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Introduction: Notes on Invention

There is no single key to the enigmatic world of Le Corbusier. As well as being an architect and an urbanist, he was a painter, a sculptor, a writer and a designer of furniture. A founding father of modern architecture, he was constantly inspired by nature and tradition. His buildings move us directly through their control of form, space, light, material and proportion, but they also crystalize a vision of the world. They are like constructed myths combining utopian visions for the future with reminiscences of an ideal past. Le Corbusier is thus a figure of vast historical dimensions who presents multiple facets and identities. His works are but visible fragments of a much larger universe of ideas and forms. Each generation discovers something fresh in Le Corbusier’s creations and they are constantly being re-read in unexpected ways. His individual examples and general premises continue to inspire other architects in places remote from the point of origin.

Le Corbusier’s buildings communicate before they are understood. Most people who have been to the Chapel at Ronchamp (1954) come away moved by the building’s intangible presence, its interior inhabited by light and shade, its unfailing continuity and continuous flow, its dialogue with the landscape and horizon. Even those who think they know Le Corbusier’s architecture from the exhaustive black-and-white photographs of his Chalets are forced to revise their opinions when they see the building first hand. No photograph or drawing can replicate the experience of ascending the ramp of the Villa Savoye (1929) through different intensities of space, light and transparency, or the sensation of floating above the surroundings. From reproductions it is impossible to grasp how the Capitol in Chandigarh (1951–65) seems to pull the vast Indian sky down to transparency, or the sensation of floating above the surroundings.

Each generation discovers something fresh in Le Corbusier’s work and the general principles which inform them: there is a constant oscillation between the exceptional order and experience of form, space, light, material and proportion, but they also reveal the roots of modern architecture, he was constantly inspired by nature and, through a kind of abstraction to transform this material became available had to rely on the buildings themselves, on the depictions of people who had known the architect firsthand, on the long published sketchbook or drawing and on the version of Le Corbusier created by the man himself in his numerous publications. Little wonder that the architect began to resemble a monumental cliché hedged in by set-piece interpretations.

Without fresh insights, history degenerates into an arid superstructure of unoriginal works, repetition and formulae, which is not always the case. One needs to engage with the architect’s design processes to show his style in action. This book takes as its main focus the genesis of Le Corbusier’s buildings in their physical and cultural context, concentrating on the realm of form and meaning, and delving into the architect’s design processes to show his style in action. One needs to engage with the architect’s design processes to show his style in action. This book takes as its main focus the genesis of Le Corbusier’s buildings in their physical and cultural context, concentrating on the realm of form and meaning, and delving into the architect’s design processes to show his style in action.
work, including ideal projects. To penetrate the anatomy of his style is to understand the internal rules of appropriateness governing the relationship between forms and forms, forms and functions, forms and ideas. It is also to see why one configuration rather than another was used.

When presented with a new job Le Corbusier was in the habit of putting the matter in its subconscious for a period of incubation. One can only guess about the ‘life of ideas’ in the mind. Probably the new problem was made amenable to schemata that were well embedded. Old elements and new would combine as an amalgam around dully felt intuitions.

Le Corbusier’s inventions were sometimes triggered by analogical leaps of thought between disparate phenomena, such as when he sensed the relevance of cooling towers to the Park Building in Chandigarh, or the performance of a crash test to the roof of Rocheap. At the right moment, images would float to the surface where they could be caught, condensed and exteriorised as sketches. For Le Corbusier, situating played a central role in establishing the ground rules of each new project and in giving it an essential life. There were, however, many stages in the ensuing design process that did not necessarily proceed along a straight line from genesis to final building. Rational analysis played a part, of course, as did the input of collaborators. Le Corbusier’s vocabulary was composed of elements like the jet, the ramp, the brise-soleil (sun shade), and so on, which returned time and again. In turn these were governed in their overall dispositional by systematic ‘grammatical’ arrangements such as the ‘Five Points of a New Architecture’. At another level there were preferred formal patterns — ways of putting together curves, rectangles and grids, for example — which would help to channel a solution towards its destination. The interrelated style of an artist is the very means that allows him to select while analysing a problem: at the same time it puts limitations on what is possible in coming up with a new idea. To penetrate the design process with the help of drawings is to see how old forms could be integrated into new combinations and to see why and how breakthroughs in vocabulary were made. It is also to see how many levels of meaning were compressed together through a proliferation of potential manifestations. In a number of works, one is able to generate about the ways in which the architect embodied his world view in symbolic forms. The path from ideology through poetic myth to form was not straightforward.

Le Corbusier’s drawings are highly condensed abstractions in two dimensions of spatial experience that he was anticipating in four. Movement around, into and through the building was central to his thinking. ‘Form’ for Le Corbusier was an active, volatile, living force which animated the systems of a structure, lending tension and complexity to all the parts, that were nonetheless held together in a tight unity by a dominant Gestalt. In Le Corbusier’s vocabulary it is also to see why one configuration rather than another was used. As one grasped the patterns prevailing in a number of works, one is able to generalize about the ways in which the architect embodied his world view in symbolic forms. The path from ideology through poetic myth to form was not straightforward.

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For Le Corbusier, intuition played a central role in the exploratory role of sketches in the creative process: ‘When presented with a new job Le Corbusier was in the habit of putting the matter in its subconscious for a period of incubation. One can only guess about the ‘life of ideas’ in the mind. Probably the new problem was made amenable to schemata that were well embedded. Old elements and new would combine as an amalgam around dully felt intuitions. When presented with a new job Le Corbusier was in the habit of putting the matter in its subconscious for a period of incubation. One can only guess about the ‘life of ideas’ in the mind. Probably the new problem was made amenable to schemata that were well embedded. Old elements and new would combine as an amalgam around dully felt intuitions.

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problems of state representation, the League of Nations and Palace of Soviets projects, for example or programmes of a communal and collective nature (the Pavillon Suisses, the Cité de Refuge, the projects for the Ville Radieuse and Algiers).

Le Corbusier’s style can be mapped out in a number of ways. It is possible to chart vertical strands through his production by following a single idea or motif and watching it recur and transform. Or one can adopt the more traditional method of analyzing regionalism, which is to move along chronologically project by project. This book tries to combine both methods, occasionally focusing on single buildings, or else standing back and examining broad urbanistic or ideological themes. It is impossible to understand Le Corbusier’s inventions properly if separated from the unending battle between intentions and constraints. Changes in his forms were stimulated by internal shifts in sensibility and belief, by external stimuli and inspirations and, of course, by the altering demands of society.

These remarks apply particularly to the architect’s years of reassessment between 1930 and 1945, in which he inverted the Arrow-like deal with the problem of providing shade in hot climates, explored the expressive possibilities of both surrealism and primitivism, remade rural vernacular architecture and made a critical reinterpretation of regionalism. This was the period of his numerous urban plans for cities as varied as Algiers, Moscow and Barcelona, and his international exchanges with countries as far apart as Brazil and the United States. Confronted by the political and economic crisis of the period, Le Corbusier remained obsessed with the idea that ‘the plan’ was the key to the regeneration of machine-age society, that it should be the starting point of a new era of human settlement. So he reinterpreted in an original way. If his work has such staying power, it is because he engaged with long-term architectural values and recurrent symbolic themes from the history of architecture.

Le Corbusier’s buildings and projects have served as prototypes for several generations of other architects around the world and continue to provide inspiration. To evaluate his contribution historically, it is more necessary than ever to gauge how his work has been read and re-read by others. It has functioned as a mirror but also as a lense: helping later architects to find themselves and define their proper direction; supplying a focus upon types of architectural problem and relevant solutions. Whether defining a language for concrete, designing collective dwellings, constructing monuments or reinventing the sacred in architecture, Le Corbusier established exemplars that are hard to avoid. Each individual finds something new in these primary statements and each then proceeds to transform them, either superficially or in depth. Le Corbusier’s buildings take their place alongside other ‘canonical’ works of a diverse modern tradition, which is still being extended and developed. There is nothing static or static about this process, which involves constant reinterpretation and sometimes looks back over decades.

To understand Le Corbusier properly it is above all crucial to maintain a historical perspective. For it was an artist who altered the ground rules of architecture itself. He supplied visions of modernity and new ways of looking at the past. His buildings haunt by their presence and his mythologies still hold the imagination. When penetrating the artist’s underlying thoughts and images, it is best to be aware of longer range themes at work. As Le Corbusier recedes further into the past he seems to be very much with us, and ever more in need of a balanced assessment.

To have any chance of succeeding, the historian has to describe the inside and the outside of events simultaneously, identifying longer range themes at work. To understand Le Corbusier properly it is above all crucial to maintain a historical perspective. For it was an artist who altered the ground rules of architecture itself. He supplied visions of modernity and new ways of looking at the past. His buildings haunt us, and his mythologies still hold the imagination. When penetrating the artist’s underlying thoughts and images, it is best to be aware of longer range themes at work. As Le Corbusier recedes further into the past he seems to be very much with us, and ever more in need of a balanced assessment. To have any chance of succeeding, the historian has to describe the inside and the outside of events simultaneously, identifying longer range themes at work.
The Formative Years of Charles Edouard Jeanneret
1887 – 1922
Artists do not stem from their childhood but from their conflicts with the achievements of their predecessors; not from their own formless world, but from the struggle with the forms that others have imposed on life...

André Malraux
The time and place at which an artist makes his entrance, learns his trade and encounters a certain perspective on tradition, are bound to influence his early choices. Le Corbusier was born in 1887 in La Chaux-de-Fonds, Switzerland, a provincial town in the Jura, a region that today straddles the frontier with France, but which in the nineteenth century had been partly under Prussian control. La Chaux-de-Fonds lies at an altitude of about 1,000 metres (3,300 feet) in a shallow valley flanked by low mountains, with steep-sided and deep, cut valleys of a distinctive geological character. It stands on the crossroads between Lake Le Léman and Biel, Neuchâtel and Basle. In 1794 the old centre burned down leaving few visual reminders of great age or quality. During the nineteenth century the town developed rapidly, following the outline of a new grid plan which had little respect for the topography. The pre-existing rural culture left its mark on the surrounding landscape in the form of farmhouses and barns which constituted a distinct regional vernacular. The rapid transition from a rationally planned urbanism to a ravishing scenery is cut abruptly by the River Doubs with its gorges of exposed limestone. Winters are severe, and the need to deal with heavy snow can be sensed in the steep, protective roofs of the buildings which constituted a distinct regional vernacular. The rapid development of the Jura provided southerly views and ample daylight for the high plateaus of the Jura. La Chaux-de-Fonds was a frontier town with an international outlook unusual for a provincial place in Europe at the beginning of the nineteenth century. It was the beginning of the twentieth century it was the beginning of the nineteenth century. La Chaux-de-Fonds of the late nineteenth century was a provincial town. Its regimented buildings and monotonous grid of streets earned it the title of ‘la ville Américaine’. Utilitarian in spirit, La Chaux-de-Fonds was a major centre for the design and manufacture of watches and clocks. Materials and machine parts were imported and transformed into precision mechanisms which were then exported far and wide; a process of exchange which was greatly facilitated by the opening of the railway in 1857. Even before the industrial revolution the time-piece of the Jura enjoyed an international reputation. In the seventeenth and eighteenth centuries pendulum clocks were manufactured by farmers who also operated as skilled craftsmen during the long winter months when their fields were under foot of snow. They developed the expertise required for the assembly of ready-made components such as metal cogs, wheels, springs, levers and gears into precise time-keeping instruments. In the early nineteenth century the manufacturing process was broken down into separate steps linked together in a chain. In his book “La Chaux-de-Fonds” (1907), Karl Marx described an entire section to the industry of La Chaux-de-Fonds, treating it as a case study in industrial production and the division of labour.

Time is a universal matter, and the precise measurement of time, a universal need. By concentrating upon a single product for which there was a widespread global demand, the watch-making entrepreneurs of this remote corner of Switzerland succeeded in building bridges to a much wider world. Poised on the high plateaus of the Jura, La Chaux-de-Fonds was a frontier town with an international outlook unusual for a provincial place of such small size. While officially part of the French-speaking Swiss-Franc region it emerged from the weaving sphere of political and cultural influence. French and German as well as Swiss. In the Revolution of 1848 the town achieved independence from the kingdom of Prussia as part of the Swiss Canton of Jura. It was a national territory, independent of any central authority. The Jura of 1848 was a frontier town with an international outlook unusual for a provincial place of such small size. It stood on the crossroads between Lake Le Léman and Biel, Neuchâtel and Basle. In 1794 the old centre burned down leaving few visual reminders of great age or quality. During the nineteenth century the town developed rapidly, following the outline of a new grid plan which had little respect for the topography. The pre-existing rural culture left its mark on the surrounding landscape in the form of farmhouses and barns which constituted a distinct regional vernacular. The rapid transition from a rationally planned urbanism to a ravishing scenery is cut abruptly by the River Doubs with its gorges of exposed limestone. Winters are severe, and the need to deal with heavy snow can be sensed in the steep, protective roofs of the buildings which constituted a distinct regional vernacular. The rapid development of the Jura provided southerly views and ample daylight for the high plateaus of the Jura. La Chaux-de-Fonds was a frontier town with an international outlook unusual for a provincial place in Europe at the beginning of the nineteenth century.
The lack of a distinctive visual heritage in La Chaux-de-Fonds encouraged its artistic elite to seek out traditions elsewhere and to immerse itself in local habitats. The region in which Le Corbusier’s formation was a traditionalism concealed in the face of broken regional traditions. His search for a cultural identity would take him out and back between Berlin, Vienna, Paris, the Mediterranean and the little hub of La Chaux-de-Fonds over a number of years. He did not take the name Le Corbusier until he was thirty-three, installed in Paris, and confident of his path (co-opted it from ancestors on his mother’s side called Le Corbusier). It was as if he laboring first efforts — although many of them are inadvisable — had to be repressed and replaced by the activities of a new persona. In the same vein, Le Corbusier published hardly any of his earliest buildings, unless they fitted in with the version of himself that he liked to believe in. It is only in the years since his death that his early debts to others, and the nature of his first experiments, have been submitted to intense scholarly scrutiny. Probably Le Corbusier liked to encourage the myth that his genius fowered suddenly into full maturity, but there is the suspicion that the silence about the years of confusion also says something about the artist’s need to excuse a precarious side of his nature.

His real name was Charles Edouard Jeanneret — although he was usually known as ‘Edouard’ — and he was born on 6 October 1887 in the family home at 30, rue de la Serrre in La Chaux-de-Fonds, the town where he was to spend the better part of his first thirty years. His father Georges Edouard Jeanneret-Gris was installed in Paris, Berlin, Vienna, Paris, the Mediterranean and the little hub of La Chaux-de-Fonds. The Jeanneret family was one in which technical skill, intellectual ability and aesthetic competence were all prized. Georges probably derived something of his sense of a high moral mission and ambitions, and in which she encouraged him through the applied arts. A report written in 1887 spoke of the need to supplant his mother’s clothesline for drying watercolours. In this system each child was supposed to correspond to cosmic themes. Writing in the 1920s, Fröbel claimed that the inner nature of the child could be unshrouded and somehow related to the spirit present in all things. The coordination of form, feeling, imagination and the hand was central to this method and the child inevitably learned to compose standard units into diverse patterns of solids and voids. One can never know for sure what impact this two year exposure had upon Le Corbusier, and it would be foolish to overstate the case, but given his later obsession with combinations of pure geometrical forms such as cubes, cylinders and spheres, it seems likely that the Fröbel nursery school education provided a crucial foundation to his visual thinking and manual coordination. As it happens, Frank Lloyd Wright was also exposed to the Fröbel ‘gifts’ (as they were called) in his early years. Both Le Corbusier and Wright were interested in formal and spatial ‘gravitation’ and in the crystalline patterns to be found in the natural world. Wright referred to a process of ‘conventionalization’ whereby the phenomena of nature were abstracted and transformed into geometrical forms supposedly embodying a spiritual content.6

The Jeanneret family was one in which technical skill, intellectual ability and aesthetic competence were all prized. There was some rivalry between the brothers in competing for parental attention. Albert, Edouard’s brother, was nineteen months his senior and destined to become a musician. The Jeannerets had relatively modest means but they valued cultural accomplishments. Monsieur Jeanneret exemplified the faultless concern for precision and manual excellence of the urban craftsman; while Madame, who was higher born, encouraged a musician’s destiny as well as more abstract pursuits. The young boy grew up somewhere in the middle of the class. He enjoyed a healthy life as a child; his father’s occupation as a watchmaker’s apprentice provided him with a free and open atmosphere via a heroin’s stance, through travel, and through contact with the wider possibilities offered by the well-to-do. The eventual growth away from Papa Jeanneret’s craftsman’s culture probably generated considerable tension.

The Jeannerents did all they could to develop the artistic sensibilities of their two sons. Already in 1883, when Edouard was two years old, his mother gave him a Bible, and his brother Albert were enrolled in L’Ecole particulière de Mlle. Louise Colin, a kindergarten based upon the Fröbel method of visual and manual education.7 In this system each child was encouraged to manipulate simple geometrical wooden blocks into configurations pleasing to the eye and to the tactile sense, and supposedly corresponding to cosmic themes. Writing in the 1920s, Fröbel claimed that the inner nature of the child could be unshrouded and somehow related to the spirit present in all things. The coordination of form, feeling, imagination and the hand was central to this method and the child inevitably learned to compose standard units into diverse patterns of solids and voids. One can never know for sure what impact this two year exposure had upon Le Corbusier, and it would be foolish to overstate the case, but given his later obsession with combinations of pure geometrical forms such as cubes, cylinders and spheres, it seems likely that the Fröbel nursery school education provided a crucial foundation to his visual thinking and manual coordination. As it happens, Frank Lloyd Wright was also exposed to the Fröbel ‘gifts’ (as they were called) in his early years. Both Le Corbusier and Wright were interested in formal and spatial ‘gravitation’ and in the crystalline patterns to be found in the natural world. Wright referred to a process of ‘conventionalization’ whereby the phenomena of nature were abstracted and transformed into geometrical forms supposedly embodying a spiritual content.6

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central, one can guess how important it may have been for him to display his competence, his interest. As a child he never stopped drawing from the moment he came back from school. He even requisitioned his mother’s stockings for drying watercolours. As Le Corbusier put it years later: ‘It was a matter of occupying a particular square on the chessboard: a family of musicians (music had all through his life been a passion for drawing, a passion for the plastic arts, a character that wanted to get to the heart of things...’

Madame Jeanneret was a major inspiration for her children. Devoted, strict and Protestant, she seems to have conveyed to them values of discipline, adherence to principle and pride in a job well done. In later life Le Corbusier looked to her: ‘Whatever you set out to do, be sure that you actually do it.’ While he did not follow any particular religious faith, he seems to have derived something of his sense of a high moral mission from her example. For some of his children he and his Aunt Pauline lived with the family too; she was also devoted as well as being interested in the family legends. Edouard’s mother lived to be nearly one hundred years old (she died in 1940) and was a strong presence in his life all the way through. They exchanged many letters in which she discussed his private thoughts, feelings and ambitions, and in which she encouraged him through the many trials and difficulties of his career. While Edouard did not follow in her footsteps and become a musician like his brother Albert, he was nonetheless intrigued by the relationship between musical harmony and architectural order.

Monsieur Jeanneret emerges as more a shadowy presence in Edouard’s early years; there are fewer references to father than to mother in later life. From his diaries he comes across as a meticulous and somewhat pedantic individual. Georges probably took it for granted that his son’s graphic aptitude would lead him naturally into the family trade. For relief from the long hours concentrating at the workbench, Georges devoted much of his free time in the spring and summer to trekking and mountain climbing, and was president of the local Alpine Club. Edouard was sometimes taken along on these trips and was encouraged from his earliest days to look closely at nature. Careful inspection of the structure of machines in the watch industry accorded well with the cultivated arts of plant and rock inspection that were part of Monsieur Jeanneret’s leisure. By his late teens, Edouard also knew the geology and flora of the region intimately, indeed these were to play a major role in his early designs. He also accompanied his father on expeditions to the Alps of the Valais between Switzerland and Italy. The forests and mountain trips were haunting, awe-inspiring places which provided young Jeanneret with moments of inner liberation before the grandiose and epic forces of nature. He recalled many years later: ‘We were completely on the summit; the immense horizon was quite usual for us. When the sea of mist stretched away to infinity it was just like the real ocean – which I had never seen. It was the most magnificent sight.’

From the age of five, when he left the Fröbel kindergarten, to the age of fourteen and a half, when he left the licee, Edouard’s education was conventional. But in 1902 he was enrolled in the École d’Art of La Chaux-de-Fonds as the first step towards an eventual apprenticeship in watch engraving. The school had been founded in 1875 precisely to train young apprentices in the applied arts. A report written in 1887 spoke of the need to develop the spirit of invention, purity of taste, and knowledge...
of ornamentation’ in future watch decorators, and of the desire to reconcile ‘artistic perfection’ with ‘good value’. By the time Jeanneret entered the school there were 265 pupils and an elaborate curriculum that attempted to combine the practical and the aesthetic in a balanced way, including drawing, painting, sculpture, geometrical studies, life drawing, sketching from nature, study trips and lectures in art history, as well as technical and pre-professional studies in metalwork and engraving.

Edouard’s mentor in this period (and for a few years to come) was a certain Charles L’Eplattenier. His courses had a distinctive character and message. L’Eplattenier believed that the most vital aesthetic principles were rooted in an understanding of nature, not at the level of superficial imitation, but at the level of underlying structure. He encouraged his students to abstract the essential geometrical features of everything they drew and to translate the resulting forms into emblematic patterns following simple laws of combination. L’Eplattenier had been trained in Budapest, and in Paris at the École des Beaux-Arts and École des Arts Décoratifs. He had a broad grasp of recent aesthetic doctrines and tendencies towards abstraction. Perhaps it was his intention to imitate Victor Prouvé’s applied arts school at Nancy, which he seemed to have admired. As an English friend, Clement Heaton, he had imbibed the Arts and Crafts ideals of William Morris, and was a passionate admirer of the ideas of John Ruskin. L’Eplattenier endeavored the limited aims of a provincial art school with an apocalyptic tone in which the student was invited to improve the moral tenor of society through the translation of principles learned from God’s creation — nature — into archetypal forms of high formal quality. This was heavy stuff and it appealed to young Jeanneret, who seems to have needed an artistic father–figure at this stage in his development.

L’Eplattenier was also influenced by Owen Jones’ The Grammar of Ornament (1867), a book that Le Corbusier remembered studying intensively in the library at the École d’Art. Jones had argued that the true basis of architectural forms and decorative motifs lay in the transformation of local, natural features. Egyptian columns, for example, were imitations of Nile valley plants such as the lotus and the papyrus. L’Eplattenier argued that the right forms for the Jura region would be ones abstracted from rock strata and conifer trees. His passion for studying local geology apparently knew no limits: he would climb into the bed of the River Doubs in mid-winter to sketch rock fissures and ledges. His interest in fir and pine trees, their overall forms, their structural hierarchy, their branches, leaves and cones was equally fanatical. Priscilla Seliker has suggested that he and his students were guided by the detailed observations on drawing trees in Ruskin’s The Elements of Drawing (1857). L’Eplattenier and his circle developed an entire folklore du sapin, invoking the moral overtones of the fir tree’s upright stance and the rectitude of its sharp, triangular silhouette.

Artists do not draw upon nature for inspiration in a passive way. There may be direct intuitive apprehension, a magical attraction to certain objects, but perception is also guided by categories and ideas. From Ruskin Edouard learned to look at nature intently — from L’Eplattenier to try and abstract the structures that he saw, and from both of them to think that natural creation revealed a spiritual order to be emulated in design. Nor should one forget his education with Fröhli block forms. Many of Edouard’s drawings of this period were studies of trees, rocks and landscapes in which spaces between forms were as positive as the forms themselves. In some sequences of doodles he gradually transformed and simplified what he had initially rendered into emblematic, abstract patterns. A watch-case that he designed around the age of eighteen was ornamented with block-like geological strataions and swirling, vegetal curves into which a winged insect was inserted. The motifs were described succinctly: ‘rocks and moss with a fly and drops of dew.’ This exquisite object made of gold, copper, silver, steel and diamonds, required a high degree of manual skill with burin and chisel. The stepped rectangular forms perhaps referred to the heraldic emblem of La Chaux-de-Fonds, a bee’s hive symbolizing the collective labour of the community. Private worlds of childhood were thus, in adolescence, channelled into Art Nouveau — even Mackintosh or the Vienna Secession. Like any design student, Jeanneret was not above glamping at the international magazines. The world of horology, or clock and watch making, required technical know-how, manual dexterity, precision engineering, quality design and the transmission of skill through apprenticeship. Edouard’s artistic formation was aimed at preparing him for a métier similar to that of his father’s but watch making; designers and engravers of precious watch cases.
gradually obsolesced. This grim reality crept up slowly on the Jeanneret family but in the first decade of the twentieth century there were periods when Georges was out of work and his health suffered as a result. One can only guess how Edouard took these stresses on board. In later life he tended to develop epic narratives out of his early experiences. On the one hand, he would eulogize ‘the machine’ as a model of precision and order, an instrument to transform society. On the other hand, he would lament the concomitant destruction of individual craftsmanship and local building traditions. Progress could only be achieved if industrialization was somehow ‘harmonized’ with nature.

By 1905 it had become clear that watch-engraving was too taxing for Edouard’s fragile eyesight. Anyway, L’Eplattenier had already made up his mind that his most gifted pupil had the makings of an architect. Family and school went along with the idea, as, eventually, did Edouard, who had tended to think of himself as a painter. He continued to study with the same instructors, drafting being substituted for engraving. But the Ecole d’Art of La Chaux-de-Fonds was not able to offer training in structures, building materials and engineering. L’Eplattenier believed in learning by doing and so attempted to secure commissions for his pupils.

Between 1905 and 1907, he and a group of students, were involved with a project for the Union Chrétienne de Jeunes Gens in La Chaux-de-Fonds, known as Beau Site (which came to nothing); with the design for a music room for L’Eplattenier’s neighbour Matthey-Doret; with a commission to redecorate the interior of the chapel at nearby Fontainemelon; and with the design and decoration of a house for Louis Fallet, a member of the overseeing Commission of the Ecole d’Art, and a small-scale watch manufacturer.

The Fallet commission was reserved for Jeanneret, although the others helped in the creation of ornaments and decorations, and a local architect by the name of René Chapallaz (who worked competently in a style based on local vernacular precedents) was called in to help the precocious teenager translate his ideas into practice. The chosen site was just north of La Chaux-de-Fonds, only a few hundred metres beyond the grid, at a place where the hills sloped upwards to the forest of Pouillerel, offering long views back over the town and the valley to the south. This position guaranteed abundant daylight even in the winter, and Jeanneret took advantage of this by designing a section with a double-height hall permitting light to penetrate far into the house. The character of the place was rustic; even now it is only

![Image of Villa Fallet, La Chaux-de-Fonds, Switzerland, 1905–06, view of the south facade: the ‘folklore of the tree’](image-url)
together with pine-cone outlines and stepped motifs. Figure ornaments of the south facade jagged triangles were spliced the Villa Fallet including a watercolour study portraying the jagged ends of the rafters mimic the shagginess of foliage; of the nearby fir trees with their downward sloping boughs; brackets recall the geological stratification of Edouard's watch-case design. The stone's appearance being the expression of its actual composition of rocks but abandoned this in favour of a more straightforward approach from the side. Later he struggled with the problem of selecting the details and ornaments with the building's guiding trigram, arborescent and geological themes. In the ornamental motifs of the south facade jagged triangles were spliced together with pine-cone outlines and stepped motifs. Figures and ground were interwoven in a lively pattern recalling textile designs and demonstrating how a single shape might evoke simultaneously a tree, clouds, a cone, rays and a sense of bounding growth. In effect the Fallet design brought together two of the principal landscape features of the region and synthesized them in a geometrical configuration: conifer trees and lodges of rock. This preoccupation with 'local' (in this case Jurassic) imagery was accurately an isolated phenomenon at the time. Contemporary 'National Romantics' in architecture such as Cavoura and Finland were also obsessed with symbols of identity, supposedly spatiering from their respective vernaculars and from typical features of their local landscapes. The patterns of the Villa Fallet recall some of the plissés from Jeanne’s ‘Gymnereur of Ornament, but probably also reflect the impact of Eugène Glaser’s ‘Méthode du composition ornamentale’ (1915). This addressed the idea of an entire system of ornament grounded in geometry and simplifications of natural forms. It illustrated how points, lines, planes, aqueducts, triangles, lodges, circles, ellipses and polygons could be combined and recombined according to certain rules of repetition, diminution and transformation. One guesses that this must have appealed to Jeanneret’s mathematical and musical sensibilities, and it is tempting to see the Villa Fallet as a miniature symphonie pastorale. Glaser proposed forms as archetypal and proclaimed that this geometrical spirit would produce an order ‘parallel to that of nature and following the same laws’. In its modest way the design strategy of the Villa Fallet was notable. Edouard’s sketches of buildings were often close-ups of materials. Soon after the construction of the house was complete (it took from 1905 to 1907), Jeanneret wrote to L’Eplattenier in 1907. The basic theme was the role of great spiritual leaders in the regeneration of civilization (Rama, Moses, Pythagoras, Plato and Jesus are all mentioned). Schuré clearly felt that modern civilization was in a decline because of materialism and the impact of philosophical positions. He had much to say about the need for new leaders – initiates into spiritual knowledge – who would lead a revival and reintegration. Jeanneret seems to have been especially curious about the chapter on Pythagoras and divine numerology. In September 1907, with the Villa Fallet fits in his pocket, Jeanneret set off for Italy, taking with him Hippolyte Taine’s Voyage en Italie (1866) and Ruskin’s leuk Mahāvīra’s Flora (1904). In later life he liked to present this, his first truly independent journey, as a solitary voyage of the spirit. Actually he travelled with Louis Thévenot, a chum from the art school. His letters home to L’Eplattenier were full of amusing incidents as well as some acute observations on art. After seeing Mantegna’s works in Padua he wrote: ‘top do on your hop Jou d’alë (‘too much drawing for too little idea’). In all they visited sixteen major cities in northern Italy including Siena, Florence, Venice, Ravenna, Padua and Pisa, but they did not go down as far as Rome. Along the way, Jeanneret spent hours doing watercolours and sketches of paintings, mosaics, and sculptures. He was enthralled by Giotto’s Chapel and by Donatello’s Madonna in Padua, as well as by the decorations in Ravenna. Edouard’s sketches of buildings were often close-ups of ornament and details; microscopic renderings in the style of
that what was drawn could be constructed, and to prepare the
transaction between observation and invention, description
and ordering devices of classicism. Jeanneret saw Venice through
Ruskin’s eyes in terms of gorgeous polychrome ornament;
and ordering devices of classicism. Jeanneret saw Venice through
Ruskin’s eyes in terms of abstract volumes four years later (towards the end
of the 1900s). This was a major step in the architect’s journey towards
his own architectural expression. The principle and the type which he subsequently transformed in
his architectural intentions. In addition to drawings, Edouard
would make a neat theorem to suggest that the future Le
Corbusier’s early projects would contain two apartments apiece yet give the impression
that they were single-family homes. Jeanneret organized the
interiors of both buildings in analogous ways with entrances on the
north side and windows and doors tightly packed into a narrow, central axis on the
sloping ground floor. Kitchens, bathrooms and studies were tucked into east and west extremities where the
cross axis was emphasized by large windows with hooded roofs of distinctive silhouette. In both buildings – as at Fallet – the
ground floor was extended by a terrace on a rusticated base. In the Villa Stotzer, a curved window recalling the shape of a
tapeworm was fitted neatly under the gable and the terrace was
accessed by lateral stairs over an arch, a detail that Jeanneret
would have admired.

He would have had a breathtaking view of Palladio, Villa Rotonda, and the surrounding landscapes. L’Eplattenier had led them
passing through Budapest on the way. L’Eplattenier had led them
to believe that the capital of the Austro-Hungarian Empire was also
a hub of modern architecture; an impression that may have been
supported by magazine bearing photographs of design by the
American Otto Wagner. Josef Hoffmann and Josef Maria Olbrich.
In 1895 Wagner had published Moderne Architektur, a book
which criticized superficial revivalism and spelt out the need for
a new architecture expressing ‘modern life’ and engaging with
modern means of construction. He envisaged a style employing
forms making it possible to build in bulk. In the early 1900s, the
Postal Savings Bank of 1905 showed what he meant. In this work,
Wagner combined the exhibition of ideal structure and glass on the
interior with a subtle articulation of stone cladding and metal
boîtes (combined) and master bedrooms were placed to the south,
entrance hall was also married to a Fallet, and both belonged to the progressive
monastery at Val d’Ema, the latter in the Wiener Werkstatte
and the terrace supplying views over the steep slope with
courtyard, and the terrace supplying views over the steep slope with
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different ways.

In November Jeanneret and Perrin left Italy for Vienna,
where he and Perrin passed through Venice, they did not even
give off the train to look at Palladio, an extraordinary omission
of places and buildings.

Another striking feature of Jeanneret’s journey was his
apparent lack of interest in classical or Renaissance architecture.
When he and Perrin passed through Vicenza, they did not even
give off the train to look at Palladio, an extraordinary omission
of places and buildings. Travel was actually an essential part of
the transaction between observation and invention, description

for his parents: ‘Yesterday I went to see the Château of Ema – there I found a unique type solution to worker’s housing. But it will be difficult
to depict the landscape. On those rocks, what lucky fellows!’

For an artist who would think of his own quest for truth in
almost religious terms, the appeal of romantic purity and
submission to a rule was overwhelming. Ema embedded itself in
Jeanneret’s subconscious as a personal archetype. The memory of a
vignette of Tuscan gastronomy seen from a double-height
cell in the monastery at Val d’Ema can be found in numerous later schemes. From the
unbuilt Tenneville–Villas of 1922 to the constructed Bois de Habitation of the
1950s. Beyond the individual work Le Corbusier
drivated the principles and the type which he subsequently transformed in
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Charles Edouard Jeanneret, Villa Jaquemet, La Chaux-de-Fonds, Switzerland, 1907–08.

(Left) Charles Edouard Jeanneret, studies for Villa Jaquemet, 10 February 1908 at 1:50 scale. Pencil and charcoal on tissue, 39 × 91 cm (15⅜ × 35¾ in).

(Right) Villa Jaquemet, La Chaux-de-Fonds, and Stotzer houses; then moved on to Nuremberg where he briefly worked with Chapallaz over plans of execution for the Jaquemet Perrin. They passed through Munich, where Jeanneret conferred in Dresden, he was off on his travels again, accompanied by Eduard. In two weeks, despite L’Eplattenier’s suggestion that he study and offered him a job. He seems to have declined because Jeanneret had been present to oversee construction there might have been a closer fit between intentions and finished buildings. Jeanneret had been given a strong foundation in his home town and its surrounding landscape. Some of the terms of his later polarities were already in place: the manual craftsmanship of his father, the musical abstraction of his mother; the dreariness of an industrial grid, the ravishing beauty of neighbouring nature; regionalist mythologies and the forces of internationalism. More than that, L’Eplattenier had introduced him to the philosophical inheritance of the nineteenth century, to a spiritual idea of design and to the notion of drawings as instruments to penetrate beneath the surface of reality.

My master used to say, ‘Only Nature is inspiring and true; only Nature can be the support for human works. But do not render Nature as the landscape does, showing only the outward aspect. Penetrate the cause of it, its terms and vital development; make a synthesis from it by creating ornament. He had an elevated conception of ornament which he wished would be a sort of microcosm. If ornaments could be ‘incorporeal’, so in later life we could paint, buildings and city plans. Eduard had learned to sense the typical behind the incidental and to translate moral concerns into emblematic geometry. The folklore du sapin might fade into insignificance – a minor provincial episode of Art Nouveau – but the method for transforming the underlying structures of nature into symbolic forms would live on in the mind of the mature Le Corbusier until the end.
Charles Edouard Jeanneret, study of the south facade of Villa Jaquemet, 1907. Watercolour on paper, 52.6 × 31.8 cm (20½ × 12½ in).

Charles Edouard Jeanneret, Villa Stotzer, La Chaux-de-Fonds, Switzerland, 1907–08.