

世界建築

Le Corbusier

Chapelle Notre Dame du Haut

Ronchamp, France. 1950-54

Edited and Photographed by

Text by Takamasa Yoshizaka

Futago



Global Architecture 世界建築

世界建築 No. 7
廊香聖母教堂 / 法國, 奧·廊香 / 1950—54年
建築師 / 勒·柯比意
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胡氏圖書

通往草書之路——撰 / 吉阪隆正

Toward the Cursive, by Takamasa Yosizaka

人們通常只能自某一個特定觀點，對事物做片面性的研究。因而，不論面對多麼複雜分歧的主題或事實，幾乎只能透過某一觀點來加以探討，此乃因人類受與生俱來之能力的界限只能一次思考一件事情之緣故。

然而，上天亦賦予人類一項補救這個缺憾之天賦——直覺力。因此，事實上人們雖然僅能將注意力集中於某一點上，但由於這個敏銳的直覺力，却對事物整體能有極接近之認識。例如當人們耳聞一句有如當頭棒喝的言詞，或眼見一根直挺挺地豎在鼻前的大姆指，而能頓悟出整個宇宙之概念，顯然皆拜此項天賦所賜。

然而，如果這個「訊息」在當時並沒有立即傳達給思考者，它或許便將永遠消失，不再復見。或者即使傳達給思考者，但同樣地，由於人之思考的界限，仍然只能停留在某一特定的層面上。更糟的是，人類在短暫的瞬間內所能掌握之事情，充其量不過五根指頭之數罷了，而內涵之元素往往超過此數。

人便是在這種情況下發明了象形文字，來代表生活環境中各種不同的事物。例如：木便是以大地、主幹、分枝之象形為其代表符號，而鳥則是利用牠的頭、羽毛、腳之形態以表示其意義，魚則為頭與鱗片。然而誠如電腦所言，人原本就是一種缺乏邏輯的思考者，意志不夠堅定、懶惰、思緒散漫、易對單調事物感到厭煩、粗心大意、動作遲緩並且無法預知未來。因此，欲確保正確的訊息得以被完整無誤地記錄與傳達，必須使記錄的方法更加

In studying a given object, man can do so only from a single viewpoint and restricting himself to that face of it which is perceptible to him. When standing before an object or a fact involving an extensive gamut of intricate peripheral factors, he can, alas, grasp it only via a single point of view. This fact stems from the limitations of man who can think of only one thing at a time.

Man, however, is equipped with one redemptive grace: intuition. Thanks to the acuity of this intuition, man can obtain a general idea of the totality of which the point on which he focuses his attention is a part. It is precisely due to this possibility that we can obtain a general idea of the entirety of the universe at the hearing of a streak of inspired invocative cry, or at the sight of a thumb-tip unexpectedly thrust right under our nose.

But if the message is not communicated to you it is lost for ever, never to see the light of day. If it is communicated to you, then there surfaces again the same old problem that it can be communicated only on one given plane. To make it worse, there cannot be more elements of content than can be counted on your five fingers that can be perceived at a blow and in an instant.

It was against a similar background that the hieroglyph was created for the purpose of transmitting the description of various things that surround life. The tree was, for example, described with symbols standing for the earth, trunk and branches. Similarly, the bird was described in terms of a head, feather and legs, and the fish with the head and scales. But, as someone at IBM remarked, man is basically a poor logical thinker, lacking in stick-to-itiveness, lazy, whimsical, easily bored by monotony, careless, slow and utterly unpredictable as to what he may be up to. If, therefore, an assurance is to be had that a correctly recorded message will be transmitted without fail, it becomes necessary to make the method of recording more abstract and fix it within some framework. From such a process came the Chinese characters, the cuneiforms, the Latin alphabet, and other systems of writing. The result of this was that many of them grew to provide precious means of communication between different peoples.

抽象化並建立於一架構中。許多文字系統遂因而產生，如中國文字、楔形文字、拉丁字母……等。其中許多文字已然成為不同國度的人們之間寶貴的溝通工具。

將許多元素結合，則會產生一種新的概念，並構成一種融和元素（Integrated element），再由此結合其他複合元素，如此的連續過程能令我們將概念做更綿細的推演，亦能藉以掌握更廣博的總合性概念。例如中國文字便是將整個字局限於一個方格內，以統合此種語意上急速擴張的書寫語言。

我們不難想像，在發現這樣的方格之前必然已耗費了漫長的時光。因為人們必須先發現直角，而在直角之前又必須先有對等的觀念。而人們自一元論這種兒童式的世界觀中覺醒，並體認到其他事物與自我之間乃一對等之存在為止，必定已投入了相當大的努力。

而人必定是由觀察自身的肉體才有了這樣的覺醒。發現了上下、前後、左右，使他體認到其存在於地面之事實，從而了解到垂直與水平的關係。並藉觀察人體為利用腳掌肌肉複雜的運作以維持平衡之事實，進而發現了直角，此為歷史上之一大發展。這第一位發現者無疑是個天才。

此後一切更加速的進展，自從人類懂得幾何原理以來，已能任意組合直角而創造許多不同的圖形。其中元素組合最少的圖形便是正方形。因為它是最早被理解的，因此將其形態所內涵的種種性能，運用於各種不同的場合。

A combination of several elements gave birth to a new concept and could as such constitute an integrated element which, in its turn, could combine with other combinations of elements. This process made it possible to make ever finer classifications as well as the efficient handling of more comprehensive, general concepts. In the case of Chinese characters, it was proposed to enclose the unit of writing within a square box as a means of coordinating the written language which was now undergoing rapid semantic expansion.

It is not hard to imagine how much time it must have taken to come to the discovery of this square box, for it had to be preceded by the discovery of a right angle, which, in turn, had to be preceded by the concept of parity. Also, considerable effort must have accompanied man's awakening from monistic awareness, reminiscent of a child's world outlook, into the recognition of others as being on a par with himself.

This process of awakening must have taken shape through observation of one's own body. The discovery of left and right, front and back, above and below helped him realize that he stood on the earth. And from there came the understanding of the relationship between vertical and horizontal. The first one to hit upon the idea of right angle in a history-making jump on the basis of the observation of the human body's center of gravity maintained by the intricate workings of the muscles of the soles must have been a real genius.

From this point on, things developed at an accelerated pace. Since man had geometry on his finger-tips now, he could create various shapes by imaginatively combining right angles. Of such shapes, the square was found to be made with the least component elements. Indeed, the square must have been among the first discoveries of the wonder of geometry, and which was in due course put to various uses because of the wealth of functional potential it had to offer.

THE PLASTIC ART OF LE CORBUSIER, TOO, BEGAN WITH THE RIGHT ANGLE.

"One day, under a kerosene lamp in a room in Paris, picture

柯比意的造形藝術亦是由直角開始……

「某日，在巴黎的一個小房間裡，煤油燈昏暗的光線下之桌面，散置着一組風景明信片。柯比意目不轉睛地注視着其中一張米開朗基羅在羅馬設計的神殿，同時將手邊另一張風景明信片翻轉至空白之背面，隨即直覺地以其一角在神殿的正面上滑動起來。忽然間，一種確切的真理呈露了出來——直角控制着構成，而直角的頂點所在更支配整個構成。對他而言，這真是一種啓示與肯定。同樣的實驗在塞尚的繪畫中，亦獲致完滿的成功。」

構成一個直角，需要兩條直線，基於此項認知，柯比意開始以此為基準，檢視造形之構成。直角的頂點所能組成之種種形狀一一呈現。他遂對直角之一切可能性，如幾何圖形及其中所顯示之級數性尺寸等做進一步的探討，而有如馬爾可夫（Marcoff）般盡情地聽任聯想力馳騁腦中，鏗而不捨地進行實驗。這種經驗對他就如同是驚險刺激的探險，吸引他以迄廢寢忘食的地步。

然而有時他會停止思考，以避免自己陷入迷陣。他很明智地注意他的環境，以檢視其所經歷之途徑是否正確。他亦曾對那些贊同他而加入同樣的探求的人指摘他們已步入歧途。但不管何時，當他有所偏失時，總有一個「指南針」能夠引導他回到正確的方向，那就是「一切事物必須與人本身有關」之信念。

如此地與直角周旋之餘，帶給他兩個啓示：一者為兩頂點之距離所產生的大小尺寸之數字涵義；其次便是構成直角的直線所繪製的許多圖形。一個看重數字，一個則著重分析。當然，兩者

postcards lay spread out on a table. His (Le Corbusier's) eyes were fixed on an image of the Capitol by Michelangelo in Rome. His hand turned over another card, the blank side up, and intuitively slid one of its angles (a right angle) on the façade of the Capitol. Suddenly, an admissible truth revealed itself; the right angle controls the composition, and loci (locus of the right angle) command the whole composition. This was for him a revelation, a certainty. The same test was conducted with success on a painting by Cézanne."

To make a right angle, two straight lines are necessary. Based upon this awareness, Le Corbusier began to utilize this fact as the standard yardstick for examining plastic compositions. Innumerable possibilities occurred to him for what could be done with the apex of the right angle. Driven by prolific association conceived after the Marcoffian fashion, he continued with experiments in pursuit of the possibilities of the right angle. This experience must have been for him an exploratory adventure absorbing enough to make him, to so to speak, "forget about his meals and sleep."

Once in a while, he stopped to think. He had to guard against stepping into a labyrinth. He was wise enough to be mindful of his environment to confirm if the path he was following was a safe one. To some who in sympathy with him joined his explorations, he would say that they had stepped into a wrong path. What brought him back onto the right path whenever he was astray was the magnetic belief that "everything must be linked to man himself."

Playing with the apex of a right angle brought him two suggestions. One was the mathematical implication of the dimensions arising from the distance between two apices, and the other was the variety of graphics drawn by the straight lines meant for making right angles. One was a digital world, and the other, an analog world. Both of them, of course, give us glimpses into a world of order, but Le Corbusier's self-imposed task was to somehow link them to the world of man.

When one is given full freedom as a creator of things, he suddenly finds himself at a complete loss as to what to begin to do. He wishes he could follow some standard to be one with the orderly world, or

都使我們得以窺見一個秩序井然的世界，但柯比意却一心一意欲設法把他們與「人」的世界連繫起來。

當一個人能夠毫無限制地去創造事物時，他將發現一時竟十分茫然，不知從何下手。他會希望有些標準可循，可能是一個秩序井然的世界或宇宙，一切均依循一些明確的定則進行；簡單的說，就是一個基於嚴謹秩序的世界；雖然表面上我們不易察覺這些規則的存在。除非他能發現如此之秩序，否則他將感到如同飄浮在一個沒有重力的世界，混沌不清無所依循。

柯比意首先從直角而後自方形之線索中找出了這個秩序。若是沒有正方形以及正方形不可勝數的組合方式，他將不知如何在香地葛的計劃案中決定其配置方式。而古代中國人安排運河網路及灌溉系統，南美的印第安人在廣大的草原中發展他們的基地配置，也都是利用直角及正方形。

由直角及方形所構成之格子狀秩序，必定是人類在試圖脫離「個人空間」而提升整體統合時，所發現的最初之秩序性。同時它也被人們利用於決定細部之比例。禮節與規範亦屬局限於四角定規內之一種秩序，它令我們窺見一個完整的世界，有如一端端正工整的「楷書」世界。

但人們同時也對圓形感到興趣。他們也追求一種去除了尖角之形狀。因為正方形雖似完全滿足了人們對完美的追求，但它本身也含有扼殺精神的禍根。

the universe, which lives in accord with some definite principles; in short, a world based on rigorous order although on the surface the regularity factor is not easily recognizable. Unless he discovers such order, he feels as though he were floating in a world destitute of gravity, indefinable and unreliable.

Le Corbusier discovered a clue to the world of order he sought in the right angle and, later, in the square. Without the square and its innumerable combinations, it would not have been possible to him to establish what to place where in his Capitol project. Ancient Chinese, in laying canals and irrigation ducts, made use of the right angle and the square, as did the Indians of South America in developing their layout work for bases in the midst of pampas fields.

The grill-patterned order made up of combinations of the right angle and the square must have been among the very first 'orderlinesses' discovered by man in his effort to rid themselves of 'personal space' to uplift it to the level of integration. But, at the same time, this discovery gave man a system which could serve him as a 'proportion-definer' for details. In the Far East, the correctness expected of manners of behavior was compared to the perfect regularity of a square rule. It was, in short, a wondrous instrument which opened for man a window to the world of the absolutes, to the world of 'reality.'

But man was simultaneously interested in the circle; his search included the pursuit of an edgeless form. The square, which appeared to completely satisfy man's quest for the perfect, contained in itself seeds for mental asphyxiation.

THE GOLDEN SECTION AS A Milder FORM OF THE STIFF SQUARE.

The myth of the golden section was sweeping across the whole of Europe. Le Corbusier could not stay free from its influence. He developed the idea, in time, of containing within the square this slightly deformed but aesthetically appealing shape.

As the Sorbonne mathematician Taton pointed out, Le Corbusier overlooked in this process an error that could be absorbed into the

黃金分割稍微緩和了正方形之呆板……………

「黃金比」的神話早已盛行於整個歐洲，柯比意也無法免於其影響。他將正方形做輕微的變型，但仍使其具有美感的形狀。

巴黎大學文理學院的數學家塔頓指出：在柯比意的探求過程中，他忽略了鉛筆線條之寬度可能造成的誤差，其誤差數值約在千分之六。當他在尋找兩個相鄰的正方形所造成之直角頂點的位置時，他誤以為他已找到了定出黃金比的點。這個幸運的錯誤觀念，後來却發展成柯比意最著名的成就——模矩（Modulor）的發明。

一個人高舉雙手站立時的高度及肚臍的高度等等，均不可思議地與他新發現的許多比例數據一致。這個發現令他感到穿越了「神奇之門」，而得到進入神的世界之歡愉。可以說，他已發現了支配整個世界——甚或宇宙的比例之定理。

後來，由於已了解了導致誤差的原因，此千分之六的誤差經過修正，使其更加精確，並從而發現了正方形乃是無數矩形及三角形的前身，它們與黃金比之定理一致。同時更明白了費布那西級數（Fibonacci sequence）以及1：2之倍數的關係，亦均為此模矩所具有的一連串自由秩序所產生者。

談到立體派藝術家時，康維里曾經提到：「在1880年左右誕生的藝術家，不論是畫家、建築家或音樂家（如葛利斯、畢卡索、布拉克、雷捷、苟白克……等）都被一種共同的意念所驅策：要掌握住他們從事的藝術之本質；並藉着對藝術的熱愛以尋求藝

thickness of a pencil, an error of the order of 6/1000. While searching for a position for the apex of a right angle within two squares placed side by side, he had the illusion of having hit upon a spot which he thought gave the golden proportion. This fortunate illusion later developed to Le Corbusier's landmark achievement — the invention of the Modulor.

The proportions of a man standing with both his arms lifted up, the height of his navel, and many other measurements were wonderfully incorporated into his newly found proportional scale. As he put it, he was flooded with the joy of having entered the realm of God after having cleared the Gate of Wonder; he had found, so to speak, the principle that governs the proportions of the world — nay, even of the whole universe!

Later the error of 6/1000 was rectified to 'make sense geometrically.' The cause for the error had been understood. Thus, the square was found out to be the potential progenitor of an infinitude of rectangles and triangles. The principle at work here satisfied the requirements of the golden proportion, offered room for the Fibonacci sequence and accommodated such relationships as the multiples (e.g., of 1:2): an arena was thus created for a series of free order.

Speaking of the Cubists, Kahnweiler once said, "Artists born in or around 1880, whether they were painters, architects or musicians (Gris, Picasso, Braque, Léger, Schoenberg, etc.), were driven by a common wish to grasp the essential nature of the artistic pursuits they were engaged in and, in the interest of art, to find the unshakable foundation on which art stands. These artists all endeavored to create works that could themselves constitute powerful existences, and worked toward works whose integration would be secured by a strong sense of rhythm vibrant under the control of the whole which would govern the details. They endeavored to give complete independence to their works, conceived in outlooks with such an inspired background, in light of an overriding theme of integration. They endeavored to make their art as pure and as powerful as possible."

術不可動搖的根基。這些藝術家都極力想創造出一些能強有力地存在的作品來。他們追求的是種細部在整體性的支配下，個個均能透過強烈的律動感之表達而却保持完整性之作品。藝術家們的這些心血結晶，個個均透過整體性而能保證完全的自律。他們盡可能地使他們的藝術純淨而有力。」

柯比意亦是在同樣的精神下發現了模矩。在造型藝術的世界中，尺寸的決定是極重要的因素。模矩的尺寸為自那無止境的比例中發現出極有秩序的選擇規準。設若這些尺寸比例與神所創造之動植物之比例相吻合的話，就可當操作這些尺寸時如柯比意所敘述的，有如處於神在創造萬物之狀態，可以期待某種無上的樂園之再現。

7、5、3 世界之不存在……………

柯比意沒有後代。他曾謙遜地感慨說：「若世界上再出現一個像我一樣的呆子，將會是一齣悲劇。」但人們却認為他的無後之宿命使他無法體驗到人生的另一半面。

他結過婚，也享有夫妻之對等關係的經驗，但却缺乏父子關係之感受。在這方面，他只能憑臆測。父子關係代表着另一個截然不同的世界，對他而言，那是虛幻而陌生的。

親子之三者的世界與夫妻二人的世界是完全不同的。雖然兩者均以自我1為中心而出發，但當其與第二者2接觸時，1或許能支配1與2的世界，但却無法兼顧第三者3。自我1使一切看

Le Corbusier's discovery of the Modulor was essentially based upon the same spirit. In the world of plastic art, the definition of proportions makes up an extremely important factor. Out of the infinitude of possibilities of proportion, Le Corbusier had defined the criteria for orderly selection. If these proportions fitted the animals and plants created by God, Le Corbusier reasoned, the use of such proportions would illustrate "God at play." There was expectation for the realization of the divine kingdom on the earth.

THE ABSENCE OF THE WORLD OF 7, 5 AND 3.

Le Corbusier had no children. Possibly for a show of humility, he would say it would be a tragedy if the world were to accommodate "another fool like me." But this attitude of his should be regarded as having refused him a view of the other half of life.

His experience did include the man-wife parity relationship as a married man, but he lacked the other relationship, that of parent-child parity, which he must have known only imaginatively. This parent-child relationship, which represents another whole world, was not real to him.

It is a world of 3 as against the world of 2, which is that of man and wife. In either case, of course, the self, 1, will be the starting point. Through direct contact with 2, 1 may govern the world of 1 and 2, but not the world of 3. 1 makes its appearance as a world of the compass. What will happen if three circles are to form one piece of mass? The answer may be found in the behavior of soap bubbles or foams.

What happens if we take into account a multitude of children surrounding their mother? There will emerge a radially expanding world. Radiation stands for unlimited fertility and has been a favorite theme since the Renaissance days. Le Corbusier, however, found the resulting world of infinitude repulsive, accusing as inhuman this world of radiation which has characterized the flow of time from Renaissance down to the baroque period. True, no mother gives birth to an infinitude of children. But in pointing his finger at this, he included the world of radiation in the same target

來似一圓滿的世界，但如果三個圓圈擠成一團時，將會產生什麼情況呢？其相互牽制之狀況我們可以從肥皂泡或泡沫得到想像。

假如我們有更多以母親為中心之小孩時情況又會是怎樣呢？一個輻射的世界勢將形成，輻射狀因代表無止境的豐饒與富庶，故自文藝復興以來便深受喜愛。柯比意却對此漫無限制增加之人口世界極端反感，而指責那自文藝復興至巴洛克時期所稱道之輻射狀膨脹的世界乃違反人性之世界。確實沒有一個母親能毫無節制地生育小孩，但他雖將輻射狀本身連根否定，却無法全面否定了輻射狀之存在。在他的內心深處，這種矛盾必定是存在於心底形成不悅的負擔，或者早已被他埋藏入潛意識裏了。

對於鍾愛明朗的地中海世界之柯比意而言，這個令他深陷其中不克自拔的7、5、3之世界，就有如北歐教人意亂神迷的陰闇般，其中雖亦不乏美好的事物，却仍是個令他產生排斥感的世界。

這點充分表現於他與喜愛六角形的萊特間之關係上。柯比意並非全然否定這位大師之才能，但他總是這麼說：「他真是個酋長！真的，他是在創造古老時代中最出色的事物」。然而現代是個不同的時代，也許他想說的，是康維里所謂之：「應在與更廣闊的世界之聯繫中，尋求整體之統合」這句話吧！

有人批評我說，雖然我是柯比意的學生，但我却依萊特的方式思考。把我與這位傑出的人物聯想在一起，是我的榮幸。如今想來，會造成這種說法，可能是因為20世紀初乃為自萊特以迄柯

of accusation. But still he did not quite succeed in denying the existence of the world of radiation. This contradiction must have lurked behind his consciousness in the form of an unaccounted-for, unpleasant burden. Or it may be that it was completely buried underneath his consciousness.

To him, who loved the lucid Mediterranean world, the indivisible world of 3, 5, 7 and so on, while containing luring elements reminiscent of the attractive shades of northern Europe, must have been, *prima facie*, a repulsive one.

This point is interestingly illustrated in his relationship to Wright with a pronounced predilection for the hexagon. Le Corbusier did not at all regard this great master as insignificant, but he said of him things like, "He is a tribal chieftain! It is true, though, that he is making the best the good old days could ever have produced..." Probably he wanted to say that, as Kahnweiler would have said, "Integration in the context of linkage with the wide world must come first."

Some say, speaking of me, that, although I studied under Le Corbusier, I think after a Wrightian fashion. I feel privileged to be associated with men of no ordinary caliber, but the observation made about me may be due to the possible fact that the beginning of the 20th century marked a period of transition from Wright to Le Corbusier and that we today, in the latter half of the same century, live in an age where a reversal of flow from the Corbusierian back to the Wrightian is beginning to take place.

To describe this in the numerical terms I used a little earlier, we are in the middle of a transition from the 2-to-4 system to a 3-to-6 system, and it may be that we live in an age which expects a Fuller Dome type of operation in which the 10 made of 4 and 6 develops from a circle to a sphere by intercalating its half value, 5, within it. After all, this is an age where man must handle his spherical planet with a holistic approach.

If we further take into account the rotation of the earth, and consider the idea of distributing time zones with equality round the globe, we obtain the five zones of the Far East and the Western

比意之明顯的轉變期，而今天在20世紀後期，我們似乎又要從柯比意式回溯到萊特式了。

以我早先所提的數字來解釋這個情況，則我們正處於自2—4系統轉為3—6系統之間。而且我們所處的時代所需要的可能是富勒圓頂式的運算——由4加6得10，並插入中間值5，使其自圓發展至球。畢竟，這是一個人們必須將整個地球視為一個問題來面對的時代。

若我們進而考慮地球自轉的因素，以及地球四周之等時間帶時，我們還可以將地球平分成五區——(1)遠東和西太平洋；(2)北美和東太平洋；(3)大西洋及南美；(4)歐洲和非洲；(5)印度地區——北至大陸、南至印度洋，如此形成五條直線，將地球分成五個同樣大小的區域。如果我們再考慮其他更多的因素時，仍然可以將它再分成七個區域——這真是一個分也分不清的世界！

而不同種的生物在這無法清楚劃分之地區群居一處，便是自然界常見之現象。

因此，我們有必要重新面對自然，重回到起點探討到底它是以何種秩序為準則。第二次世界大戰賜與柯比意反省的機會。這段時期恰是柯比意的低迷時期，沒有什麼值得一做的工作，尤其是有關建築方面。他的合夥人榮納瑞便因無法容忍這種情況，而在此時掛冠求去。

因為沒有建築上的業務可做，柯比意便又回到早先從事的繪畫工作，並鎮日徜徉海邊把玩貝殼。他不再嘗試利用直角去找尋

Pacific, North America and the East Pacific, the Atlantic and South America, Europe and Africa, and the Indian "section" with the continent to the north and the Indian Ocean to the south, which make up five vertical sections of equal size of the earth. But if we take a few other factors into consideration, we can divide the earth into seven such sections. Here, too, is a numerically indivisible world.

But it is in conformity with the natural phenomenon that the various species of living things live as an ensemble, absorbing such indivisible elements.

There is need to take a renewed look at nature and start our thinking afresh all over again, basing it on observing the very basis of order which governs her. Man was given just such an opportunity by World War II. This coincided with the time when no work worth the name was ever given to Le Corbusier, especially in the field of architecture. His partner Pierre Jeanneret became fed up with the situation and parted ways with him.

Le Corbusier spent all this time rollicking with shells on the seashore and, having nothing architectural to work on, going back to his erstwhile world of painting. He no longer had to make exertions in search of order with the help of right angles. He could with abandon immerse in a different world wherein he could completely submit himself to the dictates of his emotions and draw curves. Actually he had in this way placed himself in a coign of vantage from where he could now take a cool look at all his earlier works. He could, with a cool head, discuss the order made up by right angles. He had attained a level of consciousness where he could see squares in free curves. The Modulor should be considered as having been crystallized in such an exalted state of mind.

Comparison with the works of painting which he produced correctly and to rule in the 1910s and 1920s accentuates the significance of his paintings done during this period of freedom, featuring wild and free dances of curves. Before him was *unfolding* a completely untrammelled world, redolent of the calligraphic world of Ryōkan.

秩序，他沉迷入另一個截然不同的世界裏，在此他能完全依循自己的感性，奔放不羈地描繪曲線，享受個中之樂。這時，他已可以用一種冷靜的眼光，回頭端詳早期的作品，並理智地探討這些以直角所造成的秩序。這時，他意識到一種情況——他能在流動的曲線中找到正方形。這時高漲的情緒，使他能把握矩的理念更加具體化。

他在這段賦閒時期的繪畫，表現出野獸般粗獷豪邁及揮灑自如的線條，這與他以往在 1910 年代與 20 年代蹈規循矩的畫作形成對比，此時展現在他眼前的，是一個絲毫不受限制的世界——令人想起日本書法家良寬的書法。

就在此時柯比意開始設計廊香教堂……………

柯比意把利用直角尋求秩序的手法，大大應用於戰前所建的馬賽集住體。而在進行馬賽集住體之業務的同時，他又在一座可愛的小教堂之案子中從事與以往截然不同的工作。

他取自貝殼的自由曲線，又從複雜的蟹甲上獲致更多的啓示。據我的猜測，他或許因為所處理的是宗教建築，而抱有一種嘗試以地中海的精神去詮釋北歐之傳統的野心。

約在同時，他又接獲印度香地葛的首府計劃案，柯比意長年生長於歐洲，對於印度文化，只能透過書本了解一些二次元性質的問題。如今有了直接接觸三次元或四次元問題的機會，令他興奮不已。柯比意驚愕地發覺，他所生長的歐洲幾個世紀來雖一直

IT WAS JUST ABOUT THIS TIME THAT LE CORBUSIER EMBARKED ON THE CHAPELLE DE RONCHAMP PROJECT.

While the Unité d'Habitation project at Marseilles was in progress as a synthesis of the order of right angles completed before World War II, Le Corbusier embarked on work on this lovable chapel which represented the antipodal extremity vis-à-vis the former.

The free curves of shells received further inspiration from the complicated crab carapace. I dare wonder if Le Corbusier, because he was dealing with a religious edifice, may not have nurtured the ambition to find a solution to its desired ideal posture and presence by drawing on northern European traditions which he hoped to reinterpret with a Mediterranean esprit.

It was about this time that he became involved with the Chandigarh Capitol Project of India. Le Corbusier, whose whole life had pivoted round the center of European culture, had only a limited knowledge of two-dimensional nature about Indian culture, and coming into live contact with the three-dimensional, and perhaps often four-dimensional, vibrant reality of India provided him with tingling stimuli. It overwhelmed Le Corbusier, who had lived in Europe which had for many centuries sought wealth and had realized it, to discover that amenity and beauty have an even brighter sheen here in this poverty-stricken country than in wealthy European milieus. This discovery must have awakened in him a deeper understanding for the world of his own Ronchamp chapel which was now attracting devout pilgrims.

This experience allowed him to make a significant leap from what may be compared to the stiff world of block-letter calligraphy (*shin*) onto what may again be compared to the more liberal world of its stylized version (*gyō*). By this time, his consciousness had been firmly endorsed by a world of solidly built right angles which had come to account for such a significant part of his value outlook that he could not, if he had wanted to, rid himself of it. Training and conditioning of several decades had oriented him in a determined direction in such a thorough way that he was unconsciously guided by it all the time. Even when he was submitting his painting brush to

在追求財富，並已達到目的，但在這個被貧窮剝蝕的國度裏，却有着比歐洲更絢爛、瑰麗的一面。這項體認必曾使他對吸引許多虔誠朝聖者之廊香教堂產生更深的了解。

柯比意在造型上早已自拘謹端正的楷書轉移入行書的世界中，而此時這個進步，潛藏着往前再衝刺一程之可能性。新的衝刺之「底子」在於：那構架穩固的直角之世界，已然深深植入他的心中，累積幾十年的鍛鍊，已足以在無意識中引導着他，而達於即令是興之所至地塗鴉，在構成上亦決不致有任何偏差之境界。

在他年輕時代全力以赴赴國際聯盟大廈之案子時，面對兩個矛盾的設計要求——一方面需建造一座在造型上符合大時代風格之宮殿，同時又得使之像個在各國協調下創造和平之舞台，他是以極富魄力的態度昂然以赴的。而這一回，他又以與昔日截然不同的態度來處理這個堪稱代表歐洲宗教建築形象的北歐式大教堂與現代合理主義之間的衝突。

我認為，對於以歌德建築為代表之宗教建築而言，如何脫離仿羅馬建築外牆之建築式樣必定是它的主題。與自近東以迄地中海沿岸一帶綿延的白沙世界中，在強烈的陽光下享受蔭涼處的舒爽之人們不同；對在北歐的冷雨寒霧及在闇暗的森林中，不斷尋覓着陽光，或在柔和的反射光線中，藉閱讀滋長其幻想力的人們而言，要令其人心活潑浪漫起來，決非一件輕易之舉。

如今，柯比意完全處於一個相反的立場。他面對的，是如何將一個有如充滿了光怪陸離的怪獸或糾結交纏的蔓藤的迷宮般之

the whims of his emotions, he had no cause for concern as to the technicality of composition.

As a young architect, Le Corbusier had an occasion to put all his resources of self-honesty and sincerity to a severe test in trying to meet the contradictory demand thrust upon him through a design competition organized by the League of Nations for a palatial edifice of royal pomp to provide an arena for international concert. He called on different sorts of resources in him in approaching the confrontation between the north European element characterizing Europe's religious architecture and modern rationalism.

My interpretation of Europe's religious architecture represented by the Gothic style is that its main theme was a break away from Romanesque-walled architecture. Throughout the world of white sand stretching from the Near East to the Mediterranean coasts, a burning sun makes pastime under clearly-contoured shadows an almost voluptuous enjoyment. It must have been quite a difficult task to try to introduce into such a world the heart of northern Europeans who, in their search for light in cold, rainy weather or in the dim depths of forests, read fantasies into the sparingly given, soft, foggy light streaks.

Le Corbusier was now confronted with the problem of how to incorporate hopelessly irregular labyrinthine motifs with monsters and liana plants into a neatly divisible world of right angles and squares.

INTEGRATION OF MUTUALLY REPELLENT CONTRADICTIONS PROVIDES THE STRONGEST STIMULUS FOR CREATION

For it thus becomes possible to fuse opposing thoughts into one entity. Isn't this directly conducive to the realization of world peace which is the most fondly cherished dream of humanity? If this can be done in a concrete way, the result will become the precious property of all mankind.

Originally, religion was intended as a means of uniting all nations of the world. It is quite regrettable, then, that today there are as

主題帶入一個以直角或長方形切割得整整齊齊的世界中去。

統一相互矛盾因素能為創造活動提供最有力的刺激……………

如此一來，對立的思想在此融滙為一，而這不正是人類一向企求的世界和平之實現嗎？如果它能被具體化地實現的話，將成為全人類珍貴的財產。

宗教原本在於結合世界各國，但很不幸地，如今却形成有多少宗教派別，就有多少紛爭之局面。意識形態亦與宗教相同地，原本乃欲使世界各國能和平共存，然各派別竟然逕自高張旗幟，各立門派，明爭暗鬥，互相傾軋，此種做法豈非本末倒置？

廊香教堂可能並未直接含有這種衝突的要素在內。但在柯比意心中，必然曾為天主教和基督教間多年的爭端而煩惱過。他的祖先是流亡瑞士的新教徒，而這座教堂是多明尼加派之禮拜堂。當然，對我們這些局外人而言，這些煩惱自是不足為意，然而對於置身其中者而言，教派分裂無疑是一樁極為嚴重的問題。

例如東德與西德、南韓與北韓、南越與北越等分裂國家，就傍觀者之眼觀之，很明顯的都是一種能源與資源的浪費。但我們馬上又意識到，要找出解決這些問題的答案却是難如登天。因為這種解決方案必須是具體而易瞭解的，且必須與人們每天面對的實質生活息息相關，而蔚為一種具象徵性的力量者。因此，它必得是惟一且又包含一切之存在者。

柯比意在廊香教堂的處理手法，乃於山上之水平線上先以垂

many cases of confrontation as the number of religions and religious sects. Ideology, too, was originally conceived as a means of making the peaceful coexistence of all nations possible. But, in reality, man is putting the cart before the horse, so to speak, by creating mutually opposed groups and factions brandishing their banners, threatening to exterminate each other.

The Ronchamp chapel may have been free from direct exposure to such violent clashes. But in Le Corbusier's mind, there must have been brewing for some time a conflict between Catholicism and Protestantism. His ancestors were exile Huguenots in Switzerland. And the chapel he was to build was for the Dominican order. Of course, for us the 'outsiders,' any problem arising from religious differences tends to appear trifling, but for the 'insiders' it must understandably be a grueling experience to be part of intense religious strifes.

Viewed from the outside, cases like East and West Germanys, North and South Korea and the two Vietnams certainly stand for a waste of energy and resources. But one immediately realizes that it is next to impossible to find a sweeping answer to these problems. For, such an answer must be concrete, realistic and lucid in the eyes of all those concerned. It must come with a symbolical force directly related to the daily reality of the life of those involved. It must be a presence which, while being one, can contain all.

Le Corbusier's answer to Ronchamp first loomed with a vertical line and an oblique line on the horizon of that hill. When, in time, the vertical line was fleshed out, it posed as a tower for light and color intake. The oblique line was originally for a roof inspired on the basis of suggestion from the crab's carapace, but, after much meandering, due to technical limitations, the finalized shape given it turned out to be that of a roof with a double bend. And the chancel, which is normally placed at the innermost depth of the building, was brought out to the foremost position. It was a surprise reversal of conventional order.

If the explanation is offered that imaginative use has been made of the functional requirements for the utilization of the interior to

直線與斜線做構成之開端，垂直線最後交織成一座充滿光線與色彩之塔。屋頂的斜線為原本得自蟹甲之靈感，後來却受限於技術而更加蜿蜒，最後形成目前之雙重曲線之屋頂。聖壇理應設於教堂最深處，在此却置於最前方，一反以往的處理方式。

誠然它是巧妙利用了機能上的需求——內部僅用以容納小部分做禮拜之信徒，而外部廣場則為應付重要場合及大量朝聖者。但為令一切顯得莊嚴隆重，亦不容忽略許多必要的裝置，如講台、柱子及家具之安排等。

教堂後部之牆壁的石塊乃利用自廢棄的舊教堂，呈喇叭狀伸展開的三角形剖面雖極單薄，觀之却頗厚實。深凹的窗戶雖按一定的模矩計劃，但似乎予人非經心造就之印象。透過狹窄的縫隙，使聖壇與內部融合為一，且因光與影奇妙的分布，造就出一種聖潔肅穆之宗教氣息。這真是一個精巧的傑作，站在這令人贊嘆的設計之前，我忽然覺得它與草書的形式很接近，甚至更為豪放不羈。

最後，我再度告訴自己，「楷書」雖然過於端整拘謹，但還是以它為起步，俟完全掌握住那堅實的架構之後，方能縱使身處無拘無束的天地，亦不致步上歧途。

藝術，畢竟是個即使累積了幾十年之修練，還不一定能達成的世界。
(本文中譯根據日文原文)

receive small numbers of pilgrims and the exterior plaza for important occasions and to receive larger numbers of pilgrims, it may sound clear and simple enough, but it should not be overlooked that to prepare the stage for different functions in a proper way, uncountable numbers of props and pieces of furniture need be moved about.

The posterior wall for which stone blocks from the demolished old chapel were used is a triangular, trumpet-shaped wall which, while giving the impression of a substantial walling, is in fact rather thin. The deep windows, which give one the impression of utter disorderliness, actually conform to a consistent Modulor scheme. The chancel fuses with the exterior through the fine slits, which with a magical distribution of light and shade effectively enhance an atmosphere befitting the soothing depth of religious devotion — a truly ingenious invention. Standing before this wondrous tour de force, I was suddenly seized by the feeling that this was very close to the world of style of "so" (cursive) in calligraphy, even more liberal than the afore-mentioned *gyo*.

I had to renew, or perhaps re-confirm, a belief. The belief that only when one has a solid, even stiff, point of departure and has succeeded in building in himself an unshakable edifice of rigor and of self-discipline can one hope to make an achievement of classical value in the free world of art. That, after all is said and done, the world of art is something that one can attain only following a certain amount of rigorous preparation.

(Translation from Japanese original by Terutoyo Taneda)

Le Corbusier
Chapelle Notre Dame du Haut
Ronchamp, France. 1950-54













