope)*, vol. 5, p. 342

44 Le Corbusier, *Feststellungen*, p. 42

- 45 Cf. Paul Venable Turner, *idem*, p. 22
- 46 Cf. Henry Provensal, *idem*, *passim*
- 47 **Idem*, p. 141 ff.
- 48 Wassily Kandinsky, *idem*, p. 29 ff.
- 49 Karl Ernst Osthaus, quoted from: Sebastian Müller, *Das Deutsche Museum für Kunst in Handel und Gewerbe*, p. 320, in: Ernst Osthaus, Recklinghausen 1971
- 50 Cf. Le Corbusier, *Feststellungen*, p. 94 ff.
- 51 *Idem*, *Städtebau*, p. 31
- 52 *Idem*, *Ausblick auf eine Architektur*, p. 85
- 53 *Idem*, *Feststellungen*, p. 43
- 54 *Idem*, p. 105
- 55 Cf. Henry Provensal, *idem*, p. 26
- 56 Cf. Le Corbusier, *Mise au point*, p. 61
- 57 *Jean Petit, *idem*, p. 82
- 58 Cf. Paul Venable Turner, *idem*, p. 27
- 59 * Excerpts from Le Corbusier's letters of 22–25 November 1908 to his beloved and revered teacher L'Eplattenier, in: Jean Petit, *idem*, p. 34 ff.
- 60 Cf. Le Corbusier, *L'art décoratif d'aujourd'hui*, p. 24
- 61 *Idem*, *Feststellungen*, p. 41
- 62 Cf. *idem*, p. 23
- 63 Cf. Wassily Kandinsky, *idem*, p. 30
- 64 Cf. Le Corbusier, *Quand les cathédrales étaient blanches*, p. 234
- 65 **Idem*, *La maison des hommes*, p. 108 ff.
- 66 **Idem*, *Almanach*, p. 78
- 67 Wolfgang Pehnt, *Die Architektur des Expressionismus*, p. 34
- 68 Cf. Iain Boyd Whyte, Bruno Taut, p. 76
- 69 Walter Sokel, *The writer in Extremis*, quoted from: Iain Boyd Whyte, *idem*, p. 76

6 The zeitgeist

- 1 Wassily Kandinsky, *idem*, p. 22
- 2 Cf. Jelena Hahl-Koch, *idem*, p. 223 ff.
- 3 Cf. Sixten Ringbom, *The sounding cosmos*, p. 109 ff.
- 4 Cf. Iain Boyd Whyte, *idem*, p. 52
- 5 Cf. Ernst Bloch, *Das Prinzip Hoffnung*, vol. 5, *passim*

6 Cf. Iain Boyd Whyte, *idem*, p. 17

7 Heinrich Hart, *Weltpfingsten. Gedichte eines Idealisten*, *Gesammelte Werke* vol. 1, pp. 1–4; quoted from: Iain Boyd Whyte, *idem*, p. 17

8 Walter Heitler, *Der Mensch und die naturwissenschaftliche Erkenntnis*, Braunschweig 1961= Einführung zu: Margot Aschenbrenner (ed.), *Hugo Häring. Fragmente*, p. XX f.

9 Quoted from: Luigi Luisi, *Moderne Wissenschaft und alte östliche Tradition*, p. 8

10 *Idem*, p. 17

11 Paul Vogt, *Der Blaue Reiter*, p. 23 f.

12 Margot Aschenbrenner, *idem*, p. 6 ff.

13 Bruno Taut, quoted from: Wolfgang Pehnt, *idem*, p. 36

14 Cf. Philippe Encausse, *Papus*, Paris 1979

15 Cf. Marie-France James, *Esotérisme et Christianisme autour de René Guénon*, p. 81 ff. and also, *Esotérisme, Occultisme, Franc-Maçonnerie et Christianisme aux XIXe et XXe siècles*, p. 100 ff. Further historical information on the afterlife of the Cathars and their content can also be found in: “Cahiers d’études cathares” (*Revue trimestrielle*, Montpellier). There, in detailed reports, the kinship lines of the Cathars to the most diverse groupings are shown, for example in: *Le catharisme en évolution: Science spirituelle et communautés fraternelles* (Autumn–Winter 1959, pp. 9 ff.); *Cathares et Rose-Croix* (Summer 1960, *Ile série* No. 6, p. 3 ff.); *Résurgences du manichéisme: cathares, ismaéliens, rosecroix, franc Maçons et sciences spirituelles modernes* (*Anthroposophen*) (Winter 1961–62, *Ile série* No. 12, p. 3 ff.); *Pensées de Rudolf Steiner sur le Manichéisme* (Winter 1962–63, p. 46 ff.); *L’origine manichéenne du catharisme et des résurgences rosicruciennes et maçonniques* (Winter 1969–70, *Ile série*, No. 44, p. 15 ff.); *La cosmogonie de Manès à Rudolf Steiner* (Spring 1970, *Ile série*, No. 45, p. 3 ff.); *Les cathares, les templiers et le Graal* (Autumn 1970, *Ile série*, No. 47, p. 3 ff.); *Ismaéliens, cathares et rose-croix* (Winter 1963–64, p. 42 ff., Winter 1968–69, *Ile série*, No. 40, p. 3 ff., Spring 1969, *Ile série*, No. 41, p. 3 ff., Autumn 1969, *Ile série*, No. 43, p. 3 ff., Winter 1970–71, p. 12 ff.); *Paracelse, Robert Fludd et la franc-maçonnerie manichéenne selon Rudolf Steiner* (Summer 1971, *Il série*, No. 50, p. 3 ff.); *Catharisme et science spirituelle* (Autumn 1971, *Ile série*, No. 51, p. 3 ff.)

16 Wassily Kandinsky, *idem*, p. 42

17 Cf. Iain Boyd Whyte, *idem*, p. 8 ff. Whyte, who attempts to trace the terminological inaccuracies of the term “Expressionism,” speaks of a semantic weakening of the word as a result of the extension of its use over time to anything and everything that did not fit into the rationalist conception. Despite the conceded reservations and in view of the impossibility of

being able to name a “zeitgeist” at all, we will make use of this term, following Pehnt, Whyte and Sharp, in order to discuss the characteristics of this cultural turn. In the present work, the term “expressionist zeitgeist” therefore refers to all those expressions of an artistic and ideological nature that are an expression of the cultural practitioners’ turn to the questions of meaning in life, their attempts to express spiritual or transcendental content, their will and their intention to allow the physical and metaphysical sides of life to interact with each other.

18 Cf. Wolfgang Pehnt, *idem*, p. 107

19 Cf. *idem*,

20 Cf. *idem*, p. 44

21 Cf. *idem*, p. 110

22 *Idem*

23 Cf. *idem*, p. 95

24 Cf. Denis Sharp, *Modern architecture and Expressionism*, p. 62

25 Walter Gropius, *Der stilbildende Wert industrieller Bauformen*, in: *Jahrbuch des Deutschen Werkbundes 1914*, p. 32, quoted from: Wolfgang Pehnt, *idem*, p. 116

26 Cf. Wolfgang Pehnt, *idem*, p. 35

27 Cf. Iain Boyd Whyte, *idem*, p. 51

28 Bruno Taut, *Die Stadtkrone*, p. 69; quoted from: Wolfgang Pehnt, *idem*, p. 35

29 Walter Gropius, manuscript, Bauhaus Archive, Berlin; quoted from: Wolfgang Pehnt, *idem*, p. 35

30 Walter Gropius to Karl Ernst Osthaus, 23 December 1918, Osthaus Archive, quoted from: Wolfgang Pehnt, *idem*, p. 212, note 33 of the Politics and Society chapter; quoted from: *idem*: “In Cologne, a ‘*Bauhütte*’ was to be founded in connection with the new university buildings, and Poelzig was envisaged as its director.”

31 Cf. Walter Gropius, letter to Adolf Behne, 6 March 1919, Bauhaus Archive, GN 10.9.195, quoted from: Iain Boyd Whyte, p. 106 f.: “In a letter (...) he [Gropius] asked Behne to take over the management of the ‘Labour Council’ and explained what he intended to do with the AFK. Gropius’s first step was to purge the AFK of all non-radical elements. He wanted to turn the AFK into a small group of like-minded radical artists who, like a medieval building lodge, would work mystically almost in secret. The letter to Behne began with ‘Dear Eckart,’ a pseudonym with a correspondingly meaningful, medieval-mystical sound: ... But now the following. I intend to further radicalise. This whole thing must become a clear association, and even at the risk of offending, I would like to gently eliminate all elements that don’t fit in. This is all the more necessary if we want to make a kind of lodge out of it. Under these

circumstances, don't you want to take over the business management of the whole thing? After all, you are the only one who experiences the idea we are propagating internally and follows all your steps accordingly.”

32 Quoted from Iain Boyd Whyte, *idem*, p. 107: “One month later, in a letter to Otto (?) Weiss, he [Gropius] briefly outlined the planned *Bauhütte* and made a connection between the ‘*Bauhütte*’ and the ‘building project’ – the ‘cult building’ – on which the architects, painters and sculptors would work.”

33 Bruno Taut, *Die Stadtkrone*, p. 87; quoted from Wolfgang Pehnt, *idem*, p. 20

34 Theodor Däubler, *Der neue Standpunkt*, p. 117; quoted from: Wolfgang Pehnt, *idem*, p. 8

35 Cf. Wilhelm Worringer, *Kritische Gedanken zur neuen Kunst*, in: *Genius*, vol. 1/2, 1919, p.228; quoted from: Wolfgang Pehnt, *idem*, p. 8

36 Cf. Iain Boyd Whyte, *idem*, p. 182

37 Cf. Le Corbusier, *Une maison – un palais*, p. 28; see also [after Corboz] James Anderson, *The constitutions of the Free-Masons in the Year of Masonry 5723*

38 Cf. Henry Provencal, *idem*, p. 109

39 Cf. Paul Otlet, *idem*, p. 8

40 Cf. Dennis Sharp, *idem*, p. 11

41 Sigfried Giedion, *Space, Time, Architecture*, p. 206

42 From: Nic Tummers, *Der Hagener Impuls (Hagen Impulse)*, *passim*. Nic Tummers argues in favour of including the “Hagen Impulse” in the historiography of our century. He is convinced that too little attention has been paid to this period between Art Nouveau and Bauhaus, the time in which Karl Ernst Osthaus from Hagen opened up new paths for art and culture. The Dutchman J.L.M. Lauweriks was the key figure in this centre of intellectual debate. Lauweriks, a pupil of Cuypers, who in 1904 became head of the architecture department at the School of Applied Arts in Düsseldorf and five years later director of the State Crafts College in Hagen, returned to the Netherlands in 1916 as director of the School of Applied Arts in Amsterdam. He was the founder and editor of the art magazine *Ring* and later a contributor to *Wendingen*. According to Tummers, the founding of the Theosophical Society in the Netherlands and the development of socialism set the innovators Lauweriks, who had been a member of the Theosophical Society since 1894 and succeeded Rudolf Steiner as its general secretary in 1902, and De Bazel on a path in which they wanted to place their artistic activity entirely at the service of the possibilities they saw in theosophical ideas and social upheaval. Mondrian, among others, was also a member of the Theosophical Society – and around 1908, Lauweriks, Steiner and Kandinsky's ideas formed a triangle that had not yet been fully analysed, the

connecting element of which is said to have been Theosophy. Fritz Kaldenbach was a student and co-worker of Lauweriks and also a theosophist. He later moved to Gropius's office in Berlin. After Gropius's office closed, Adolf Meyer asked him to come with him to Breest & Co. Meyer, an employee of Gropius and student of Behrens at the School of Applied Arts Düsseldorf, also closely associated himself with Lauweriks and came to Theosophy through him. Walter Scheidig wrote: "One can almost say that for Walter Gropius, Adolf Meyer embodied the ideal of the later Bauhaus member, an architect who had come to architecture from craftsmanship (...) and had moulded his personality ethically on the basis of a religious-philosophical teaching." (Quoted from Nic Tummers, *idem*, p. 94) According to his own statements, Gropius knew Lauweriks well and counted him among the pioneers of modern architecture in Holland. Through artistic activity and research into other intellectual fields, people were to find better ways of living together. Tummers shows how complex the points of contact were between Lauweriks and movements such as Historicism, Neo-Gothic, "Nieuwe Kunst," Werkbund, Expressionism, Chicago School, Bauhaus, De Stijl and other avant-garde circles in Munich, Berlin and elsewhere. These contacts are said to have been facilitated even more intensively by the links to Theosophy. In 1910, the Hagen centre became a crossroads for the pioneers of the 20th century, such as Behrens, Gropius, Van de Velde, Le Corbusier, Mies van der Rohe and others.

43 Karl Ernst Osthaus, *Das Deutsche Museum für Kunst in Handel und Gewerbe*, in: *Die Durchgeistigung der deutschen Arbeit* (Report of the 3rd Annual Meeting, Berlin 1910, 10.6. - 12.6.), Jena. 911, p. 43, quoted from: Karl Ernst Osthaus, Recklinghausen 1971

44 Cf. Herta Hesse-Frielinghaus, *Folkwang* 1. part, p. 119 ff., in: Karl Ernst Osthaus, Recklinghausen 1971

45 Cf. Peter Stressig, *Hohenhagen – "Experimentierfeld moderner Bauens"*, in: Karl Ernst Osthaus, Recklinghausen 1971, p. 390

46 Cf. Le Corbusier, *Etude sur le mouvement d'art décoratif en Allemagne*, La Chaux-de-Fonds 1912

47 Cf. Nic Tummers, *idem*, p. 46 ff. and Peter Stressig, *Hohenhagen – "Experimentierfeld modernen Bauens"*, p. 438, 452 ff., in: Karl Ernst Osthaus, Recklinghausen 1971

48 *Idem*

49 Cf. Nic Tummers, *idem*, *passim*

50 Cf. Charles Chassé, Didier Lenz and the Beuron School of Religious Art, in: *Oppositions* 1980: 21, pp. 98 ff.

51 Cf. *idem*, p. 101 and Maurice Denis, *Théories 1890–1910*, p. 142 ff. and p. 178 ff. One of Paul Séruseir's first students, Father V. Verkade, became a Benedictine monk and brought Sérusier to Beuron several times, who thus came into contact with Didier Lenz's ideas and translated his work "L'Esthétique de Beuron." The book by Maurice Denis mentioned here is part of Le Corbusier's personal library collection.

52 *Quoted from the introduction by Kenneth Frampton, in: Charles Chassé, *idem*, p. 99

53 Cf. Matila C. Ghyka, *Le nombre d'or*, Paris 1959

54 Cf. Fournier des Corats, *La proportion égyptienne et les rapports de divine harmonie*, Paris 1957

55 Le Corbusier to Karl Ernst Osthaus, 10 May 1911, from Bremen, one day after his visit to Hagen, in: Herta Hesse-Frielinghaus, *Briefwechsel Le Corbusier/Karl Ernst Osthaus*,

56 Le Corbusier to Osthaus, 28 July 1911, from Pera, *idem*

57 Cf. Paul Venable Turner, *idem*, p. 83

58 Le Corbusier to Karl Ernst Osthaus, clipping, 27 March 1912, from La Chaux-de-Fonds, in: Herta Hesse-Frielinghaus, *Correspondence Le Corbusier/Karl Ernst Osthaus*, *idem*, 59 Le Corbusier to Osthaus, *idem*, picture postcard dated 7 August 1913, from an excursion to Franche Conté Mouthier [sic!]

60 Cf. Paul Venable Turner, *idem*, p. 137

61 Cf. *idem*, p. 143

62 Cf. Paul Westheim, "Das 'Ende des Expressionismus'", *Das Kunstblatt*, vol. 4, no. 6 (1920), p. 188, in: Iain Boyd Whyte, *idem*, p. 176

63 Cf. Wolfgang Pehnt, *idem*, p. 194 ff. and Iain Boyd Whyte, *idem*, p. 177 ff.

64 Adolf Behne, *Die Zukunft unserer Architektur*, p. 91, quoted from: Iain Boyd Whyte, *idem*, p. 178

65 Cf. Iain Boyd Whyte, *idem*, p. 178 ff.

66 Le Corbusier, *Städtebau*, p. 31

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