

**Le Corbusier's Exploration of Primitive
Culture and Worldwide Civilizations through
the Construction of a Personal Museum (circa
1930)**

(Ph.D Thesis)

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Declaration

I hereby declare that this thesis is my own work and has not been submitted for any other degree or professional qualification except as specified.

Abstract

Behind Le Corbusier's creative imagination, there were extensive resources collected and transformed in this studio and his mind. This 'collection' can be thought of as his personal museum. This consisted partly of the observations and memories captured in his sketches and notebooks, but also artefacts and objects gathered in his apartment. His anti-academic approach meant that sources of primitive and distant civilizations became an important inspiration for his designs and principles. The fact that Le Corbusier based himself in Paris, the centre of European culture, was important as the atmosphere informed his outlook. Collections and resources in this personal museum allowed him to ruminate over, toy with and transform images, thus generating many ideas for his designs and compositions.

As Le Corbusier's primary experience was constructed throughout the itinerary of his travels, sources of primitive and distant civilizations are categorized by cultures and geographical regions in this thesis. The chronological emphasis falls between the late 1920s and early 1930s, when his Purist themes diminished but those of folk culture, women, and Surrealism came to the fore. What these sources were and how they were incorporated into his architectural designs, art and writings will be elaborated in this dissertation.

Ethnographers and modern artists have already attempted to explore the primitive and its cultural implications, but the definition of primitivism still remains nebulous. Therefore, it is Le Corbusier's own vision of primitivism, folk and remote cultures which will serve as the foundation of this research. One objective of this dissertation is to reassemble the materials scattered in a multitude of publications from various geographical and cultural categories,

such as the vernacular, archaic and medieval heritage of Europe, the Orient and the African interior.

In discussing these diverse cultural influences, particular attention has been paid to the material from Asia, as it has not yet been well examined by Western scholars. Many distant materials, such as the Chinese images and Persian drawings, reveal much about Le Corbusier's thought of that period. The European references, such as the Breton and Cyclades folk houses, Balkan wooden houses and Pompeii remained as a key resource of spatial experience to him. These sources, led by his modernist ideology, informed the construction of his language of modern architecture.

Much of Le Corbusier's source material has not been accredited by him. In order to identify the relations between this material and his numerous works, much of my archival research has been devoted to exploring the original sources. Although only a small portion of these could be restored, they may contribute to a deeper understanding of Le Corbusier's work.

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Abbreviation

Institution

FLC	Fondation Le Corbusier, Paris
24 N.C.	24, rue Nungesser et Coli (Le Corbusier's apartment in Paris after 1934)

Books

<i>Poème</i>	Le Corbusier, <i>Le Poème de l'angle droit</i>
<i>O.C. 1, 2...</i>	<i>Oeuvre Complète</i> , volume 1, 2...
<i>Sketchbooks I, II...</i>	<i>Le Corbusier Sketchbooks</i> , Volume 1, 2...
<i>Passé</i>	<i>Le Corbusier: le passé à réaction poétique</i>

Others

LC	Le Corbusier
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Introduction

The art of being able to group objects together is, in some way, an expression of modern sensitivity towards the past, towards exoticism, and towards the present.

- Le Corbusier¹

In the mid eighteenth century, 'a new view of history brought architects to question the classical canons of Vitruvius and to document the remains of the antique world in order to establish a more objective basis on which to work'.² A grand tour to broaden one's horizons became an important study of art. Western colonial expansion was prospering in this period and continued in the following century. Numerous artefacts and documents from around the world were brought to the West to form collections that were researched, exhibited and published.

In the early twentieth century, avant-garde architects and artists rejected the existing academicism but found inspiration from more remote sources instead. Despite the collection of artefacts from the colonies, the grand tour in Europe was still the main source of artistic cultivation. As a member of this avant-garde, Le Corbusier was an idealist in quest of ideals and poetry. His primary ambition was to reinvent modern architecture for the new epoch. Therefore, he upheld an attitude of anti-academicism and his sources were nature, the machine, and distant cultures. Of these, it was perhaps the distant cultures, especially the architectural experiences of them, that inspired his modern design most directly.

After terminating his partnership with Ozenfant in 1925, Le Corbusier underwent a series of

¹ Le Corbusier, *Oeuvre complète*, vol. 3, Les Éditions d'Architecture, Zurich 1995, c1964, p. 157, trans. Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier: Apartment Block 24 N.C. and Le Corbusier's Home*. Paris: Fondation Le Corbusier; Basel, Boston, Berlin: Birkhäuser, 1996, pp. 59-60.

² Kenneth Frampton, *Modern Architecture, a Critical History*, third edition, New York: Thames and Husson, p. 8.

transitions in his life. In his paintings his ascetic Purism began to infuse diverse compositions and themes such as female, natural objects and landscape. Sources from distant cultures were profuse in his writings of the 1920s, but toned down after end of this period while other topics such as syndicalism opened up. In his Purist design work of the 1920s expression of these sources was restrained, as he preferred white prismatic machinistic articulation. After 1929 they became more explicit with the use, for example, of the rubble wall and pitched roof. He also started to collect ethnic object and sculpture including works from Africa.

With the resources from his diligent study and extensive travels, he established a 'personal museum', a substantial repository for his numerous annotated sketches and artefacts at his apartment, and developed a virtual collection of thought and experience in his mind. It became a kind of cultural repository for his exploration of the poetry of modern architecture for the new epoch. He continuously drew on it in the creation of his works, reinterpreting and transforming its motifs into productive new designs.

This dissertation focuses on the full spectrum of Le Corbusier's resources of primitive and distant cultures in his personal museum. I examine their backgrounds, his contact with and thoughts on them, and how he collected them from different cultural contents. I also discuss how he transformed and reinterpreted them, how they contributed to his theories of modernism, and how they facilitated his modern architectural design and artwork. Le Corbusier's interests in them varied throughout his life but I pay particular attention to his transitional period in the late 1920s.

A Personal Museum

This personal museum, or repository, was both physical and imaginary. Three levels may be identified. The most tangible one is his private collection – his *collection particulière*, comprising African masks, vases, annotated sketches, postcards, and so on. The next level was an extension of these, gathering experiences of architectural spaces recorded in his sketchbooks, or other experiences recalled by his books or postcards. The most imaginative level was a synthesis of assimilated material, engendered by Le Corbusier's creative imagination. This is exemplified by the evocative composition of his art, writing and architecture.

Located in a cultural centre of the world, surrounded by leading artists and global heritage, this museum was created by extensive travel with rich experiences. It was the repository of an avant-garde intellectual, whose pioneering imagination and arguments were enlightened by those treasures. It was the museum of an artist, with the collections subject to transformation, reinterpretation and reproduction in his new artwork. It served as a base for the prolific modernist designer and a template for the new epoch.

This museum was metaphorically divided into several sections such as his journeys, interests and works. In Le Corbusier's mind there was a constant exhibition of his collection, which he could screen at will and pick up whatever he needed for his work. He could then reinterpret and reorganize material, and finally developed new visual languages.

This museum was like an aesthetic refuge or cave,³ where his innermost feelings could be

³ In his studio there is a vaulted ceiling and a skylight, which give a cave-like quality. See Peter Carl, 'Le Corbusier's Penthouse in Paris: 24 rue Nungesser-et-Coli', *DAIDALOS* 28, Jun 1988, pp. 69, 71.

protected, his personal memories preserved and reorganized, and new ideas or streams of consciousness stimulated. It could be regarded as a treasure box or 'cabinet of curiosities' of all his precious experiences around the world. In the process of his creativity, these collections and memories were interwoven with many free associations as in a dream, in which thoughts and memories are metamorphosed and collaged. According to Sigmund Freud, dream-displacement and dream-condensation are the two key elements for the structure of a dream. Le Corbusier wrote about the museum of dreams in his *Poème C.2*:

Because the profound refuge is in the great cavern of sleep / the other side of life in the night. How the night is / alive rich in the warehouses the collections the library / the museums of sleep!⁴

On the top floor in his apartment, Le Corbusier's elevated bed, which Peter Carl has described as a floating ship or an airplane,⁵ was as high as his dining table and parapet. The level of this height could extend as far as the horizon where the sea and the sky meet.⁶ To a designer and an artist, a dream offers great possibilities and a broad insight into the imagination. Experiences and thoughts are often condensed and transformed into dreams in the cavern of sleep. This cavern serves as a library and a warehouse, rich in images. Additionally, a museum, as a cultural reservoir, could be experienced like a dream.⁷ The process of condensation is similar to a collage, and transformation is a way of reinterpretation.

The opposite side of dreams is the conscious world of reason and logic, in which Le Corbusier's imagination was also directed by mathematics and by the Modulor, and was ordered by the metaphor of machine with its precision and geometry. His architectural design

⁴ This paragraph was translated from the original by Peter Carl, from *Daidalos* 28, p.71 where Carl also pointed out the bed floats like a ship or an airplane on the horizon in the flat, in p. 69.

⁵ Peter Carl, 'Le Corbusier's Penthouse In Paris: 24 rue Nungesser-et-Coli', *DAIDALOS* 28, p. 67.

⁶ *Ibid.*, pp. 67-9.

⁷ Peter Carl, 'Natura Morta'. *Modulus* 20 (1991), p. 41.

was also conditioned, of course, by many practical issues such as function and budget.

Primitive and Distant Cultures

In the early Modern Movement, admiration of primitive and distant cultures (the beauty and dignity of vernacular architecture, for example) was paradoxically fused with an enthusiasm for machines and technological progress. This led to a strange mixture of tendencies: cutting-edge technological sophistication and primeval simplicity; mass-production and primitive huts; a racing car and an archaic Greek temple and so forth.⁸ This incongruous juxtaposition of elements was pronounced in the work of Le Corbusier in later 1920s, and remained a theme throughout his life. Kenneth Frampton observed in Le Corbusier, an ever-present play with opposites - with the contrast between solid and void, between light and dark, between Apollo and Medusa - that permeates his architecture and is evident as a habit of mind in most of his theoretical texts.⁹

In addition, there were multiple antithetical dualities in Le Corbusier's ideologies and works such as a historical course, both cyclic and progressive; the asymmetrical house plan set inside the symmetrical box; the simultaneous use of progressive technology and primitive expression.

As Le Corbusier's view of history was both cyclic and progressive, he looked for unconventional templates in distant and primitive folk cultures, and was inspired by the

⁸ See the chapter 'Automobile' in LC's *Towards a New Architecture*. LC juxtaposed Paestum (600-550 B.C.) and The Parthenon (447-434 B.C.) with two racing cars, Humber (1907) and Delage (1921) together in chronological sequence to point out progress and perfection. Furthermore, he also juxtaposed two different fields, as he annotated the picture 'Delage, 1921': 'If houses were constructed by industrial mass-production, like chassis...and a new aesthetic would be formulated with astonishing precision.'(p.133). Later he noted: 'Let us display, then, the Parthenon and the motor-car so that it may be clear that it is a question of two products of selection in different fields...' (p.140.) Also see fig. 3.18 for another example of juxtaposition of different fields.

⁹ Kenneth Frampton, *Modern Architecture, a Critical History*, third edition, p. 149.

Oriental and ancient worlds. To him the primitive conveyed an original, unadulterated, pure and fundamental notion. The art of distant cultures was the epitome of heritage and wisdom. There is also an implication of the universal principles of civilizations, such as order and geometry. Exotic examples, such as a Persian palace, Egyptian temples and African huts, were profusely illustrated in his major publications such as *Towards a New Architecture*, *The City of Tomorrow* and *Une Maison – un palais*.

Le Corbusier lived in the rich cultural centre of Paris. After a formative education, apprenticeship and several journeys, his significant themes, such as order, geometry, the right angle, purity, as well as asymmetric composition were gradually formulated. He kept investigating the extensive sources of distant cultures and always preferred these materials to academic and euro-centric models.

Le Corbusier accumulated these resources and experiences during his travels and from museums and libraries, and recorded them in his sketchbooks and in his mind. Culturally and geographically, his sources include European and non-European ones. The former consists of the ancient world, folk culture and the Balkans, and for the latter, the Orient, inland Africa and the Oceanic region.

Facilitating modern argument and creative work

This rumination in his personal museum allowed distortions and reinterpretations. Le Corbusier's visual languages were always subject to transformation, reinterpretation and reorganization for broader possibilities. Many of them were inspired by Cubism, Surrealism and other modern art movements, while the others had ancient precursors in primitive and

distant cultures that Le Corbusier studied. For example, in an ancient mural of an Egyptian house (fig. 6.15), the plan and elevation of parts of the building are collaged together. On a Dahomey statue in a museum (fig. 6.3), there is a juxtaposition of two distant realities: a lion with a human body, which is one of the Surrealist characteristics with resonance within modernism.

Existing architectural elements could be transformed into a new architecture, such as the top lighting of a tunnel in Tivoli (fig. 1.1 & 1.2), which was borrowed and applied to the side chapels of Ronchamp. The same process takes place in Le Corbusier's arguments, for instance when he uses the proportions of Notre Dame in Paris to uphold his theory of regulating lines, in his *Towards a New Architecture*. Many examples have metaphorical connections, such as the space and light of the white fireplace block in his first painting, 'La Cheminée', in which there is a reference to the radiant prismatic Parthenon.¹⁰

In Le Corbusier's work resources drawn from primitive and distant cultures were subjected to transformation and reinterpretation among different media and typologies, happened between two-dimension and three-dimension, decorative art and architecture, archaic and contemporary, and folk and modern. Consequently, Behind his pure whitewashed prismatic architecture, there are multiple layers of broader cultures and worldwide civilizations.

Research Outline

Le Corbusier stated, 'I have always searched for the poetry that is in the heart of man. A

¹⁰ Le Corbusier, *Sketchbooks II*, Thames and Hudson in collaboration with the Fondation Le Corbusier 1981, E20, no. 451.

visual man, working with his eyes and his hands, I am moved by revelations above all in the plastic arts.’¹¹ In order to work on plastic arts, Le Corbusier built up his repository. It allowed him to explore inner depth freely and privately. He could then reinterpret the context and come up with new meanings. This is further discussed in the first Chapter. The second Chapter examines the general background of Le Corbusier’s personal museum. It was formulated against the backdrop of Paris, a cultural centre and the capital of the second largest colonial power. He was nourished by the interwoven cultures and legacy of exotic fantasies such as chinoiserie, Japonisme, and Negrophilia.

Le Corbusier’s approach could be traced back to his formative years. While studying and travelling, his experiences of architecture on site inspired his future design composition. His personal themes were gradually formulated, prescribed by his attitudes toward primitive and broader cultural sources and vice versa. This will be studied in Chapter three. In his repository, study and travel records were kept at his apartment as travel sketches, photos, artefacts, books and artworks, which could provoke his memories and imagination. The contents and developments of his repository are discussed in Chapter four.

As the museum of a traveller, Le Corbusier’s experiences were basically categorized by different countries and journeys. Among them the European primitive and ancient were very influential for him, as they were more accessible physically and culturally. These are presented in the Chapter five. The Orient was one of the Europeans’ deepest and most recurring images of the ‘Other’. Le Corbusier was fascinated by it even though he only visited Japan, Egypt and India in his late life. The Oriental sources, extensive and supporting

¹¹ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, New Haven; London: Yale University Press, c1997, p. 89.

his arguments, are described in Chapter six.

As an artist and designer, Le Corbusier constantly reinterpreted, transformed, reorganized, and experimented with the visual language of his personal museum. This process is further discussed in Chapter seven.

His modern architecture consists of different combinations of primitive, folk and distant cultures, either literally or figuratively. Much of Le Corbusier's post-Purist architecture illustrates the tectonic primitive, and the theme of the origin of architecture in folk huts, caves, and tents is illustrated in Chapter eight.

Juxtaposed with distant cultures and modern European surroundings, the objects, images and themes in Le Corbusier's museum were transformed and collaged, as exemplified in his painting (see ch. 7), so that they always provoked productive ideas. This recalls the Cubist collage: a juxtaposition of different times and visions, so that unexpected meanings and non-perspectival space are generated. The Surrealist collage was also developed from such juxtapositions, engendering a deep psychological power, where the more different the elements were, the greater the tension between them would be. Meanwhile, the universality emerged from the collections, as Le Corbusier stated:

It is the ability to form "sets" or "series", to create "unities" out of different periods, to once again render the element of excitement and novelty to those things which man created at some point in the past.¹²

In Le Corbusier's work, many sources can be identified, and it is interesting to see how a western artist selected, manipulated, utilized and was inspired by these. Only certain

¹² Le Corbusier, *Oeuvre complète*, vol. 3, p.157, trans. Jacques Sbriglio in *Apartment Block 24 N.C. and Le Corbusier's House*, p. 60.

resources can be properly recognized in this dissertation; many more not easily discovered, are waiting to be discovered. This research is also, to a certain degree, a general survey of these sources. It focuses more on the corpus of these resources. There may emerge further meaningful connections and interpretations between these sources and Le Corbusier's work, which might be further unravelled in years to come.

Chapter One

An Avant-Garde Architect's Primitive and Cultural Collection

We will destroy the museums, libraries... We mean to free her [Italy] from the numberless museums which cover her like so many graveyards.

--F.T. Marinetti, *The Founding and Manifesto of Futurism*, 1909.¹³

Works in museums are good schools... In the Ethnographic Museum at the Trocadero... one was alone there in 1907!... The Negroes – what a revelation!

--Le Corbusier, 'Confession'.¹⁴

Unlike some of his contemporaries, Le Corbusier was not opposed to museums, but on the contrary learned enthusiastically from them. Housing his collection from extensive travels and research, his personal museum existed both mentally and physically that stimulated him as an artist, a designer and a writer. It would be a refuge, an aesthetic and artistic one that allowed his enjoyment of sensuous perception and private instruction, as well as experimentation, reinterpretation and reorganization. His collection mirrored his modernist preference, education, perceptions, cultural background and self-identity.

As a collector, Le Corbusier was not alone. He had many predecessors and contemporaries who had similar intentions, and who built up personal collections to inspire their work.

Similarly, Le Corbusier's visual collection epitomized his life's journey and blossomed in his pioneering design.

Part I. Collection and Inspiration

Even though the Futurists condemned collections in museums as graveyards, the avant-garde

¹³ Umbro Apollonio, ed., *Futurist Manifestos*, London: Thames and Hudson, 1973, p. 22.

¹⁴ Le Corbusier, 'Confession', in *The Decorative Art of Today*, pp. 198-9.

were interested in primitive at the same time. As Poggioli states:

The avant-gardes turn their attention almost exclusively to Negroid sculpture and the art of savages, prehistoric graffiti and pre-Columbian Indian art; they turn in short, toward cultures remote in space and time, almost to prehistory itself.¹⁵

In order to have access to primitive and exotic material as inspiration for creativity, many early twentieth century avant-garde artists undertook travel, studied in museums and collected artefacts from exotic shops. Such experiences stayed in their minds as their immediate repositories and inspired the development of modern art and architecture. Their own works also soon became part of the collections in their repositories and served as the bases of their new works.

This obsession with fundamental origins as a source for architectural theory was not new. Vitruvius had discussed the invention of buildings (Book II, Ch.1). Enlightenment scholars posited theories on the primitive hut as an origin of architecture. From the early nineteenth century, Paris became the artistic capital of Europe as well as a colonial capital. At this time, 'there were recurring tendencies toward the Oriental and the generally exotic, toward the Christian and classical naïve, and toward the provincial.'¹⁶ By the early twentieth century, primitive artefacts were easily accessed in public museums and shops, as well as by private collectors.

Many architects and artists, such as John Soane(1753 –1837) in London had his own collection, which covered wide cultural parameters. Avant-garde artists like Picasso and Braque collected and were inspired by primitive art. Even non-artists such as Sigmund Freud

¹⁵ Renato Poggioli, *The Theory of the Avant-Garde*, trans. Gerald Fitzgerald. Cambridge, Mass.; London: Belknap Press of Harvard University Press, 1968, p. 55.

¹⁶ Robert Goldwater, *Primitivism in Modern Art*, enl. ed., Cambridge, Mass.; London: Belknap Press of Harvard University Press, 1986, p. xxii.

possessed a great number of them and employed them in his quasi-archaeological examination of the human psyche.

The preservation of objects could also function as a metaphor for the establishment of a new world, such as Noah's Ark, which secured species from devastation and, like germs, to 'increase in number and fill the earth.'¹⁷ Le Corbusier considered the early twentieth century a new epoch with new spirit. It demanded 'a new type of plan for dwelling-houses, and an entirely new organisation of services corresponding to modern life in a great city.'¹⁸ The objects and images in his museum such as the Carthusian Monastery became the fruitful germ of a new architecture.

A Repository for the Muses

Le Corbusier's work was inspired by several 'muses' simultaneously in painting, design and writing. His personal museum, filled with opulent and diverse collections, acted as a basis to support his creative work. Le Corbusier constantly observed, pondered, sketched and collected information, objects and ideas during travelling and while studying in libraries and museums in order to explore the possibilities for modern architecture. This devotion generated a large repository as seminal sources of inspiration for new works.

This repository could partially act as an archive similar to the present Fondation Le Corbusier in Paris. Yet to him, his collections were mainly visual forms, motifs and images on certain themes rather than texts. They were records of three-dimensional architectural

¹⁷ Genesis 9.1. (New International Version)

¹⁸ Le Corbusier, *Towards a New Architecture*, trans. Frederick Etchells, Architecture Press, Oxford, 2000, p. 61.

spaces, landscapes, ethnic objects, drawings and paintings and their related themes and meanings. They encompass very broad geographical dimensions, historical aspects and cultural diversities.

But to Le Corbusier, this repository was more like a personal museum, where all his experiences were displayed, categorized and structured. After the project was accomplished, these up-to-date works became fresh collections of his museum and generated further inspirations for later works again.

In ancient Greece the *mouseion* was the home or temple of the Muses, and was termed 'museum'. During the Renaissance, 'museum' was coined as a variety of rooms containing objects with 'cabinets of curiosity' (also known as wonder-rooms). The cabinet (Italian: *gabinetto*) was usually 'a square-shaped room filled with stuffed animals, botanical rarities, small works of art such as medallions or statuettes, artefacts, and curios,'¹⁹ such as famous Ole Worm cabinets (also known as *Olaus Wormius*). Renaissance museums were often understood by their creators to be microcosms of an expanding world of distant lands and remote past.²⁰ The specimens displayed were often acquired during adventurous expeditions and trade voyages. Colonial expansion in the nineteenth century provided Europe with rich cultural imports, and a great number of ethnographical museums were established at this time.²¹

In general, in a museum, public or personal, collections of historical, scientific, artistic, or

¹⁹ Edward P. Alexander, *Museums in Motion: an Introduction to the History and Functions of Museums*, Nashville, Tenn.: American Association for State and Local History, c1979, p. 8.

²⁰ Jane Turner, ed., *The Dictionary of Art*, London: Macmillan, 1996, pp. 354-5.

²¹ Robert Goldwater, *Primitivism in Modern Art*, p. 5.

cultural interest are preserved, exhibited, and dedicated to the pursuit of learning. A personal museum can be as little as cabinets of collections in a treasure-chest, whereas a modern encyclopaedic museum could be as a cultural centre and social instrument,²² such as to meet specific pursuits for various social groups, or interpret artworks as social documents of the culture.

Exhibition and Recollection

In Le Corbusier's museum, the viewer was the architect himself who constantly undertook various projects and paintings with different characters. Examination of his collections could inspire his ongoing works. Museum experiences are discourses between visitors and object:

Exposition of the museal object...embodies the discourse of memorial representation, inform and affirm the viewer of its significance. Being collected means being valued and remembered institutionally; being displayed means being incorporated into the extra-institutional memory of the museum visitors. Recollection is inspired by collections...what they learn and perceive, and preserve as memory of that museal experience, becomes mobile and takes the museum beyond its own walls.²³

Some of Le Corbusier's collections were on constant display such as the pottery displayed in his apartment, or his iconographic signs, such as dice or the right angle; others were 'special collections' only for his personal amusement or for special circumstances. Being displayed means more than just preservation, but being open to reorganization and re-composition. Le Corbusier's collection was valued for its potential creativity.

²² Edward P. Alexander, *Museums in Motion: an Introduction to the History and Functions of Museums*, Nashville, Tenn.: American Association for State and Local History, c1979, p. 14.

²³ Susan A. Crane, ed., *Museums and Memory*, Stanford, Calif.: Stanford University Press, 2000, p. 2.

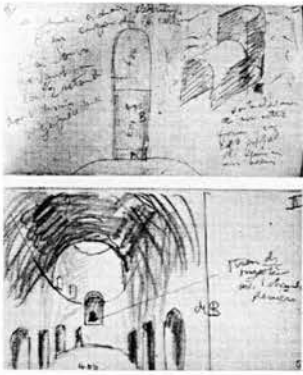


Fig. 1.1 Le Corbusier, sketch of Scenic Triclinium at Tivoli.²⁴



Fig. 1.2 Lighting tower of Ronchamp Chapel.²⁵

Recollection was prompted and based on what he was going to perceive or make. For example, Le Corbusier stated that the lighting inside the ruin of the Scenic Triclinium at Tivoli, which he visited and recorded in 1911, inspired his design of La Sainte-Baume and the side chapel of Ronchamp (fig. 1.2). Here the building was explicitly recorded as his ‘collection’ in his memory and sketchbooks of his journey to the East (fig. 1.1). His ‘recollection’ here clearly followed the trait of the lighting effect to compose the sacred

ambience, neither by the journey nor its function. Amazingly, this recollection triggered such an idea almost forty years after his initial observation, which revealed another character of general objects in a museum – timelessness that exists in static time and space.

This museum as a warehouse is ‘a resource that has the potential to foster myriad random encounters with the objects of knowledge rather than the singular linear narratives that tend to be formed from it.’²⁶ Any combination among them was possible; however, the collection formed a memory nexus, both individual and collective. The former was not alone, but relied on the framework of the latter for articulation. Thus interpretation of these memories

²⁴ LC, *Voyage d’Orient Carnet 5*, in Le Corbusier, *Voyage d’Orient Carnets*, English edition, trans. Mayta Munson and Meg Shore, Electa spa. Milano & Fondation L.C., Paris, c2002, pp. 68-69.

²⁵ Photo by Bernhard Moosbrugger. *Les Chapelles du Rosair à Vence par Matisse et de Notre-Dame-du-Haut à Ronchamp par Le Corbusier*, Éditions du Cerf, 1955.

²⁶ Susan A. Crane, ed., *Museums and Memory*, pp. 4-5.

encourages interdisciplinary commentary beyond established boundaries.

Classification Precedes Collection

The practice of collecting is a mirror of the collector's thoughts and perceptions, which change with time, and the collection is its physical embodiment. The history of collecting is thus a narrative of how human beings have striven to accommodate, appropriate, and extend the taxonomies and systems of knowledge they have inherited.

Le Corbusier's role as an avant-garde architect and artist embraced a strong aversion to convention and especially Beaux-Arts education. Hence, his collections, primarily from primitive, remote cultures, nature and technologies, were preserved and structured to inform his creation of new modernist works.

Some of Le Corbusier's preferences in collecting changed frequently; so did the paintings and artefacts in his apartment, which reflected the vicissitudes and shifts of his taste. The 'rhythms of collation and dispersal, ...replicate the natural cycles of seasonal growth and decay, of dynamism and entropy.'²⁷ This change revealed not only a larger picture of his personal preference but also an entire change of general cultural environment.

Creativity in a Private Refuge

In the nineteenth century, with the development of psychology and its philosophical

²⁷ John Elsner and Roger Cardinal, ed., *The Cultures of Collecting*, London: Reaktion Books, 1994, p. 2.

background by Schopenhauer and Nietzsche, one ‘can speak of an artistic tendency to view the “interior life” as a source of authenticity.’²⁸ The value and meaning of “home” at this time shifted from a representative ‘institution’, a part of an active civic life, to a more personally expressive and more private receptacle of meaning. As an artist, Le Corbusier’s home in a way turned into a shelter for his own personal aesthetic.²⁹

Le Corbusier’s museum embraced his personal world and was arranged to inform his creative work. It is a shelter where the artefacts were his delight and allowed him to freely and safely enjoy his experiment. During the process of creation, visual languages and characteristics were freely recalled, retrieved and picked up from this collection according to certain clues, just like reorganizing a new exhibition. It is similar to the description by Edmond de Goncourt of the stimulation of collections from his oriental Boudoir. In his book *La Maison d’un Artiste* he notes:

...at the moment, when I am preparing to write something, anything, a piece which doesn’t even mention bric-a-brac, I need – in order to get myself going, to let the words of the real writer flow rather than the painfully extracted stylisations of a recalcitrant and idle wordsmith – to spend an hour in this closet and the boudoir de l’Orient...and only after this contemplation of bursts of colour, only after this vision which excites me, irritates me...a little fever begins to occupy my brain, without which I can write nothing worthwhile.³⁰

Goncourt’s *La Maison d’un Artiste* is ‘an aesthetic refuge, a refuge carefully arranged to arouse sensuous perception.’³¹ His understanding of objects ‘replaces the traditional experience of collective participation in civic life – the shared values revealed in decorum – with essentially incommunicable but consuming private reverie in the sensual theatre of

²⁸ Alaster Carew-Cox and David Dernie, *Victor Horta*, London: Academy Group Ltd, 1995, p. 20.

²⁹ Diana Periton, ‘Introduction to *La maison d’un Artiste*’, *Macjournal* 4 (1999), p. 65.

³⁰ Edmond, de Goncourt, ‘La Maison d’un Artiste’(extract), trans. Periton, Diana, *Macjournal* 4 (1999), p. 69.

³¹ Diana Periton, ‘The Home as Aesthetic Refuge’, *Macjournal* 4(1999), p. 72.

domestic decoration.’³²

Le Corbusier’s objects and travel sketches functioned similarly to Goncourt’s collection. Le Corbusier called his studio ‘L’Atelier de la Recherche Patiente’. To him, objects in our daily life might be poetic and so could inspire him in his art and design. He collected many ‘objets à réaction poétique’ (objects which evoke a poetic reaction) as evocative companions; ‘by means of them friendly contact between nature and ourselves is woven’,³³ and they gave ‘a sense of strength and purity, unity and diversity.’ Nature to him, is ‘our refuge, [but at the same time, is]...a battlefield for the unremitting clash of turbulent elements.’³⁴ Thus these objects turned into inspirations for his ordered but dynamic architectural and painterly space. His works were the products after a period of preparation since it took a long time for an idea, to reveal itself, and to become manifest in the form of a complete painting.³⁵

Fragmentation and Creativity

Objects exhibited and preserved in a museum, no matter how well they are presented, are fragmented and detached from their authentic context. However, each such a fragment is an emblem of the larger entity. A museum is thus a place in which, while confronting an object, one can experience some kind of inner depth in a very individual and free way, and can pick up new ideas in many different options.³⁶ As a collection of fragments, a museum enables its

³² Ibid., p. 74.

³³ Le Corbusier, *Le Corbusier Talks with Students*, pp. 69-70.

³⁴ This was revealed from his view of airplane. See Le Corbusier, *Le Corbusier Talks with Students*, pp. 71-2.

³⁵ Le Corbusier, *Modulor 2*, Paris: L’Architecture d’Aujourd’hui, 1955. Translated by Peter de Francia and Anna Bostock as *Modulor 2 1955 (Let the User Speak Next) Continuation of ‘The Modulor’ 1948*. Reimpression from the first English edition published in 1958 by Faber and Faber. Basel: Birkhäuser, 2000, p. 279.

³⁶ Louwrien Wijers, ‘Contemporary Museum’, *Architectural Design Profile*, (1997) No.130, p. 96.

visitors to distort time, place and frequency for enjoyment and edification.³⁷ Consequently, a museum does not only preserve artworks but also serves as a platform for the creation of art.

The fragment is isolated and disintegrated, but may also conversely contribute to the formation of new meanings and a new wholeness, as having been previously endowed with meanings and values, which were once parts of another whole. The modern world is more sophisticated than when it was divided into relatively isolated areas of specialized knowledge and fields. 'The process of fragmentation is thus like an unwanted guest, a by-product of the deep tendency in the evolution of modernity.'³⁸

For a fragment, the recollection of its original state has different aspects. It can be abridged as scientific formula, or restored aesthetically as conveyed in poetry and art. 'If science has discovered the instrumental, analytical meaning of fragment, it is to poetry that we have to turn to "discover" the restorative and symbolic meaning.'³⁹ An aphorism, with characters of fragments, has restorative and creative potential, and offers a truth of suggestion and a sudden illumination. Fragments 'cease to be fragments rather than by virtue of a belief in a transcendent whole.'⁴⁰ It holds a positive rather than negative meaning here. Not only in literature, but also in many icons, a piece of artwork or architectural components, it may produce similar effects in the visual sphere.

Fragments once applied to the setting of a new structured space can be both rational and situational, especially in modern art where it revolts against the rigidity of perspective space.

³⁷ Dr. Alan Borg, *Ibid.*

³⁸ Dalibor Vesely, 'Architecture and the Ambiguity of Fragment', in Robin Middleton ed., *The Idea of the City*, London: Architectural Association, 1996, p. 111.

³⁹ *Ibid.*

⁴⁰ *Ibid.*, p. 112.

In Cubism, such as Braque's painting, the setting consisting of fragments is non-perspectival and situational.⁴¹ Le Corbusier's purist painting was inherited from Cubism, with his mathematical regulating lines added. Conventional elements or fragments under the framework of a new setting are always subordinate to transformation in the process of creation (see Chapter 7) and consequently bear a potential metaphorical meaning.

Visited and Visualized

Among Le Corbusier's multiple experiences, many places he had visited exerted influence on his creative works, as we saw with his memory of lighting of the ruin at Tivoli. Many other places he had never visited were also influential. These were visited spiritually through studying documents, artefacts and so on. These are more imaginative, yet cover broader areas of the world and different cultures. Nevertheless, he could be inspired by both.

During his travels, he observed buildings and measured dimensions, recorded plans, sections, perspectives, and annotated various characteristics. These three-dimensional observations were recorded in his travel sketches as both personal diaries and working records, to reconstruct more authentic experiences. Especially when he studied material about a new place or object, the process of his perception became reversed - i.e., interpretation of others' drawings, artefacts and writings, in order to visualise and build up realistic space in his mind from such 'fragments'.

Images collected from museums and books were also major sources for his work. The input from Africa, Persia, Cambodia, India, China and Japan was incorporated in his major

⁴¹ Ibid., p. 114-5.

publications in 1920s and later, such as the ‘regulating lines’ of the Sarvistan Palace in Persia in his *Towards a New Architecture*. This category of resources is very broad in the cultural and geographical aspects, which supports his arguments on modernist architecture. Therefore, there were cross-references between visited and visualized, travel experiences, creative work, writings and projects, early collections and later work, etc. These interactions were very fruitful for his creativity.

Reinterpretation and Transformation



Fig. 1.3 Le Corbusier holding a pebble and his drawing. Lucien Hervé, *Le Corbusier as Artist, as Writer*, 1970, p. 11.



Fig. 1.4 Le Corbusier, *Poème*, p. 14

Many images from Le Corbusier’s early journeys in his repository were ruminated upon and gradually formulated into new themes. For example, in *Towards a New Architecture*, the Roman and Greek architecture he visited in 1911 provided the key examples supporting his argument.⁴² In Rome, for instance he observed the beauty of simple masses, light playing on pure form, geometry of harmonious architecture, and so on. Many of his artefacts became elements in his paintings and other creative works. For example, among Le Corbusier’s collection, a stone with orthogonal grains which looks like a human head (fig. 1.3), and his

⁴² Each of them occupied more than one independent chapter in the book, such as ‘The Lesson of Rome’, ‘The Illusion of Plans’ and ‘Pure creation of the Mind.’

self-portrait,⁴³ is one of his 'objets à réaction poétique', which speak eloquently the natural and cosmic principles.⁴⁴ It later appeared in his *Poème* (fig. 1.4), and next to the text: 'Punctual machine turning / since time immemorial / engenders every instant of the / Twenty-four hours cycle the gradation.'

Images in Le Corbusier's collection underwent transformation into various paintings and architectural works. Some works of historical architecture were reinterpreted in Le Corbusier's modern design by various means, such as the 'displacement of concepts' discussed by Alan Colquhoun.⁴⁵ Those historical elements were either modified or contradicted. Another example is the adaptation pointed out by Colin Rowe, of the proportions and grid system from Palladio's Villa Malcontenta into the new design of Garches. His experience of the Parthenon in 1911 (fig. 1.5) in terms of light and space lingered on in the white fireplace block in his first painting 'La Cheminée'⁴⁶ (fig. 1.6). Some of his favourite images were distilled and crystallized into his personal icons or hieroglyphs, which frequently reappeared. More discussion of these transformations follows in chapter seven.

⁴³ Richard A Moore, 'Alchemical and Mythical Themes in the Poem of the Right Angle 1947-1965'. *Oppositions 19/20* (Winter/Spring 1980), p. 111.

⁴⁴ Le Corbusier, *Le Corbusier Talks with Students*, p. 71.

⁴⁵ Alan Colquhoun, *Essays in Architectural Criticism*, MIT Press, 1985, pp. 51-66.

⁴⁶ Le Corbusier noted: '1st painting 1918. Space, light intensity of the composition. To tell the truth, behind that the site of the Acropolis is present: the painting, the drawing + the Acropolis drawing [in] travel notebook.' Le Corbusier, *Sketchbooks II*, E20, no.451.



Fig. 1.5 Le Corbusier, Sketch of the Acropolis, 1911. *Voyage d'Orient Carnet 3*, p. 98.

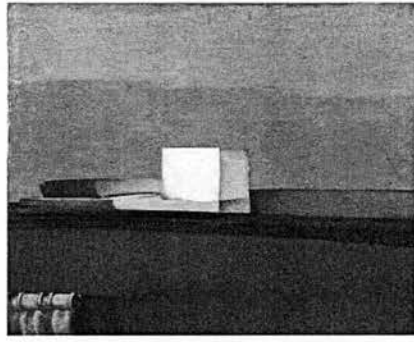


Fig. 1.6 Le Corbusier, 'La Cheminée', 1918, FLC 134.

Part II. The Tradition of Personal Collection

Le Corbusier was not alone in assembling a collection. Many pioneers either in history or his contemporaries, both artists and non-artists had collections to inspire their works, for example, John Soane, Sigmund Freud and André Malraux.

Fragments in Non-conventional Composition — John Soane's Museum



Fig. 1.7 Dome Area, John Soane's museum.⁴⁷

The precedents from the early sixteenth and seventeenth centuries, the cabinets of curiosities, were in essence personal collections of rare, unknown and marvellous objects. They would

⁴⁷ Official website of John Soane museum, <http://www.soane.org/> [30 March 2006]

often contain a mixture of facts and fictions, apparently including mythical creatures. Similarly, in the early nineteenth century, John Soane (1753-1837), an English architect and collector, built his own house and museum in London. He made constant alterations to enhance the poetic and picturesque qualities of the interior and to incorporate new acquisitions of architectural and decorative fragments for teaching, including models, casts, natural objects, marbles, books, paintings, engravings and drawings. They covered a wide spectrum of sources including Egyptian, Greek, Roman, Early Christian, Medieval, Renaissance, Neo-Classical, Oriental and South American. His house was fancifully imagined as a ruin, in the process of discovery, or supposed to have been a residence of some magicians.⁴⁸ These collections were displayed in an inspirational rather than a rational and classical manner. Both Soane and Le Corbusier collected architectural images. The former collected real or cast fragments and drawings, whereas the latter recorded images in two-dimensional forms, which allowed more possibilities for modernist transformation. Similar to Le Corbusier, Soane also collected some natural objects such as fossils, but they represented only a tiny portion of his massive collection.

Having these collections, Soane, unusually composed his designs with a view to classical details rather than according to the principle of a whole classical building. On the other hand, this approach set him 'free to explore new combinations, and his idiosyncratic approach to spatial composition led to altogether unprecedented resulting effects. Soane might be judged to have rejected the classical tradition; absolutely, he subverted it.'⁴⁹ He was influenced by picturesque landscape theory, and was skilful in organizing a complicated and unexpected

⁴⁸ Robin Middleton, 'Soane's Space and the Matter of Fragmentation', in Margaret Richardson and MaryAnne Stevens, ed., *John Soane, Architect: Master of Space and Light*, London: Royal Academy of Arts, 1999, p. 35.

⁴⁹ *Ibid.*, p. 29.

spatial interplay in a wholly un-classical way.

What affected Soane's complicated spatial organization the most were his collections of Piranesi's etchings. When Soane met Piranesi in Rome, the latter gave him four of his views of Rome including the *Carceri d'Invenzione* (Imaginary Prisons). Soane later bought almost all the last drawings of Piranesi. He was strongly inspired by Piranesi's imaginary and frightening space, and he upheld Piranesi as a mine of information on archaeological matters.⁵⁰

Soane's house was filled with collections of ancient fragments, which could be seen as 'an artificial ruin, a fabrication of bits and pieces from the past, of flotsam and jetsam.'⁵¹ His collection was not considered of real value; many objects would have been regarded as throwaways. As an inspiration to him and his students, each object had its associational value and was a part of the whole context. The juxtaposition of those fragments in the museum signified a process of discovery and provoked possibilities of new entities. There is no specific sequence of views but 'rather multivalent views, offered in quite different directions all at once'.⁵²

In a similar way to the rebellion against established modes of thinking and the composition of multitudinous fragments in Soane's architecture, the Synthetic Cubist paintings of the twentieth century offer a transition to a world in the process of reconstruction, where the resulting configuration remains only a mediating representation. Being descendants of Cubism, Le Corbusier's works are also composed of imaginary fragments. Soane's

⁵⁰ Ibid., p. 34.

⁵¹ Ibid., p. 35.

⁵² Ibid., p. 30.

meandering sequences of space can likewise be compared to Le Corbusier's 'promenade architecturale',⁵³ in which theatrical series of space are structured by circuitous paths. A large part of Le Corbusier's collections are found objects to be utilised for sophisticated development.

Archaeology of the Subconscious – Freud's Collection

There was a similar pioneering mentality in the field of psychological study, in which inspiration was drawn from the ancient pagan world. After his father died in 1896, Sigmund Freud began to accumulate an ever-growing number of art objects; almost half of them are works of Egyptian art, and the next largest group are Greek and Roman and in his later years he began to collect examples of Chinese art. There were also many Near Eastern and other Asian objects.⁵⁴ Each of the pieces had a special association for him, telling the cultural story contained in and expressed by them, and of which he was a part, a spokesperson⁵⁵ and a receiver.

Sigmund Freud accumulated more than two thousand objects over forty years and housed them in his study and consulting room. His collections consisted of mainly small statues and other artefacts, which were largely acquired from dealers in Vienna. In 1938, he and his family escaped from Nazi persecution. He brought all his collections to his new home in Hampstead near London where he spent the rest of his life. This house was later turned into the Freud Museum, containing thousands of objects and books.

⁵³ Ibid., p. 35.

⁵⁴ Lynn Gamwell and Richard Wells, ed., *Sigmund Freud and Art: his Personal Collection of Antiquities*, p. 21.

⁵⁵ Stephen Barker, ed., *Excavations and their Objects: Freud's Collection of Antiquity*, New York: State University of New York Press, c1996, p. vii.

A. Metaphor of Archaeology – Excavation of the Subconscious

The collected object, as Jean Baudrillard pointed out, 'is a resistant material body, it is also, simultaneously, a mental realm over which I hold sway, a thing whose meaning is governed by myself alone.'⁵⁶ To investigate the mental realm of various human beings, Freud's archaeology of psychoanalysis began with himself through reminiscence of his father, and his Jewish background, and was then applied to his clients.

He used archaeology as a metaphor for psychoanalysis, since both are an excavation of something meaningful but concealed behind or beneath an obscurant surface. Psychoanalysis needs an inquiry for self-understanding, which to Freud is at an individual and internal level. As men's psyche formed by past experience. It made no difference from the activities of an archaeologist, who systematically studies past human life and culture by the recovery and examination of remaining material evidence. To investigate the individual reality of the ego is to attempt to uncover the influences of the past, and then to read them into the present as well as to project them into the future.⁵⁷

Thus in Freud's collection, his view on the objects from the past was elaborated 'like memories, [they] both reveal and conceal that the past informs his psychoanalytic inquiry, structuring it around the constant analysis of a yet uncovered and even unremembered past, revealed only indirectly and very partially in its manifestations, be they general and specific behaviours, [and] narrative of dreams...'⁵⁸ For Freud, 'the objects archaeology unearths are

⁵⁶ Jean Baudrillard, 'The System of Collecting' in John Elsner and Roger Cardinal, ed., *The Cultures of Collecting*, 1994, p. 6.

⁵⁷ Stephen Barker, ed., *Excavations and their Objects: Freud's Collection of Antiquity*, p. x.

⁵⁸ *Ibid.*, p. xi.

not central objects, but rather those iconic objects as catalysts for narratives within which they will be framed.⁵⁹ Similarly, Le Corbusier looked at his collections with an inquisitive and imaginative mind. He drew a broken shell, for example, and found that it had ‘riches to offer which the mind cannot conceive.’⁶⁰



Fig. 1.8 Sigmund Freud at his desk, an etching by Max Pollack, 1914.⁶¹

Freud had rows of ancient figures arrayed on his desk (fig. 1.8). He had dialogues with these figures, as with friends, which could bring him traces of certain times and places. They spoke not only of his genealogical past, but were also reconstructive narrations of the meaningful past of himself and his clients. Not only did these antiquities decorate his consultation rooms, they also served as signposts throughout the theory of unconsciousness. He once told a patient, Hilda Doolittle: ‘...little statues and images help stabilise the evanescent idea, or keep it from escaping altogether.’⁶² They provided a resource of the human conditions and a drama— ‘a critical mass of ancient narrative power, suspended in those iconic figures before Freud but suggesting and evoking several others not physically represented in the art Freud

⁵⁹ Ibid., p. vii.

⁶⁰ Le Corbusier, *My Work*, p.209

⁶¹ Lynn Gamwell and Richard Wells, ed., *Sigmund Freud and Art: his Personal Collection of Antiquities*, p. 152.

⁶² Quote from Sigmund Freud, *The Diary of Sigmund Freud, 1929-1939: a Record of the Final Decade*, p. 165.

collected.⁶³ Antiquity also provides an inexhaustible well for understanding the human condition.⁶⁴

Similarly, in Le Corbusier's studio and home, he was surrounded by his collection of objects, books, sketchbooks and works. As a scientist, Freud's collection was for his research of mental states; whereas as an artist, Le Corbusier's was for the inspiration of visual creativity.

B. Collection and Dream

Images of objects from daily life may reappear in one's dream to actuate various psychological mechanisms. Freud in his youth had a dream of persons with bird's beaks. It was from illustrations in his family Bible.⁶⁵ Freud later collected an Egyptian falcon-headed human figure, which was associated with this dream.⁶⁶

The source of a dream, according to Freud, could be a psychologically significant experience, which is reproduced or remembered in a different form, or replaced by something entirely novel. The dream gives us only fragmentary reproductions. It could be a subjective significant experience (a recollection or train of thought), which is regularly represented in the dream by the mention of a recent but indifferent impression.⁶⁷ According to Freud, this

⁶³ Stephen Barker, ed., *Excavations and their Objects: Freud's Collection of Antiquity*, p. xviii.

⁶⁴ Ellen Handler Spitz, *Psychoanalysis and the Legacies of Antiquity*, in Lynn Gamwell and Richard Wells, ed., *Sigmund Freud and Art: his Personal Collection of Antiquities*, p. 153.

⁶⁵ 'The dream was very vivid, and showed me my beloved mother, with peculiarly calm sleeping countenance, carried into the room and laid on the bed by two (or three) persons with birds' beaks. I awoke crying and screaming, and disturbed my parents. The very tall figures – draped in a peculiar manner – with beaks, I had taken from the illustrations of Philippon's Bible.' Sigmund Freud, *The Interpretation of Dreams*, p. 460.

⁶⁶ No.3124. It is, however, a forgery. See Lynn Gamwell; Richard Wells, ed., *Sigmund Freud and Art: his Personal Collection of Antiquities*, p. 58.

⁶⁷ Sigmund Freud, *The Interpretation of Dreams*, p. 153.

source might be conditioned by two dream mechanisms. '*Dream-displacement* and *dream-condensation* are the two craftsmen to whom we may chiefly attribute the moulding of the dream.'⁶⁸ In the process of dream-formation, a displacement and transference of the psychic elements results in the difference between dream-content and thought-content. The condensation was compression and concentration of dream material, in which one element in a dream may correspond to numerous elements in latent thought.

Thus, Le Corbusier's complex imagination, including the processes of transformation, collage and reinterpretation, could be illustrated as a museum of dreams, as stated in *Poème* C.2. The museum is like a profound refuge in the great cavern of sleep, rich and alive as a library. The unconscious thoughts lie behind the dream-content and dream-wish, and may then occur in dreams, where thoughts and memories are displaced and condensed. Le Corbusier's creative procedure, as pointed by William J.R. Curtis, 'Relied upon a period of subconscious immersion in which unprecedented links were made...His mind contained an elaborate mythical structure in which objects were stolen from their customary niches and reused for his own bizarre purpose.'⁶⁹

C. Culture Pagan

To explore the new frontier, Freud as well as Le Corbusier challenged academicism and sought references in the distant pagan world. Freud questioned the existing civilization, which he thought might be largely responsible for our misery. He then raised a contention that, 'we should be much happier if we gave it up and returned to primitive conditions.'⁷⁰

⁶⁸ Ibid., p. 286.

⁶⁹ William J. Curtis, *Le Corbusier, Ideas and Forms*, Phaidon Press Limited, 1986, p. 226.

⁷⁰ Sigmund Freud, *Civilization and its Discontents*, p. 33.

Freud, as Issac Deutscher described, was one of the 'non-Jewish Jews' (such as Marx and Spinoza). They were Jewish heretic thinkers, prophets and rebels whose ideas constituted powerful critiques of the society. Freud studied the myth of Moses and provocatively suggested that Moses was not a Jew but an Egyptian aristocrat; his story was elaborated in order to supply a basis for the characteristics and peculiarities of the Jewish laws and the monotheistic religion in general. This heretic character was observed by Edward Said:

Freud was deeply gripped by what stands outside the limits of reason, convention, and, of course, consciousness: his whole work in that sense is about the Other, but always about an Other recognizable mainly to readers who are well acquainted with the classic of Graeco-Roman and Hebrew Antiquity...⁷¹

This vision was well reflected in his collection of ancient antiquities, especially in those displayed on his desk, which were primarily ancient Egyptian objects and some Roman, Greek and Chinese artefacts. Freud's father, Jacob introduced Freud at the age of seven to the family's Philippon Bible,⁷² illustrated with Egyptian images. Freud had received a Gymnasium education in classical languages as well as Greek and Roman histories.

In Freud's writing, his symbolic codes for the conceptualisation of unconscious structures and conflicts were derived from Greek mythology: Narcissus, Oedipus, Jocasta and Kronos, Zeus, Juno, Alecto, Iphigenia, etc.⁷³ Under the existing convention, the journey of ancient humanism in the pagan world would allow Freud to explore psychic phenomena of human beings in various aspects, such as the homosexual, and to avoid the restriction of the existing Christian morality. He favoured Hellenic paganism, as opposed to Old and New Testament

⁷¹ Edward Said, *Freud and the Non-European*, p. 14.

⁷² Ellen Handler Spitz, *Psychoanalysis and the Legacies of Antiquity*, p. 156.

⁷³ Peter Loewenberg, 'The pagan Freud', in Stephen Barker, ed., *Excavations and their Objects: Freud's Collection of Antiquity*, pp. 17-18.

morality when he invoked the Greek as a more tolerant sexual and cultural ideal.⁷⁴

Freud sought clues to the riddles of psychic life, peered into the murky reservoirs of ancient art, mythology, and pursued the fantasy, dream and desire.⁷⁵ The interpretation of dreams, as Freud pointed out, has to 'include selections from the rich material of poetry, myth, usage of language, and folklore.'⁷⁶ His antiquities provided the traces of mythology and folklore from multiple cultures. These obscure legends passed on to us from the primeval ages of human society are influential and comparable to the 'despotic power of the father.'⁷⁷

Freud's theory of psychoanalysis was further elaborated in the fields of sociology, and anthropology. He extensively studied multiple cultural sources besides Graeco-Roman and Hebrew antiquities to support his arguments. In his *Interpretation of Dreams*, for example, Freud listed the dream-interpretations among Jews, Arabs, Japanese, Chinese and Indians.⁷⁸ He discussed many primitive and ethnic examples in his *Totem and Taboo*, in which he found an agreement between taboos and obsessive prohibitions of neurosis. For instance, both of them were 'lacking in motive and equally puzzling in their origins'.⁷⁹ These examples, which he listed, cover many ethnic groups of Melanesia, North America, South Africa, Australia, and Japan.⁸⁰

⁷⁴ Ibid., p. 27.

⁷⁵ Ellen Handler Spitz, *Psychoanalysis and the Legacies of Antiquity*, p. 154.

⁷⁶ Sigmund Freud, *The Interpretation of Dreams*, p. x.

⁷⁷ Ibid., p. 217.

⁷⁸ Sigmund Freud, 'The Interpretation of Dreams', in *The standard Editions of the Complete Psychological Works of Freud, Sigmund*, Volume 4, p. 4n.

⁷⁹ Sigmund Freud, 'Totem and Taboo', in *The standard Editions of the Complete Psychological Works of Freud, Sigmund*, Volume 13, p. 27.

⁸⁰ Freud's main sources are from James G. Frazer, *Totemism and Exogamy*, London, 1910. See Freud's *Totem and Taboo*.

On Freud's working desk, the statuettes of a Chinese guard and a Chinese priest were put to one side, and a carved Chinese screen inlaid with a sage was positioned at the centre just behind the statuette of Athena.⁸¹ It was like a stage with a collage of different figures and cultures, also a sort of condensation of dreams.

Similarly, Le Corbusier always sought inspiration for modern architecture from distant cultures, such as the folk houses on the Cyclades, Turkish houses and others. Religiously, Freud was a heretic Jew, while Le Corbusier considered himself as more or less a pagan and claimed himself to be of Mediterranean origin, and a descendant of the heretical Albigenses.⁸² He read Nietzsche's *Thus Spoke Zarathustra* in 1908 and underlined what Nietzsche also stresses, the death of God and belief in the superman. In the very beginning of *Towards a New Architecture* Le Corbusier criticized existing religions by saying that, 'religions have established themselves on dogmas, the dogmas do not change; but the civilizations change and religions tumble to dust.'⁸³

Le Corbusier owned Maxime Collignon's 'Mythologie figurée de la Grèce' and studied the bas-relief of Triton with Theseus, and Oreste meets Electre⁸⁴ in the Louvre. Ancient and exotic myths⁸⁵ allowed him freedom from convention, and inspired him to come up with new, unusual and even alien compositions in his creative work. For example, he created a single head of a half radiant Apollo and a half ferocious Medusa to denote the opposing forces of good and evil, light and dark. He illustrated a mythical winged female figure in his

⁸¹ See photographs of his desk of the Freud Museum, London.

⁸² H. Allen Brooks, *Le Corbusier's Formative Years*, The University of Chicago Press, 1997, p. 5.

⁸³ Le Corbusier, *Towards a New Architecture*, p. 14.

⁸⁴ FLC 2241 and 2240.

⁸⁵ Such as alien combination of human body and animal head happened in the statues of king of Dahomey, the King *Glélé* (man-lion) and King *Béhanzin* (man-shark). Le Corbusier studied them in the Ethnographic Museum at the Trocadéro. Most of ancient artefacts, either European or exotic, always connect with some legends. See more discussion in chapter six.

Poème and several other examples of human bestiary.

D. Inspiration from Collection



Fig. 1.9 Corinthian alabastron, c. 600B.C. Freud's Collection, 3699.



Fig. 1.10 Le Corbusier, Drawing of a Greek vase, Louvre Museum. FLC 1985.



Fig. 1.11 Le Corbusier, *Poème* p.108.

Both Freud and Le Corbusier were pioneers in their respective fields and collected many ancient and exotic statuettes (Freud), images and objects (Le Corbusier). Some of Freud's artefacts are coincidentally similar to Le Corbusier's.⁸⁶ Among them, a typical alabastron, an oil or perfume flask (fig. 1.9) owned by Freud belongs to the early Corinthian period. On the fig. 1.10 the subject is a winged 'mistress of animals', and in each hand she holds the neck of a swan surrounded by dense thickets of ornament. The winged mistress is regarded as being derived from various mother goddesses of the Near East, whom the Greeks associated with Artemis, their goddess of the hunt.⁸⁷ To Freud, the winged figure is associated with certain related issues such as 'flying' as one of the typical dreams.⁸⁸

⁸⁶ Such as the Greek flask (alabastron, 3699; FLC 1985), an Egyptian baboon (god of intellectual pursuit, 3133; FLC2077), Statue of Athena (representing the goddesses of wisdom and war, 3007; A photo in Le Corbusier's *The Decorative Art of Today*, p.119), Heart Scarab (resurrection and rebirth, 4004, FLC 2463), a cylinder seal. (4242, 43, a drawing in Le Corbusier's *The Decorative Art of Today*, p.121.)

⁸⁷ Lynn Gamwell and Richard Wells, ed., *Sigmund Freud and Art: his Personal Collection of Antiquities*, p. 83.

⁸⁸ For example, 'A great number of children, all of them the dreamer's brothers and sisters, and male and female cousins, were romping about in a meadow. Suddenly they all got wings, flew up, and were gone'. Sigmund Freud, *The Interpretation of Dreams*, p. 214.

A flask in the Louvre similar to Freud's was coincidentally studied by Le Corbusier (fig. 1.10) and published in his *The Decorative Art of Today* (p. 202) as an important artwork of his museum related study. The figure of a female with wings might have inspired his winged figure of Capricorn (fig.1.11). The Capricorn is the sign of his wife, Yvonne. The unicorn of Capricorn is associated with his early drawing of a lady with a unicorn, or a unicorn hairstyle, adopted from a fifteenth century tapestry 'La Dame à la Licorne'⁸⁹ in the Cluny Museum, Paris. Le Corbusier had a special passion for vases.⁹⁰ A flask does not only refer to a container of liquid. He called a flask a perfect 'family container' in his *Modulor II*.⁹¹

New Templates: the Modern Artist and his Collection

The cult of novelty and even of the strange, which is the basis for avant-garde art's substantive and not accidental unpopularity, was an exquisitely romantic phenomenon even before it become typically avant-garde.⁹²

In the twentieth century, many modernist artists were interested in aspects of the romantic, emotional, intellectual and the subconscious.⁹³ Henri Matisse, for example, came to African sculpture in a curiosity shop. He was astonished to see how they were conceived from the point of view of sculptural language, and how these 'Negro statues were made in terms of their material, according to invented planes and proportions.'⁹⁴ He purchased one in 1906 and showed it to Gertrude Stein and Picasso, and that was how Picasso became aware of African sculpture.

⁸⁹ FLC 2262.

⁹⁰ See his article 'Des Pots...' in *L'Esprit nouveau* no.16, and description in his *Journey to the East*, pp. 14-17.

⁹¹ Le Corbusier, *Modulor 2*, p. 173.

⁹² Renato Poggioli, *The Theory of the Avant-garde*, p. 50.

⁹³ Robert Goldwater, *Primitivism in Modern Art*, pp. xxii-xxiii.

⁹⁴ Henri Matisse, 'First encounter with African Art', 1906. Flam, Jack and Deutch, Miriam, ed., *Primitivism and Twentieth-century Art: A Documentary History*, Berkeley, Calif.; London: University of California Press, 2003, p. 31.

Picasso's Cubist work was inspired by African art. Around 1906-7 when Picasso went to the flea market in Paris, as he remembered in 1937: 'I understood something very important: something was happening to me... Those are primitive, not magical things... The spirits, the unconscious... emotion, it's the same things... *Les Femmes d'Alger* must have come to me that day, but not all because of the forms: but because it was my first canvas of exorcism—yes, absolutely!'⁹⁵ The effect of this African art upon Matisse and Picasso was different, as pointed out by Gertrude Stein: 'Matisse thought it was affected more in his imagination than his vision; Picasso more in his vision than his imagination.'⁹⁶ They both influenced Le Corbusier considerably, as he admired Matisse most before, but later he thought positively about Picasso under the influence of Ozenfant.⁹⁷

Picasso had a collection of primitive art, as can be seen in a photo of his studio in Bateau-Lavoir, Montmartre in 1908, with New Caledonian sculptures in the background. Another photo of his studio, around 1911 in Boulevard de Clichy, shows an African statue next to Guillaume Apollinaire. Around the time when Picasso produced *Femmes d'Alger*, he amassed a large African collection and his figures of the following years have the traits of most African sculptures,⁹⁸ such as distorted faces and geometric breakdown of human bodies. The emancipation of visual appearance and the break with traditional perspective result in a simultaneous vision or the 'anti-perspectival art, in which every object depicted synthesizes various viewpoints.'⁹⁹ More freely composed, the collage explored by Picasso can be described as the incorporation of any extraneous matter as fragments on the picture

⁹⁵ Pablo Picasso, 'Discovery of African Art. 1906-1907', *Ibid.*, p. 33.

⁹⁶ Gertrude Stein, 'Matisse and Picasso and African Art. 1906-1907.' *Ibid.*, p. 35.

⁹⁷ H. Allen Brooks, *Le Corbusier's Formative Years*, pp. 352 & 492.

⁹⁸ Nikos Stangos, ed., *Concepts of Modern Art*, p. 52.

⁹⁹ *Ibid.*, pp. 53-58.

surface. These fragments, the intricately hinged planes or facets, which ‘Picasso was to apply to three-dimensional forms on his canvases, Braque applied to the spaces that surrounded them.’¹⁰⁰ Moreover, transparency was suggested in a Wobé mask through its inversion of natural appearance. For instance, the eye in the mask is presented as a projected cylinder. This cylindrical eye also expresses the magical penetrating glance of the spirit. This mask was collected by Picasso and seen also by George Braque.¹⁰¹

There were many other modern artists who collected primitive arts for inspiration in this period: André Derain, Maurice de Vlaminck, Georges Braque, Jacques Lipchitz, and André Breton, for example. Le Corbusier also bought statues from Dahomey and Gabon. During the 1920s, with the rise of Surrealism, greater emphasis was given to Primitive art. Among the Surrealists, ‘African art was criticized as being too “rational”, and greater attention was given to Oceanic art and the art of American Indians. Collecting and connoisseurship were also on the rise...During this period, Primitive art begins for the first time to be exhibited in art museums and in galleries normally reserved for modern art.’¹⁰²

Imaginary World Museum

Similar to Le Corbusier’s conception of the museum, encompassing worldwide cultures is André Malraux’s *musée imaginaire*.¹⁰³ This was an imaginary collection of all the artefacts of human culture, a complete repertory of artistic styles, and cultures. Malraux criticized the

¹⁰⁰ Ibid., p.57.

¹⁰¹ Robert Goldwater, *Primitivism in Modern Art*, pp. 159-60.

¹⁰² Jack Flam and Miriam Deutch, ed., *Primitivism and Twentieth-century Art: A Documentary History*, Berkeley, Calif.; London: University of California Press, 2003, p. 119.

¹⁰³ André Malraux (1901 - 1976), a French author, adventurer and statesman who was born in Paris, studied oriental languages, and was highly critical of the French colonial authorities in Indochina. He later became Minister of Culture.

current museum because it divested works of art of their functions. He argued that it ‘presents the viewer with images of things, differing from the things themselves... After all, a museum is one of the places that show man at his noblest. But our knowledge covers a wider field than our museums...[it is the] assemblage of so many masterpieces — from which, nevertheless, so many are missing.’¹⁰⁴ A museum has its limits, even in the most powerful nation in history such as Napoleon’s France. As Malraux pointed out, Napoleon’s victories did not enable him to bring the Sistine Chapel to the Louvre.¹⁰⁵

Thus Malraux proposed the ‘imaginary museum’ or ‘museum without walls’, which he said was not simply a prize list; ‘it is initially the expression of a human adventure, the immense range of the invented forms. Its fundamental problems are born from the diversity of these forms... our relationship to art is established less through our decisions than through a kind of common permeability...The imaginary museum gathers what allures our taste and is essential on our sensitivity, but also what calls in some among us a fundamental need.’

This ‘imaginary museum’ is found in the books *Le musée imaginaire de la sculpture mondiale*¹⁰⁶ and *Les Voix du Silence (Museum without Walls)*. It is largely composed of pictures of works and his own comparisons with examples from ancient Europe, the Cyclades, Persia, Mesopotamia, Japan, China, and so on. Here the exhibition of multiple cultures gathered through mechanical reproduction makes a private imaginary collection.

These images of diverse cultures just like Le Corbusier’s collection of images. In *L’Esprit*

¹⁰⁴ André Malraux, *Museum without Walls*, trans. Francis Price and Stuart Gilbert, London 1967, p. 10.

¹⁰⁵ *Ibid.*, p. 11.

¹⁰⁶ André Malraux, *Le musée imaginaire de la sculpture mondiale*, Paris: Gallimard, 1952.

nouveau, his ideal museum was also imaginary. It contained everything, revealed full stories and would be truly dependable and honest, but did not yet exist.¹⁰⁷ After the late 1950s, Malraux had a close connection with Le Corbusier.¹⁰⁸ On September 1, 1965 Malraux, as Minister of Culture, gave Le Corbusier's funeral oration in the *cour carrée* at the Louvre.¹⁰⁹

Le Corbusier's Idea of a Museum

Le Corbusier studied in the various museums during his formative years, gaining a broad spectrum of world civilization. In 1929, he designed a 'World Museum' in the project of 'Mundaneum' in Geneva, his first museum project. His client, Paul Otlet, said: 'it is indispensable to know the comparative states of nations, peoples, races, and cities which today participate in that worldwide process...now it will be useful to review human history, to learn what man has done, to activate this knowledge...'¹¹⁰ To Le Corbusier, his design was a pyramid or a ziggurat made up of ascending spiral ramps. After a long outdoor climb of the ramp, visitors could enter the museum from the top of the pyramid. The journey starts with the hall of pre-history on the top floor, unwinds in a chronological sequence, and ends up with the 'Sacrarium' on ground level. Le Corbusier arranged 'the museum of human creation to follow a spiral...through this unique means, the absolute continuity of events in history [was traced].'¹¹¹

¹⁰⁷ Le Corbusier, *The Decorative Art of Today*, pp. 16-7. See also Beatriz Colomina, 'Le Corbusier and Duchamp: The uneasy status of the object', in: *Wars of Classification, Architecture and Modernity*, ed. Taisto H. Mäkelä and Wallis Miller, p.49. In the 1920's Le Corbusier's ideal museum contains everything. In 1930 he proposed museum of unlimited growth, and later designed several museums.

¹⁰⁸ See Le Corbusier, *Sketchbooks 3*, no.326 and many notes in *Sketchbooks 4*.

¹⁰⁹ William J. Curtis, *Le Corbusier, Ideas and Forms*, p. 223.

¹¹⁰ Le Corbusier, 'In Defense of Architecture', in Hays, K. Michael, ed., *Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984*, New York: Princeton Architectural Press, 1998, p. 607.

¹¹¹ *Ibid.*, p. 608.

This Mundaneum project remained on paper, but in 1931, Le Corbusier proposed another example of spiral composition: the Museum of Contemporary Art in Paris. Its plan was a flat helical spiral, which could be constructed in phases beginning with the central hall and then extended gradually through the standard building unit in order to meet the annual budget. One could enter the heart of the Art museum through an underground passage. The previous Mundaneum project was based on cultural precedents, whereas this Museum of Contemporary Art was rooted in natural models. Le Corbusier believed that this square spiral composition was ‘a true form of harmonious and regular growth...[It] follows natural laws of growth in the order in which organic life is manifested: an element capable of being added to harmoniously, the idea of the ensemble having preceded the idea of the individual part.’¹¹²

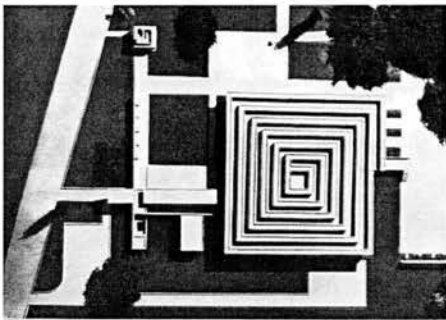


Fig. 1.12 Le Corbusier, The Museum of Unlimited Growth, 1939. *O.C.* 4, p.19.

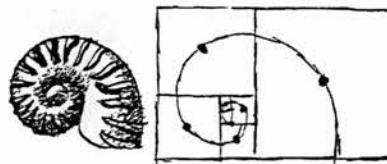


Fig. 1.13 Le Corbusier, Diagram illustrated for the Museum of Unlimited Growth. *O.C.* 4, p.16.

This composition became the prototype of Le Corbusier’s various museums. In 1939 he proposed a project for the ‘Museum of Unlimited Growth’, with a similar idea of the ‘Golden Section’ as generator of a spiral shell (figs. 1.12, 1.13), one of his personal icons, as an emblem of growth, harmony and laws of nature. Under the natural spiral order, partitions in the gallery were freely arranged according to the requirements of each exhibition. The

¹¹² *Oeuvre complète 1929-1934*, vol. 2, pp.72-3, trans. in Boesiger, Willy & Girsberger, Hans, ed., *Le Corbusier 1910-65*, Basel; Boston: Birkhäuser, c1999, pp. 236-7.

route between partitions forms a diagram of meander. The labyrinthine plan was one of the significant characteristics of his museums,¹¹³ which generates complicated passages, endless wonders and surprises. It echoes Le Corbusier's great cavern of sleep as a museum in his *Poème*, filled with rich, lively and flowing images.

The concept of such an unlimited growth museum was later redeveloped and realized in the Museum of Ahmedabad, India, 1956; the Tokyo Museum, 1957, and was proposed again for the 'International Art Centre' in Erlenbach in 1963.

In May 1961, when Le Corbusier addressed the convention of the International Council of Museums, in Turin, he proposed a 'Museum of Knowledge' in contrast to the conventional museums. He claimed the objects of nature contained every idea of a museum: '1. Museum = the cherished respected adored word / because to learn to know.../ the objects: the great object = nature / = boundless that contains everything idea [of] museum.'¹¹⁴ Furthermore, he thought that in modern time some museums were personal, like his treasured personal collections of natural objects:

3...here is the modern repercussion the Museum becomes personal...
4. / intervention of the self the individual and birth of the private collection = my P[rivate] C[ollection] of butcher shop bones, of bits of wood, of roots a sea-urchin shell / ...bone sawn by the butcher = the splendours of the object = ivory = cut and modelled. pebbles one of the most beautiful objects to be seen, to hold...to mediate [on] / polished = politeness integrity of the material tumbled by the sea possible appearance of veins adorable.
Man can surround himself with his P[rivate] C[ollection] and be happy that it cost him not a penny.¹¹⁵

Here, he implied that his personal museum of natural objects was boundless and contained the knowledge and ideas for a museum. The bone cut by the butcher looked like an ivory

¹¹³ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), p. 41.

¹¹⁴ LC, *Sketchbooks IV*, p. 731 underlined by Le Corbusier.

¹¹⁵ *Ibid.*, 734-735, underlined by Le Corbusier.

'sculpture' which had been carved by Almighty God, the natural power; just as the pebble was formed by nature, being sculptured by tide. Furthermore, individual objects in his museum, a shell for instance, could inspire the 'Museum of Unlimited Growth', and the ethos for a series of museum architecture.

Therefore, there has been a dialectical relationship between his collected objects and architecture. This idea of a museum inspired by natural objects that bear organic growth and harmony also encompasses the cultural collections. Yet the cultural developments also respond to natural laws, such as evolution, cyclic processes, and the meander.

Le Corbusier was driven by his extensive imagination; his rich collection of primitive and exotic sources served as a lively dream, a museum of a great cavern of sleep. All his experiences in daily life, travel and research were fragmentarily reproduced by reorganization and transformation, just like the condensation and displacement in a dream. The possibility is of unlimited growth, and the play of imagination is unconstrained. Like this cavern, a labyrinthine composition in his design has meandering and intricate passages which generate continuous novels and wonders. From the evolution of this seminal cavern, Le Corbusier created and embodied his modernist designs. This will be elaborated in the following chapters, and the backdrop of Parisian primitive and exotic cultures will be discussed in the next chapter.

Chapter Two

Primitive and Distant Civilizations in Paris:

The Background of Le Corbusier's Personal Collection

In the twentieth century, the interest of artists in primitive and folk culture was neither unexpected nor sudden. This was a trend foreshadowed in the eighteenth and nineteenth centuries with the nourishment of the Enlightenment, Romanticism, and developments of ethnology, western expansion and other parallel catalysers. Maritime power enabled European countries to explore exotic countries for economic and colonial purposes, but the novelty of those remote regions inspired European cultural evolution. Paradoxically primitive art colonized European culture in return.

Paris in the eighteenth and nineteenth centuries was one of the major cultural and intellectual centres of Europe. Based on self-awareness and the application of reason, the Enlightenment was the movement in which intellectuals shared a general commitment of criticising the *ancien régime* in order to emancipate mankind, by the application of knowledge, education and science, from the chains of ignorance, superstition, theological dogma and clerical teaching. It instilled a new mood of self-awareness and hope for a better future.¹¹⁶

The core aspiration of this movement was search for a true 'science' of man, a proper study of what made mankind human. The spectrum of its interests included the emergence of man from some primitive conditions, or an ideal state of nature, which some imagined as a golden age.¹¹⁷ It was about truth, reason and progress, with fundamental issues continually explored.

¹¹⁶ Roy Porter, *The Enlightenment*, Basingstoke: Macmillan Education, 1990, p. 5.

¹¹⁷ *Ibid.*, p.12.

Many of the Enlightenment architects discussed the origin of architecture and primitive hut. They then questioned the authority of Vitruvius, and hence searched for the first hand exactitude of the ancient architecture.

On the other side of the rationalist coin, the Romantic Movement influenced art, literature, philosophy and even politics. It favoured excitement and revolted against the received ethical and aesthetic standards; it opposed industrialism, social convention, the monarchy and aristocracy. The Romantics did not seek quietude, but a vigorous and passionate individual life. The morals of the Romantics had primary aesthetic motives. Another aspect was their taste in scenery.¹¹⁸ This movement originated with Jean Jacques Rousseau, who thought that Europe was a blighted region. In order to undo the evil, it was necessary to abandon civilization, and to reclaim the natural goodness of man. Romanticism ‘characteristically takes its inspiration from works belonging to cultures... of an historical, geographical or literary distance productive of an emotional distance’.¹¹⁹ Thus it values exotic arts and cultures. Primitivism ‘in part stems from Archaism and Romanticism.’¹²⁰

At the same time, the progress in global communication facilitated immense cultural connection and exchange. France advocated Imperialism mainly in the early nineteenth century, and had the second largest colonial territory in the world by the beginning of the twentieth century. From these colonies, the rest of the world, such as China, could be further explored. Thus exotic artefacts, merchandise, slaves and documents were brought back to France. The two decades before World War I were the *Belle Epoque* for the French,

¹¹⁸ Bertrand Russell, *A History of Western Philosophy*, New York: Simon & Schuster Inc., 1945, pp. 675-8.

¹¹⁹ Robert Goldwater, *Primitivism in Modern Art*, p. 262.

¹²⁰ *Ibid.*, p. 261.

remembered as a golden era. Paris in particular was a magnet for experimental artists, writers, musicians and so on. Paris was to become a centre for exotic culture, primitive art and avant-garde pursuits.

Le Corbusier's hometown is in a French-speaking area in Switzerland. His mentor at the Ecole d'Art had studied in Paris, and Le Corbusier himself later based his career in Paris. Consequently, he was deeply imbued in the Parisian intellectual milieu, served as the basis of modernist argument.

Part I. Primitive and Ancient Civilizations: Searching for the Fundamental, beyond Convention

The arts of the primitive peoples have widened our concept of what 'art' is, has made us realize the many shapes art can assume, the diverse roles it can play, the multiple and ambiguous meaning it can embody.

– Robert Goldwater¹²¹

At the turn of the twentieth century, artists were impelled to look beyond the conventions formalized by their own culture for the new epoch. The feeling of discontent provoked interest in more exotic cultures, such as Asian and African civilizations. There are influences of Japanese prints in Impressionist painting, and some features of African statues were displayed in the Cubist and Fauvist paintings. 'There is a fascination with "exotic" subjects, as in Orientalist painting, from the nineteenth century to Matisse and after. The yearning for the mystical and the mythic is apparent in contemporary art. All of these elements have been called 'primitive.'¹²²

¹²¹ Ibid., p. xvii.

¹²² Colin Rhodes, *Primitivism and Modern Art*, London: Thames and Hudson, 1994, p. 11.

Historically, the discussions on the primitive hut by architects arose in Western Europe in the eighteenth century when Romanticism and Enlightenment prevailed. As for painting, a French artist, Jacques-Louis David, at the end of the eighteenth century rejected the recent over-refined painting and aimed for the simplicity of classical art. David Allan illustrated the theme of 'The Origin of Paintings' in 1733, and Karl F. Schinkel, later in 1830¹²³. In literature, Montesquieu's 'Persian Letters' criticise French society and culture through the form of letters between two Persian travellers in France; in the book the exotic stances somehow became legitimate and uncorrupted. The Orientalism, covering the Asiatic and North African cultures, was very popular in the late eighteenth century and extended over the mid nineteenth century; by then Paris was the capital of the Orientalist world.¹²⁴

The eighteenth century was also a great time of tourism, marine trade and an early stage of colonial expansion. The colonial enterprises prevailing in the nineteenth century provided Europe with a wealth of both economic profit and cultural influx. The introduced examples were fresh to the westerners and were interpreted from a self-centred standpoint based on an unequal status of 'primitive' or 'savage'. To accommodate the unique artefacts, a great number of ethnographical museums were established in the third quarter of the nineteenth century¹²⁵ such as Trocadéro in Paris. The evaluation of primitive art was changed significantly by ethnographers and art critics by the turn of the century;¹²⁶ they were no longer as neglected initially.

¹²³ Robin Evans, *Translations from Drawing to Building and Other Essays*, London: Architectural Association, c1997. pp. 163-5.

¹²⁴ Edward William Said, *Orientalism*, London: Penguin, 2003, pp. 51-2.

¹²⁵ Robert Goldwater, *Primitivism in Modern Art*, p. 5.

¹²⁶ *Ibid.*, p. 15. Details see rest of the chapters.

In architecture, intellectuals began to question the authority of existing treatises and seek for more precise first-hand material. Italy has been a traditional centre for the grand tour to personally experience the ancient Roman Empire. In the Islamic world, the Ottoman Empire had faded away gradually since the seventeenth century; thus Napoleon's expedition could penetrate into Egypt in 1798; Greece became independent in the 1830s and could be easily accessible to the Westerners, which enabled many scholars to investigate the ancient Near East and other remote areas. The surveys of these ancient cultures had been brought back to Europe and circulated by publications. These materials enriched European cultures via a series of trends of art including neo-classicism, chinoiserie, Egyptomania, japonisme, Negrophilia and so on.

In the first decade of the twentieth century, modern artists used nominally primitive artefacts and models to develop their avant-garde work. It began in France, Germany and spread quickly over the Europe and to the United States. A similar trend could be discerned in modernist architects such as Le Corbusier, Frank Lloyd Wright and Mies van der Rohe.¹²⁷

Primitivism

The primitive incorporated means belonging to the earliest and the original, pertaining to ancient or early times, also rude or rough like that of the early times. It also implies the unadulterated and a search for beginnings. These values have been applied in the field of literature, art and architecture. The primitive is always regarded as less restricted by conventions and history, and as closer to the fundamental. There has been a passion and eagerness for returning to the original and unspoiled state, especially in the early twentieth

¹²⁷ Joseph Rykwert, *On Adam's House in Paradise*, The MIT Press, 1981, Chapter 1.

century.

Primitivism incorporates a belief in the desirability of a 'return to nature' and an exaltation of simplicity or a certain kind of irrationalism. It implies a desire to start again, unhindered by history, by abandoning a contemporary sophistication judged to be arid, by seeking contact with alternative modes that are perceived as elemental and more authentic.

The idea of the "Lost Paradise" is not new in human history, neither in Western nor Eastern culture. In the Bible, the Garden of Eden was a paradise where God created all kinds of plants; Adam and Eve were free to eat. Similarly, Ovid described the 'Golden Age' in the first book of his *Metamorphoses* and maintained that the Golden Age first existed when Man was yet new; unforced by punishment, fear, and heedless of law. No walls nor fences were built; nor swords forged. Food, which Nature produced, a Western wind and the immortal spring were maintained. Later throughout the Middle Ages, classical culture had remained an important presence, 'but the Renaissance must be given credit for being the first society to take a historical culture as a paradigm.'¹²⁸

The idea of primitivism itself stems from 'the Romantic myth of the Noble Savage, propagated by the thinkers of the Enlightenment more than a century before, and its ultimate source is the age-old tradition of an earthly paradise where human societies once dwelled – and might perhaps live again – in a state of nature and innocence.'¹²⁹

Jean-Jacques Rousseau, father of the Romantic Movement, admired the 'noble savage' and

¹²⁸ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), p. 33.

¹²⁹ Horst Woldemar Janson, *History of Art: A Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 510.

thought that 'Europe is the unhappiest Continent, because it has the most grain and iron. To undo the evil, it is only necessary to abandon civilization, for man is naturally good.'¹³⁰

Rousseau wrote a letter to d'Alembert while passing through La Chaux-de-Fonds, which Le Corbusier quoted in his *My Work* about his homeland:

These fortunate peasants...cultivated with the utmost diligence their own holdings, of which they enjoyed the produce, devoting their leisure to making countless objects with their hands...I continually admired in these people a remarkable mixture of refinement and simplicity.¹³¹

Romanticism is not merely in the past. Many historians and critics 'have affirmed the continuity of the ideological and historical line between Romanticism and avant-gardism.'¹³²

Firstly, they both are similarly opposed to traditions and academic doctrines, but celebrate the cult of novelty and strangeness: '...the cult of novelty and even of the strange, which is the basis for avant-garde art's substantive and not accidental unpopularity, was an exquisitely Romantic phenomenon even before it became typically avant-garde.'¹³³ Moreover, they are both minority cultures in the aesthetic and sociological realms.

As against classical art...romantic art and avant-garde art are aristocracies subsisting and surviving in the democratic, or at least the demagogic, era. This fact suffices to show that the sociological differences distinguishing romantic art from avant-garde art are only differences of degree.¹³⁴

Primitivism is different from primitive. The former contains various ideas, attitudes and interpretations of primitive by modern artists and architects in their own work, and it would be different from an ethnographer's vision. Each artist has his own interpretation of primitive. Primitivism can also be expressed in terms of time or culture. 'Chronological primitivism' is in a way, a form of the longing for the good old days and the lost paradise of innocence. Being discontented with civilizations and longing for 'cultural primitivism', we hold the

¹³⁰ Bertrand Russell, *A History of Western Philosophy*, Simon & Schuster Inc., pp. 687-8.

¹³¹ Le Corbusier, *My Work*, London, Architectural Press, 1960, p. 18.

¹³² Renato Poggioli, *The Theory of the Avant-garde*, p. 46.

¹³³ Renato Poggioli, *The Theory of the Avant-garde*, p. 50.

¹³⁴ *Ibid.*, p. 52.

dream that we would all be better off without science and technology.¹³⁵

One aspect of primitivism is that it was usually marked by attempts to gain an access to what were considered to be more primary modes of thinking and seeing. Other than a stylistic connection, primitivism for Dadaists and Surrealists lies in the artists' interests in a pre-reflective mind.¹³⁶ For the modern artist, as Robert Goldwater notes, 'the primitiveness of different arts lay in the common quality of simplicity attributed to them. More psychological than formal, it was a quality read into the objects...'¹³⁷ He maintained a common assumption existing in the various attitudes and intentions of primitivism. It was the assumption that 'any reaching under the surface... will reveal something "simple" and basic which, because of its very fundamentality and simplicity, will be more emotionally compelling than the superficial variations of the surface.'¹³⁸

Charles Darwin's Theory of Evolution discusses the genetic variation through a process of divergence from simplicity to complexity. In the social evolution, some so-called primitive (or savage) races were highlighted as the examples of rudimentary types as an evidence of Europe's own past.¹³⁹ While many problems emerged at the modern end of the chain of evolution, the primitive at the other end became unspoiled, undamaged and pure.

In this light, the ethnographic search was for local cultures untainted by 'advanced' civilizations. At the beginning of the twentieth century, the term 'primitive' was used in ethnological studies and referred to the specific groups of people and objects that many of

¹³⁵ E. H. Gombrich, *The Essential Gombrich*, Phaidon Press Limited, 1996, p. 321.

¹³⁶ Colin Rhodes, *Primitivism and Modern Art*, p. 7.

¹³⁷ Robert Goldwater, *Primitivism in Modern Art*, p. 252.

¹³⁸ *Ibid.*, p. 251.

¹³⁹ Colin Rhodes, *Primitivism and Modern Art*, p. 14.

them belonged to a condition of the Stone Age. The primitive is 'a somewhat unfortunate word: it suggests – quite wrongly – that these societies represent the original human condition, and have thus come to be burdened with many conflicting emotional overtones. The term "ethnographic" will serve us better...ethnographic societies are essential rural and self-sufficient.'¹⁴⁰

In the early twentieth century, Europeans believed that savages were to be found in Central and Southern Africa, South America, Oceania and so on. However, in modern European art, the diverse issues of similar kinds have been extended far beyond. Other remote and exotic cultures at times have been designated as 'primitive'. Le Corbusier experienced a wealth of them through his extensive travel and diligent study at museums and libraries.

Even within the Western world, its own 'primitives' can also be found in peasants, children and insane people. Contrary to academic high art, peasants in rural areas may seem to represent all that is simple, pure and genuine. In the early twentieth century, when the Japanese print was very well known and deemed too sophisticated, artists turned to the primitives of the early Europe and Africa. Naïve simplicity was sought instead in oriental idols. Paul Gauguin was the most famous example of such an artist who sought for 'primitive' places not only in Oceania but in earlier in France itself, in the areas around Pont Aven and Le Pouldu in Brittany. Many artists had been drawn to these French areas in summer since the mid-nineteenth century. Artists who worked there included Millet, Courbet and Dagnan-Bouveret. The medieval, an earlier European states, was commonly held to have been essentially popular.¹⁴¹ Le Corbusier studied European medieval churches and

¹⁴⁰ Horst Woldemar Janson, *History of Art*, Fourth ed., 1991, p.86.

¹⁴¹ Colin Rhodes, *Primitivism and Modern Art*, pp. 23-4.

monasteries, as well as peasant houses in Brittany, Arcachon and Alps for building up his modernist argument, such as the ‘regulating lines’ of Notre Dame in Paris, and the ‘economy’ of the vernacular house.

Primitivism is a term expressing a relative status rather than an absolute situation. In Europe if the Renaissance art is highly developed, ‘primitive’ might refer to the Medieval, archaic and folk arts. In the past, Europeans were used to thinking that they had a superior art, those from other places were thus regarded relatively primitive, such as the tribal or Pre-Columbia American arts. Primitive describes a Western event and ‘does not imply any direct dialogue between the West and its “Others”... as seen through the distorting lens of Western constructions of the “primitive” which were generated in the later part of the nineteenth century.’¹⁴²



Fig. 2.1 The primitive hut. Abbé (Marc-Antoine) Laugier, *Essai sur l'architecture*, 1755, frontispiece.

The third aspect of primitivism is its search for the origin of styles. Many scholars in the eighteenth and nineteenth centuries discussed the primitive hut. Among them was Abbé

¹⁴² Colin Rhodes, *Primitivism and Modern Art*, p. 8.

Laugier, who in 1755 acclaimed the primitive hut as an origin of all possible forms of architecture. The notion of it 'had been current in architectural theory since Vitruvius, but up to Laugier's time, it had been looked on in a purely evolutionary sense as the starting-point of architecture.'¹⁴³ Laugier grounded his treatise on the more essential truth of the structural clarity embodied in mankind's first structure.¹⁴⁴

In 1785, 'Quatremère had suggested that there were three original architectural forms, the cave, the hut, and the tent.'¹⁴⁵ 'By 1803...Primitive or original building had become the single most important architectural element to Quatremère.'¹⁴⁶ In the nineteenth century Gottfried Semper proposed 'four elements of architecture', which were derived from the circumstances of a primitive human society. Viollet-le-Duc, with whom Le Corbusier was familiar, also proposed a circular hut, which was plaited and tied with saplings.

Le Corbusier echoed Quatremère's belief of three original architectural forms early in his career as he read Rienhold Freiherr von Lichtenberg's *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes* (House, Village, Town: a Developmental History of Townscape in Antiquity), carefully studied several examples of primitive hut, and published the tent in his *Towards a New Architecture*, etc. In his book von Lichtenberg stated the first architecture were the hut and tent, which are all simplest and original.¹⁴⁷ In the exhibition of the *Pavillon des Temps Nouveau* in 1937, Le Corbusier discussed the cave, the hut, and the tent for the primitive men, which echoes Quatremère's treatise of three original

¹⁴³ Hanno-Walter Kruft, *A History of Architectural Theory*, Princeton Architecture Press, 1994, p. 152.

¹⁴⁴ Barry Bergdoll, *European Architecture, 1750-1890*, p. 11.

¹⁴⁵ Sylvia Lavin, *Quatremère De Quincy and the Invention of a Modern Language of Architecture*, p. 56.

¹⁴⁶ Ibid.

¹⁴⁷ Freiherr von Lichtenberg Rienhold, *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*, Leipzig: R. Haupt, 1909, p. 13.

architectural forms.¹⁴⁸ Le Corbusier's architectural designs have manifested all these three original forms.

Position of Primitivism – a Harbinger and Model

Primitivism in modern art served as a stimulation and a catalyst, which helped artists to formulate their own aims. The term commonly referred to the artists who have been traditionally regarded as the harbingers of a new art, providing both a break from the past tradition and a basis on which a new one might work out, or as a trans-historical template and a reference for the new art and architecture:

The idea of a clean break involved a utopian vision of the future that was both based in a critical perception of the present, and justified by an idea of human potential for which the supposedly pure and expressive art of the primitive provided trans-historical templates.¹⁴⁹

Not only primitive cultures but also distant ones served the same function of models. The primitive could also be deemed as a matrix in which modernists perceived the authenticity of the future. The reaction against tradition at the turn of the century corresponded to several visions of a new world, modern but simultaneously ancient.¹⁵⁰

Changing Attitudes: Admiration Rather Than Condescension

In the nineteenth century marine transportation between the East and West was significantly

¹⁴⁸ 'The primitive men to be isolated from the natural elements seek natural shelters: caves. They improve their insulation; they ensure their safety by building artificial shelters: lake huts and houses. The pastoral people, to follow the seasonal migrations for their herds, invent light and mobile shelters: tents with skins of animals.' Le Corbusier, *Des Canons, des munitions? merci! des logis ...S.V.P.* Éditions de L'Architecture d'aujourd'hui, p. 44.

¹⁴⁹ Charles Harrison, *Modernism*, Tate Gallery Publishing, 1997, p. 48.

¹⁵⁰ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), p. 33.

improved, but misunderstanding and prejudice remained. One of Le Corbusier's textbooks in the Ecole d'Art was Owen Jones' *The Grammar of Ornament* published in 1856, five years after the Great Exhibition in London. The ornament of savage tribes was appreciated: 'We are at once charmed by the evidence of the intention, and surprised at the simple and ingenious process by which the result is obtained.'¹⁵¹ Conversely, Chinese ornament, which represented a high civilization of thousands of years, was degraded. Jones notes Fergusson's observation: 'China possesses scarcely anything worthy of the name of Architecture... In their decoration, both painted and woven, the Chinese exhibit only just so much art as would belong to a primitive people.'¹⁵²

James Fergusson was a well-known architectural scholar with publications on theory and history of world architecture, but was distant from Far Eastern culture¹⁵³ even though he had lived in India. In 1891, as more information brought into the West by travellers became known, Fergusson wrote:

...partly because there [note: China] really are no buildings in the country worthy of the people or their civilization...but lately the photographic camera has penetrated even within the walls of the imperial city of Peking...but it seems certain that there are buildings worthy of more attention than has hitherto been bestowed upon them.¹⁵⁴

When in 1979 Ernst Gombrich discussed the primitive and its value in art, he stated that in the Western countries the idea of the 'primitive' in art or in civilization 'has become increasingly problematic to this century since we have lost the faith in the superiority of our

¹⁵¹ Owen Jones, *The Grammar of Ornament*, Studio Editons, London, 1856, p. 14.

¹⁵² Ibid., p. 86.

¹⁵³ In 1855, Fergusson wrote: 'The simple fact is that China possesses scarcely anything worthy of the name of architecture. This is of importance as enabling us to understand how, in other countries, as in ancient India, a high degree of civilization may have been attained without producing any coeval monuments of durable character.' James Fergusson, *The Illustrated Handbook of Architecture: Being a Concise and Popular Account of the Different Styles of Architecture Prevailing in All Ages and Countries*, London: J. Murray, 1855, p. 133.

¹⁵⁴ James Fergusson, *History of Indian and Eastern Architecture*, London: J. Murray, 1891, p. 685.

own culture.’¹⁵⁵ He noted the fear of chocolate-boxy, kitsch or saccharine:

The desire to get away from the cheap, the tainted, the corrupt has been one of the prime motive forces of artistic developments, and not only in this century. And it was this desire that led to the adoption of the term ‘primitive’ as a term, not of condescension, but of admiration.¹⁵⁶

At the turn of the twentieth century, the new generation ‘wanted to follow and surpass the Impressionists...which ultimately led them to a rejection of the whole Western tradition...Was it not better to begin again at the beginning and search out the art of the true “primitives”, the fetishes of cannibals and the masks of savage tribes?’¹⁵⁷ Before the outbreak of the war in 1914, the exploration of new art was associated with the ‘departure from naturalistic and classic styles, with rejection of literary and anecdotal forms of subject matter, and with an interest in primitive styles, as supposedly exemplified in tribal or pre-classical sculpture, or in pre-Renaissance Italian art’.¹⁵⁸ Examples of African sculpture could appeal strongly to the generation, because it ‘possessed precisely what European art seemed to have lost in that long pursuit – intense expressiveness, clarity of structure and forthright simplicity of technique.’¹⁵⁹

Primitivism in Modern Art and Architecture

Though primitivism is the interpretation of primitive culture by modern artists and architects, there is, interestingly, little direct influence, nor an immediate borrowing of the primitive art forms but rather suggestions of them.¹⁶⁰ Aspects of the primitivist impulse in art, according

¹⁵⁵ E.H. Gombrich, *The Essential Gombrich*, Phaidon Press Limited, 1996, p. 295.

¹⁵⁶ *Ibid.*, p. 296.

¹⁵⁷ E.H. Gombrich, *The Story of Art*, 16th ed. (revised, expanded and redesigned). London: Phaidon Press, 1999. p. 562.

¹⁵⁸ Charles Harrison, *Modernism*, Tate Gallery Publishing, 1997, p. 46.

¹⁵⁹ E.H. Gombrich, *The Story of Art*, pp. 562-3.

¹⁶⁰ Robert Goldwater, *Primitivism in Modern Art*, p. xxi.

to Robert Goldwater,¹⁶¹ can be categorized into ‘romantic’, ‘emotional’, ‘intellectual’ and ‘subconscious’ types. The ‘Romantic’ includes Gauguin, who searched for an unspoiled life and learned from peasants and natives; the Fauves also fall into this category. The ‘Emotional’ covers the *Brücke* who often used woodcuts as a medium to simplify their style; the *Blaue Reiter*, who continued the same approach to the primitive, wished to emulate children’s art and Bavarian folk art.

The ‘Intellectual’ type discussed the influence of primitive sculpture and primitive tendencies in abstract painting including Picasso’s and Purist works.¹⁶² Goldwater observed that:

Unconnected with primitive art, their [that of the Purist, the Neo-plasticists, and Suprematists] common desire to create an art of simple fundamentals, and an art uncomplicated because it reflects such fundamentals, is in itself a particular kind of primitivism.¹⁶³

Along with these fundamentals, Le Corbusier and Ozenfant stated in the Purist manifesto ‘*Après le cubisme* (After Cubism)’ that, ‘proportions are the numerical relations constituting a painting’;¹⁶⁴ and the ancient canons of Egyptian triangles and numerical relationships were known to the most ancient civilizations.¹⁶⁵

The last category, ‘subconscious’ is about the cult of children, Dada and Surrealism. Though many of their connections to primitive art were never formal, they nevertheless appreciated the primitive ideas such as interior structures and compositional arrangements.

In the field of architecture, architects had inevitably aimed at innovation in the changing

¹⁶¹ Ibid., chapter III-VI.

¹⁶² Ibid., p. xxiii.

¹⁶³ Ibid., p. 164.

¹⁶⁴ Carol S. Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*, Los Angeles, Calif.: Los Angeles County Museum of Art in association with Harry N. Abrams, c2001, p. 162.

¹⁶⁵ Ibid., p. 157.

milieu of urban development, progressive technology and new aesthetic trends since the eighteenth century. Several primitive traits were exhibited in the works of major modernist architects.

One of the aspects was the inspiration of the golden age. In Le Corbusier's treatise *Towards a New Architecture* in 1923, the 'primitive temple' in an unadulterated situation manifested the 'regulating lines', which he suggested 'all architects must use as a protection against the arbitrary.' Adolf Loos wrote in 1910 that peasant houses were not built by peasants but God. The architect 'lacks the certainty of the farmer, who possesses culture...By culture I mean that balance of man's inner and outer being which alone guarantees rational thought and action.'¹⁶⁶

Another aspect was the spirit of originality in craft, construction and detail. Ludwig Mies van der Rohe urged students 'into the healthy world of primitive building methods, where there was meaning in every stroke of an axe, expression in every bite of the chisel.'¹⁶⁷

Walter Gropius and Adolf Meyer designed the Sommerfeld house for a timber merchant in Dahlem in 1921. It was a log house with 'peasantry detailing', and interior geometric decoration with machine-like precision. It was the most important work, being the first collective effort of the Bauhaus, even though Gropius himself tried to distance himself from the taint of primitivism afterward.¹⁶⁸

Primitivism did not stop by 1930s, but continued throughout World War Two. Aldo van Eyck, for example, was inspired by first-hand research into the Dogon culture of Mali, Africa,

¹⁶⁶ Adolf Loos, *The Architecture of Adolf Loos, An Art Council Exhibition*. London 1985, p. 104.

¹⁶⁷ Joseph Rykwert, *On Adam's House in Paradise*, p. 18.

¹⁶⁸ *Ibid.*, p. 24.

in the late 1960s. He proposed a mode of building that would be innovating in meeting the more complex needs of both individuals and society.

A New Beginning

The avant-garde artist of the twentieth century strove for originality, rather than a mastery of the great works of the past. Returning to zero and restarting is another aspect of primitivism.

By the second decade of the twentieth century, 'the proposal to start again from the beginning had become a common slogan among the various European avant-gardes':¹⁶⁹

To the problem of modern art's relation with the past and its traditions it offered a drastic solution: a clear break... The radicals' rejection of the classical tradition and their sense of kinship with the art of primitives involved a kind of escape from tradition and from history, for as they conceived it the art of the primitive had neither.¹⁷⁰

Many modern artists who were interested in alternative traditions and cultures often went hand in hand with their Messianic desire to deliver a new beginning to an Europe they perceived as old and spent.¹⁷¹ Since 1908 Le Corbusier had been familiar with the accounts of Edouard Schuré's *Les Grands initiés*, Ernest Renan's *Vie de Jésus* and Nietzsche's *Thus Spoke Zarathustra*, which would build up his Messianic vision for modern architecture. He mentioned the need to 'go back to zero' in the 1920's and sought to re-discover the pure origin:

There is in this a loss of clarity, but one accepts this, to tell the truth, in the desire to rediscover the pure origin of a line of thought that is considered to be distorted today... In 1921, in *L'Esprit nouveau*, we too had gone back to zero, it was with the intent not to stay there, but only in order to re-establish our footing.¹⁷²

¹⁶⁹ Charles Harrison, *Modernism*, Tate Gallery Publishing, 1997, p. 47.

¹⁷⁰ *Ibid.*, p. 47-48.

¹⁷¹ Colin Rhodes, *Primitivism and Modern Art*, p. 21.

¹⁷² Le Corbusier, *In Defence of Architecture*, original published in *Stavba 2*, Prague, 1929, Trans. Nancy Barrey, André Lessard, Alan Levitt and George Baird, *Oppositions Reader*, p. 599.

Part II. The Primitive within Europe: Folk, Vernacular, Archaic and Medieval

In addition to African art, Oceanic art, American indigenous art, and the other foreign cultures, there were primitive arts within Europe: folk, vernacular, archaic and medieval ones, which all provided important inspiration for Le Corbusier's work. The category of 'folk' refers to ordinary people. Folk art is traditional and exists among common people, but especially, it is opposed to sophisticated cosmopolitans. It is an autonomous tradition of craftsmanship and design. It may have been at times influenced by professional art but has tended to retain its own character and techniques through the centuries, thus it preserves a certain character from the very beginning and maintains its primitive status. The spirit and production of folk art are also passed on locally from generation to generation.

Europe, in the second half of the nineteenth century, witnessed a tendency among progressive artists and writers to shift the focus of their attention from the academic 'high art' to the folk production of rural populations, and also other primitive arts. As the folk production 'came to represent all that was simple, pure and without pretension or artifice. Thus, the arts and crafts of European peasants took their place beside other primitive forms, such as the art of Japan, ancient Egypt, Indonesia and fifteenth-century Europe.'¹⁷³ In Germany, folk arts and crafts assumed importance both as art and symbol of the distinct racial character of a region's past throughout the 1930s.

In parallel to folk art, vernacular architecture is expressive of the ordinary, domestic, and indigenous character. It belongs to the people of a specific country or district, particularly

¹⁷³ Colin Rhodes, *Primitivism and Modern Art*, p. 23.

related to ethnicity or race. The construction of vernacular buildings demonstrates the achievements and limitations of local technology, and can be related to the aesthetic viewpoint and organisation of the broader society. It is usually unpretentious, simple and made of local materials, and follows well-tried types. Folk art, even though preserving primitive characteristics, is current. Some places, though, in contemporary sophisticated Europe still remained primitive. Gauguin, searching for inspiration, did not begin with the South Seas, but within France itself, in Brittany. Numerous artists had been attracted to this region during the summer since the mid-nineteenth century.

They were often in search of a more primitive landscape and people than those of the increasingly industrialized suburbs of Paris.¹⁷⁴ Both artists and tourists discovered Brittany as an ideal land. Around 1890, when Gauguin visited a fisherman's inn near Le Pouldu, he noted that he lived like a peasant and was known as a savage.¹⁷⁵ Following Gauguin, Le Corbusier studied vernacular architecture in Brittany and the fisherman's huts in the Arcachon Basin area.¹⁷⁶ He also did a series of paintings on the theme of fisherwomen.

Greek Architecture

There was a rediscovery of Greek architecture in the nineteenth century. Even though Greek literature and philosophy was already deeply rooted in the Westerners' mind, Greek architecture could not be properly surveyed until being freed from the Turks in the 1830s.

¹⁷⁴ Ibid., p.25.

¹⁷⁵ Ibid., p.26.

¹⁷⁶ To Le Corbusier, both are a kind of primitive architecture with different characteristics. The former (*Almanach d'architecture modern*, pp. 83-90) demonstrated a typical local style, purity, eternity and truth; later advanced and changed by technology. The latter (*Une maison – un palais*, pp. 48-52) presented a kind of myth of the origins of architecture. Also see *Modulor 2*, p. 159.

The new understanding of Greek architecture was brought about as a result of archaeological studies.

James Fergusson's observation that Greek architecture was symmetrical in its parts but asymmetrical in the whole became the leitmotif of French Hellenism.¹⁷⁷

Auguste Choisy, the author of *Histoire de l'architecture* (1899), discovered that the Greeks had created order within the apparent disorder of the entire site. The whole Acropolis had been designed as a 'picturesque series of discrete scenes in which buildings and statues of different sizes and at different distances were asymmetrically balanced or "pondered" with respect to a central object.'¹⁷⁸ He also demonstrated that 'the architectural promenade provides the *raison d'être* for the coordination of structure, form, program, and aesthetics.'¹⁷⁹ Le Corbusier was much influenced by these aspects and furthermore, by Choisy's regulating lines.¹⁸⁰ These perceptions were repeated frequently in Le Corbusier's book *Towards a New Architecture*. For further discussions on Le Corbusier's personal attitude towards Greece, see Chapter 5.

Medieval Art and Others

Contrary to the current and existing primitive or folk art, medieval art is another kind of primitive in Europe. At the early twentieth century, artists 'turned to the primitives of Europe and Africa precisely because they found that Japanese print was considered too complex and

¹⁷⁷ Ibid., p.269.

¹⁷⁸ Ibid., p.272.

¹⁷⁹ Ibid.

¹⁸⁰ Le Corbusier's analysis of Choisy's plan of the Acropolis went even further than Choisy's in celebrating the picturesque and dynamic succession of views. See Choisy's 'Pittoresque' in *Histoire de l'architecture*, pp. 415-6, and 'Arrangement' in LC's *Towards a New Architecture*.

knowing.¹⁸¹ Naïve simplicity was sought instead of oriental idols. The distinct medievalism of pan-European interest in tapestry, stained glass and cheap wood engravings indicated a common belief among artists that Western culture before the sixteenth century had been essentially popular art. It was thought that during the Middle Ages in Northern Europe the arts had not yet been categorized as 'high' and 'low'.¹⁸²

Le Corbusier was an admirer of medieval art. When he travelled to Italy in 1907, his preference was for the architecture of the 1300s and earlier. For painting and decorative art, he admired that of the late Middle Ages.¹⁸³ In Paris it was mainly non-European and medieval art that attracted his attraction.¹⁸⁴

In modern art in Europe, the general intention that lay behind Primitivism appeared often to create a picture of 'others', which deviated in some way from the cultural and social standards set by Western civilization. These did not only include peasants, gypsies, children and insane people, but also other 'Outsiders' such as prostitutes, circus and various performers.¹⁸⁵ In Le Corbusier's work, the above categories are all included in his paintings and writings. For example, in his *The Decorative Art of Today*, he included a drawing of boats on the sea,¹⁸⁶ which was made by a child, and he also wrote about how a child could inspire even a wise man: 'Diogenes, throwing away his bowl, had said, "This child shows me that I still have something I can do without".'¹⁸⁷ In another case, Le Corbusier borrowed children's work and turned it into murals on the ground floor of his 'Pavillon des Temps

¹⁸¹ Colin Rhodes, *Primitivism and Modern Art*, p. 24.

¹⁸² Ibid.

¹⁸³ H. Allen Brooks, *Le Corbusier's Formative Years*, pp. 96-7.

¹⁸⁴ Ibid., p. 182.

¹⁸⁵ Colin Rhodes, *Primitivism and Modern Art*, p. 59.

¹⁸⁶ Le Corbusier, *The Decorative Art of Today*, p. 167.

¹⁸⁷ Ibid., p. 166.

Nouveaux' in 1937.

Part III. Influence of Non-western Civilizations

From the late eighteenth to the early twentieth centuries, trade and cultural exchanges were facilitated by maritime transportation among the western countries, their colonies and other regions in the world. Edward Said observed:

the rediscovery of Greece during the humanistic period of the European Renaissance; and the "Oriental Renaissance"...from the late eighteenth to the middle nineteenth century, when the cultural riches of India, China, Japan, Persia and Islam were firmly deposited at the heart of European culture. The second, what Schwab calls Europe's magnificent appropriation of the Orient...was one of the most splendid episodes in the history of the human adventure, and a subject unto itself.¹⁸⁸

At this time a series of expositions were held in Europe in the nineteenth century and numerous museums were established. Musée d'Ethnographie de Trocadéro was founded in Paris in 1879, Musée Guimet in Lyon and later also in Paris in 1885. In 1889 Oceanic and West African objects were exhibited at the Exposition in Paris. Before the turn of the twentieth century, there were already numerous primitive collections in major European cities and universities, such as London, Oxford, Cambridge, Copenhagen, Hamburg, Berlin, Leipzig, Rome, Florence, Milan, Turin, Paris, Zurich and Basel.¹⁸⁹ These collections enriched Europe, not only economically but also academically and culturally in terms of ethnology, anthropology and art. Le Corbusier visited many of these museums on his travels or during his early stay in Paris.

An interest in primitive arts in the twentieth century was only the latest in such a series of

¹⁸⁸ Edward William Said, *Culture and Imperialism*, London: Chatto & Windus, 1993, pp. 234-5.

¹⁸⁹ Jack Flam and Miriam Deutch, ed., *Primitivism and Twentieth-century Art: A Documentary History*, p. 441.

pursuits of distant arts. They can be traced back to the chinoiserie of the eighteenth century, and include the interest in Persia, Egypt and Japan, besides various Greek and Roman periods.¹⁹⁰ In the European mind, Asiatic and North African cultures were the domain of fascinating Orientalism, which was not only the positive knowledge about the Orient but also ‘a kind of second-order knowledge – lurking in such places as the “Oriental” tale, the mythology of the mysterious East, notions of Asian inscrutability – with a life of its own.’¹⁹¹

France at the turn of the twentieth century owned the second largest colonial territory in the world, which provided intellectuals such as Le Corbusier with a wealth of exotic inspiration and resources. Other than those colonies, major civilizations in the world were also well-represented in Paris and available for Le Corbusier’s modernist scrutiny, such as Turkey, Persia, India, China and Peru. Their influence could be direct, such as the real experiences from his travel, or the indirect knowledge through studying documents and artefacts. Additional input came indirectly from other works such as those of Picasso, Léger, Matisse and Ozenfant. Under this network of global cultural communication, Le Corbusier connected with a very wide spectrum of primitive and distant cultures, both inside and outside Europe, over a long historical period (See Ch.5&6). It is thus meaningful to examine the background and formation of this broad spectrum of influence.

The French Colonies and their Influence

Partly because of empire, all cultures are involved in one another; none single and pure, all are hybrid, heterogeneous, extraordinarily differentiated, and unmonolithic.¹⁹² Colonialism, in fact, lies at the heart of theories about Primitivism.¹⁹³

¹⁹⁰ Robert Goldwater, *Primitivism in Modern Art*, p. 52.

¹⁹¹ Edward William Said, *Orientalism*, p. 52.

¹⁹² Edward W. Said, *Culture and Imperialism*, p. xxix.

¹⁹³ Colin Rhodes, *Primitivism and Modern Art*, p. 7.

The rising colonial movement in France was not led by businessmen, but largely by geographers and also journalists, writers, and engineers, who advocated Imperialism to restore national glory.¹⁹⁴ The colonies provided abundant resources in agriculture, fishery, minerals, geographical research, artefacts and even soldiers.

Historically, from the 1500s to 1600s, the first French colonial empire was centred in the Antilles but also included parts of the eastern Canada, the Mississippi basin and outposts in Africa and India.¹⁹⁵ From the early 1800s, her second colonial empire embraced islands in the Pacific Ocean and covered vast domains in Africa and Asia. During and after World War II, the French colonial empire started to fall apart; most of the colonies finally became independent. Le Corbusier's urban proposal to colonial Algiers was made in the 1930s, the heyday of French colonial empire, and his study sketches of the African statues in the Trocadéro museum were drawn during his early stay in Paris.

French colonies covered an immense geographical area in Africa. Le Corbusier studied many statues from West Africa. He purchased a wooden statue from Benin in 1927, and a mask from Gabon. In *The City of Tomorrow* the Roman towns of Timgard in Algeria and Kairouan in Tunisia are examples of a 'great city', and a Bongo hut in Central Africa serves a demonstration of 'order' and 'type' of dwelling.

In Asia, the French made their last major colonial gains after World War I, including a territory, now Syria and Lebanon, mandated by the League of Nations. The French East India

¹⁹⁴ Henri Brunschwig, *French Colonialism, 1871-1914: Myths and Realities*, Revised ed. London: Pall Mall P., 1966. pp. 24-30.

¹⁹⁵ Robert Aldrich and John Connell, *France's overseas frontier: départements et territoires d'outre-mer*, Cambridge: Cambridge University Press, 1992, p. 12.

Company was founded in 1664; colonies were then established in India and the Indian Ocean. Napoleon III extended the French control and formalized French Indo-China over Cochin China (known as Vietnam today), and controlled Cambodia and Laos as protectorates. Le Corbusier studied many documents and objects from these areas, such as the drawings of Angkor Vat (B2-20-244) and a dance statue from Cambodia (FLC 1928) in the Guimet Museum.

These examples from the French colonial territories, however, were only a part of Le Corbusier's resources. They were also toned down by his attitude of anti-academicism (see ch.3), as these were too well-known and familiar to the French. Many others came from the colonies of other European countries founded in collections in the Louvre, in museums in Berlin, Vienna and other places where he stayed or visited.

African Influence and Negrophilia

In the eighteenth century, while many Oceanic islands became familiar to English and French explorers, central Africa was still untouched, even though a little trade was carried out in the peripheral area and some artefacts had already been sent to Europe. In the following two centuries, France colonized a large portion of Africa and was ultimately inspired or counter-conquered by the African culture. Negrophilia illustrated the Western's admiration of African aboriginal culture, and was the term used by the Parisian avant-garde in the 1920s to affirm their defiant love of the black people as a provocative challenge to bourgeois values. Painting, sculpture, photography, popular music, dance, theatre, literature, journalism, furniture design, fashion, and advertising, all were remarkably influenced. Various African forms and expressions were borrowed, adapted and transformed by Western

artists. After such a re-vitalization, African art and music became popularised.

Avant-garde artists and writers on occasion courted black artists such as Josephine Baker and Henry Crowder (American black jazz pianist). Léger, Picasso, Brancusi, Man Ray, Giacometti, Sonia Delaunay, and others enthusiastically collected African sculptures and wore tribal jewellery and clothes. They also adopted black images in their work, and their styles soon influenced a large audience who were anxious to be in vogue. Le Corbusier also had such a collection, and a personal connection with Josephine Baker¹⁹⁶.

In the 1920s, Paris revived after World War I with frenetic joy and artistic creativity. Jazz was born in America. It was Paris where jazz was first acknowledged as an art, as Paris at that time had less racism than America. Parisians in the 1920s and 1930s embraced this exotic music. Musicians, authors, avant-garde artists, socialites and ordinary people came together in the clubs and cabarets where jazz reigned.

Le Corbusier was amazed by jazz as a 'melody of the soul joined with the rhythm of the machine'. On his trip to North America in 1935, he noted:

Launched by the Negroes, it is American music, containing the past and the present, Africa and pre-machine Europe and contemporary America...through his music the Negro has entered the chapel of hearts...from the working girl to the millionaire's daughter –is delighted.¹⁹⁷

He thought that jazz represented the forces of his contemporary time and was even more advanced than architecture. He assimilated Jazz with architectural elements of 'stone and steel', 'skyscrapers' and 'creation':

¹⁹⁶ It was short-lived but fervent in the period from 1929 to the mid 1930s. See Mardges Bacon, *Le Corbusier in America*.

¹⁹⁷ Le Corbusier, *When the Cathedrals Were White*, New York: McGraw-Hill Paperbacks, 1964, translated from the French by Francis E Hyslop, pp. 158-9.

In Harlem as on Broadway, the Negro orchestra is impeccable, flawless, regular, playing ceaselessly in an ascending rhythm...Jazz, like the skyscrapers, is an event and not a deliberately conceived creation. They represent the forces of today. The jazz is more advanced than the architecture. If architecture were at the point reached by jazz, it would be an incredible spectacle. I repeat: Manhattan is hot jazz in stone and steel.¹⁹⁸

He was convinced that jazz was the rhythm, the song and the sound of machines¹⁹⁹ in which the immense power prevailed in this epoch.

Orientalism

...the written statement is a presence to the reader by virtue of its having excluded, displayed, made supererogatory any such *real* thing as “the Orient.” Thus all of Orientalism stands forth and away from the Orient: that Orientalism makes sense at all depends more on the West than on the Orient, and this sense is directly indebted to various Western techniques of representation that make the Orient visible, clear, “there” in discourse about it.²⁰⁰ – Edward Said

To the westerners, the Orient ‘was almost an European invention, and had been since antiquity a place of romance, exotic being, haunting memories and landscape, remarkable experience.’²⁰¹ A translation of the *Arabian Nights* into European languages, first by Antoine Galland at the early eighteenth century, sparked an intense fascination with the Orient. An Oriental renaissance took place and modern Orientalism began in the late eighteenth and the early nineteenth centuries.²⁰² At this time the Persian Avestan and Sanskrit were revealed by scholars. Furthermore, there was a virtual epidemic of Orientalia affecting every major poet, essayist and philosopher of that period. Paris was then a capital of the Orientalist world.²⁰³

The Orient is also the major backdrop to the Bible.

¹⁹⁸ Ibid., p. 161.

¹⁹⁹ Ibid., p. 164.

²⁰⁰ Edward William Said, *Orientalism*, pp. 21-2.

²⁰¹ Ibid., p. 1.

²⁰² Ibid., p. 42.

²⁰³ Ibid., p. 51.

Ancient Egypt had fascinated the Romans, and was much later surveyed and rediscovered by Napoleon after 1798, and further represented in many European artworks. Many French scholars researched Mesopotamia and Persia in the nineteenth century. 'The very fact that the ancient arts of India, the Far East...are so admired in the West today, suggests their relevance to the modern world.'²⁰⁴ French missionaries went to China and introduced to the West the ancient Chinese wisdom in the seventeenth century or even earlier. The Japanese print impressed European artists and influenced the movements of Impressionism and Art Nouveau. All of these examples were contributed to this movement of Orientalism.

Egyptomania

Egypt has a very ancient history and always fascinates the western world. Alexander the Great conquered Egypt and then the ancient Romans started to rule the valley of the Nile from the first century B.C. With their expansion, the Romans transported many Egyptian objects to Rome and made Egyptian culture closer to the western society. Egypt was not re-discovered by westerners until 1798 when Napoleon's armada was followed by professionals and scholars intending to conduct research there. The Rosetta stone was found which unveiled a new era of Egyptology.²⁰⁵

The ancient Egyptian charm was conveyed in multiple ways and has affected almost every category of the arts. It left us simple, strict and geometrical forms. Egyptian-related artefacts

²⁰⁴ Horst Woldemar Janson, *A History of Art: a Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 569.

²⁰⁵ A civilian taskforce of 165 members included artists, archaeologists, architects, astronomers, surveyors, engineers and technicians. An institute of Egyptian study was established in Cairo. Terence M. Russell, ed., *The Napoleonic Survey of Egypt; Description de l'Egypte; the Monuments and Customs of Egypt: Selected Engravings and Texts*, Aldershot: Ashgate, 2001, pp. 12, 13, 16.

and symbols became the images of antiquity in a general sense. Egypt symbolized achievements of art, science and technology. Le Corbusier studied many Egyptian images from books and museums.

Many symbols of an eternal life and the mysteries of hieroglyphs and sciences were of interest to the Freemasons, Rosicrucians and the researchers of esotericism. Egypt also represented true exoticism.²⁰⁶ Although all the archaeological discoveries and great advances in Egyptology have enhanced our understanding of ancient Egypt, ‘they have never completely erased the aura of mystery and dreams inherited from past centuries.’²⁰⁷

China and Chinoiserie

Chinese wares, silk, porcelain and lacquer have fascinated Europeans as luxurious articles since very early times. Along with the spread of Marco Polo’s adventure stories and a medieval best seller “*Travel*”, a fiction of Sir John Mandeville set in the mid fourteenth century,²⁰⁸ Europeans experienced waves of interest in the Cathay. Chinese culture was regarded diversely as exotic, mysterious, and beautiful. The market for Chinese objects thrived.

To further explore the East, the British established the East India Company in 1600, the Dutch, in 1602 and the French, in 1664. Dutch ceramics soon showed an influence of Chinese blue-and-white porcelains. This approximately coincided with a substantial increase

²⁰⁶ Jean-Marcel Humbert, *Egyptomania: A Current Concept from the Renaissance to Postmodernism*, p. 25.

²⁰⁷ Ibid.

²⁰⁸ Dawn Jacobson, *Chinoiserie*, London: Phaidon, 1999, p. 13.

of exports from China after Emperor Kang-xi²⁰⁹ (1662-1723) lifted the ban on overseas trade and opened four ports for international trade in 1685. Unfortunately, his successors were less enthusiastic about such contact.

In order to meet the growing demand for Eastern merchandise, many artists and craftsman from all over the Europe began to produce their own version of the Chinese goods—chinoiserie. The notable examples in the seventeenth century included Dutch Delft ceramics, French embroidery, and “japanned” furniture made in the Netherlands and in England. In the mid eighteenth century, the enthusiasm for Chinese objects affected practically every decorative art applied to interiors, furniture, tapestries and bibelots.

Chinoiserie is a style that comes out of a mixture of travellers’ tales, exaggerations and images from India to Japan, and the European imaginings of the exotic societies. Many of them are not historically correct. European’s interest resulted in the production of objects displaying various imitation, emulation, and speculation. As Dawn Jacobson observes, ‘Chinoiserie is an oddity. It is a wholly European style whose inspiration is entirely oriental. True chinoiseries... are the tangible and solid realization in the West of a land of the imagination: an exotic, remote country, fabled for its riches...’²¹⁰

In France, the style of Louis XV provided special opportunities for chinoiserie, as it blended well with the established Rococo. Jean-Antoine Watteau and Francois Boucher among the French Rococo painters specialized in Chinese subjects. In England, the enthusiasm for chinoiserie prevailed in the seventeenth and the eighteenth centuries. Thomas Chippendale

²⁰⁹ Chang, Yu-fa, *Modern History of China*, Taipei, Dong-Hwa Bookstore Pub. (張玉法, 中國近代現代史, 台北, 東華書局), 1968, pp. 21-2.

²¹⁰ Dawn Jacobson, *Chinoiserie*, London: Phaidon, 1999, p. 7.

produced a unique and decorative type of furniture; William Chambers built a Chinese pagoda in Kew Garden. Their work influenced European trends in the eighteenth century such as the Anglo-Chinese garden, as opposed to the formal traditional garden. Although the admirers of chinoiserie faded when a new interest in Neoclassicism emerged in the second half of the eighteenth century, there was a revival of chinoiserie in the early nineteenth century, which can be seen in the extravagant interior of the Royal Pavilion in Brighton.

More cultural exchanges were facilitated between Western world and China around the seventeenth century and after. During the reign of Louis XIV, for example, the chief minister, Colbert sent missionaries to China²¹¹ when Emperor Kang-xi of Qing Dynasty was on the throne. They brought western knowledge to China and introduced Chinese culture to France and the rest Europe.²¹² Joachim Bouvet, a friend of Leibniz', first noticed the correspondence between Chinese *Yi-Jing* and Leibniz' binary system.²¹³ In Kang-xi's court, Matteo Ripa, an Italian missionary made the first series of copperplate etchings in China, which in later years were studied by Le Corbusier in Paris and published in his *Une Maison – un palais* of 1928. There are many other Chinese resources presented in Le Corbusier's studies and publications (to be further elaborated in Ch. 6). In addition to the missionaries' efforts, trade and war were also important in this cultural exchange.

²¹¹ In 1688, five erudite missionaries arrived in Beijing and won the respect of the Emperor Kang-xi. They are specialist of mathematics and all have a Chinese name: Fontaney (洪若翰, 1643-1710), Gerbillon (張誠, 1654-1707), Le Comte (李明, 1655-1720), De Visdelou (劉應, 1656-1737) and Joachim Bouvet (白晉, 1656-1730). See Luo Fan, Feng Tang & Meng Hua, *History of French Culture*, pp. 576-7 & p. 589.

²¹² For example, Le Comte, one of the five missionaries, wrote a book "*Nouveau Memoires sur l'etat present de la Chine*" describing emperors, cities, houses, geography, fruit, economy, language, book, government, religion, science, philosophy and so forth. It was translated into English and published in London in 1699. See Louis Le Comte, *Memoirs and observation, made in a late journey through the empire of China*, Translated from the Paris Edition, Third edition corrected. London: Benjamin Tooke, 1699.

²¹³ James A Ryan, *Leibniz' Binary System and Shao Yong's Yijing*, Philosophy East & West, vol. 46, number 1, January 1996, p. 61.



Fig. 2.2 Mrs. Pierre Loeb dressed in a Chinese costume and surrounded by ethnic and modern arts, 1929.²¹⁴

In Paris, numerous Chinese materials, art works, artefacts and books were circulated among the middle and upper classes, artists, museums and libraries. The art dealer and gallery owner, Pierre Loeb, for example, (who arranged exhibitions for many modernist artists of the 1920s) had many collections of ethnic objects. A photo of 1929 shows Mrs. Loeb in a Chinese costume in her apartment at rue Desbordes-Valmore (fig. 2.2), which was full of modern and tribal artwork.

When Le Corbusier did research in the Bibliothèque Nationale, museums and libraries in Paris, he studied the materials of the royal gardens in Chengde, a private garden in Canton, the checkersboard city planning of Beijing and Chu-Fu, Confucius' hometown, and a remote sacred island close to Ning-Bo in Southeast China.

Japan and Japonisme

China was partially open for foreign trade in 1685, but the successors became more

²¹⁴ Jack Flam and Miriam Deutch, ed., *Primitivism and Twentieth-century Art: A Documentary History*, p. 353.

conservative; an overall xenophobia again made the country closed in 1757 except for a port in Canton.²¹⁵ At this time Japan conversely gradually opened to the west and began its modernization. Japan signed the treaty of *Kanagawa* with America in 1854, which terminated its isolation policy that had lasted 216 years. Soon after this change, fine Japanese artefacts and handicraft flowed to Europe, mainly to France and the Netherlands. Japonisme was in vogue until the end of the nineteenth century. In 1867, many Japanese artworks were exhibited in a Japanese house in the *Exposition Universelle* in Paris. All Japanese items were suddenly regarded as stylish and fashionable. Shops for Japanese woodblock prints, kimonos, fans and antiquities opened in Paris. For the avant-garde artists such as Manet and his peers, the popular Japanese print was amazing and unconventional:

Here they found a tradition unspoiled by those academic rules and clichés which the French painters strove to get rid of. The Japanese prints helped them to see how much of the European conventions still remained with them without their having noticed it. The Japanese relished every unexpected and unconventional aspect of world... It was this daring disregard of an elementary rule of European painting that struck the Impressionists.²¹⁶

The influence was profound. It was their abstraction instead of the realism that made them interesting to Westerners. It also ironically ‘helped pave the way for the modern artist’s rediscovery of medieval stained glass and primitive art.’²¹⁷ The Impressionist and Post-Impressionist painters like Monet, Degas and Gauguin were attracted by these prints. ‘Manet was impressed with their bright, flat colours... Whistler liked their decorative effect; Van Gogh, Toulouse-Lautrec, and the Symbolists admired the expressiveness of the simple, smoothly curved outline.’²¹⁸ In 1875, Monet produced his famous painting, *La Japonaise*, showing his wife in a Kimono and with a Japanese fan in her hand. Van Gogh saw Japanese

²¹⁵ Yu-fa Chang, *Chinese Modern History* (張玉法, 中國近代現代史), 1968, p. 22.

²¹⁶ Ernst Hans Gombrich, *The Story of Art*, p. 525.

²¹⁷ Horst Woldemar Janson, *A History of Art: a Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 571.

²¹⁸ *Ibid.*

prints for the first time in Antwerp in 1885 before moving to Paris the next year. His brother, Theo, ran an art gallery in Montmartre and made Van Gogh familiar with Ukiyo-e, the school of print founded by Hishikawa Moronobu. Some influence of the Japanese print could be found in Van Gogh's paintings, for example, his *Portrait of Père Tanguy*, painted in 1887/1888, has a background with clear Japanese images. In architecture, Frank Lloyd Wright was intrigued by the Japanese temple at the Exposition in Chicago, 1893.²¹⁹ He was influential upon Europe and was celebrated by Le Corbusier as a great pioneer.²²⁰ Le Corbusier studied several Japanese statues, sketched and annotated them.²²¹ He also bought Japanese prints made by Hokusai and Hiroshige at the Printemps Department Store, Paris.²²² He further studied a Japanese building complex that was published in his first *Oeuvre complète*,²²³ and researched temples and Buddhist sculptures.

Oceania

Since the eighteenth century, the Oceanian islands had been familiar to navigators from different countries. There were conflicts among them in terms of the individual benefits acquired from the islands as well as the controversial observations. In 1768 the French explorer Louis Antoine de Bougainville arrived in Tahiti and claimed it a land of ease, peace and abundance, where there was no private property and no sexual taboos. Denis Diderot praised the islanders of Tahiti the 'noble savage'; whereas in 1769 Captain James Cook visited Tahiti, stayed there for four months and condemned Bougainville's account as an

²¹⁹ Peter Blake, *The Master Builders: Le Corbusier, Mies van der Rohe, Frank Lloyd Wright*, New York: Norton, c1976, p. 306.

²²⁰ Le Corbusier, *Oeuvre complète 1910-1929*, p. 13.

²²¹ FLC1897, FLC 2246 and FLC 2251. See *Le Corbusier: le passé à réaction poétique*. Exposition présentée à l'Hôtel de Sully, 62, rue Saint-Antoine, du décembre 1987 au 6 mars 1988. Paris: Caisse nationale des monuments historique et des sites, 1988. p. 141.

²²² Carnet A2, no.96, 1915.

²²³ Le Corbusier, *Oeuvre complète 1910-1929*, p. 21.

insult to the Tahitians. Diderot dragooned his Tahitians as a device to deride the Catholic Church's morbid attitude; whereas Captain Cook put into practice of Enlightenment a maxim that one should seek to understand other peoples in the context of their circumstances.²²⁴ The idea of 'noble savage' was admired by Diderot's friend, Jean Jacques Rousseau.²²⁵ Le Corbusier read several of Rousseau's books, and also quoted him in his publications.

The Paris Exposition: a Parade of Primitives and Exotics



Fig. 2.3 Poster of Exposition Universelle, Paris, 1900.

Stanislaus von Moos and Arthur Rüegg, *Le Corbusier before Le Corbusier*, p. 36.

A series of colonial exhibitions was influential to the Europeans. The Paris Exposition Universelle in 1867 attracted more than ten million visitors. That of 1878 gave the impulse for the foundation of an ethnographical museum at the Trocadéro in Paris, which was separated from that at St. German-en-Layne.²²⁶ The new form of art noticed by Le Corbusier at the Exposition Universelle in 1900 soon won the souls of the visitors, and people began to discuss decorative arts of the past and of exotic places. Le Corbusier notes:

The past was searched for evidence...Gothic was held in esteem. Water, earth and sky, the Botanic Gardens and the Natural History Museum – they were all there to be

²²⁴ Roy Porter, *The Enlightenment*, Basingstoke: Macmillan Education, 1990, pp. 62-3.

²²⁵ Bertrand Russell, *A History of Western Philosophy*, New York: Simon & Schuster Inc., 1945, p. 687.

²²⁶ Robert Goldwater, *Primitivism in Modern Art*, 1986, p. 7.

explored with ineffable love for the creatures of the Good Lord... Then come the crazes of the exotic: China, Japan, India, Persia. To affirm the values of the West now required some energy.²²⁷

From May to November 1931, a huge international colonial exhibition (Exposition Coloniale Internationale) was held in the Bois de Vincennes on the outskirts of Paris, an extravaganza which attracted almost six millions people. In the previous year, it had been the centennial of the French conquest of Algeria; a series of extensive exhibitions as celebrations took place in the French capital, and the President visited Algiers. In the exhibition, there were numerous quasi-indigenous architectures displayed such as Angkor Vat, a Madagascar palace, a Moroccan palace and a Tunisian village in facsimile. Le Corbusier probably had contact with many resources of primitive and distant cultures from this long exhibition. He was also invited to lecture in Algiers in 1931, which was part of a programme in conjunction with the centennial celebrations.²²⁸ European and local cultures interacted both in the overseas colonies and at this Exposition. The Exposition organizer's effort was 'to create a unified, unambiguous lesson of European superiority and colonial inferiority, the Exposition was one of those places where the colonized and colonizer 'danced in a fascinating, ambivalent embrace.'²²⁹

France, like the other European countries, gradually lost control over her overseas territories. The last great Parisian exposition held in 1937 featured many European countries; France, however, was on the threshold of losing more overseas territories in her empire. In spite of

²²⁷ *Viennent les engouements pour l'exotique* (Then come the crazes of the exotic). From: Le Corbusier, *Decorative Art of Today*, p. 133. Later in this chapter he stated opposition to decoration in architecture. He was, however, inspired by decoration profoundly, as his mentor saw it as microcosm (ibid., p. 194). He still celebrated folk art till his late life.

²²⁸ Tim Benton, *Urbanism*, in *Le Corbusier, Architect of the Century: a Centenary Exhibition Organized by the Arts Council of Great Britain* in collaboration with the Fondation Le Corbusier, Paris; Hayward Gallery, London, 5 March-7 June 1987. London: Arts Council of Great Britain, 1987.

²²⁹ Patricia A. Morton, *Hybrid Modernities: Architecture and Representation at the 1931 Colonial Exposition*, Paris, Cambridge, Mass.; London: MIT Press, c2000., p. 321.

these circumstances, Le Corbusier organized an exhibition, 'Art de la France d'Outremer', with Marie Cuttoli, at the Grand Palais in 1940. He designed the exhibition space as well as arranging the lighting and mural photographs.

Le Corbusier was inspired by primitive, ancient and exotic cultures, which fundamentally nourished his vision of modern architecture. His perception of them was developed in various stages and will be traced in the next chapter.

Chapter Three

Le Corbusier's Vision of Primitivism

...it is the work which by the progressive distillation of folk cultures reveals to us a type-thought, potential universal, the language of the heart of mankind.
– Le Corbusier²³⁰

Compared with the works of Purist period, Le Corbusier's designs of around 1930 were more expressive of primitive and other civilizations. Nevertheless, his involvement in primitive materials and distant cultures began during his earliest study at the Ecole d'Art, La Chaux-de-Fonds. Between 1907 and 1911, he studied them, especially the local folk dwellings in various countries and the collections in ethnographic museums. Assisted by extensive reading, he gradually built up his own vision of architecture inspired by primitive and distant cultures.

After he settled in Paris in 1917, he became part of the avant-garde and was surrounded by *art nègre* as well as art of other distant civilizations. A number of perceptions formed in his mind, deepening his thoughts and widening his vision of modern architecture.

Anti-academicism made him explore new ways instead of following conventions. Ideas of universal and fundamental principles could be simultaneously modern and primitive. His writings on primitivism and distant cultures spanned his *L'Esprit nouveau* in early 1920s and *Une Maison – un palais* published in 1928, right after losing the Palace of the League of Nations competition. In 1935, an exhibition of primitive art was held at Le Corbusier's studio in Paris. Le Corbusier's introduction to this exhibition expressed his belief in the primitive as creating unities out of different periods, and the discovery of the novelties of these objects. This tendency, infused with his predilection for nature, geometry and enthusiasm for the machine, motivated his collections and works, more or less, throughout

²³⁰ Le Corbusier, *The Decorative Art of Today*, p. 207.

his whole life.

In general, the scope of primitivism and foreign civilizations is very broad, and the definitions of primitivism remain extensive and nebulous; hence Le Corbusier's own interpretation of them will be the foothold in this research and could be examined through his studies, writings and works. Paris was full of exotic attractions. Most of the civilizations Le Corbusier selected are 'distant' from convention, as he wanted to establish a new paradigm for architecture and cities. These civilizations, which cover the major cultures and support his argument, are always folk, archaic or medieval.

In these civilizations, for Architecture, there are tents and huts, vernacular and archaic. For instance, a tent could be a temple as a basis for Le Corbusier's regulating lines in *Towards a New Architecture*, or an image of the nomad as the beginning of a city illustrated in *The City of Tomorrow*. The 'hut' in Le Corbusier's view could have a rectangular plan with pitched roofs as in Brittany, Arcachon and the Alps. Huts with a flat roof and rectangular plan offered a direct reference to Le Corbusier's ideal modern prismatic architecture, such as the Persian folk house and Irish Crannog. Other sanctuaries include the free-curved Ggantija on Gogo Island, which may have inspired his design of the Chapel of Ronchamp. He experienced personally the archaic architecture of Greece, Rome and Pompeii, as well as the exotic Islamic Mosques in Istanbul. The great city, in his mind is the city with a clear geometrical order, such as Peking and Timgard. Most of his arguments are developed through and supported by these examples.

The decorative art, which he studied during his journeys and at museums, includes pottery, statuary, sculpture, jewellery, carpet, graphic pattern and so on. He sketched and noted on

their composition, material, colour, technique, and background. His painting was also expressive in this field, such as his series of ‘fisherwomen’ around 1930. In his *Decorative Art of Today*, Le Corbusier celebrated the machine age and spoke out against decoration in architecture. But at the same time he spoke highly of folk art. On the other hand, he was inspired by decoration profoundly. For example, his mentor regarded ornament as microcosm.²³¹ Le Corbusier commented on decorative art, ‘considerations of *ensemble*: organization, sense of unity, balance, proportion, harmony. There were the germs of architecture in this.’²³²

Part I. Development of Personal Primitivism

The development of his personal repository of primitive and distant cultures can be traced back to his early training in the Ecole d’Art, La Chaux-de-Fonds. Later it grew rapidly through his extensive travels, assiduous study and design works. His selections of collections were foreshadowed by personal preferences; some kept changing and others remained. This somehow reflects his persistent pursuit of ideals and the constant transition of his environment.

Before 1907: La Chaux-de-Fonds

Despite being located on the hills of the Jura at the edge of Switzerland, the small town of La Chaux-de-Fonds was a world centre of watch manufacturing at the turn of the twentieth

²³¹ LC, *Decorative Art of Today*, p. 194.

²³² *Ibid.*, p. 134.

century.²³³ Bordering France, it is a French-speaking town and culturally influenced by Paris. Charles L'Eplattenier, Le Corbusier's mentor in this school, who studied in Paris, at the Ecole des Arts Décoratifs and the Ecole des Beaux-Arts. L'Eplattenier then travelled extensively in England, Belgium, Holland, Germany and Italy.

In the education of the Ecole d'Art, La Chaux-de-Fonds, the writings of Owen Jones, John Ruskin and Eugène Grasset were read. Grammar and regulations of ornament were parts of the basic training in the manipulation and composition of forms from daily and natural objects.

Owen Jones' *The Grammar of Ornament* presents logical principles of ornament design and the use of colours in his systematic pictorial design collection of daily objects. The book incorporates many exotic and primitive examples from five continents as well as several European sources. It includes 'savage tribes' (in New Zealand and New Guinea here), Egyptian, Mesopotamian, Greek, Roman, Medieval, Arabian, Indian, Chinese and so forth.

To Jones, these styles were the product of cumulative experience and knowledge of thousands of years. He listed thirty-seven 'Propositions' for ornament, including proportion, harmony and geometrical construction. Some of them have a similar ethos to Le Corbusier's architectural principles in *Towards a New Architecture*, such as the statements of 'As Architecture, so all works of the Decorative Arts, should possess fitness, proportion, harmony, the result of all which is repose.' (No.3) 'All ornament should be based upon geometrical construction.' (No.8) 'As in every perfect work of Architecture a true proportion

²³³ Jacques Goubler, 'In Time with the Swiss Watchmaker', ed. F. Russel, *Le Corbusier, Early Works by Charles-Edouard Jeanneret-Gris*, London: Academy Editions; New York: St. Martin's Press, 1987, pp 121-2.

will be found to reign between all the members which compose it, so through the decorative art.' (No.9)²³⁴

This book was significant to Le Corbusier, because of the abstraction and purity of its design.²³⁵ His reminiscence of it in 1925 stated, 'This, without question, was a serious business...if nature was omnipresent, man was an integral part of it, with his faculties of crystallisation and his geometrical formation...From imitation to creation. This book was beautiful and true...that in a profound sense had been achieved.'²³⁶ Instead of the Renaissance or Elizabethan ages, what Le Corbusier chose specifically to study were the 'Savage Tribe' (Melanesia: FLC 2234, 1777) and 'Egyptian ornament' (Egypt: FLC 1778, 1779), which are geometrical and more original. Thus he developed his platonic geometrical prism and the primitive remote cultures simultaneously.

Ruskin's literature drew Le Corbusier's attention to medieval architecture, morals and nature. Le Corbusier was quite familiar with a number of Ruskin's books such as *The Seven Lamps of Architecture*, *The Stones of Venice*, *The Bible of Amiens* and so on.²³⁷ While Le Corbusier travelled to Florence, Ruskin's *Les matins à Florence* was 'extraordinarily important in guiding his steps, his eyes, and his mind.'²³⁸

Le Corbusier also studied Charles Blanc's *Grammaire des arts du dessin*, and was much influenced by some major themes of this book. For instance, 'the beauty depends on laws of

²³⁴ Owen Jones, *The Grammar of Ornament*, Studio Editions, c1986, p. 5.

²³⁵ Paul Venable Turner, *The Education of Le Corbusier*, New York & London: Garland Publishing, Inc, 1977, p. 7.

²³⁶ Le Corbusier, *The Decorative Art of Today*, p. 133.

²³⁷ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 69.

²³⁸ *Ibid.*, p.98.

order, proportion and harmony'.²³⁹ These pre-figured many of Le Corbusier's points in *Towards a New Architecture* and similarly influenced his selection of the primitive. Blanc discussed '*origine et caractère des arts du dessin*' starting from the Creation: '*L'oeuvre d'art par excellence es la Création, donc l'éternel artiste es Dieu. Ainsi, antérieurement à la venue du genre humain sur la terre, l'idéal suprême s'était manifesté et il remplissait l'univers.*'²⁴⁰ This served as one of the backgrounds for the legitimacy of the primitive temple. Blanc elaborated beauty in various conditions with the factors of climate, materials and configuration of the sun, and he borrowed several exotic examples of Chinese, Indian and Egyptian architecture in the discussion.²⁴¹

In the Ecole d'Art, L'Eplattenier taught decoration transformed from nature and organic forms. He and his students went into the woods to study the flora and fauna of the Jura region with the intention of establishing a genuine Jura style.²⁴² Le Corbusier recollected years later: 'Our style would be a style of the country, a poem of our country...I too was a regionalist.'²⁴³ These folk motifs allowed them to free themselves from the legacy of historical patterns. Le Corbusier's debut building design, Villa Fallet of 1906, showed a preference for the Swiss chalet and a neo-medieval flavour; most of its decorative forms were derived from the fir tree of the Jura.²⁴⁴ Similar characteristics could be identified in his Villas Stotzer and Jacquemet, both designed in 1908.

Additionally, Le Corbusier also studied Eugène Grasset's *Méthode de composition*

²³⁹ 'le beau ne saurait être conçu en dehors de certaines lois d'ordre, de proportion et d'harmonie.'
From: Charles BLANC, *Grammer des art du dessin*, Paris, 1870, p. 6.

²⁴⁰ Ibid., p. 57.

²⁴¹ Ibid., pp. 114-136.

²⁴² Stanislaus von Moos, *Le Corbusier, Elements of a Synthesis*, p. 4.

²⁴³ Le Corbusier, *The Decorative Art of Today*, p. 194.

²⁴⁴ Stanislaus von Moos, *Le Corbusier, Elements of a Synthesis*, p. 7.

ornamentale (1905). He wrote in his *The Decorative Art of Today*, 'Grasset was the geometrician and algebraist of flowers. With him we had to extend our admiration for all flowers as far as the secret of their structure.'²⁴⁵ Henry Provensal's *L'Art de Demain* which Le Corbusier read in 1906, maintained that architecture must adhere to eternal laws, including those of number, unity and harmony, and that cubic forms can best express such an idea.²⁴⁶ This suggestion resonated with the training Le Corbusier had received on developing geometry from nature. Thus, in this light, and also with his own preference for geometry and the purity of machine, Le Corbusier's judgement on the resources of primitive and distant cultures was led by this predilection. He then started to pursue primitive and remote cultures with an eye for eternal laws and primary forms. Architectural models he selected in his discussions explicitly show this tendency and direction, such as the Jewish tabernacle or the mosque in Istanbul.

1907-1911: Travel, Museum and Library Study

After a primary training in La Chaux-de-Fonds, Le Corbusier spent four years from 1907 to 1911 travelling and serving his apprenticeship. Since about 1908 he had been a keen explorer in search of an ideal,²⁴⁷ of what contemporary architecture should be. This pursuit was carried out by visiting numerous cities, architectural sites, and museums; taking architectural lectures; reading much literature; practising architecture designs; and observing local life and folk art, etc. In this period, Le Corbusier took extensive trips to European countries including Italy, the Balkans and Turkey. He was stimulated enormously by travelling, studying and working as an apprentice in Paris and Germany.

²⁴⁵ Le Corbusier, *The Decorative Art of Today*, p. 132.

²⁴⁶ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 255.

²⁴⁷ *Ibid.*, p. 252.

A. Travel as Cultivation

All my life was filled with discoveries. It is a matter of choice.

– Le Corbusier²⁴⁸

Travelling has been considered as a channel of education, especially the traditional grand tour for the young European aristocrats as a culmination of their classical education. During the grand tour, men learned about the politics, cultures and arts of other lands. Traditionally, the ultimate destination of it was Italy, which is full of the ancient Roman heritage. Art students from all over the Europe visited Italy to see and learn from the ancient models. 'Italy was the only European country which could provide all the justification needed for the new fashion of travel for its own sake. Here people could update their humanist education in its birthplace, see the monuments of the Greeks and Romans with their own eyes.'²⁴⁹ For painters and architects it was a professional necessity.

Le Corbusier travelled abroad in quest of lessons that would clarify queries in his mind. His was an attempt 'to capture the source of art, the reason for art, the role of art...[he] embarked on a great journey, which was to be decisive, through the countryside and cities of countries still considered unspoilt.'²⁵⁰ He perceived the lives and characters of each place in his journey. He said: 'I then explored the big cities one after the other, to learn, to live, to look for where to apply energies eager to produce, and I tasted their brutality.'²⁵¹ As an architect, Le Corbusier's daily work was to manage the architectural composition. He thus needed to accumulate varied experience of architectural space to facilitate his design work.

²⁴⁸ Le Corbusier, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 58.

²⁴⁹ Paul Kruntorad, 'The Paradigm of Travel in Italy', *Lotus* 68 (March 1991), p. 124.

²⁵⁰ Le Corbusier, *The Decorative Art of Today*, p. 206.

²⁵¹ *Ibid.*, p. 197.

During his journeys, Le Corbusier always took a sketchbook with him. Some of these records of images and notes later became valuable sources of his numerous paintings and building designs. His travel sketches were pictorial records of his observations and discoveries. When he went to different places and studied local cultures, he again did research in local museums and added notes and drawings to his sketchbooks. A chronological list of his travels is attached in Appendix I.

B. Museum Study

From the museums I required certainties without holes, without snares. The works there are like integral numbers, and the conversation is without pretence.
- Le Corbusier²⁵²

For Le Corbusier's generation, making replicas of historical pieces of art was an integral part of the art and design training. At Ecole d'Art, 'L'Eplattenier used to mount his studies as groups on large sheets of wrapping paper so that his students could easily study them. Many of Jeanneret's most beautiful museum studies appear to follow L'Eplattenier's style closely.'²⁵³

Le Corbusier made extensive research at museums when he travelled or stayed in Venice, Paris and Berlin, which is listed in Appendix II. In 1907, for instance, he went to Vienna to study contemporary design. He visited many museums which often became a 'part of his Sunday schedule yet – as in Italy – he never sketched paintings by masters; what he recorded were usually furnishings, the decorative arts, or works produced by distant cultures'²⁵⁴ as

²⁵² Le Corbusier, *The Decorative Art of Today*, pp.197-8.

²⁵³ Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier*, New Haven, Conn.; London: Yale University Press, 2002, p. 161.

²⁵⁴ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 121.

well as the examples of architecture in museums and in cities. In Vienna, he went to the Historisches Museum²⁵⁵ where he did not pay attention to European collections but studied Egyptian sculptures instead; he also researched in the Arabian room at the Kunstgewerbemuseum.²⁵⁶ He visited numerous local museums during his travel such as the Acropolis museum in Athens, and the Naples Museum near Pompeii.

In the current archive at the Fondation Le Corbusier, there is a list of drawings that Le Corbusier made in museums during his formative years. Most of them were of more or less primitive or distant cultures, instead of high art. For example, his sketches made in the Louvre include the Persian bull, ancient Greek statuette, vases, and some mediaeval carpets, without any great art in the Renaissance or thereafter. In the Trocadéro museum in Paris, he showed great interest in African art and made many records of Peruvian art. He was also interested in Cambodian statues and Japanese Buddhist statues in the Guimet museum.

Study in the museum, as Le Corbusier later recalled, proved more reliable and certain than learning from books.²⁵⁷ In Paris, he enjoyed working at Perret's studio, which 'provided the freedom to spend afternoons, evenings, and weekends as he liked, perhaps in museums, at the Notre-Dame, in libraries.'²⁵⁸

C. Imaginary Journeys: Study from Books

In 1908 and 1909 when Le Corbusier stayed in Paris and worked for Auguste Perret, he spent

²⁵⁵ See *Passé* no.314. Le Corbusier annotated: Wien Historisches Museum.

²⁵⁶ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 122.

²⁵⁷ Le Corbusier, *The Decorative Art of Today*, 1987, pp. 197-8.

²⁵⁸ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 175.

considerable time studying at the Bibliothèque Nationale and the Bibliothèque Sainte-Geneviève.²⁵⁹ Since 1910 Le Corbusier had worked on 'La Construction des villes', a treatise on urban design. He researched in many libraries while travelling²⁶⁰ and included many distant cultures such as Ernst Johann Robert Boerschmann's travel documents concerning Chinese temples (see Ch. 6).

Apart from his visits, Le Corbusier also took imaginary journeys by reading books such as Rousseau's *Les Confessions* in 1909 and Nietzsche's *Thus Spoke Zarathustra*. When he stayed in Vienna 1907 and 1908, he read through *Les Grands Initiés*, a gift from L'Eplattenier, and *Sanctuaires d'orient* all by Edouard Schuré. The former book portrays the lives of many of the world's greatest prophets of the past, including Krishna of India, Moses and Jesus from the Middle East, Hermes of Egypt, and Orpheus, Pythagoras and Plato of Greece. There are other spiritual leaders discussed such as Persian Zoroaster, Indian Buddha, Chinese Fu-Hi, and so on. Schuré's discussion compared each master's tenets. As a result, the world civilizations opened Le Corbusier's mind not only with decorative patterns as Owen Jones discussed, but also broad wisdom from diverse cultures, which commonly nourished people. As Schuré states:

Lao-Tse²⁶¹ in China was emerging from the esoterism of Fo-Hi²⁶²; the last Buddha Sakya-Mouni was preaching on the banks of the Ganges; in Italy the Etrurian priesthood sent to Rome an initiate possessed of the Sibylline books... Their diverse missions had one common end in view... at certain periods, one identical spiritual current passes mysteriously through the whole of humanity.²⁶³

²⁵⁹ Le Corbusier, *Sketchbooks I*, 1914-1948; notes by Françoise de Francieux, p. 5.

²⁶⁰ For this treatise, he visited Paris again for research in the Bibliothèque Nationale in 1915. In Germany he visited many cities for his book *Étude sur le mouvement de l'art décoratif en Allemagne* and studied in local libraries for 'La Construction des villes'. See H. Allen Brooks, *Le Corbusier's Formative Years*, pp. 430-5.

²⁶¹ A Chinese philosopher, the founder of Taoism and the author of *Tao-Te Chin*.

²⁶² '伏羲' (in Chinese), a legendary intellectual in ancient China who invented 'Bagua', eight variations in the universe.

²⁶³ Edouard Schuré, *The Great Initiates*, vol. II, p. 10.

During his sojourn in Germany between 1910 and 1911, Le Corbusier became acquainted with William Ritter, who became a close friend, before meeting Ozenfant, the second great mentor in his life. Ritter, twenty years older than Le Corbusier, was a critic of music and art, as well as a biographer and a prolific novelist. The settings of his writing were usually the Slavic countries. He had much enthusiasm for the peasant life, which obviously persuaded Le Corbusier to visit this region in 1911.²⁶⁴

Ritter recommended Le Corbusier to read *Les Entretiens de la villa du Rouet; Essais dialogués sur les arts plastiques en Suisse romande* by Alexandre Cingria-Vaneyre in 1910. Cingria-Vaneyre insisted on the popular and folkarts of the French-speaking Switzerland 'had preserved ancient classical values...[and] must be reintroduced into the region's architecture.'²⁶⁵ This book supported Le Corbusier's view that he had already established and had much influence on him. Thus, the classical value should be fused with the vernacular one, which would be a key component of his new design. The many other books he read at this time are listed in the appendix of Paul Turner's dissertation 'The Education of Le Corbusier.'

1912-17: La Chaux-de-Fonds, Early Professional Career

From 1912, before moving to Paris, Le Corbusier had an early professional career in his hometown, teaching, designing and writing. Vernacular features remained his delight, as after returning to La Chaux-de-Fonds in 1910 and 1912, he liked to stay in a Jura farmhouse close to his parents' house. Such farmhouses typically consisted of a low-pitched roof and

²⁶⁴ H. Allen Brooks, *Le Corbusier's Formative Years*, pp. 217-8.

²⁶⁵ *Ibid.*, p. 237.

sheltered all the necessities. It turned out to be one of Le Corbusier's favourites where he stayed for months, and its images inspired his later design. The pyramidal chimney, for example, was borrowed and reinterpreted into the Assembly Chamber, Chandigarh, India, and the church at Firminy, France.²⁶⁶

As revealed in an essay of 1914, his Jura regionalism was somehow adjusted. He no longer thought that one could bring about a *priori*, a regional architecture form. He was convinced that an architect, sensitive to his surroundings, would gradually reveal the environmental influence in his work. This therefore negated L'Eplattenier's call for an art based on the natural forms of the Jura, and one further step took place.²⁶⁷

1917- 29: Paris and *L'Esprit Nouveau*

Le Corbusier moved to Paris in January 1917 to begin his new career. From May Le Corbusier worked on housing at Saint-Nicholas-d'Aliermont, Normandy. He spent time in sketching vernacular buildings near the site and studying their massing, roof shapes, fenestration and materials. It was his client's decision to respect the regional architectural styles so many features in his design came from the local buildings.²⁶⁸

After having moved to Paris, Le Corbusier met several friends who were fond of the primitive. Among them, Fernand Léger had been Le Corbusier's close friend since early 1920. Léger designed the setting and costumes of the ballet 'The Creation of the World' in 1923 with a stylistic African reference, which was a balance between modern and primitive

²⁶⁶ Ibid., pp. 185-191.

²⁶⁷ Ibid., p. 356.

²⁶⁸ Ibid., p.481.

forms. His designs suggested that at that time ‘African forms became a metaphor for origins and their aspirations for modern society.’²⁶⁹ Amédée Ozenfant was Le Corbusier’s important friend. In Ozenfant’s *The Foundations of Modern Art*²⁷⁰, he freely juxtaposed images of African art and modern technology. He also praised Jazz for its intensity and richness.²⁷¹ Le Corbusier absorbed the duality of African folk culture and the machine that infused the work of Ozenfant and others.²⁷²

In 1918 Le Corbusier and Ozenfant published their Purist manifesto *Après le cubisme*, in which they elaborated the traits of Purism in number, geometry and harmony in nature, with the demonstrations of the ancient canon of the palace in Assyria, the Parthenon, the Persian Dome and so on. Later in *L’Esprit nouveau*, the subtitle of early volumes, *Revue internationale d’esthétique*, conveyed an intention of international reach. Most of the positive examples there were related to primitive and distant cultures.

Le Corbusier’s articles in *L’Esprit nouveau* were largely republished into four books afterwards. His modernist arguments are supported by distant examples. As he stated, the modern sensibility rests upon the past, exoticism, and the present.²⁷³ In *Towards a New Architecture*, he stated his view that ‘the plan is the generator’²⁷⁴ and a spatial rhythm, which is illustrated with a Hindu temple, Santa Sophia, a temple at Thebes, a palace in

²⁶⁹ Petrine Archer-Shaw, *Negrophilia: avant-garde Paris and black culture in the 1920s*, London: Thames & Hudson, 2000, p. 110.

²⁷⁰ First published as *L’Art*, Paris in 1928, published in English in 1931.

²⁷¹ Amédée Ozenfant, *The Foundations of Modern Art*, p. 169. See also Susan L. Ball, *Ozenfant and Purism: the Evolution of a Style, 1915-1930*, pp. 86-7.

Mich. Ann Arbor: UMI Research Press, 1981.

²⁷² Mardges Bacon, *Le Corbusier in America: Travels in the Land of the Timid*, Cambridge, Mass.; London: MIT Press, c2001, p. 221.

²⁷³ Le Corbusier, *Oeuvre complète*, vol. 3, p. 157, trans. Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier: Apartment Block 24 N.C. and Le Corbusier’s Home*, pp. 59-60.

²⁷⁴ LC, *Towards a New Architecture*, p. 45.

Amman and the Acropolis. In discussions on the arrangements of and the relationship between interior and exterior,²⁷⁵ Santa Sophia, the Pompeii house and the Acropolis are taken as examples. The elaboration of ‘Regulating Lines’ exhibits more comprehensive examples to prove their universality throughout histories and cultures, in which some cases are cited from a primitive temple (Jewish Tabernacle, in fact, fig. 3.1), a Greek temple, Persian cupolas, the Notre Dame of Paris, the Capitol at Rome and the Petit Trianon at Versailles. Two independent chapters are dedicated to the Parthenon and ancient Rome, as well as the drama of St. Peter Church of Michelangelo. Le Corbusier kept a distance from other Renaissance art and noted carefully: ‘The work of Michael Angelo is a *creation*, not a Renaissance.’²⁷⁶

In *The City of Tomorrow and its Planning*, examples of this category are focused on the discussion of order and uniformity.²⁷⁷ A ‘great city’ in his mind is with a strong order. ‘Where the orthogonal is supreme, there we can read the height of a civilization.’²⁷⁸ Such examples with a checkersboard or a concentric plan listed are Khorsabad (fig. 3.2) and Peikin (Beijing).

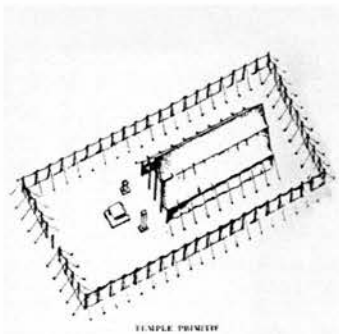


Fig. 3.1 A primitive temple. LC, *Towards a New Architecture*, p. 71.

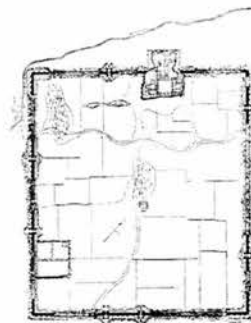


Fig. 3.2 Khorsabad. LC, *The City of Tomorrow*, p. 101.

²⁷⁵ In the chapter of ‘The Illusion of Plan’

²⁷⁶ Le Corbusier, *Towards a New Architecture*, p. 168.

²⁷⁷ In the chapter of ‘Classification and Choice’ and ‘The Great City.’

²⁷⁸ Le Corbusier, *The City of Tomorrow and its Planning*, trans. Frederick Etchells, London, The Architectural Press, 1947, p. 55.

There are discussions on the authenticity of folk culture and the legacy of ancient decorative art in *The Decorative Art of Today*. Illustrations are primarily accumulated from his early study in museums, ranging broadly from a Peruvian vase to a Nimba goddess and photos from other publications. While discussing the machine conceived within the spiritual framework, he stated that the geometry and the gods of Egypt and Congo sit side by side.²⁷⁹ He also affirmed that the folk culture was corrected, perfected, polished, clarified, was a mirror of people, and therefore became transmissible.²⁸⁰ On the other hand, in the machine age, 'new standards will be our own folk culture'.²⁸¹

In *La peinture moderne*, a synthesis of the Parisian artistic milieu,²⁸² primitive examples were elaborated in the chapter 'Destination de la peinture' as a historical account; and an Egyptian engraving was illustrated for the demonstration of *hiératisme* in the chapter for discussion of 'Idée personal: l'angle droit.'

At the late Purist stage, folk architecture became strong in his writing. One reason is his visit to Brittany in 1924.²⁸³ There he made many sketches of vernacular houses and was especially impressed by a scene of a vertical stone standing against the horizon on the sea, a 'right angle' in the natural landscape, and his primordial icon on a primitive land. These Breton folk houses were later published in *Almanach d'architecture moderne* of 1926, in

²⁷⁹ Le Corbusier, *The Decorative Art of Today*, pp.110-2.

²⁸⁰ Ibid., p.33.

²⁸¹ Ibid., pp. 36-7.

²⁸² Carol S.Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*, Los Angeles, Calif.: Los Angeles County Museum of Art in association with Harry N. Abrams, c2001, p. 94.

²⁸³ Le Corbusier took a vacation in Brittany in 1918 including visiting Angers, which is a big city. See H. Allen Brooks, *Le Corbusier's Formative Years*, p.494. Le Corbusier mentioned Brittany again on houses: '1933 Cyclades the idea comes back of the house in Brittany of 1924 starting out from a central nucleus.' Le Corbusier, *Sketchbooks I*, 1914-1948, no.314.

which they were regarded as a 'standard'. They were precise, pure, and true as an apple or a pear. Reinforced concrete, resisting sea well; was later introduced to this region; a new standard was thus established.²⁸⁴ Many examples in the book illustrate the history of architecture and focus on geometry and the human scale from ancient time to the present.

In 1927, Le Corbusier purchased an African statuette from the Hôtel Drouot.²⁸⁵ In the same year, he participated in the competition for the Palace of the League of Nations in Geneva, which led him to rethink the argument for modern architecture. This project was intended to unite all nations, and pushed him forward to encompass the larger world. He consequently highlighted his narration on primitive and distant cultures to justify his argument, and then published *Une Maison — un palais: "A la Recherche d'une Unité Architecturale"* in 1928. The mood of the book is, as in his previous publications, always juxtaposed with archaic and modern examples; the machine and nature; and moreover, Europe and the whole world. The instances of primitive, folk and distant culture are broader than before. References to primitive and folk, becoming more explicit, included current primitives within Europe such as vernacular huts in Brittany and Arcachon with lengthy discussion, several pre-historical examples such as Stonehenge in Britain, a sanctuary on Gozo Island, and instances of medieval European cities. Many other examples were from civilizations such as Persia, Assyria, India, China, Greece and Rome. This book highlights the most comprehensive viewpoints of Le Corbusier's discussions on the primitive and ancient civilizations of the world as his stance to proclaim modern architecture.

The following year, 1929, during his journey to South America, Le Corbusier gave a series

²⁸⁴ Le Corbusier, *Almanach d'architecture moderne*, pp. 86-91.

²⁸⁵ In May 19-20, 1927, likely in Paris. See the catalogue in FLC.

of lectures, which were later published as *Précisions*. In this book, the primitive hut and Argentinean folk house were discussed, but not as much as in his writing as before. On the contrary, the folk, primitive and natural elements gradually become expressive in his architecture.

Transitional Period: Collection around 1929

Citation of primitive and distant cultures in Le Corbusier's writing reached a highpoint by 1928, as he published *Une Maison – un palais*, but in his design work only after 1929 these sources turned out to be more expressive (Maisons Loucheur 1929, Maison Errazuris 1930, Le Pavillon Suisse 1930, etc.). The classical and universal disciplines, such as order and proportion, had already manifested through the regulating lines since his Purist architecture, and later continued as *Modulor*. The primitive, folk and natural languages in design were more significant in his post-Purist architecture.

A. Suppression of the Machine after the Late 1920s

Le Corbusier's repository in the late 1920s had already accumulated rather rich materials of many types, but principles of how to apply these materials were adjusted in order to echo his current work and background. The theme of the 'machine' in Le Corbusier's writings in late 1920s is weaker than in the early 1920s. He continued to mention machines and technology but discussed much broader issues in his articles. For example, in *Une Maison - un palais*, the machine age and the 'machine for living' was mentioned but was less strong than that in *Towards a New Architecture* of 1923. This was similar to his urban design treatise *The Radiant City* published in 1933 where many other themes were involved, such as the

biological cells, the law of nature, urban paradigm and syndicalism. As observed by Kenneth Frampton:

...after 1930, Le Corbusier no longer believed in the Purist project as the manifest destiny of the machine-age civilization. Thus, he came to realize that far from heralding a new golden age, the machine was at best an ambivalent instrument or, if not that, then certainly an insufficient cause for the realization of utopia.²⁸⁶
Le Corbusier's dialogical habit of mind took a totally different turn around 1930 when he began to think of revitalizing vernacular culture through its subtle integration with modern technology.²⁸⁷

This disillusionment with the machine and technology fermented gradually. The American Wall Street Crash of 1929 unleashed a dreadful economic crisis, which spread to France in 1931 and was not improved until 1938. The Depression, apart from its obvious impact on the economic sphere, also undermined the faith of many French intellectuals in the American industrial utopia. 'Fordism and Taylorism no longer seemed such certain means to obviate class tensions once the prospects of abundance were in doubt... The disillusionment with technocracy had almost immediate repercussions on French economic and political life.'²⁸⁸

Le Corbusier's Purist architecture was not fully successful in realization, such as his mass production housing project at Pessac (1925-1928).²⁸⁹ His pure geometric boxes with monolithic finish revealed technical problems when built,²⁹⁰ which is ironic considering his praise of technology. The large pure transparent glass façade in his Salvation Army hostel was problematic in hot summer weather, and was later replaced by operable windows.

²⁸⁶ Kenneth Frampton, 'The Other Le Corbusier: Primitive Form and the Linear City 1929-52', in *Le Corbusier: Architect of the Century*, p. 29.

²⁸⁷ Kenneth Frampton, *Le Corbusier*, Thames and Hudson, 2001, p. 7

²⁸⁸ Mary Caroline Mcleod, *Urbanism and Utopia, Le Corbusier from Regional Syndicalism to Vichy*, Ph.D. Dissertation, Princeton University, June 1985, p. 73.

²⁸⁹ *Ibid.*, p. 30.

²⁹⁰ Such as the Villa Savoye was 'providing a catalogue of disastrous technical failings' such as leaking, flooding, problems of plumbing and central heating, etc. See Tim Benton, 'Villa Savoye and the Architects' Practice' in H. Allen Brooks, ed., *Le Corbusier: The Garland Essays*, Garland Publishing, Inc., New York, 1987, pp. 93-4.

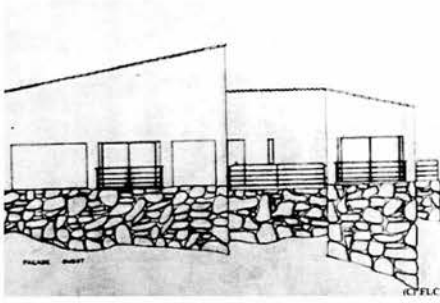


Fig. 3.3 Le Corbusier, Errazuris house in Chile, 1930. *O.C.* 2, p. 50, detail.

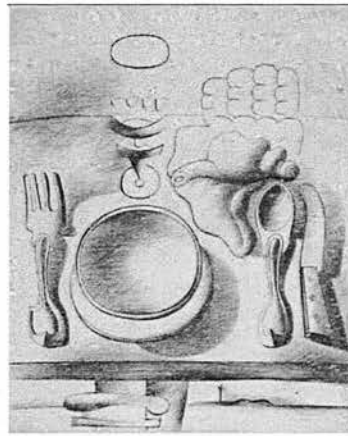


Fig. 3.4 Le Corbusier, 'La table mise', 1927. A Sketch for the surrealistic paintings 'Le déjeuner près du phare'. (FLC 1208)

The turning point in Le Corbusier's career, according to Mary McLeod, is 1929, the concluding year of the first volume of his *Oeuvre complète*.²⁹¹ By then, Le Corbusier had begun designing the Villa Savoye, sketching his Rio de Janeiro scheme – a great sweeping viaduct – and designing the Errazuris house in Chile (fig. 3.3). These projects 'reveal a change in formal vocabulary: from white planar surfaces, static cubic forms, ribbon windows, and flat roofs to exposed materials, textures, looser geometries, and sloping roofs'.²⁹² Le Corbusier's architectural design began to use expressed concrete and rubble material. Nevertheless, many signals of transformation had already emerged earlier. His paintings in 1927 had a more plastic and surrealistic flavour, such as the sketch *La table mise* (fig. 3.4, FLC 1208) for the surrealistic paintings *Le déjeuner près du phare* (FLC 263), *La guitare et la mannequin* (FLC 211) and *Siphon et gants* (FLC 210).

To Le Corbusier, nature was perceived in its tremendous power as a view from the air. He noted in his *Aircraft*: 'In the air, from above? It is wilderness, indifferent to our

²⁹¹ Mary Caroline McLeod, *Urbanism and Utopia, Le Corbusier from Regional Syndicalism to Vichy*, Ph.D. Dissertation, Princeton University, June 1985, p. 31.

²⁹² *Ibid.*

thousand-year-old ideas, a fatality of cosmic elements and events...From the plane: there is no pleasure...but a long, concentrated, mournful meditation.'²⁹³ The stimulating experience of taking a flight in the late 1920s transformed Le Corbusier's sensibility, as Kenneth

Frampton observed:

The revelation stemmed not only from an aerial experience of the sublime but also from what he perceived an apocalyptic image of the earth from the air...vast cosmic forces and their cyclical capacity for destruction and recreation.²⁹⁴

The meandering rivers, which Le Corbusier saw from the airplane in South America, inspired him to think that natural forces applied on the vicissitude of topography. His trip home by sea, which lasted over two months, had an enormous impact on him. It highlighted and transformed the 'Oceanic' aspect to his vision...the sense of oneness with the universe.²⁹⁵

Like many other modern architects, Le Corbusier sought to recreate from what were seen to be the paradigmatic values of ancient and primitive cultures. For him primitive art, as Peter Carl pointed out, was the 'approximate cultural equivalent of the generative cell in nature. His world was constituted in the 'reciprocity of the potential reconciliation with nature,[and] the receptacle of the *ethos* of community (tradition)...'²⁹⁶ His collections were rich in both nature and primitive cultures but contained few examples of the machine. Henceforth, the compositions and contents of his paintings become less strict, less machine – like and many mythical combinations appeared. The machine remained one of the themes in his work but not a dominant one.

²⁹³ Le Corbusier, *Aircraft*, notes next to fig. 121-3.

²⁹⁴ Kenneth Frampton, *Le Corbusier*, p.110.

²⁹⁵ Kenneth Frampton, *Le Corbusier*, Thames and Hudson, 2001, p. 88.

²⁹⁶ Peter Carl, 'Natura Morta', *Modulus 20* (1991), p. 51.

B. More Primitive Expressions in Painting and Architecture

While Le Corbusier's written works around 1930 became broader and diversified, his architectural designs began to use elements of vernacular language. As Kenneth Frampton observed, 'Shortly after the Crash of 1929 he began to lose his faith in the manifest destiny of the machine age, and it is just this doubt that came to be played out in his return to primitive constructional methods in the mid-1930s.'²⁹⁷

Paradoxically a critique to his earlier 'Five points towards a new architecture', the pitched roof and rough timber, applied in *Maison Errazuris* (1930) and *Maison de vacances aux Mathes* (1935), were continuously recommended in his later proposal of 'Murondins' in 1940 and his own *Cabanon* in 1950. Turf-over-vault structure with implications of a cave was designed in *La Petite Maison de Weekend* in 1935. The image of a nomad tent was realized in *Pavillon des Temps Nouveau* in 1937 and it anticipated the *Philips Pavilion* of 1958.

In terms of choosing new materials, the rubble exposed walls had been displayed earlier for the garden wall of *Une Petite Maison* (1924) and the *Villa Savoye* (1929-31), now used expressively for his interior studio wall at *Nungesser et Coli* (1933) for *Maison de Weekend* (1935), *Mandrot Villa* and the *Pavillon Suisse* at the *Cité Universitaire* designed in 1930. The pilotis on the ground floor of the *Pavillon* used exposed reinforced concrete, which had a primitivistic flavour.

²⁹⁷ Kenneth Frampton, *Le Corbusier*, Thames and Hudson, 2001, p. 7.

Apart from a vernacular language, there were Surrealist themes incorporated in the Beistégui Apartment of 1929 and in many of paintings, and will be further discussed in chapter seven. Compared with Le Corbusier's Purist paintings, the painting of 1930's was more expressive, and many natural objects, scenery, boats, and female bodies appeared. Many of them were transformed and juxtaposed to create a mythical aura but, at the same time, arranged in a clear geometrical order. Many components are exotic or primitive such as Josephine Baker and the women in Rio and the Casbah, Algiers. The theme of women as 'conceived as voluptuous architecture or landscape preoccupied LC from an early age.'²⁹⁸ In 1929 during Le Corbusier's travels to South America, he developed an intimate friendship with Josephine Baker, which brought him a close experience of an African American. Le Corbusier invested in her symbols of purity, innocence, nobility and also a kind of *sauvage* vitality, which reflected the language of myths of 'primitivism', modernism, and *américanisme*.²⁹⁹

There were many other modern artists incorporating woman-related subjects as well, notably Picasso, whom Le Corbusier was familiar with, in his metamorphoses period from 1925 to 1936. Particularly in the 1930s, Picasso developed vocabularies of the human body, which is built of spongy and mineral materials to constitute bold erotic metaphors, or to evoke an unambiguous crudeness of sexual relations.³⁰⁰ Some of his works are associated with the motif of the odalisque.³⁰¹ For Henri Matisse, another of Le Corbusier's favourite artists, the motif of odalisque had been present in his paintings since his first Nice period from 1917 to

²⁹⁸ Charles Jencks, *Le Corbusier and the Continual Revolution in Architecture*, New York, NY: Monacelli Press, 2000, note on fig.122.

²⁹⁹ Mardges Bacon, *Le Corbusier in America: Travels in the Land of the Timid*, p. 222.

³⁰⁰ Dominique Dupuis-Labbé, 'Le siècle de Picasso', in Hsiang-Ling, Lai, ed., *Le Monde de Picasso, 1881-1973*. Exposition Sept 1998-Jan 1999, Musée National de Palais, Taipei, Organisateurs: Musée National de Palais, Musée National de Picasso de Paris, China Time Group and Dimension Endowment Group. p. 252

³⁰¹ Such as his 'The Painter' of 13 May 1934. The source of this painting is Ingres's 'Odalisque and Slave'. See Elizabeth Cowling...[et al.], *Matisse Picasso*, pp. 236-7.

the 1930s. ‘The odalisque was to form an important part of Matisse’s repertoire for the rest of his life... it was placing him in a French nineteenth-century tradition’³⁰² along with Ingres and Delacroix. Most of Le Corbusier’s women in the 1930s are elaborately distorted heavy women. Not quite ‘as calm and statuesque as Picasso’s Neo-classical nudes in the 1920s. Rather, they are gargantuan, muscular, and peasant-like.’³⁰³ The feminine presence was abstracted during this time, ‘perhaps becoming an earth goddess, mother figure, and object of sexual desire.’³⁰⁴

In this period these natural expressions in his painting and natural materials in his architecture led him towards Brutalism, which, as pointed out by Charles Jencks, was ‘a move that was prompted in the deepest sense by a rediscovery of natural orders, primitive societies, and a sexual relation with women unconstrained by conventional etiquette, sophistication, or snobbism.’³⁰⁵

Early 1930s: Syndicalism, Radiant City and the Primitive

In his political life, around 1910 Le Corbusier was in Germany, where he regularly read his hometown socialist newspaper *La Sentinelle*. He also published an article in it concerning the wellbeing of the working class. His socialist and syndicalist view was already established by 1910.³⁰⁶

³⁰² John Golding, ‘Introduction’, Elizabeth Cowling...[et al.], *Matisse Picasso*, London: Tate Publication, 2002, p. 20.

³⁰³ Charles Jencks, *Le Corbusier and the Continual Revolution in Architecture*, p. 202.

³⁰⁴ *Ibid.*, p. 211.

³⁰⁵ *Ibid.*, p. 210.

³⁰⁶ Brooks, H. Allen, *Le Corbusier’s Formative Years*, p. 215.

In 1928 Le Corbusier visited Moscow to discuss the construction of Centrosyus, and became more seriously involved in the Soviet thinking during his three trips to Moscow between 1928 and 1930. Many of his friends and colleagues were leftists or strong advocates of communism, but some others were politically to the right as well. Eventually as a professional architect, Le Corbusier found Marxism too abstract and divorced from immediate action³⁰⁷ and he was never a communist. However, he was still extremely interested in designing dwellings for workers and studying houses of peasants.

Later in 1930 he met Philippe Lamour, a lawyer and a syndicalist, and became actively involved in a neo-syndicalist movement, editing and writing for three politically committed journals, *Plans*, *Préludes*, and *L'Homme Réel*,³⁰⁸ from which excerpts were later incorporated into *The Radiant City*.

Syndicalism was a political and economic doctrine that advocated control of the means and processes of production by organized bodies of workers instead of owners. As with communism, the power in society could reside in the hands of the workers and peasants, rather than the upper classes. Thus, as the power of the lower classes was praised and celebrated, their folk arts and architecture were consequently honoured.

The themes of *Plans*, other than political issues, covered many discussions of folk and the primitive. The editors' preferences, as Mary McLeod observed, were 'emotional and direct. In contemporary art they liked [Frans] Masereel's expressionistic woodcuts and Léger's "brutal, direct" painting...In addition to these works of "true value", they

³⁰⁷ McLeod, Mary Caroline. *Urbanism and Utopia, Le Corbusier from Regional Syndicalism to Vichy*, Ph.D. Dissertation, Princeton University, June 1985, pp. 96-99.

³⁰⁸ *Ibid.*, p. 94.

endorsed...primitive art... and vernacular architecture. In contrast to the *L'Esprit nouveau* editors...the Plans group accepted folklorique as a living tradition'.³⁰⁹ They moved away from a predominantly abstract conception of order. 'If the contributors still allied themselves to a Latin culture, it was one that extended beyond Pericles's Athens to archaic Greece, Romanesque churches, North African Casbahs, and fishermen's villages.'³¹⁰

In *The Radiant City* first published in 1933, Le Corbusier discussed mainly the modern technique, new age, and reformulation of the generic city plan. There are several paragraphs discussing the primitive hut. At a CIAM conference, he began with the folk hut in the Cyclades where the houses there were eternal and had 'measurements on the human scale.'³¹¹ A diagram of a cone-shaped hut³¹² showed an 'artificial site' with a note that the savages had created it to avoid floods. This diagram was adopted from his previous *Precisions*. To support his urban design scheme in Algeria, for example, Le Corbusier praised the Arab-owned 'hospitable and charming house, so clean, so measured, ample and intimate.'³¹³ And, the house in Ghardaia is a 'poem'³¹⁴ and so on.

In 1935 an exhibition of primitive art was held at Le Corbusier's studio in Paris. It was organized and presented by Louis Carré, but Le Corbusier also participated in and contributed to it, exhibiting his paintings, writing an introduction in the invitation and insisting that the Greek statue, 'Moscophore', should be painted polychrome. His introduction expressed ideas on the primitive as creating unities out of different periods. The

³⁰⁹ Ibid., p. 128-9.

³¹⁰ Ibid., p. 128.

³¹¹ Le Corbusier, *The Radiant City*, tr. Pamela Knight, Eleanor Levieux and Derek Coltman, London: Faber and Faber, 1967, p. 52.

³¹² Ibid., p. 56.

³¹³ Ibid., p. 230.

³¹⁴ Ibid., p. 232.

exhibition was infused with the primitive and contemporary, archaic and folk, European and African elements 'to once again render the excitement and novelty to those things which man created at some point in the past'³¹⁵ (see Ch. 4). This exhibition was later recorded and published in Le Corbusier's *Oeuvre complète* vol. 3 and various other books.

Later in 1935 he travelled to New York and visited the Brooklyn Museum where he found an Alaskan totem pole and the art of the Incas and the Mayas. To him, they were examples of 'great and magnificent art, dominating, exalting the sun and cosmic powers...how much modern consciousness finds here an eternal vigour.'³¹⁶ He also celebrated African American cultures, especially Jazz.

Later Development

The general trend towards the primitive in Europe had changed by World War II. As Robert Goldwater observed, after 1938, the impact of primitive art receded, as it established its own non-naturalistic traditions, and familiar parts of our aesthetic environment. They no longer appear as 'primitive' as they did before 1940.³¹⁷

In Le Corbusier's mind, the primitive tendency was not only a thing of the 1920s and 1930s, but was rooted and continuously expressed in his design works, such as in his vacation cabanon or the Maisons Jaoul. Exposed concrete was widely used as a building material

³¹⁵ Le Corbusier, *Oeuvre complète*, p. 157, trans. Jacques Sbriglio in *Apartment Block 24 N.C. and Le Corbusier's House*, pp. 57-60.

³¹⁶ Le Corbusier, *When the Cathedrals Were White*, p. 133.

³¹⁷ Robert Goldwater, *Primitivism in Modern Art*, p.xvi.

In 1937, Le Corbusier designed a tent structure for the Pavillon des Temps Nouveaux, with a series of image and text including the history and development of urbanism, including the primitive dwelling of cave, hut and tent.³¹⁸ In 1940 Le Corbusier proposed the 'Murondins' system of construction (Mur et Rondins, i.e., wall and tree trunks) for the refugee camp during the war. The refugees could build their own shelter with their own hands and natural materials. Le Corbusier noted: 'These simple and primitive constructions touched on the most fundamental elements of architecture; sun and light, the human scale, purity of structural system, plastic aesthetics, and relation to the site.'³¹⁹

The 'golden age' was cited in *The Home of Man*, 1942, Le Corbusier's book on urbanism. He discussed the 'essential joys' of sun, space and verdure, and noted that a town planner and architect should 'erect again the settings of the golden age...valuation of the profoundly human elements, the manifestations of consciousness illuminated by the "essential joys." A symphony, a harmony.'³²⁰ The illustration of this is an island with a pavilion and trees.

In his *Propos d'Urbanisme* of 1946 (*Concerning Town Planning*, 1947), Le Corbusier illustrated urban examples from the past again, including Paris, Venice, Rome, Treviso, Strasbourg, etc., recast from his early study of 'La Construction des villes.' He followed this by the primitive construction of the 'Murondins'.

In Chandigarh, India in 1951, Le Corbusier had the opportunity to get in touch with the

³¹⁸ Le Corbusier, *Des Canons, des munitions? merci! des logis...S.Y.P.*, Éditions de L' Architecture d'aujourd'hui, pp. 42-44.

³¹⁹ Le Corbusier, *Concerning Town Planning*, tr. by Clive Entwistle from the French *Propos d'urbanisme*. London: Architectural Press, 1947, p. 36.

³²⁰ Le Corbusier and François de Pierrefeu, *The Home of Man*, London: Architectural Press, 1948, p. 102.

essential joys of Hindu principles in folk life: ‘a brotherhood of relationships between the cosmos and all living things: stars, nature, sacred animals, birds, monkeys, and cows, and in the villages, children, adults, and still living people, the pond and mango trees, all present and all smiling, poor but in proportion.’³²¹

In his final text of 1965, Le Corbusier notes ‘the axis of fundamental laws: biology, nature, the cosmos.’³²² At the same time he was still concerned with folk and distant culture, as he recalled his journey to the Orient and the peasant house coping with a sloping site that struck him for life.³²³ He also mentioned that he tried to visit Peikin (Beijing) and Mexico City. There, in addition to a palace, he ‘admired the peasants’ house, the house of man, the huts, the modest thing on a human scale.’³²⁴ Since his formative years and especially in the late 1920s, this tendency was rooted in his mind, and remained important to him for the rest of his life.

Part II. Notions on Exploring the Primitive, Historical and Geographical Dimension

Some notions in Le Corbusier’s mind were formed gradually since his early studies, which led him specifically to select certain sources during his study or journey. These notions also guided him in exploring broader geographical and cultural visions while formulating his personal museum. Anti-academicism was quite a strong attitude, which led him to explore new unconventional possibilities. Many of his personal architectural standards are universal, and his design principles are rather fundamental which would simultaneously fit into modern

³²¹ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, New Haven; London: Yale University Press, c1997, p. 89.

³²² *Ibid.*, p. 100.

³²³ *Ibid.*, p. 108.

³²⁴ *Ibid.*, p. 117.

and primitive, contemporary and ancient, European and distant cultures.

Anti-academicism

The schools of the 19th century have destroyed the human scale and abolished respect for material. The new architecture is the work of rebels... The schools are run by “professors”... The professors teach according to the prescribed programme... Has a life a programme? No, life is explosive.

– Le Corbusier³²⁵

Le Corbusier liked to regard himself as a freethinker. Throughout the period of the Albigenian heresy, persecuted refugees had flocked to the Jura valleys from the south west of France. Le Corbusier was convinced that his family had such a connection and tended to take the heritage of heresy as a spiritual revelation against the onslaughts of the official religion.³²⁶

Le Corbusier read several books around 1908, which made him think of himself as a prophet in the realm of art and architecture,³²⁷ and a protagonist in the historical process. Edouard Schuré's *Les Grands Initiés* illustrates many of the greatest prophets of the past. Friedrich Nietzsche's *Thus Spoke Zarathustra* and Ernest Renan's *Life of Jesus* suggested a special notion of a missionary role of an architect 'as someone intuiting universal truths, which he then reveals to the world.'³²⁸ With the idea of a 'superman', Nietzsche's account radically challenged the authority of the official religion and the status of God.

Le Corbusier's specific attitude to academicism was unveiled as early as in 1908 when he

³²⁵ Le Corbusier, *Aircraft*, notes next to fig. 49-52 & 61-64.

³²⁶ William J. Curtis, *Le Corbusier, Ideas and Forms*, p. 16.

³²⁷ Paul Turner, 'Romanticism, Rationalism, and Domino System', Russell Walden ed., *The Open Hand: Essays on Le Corbusier*, MIT, 1977, p. 20.

³²⁸ *Ibid.*

visited Paris to ‘delve into the innermost depths of architecture...his own “ideal” of just what contemporary architecture should be.’³²⁹ After four months of rumination, he wrote a letter of criticism to L’Eplattenier:

... You, Grasset, Sauvage, Jourdain, Paquet and others, you are all deceitful – Grasset, a model of truth, deceitful, because you do not really know what architecture is all about...I know it now – yet none of you told me...

In his article, ‘The Lesson of Rome’, Le Corbusier stated that ‘the business of Architecture is to establish emotional relationships by means of raw materials...Architecture is a plastic thing, spirit of order, unity of intention.’³³⁰ From these standpoints he denounced the education of the Ecole des Beaux-Arts:

...The lesson of Rome is for wise men...Rome is the damnation of the half-educated. To send architectural students to Rome is to cripple them for life. The Grand Prix de Rome and the Villa Medici are the cancer of French architecture.³³¹ The plan of the Forum [of Pompeii] contains a number of axes, but it would never obtain even a bronze medal at the Beaux Arts... It is a joy to the mind to consider such a plan and to walk in the Forum.³³²

There were many other modernists and their predecessors concerned about breaking with the past. Henri Labrouste, for example, applied new materials and a structural system to the Bibliothèque Nationale in Paris. In its grand reading room, the structure of the interior columns and the roof are separated from the exterior walls. Le Corbusier spent much time studying in this library in the 1910s and this served as a prelude to his Purist doctrine. In addition, Viollet-le-Duc, the author of *Dictionnaire* and Le Corbusier’s hero, retained an anti-academic bias all his life.

³²⁹ H. Allen Brooks, *Le Corbusier’s Formative Years*, p. 151.

³³⁰ Le Corbusier, *Towards a New Architecture*, p. 151.

³³¹ *Ibid.*, p. 173.

³³² *Ibid.*, p. 189.

Giacomo Barozzi Vignola (1507-73) is frequently mentioned in Le Corbusier's writings and stands as the target academician.³³³ Vignola wrote *La Regola delli Cinque Ordini d'Architettura* (The Rule for the Five Orders of Architecture) in which he established paradigms of the orders based on antique examples. This book was 'the most widely used architectural textbook of all up to the nineteenth century, and to some extent into the twentieth century.'³³⁴ Le Corbusier reiterated in the last year of his life: '1919: regulating lines...From now on... I repudiate all treatises. But I declare war, war on Vignola (and Company), which always smells to me of the dead bodies.'³³⁵ The standard type of a primitive hut was an inspiring example against Academies:

With such a [standardized] program...we are leaving behind the customs... We will learn more from the savages, from men close to nature whom the Academies have not touched.³³⁶

Universal Standards and Geometry

The notion of a universal order rooted in Le Corbusier's mind and was manifested in his arguments. Throughout his life, as observed by Charles Jencks, 'Le Corbusier was searching for a type of universal symbolism that would be trans-historical and non-conventional.'³³⁷

Henry Provencal's *L'Art de Demain*, which Le Corbusier read, maintains that architecture must adhere to eternal laws, which comprise those of number, unity and harmony.³³⁸ These principles, having influenced him since 1906, were later reinterpreted in his treatise. During

³³³ One example was quoted in 1929: 'Mr. Vignola is not concerned with windows, but "between windows" (plasters and columns). I de-Vignolize with my "architecture is lighted floors."' Le Corbusier. *Precisions (Precisions on the Present State of Architecture and City Planning)*, trans. Edith Schreiber Aujame, Mass.: The MIT Press, Cambridge, MA., 1991, p. 51.

³³⁴ Hanno-Walter Kruft, *History of Architectural Theory*. Princeton Architecture Press, 1994, p. 80.

³³⁵ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 88.

³³⁶ *Le Corbusier*, The Radiant City, p. 33.

³³⁷ Charles Jencks, *Le Corbusier and the Continual Revolution in Architecture*, p. 117.

³³⁸ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 255.

Le Corbusier's apprenticeship in Germany in 1910 and 1911, Peter Behrens impressed him with the significance of harmony and proportions, including the use of regulating lines.³³⁹ In *Après le cubisme*, Le Corbusier and Ozenfant illustrated 'universal harmony' based on anthropocentrism and anthropomorphism to liberate us.³⁴⁰ The ancient canons were based exclusively 'on precise knowledge of the universality of the natural laws that govern the exterior world and condition works of art.'³⁴¹ In Le Corbusier's Purist paintings, objects such as jars, bottles, pots, according to the author, are banal, but ubiquitous, have a high degree of generality,³⁴² and responded to man's imperative needs in all ages.³⁴³

In *Towards a New Architecture*, Le Corbusier discussed the engineer 'inspired by the law of Economy and governed by mathematical calculation, puts us in accord with universal law. He achieves harmony.'³⁴⁴ The definition of harmony is 'a moment of accord with the axis which lies in man, and so with the laws of the universe, – a return to universal law.'³⁴⁵ If this harmony can be universal, it thus should be able to be manifested by examples from around the world and throughout history. Hence, Le Corbusier enumerated so many examples from remote cultures and history in his publication, which is an aspect of universality and timelessness.

In his mind, the standard type is another universal issue in human history. All mankind resembles one another and has the same skeletal, nervous and arterial system. 'They [human

³³⁹ Ibid.

³⁴⁰ Le Corbusier and Amedée Ozenfant, 'Après le cubisme', English translation in Carol S. Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*, Los Angeles, Calif.: Los Angeles County Museum of Art in association with Harry N. Abrams, c2001, p. 156.

³⁴¹ Ibid., p. 157.

³⁴² Ibid., p. 161.

³⁴³ Le Corbusier and Ozenfant, 'Purism', in: Robert L. Herbert ed., *Modern Artists on Art: Ten Unabridged Essays*, Englewood Cliffs, N.J.: Prentice-Hall, 1964, p. 63.

³⁴⁴ Le Corbusier, *Towards a New Architecture*, p. 11.

³⁴⁵ Ibid., p. 212.

scale, function and needs] are not very numerous; they are very similar for all mankind, since man has been made out of the same mould from the earliest times known to us... These needs are types, that is to say they are the same for all of us.³⁴⁶ Thus human functions are type-functions, and generate type-objects and type-furniture.

Fundamental Observations

Le Corbusier's notion of architecture was more fundamental than stylistic or formal, which allowed him to cultivate various historical and cultural aspects of architecture and then to be further inspired. As an avant-garde architect, Le Corbusier did not simply maintain a radical manner to resist the past. He delved profoundly into the quest for the essence of architecture.

Architecture, to him, is 'the masterly, correct and magnificent play of masses brought together in light'.³⁴⁷ An architectural plan, to Le Corbusier is 'not a pretty thing to be drawn... it is an austere abstraction'.³⁴⁸ The drawing of plans in the Ecole des Beaux-Arts 'has become a piece of paper on which black marks for walls and lines for axes play a sort of mosaic on a decorative panel making graphic representations of star-patterns, creating an optical illusion'.³⁴⁹ But man's eyes are around five feet six inches above ground, and can only look at one aspect of architecture at a time. The arrangement of architectural elements with an appreciable rhythm 'is the grading of aims, the classification of intentions'.³⁵⁰

The essence of a religious place, for example, is to provide its visitors with a space of release;

³⁴⁶ Le Corbusier, *The Decorative Art of Today*, p. 72.

³⁴⁷ Le Corbusier, *Towards a New Architecture*, p. 29.

³⁴⁸ *Ibid.*, pp. 48-9.

³⁴⁹ *Ibid.*, p. 180.

³⁵⁰ *Ibid.*, p. 187.

to enable them to breathe and to feel a spiritual immensity within a simple form. He observed a mosque in Istanbul:

It needs to be spacious so that the heart may feel at ease, and high so that prayers may breathe there... the whole should be perfectly simple; and a kind of immensity must be encompassed by the forms...the few who come to pray may feel joy and reverence within this great house.³⁵¹

To Le Corbusier, a Christian, this Islamic example may convey universal and fundamental qualities of a religious architecture. An architectural effect is created not by a set of symmetrical axes in plan, but by the experiences of a sequence of space. A man will be ‘impressed by one dimension of a room succeeding another dimension, by one form succeeding another. That is architecture!’³⁵²

This sequence of spaces of different dimensions and light creates rhythm and expresses specific meaning, as he discussed on the Green Mosque in Broussa (now Bursa) in 1911:

Tiny doors and enormous bays. You are captured... You are enthralled by a sensorial rhythm (light and volume) and by an able use of scale and measure, into a world of its own which tells you what it set out to tell you. What emotion, what faith!³⁵³

The Primary Form and Dom-ino

When Le Corbusier studied in the Ecole d’Art, his mentor helped him observe the composition of plants,³⁵⁴ which were echoed by Henry Provencal’s notion on number, unity, harmony and cubic forms. Gradually he established his perception based on primal forms and geometry. This perception on the original and basic forms was elaborated by Le

³⁵¹ As Le Corbusier is a Christian, thus this Islamic instance proved universal effect in religious architecture. Le Corbusier, *Journey to the East*, p. 100.

³⁵² Le Corbusier, *Precisions*, p. 73.

³⁵³ Le Corbusier, *Towards a New Architecture*, p. 182-3.

³⁵⁴ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 105.

Corbusier in his key proposition: ‘cubes, cones, spheres, cylinders or pyramids are the great primary forms which light reveals to advantage’,³⁵⁵ which recalls Paul Cézanne’s famous words to Emile Bernard in 1904: ‘treat nature by means of the cylinder, the sphere, the cone’.³⁵⁶

Such ideas concerning primary forms were preceded by the Enlightenment architects.

Étienne-Louis Boullée, for example, tried to look for the basic principles of architecture.

Similarly, Le Corbusier’s perceptions of Rome (fig. 3.5) and of the mosque in Istanbul (fig.

3.6) could be abstracted as basic forms.

An elementary geometry orders these masses: the square, the cube, the sphere... The orientation of the axis of every mosque on Moslem soil toward the black stone of the Kaaba in an awe-inspiring symbol of the unity of the faith.³⁵⁷

In other words, the great cities both in the East and the West can be crystallized into primary elements, or, they are all composed of essential forms.

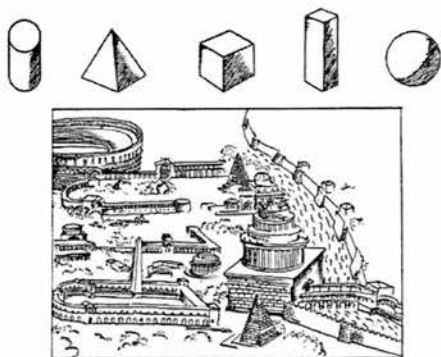


Fig. 3.5 Le Corbusier, Rome was crystallized into pure forms. LC, ‘The lesson of Rome’, *Towards a New Architecture*.



Fig. 3.6 Sketch of Santa Sophia. LC, *Voyage d’Orient Carnet 1*, p. 78.

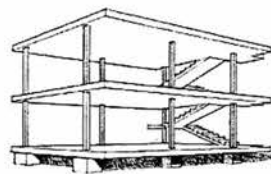


Fig. 3.7 Le Corbusier, Dom-ino system. *O.C. 1*, p. 23.

Many of his works were developed from, or composed of basic forms and basic units:

Dom-ino system (fig. 3.7), such as the combined units of the housing project in Pessac. As a

³⁵⁵ Le Corbusier, *Towards a New Architecture*, p. 29.

³⁵⁶ Charles Harrison and Paul Wood, ed., *Art in Theory, 1900-1990: an Anthology of Changing Ideas*, Oxford: Blackwell, 1992, p. 37.

³⁵⁷ Le Corbusier, *Journey to the East*, p. 104.

basic flat-slab building unit, his 'Dom-ino', a term derived from the combination of domicile and innovation, was to be assembled and reorganized like playing a game of dominoes. It is in an elemental form – pure column and pure slab – 'an industrialized equivalent to Laugier's Primitive hut.'³⁵⁸ Its evolution came with his Maison Citrohan in 1920, which was partially derived from the megaron form of the Mediterranean vernacular, typical of the islands of the Aegean and equally evident in North Africa.³⁵⁹

The character of the domino is a unit, which can be repeated, combined, turned over, and played by chance. It is pure, simple and can be enlarged to a big scale. This characteristic was elaborated in Le Corbusier's early documents and paintings. In Pera, Istanbul, he saw a compact city, 'Stone houses scale up within, thrusting upward like upright dominoes, offering two sections of white walls riddled with windows and then two adjoining walls the colour of dried blood. Nothing softens the severity of this height.'³⁶⁰

While Le Corbusier researched in Delphi, he sketched three square 'stone dice' against the background of mountains and a valley. These stone dice were probably the three bases of the Ishegaon near the Temple of Apollo.³⁶¹ He noted in *Une Maison - un palais*: 'Dominating the chasms and the valleys, at Delphi, these three stone dice, severe and pure testimonies, speak of the sublime.'³⁶²

On the same page, right next to this image, another sketch was arranged carefully: the

³⁵⁸ William J.Curtis, *Le Corbusier, Ideas and Forms*, p. 43.

³⁵⁹ Kenneth Frampton, *Le Corbusier*, p. 35.

³⁶⁰ Le Corbusier, *Journey to the East*, p. 90.

³⁶¹ Le Corbusier, *Voyage d'Orient Carnet 3*, p. 147, Note 106.

³⁶² 'Dominant les golfes et les vallées, à Delphes, ces trois dés de pierre, témoignages violents et purs, parlent du sublime.' Le Corbusier, *Une Maison - un palais*, p. 14.

Parthenon and the Acropolis are seen from the Lycabettus, with the background of the Gulf of Aegina.³⁶³ He intended to construct parallels between these two images, through pure geometrical forms or dominoes in a setting of sacred nature. Here a game of scaling suggests a connection between them: the silhouette of the Acropolis in the drawing is roughly similar in size to the dice of Delphi. The purity and geometry speak similarly of the sublime. Le Corbusier noted:

It is therefore on geometry that the temples and the palaces are to be raised: it is in this that the proofs of the will are to be found: power. Priests and the tyrants, demonstrating their strength established architecture on geometry. Geometry: clear spirit and the infinite mystery of combinations.³⁶⁴

Le Corbusier's sketch of the distant Acropolis was presented allusively in his painting 'La Cheminée' in 1918, a theme of a prism and a fireplace. He noted: '1st painting 1918. Space, light intensity of the composition. To tell the truth, behind that the site of the Acropolis is present: the painting, the drawing, + the Acropolis drawing [in] travel notebook.'³⁶⁵ Thus the domino, the dice, Delphi and the Acropolis, as well as his modern architecture are all metaphorically interwoven. The Dom-ino, in its various forms, was a motif which lasted throughout Le Corbusier's life.

Stimulation by the Past

There is, in fact, almost no avant-garde manifestation, which is not a new variation on the attitude defined by Apollinaire as 'antitradition.'

³⁶³ Le Corbusier, *Voyage d'Orient Carnet 3*, p. 98, Note 80.

³⁶⁴ 'C'est donc sur la géométrie que s'élèveront les temples et les palais: c'est en elle que sont les preuves de la volonté: puissance. Les prêtres et les tyrans, manifestant leur force, établirent l'architecture sur la géométrie. Géométrie: esprit clair et mystère infini des combinaisons'. From Le Corbusier, *Une Maison - un palais*, p. 14. Trans. Cynthia Ann Poole, *From Private to Public: Le Corbusier and the House-Palace, 1926-1928*, Thesis (PhD), University of Westminster, 1997. Unpublished. The original translation: 'in geometry the proofs...' was modified as 'it is in that the proofs...'

³⁶⁵ Le Corbusier, *Sketchbooks II*, no.451. Underlined by Le Corbusier.

Many theoretical statements made by modern architects around 1920 stressed the need to reject tradition in favour of the new spirit. The manifesto of Futurist architecture insisted, for example, in 1914, ‘This architecture cannot be subject to any law of historical continuity... Architecture is breaking free from tradition. It must perforce begin again from the beginning’.³⁶⁷ Similarly, the *De Stijl Manifesto 1* of 1918 asserted: ‘Tradition, dogmas and the predominance of the individual stand in the way of this realization [of the new consciousness of the age].’³⁶⁸

Le Corbusier stood for the past in many ways, even though he discarded a certain tradition as well. His discussion on tradition in *L'Esprit nouveau*: ‘Decorative art is dead. Modern town planning comes to birth with a new architecture. By this immense step in evolution... we burn our bridges and break with the past.’³⁶⁹ In the same chapter, when he compared the mature European civilization with that of America in the twentieth century, he praised the past:

The fact that we have been nourished by earlier civilisations enables us to disperse the clouds and to judge with clearness... Our spirits, nourished by past ages, are alert and inventive.³⁷⁰

Architecture conveys the spirit of an age and carries the updated connection between newness and tradition as an unbroken chain:

Architecture is the manifestation of the spirit of an age, seizing upon its technical conquests. It imparts to... aspect of youth and honesty which revives the spirit, stimulates creative activity, and constitutes the new links of that unbroken chain of

³⁶⁶ Renato Poggioli, *The Theory of the Avant-garde*, p. 53

³⁶⁷ Antonio Sant’Elia and Filippo Tommaso Marinetti, ‘Futurist Architecture’ (1914), in: *Programs and Manifestoes on 20th-century Architecture*, Ulrich Conrads ed., Massachusetts, MIT Press, 1970, p. 35.

³⁶⁸ Ulrich Conrads, ed. *Programs and Manifestoes on 20th-century Architecture*, p. 39.

³⁶⁹ Le Corbusier, *The City of Tomorrow and its Planning*, p. 17.

³⁷⁰ *Ibid*, pp. 18-19

tradition, that chain whose every link was at one time an act of creative optimism, a forward step, a constructive effort.³⁷¹

Whether or not an artwork could be simultaneously avant-garde and traditional depends on the timing and situation in history. Traditional works might have been regarded as avant-garde instead of conventional when they first appeared, but an advanced work may soon become history with the passing of time. Nevertheless, history always repeats itself:

All the great traditional works, those that without exception constitute the classical chain, link after link, were revolutionary when they first appeared. The essence of creation is necessarily to equate new relationships.³⁷²

Le Corbusier was not only an architectural designer; his other artworks, such as paintings, were also architectonic. Searching for a new design is creative because it conceives and reorganizes relationships among all the elements and their surroundings in the historical chain. To him, the past should not be negated; on the contrary, he had studied it for a long period of time as a rich source of stimulation, as he argued in his lecture 'To free oneself entirely of academic thinking' in 1929:

Today I am considered a revolutionary. I shall confess to you that I have had only one teacher: the past; only one education: the study of the past. Everything, for a long time, and still today: the museums, travels, folk art... It is in the past that I found my lessons of history, of the reasons for being of things...³⁷³

It is unlikely that Le Corbusier could have been such a radical avant-garde artist only by studying the past, as he provocatively stated. The issues are what the past meant to him and how he studied the past, which provoked him to become a revolutionary modernist. He always sought the profound reasons for the relationships among every event and object rather than simply accepting them as they were. His mentor, Charles L'Eplattenier said to

³⁷¹ Le Corbusier, *Aircraft*, note of fig. 26 and 27.

³⁷² Le Corbusier, *Precisions*, p. 160.

³⁷³ *Ibid.*, p. 33.

him, ‘...don’t treat nature like the landscapists who show us only its appearance. Study its cause, forms and vital development, and synthesize them in the creation of ornaments.’³⁷⁴

History to Le Corbusier is not only a timeline but also ‘the lesson of movement, the balance sheet of human actions, the panorama of human adventure. The lesson of history is an order to advance.’³⁷⁵ The innovations of modern science do not deny the knowledge of the past but are instead built on it.³⁷⁶ History was a rich resource for him, as is evident from his annotation of a series of photos of the Parthenon, Pisa Cathedral, the Colosseum and the apses of St. Peter’s: ‘Forms taken by culture in areas of concentration. Flowerings of the human spirit... These are the high peaks of human thought. Necessary human nourishment.’³⁷⁷

The Naked Man and Primitive Wisdom

Le Corbusier discussed going back to zero in *L'Esprit nouveau*³⁷⁸ in order to re-establish his stance, and while discussing decoration versus basic needs in *The Decorative Art of Today*, he proposed ‘the naked man’ as the basic and original state, which is another form of going back to zero, The naked man does not wear a conventional embroidered waistcoat but ‘sets himself to think, and by developing his tools, seeks to free himself from the dominance of external circumstance... focuses his thought on what he thinks best and most noble... He likes

³⁷⁴ Le Corbusier, *The Decorative Art of Today*, p. 194.

³⁷⁵ Le Corbusier, *The Radiant City*, p. 155.

³⁷⁶ “‘How can there be a Sacralium in the heart of a city of Modern Science?’” The word, in effect, is awful. Modern science is made up of the knowledge of the past.’ Le Corbusier, ‘In Defence of Architecture’, originally published in *Stavba 2*, Prague, 1929, trans. Nancy Barrey, André Lessard, Alan Levitt and George Baird, *Oppositions*, p. 605.

³⁷⁷ Le Corbusier, *The Radiant City*, p. 139.

³⁷⁸ Le Corbusier, *In Defence of Architecture*, Original published in *Stavba 2*, Prague, 1929, Trans. Nancy Barrey, André Lessard, Alan Levitt and George Baird, *Oppositions Reader*, p. 599.

to understand the reasons for things...He arms himself to attack the task of the day.³⁷⁹ This naked man frees himself from the burden of all the current external authority and convention, and then rethinks what is right and best.

This man is indeed Le Corbusier himself whose spirit of purity, originality and transparency is manifested in his Purist work. This spirit corresponds to Adolf Loos' article 'Ornament and Crime' published in Le Corbusier's *L'Esprit nouveau*. The basic living unit, in his mind, is like the Diogenes barrel, a primordial cell of a house.³⁸⁰ He maintained, 'Whitewash, Diogenes...The hour of architecture. Truth, sense of truth...'³⁸¹ Similarly, the original natural state is elaborated as the primitive men managing his environment:

I look for primitive men, not for their barbarity but for their wisdom. America, Europe, farmers, fishermen. This means I go where men work to produce their food, and where they strive to find ways of making life a little easier. They also manage, without too much effort, to enjoy the pleasures of living in society- in work, the family and community.³⁸²

This paragraph in the first section of Le Corbusier's treatise *The Radiant City*, serves as a starting point for expanding his whole ideology. Implied in this paragraph is Rousseau's idea that uncivilized human beings were wise and inspired modern people. He also criticized civilized men:

We ourselves carry the deadly germ that goes around in the unspoilt countries, ruining the hearts that used to be simple and believing, and art that used to be normal, healthy and natural...For a cleaning out is a vital necessity, and since people have no wish to perish, they will return, yes, to health and thereby to beauty, out of simple desire to live.³⁸³

To Le Corbusier, the naïve work is not only healthy and natural but also a series of human

³⁷⁹ Le Corbusier, *The Decorative Art of Today*, p. 22.

³⁸⁰ *Ibid.*, p. 72.

³⁸¹ *Ibid.*, p. 165.

³⁸² Le Corbusier, *The Radiant City*, p. 6.

³⁸³ *Ibid.*, p. 211-3.

contributions, which sprang from the bud to those works, which show great sensitivity.³⁸⁴

Similarly, folklore 'shows us "man naked"...reasonably satisfying his minimum requirements and coming to terms with the surplus to permit him the enjoyment of his great material and spiritual well-being.'³⁸⁵

Primitive and Folk on Art and Dwellings

Here folklore presents us with a poetic goal, that of bestowing the benefits of sensitivity, the expression of a creative instinct on the land. Folklore, the flower of tradition.

---*Le Corbusier Talks with Students*³⁸⁶

Existing folk culture still embodies a primitive essence, which is expressed by indigenous people following their traditions and responding to their surroundings. It is praised as uncorrupted, as opposed to sophisticated and materialistic. To him, folk culture 'is a magnificent creation. An achievement purified by time and number...folk culture is a perfect expression of the physical and emotional resources of a people.'³⁸⁷ The distillation of folk cultures reveals a type, and is potentially universal. The formation of folk culture is 'born of unanimous collaboration. We will be convinced that it is a work of perfection, of value, of lasting quality.'³⁸⁸

The folk cultures showed me how serious is every lasting act, how conditioned, how much a development of previous acts like itself...there is the desire to make a beautiful poem or a good tool...The simplicity of the folk cultures is the sum of the achievements of centuries.³⁸⁹

Folk architecture is one of Le Corbusier's main arguments for his modern architecture.

During his journey to the East, Le Corbusier was very impressed by the way that local

³⁸⁴ Le Corbusier, *The Decorative Art of Today*, p. 124.

³⁸⁵ Le Corbusier, *Le Corbusier Talks with Students*, pp. 60-1.

³⁸⁶ *Ibid.*, p. 61.

³⁸⁷ Le Corbusier, *The Decorative Art of Today*, p. 36.

³⁸⁸ *Ibid.*, p. 32

³⁸⁹ *Ibid.*, p. 207-9.

peasant houses dealt with the sloping ground.³⁹⁰ He regarded the folk house in Brittany, as a 'standard', as pure as apple, as exact as the tide rising, and as the eternal truth.³⁹¹

Other than as motifs of art and architecture, Le Corbusier's idea of the vernacular was as a conceptual model for the natural relationship between society and its artifacts. It was necessary to sustain his poetic purpose while standing within the reality of contemporary technology. Hence, as Francesco Passanti observes,

Between society and architecture; specially, a conceptual model for the notion of *modern vernacular* – one as naturally the issue of modern industrial society, and as representative of it, as the traditional vernacular of common parlance had been of earlier societies.³⁹²

In Le Corbusier's Villa Savoye, for example, he used ordinary 'found' industrial elements such as a window glass and a washbasin. These elements were commonly used by ordinary people in certain areas, a sort of vernacular in modern world.

In *Une Maison – un palais*, he praised the fisherman's hut highly. This folk architecture was a tree from profound roots, and a 'type established with profound reasons.'³⁹³ Moreover, 'they allow[ed] themselves to carry along a scrap of lyricism, very proper, very permissible, very natural, a lyricism altogether human, or, entirely human.'³⁹⁴ Thus, he celebrated the fisherman: 'why should he not be a poet?'³⁹⁵ The fishermen built their huts in a quotidian way. Yet the elements in the huts, as claimed by Le Corbusier, have grand orders to ennoble

³⁹⁰ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 108.

³⁹¹ Le Corbusier, *Almanach d'architecture moderne*, Paris: Les Éditions G. Crès et Cie, 1926, pp. 85-6.

³⁹² Francesco Passanti, 'The Vernacular, Modernism, and Le Corbusier', in *JSAH*, 56,4, (1997), p. 447. Also in Le Corbusier's *Almanach d'architecture moderne*, where he stated that the Breton vernacular was going to be replaced by a new standard through new technology.

³⁹³ Le Corbusier, *Une Maison – un palais*, Paris: G. Crès et Cie, 1928. Reprint. FLC, Editions Connivences, 1989, p. 46.

³⁹⁴ *Ibid.*, p. 47.

³⁹⁵ *Ibid.*, p. 48.

the whole structure. They are there with a total truth, born from each other, one depending on the another, and having rhythm in the most effective coordination. Nothing is to be rejected; all are useful. There is neither an excess nor a repetition, just a total effectiveness. These houses all have a common measurement: a human scale, a measurement through the step, the shoulder, and the head. Therefore, on 'one fine day, after having suddenly understood them, one exclaimed: 'But these houses are palaces!'³⁹⁶

In 1929, more interpretations were made on the 'hut – palace', which referred to the primitive hut and the peasant house, and the eternal facts of architecture (fig. 3.10):

I have drawn the hut of the savage, the primitive temple, the house of the peasant, and I have said: these organisms created with the authenticity that nature itself places in its works- economy, purity, intensity- it is they that, one day of sunshine and clear-sightedness, become palaces. I have shown the house of fisherman built with a clear-cut truth, indisputable; my eyes, diving one day into architecture, into the eternal facts of architecture, suddenly discovered it. 'This house,' I cried out to myself, 'is a palace!'³⁹⁷

In spite of its simple outlook, the folk hut was, in fact, the ancestor of royal palaces and glorious cultures, as Le Corbusier noted: 'Look at the ancestral residences of the peasants of Mesopotamia. These humble houses of wood and cob reveal the celebrated splendours of Babylon and Nineveh; they thrust our memory into the past.'³⁹⁸ Similarly, the root of the form of the Parthenon and temples of the Acropolis were presented in humble huts. That is, the humble hut in the mountain follows the rules of the lawgiver, mediating between human beings, nature and the universe. Le Corbusier noted: 'On the Acropolis of Athens the lawgiver placed temples; sounding boards of the surrounding mountains. The roots of their

³⁹⁶ Ibid., p. 50.

³⁹⁷ Le Corbusier, *Precisions*, p. 161. Also see *Modulor*, p.133, where he pronounced: 'grandeur [...] a matter of intention and not of size. Conversely, a palace must be as near to the simple necessities of life as a humble dwelling: being noble, it must also humbly serve. In this equation [house – palace] is concealed a key: proportion...'

³⁹⁸ Le Corbusier, *Une Maison, un palais*, p. 42.

forms were in men's humble huts. But his art made him discern the spirit of those lines which can fuse the human creation and the natural creation into one whole.³⁹⁹

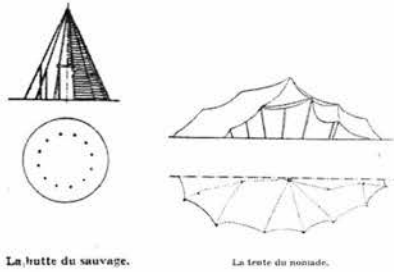


Fig. 3.8 Primitive hut and tent.
LC, *Almanach d'architecture moderne*, p. 8.

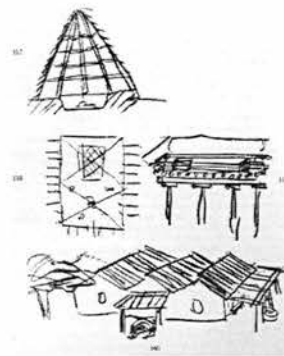


Fig. 3.9 Four Primitive huts.
LC, *22s*, p. 162.

At the beginning of his book, *Almanach d'architecture moderne* (1926), Le Corbusier presented a series of images to convey his view of architectural history. Among them, the cone-shaped savage hut and the nomadic tent (fig. 3.8) were placed at the very beginning, before the Egyptian and Persian temples and were regarded as the prototypes. He was convinced that there were valuable primitive resources in such aboriginal habitations. As pointed out by Joseph Rykwert, the notion of 'the first house' was invoked as a justification of 'the first principle of their radical reforms',⁴⁰⁰ and the first principle was 'a product of unadulterated reason.'⁴⁰¹

As Rousseau admired the 'noble savage', Le Corbusier believed that the primitive hut is at the height of economy, that its geometry carries nobility and beauty, therefore it was equal to a palace.⁴⁰² This is 'the decisive anchoring of LC's argument, which enables him too to

³⁹⁹ Le Corbusier, *The Home of Man*, p. 134.

⁴⁰⁰ Joseph Rykwert, *On Adam's House in Paradise*, p. 13.

⁴⁰¹ *Ibid.*, p. 16.

⁴⁰² Le Corbusier, *Une Maison, un palais*, p. 38.

measure the world from its primeval beginnings rather than from the present.’⁴⁰³

Le Corbusier discussed ‘Modern technique’ in the chapter of ‘Overthrowing Secular Customs’ in *The Radiant City*. Here he criticized the ‘traditional method’ codified by the Schools and Academies⁴⁰⁴ (*codifiées par les Ecoles et les Académies*) precluding new technologies, such as reinforced concrete, yet celebrating ‘historical’ architecture’ outside teaching of Academies:

...the history of architecture (our own past, or sometimes even the present in other climates) would show us that other methods of house construction exist or have existed which are infinitely more flexible, more deeply and richly architectural than those made popular by what is taught in the schools [écoles]. (The lake house, the Gothic wooden house, the Swiss Chalet (blockhaus), the Russian isba, the Indochinese straw hut, the Japanese tea house, etc., etc.)⁴⁰⁵

The fishermen’s huts, the medieval wooden house, the lake house⁴⁰⁶ and the Swiss chalets are European folk architectures. The Russian isba, the Indochinese straw hut and the Japanese teahouse were all exotic examples that he knew from books or magazines.

Based on similar sources, the human measurement derived from the human figure is harmonious with mathematics and the structures of plants and animals. With this measurement people built their houses, bridges and palaces:

The Parthenon, the pyramid, temple, fishermen’s cottages, shepherds’ huts, were constructed by means of these human measures, and that is how masterpieces came to be born, some modest, some sublime.⁴⁰⁷

As Le Corbusier argued in *The Radiant City*, the primitive hut could serve as a solution for

⁴⁰³ Adolf Max Vogt, Le Corbusier, *The Noble Savage*, Mass.: The MIT Press, Cambridge, MA., 1998, p. 158.

⁴⁰⁴ Le Corbusier, *The Radiant City*, Faber and Faber, 1967, p. 29; French version *La Ville radiieuse*, Vincent, Fréal & Cie., Paris, 1964, p. 29.

⁴⁰⁵ Ibid., p. 30., The ‘schools’ is not in capital in both English and French version, but it should denote the ‘Schools and Academies’ in the previous paragraph.

⁴⁰⁶ For more discussions on the lake house, see Adolf Max Vogt, *Le Corbusier, the Noble Savage*.

⁴⁰⁷ Le Corbusier, *Modulor 2*, p. 50.

the modern house and city. For example, some fundamental ideas of the primitive hut had successfully addressed the issue concerning the site and were superior to that of ‘civilized France’ (fig. 3.10):

A house on the ground (beaten earth) is frightfully unhealthy; you no longer find it anywhere but in Brittany. Many savages have immediately created artificial sites (a floor raised above the ground) to avoid floods or scorpions, etc... The natural ground is the dispenser of rheumatisms and tuberculosis. France is perhaps the only so-called ‘civilized’ country, which still allows a parquet or tile flooring to be laid directly on the natural ground.⁴⁰⁸

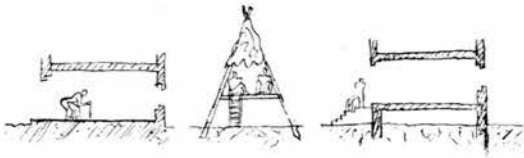


Fig. 3.10 Savage hut (middle), artificial site (right).
LC, *The Radiant City*, p. 56.

Furthermore, the savage hut was a good model and provided countless solutions for modern cities:

This triple sketch [note: including the primitive hut, fig.4] perfectly expresses the theory of ‘artificial sites’ which is the means to countless solutions for the urbanization of today’s cities.⁴⁰⁹

According to him, the raised floor based on piloti could be adopted to separate the pedestrian level from the automobile level.

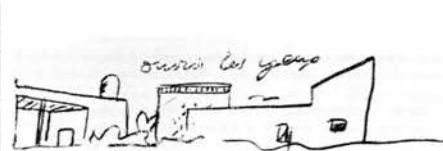
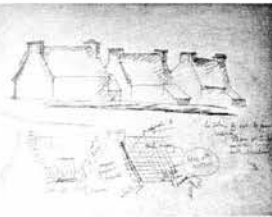


Fig. 3.11 Breton houses. Left: LC, *Almanach d’architecture moderne* of 1926, p. 89. Right: drawing by Le Corbusier, Buenos Aires. LC, *Precisions*, p. 229. *Passé* 406.

⁴⁰⁸ Le Corbusier, *The Radiant City*, p. 55-56.

⁴⁰⁹ *Ibid.*, p. 56.

He also visited folk houses to experience them in person, such as those in his hometown, the Balkans and Turkey (1911), in a Breton village (fig. 3.11) (1924), in Argentina (1929), at the Casbah of Algiers (1930s), Ghardaïa, M'zab (1931) and on the Cyclades (1933). Many qualities and characteristics of modern architecture are revealed in these folk examples. While giving a lecture in Argentina in 1929, for instance, Le Corbusier gave an example that appeared to be a modern building but, in fact, was a folk house (fig. 3.12):

‘Well here he is designing a modern house!’ Not at all, I am drawing the houses of Buenos Aires... They are a very logical expression of the life of Buenos Aires. Their dimensions are right, their forms harmonious; their relationship to their sites well thought out. It is your folklore... You have this, a standard plan, and a play of forms in the Argentine light, a play of very beautiful, very pure forms.⁴¹⁰

Moreover, during the fourth CIAM he found human scale and whitewash in the architecture on the Cyclades. More descriptions of each place are discussed in chapters five and six.

Many of these experiences had a lasting impact on him throughout his life. For instance, during his journey from Vienna to Istanbul in 1911, he was impressed by how the folk houses coped with the site. He recalled in the last period of his life:

There I was dumbfounded by the most anti-academic things possible, such as peasant houses, property enclosing walls that slope with the land, slanting or tilted, depending on the slope of the land without the terracing that architects usually resort to when they have a sloping site... a method that has always revolted me. The wall followed the slope of the land: so beautiful, it struck me for life – that’s the spirit of Truth.⁴¹¹

Ideal City: Order and Precision

Many folk villages, ancient communities and distant cities inspired Le Corbusier’s vision of a city. While discussing the ideal city, Le Corbusier celebrated order, regulated by the right

⁴¹⁰ Le Corbusier, *Precisions*, p. 227.

⁴¹¹ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 108.

angle, and believed that it could maintain the universe in equilibrium. He explained in *The City of Tomorrow*: ‘to assure ourselves against every risk, one primordial human basis is needed: “order.”’⁴¹² The law of gravity proposes the vertical and the horizon gives the horizontal, which is ‘the line of the transcendental plane of immobility... The right angle is as it were the sum of the forces, which keep the world in equilibrium...and has superior rights over other angles; it is unique and constant.’⁴¹³

The primitive state contains primary and unadulterated principles. Thus Le Corbusier praised the ‘prehistoric lake village; the savage’s hut; the Egyptian house and temple; Babylon, the legend of which is a synonym for magnificence; Pekin [Beijing], that highly cultivated Chinese town...’⁴¹⁴ All these examples demonstrate his beliefs that:

...on one hand, the right angle and the straight line which inevitably enter into every human act...on the other hand...a spirit working right up to the limits of its own force and grandeur...a marvellously perfect figure, unique, constant and pure.⁴¹⁵

Babylon, Pekin, Khorsabad, Timgad, Kairouan and Palmanova are all examples of great cities, which express man’s power and might.⁴¹⁶ The ziggurat of Khorsabad was one of the inspirations for Le Corbusier’s Mundaneum in 1929.⁴¹⁷ Le Corbusier claimed that a savage hut is very different to the Parthenon, but ‘if the creation is ordered, it lasts throughout time and remains an object of admiration in every mind.’⁴¹⁸

At the end of the 1920s, Le Corbusier’s urban ideology was not restricted by the absolute system of right angles, but he took the existing topography and urban condition into account.

⁴¹² Le Corbusier, *The City of Tomorrow and its Planning*, p. 116.

⁴¹³ *Ibid.*, pp. 38-9.

⁴¹⁴ *Ibid.*, p. 42.

⁴¹⁵ *Ibid.*, pp. 42-3.

⁴¹⁶ *Ibid.*, p. 105.

⁴¹⁷ Alfred Willis, ‘The Exoteric and Esoteric Functions of Le Corbusier’s Mundaneum’, in: *Modulus* 11, 1980, p. 13.

⁴¹⁸ *Ibid.*, p. 41.

In fact, before his Purist period, some non-orthogonal ancient cities had been studied in his 'La Construction des villes', such as Venice. He argued: 'Venice is a perfectly conceived machine, a clever set of precision instruments, an accurate product of true human dimensions.'⁴¹⁹

From 1929 curved linear compositions appeared in his urban designs, such as those of Rio de Janeiro (1929) and Algiers (1931). The Algerian urban project, as pointed out by Charles Jencks, 'preserves the past, the Casbah, unlike the Voisin Plan of 1925, which rips to shreds the urban fabric. It is as if the human and organic metaphor behind the female curves has led to a new respect for what actually exists.'⁴²⁰

Le Corbusier continued to observe exotic dwellings in M'zab in North Africa. He flew over several cities in M'Zab, such as Berrian, where an aerial view 'reveals sound biology and brilliant anatomy',⁴²¹ the Ben-Isghem, a rectilinear city was seen to have order, decisiveness, choice; a sensitive instrument ready to serve man.⁴²² The Arabesque layout of the *redents* blocks of the Fort l'Empereur hill in Algiers was suggestive of Kufic (or Cufic), the early Arabic script.⁴²³

In terms of the composition of individual dwelling units and their relationship to the whole community, the Carthusian Monastery near Florence served as a major model. Le Corbusier saw the monastery as a modern city on a hill. Each unit is surrounded by a central courtyard next to communal facilities and has its own enclosed garden at the lower level.

⁴¹⁹ Le Corbusier, *The Radiant City*, p. 269.

⁴²⁰ Charles Jencks, *Le Corbusier and the Continual Revolution in Architecture*, p. 202.

⁴²¹ Le Corbusier, *The Radiant City*, p. 231.

⁴²² Ibid.

⁴²³ Kenneth Frampton, *Le Corbusier*, p. 109.

This prototype for the modern city dates back to the fifteenth century.⁴²⁴ This individual/collective monastery was carried out in his project of Immeubles-Villas, and was realized in the apartment block at Marseilles.

The Chronological and Geographical Dimension of Le Corbusier's Study

The beginning of history, in Le Corbusier's mind, could be traced to the formation of the earth, as he stated in his *Aircraft*: 'The Earth: a bony structure (rocks) product of matter in fusion cooled on the surface and having undergone shrinkage, contraction, splitting and tearing apart etc...'⁴²⁵ In this view of natural history, there are constant phenomena, such as the vicissitudes of river banks, which have persisted from the very beginning of the river to the present time, and will remain for a considerable time: 'And above [the earth]: the immemorial play of water—water vapour. Rivers or erosion or infiltration.'⁴²⁶ This view echoed his collection of '*objets à réaction poétique*', in which 'pebbles, crystals, plants and all their parts extend their meaning even to the clouds and rain, even to erosion, that crucial geological phenomenon.'⁴²⁷

In his treatises, the historical scope covers prehistory, the archaic period, the Middle Ages, some aspects of the Renaissance, and a few examples from the time of Louis IV until the twentieth century.⁴²⁸ The very beginning is also inherent in examples from folk art and

⁴²⁴ Le Corbusier, *Precisions*, p. 91.

⁴²⁵ Le Corbusier, *Aircraft*, notes next to fig. 116-7.

⁴²⁶ Ibid.

⁴²⁷ Le Corbusier, *Le Corbusier Talks with Students*, p. 72.

⁴²⁸ (ex., Stonehenge, Ggantija), archaic (Temple of Egypt, Mesopotamia, Greece, House in Pompeii), the middle ages (Notre Dame, Paris), some Renaissance (Cathedral by Michelangelo, Villa by Palladio), a few Louis IV, and twentieth century (silo, ocean liner). Examples exhibited in Le Corbusier's publication of *The City of Tomorrow and its Planning, Towards A New Architecture, The Decorative Art of Today* and *Une Maison – un palais*.

architecture, which were undated, but retained the characters of their origins. The geographical and cultural aspects are also very broad, which cover five continents in his arguments.⁴²⁹ Beyond European examples, they include those of the Middle East, India, China, Africa, South America and Oceania. For Le Corbusier's geographical scope see also chapters five and six.

Furthermore, the wisdom of the East and the West was illuminated for Le Corbusier through Edouard Schuré's *Les Grands initiés* and *Sanctuaires d'orient*. The former lists prophets and initiators from ancient Egypt, Greece, ancient India, the Middle East and China. Henry Provensal's *L'Art de Demain* also discusses the evolution of temples, whether from polytheism, pantheism or monotheism. It covers Egypt, Assyria, Persia, India, Ancient Greece, Ancient Rome, the Middle Ages, and thereafter.⁴³⁰

His intention to explore the distant world was reflected in his projects, even a small one such as *Une Petite Maison* in Vevey on the shore of Lake Geneva, designed for his parents in 1923-4. He noted that in twenty minutes from here one could reach a train station, and from there major cities around the world, such as Paris, Munich, Milan, Vienna, Berlin and Marseille.

Le Corbusier's journey to the East of 1911 ended in Istanbul, but his intention to explore the further East remained. Later in his *L'Esprit nouveau*, the examples from the Orient, such as Mesopotamian cities, Persian palaces, Indian temples and the Forbidden City of China were

⁴²⁹ Ibid. For example, the Middle East (Persian house and palace, Khorsabad city), India (Rameswaram temple), China (Summer residence), Africa (Kairouan city), America (U.S.A, Peruvian vase) and Oceania (Papua peddle).

⁴³⁰ Henry Provensal, *Vers l'Harmonie intégrale; L'art de demain*, Paris: Perrin, 1904, pp. 175-287.

profusely cited, even though he had never visited them. In 1965, almost at the end of his life, Le Corbusier was still trying to go to Peking and Mexico City.⁴³¹ His intention to explore in every direction remained with him to the end.

Part III. Cyclic and Progressive: Le Corbusier's Dualistic View of History

It seems as if the two great conceptions of antiquity and Christianity, cyclic motion and eschatological direction, have exhausted the basic approaches to the understanding of history.
– Karl Löwith⁴³²

Le Corbusier celebrated a new and progressive epoch, yet maintained a strong connection with the past. It is intriguing to review his standpoint on history from both a cyclic and a linear, progressive standpoint. Darwin's theory of progressive evolution, Rousseau's Romanticist quests for the primitive and classical view of cyclic history were all influential for Le Corbusier.

A Vision of a Selective Cycle

Here, in widespread use in books, schools, newspapers, and at the cinema, is the language of our emotions that was in use in the arts for thousands of years before the twentieth century.
– Le Corbusier⁴³³

History often repeats itself. The past and the present can echo each other directly if meaningful elements in common between the two are discerned and a parallel is built up as a bridge; thus past issues can recur in a cyclic way. Nietzsche also argued this in his doctrine

⁴³¹ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 117.

⁴³² Karl Löwith, *Meaning in History*, The University of Chicago Press, 1949, p. 19.

⁴³³ Le Corbusier, *The Decorative Art of Today*, p. 125.

of eternal recurrence.⁴³⁴ Yet in the early twentieth century there was still a deep chasm between the modern epoch and the earlier periods of history. Le Corbusier sought a reconciliation between the present and the ancient past. 'The really useful thing would be to draw up a parallel table of its [this age's] activities – intellectual, social, economic and industrial – not only in relation to the preceding period at the beginning of the nineteenth century, but to the history of civilizations in general.'⁴³⁵ His numerous writings on the Parthenon are a good example of this recurrence (fig. 3.13).

The past may return, connected and united with the contemporary in a diachronic pattern. The Greek view of the course of history is cyclic: '...everything moves in recurrences, like the eternal recurrence of sunrise and sunset, of summer and winter, of generation and corruption.'⁴³⁶ The Greeks also believe that 'human nature and history imitated the nature of the cosmos.'⁴³⁷ Le Corbusier's cyclic vision can be clearly discerned in his introduction of the exhibition '*Les arts dits primitifs dans la maison d'aujourd'hui*' in 1935:

The works of the spirit do not age. By periods, cycles, series, returns take place; same hours pass, once again, to the minutes of concordance. Thus the works which animated the same potential of energy are connected, unified...
The architecture, which currently appears is contemporary with works of these other cycles.⁴³⁸

⁴³⁴ Friedrich Nietzsche, *Thus Spoke Zarathustra*, rep. with new introd., Harmondsworth: Penguin, 1969, p. 237-8. Le Corbusier purchased this book in Paris around 1908, and made notes on many pages. See H. Allen Brooks, *Le Corbusier's Formative Years*, 1997, p. 172.

⁴³⁵ Le Corbusier, *Towards a New Architecture*, p. 271.

⁴³⁶ Karl Löwith, *Meaning in History*, p. 4.

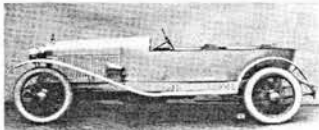
⁴³⁷ *Ibid.*, p. 192.

⁴³⁸ '*Les oeuvres de l'esprit ne vieillissent pas. Par périodes, cycles, series, les retours s'opèrent; mêmes heures passent, une fois encore, aux minutes de concordance. Ainsi sont apparentées, sont unes, les œuvres qu'anima le même potentiel d'énergie... L'architecture qui apparaît actuellement est contemporaine des œuvres de ces autres cycles*' Le Corbusier, text on the invitation card, '*Les arts dits primitifs dans la maison d'aujourd'hui*', 1935 (FLC BrA26).



THE PARTHENON, 447-434 B.C.

the run of the whole thing and in all the details. Thus we get the study of minute points pushed to its limits. Progress. A standard is necessary for order in human effort.



DELAGE, "GRAND-SPORT," 1921

Fig. 3.13. Through selection, standard and perfection, both cyclic (towards a culmination in the past, the Parthenon) and progressive (perfection from Paestum to the Parthenon; from Humber to Dekage racing car) vision are manifested in this intersection of the Parthenon and Delage 'Grand-Sport.' LC, *Towards a New Architecture*, p.135.

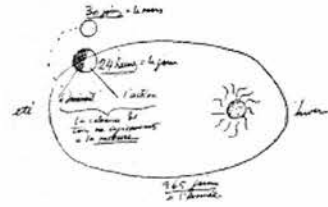


Fig. 3.14 Cycle of nature. LC, *The Radiant City*, p. 77.

Le Corbusier studied Greek architecture and art extensively. The past and present, to him, were not only connected with each other but were also able to form a series or a unity out of different periods. Primitive works exhibited at his apartment were intended to render the 'excitement and novelty to those things which man created at some point in the past.'⁴³⁹

Le Corbusier's cyclic view of history was to have been incorporated with the cyclic phenomena of nature, a perennial resource deeply rooted in his mind (fig. 3.14). Since man is a part of nature, 'the laws he lays down for himself must accord with those of nature.'⁴⁴⁰ The natural phenomena of meandering rivers and astronomical cycles were discussed in many of his writings across the decades. He observed cyclic phenomena in nature:

How much deeper is my feeling for the admirable clock that is the sea, with its tides, its equinoxes, its daily variations according to the most implacable of laws, but also the most imperceptible, the most hidden law that exists.⁴⁴¹

⁴³⁹ Le Corbusier, *Oeuvre complète*, vol. 3, p. 157, trans. Jacques Sbriglio in *Apartment Block 24 N.C. and Le Corbusier's House*, p. 60.

⁴⁴⁰ Le Corbusier, *The Radiant City*, p. 76.

⁴⁴¹ Le, Corbusier, *Modulor 2*, p. 27.

Secular Salvation and Progress

A new world: a high-speed world.

A new life: the machine age.

A new ideal: use of the machine to liberate the individual.

A new daily round: productive, recuperative, joyful, healthy.

– Le Corbusier⁴⁴²

Apart from the cyclic vision, Le Corbusier held another view, of linear progress for the new epoch, and the latter somehow contained prophetic overtones. In the West, all history is associated with Christianity, to various degrees, in the moral, intellectual, social and political realms. Christians see historical time as beginning with God's creation of the world, and moving to an *eschaton*, the end of the world. History to them is not a qualitative timeline but primarily a process of salvation and a faith in an ultimate purpose.⁴⁴³ In a modern historical consciousness, grounded on reason, Darwinian theory of evolution and individual volition, the Christian belief in the fulfilment of the world's history through 'final' events like the Last Judgement has generally been discarded; as a result, the history of salvation is reduced to 'the impersonal teleology of a progressive evolution.'⁴⁴⁴ For architects, 'the goal was less concerned with Christian redemption than with the man-made paradise.'⁴⁴⁵

Le Corbusier's Protestant faith 'had left a deep, indelible impression upon his mind.'⁴⁴⁶

Although he reproached religions as unchangeable dogmas,⁴⁴⁷ many of his works do have sacred connotations, such as the sign of the lantern in his paintings.⁴⁴⁸ Even the Modulor

⁴⁴² Le Corbusier, *The Radiant City*, p. 139.

⁴⁴³ Karl Löwith, *Meaning in History*, The University of Chicago Press, 1949, p. 5.

⁴⁴⁴ *Ibid.*, p. 186.

⁴⁴⁵ Iain Boyd Whyte, 'Introduction', in *Modernism and the Spirit of the City*, ed. I. B. Whyte, London: Routledge, 2003. p. 7.

⁴⁴⁶ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 20.

⁴⁴⁷ Le Corbusier, *Towards a New Architecture*, p. 14.

⁴⁴⁸ Dagmar Weston, 'The Lantern and the Glass', in *Modernism and the Spirit of the City*, ed. I. B. Whyte, pp. 161-164.

was accorded a spiritual dimension: mathematics is ‘the majestic structure conceived by man to grant him comprehension of the universe... It has walls...sometime there is a door: one opens it – enters – one is in another realm, the realm of the gods.’⁴⁴⁹

Echoing the Biblical and Romantic Golden Age, Le Corbusier referred to ‘primitive man’⁴⁵⁰ as an ideal model to justify his regulating lines: ‘The great architecture is rooted in the very beginnings of humanity and that it is a direct function of human instinct.’⁴⁵¹ Before him, Vitruvius and Enlightenment predecessors such as Abbé Laugier, Quatremère de Quincy and later Viollet-le-Duc also sought for legitimacy of the primitive.

Le Corbusier’s major concern about the course of history was in fact directly related to his notion of what he called ‘the new epoch’, which meant his own time and the near future. In his writing, as in that of his contemporaries, prophetic overtones were occasionally revealed, but whether or not there is a Biblical ultimate future was rarely clearly stated. In *Urbanisme*, for example, Le Corbusier mentioned that his project, ‘City of Three Million Inhabitants’, had been adapted by journalists to ‘The City of the Future’, and he argued that it was ‘a Contemporary City; contemporary because tomorrow belongs to nobody.’⁴⁵² Occasionally, he did use ‘tomorrow’ to refer to the future, which conveyed his anticipation of the near future, such as his conception of ‘the City of Towers’ that will ‘prove a reasonable idea, as regards the towns of to-morrow.’⁴⁵³

⁴⁴⁹ Le Corbusier, *The Modulor: a Harmonious Measure to the Human Scale Universally Applicable to Architecture and Mechanics*. Reimpression from the first English edition published in 1954 by Faber and Faber. Basel: Birkhäuser, 2000; Paris, Fondation Le Corbusier, 2000, p. 71.

⁴⁵⁰ The timing of it may be Neolithic age or early Iron Age, as he mentioned using stone as a tool in the same book, p. 72: ‘Very primitive man squared a board very badly with a flint or a knife.’

⁴⁵¹ Le Corbusier, *Towards a New Architecture*, pp. 70-2.

⁴⁵² Le Corbusier, *The City of Tomorrow and its Planning*, p. 17.

⁴⁵³ Le Corbusier, *Towards a New Architecture*, p. 61.

Progress was the leitmotif of Le Corbusier's new epoch, suggesting the notion of salvation and man-made paradise. To him the machine was a means towards progress, a means of salvation of the new world. He proposed in *The Radiant City* a new life in the machine age and an advanced ideal of using machines to 'liberate' the individual. Mass-production, for instance, was experimented held in the Bordeaux-Pessac project by applying the standardised system of Domino modules and windows. Le Corbusier said 'it was decided to make a clean start... For the first time perhaps, the pressing problems of Architecture... were solved in a modern spirit.... a new solution, using new methods.'⁴⁵⁴ A 'clean start' in terms of building production implies a metaphor of baptism. The position of modern artists is somewhat like 'a "secular saviour", whose creations are expected to achieve in a small way the propitiation of disaster, for which an unsaved world hopes.'⁴⁵⁵

Retrospection and Evolution: Romanticism and Darwinism

Longing for the lost paradise that might come true again, Romanticism is a prevalent but retrospective vision. Jean Jacques Rousseau thought that it was necessary to abandon civilization as men were naturally good.⁴⁵⁶ Le Corbusier owned three of Rousseau's books and knew his philosophy well,⁴⁵⁷ and he noticed that Rousseau, while passing through La Chaux-de-Fonds, admired peasants for their refinement and simplicity.⁴⁵⁸

⁴⁵⁴ Ibid., p. 253.

⁴⁵⁵ Hans-Georg Gadamer, *Truth and Method*, London: Sheed & Ward, 1975, p. 79.

⁴⁵⁶ Bertrand Russell, *A History of Western Philosophy*, Simon & Schuster Inc., pp. 687-8.

⁴⁵⁷ Paul Venable Turner, *The Education of Le Corbusier*, a Study of the Development of Le Corbusier's Thought, 1900 -1920, Ph.D. Dissertation, Harvard University, 1971, p. 237.

⁴⁵⁸ Le Corbusier, *My Work*, p. 18.

Many historians and critics 'have affirmed the continuity of the ideological and historical line between romanticism and avant-gardism',⁴⁵⁹ as they are both similarly against tradition and academicism, but celebrate the novelty and strangeness that belong to minority cultures.⁴⁶⁰

Contrary to the retrospective view of history, Darwin's theory of evolution had no clear-cut starting point or ultimate destination. The process of evolution moved from a rudimentary to a sophisticated state, but did not originate in sudden creation: 'The gradual diffusion of dominant forms, with the slow modification of their descendants, causes the forms of life.'⁴⁶¹ The historical course of evolution therefore is not a cycle of eternal recurrence but is rather steadily changing and moving forward. Le Corbusier studied zoology and botany at school in 1900-01 and certainly knew the Darwinian thesis.⁴⁶² Indeed, some of his writings have clear evolutionary sentiments: 'Civilizations advance... Culture is the flowering of the effort to select.'⁴⁶³

⁴⁵⁹ Renato Poggioli, *The Theory of the Avant-garde*, 1968, p. 46.

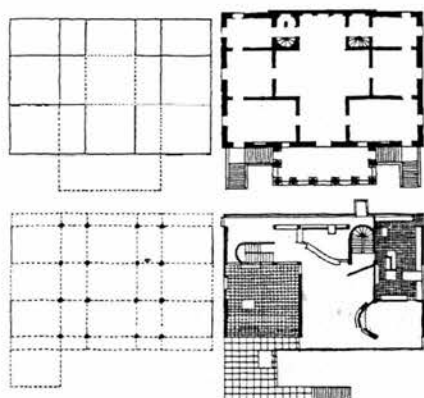
⁴⁶⁰ *Ibid.*, pp. 51-2.

⁴⁶¹ Charles Darwin, *On the Origin of Species*, a facsimile of the 1st ed. Cambridge, Mass., Harvard University Press, 1964, p. 475.

⁴⁶² H. Allen Brooks, *Le Corbusier's Formative Years*, p. 21. Also see A. M. Vogt, *Le Corbusier the Noble Savage*, p. 333.

⁴⁶³ Le Corbusier, *Towards a New Architecture*, p. 138.

Reinterpretations of History



Pakkadio's Villa Malcontenta 1560
Le Corbusier and Jeanneret, Villa de Monzie,
Garches, 1927.

Fig. 3.15. Le Corbusier's Villa Stein de
Monzie and Palladio's Villa, Malcontenta.
K. Framton, *Modern Architecture*, p. 157.

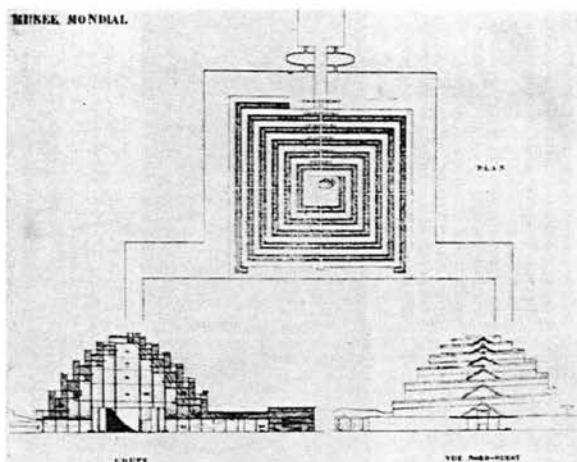


Fig. 3.16. Le Corbusier, World Museum,
Mundaneum, 1929. *O.E.1*, p. 193.

Since Le Corbusier's understandings of history are cyclic and progressive, forward-looking and retrospective, we can see clearly that concerning a cyclic history, Le Corbusier avoided academicism but was inspired by history; he then reinterpreted history progressively. To him, 'conventions and customs are words of surrender!'⁴⁶⁴ He defined academicism as 'accepting forms, methods, concepts because they exist, without asking why... the Academy of Fine Arts determines the standards of what is beautiful.'⁴⁶⁵

To Le Corbusier, once one has got away from the academies of design, one can find a harmony and 'adjust one's nascent dream to the countless elements which must ultimately accept its products as useful.'⁴⁶⁶ Adopting a similar approach to the study of art objects in museums, he paid least attention to the works of 'high art'. 'The museums are large; I put my questions only to what is not called Great Art.'⁴⁶⁷

⁴⁶⁴ Le Corbusier, *Precisions*, p. 33.

⁴⁶⁵ *Ibid.*, pp. 32-33.

⁴⁶⁶ Le Corbusier, *The Decorative Art of Today*, p. 213.

⁴⁶⁷ *Ibid.*, p. 198.

Since Le Corbusier disapproved of academicism, how was he inspired by history to think progressively? In his design work, traditional architectural elements were always reinterpreted. One example is what Alan Colquhoun has called the ‘displacement of concepts, and by this to indicate a process of reinterpretation, rather than one of creation in a cultural void.’⁴⁶⁸ Le Corbusier constantly referred to architectural tradition either by ‘invoking its principles and adapting them to new solutions’, such as the parallel of structural grid between Villa Stein de Monzie and Palladio’s Villa Malcontenta (Fig. 3.15),⁴⁶⁹ or by overtly contradicting them, such as the use of pilotis as ‘a reversal of the classical podium.’⁴⁷⁰

The stepped pyramid form of the World Museum in his Mundaneum project (Fig. 3.16) ‘recalls Nineveh or Mexico.’⁴⁷¹ The pyramids in Nineveh and Mexico were temples for religious rituals, but Le Corbusier transformed them into a museum. The exterior spiral ramp allows the museum of human creation to assure the ‘absolute continuity of events in history.’⁴⁷²

⁴⁶⁸ Alan Colquhoun, *Essays in Architectural Criticism*, Cambridge, The MIT Press, 1985, p. 51.

⁴⁶⁹ Colin Rowe, *The Mathematics of the Ideal Villa and Other Essays*, Cambridge, Mass., MIT Press, c1990, pp. 1-28.

⁴⁷⁰ Alan Colquhoun, *Essays in Architectural Criticism*, p. 51.

⁴⁷¹ Le Corbusier, ‘In Defence of Architecture’, Original published in *Stavba 2*, Prague, 1929, trans. Nancy Barrey, André Lessard, Alan Levitt and George Baird. *Oppositions Reader*, New York: Princeton Architectural Press, 1998, p. 610.

⁴⁷² Le Corbusier, ‘In Defence of Architecture’, *Oppositions Reader*, p. 608.

Juxtaposition of the Modern, Primitive and Ancient

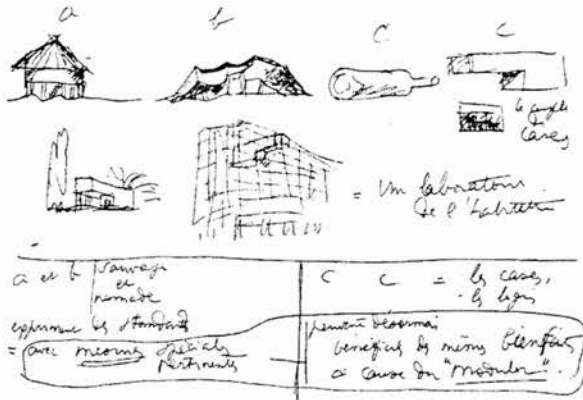
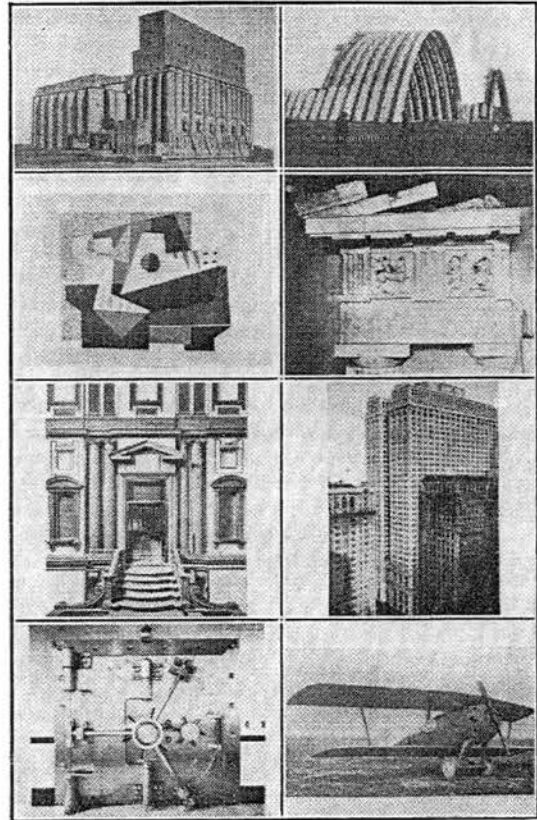


Fig. 3.17 Standard type of dwelling: primitive hut (a), tent (b), *a et b / Savage et nomade*, bottle (c) and modern dwelling unit (c); *la logis de caser*. Le Corbusier, *O.C.* 5, p.186.

Fig. 3.18 Juxtaposed images of modern and ancient, art and architecture, machine and building: Canadian grain silo, Hangers at Orly, Picasso's *Still Life with Mandolin and Comptier*, Parthenon, Michaelangelo's Laurentian Library, High rise in New York, gate of a safes, and Blériot airplane. LC, *Almanach d'architecture moderne*, p. 18.



Silos à grains (Canada).
Tableau de Picasso.
Michel-Ange.
Porte de safes.

Hangars d'Orly.
Parthenon.
New-York.
Avion Blériot.

The relationship between modernity and tradition, to Le Corbusier, is dialectical and complementary. The course of history in his mind was cyclic, progressive; evolutionary as well as retrospective. Thus Le Corbusier always juxtaposed seemingly antithetical things, such as the Parthenon and a new sport car (fig. 3.13), or an ancient building next to modern architecture. His articles in *L'Esprit nouveau* teem with these juxtapositions as well as the primitive exhibition in his flat in 1935. These polarized varieties could be reasonably corresponding to him.

After a long development, the primitive hut and tent have become a standard type, which could be further transformed as a unit in the modern high-rise building. For example, a drawing from his *Oeuvre complète* (fig. 3.17) is an explanation of his Unité d'Habitation in

Marseille, where A is a folk hut of central Africa,⁴⁷³ B denotes a nomad tent.⁴⁷⁴ Both A and B are as a developed type of container as a bottle C, it could be inserted into a framework (*caser*) and developed as dwelling unit C (*logis*) and thenceforth a modern apartment. Le Corbusier noted: 'The Modulor led to reflection on native huts, the nomad's tent, the modern home...From the nomad and savage we arrive quite logically at the plan for South Marseilles.'⁴⁷⁵

A set of images in his *Almanach d'architecture moderne* (fig. 3.18) is juxtaposed with eight images of technology and modern art; ancient Greece and modern airplane and a machine; Michaelangelo and high-rise building, etc. They are all under the title of 'L'Esprit Nouveau en Architecture' and clearly denote that the modern spirit coexists with the archaic and Renaissance, and ancient artworks could inspire this new spirit.

Le Corbusier's key notion in exploring primitive and distant cultures is anti-academicism, together with dualistic views on history as both cyclic and progressive. In his studio and flat there were physical collections of sketches, photographs, and artefacts, which were collaged in a similar way as the fore-mentioned images and acted as props in the theatre, stimulating memories of his journeys and ideas for his designs, which will be discussed in the following chapter.

⁴⁷³ See chapter 6, and Le Corbusier's *The City of Tomorrow and its Planning*, p. 36.

⁴⁷⁴ See Le Corbusier, *Almanach d'architecture moderne*, p. 8 and *The City of Tomorrow and its Planning*, p. 44.

⁴⁷⁵ Le Corbusier, *My Work*, p. 160.

Chapter Four

Le Corbusier's Collection: Home as a Personal Museum

Preceding Le Corbusier's prolific accomplishments was the assembly of his personal museum, which nourished these creative works. Le Corbusier's repository was a treasury where all his experiences and collections were kept, displayed, categorized and structured, and it inspired his poetic designs.

Museum, Home and Stage Set

The main repository of all Le Corbusier's experience and visual language was in his mind, but there was a physical repository containing his notes, records, sketches, photographs and collections which could help him recall his previous experiences and give him poetic inspiration. He had various working places with different functions: his flat, which included a studio and a living area, his office, and a vacation house, the *cabanan*, in southern France. It is well known that he split his day into a version of *vita contemplativa* and *vita activa*.⁴⁷⁶ the morning for reading, painting, writing and thinking at his studio (fig. 4.1), and the afternoon at his atelier at 35 rue de Sèvres, where the thoughts and ideas from the morning would often be passed on to the designers. His repository was basically at his apartment where his sketchbooks and artefacts and objects were kept. After 1950 his *cabanan* at Cap Martin also served as a place for creative work housing many *objets à reaction poétique*.

⁴⁷⁶ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), p. 46.



Fig. 4.1 Studio, 24 rue Nungesser et Coli in 1930s. *O.E.* 4, p. 152.

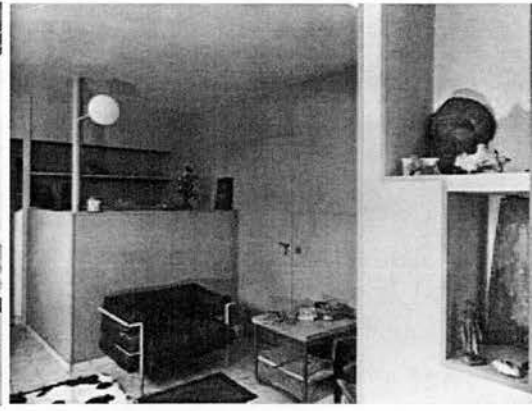


Fig. 4.2 Sitting room, 24 rue Nungesser et Coli in 1930s. *Le Corbusier, Architect of the Century*, p. 59.

The collections in his apartment were of rich variety. Many vernacular and ethnical artefacts, natural and everyday objects, together with piles of books and magazines were preserved there (fig. 4.2). Other artists' works were also collected, such as Léger's and Bauchant's paintings as well as Lipchitz' sculptures. Le Corbusier's architectural designs were carried out in his office, but his apartment served as a platform for free imagination and a rich warehouse for endless inspiration. In 1924, his office was set up at 35, rue de Sèvres, where he spent the rest of his life. In a series of pictures of his office taken by René Burri from 1959 to 1960, it looked quite crammed. On the walls there were his artworks, maps and photos; a large blackboard from ceiling to floor and a Modulor scale were attached to a wall. In the draftsman's atelier, every surface available was covered with photos, plans and models.⁴⁷⁷ On the wall at the end of the atelier was a large colourful mural painted by him in 1947 exhibiting interweaving lines and motifs of shells and woman. There were a limited number of artworks and artefacts in this office.

Le Corbusier lived at 20, rue Jacob in Paris for some time after 1917, and there his personal

⁴⁷⁷ Arthur Rüegg, ed., *Le Corbusier: Moments in the Life of a Great Architect*, photo by René Burri, pp. 38-53.

space was larger than that in his office. It was filled with books and artworks, such as Léger's oil paintings, a Dahomey woodcarving, a naïve painting and a Spanish *botijos*.⁴⁷⁸ In 1934 he re-settled on the sixth and seventh floors of 24, rue Nungesser et Coli, where the studio consisted of a vaulted ceiling with skylight, and exposed rubble stone and brick walls. Many objects and artefacts were displayed or stored there, which he collected for his imagination and called his *collection particulière*. There are a number of niches, alcoves, shelves and corners where these objects were displayed as ornaments and props, and thus a series of small stage sets was created. These stage sets were private, allowing his personal scenarios.

His apartment also functioned on occasion as an exhibition salon, where his own works and collections were presented. The exhibition items were constantly changed, renewed and relocated because of additional acquisitions, and changes in his personal preference. A public exhibition of primitive art, organized by Louis Carré and Le Corbusier, was held at this apartment in 1935. It comprised artwork, both ancient and modern, together with ethnic and folk art, from Europe, Africa and America.

⁴⁷⁸ Ibid., p.14, which is a photo of his home at 20 rue Jacob by Brassai in 1931, and reprinted in *The Radiant City*, p. 9.

Record and Evocation of Journey: Annotated Drawing

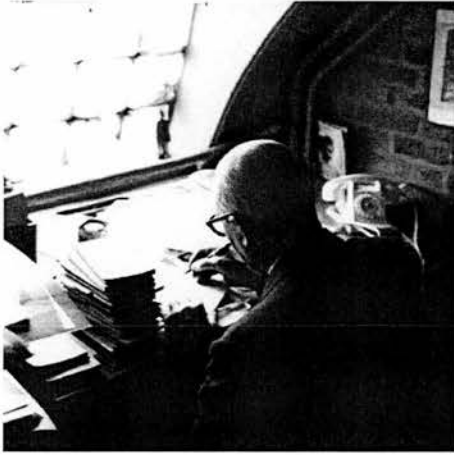


Fig. 4.3 Le Corbusier working on his sketchbooks in his studio. Arthur Rüegg, ed., *Le Corbusier: Moments in the Life of a Great Architect*, a photo by René Burri, 1999, p. 149.

In Le Corbusier's collection were a large number of annotated drawings. There are about eight thousand of them, now kept at the Fondation Le Corbusier. There are travel sketches, landscapes, surveys, gouache paintings, watercolours, and studies for paintings using different techniques (fig. 4.3). Le Corbusier had a habit of carrying a small notebook (*Carnet*) in which he randomly jotted down thoughts and sketches. He drew on airplanes, trains and ships as well as in hotels as a diary, or record, of discovery. André Wogensky observes:

When travelling with Le Corbusier, one often saw him take a notebook from his pocket in order to record something he had just thought of or seen. At these moments Le Corbusier drew as one would take notes, without trying to make a pretty pictures, simply to imprint upon his memory some central idea, to remember it and assimilate it. He often said, 'Don't take photographs, draw; photography interferes with seeing, drawing etches into the mind.'⁴⁷⁹

His sketches were primary working tools for him. When he died, seventy-three of his notebooks, dated from 1914 to 1964, were found carefully numbered and arranged in an old leather suitcase in his apartment at 24, rue Nungesser et Coli, Paris.⁴⁸⁰

⁴⁷⁹ André Wogensky, 'Preface', in: Le Corbusier, *Sketchbooks I*.

⁴⁸⁰ Maurice Besset, 'Introduction', in: Le Corbusier, *Sketchbooks I*.

This suitcase preserving all of his travelling records, in a certain sense was like Duchamp's 'Boite-en-Valise', which was a miniature museum of his travelling and working experiences. The records in these sketchbooks are representations of original buildings and landscapes he saw. Revising sketches would create new possibilities of reading and interpretations.

In addition, there were many other travel sketches, not consolidated in that system, including two volumes of 'Albums Nivola', six *carnets* of 'Voyage d'Orient' and four volumes of 'Les voyages d'Allemagne'. Many large travel sketches were on separate sheets. Besides travel sketches, Le Corbusier drew many study sketches and drawings in his formative years, including numerous sketches of nature, many done in museums and libraries such as his 'La Construction des villes'. Many were also produced in his studio in the development designs and other art works.

His observations were diverse, as he noted: 'I have travelled a great deal and I have taken note of the diversity which is the very essence of things—different characteristics: climates, races, costume, history, topography, degrees of culture.'⁴⁸¹ His profound insight allowed his creativity freely conveyed notions in diversified levels of scale: 'In nature microcosm and macrocosm are one.'⁴⁸² To Le Corbusier, a sketch was a way of imprinting memory, discovery and inspiration:

When one travels and works with visual things—architecture, painting, and sculpture—one uses one's eyes and draws, so as to fix deep down in one's experience what is seen. Once the impression has been recorded by the pencil, it stays for good, entered, registered, inscribed.... To draw oneself, to trace the lines, handle the volumes, organize the surface...all this means first to look, and then to observe and finally

⁴⁸¹ Le Corbusier, *Aircraft*, notes next to fig. 95-96.

⁴⁸² *Ibid.*, notes next to fig. 24.

perhaps to discover...and it is then that inspiration may come.⁴⁸³

On site visits and during journeys, he chose to draw what struck him and what he wanted to remember most. Those referential sketches were 'a metaphorical base which may be copied, transformed, or otherwise engaged in a later composition.'⁴⁸⁴ These recurrent memories revealed either in consciousness, such as his descriptions of a specific design, or in the sub-conscious were still both meaningful for his creativity. Reinterpretations of these sketches were possibly represented in architecture, paintings and sculptures.

Image drawing into his memory is to be preserved, recollected and transformed. Therefore, there are at least two categories: one is the physical category of time and location, such as his *Voyage d'Orient Carnets* arranged in a chronological sequence; the other is thematic in his mind, which responds to the ideas of his creative work. The lighting tower of Ronchamp chapel, inspired by Hadrian's Villa near Tivoli, is a good example. Traits and themes among his collections were based on his perception on site and organized by his personal classification. '... if classification is the mirror of collective humanity's thoughts and perceptions, then collecting is its material embodiment. Collecting is classification lived, experienced in three dimensions.'⁴⁸⁵ Le Corbusier's collections reflected his modernist mind from these specific artefacts and images of architecture.

Photographs

Besides sketching during travelling, Le Corbusier also took photographs, collected postcards

⁴⁸³ Le Corbusier, *My Work*, p 37.

⁴⁸⁴ Michael Graves, 'Le Corbusier's Drawn References', in: *Le Corbusier Selected Drawings*, Academy Editions, 1981, p. 8.

⁴⁸⁵ John Elsner and Roger Cardinal, ed., *The Cultures of Collecting*, p. 2.

and artefacts. There are some 550-plus prints from glass plates and negatives at the Fondation Le Corbusier-Jeanneret at La Chaux-de-Fonds, and other prints are now kept at the Fondation Le Corbusier in Paris. Among them, around three hundreds and forty negatives and glass plates were made during the journey to the East in 1911. Jeanneret took photographs assiduously especially in 1910 and 1911.⁴⁸⁶

In addition to the pictures he took, magazines and books also provided photographs and drawings to support his arguments in his publications. Le Corbusier was aware of a new culture of mass media. In the 1920s he collected a great number of industrial catalogues and brochures with product illustrations and images. He also collected clippings from newspapers, magazines, books of art history and natural science. These daily images provided sources for most of the illustrations in *L'Esprit nouveau. L'illustré*, for example, provided the source of a picture of the Great Wall of China in *The City of Tomorrow* and of many photographs in *The Decorative Art of Today*. The postcards he collected do not mean he visited these places. In the Fondation Le Corbusier there are several postcards of Beijing, which he never visited.

Collection Particulière and Objets à Réaction Poétique

The most conspicuous items in Le Corbusier's collection are the ceramics. He was especially fond of them and kept some close to him for the rest of his life. By far the most numerous and valuable pieces are those that he obtained in Voyage d'Orient of 1911, and he continued his collection thereafter (fig. 4.4). He probably acquired some large shallow dishes from

⁴⁸⁶ Leo Schubert, 'Jeanneret, the City, and Photography', in: *Le Corbusier before Le Corbusier*, pp. 55-6.

Tafilalet, Morocco, during a trip to North Africa in 1931, and the off-white *Botijos* from Agost, Spain, in the summer of 1930 while travelling with his brother Albert, his cousin Pierre and Fernand Léger.⁴⁸⁷

From Budapest to Belgrade, he realized, through vernacular ceramics, that ‘folk art’ is an alternative to ‘high art’.⁴⁸⁸ In a letter to Perrin during this journey, he described how he sensually appreciated a vase: ‘You recognize these joys: to feel the generous belly of a vase, to caress its slender neck, and to explore the subtleties of its contours.’⁴⁸⁹

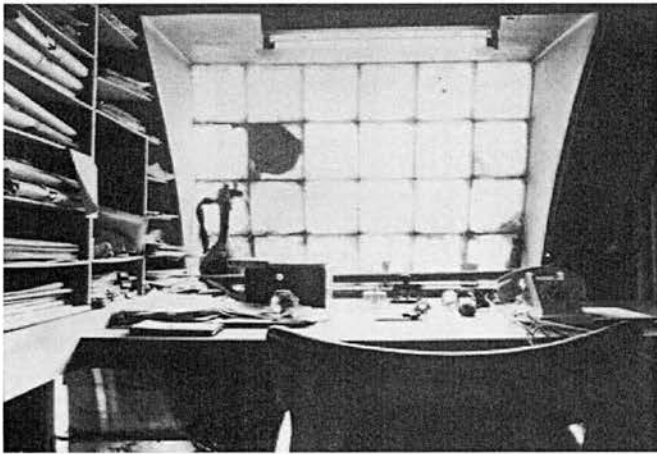


Fig. 4.4 A late photo of Le Corbusier's working cubicle in his studio. On the left of his desk is a bottle from his journey to the East in 1911.

Véronique Girard and Agnès Hourcade, *Rencontres avec Le Corbusier*, p. 79.

Le Corbusier published an article specifically on vases ‘Des Pots...’ in *L'Esprit nouveau* no.16, and stated that from the viewpoint of great art, one would be able to argue a position for pottery. ‘They are derived from the sphere, in absolute geometry, that, neither architecture, nor the sculpture (and of course, nor painting) provide... We like to reproduce these splendid Greek vases to evoke here the large statuary and architecture. The profiles of

⁴⁸⁷ Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier, Applied Arts, Architecture, Painting, Photography, 1907-1922*, New Haven, Conn.; London: Yale University Press, c2002, p. 250.

⁴⁸⁸ *Ibid.*, p. 250.

⁴⁸⁹ Le Corbusier, *Journey to the East*, p. 14.

these vases are profiles of cornices.⁴⁹⁰

This journey to the East... is a response to the persistent call of the sun, the wide expanses of blue seas and the great white walls of temples – Constantinople, Asia Minor, Greece, southern Italy – will be like an ideally shaped vase from which the heart's most profound feeling will flow...⁴⁹¹

Such vases become pieces of plastic art. Vases embody the antique purity of shape, and owe their inspiration to the same values that inspired the Parthenon.⁴⁹²

At the turn of the twentieth century, the powerful evolution of new aesthetics, urbanism and technology had gradually eroded vernacular art and architecture.

Le Corbusier praised their values and collected them:

...here in Hungary where the peasant knows how to create like a great artist... We had to flee from the invading and dirty 'Europeanization' to the tranquil refuges... The art of the peasant is striking creation of aesthetic sensuality... Thus this traditional art... unite or mingle races, climates, and places... The forms are voluminous and swollen with vitality, the line continually unites and mingles native scenes, or offers, right alongside and on the same object, the magic of geometry: an astonishing union of fundamental instincts and of those susceptible to more abstract speculations.⁴⁹³

Furthermore, they are a norm in the highest development:

Considered from a certain point of view, folk art outlives the highest of civilizations. It remains a norm, a sort of measure whose standard is man's ancestor, the savage, if you will.⁴⁹⁴

In the early 1920s, Le Corbusier's favourite objects in his paintings were everyday ones, the 'object types' of Purism, such as vases, glasses, plates, pipes, bottles, guitars and so on, which in his mind tended to embody the invariable and timeless qualities of everyday life.⁴⁹⁵

⁴⁹⁰ 'Il s'agit des dérivés de la sphère, en géométrie absolue, que, ni l'architecture, ni la sculpture (et bien entendu, ni la peinture) ne fournissent. ... Nous avons aimé à reproduire ces magnifiques vases grecs pour évoquer ici la grande statuaire et l'architecture. Les profils de ces vases sont des profils de corniches.' This article is reprinted in *Almanach d'architecture moderne*, Paris: Les Éditions G. Crès et Cie, 1926, pp. 167-9. These paragraphs are in p. 167.

⁴⁹¹ Le Corbusier, *Journey to the East*, p. 9.

⁴⁹² Stanislaus von Moos, ed., *L'Esprit nouveau: Le Corbusier und die Industrie 1920–1925*, Ernst und Sohn, 1987, p. 221.

⁴⁹³ Le Corbusier, *Journey to the East*, pp. 15-16.

⁴⁹⁴ *Ibid.*, p. 16.

⁴⁹⁵ In Le Corbusier and Ozenfant's 'After Cubism', IV, 'Generality is what is invariable in form, what is permanent, what endures.' From Carol S. Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*,

They also met his demands of a constant function, efficiency of materials, and always obeyed the law of natural selection: economy.⁴⁹⁶ After 1928,⁴⁹⁷ chunks of stone, fossils, pieces of wood, shells, fruits, pinecones and bones were introduced into his vocabulary; he called them '*objets à réaction poétique*'. They could express the laws of nature. He said that he was interested in the weathered things he had found in the water, on the lakeshore and beach, such as 'things which spoke of the laws of nature – wear, erosion, splitting and so forth – and which not only possessed beautiful sculptural form but also had unusual suggestive power.'⁴⁹⁸ He noted next to a sketch of the fragment of a bone,

Everywhere objects like these are spread before us. If you have a pencil in your hand, look at them and you will understand; you will then have a storehouse of inspiration to draw upon, the lessons taught by natural phenomena. The chance occurrence, too: the broken shell, the shoulder of beef sliced by the butcher's saw, have riches to offer which the mind cannot conceive.⁴⁹⁹

As each object could be a storehouse of inspiration, his '*collection particulière*' was like a museum of inspiration and imagination.

The associations of these objects are not limited to nature. A natural polished shell could be like a piece of porcelain or a Greek or Indian sculpture. When we look at and study these objects, the pebble rounded by the sea, or the broken brick washed by the river, for example, a close relationship between men and objects will be established. Their characters are stated

p. 161.

⁴⁹⁶ Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, Englewood Cliffs, N.J.: Prentice-Hall, 1964, pp. 63-4.

⁴⁹⁷ Le Corbusier noted: 'Until 1928, not objects, glasses, and bottles but supports for geometry, instigators of proportion. After '28, then, human figure and objects with a poetic response...' See Ivan Žaknić, *The Final Testament of Père Corbu*, p. 89. Le Corbusier also mentioned different time of this to George Charbonnier about his Pavillon de L'Esprit Nouveau in 1925, that he 'exhibited these poetically effective found-objects: fragments from nature, chunk of stone, fossils, pieces of wood...' See George Charbonnier, 'Le monologue du peinture', vol. 2, in Reinhold Hohl, ed., *Le Corbusier peinture*, p. 12. However, Le Corbusier's photographs of Pavillon de L'Esprit Nouveau in his *Oeuvre complète* and *Almanach d'architecture moderne* shows that, the objects in display were mainly not stone or bone, but the airplane model, crucible, glasses, bouquet, globe, etc. Objects in his painting between 1925-28 are largely bottles, glassed, jars, dice, and lots of them were entitled 'still life'.

⁴⁹⁸ George Charbonnier, *Le monologue du peinture*, vol. 2, in Reinhold Hohl, ed., *Le Corbusier peinture*, Basel: Editions Beyeler, 1971, p. 12.

⁴⁹⁹ Le Corbusier, *My Work*, p. 209.

and also associated with the human life, 'the male and the female, the plant and the mineral, the bud and fruit, all nuances, all forms. And us, men and women to be placed in the life and our sensitivities being toughened, sharpened, grinded, shouting in our spirit, being acting and not impassive or inattentive.'⁵⁰⁰ Other elements like the sky, sea, rock, street, table, bread, etc. are all parts of Le Corbusier's pictorial subject matter after the late 1920s, which mainly came from his travels or holidays. They may not be objects collected in his home but are recorded in his sketchbooks as images and texts, and later represented in paintings and other works.

Le Corbusier also selected artefacts for the interior design of his clients. In May 1923, he ordered four plaster casts from the Louvre Museum and sent them to Levaillant's apartment. They were a turbaned head, a Mesopotamian relief, a Greek stele and a sculpture. Levaillant also bought two African woodcarvings from Galerie Paul Guillaume in 1926, as recommended by Le Corbusier.⁵⁰¹ All of these artefacts were either primitive or from other cultures. None of them were European high culture artefacts.

In Le Corbusier's flat, his creative base, he was surrounded by a constellation of objects, among furniture and in niches. Most of them are small in size so that they could be held in his hand, except for several larger ones like Lipchitz's sculpture. They are not as dense as those in Freud's home, but arranged carefully as his personal cosmos in his sitting area, bedroom, and studio. They are largely exhibited around his apartment, mingling with his daily life. They are the periodically changing props and figures in his stage settings.

⁵⁰⁰ 'le mâle et la femelle, le végétal et le minéral, le bourgeon et le fruit, toutes les nuances, toutes les formes. Et nous, hommes et femmes placés dans la vie et s'agissant de nos sensibilités aguerries, affûtées, aiguës, criant dans notre esprit, étant agissants et non point passifs ou inattentifs.' Jean Petit, *Le Corbusier lui-même*, Geneva: Rousseau, 1970, p. 178.

⁵⁰¹ Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier*, pp. 126-7.

Until the end of Le Corbusier's life, his collection of objects was very rich and displayed in his apartments. An FLC inventory covers natural objects including stones, parts of trees, seashells, bones and pebbles,⁵⁰² which are listed as so-called *objets à réaction poétique*, and many of them appear in *Poème*.⁵⁰³ There are also non-natural objects such as porcelain, pots, glassware, eyeglasses, kitchenware, smoking pipes and many other diverse items. Another inventory consists of cultural objects from Italy, Africa, India, Turkey, Persia, Japan and China,⁵⁰⁴ and includes many artworks by André Bauchant, Liptchitz, Léger and Picasso. Some of them are souvenirs or purchases, but a large number are *objets trouvés*. Many items he had owned for a long time such as some pots were brought back from his journey to the East; some of his African statuettes were purchased in Paris.



Fig. 4.5 Le Corbusier's African statuette from Dahomey (FLC, *Passé* no. 279).



Fig. 4.6 African Statuettes from Gabon (left) and Rivières du Sud⁵⁰⁵ (right). 20 rue Jacob. Detail of fig. 4.7.



Fig. 4.7 20 rue Jacob, 1933-4 (Dated by the painting in the lower left, 'Deux femmes à la boîte d'allumettes', 1933. He moved to a new flat in 1934). FLC L4-12-20.

⁵⁰² FLC inventory (Fondation Le Corbusier, *Objects, Ayant appartenu à Le Corbusier*), these objects were now kept in carton boxes and has slide images for each box, numbered Z1(1) – Z1(13). They include natural objects, including 73 pieces of stone, 27 tree elements, 57 seashells, 18 bones and 27 pebbles. Other non-natural objects include 27 pieces of porcelain, 47 pots, 15 pieces of glassware, 9 pairs of eyeglasses and optical instruments, 9 items of kitchenware, 93 smoking pipes and parts, and 80 diverse items comprising statuettes of horses or human beings, gas burners, a horseshoe, birds, a bull, small building models and so on.

⁵⁰³ Such as a pinecone on p. 134, a seashell on p. 90.

⁵⁰⁴ FLC inventory, *Oeuvre Non L.C.*, text only without images. Cultural objects include three African statuettes, four African masks, seven Indian miniatures, etc.

⁵⁰⁵ In the 1880s, most of what is Guinea today was declared a French protectorate, under the name Rivières du Sud (rivers of the south), still part of Senegal. In 1891, Rivières du Sud was separated from Senegal and split in two separate French colonies, under the name of Guinea and Ivory Coast.

He had three African statuettes that are part of series of his African collections, including the objects he owned and the images he studied from museum. A wooden statuette from Dahomey (fig. 4.5) purchased from Hotel Drouot. This Yoruba statuette illustrates a woman kneeling down holding a child on her back with a small container in her hand, a ritual theme of maternity and fertility. It reveals ‘the most profound female secret and power, graphic proof of the continuity of the race.’⁵⁰⁶ Here the straight line and triangular, or cone, elements dominate its form, her head, hat, breast, arms, and legs. The wooden surface is unpolished, revealing clear knife marks. The primitive roughness and natural spirit were also revealed in her face and eyes. In his home at 20 rue Jacob this statuette was placed close to his desk in front of a painting by Léger (fig. 4.11), as shown in a picture in *The Radiant City* under the title ‘The Free Man’ and with a note of ‘when the door is shut...’⁵⁰⁷ This expresses his vibrant private world.

A standing figure (figs. 4.6, 4.7) from Rivières du Sud (now Guinea and the Ivory Coast) was also purchased in Hotel Drouot of 1927.⁵⁰⁸ It comprised gentle, elegant curved forms – curved arms, belly and leg, etc. The torso was elongated with a spherical head above it.

⁵⁰⁶ A discussion of a similar example in Herbert M Cole, *Icons: Ideals and Power in the Art of Africa*, Washington, D.C.; London: Published for the National Museum of African Art by the Smithsonian Institution Press, c1989, p. 91.

⁵⁰⁷ Le Corbusier, *The Radiant City*, p. 9.

⁵⁰⁸ A pamphlet in FLC, ‘Art Primitif, Africain et Océanien, Hotel Drouot, Salle no. 10, Mai 1927’, p. 23, no. 399 bis.

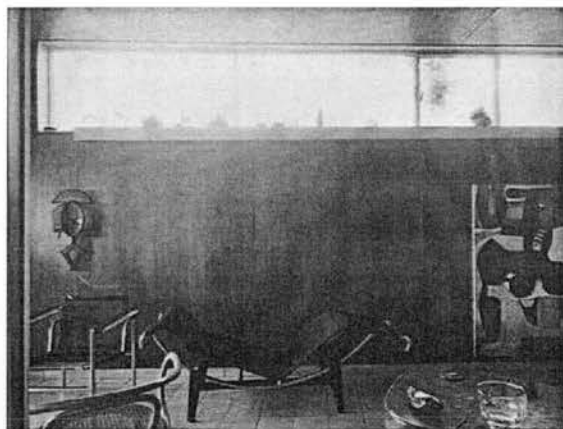


Fig. 4.8 Collections at 24, rue Nungesser et Coli. A Gabon statuette on the left, and objects such as giraffe and cock arrayed on the top of shelf. After 1938.⁵⁰⁹ FLC L2-10-89.

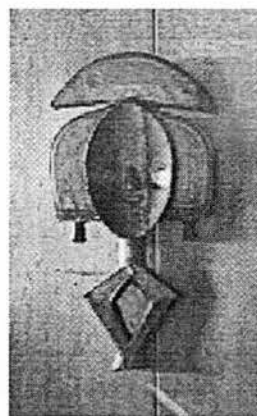


Fig. 4.9 A Gabon statuette, Detail of fig. 4.8.

A guardian figure from the Bakota area, of Gabon was displayed in his flat in rue Jacob (fig. 4.7), as well as later in 24, rue Nungesser et Coli (figs. 4.8, 4.9). It is geometrical, calm, disciplined, and frontal, the most mythical and abstracted of the three. The face is an ovoid comprised of almost two oppositional equilateral triangles with the nose in the centre. It is concave, rather than the normal convex expression. The body was diminished into a short piece above the legs in a lozenge form. Here is inspiration of transformation and abstraction from an original human image: geometrization (face and leg), exaggeration (face, hair) and diminution (body and legs), mirroring (convex face) and so on. These processes of transformation are quite common in Le Corbusier's painting. This kind of Gabon statuette also influenced Picasso's early Cubist work 'Dancer' of 1907-8.⁵¹⁰

These three folk statuettes illustrated different ways of expression and transformation from human being, as well as various remote, exotic and primitive auras established from the environments and beliefs of traditional societies. Their tendency of abstraction from

⁵⁰⁹ Dated by the painting in the lower right, *Athlète*, 1938. It was also displayed in a vague side view in a photo at far right in Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier: Apartment Block 24 N.C. and Le Corbusier's Home*, p. 47. The date of this picture is after 1959, judging by the date of the painting on the wall.

⁵¹⁰ Robert Goldwater, *Primitivism in Modern Art*, pp. 149-50.

naturalism is very inspiring, ‘as an effort to convey the “otherness” of the spirit world, to divorce it as strictly as the artist’s imagination would allow from the world of everyday appearances.’⁵¹¹

Le Corbusier’s collection reflected his personal preferences and broad interests. Among them, pottery⁵¹² was his favourite medium. There were many small objects⁵¹³ classified in several categories. He also collected many statuettes of personages of different cultures as Freud did, mostly in a standing post, such as an Asiatic religious figure (29),⁵¹⁴ an Indian woman (33), an African personage (36, 37) and others. Animal statuettes are among his interests: bird (9, 35, 45), eagle (34), horses (6, 27, 28), giraffe (52), frog (43) and tortoiseshell (19). The theme of man and horse occur frequently among his paintings, sketches and in the *Poème*. There⁵¹⁵ the horse is the central figure standing attentively while facing a female nude lying horizontally.

There are objects of his major personal iconography: cross (14), lantern (76), bull (48) and horseshoe (15). Other important icons are geometrical prisms: rectangular brick (73), triangular box (42) and hexagonal glass block (72). Small readymade building models also interested him. A triumphal arch (47) and Notre Dame in Paris (49) were probably his tools for imaging his various plans of Paris and a Basilica of St. Madeleine (46). Some are personal souvenirs: painted tile and metal plate from a kindergarten of Marseille, entry plaque of ‘S[ociété] Amé des Editions de l’Esprit Nouveau’, etc.

⁵¹¹ Horst Woldemar Janson. *A History of Art: a Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 27.

⁵¹² Fondation Le Corbusier inventory Z1(4).

⁵¹³ FLC inventory Z1(5).

⁵¹⁴ Inventory of FLC, *Objects, ayant appartenu a Le Corbusier*, inventory of Z1 (5), no. 29.

⁵¹⁵ *Poème*, p. 73.

Some of them are normal daily utensils such as a piggy bank (2) and a salt-cellar (3). One of his *objets trouvés* – a used gas burner with two outlets (no. 10, fig. 4.10, on the lower right) stood vertically like a geometrised human figure. It was placed in his sitting room and juxtaposed with a seashell on a platform, which recalled his *Poème* (p.30-1): ‘this is the right angle, vertical facing the sea’.



Fig. 4.10 Le Corbusier at 24 rue Nungesser et Coli with his collections, including a used gas burner with two outlets, a shell, pottery, etc. Arthur Rüegg, ed., *Le Corbusier: Moments in the Life of a Great Architect*, photo by René Burri, 1999, p. 168.

Other Artworks

Le Corbusier collected many artworks, which were mainly modernist as his personal stimulation.⁵¹⁶ These modernists were more or less inspired by primitive art. Among these pieces the largest group consists of eighteen naïve paintings by his close friend, André Bauchant. One of them, with a religious theme, was placed in Le Corbusier’s bedroom against the headboard in his apartment at 24 N.C. The paintings of Léger, his long-term friend, were always displayed in his rooms.

Jacques Lipchitz was his early client and one of his sculptures was frequently displayed in

⁵¹⁶ See ‘Oeuvre Non L.C.’, an inventory in FLC, which is text only and non-dated. Some of these works has been sold out.

the pictures of his apartment. The granite sculpture is on the theme 'Femme et l'enfant', which coincides with Le Corbusier's Yoruba statuette. The theme of mother and child reappeared in his *Poème* p. 39, a drawing of it was placed next to the image and text of law of meander, where the cycle of human life was metaphorically illustrated as the cycle of nature.

Henri Laurens's work was included in Le Corbusier's primitive exhibition in 1935. Le Corbusier collected a small piece by him 'Nu feminine alongé'. Other art works collected by Le Corbusier included Picasso engravings and a lithograph; a Marc Chagall lithograph, two of André Derain's works, four by Alexander Vesnin, the Russian constructivist, and another four by Willy Baumeister.

The examination of photographs of Le Corbusier's apartment at different times⁵¹⁷ reveals how the arrangement was constantly changed, subject to relocation, new acquisitions or changes in his personal taste, just like a 'temporary exhibition'. Some pieces were permanent, such as Spanish 'Botijo bola' and Léger's two paintings, which were displayed at almost of all stages.

Changing Collection at Various Stages

A picture of 1931 by Brassai is a good record of Le Corbusier's first flat at 20, rue Jacob. He moved to 24, rue Nungesser et Coli in 1934; pictures of this new flat in his *Oeuvre complète*

⁵¹⁷ Including his apartment in rue Jacob photo by Brassai in 1931; his Apartment in 24 rue Nungesser et Coli from his *Oeuvre complète* vol. 2; his primitive exhibition in 1935; photographs by René Burri in 1959/60; and photographs in Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier* which are diversified in years.

1929-1934, vol. 2, are basic resources for research. In 1959 and 1960 René Burri took a series of photographs of Le Corbusier's apartment and atelier, which provide a valuable reference for comparison of his later stage. Other resources in his publications and in the Fondation also aid comparison.



Fig. 4.11 Le Corbusier at 20 rue Jacob, photo by Brassai, 1931. *Le Corbusier, The Radiant City*, p. 9.



Fig. 4.12 Le Corbusier at 20 rue Jacob. Jean Petit, *Le Corbusier lui-même*, p. 75.



Fig. 4.13 Le Corbusier at 20 rue Jacob, with Bauchant's painting as backdrop. Jean Petit, *Le Corbusier lui-même*, p. 65.

In 1917 when Le Corbusier moved to Paris, he settled at 20, rue Jacob. In the Brassai picture (fig. 4.11) of Le Corbusier at work, his room was filled with books, paintings and folk artefacts. Above the shelf next to him was a naïve painting likely by Bauchant. To the right were two paintings by Léger: 'Composition avec profil' in 1926 and 'Les deux compas'. Below them were the Spanish ceramic 'Botijo bola' from Agost, a circular vessel, a concave rectangular panel enclosing an igneous stone, and the Dahomey sculpture. Among them, Léger's painting, Spanish Botijo and the concave panel were always visible in the later

photographs of his home.⁵¹⁸ They were his ‘permanent collection’.

Two more photographs of Le Corbusier’s life at 20, rue Jacob (figs. 12, 13) portrayed the backdrops of various naïve and Purist paintings.⁵¹⁹ In one of them, Le Corbusier was holding his cat and sitting on a chair against Bauchant’s painting (fig. 13). This work was later hung in his bedroom of 24 rue Nungesser et Coli.

In 1934 Le Corbusier and his wife moved to their new apartment at 24 rue Nungesser et Coli, where a series of pictures were taken and published in his *Oeuvre complète* vol. 2. Many items there were displayed in various niches and on the shelf, specially designed by Le Corbusier as settings for these props.

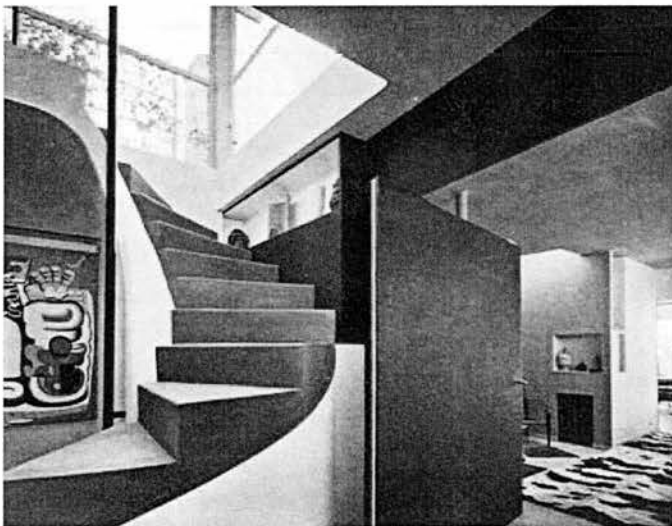


Fig. 4.14 Stairway and living room, apartment at 24, rue Nungesser et Coli 1933-34. LC, *O.C.* 2, p. 145.

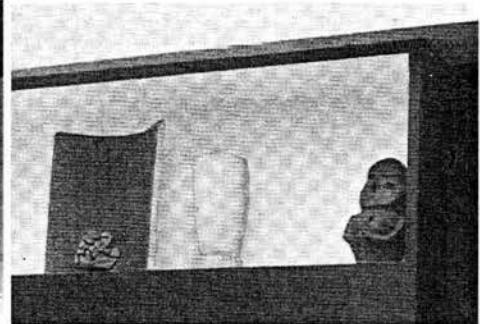


Fig. 4.15 Objects in the niche located on the top of the stairway. *O.C.* 2, p. 151, detail.

The entrance of this apartment was top-lit by two oculi and a horizontal high window above the curved wall, which has a somewhat cave-like quality. Such an idea of entry was preceded

⁵¹⁸ *Oeuvre complète* vol. 2; photos by René Burri in 1959/60; and photos in Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier*.

⁵¹⁹ Jean Petit, *Le Corbusier lui-même*, pp. 65 & 75.

in the project of the Museum of Contemporary Art in Paris in 1931: 'One enters the heart of the museum by means of an underground passage'. Near the entry a stairway spiralling up, which 'allows release from the "cave"'⁵²⁰ to the roof garden and a guest room. Several objects were displayed in a niche on the top of the stairs. In photos taken in 1930s (figs. 4.14, 4.15), there was a mask on the extreme left, then the concave rectangular panel with stone, a crucible and a human statuette to the right. Here it was full of balanced antithetical dialogues: the concave panel was right next to the round crucible, whose forms were all pure and plain, but the higher rectangular plain panel encompassed a lower natural rugged stone; the primitive ethnic statuette was next to the scientific crucible, which referred to melting materials to harmonize well with the igneous stone but remained a contrast in forms. The niche containing these objects was located on the threshold between the lower and higher levels, between dark and light places. These objects conveyed the metaphor that the threshold from a cave to the radiant world comprises the primitive, nature and technology.

The crucible was displayed in the Pavillon de L'Esprit Nouveau in 1925. It was a vessel in which substances were heated to a high temperature and usually functioned as a melting pot. Le Corbusier wrote about crucibles in 1926, 'Today there are two or three potters and glassmakers who will one day reach the majesty of the form. The pots of the pavilion, glass and terracotta were quite simply bought from the laboratory technician: test tubes, mortars, and crucibles.'⁵²¹ Not only being scientific, the crucible was also poetic in his mind. One day in Istanbul in 1911, amazed by the shining reflection of the sea, he described it as if 'from the hollow of a huge overturned crucible, floods of bronze pour into the gulfs and the

⁵²⁰ Peter Carl, 'Le Corbusier's Penthouse in Paris: 24 rue Nungesser-et-Coli', *DAIDALOS*, 28, Jun 1988, p. 69.

⁵²¹ *'Il existe aujourd'hui deux ou trois potiers et verriers qui atteindront un jour à la majesté de la forme. Les pots du pavillon, verre et terre cuite, furent tout simplement achetés chez l'appariteur de laboratoire: éprouvettes, mortiers, creusets.'* See LC, *Almanach d'architecture moderne*, p. 169.

bays, and a few islands float on the sea like slag.⁵²² The high temperature caused chemical or physical changes, recalling the theme of alchemy in *Poème* (D.3 Fusion), where fusion and metamorphosis were illustrated, the ethos of his creativity.



Fig. 4.16 Sitting room and the dining room in the distance. 24 rue Nungesser et Coli, Paris. *O.C. 2*, p. 145.

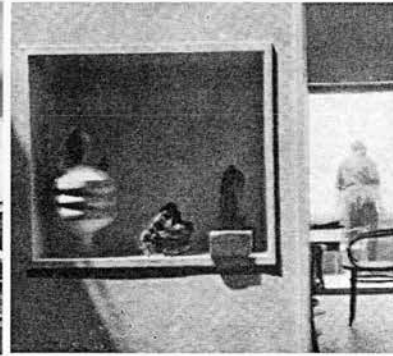


Fig. 4.17 Niche near the entry sitting area. *O.C. 2*, p. 150, detail.

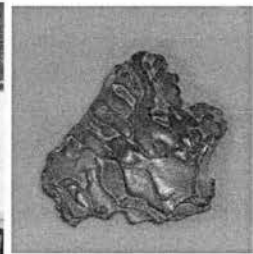


Fig. 4.18 A stone or lava collected by FLC, photo by author.

Another niche near the entry hall in the sitting room (fig. 4.16) contained the Spanish ‘Botijo bola’,⁵²³ a stone produced from fire⁵²⁴ and a slender standing statuette on a brick – all are pyrogenic products (figs. 4.17, 4.18). This niche was illuminated by an overhead skylight. Again, a theme generated by and interwoven with nature and folklore, a clean geometrical and natural rugged form, a manmade artefact and a natural rock, both formed by fire. The light shed through a little square oculus above, into this inner dark niche and onto the ‘fire objects’ and a calf carpet, was rather mysterious. The calfskin rug is suggestive of the image of the bull in his mind. There were also pieces of self-designed tubular steel furniture, all visible in Burri’s photos.

⁵²² Le Corbusier, *Journey to the East*, p. 235.

⁵²³ Flora Samuel, *Le Corbusier: Architect and Feminist*, West Sussex: John Wiley & Sons, 2004, p. 147.

⁵²⁴ It could be two possibilities: an igneous stone, or a metallurgic slag. Both of them come from melting and contracting. Consulted through photos with Prof. A. E. F. Robertson, Geosciences, the University of Edinburgh, Nov. 11, 2004.

Such a thematic settings frequently adopted in Le Corbusier's design work, would function as a domain of the 'secular sacred', in which 'one is free of the obligations of any particular belief in god or gods, but somehow eligible to enjoy all the privileges of continuity with tradition, meaningfulness of one's artistic endeavours, and so forth. Interpretation of selected fragments of earlier or more "primitive" cultures becomes the basis of projected possibilities.'⁵²⁵ Being secular or sacred is accessed on a relative basis, as Hans-Georg Gadamer pointed out, 'only Christianity enables us to understand profaneness in a strict sense.'⁵²⁶

The dining room was a large bright room with a vaulted ceiling and a glazed wall facing west. In an image of 1934, Le Corbusier's Purist painting 'Nature morte aux nombreux objets' was hung on the wall behind the dining table,⁵²⁷ and on another wall next to the kitchen door was Léger's painting 'Composition avec profil' in 1926 (fig. 4.19). From the dining table, this painting overlooked the entry hall and studio beyond. In Léger's painting, a realistic profile of a human head faces forward within a dark rectangular framework, and the numbers in the painting are pushed even further by the human face. The painterly layers and antithetical forms echo the spatial depths of this room formed by Le Corbusier's primitive, realistic or natural objects, furniture and the sequence of spaces.

⁵²⁵ Peter Carl, 'Natura Morta', *Modulus 20* (1991), p. 32.

⁵²⁶ Hans-Georg Gadamer, *Truth and Method*, London: Sheed & Ward, 1975, pp. 132-3.

⁵²⁷ Le Corbusier, *Oeuvre complète 1929-1934*, vol. 2, p. 145.



Fig. 4.19 Dining room with Léger's painting, 'Composition avec profil' to the right. *O.C. 2*, p. 148.



Fig. 4.20 Le Corbusier's bedroom. Léger's painting 'Les deux compas' in the middle. *Le Corbusier, Architect of the Century*, p. 58.

In the bedroom under a vaulted ceiling (fig. 4.20), the goose-like Botijo stood on the cabinet, and Léger's painting, 'Les deux compas', was hung on the wall. Both of them can be seen in Burri's photographs. The theme of this Léger painting fitted the couple perfectly; its composition was free and natural. Here the natural and folk theme permeated into Le Corbusier and Yvonne's most private quarters.

Next to Léger's painting is a bidet, which cannot but announce its most intimate relationship with the human body. In 'Other icons: the museums' in *The Decorative Art of Today*, an image of a bidet appeared as a heading picture and a key icon in a modern museum. This icon here was overlaid with the museum of dream generated in this intimate association. The high floating bed forms a horizon with the parapet of the balcony, and lets them dream the immense world.⁵²⁸ He described the dream in *Poème C.2* as a profound refuge, great cavern and rich collections as warehouses, libraries and the museums. The museums, considered as cultural reservoirs, could be contrived to be experienced like a dream.⁵²⁹

⁵²⁸ The height of his bed was 85 cm plus a thick mattress, close to the height of the parapet of the balcony, and his large dining table.

⁵²⁹ Peter Carl, 'Natura Morta', *Modulus 20* (1991), p. 41.



Fig. 4.21 Le Corbusier's studio around 1934. *O.C.* 4. p. 152.



Fig. 4.22 Le Corbusier's studio, detail of fig. 21.

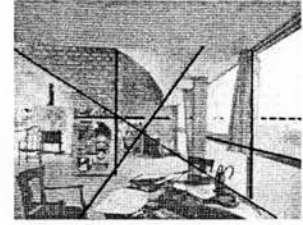


Fig. 4.23 Le Corbusier's studio. Diagram by Peter Carl⁵³⁰.

Le Corbusier's studio below the vault ceiling and skylight with a rubble wall was his base of creativity. In this picture of 1934 (fig. 4.21) his desk was untidy and cluttered, while the rest of the spaces were rather empty. It could be a decent gallery exhibiting his paintings with natural lighting. In this carefully arranged photo, a cross line forming a right angle can be clearly discerned. The right angle, Le Corbusier's primary icon is centred on the lantern poised above the freestanding display box (figs. 4.22, 4.23); as Peter Carl observed, a horizontal line extends from the exterior horizon through the top edges of two paintings and this displaying box; the vertical edge of the right side of the displaying box forming the vertical line extended along with the joint on the wall behind between the rubble and brick.⁵³¹

Burri's pictures are good reference for later stages of Le Corbusier's apartment, where many objects near the entry, in the bedroom, dining room and studio were changed and relocated. In the entry area, the crucible and folk statuette in the niche on top of the stairway were

⁵³⁰ Peter Carl, 'Le Corbusier's Painting Studio', *Scroope* 5 (1993/94), p. 37.

⁵³¹ *Ibid.*

replaced by a statue of a bull, a human statuette, the igneous stone and a stone naturally implanted with an 'eye'. There are many other items here: a Spanish 'Botijo bola', Léger's painting 'Composition avec profil' of 1926 placed right above the floor, a special way of interacting with viewers,⁵³² a carpet of a childlike drawing from Chandigarh, a calfskin-patterned rug, a mask hanging on the wall, and many objects on the high shelf. Among them, a pot on the high shelf was possibly from his journey to the East. There were also a table made from a tree trunk, Lipchitz's sculpture and an antique stone head.

In the bedroom, André Bauchant's painting with a Christian theme was added above the headboard of the bed. Le Corbusier did not want this photo to be published because he tried to avoid misinterpretation of his religious belief.⁵³³ In the dining room, the painting on the wall against the kitchen was replaced several times. It was 'Nature morte aux nombreux objets' in 1934, then 'Alma Rio',⁵³⁴ when he worked on Ronchamp Chapel around 1950, then 'Nature Morte Vézelay',⁵³⁵ shown in Burri's photos, and 'Nature morte',⁵³⁶ painted in 1959. These are all large colourful oil paintings hung at the same location against the plain wall, but have not been presented according to the chronological sequence of their productions. On top walls of the dining room there were two vault niches, where in images of 1960s the concave rectangular piece was visible.⁵³⁷

⁵³² This was pointed out by Mrs. Heidi Weber, when author met her at the Heidi Weber House, Zurich on 15 August 2004.

⁵³³ Arthur Rüegg, ed., *Le Corbusier: Moments in the Life of a Great Architect*, photo by René Burri, p.151.

⁵³⁴ FLC 253, 1949. A photo of Le Corbusier, Father Couturier and Yvonne. William Curtis, *Le Corbusier, Ideas and Forms*, p. 177.

⁵³⁵ *Nature Morte Vézelay* of 1939, FLC 154. A photo of his dining room in Arthur Rüegg, ed., *Le Corbusier: Moments in the Life of a Great Architect*, photo by René Burri, p. 175.

⁵³⁶ See a photo in Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier: Apartment Block 24 N.C. and Le Corbusier's home*, Paris: Fondation Le Corbusier; Basel; Boston: Birkhäuser, c1996, p.47. The picture in the book is undated, and this date is judged by the painting on the wall.

⁵³⁷ See photo in Jacques Sbriglio, *Immeuble 24 N.C. et appartement Le Corbusier*, p. 45 and p. 47. The date is judged by the painting on the wall finished in 1959.

His studio in the late 1960s was full of paintings, papers, sketches, sculptures, pigments, bottles and so on. Many collections of '*objets à réaction poétique*' appeared in Burri's photos. It was impossible to hold another 'exhibition of primitive art' again due to the constraint of space. His small working cubicle was also full of papers and documents.

Exhibition of Primitive Art in Le Corbusier's Apartment

In June 1935 there was an exhibition of primitive art at Le Corbusier's apartment at 24, rue Nungesser et Coli in Paris '*Les arts dits primitifs dans la maison d'aujourd'hui*' (fig. 4.24). Louis Carré borrowed Le Corbusier's studio and organized this event with him. Le Corbusier wrote an introduction in the invitation card and also suggested the polychrome of the Greek statue, 'Moscophore'. The artwork in this exhibition incorporated with modern and ancient, European and African presentations. The vision of primitive art for this exhibition, although organized by Carré, must have been worked out with Le Corbusier.⁵³⁸

In the exhibition, there were sculptures from Africa and ancient Greece, a Peruvian vase, modern sculptures by Henri Laurens, tapestries by Léger, paintings by Le Corbusier, and a granite pebble from Brittany; Picasso's and Braque's works were probably also included.⁵³⁹

All these works were carefully selected for either their contrasting or complimentary effects.⁵⁴⁰ Categories ranged from contemporary to archaic ones; folk to distant; European to

⁵³⁸ In the front cover of invitation card, it reads: 'Louis Carré présente... Chez Le Corbusier et Louis Carré'. This exhibition was recorded and published in Le Corbusier's *Oeuvre complète* vol. 3, *My Work, Architecture d'aujourd'hui*, July 1935, and so on.

⁵³⁹ These works were listed in Le Corbusier *My Work*, p. 118, but were not mentioned in his *Oeuvre complète* vol. 3 and the *Architecture d'aujourd'hui*. There is no photograph available as proof of these as well.

⁵⁴⁰ Jacques Sbriglio, *Apartment Block 24 N.C. and Le Corbusier's house*, 1996, FLC, p. 57.

the Orient and America.



Fig. 4.24 Studio, exhibition of primitive art at Le Corbusier's apartment, 1935. Lower right: Le Corbusier's painting of mussel fisherwoman; middle ground: Henri Laurens' sculpture; middle left: tapestries by Léger; left: Moscophore. Top of shelf: Louis Carré's Statuette of a Benin king (left, detail see fig. 4.25); Le Corbusier's glass block (right). *Architecture d'aujourd'hui*, July 1935, p. 85.



Fig. 4.25 Benin Statuette of a king. Item c12 of exhibition by Louis Carré, Knoedler Gallery, 1935.

In the invitation card Le Corbusier stated that the work of the spirit would never age, and would revive automatically through the periods and cycles. He also noted the novelty of things existed in the past. Culturally, primitive society has its thoughts and types, which are creative and advanced:

Arts known as primitive are those of the creative periods, when a society built up its tools, its language, its thought, its gods, when a civilization raises up vigour. Each gesture, in its need, was the same style. Nothing was repeated, all advanced...⁵⁴¹

As the chronological course of historical development is regarded as cyclic, then this fundamental creativity is returning and reunifying. Modern architecture is merely another cycle:

The works of the spirit do not age. By periods, cycles, series, returns take place; same hours pass, once again, to the minutes of concordance. Thus the works which animated

⁵⁴¹ 'Les arts dits primitifs sont ceux des périodes créatrices, quand une société construisait son outillage, son langage, sa pensée, ses dieux, quand une civilisation éclatait de sève. Chaque geste, en sa nécessité, était le style même. Rien ne se répétait, tout avançait...' Le Corbusier, text on the invitation card, 'Les arts dits primitifs dans la maison d'aujourd'hui', 1935 (FLC BrA26).

the same potential of energy are connected, unified...The architecture which currently appears is contemporary with works of these other cycles.⁵⁴²

Consequently, in this exhibition the works were infused with both primitive and contemporary influences, from Europe and elsewhere. It is exactly the same as the examples in Le Corbusier's books and traits in his work. He noted in his *Oeuvre complète* vol.3:

It is the ability to form 'sets' or 'series', to create 'unities' out of different periods, to once again render the element of excitement and novelty to those things which man created at some point in the past.⁵⁴³

The exhibits were grouped into several categories. The first was exotic civilizations, with African bronze statues from Benin, the Ivory Coast and Peruvian pottery. The second category was the distant past of Europe, such as Greek sculptures from Acropolis. The third contained modern artworks expressing primitivism, such as tapestries by F. Léger (a tapestry of Aubusson, atelier of Mme Cuttoli), sculpture by Henri Laurens and Le Corbusier's painting of fisherwomen, and a found pebble from Brittany. These categories were juxtaposed in each exhibition room, studio, sitting room and dining room to express his ideas of cycles, return and unity. They also echoed his arguments in *L'Esprit nouveau*, where various images and texts may not closely correlate but may be juxtaposed. In *Towards a New Architecture*, for example, airplanes are commented with a statement of the problem of dwelling. In his *Almanach d'architecture moderne*, there is an illustration juxtaposed with images of modern and ancient, art and architecture, as well as machines and buildings (fig. 3.18). Any connections are not made explicit, but could provoke creative thinking.

Louis Carré (1897-1977) was an antique dealer originally specialising in gold and

⁵⁴² 'Les oeuvres de l'esprit ne vieillissent pas. Par périodes, cycles, series, les retours s'opèrent; mêmes heures passent, une fois encore, aux minutes de concordance. Ainsi sont apparentées, sont unes, les œuvres qu'anima le même potentiel d'énergie... L'architecture qui apparaît actuellement est contemporaine des œuvres de ces autres cycles.' Ibid.

⁵⁴³ Le Corbusier, *Oeuvre complète* vol. 3, p. 157. Trans. Jacques Sbriglio in *Apartment Block 24 N.C. and Le Corbusier's House*, 1996, FLC, p. 60.

silverware,⁵⁴⁴ but later in 1930 he turned his interest to primitive and African art, as well as modern art. At this time he settled in rue Nungesser et Coli and became the neighbour of Le Corbusier. After this exhibition, Carré held another primitive exhibition of Bronzes and Ivories from the Old Kingdom of Benin at the Knoedler Gallery, New York in November and December 1935. Le Corbusier visited this exhibition while in New York.⁵⁴⁵ Some items that had been exhibited in Le Corbusier's apartment were also later exhibited in the Knoedler Gallery.

Here Le Corbusier's studio served as a main exhibition room. In the very front there was a bronze statuette of a Benin king (figs. 4.24, 4.25) right above Le Corbusier's 'La pêcheuse d'huîtres'. This statuette was arranged by Carré and later exhibited in the Knoedler Gallery. It is of the classical period (1500-1691) and its right forearm and legs are missing. Its skirt is swept to the left with an opening at one side. Carré noted that it is indigenous, as Benin and Dahomey, kingdoms of the Bay of Guinea, 'resisted the Moslem penetration and preserved their antique religion of the highest development.'⁵⁴⁶ No less indigenous, below this statuette was Le Corbusier's painting 'La pêcheuse d'huîtres' (fig. 4.26),⁵⁴⁷ a modern representation of a European folk theme.

⁵⁴⁴ Louis Carré also set up a gallery of contemporary art with exhibition of the work of Picasso, Calder, Léger, Paul Klee, Juan Gris and Le Corbusier. His house, 'Maison Carré', was designed by Alvar Aalto. (From 'Archives nationales et Archives de France', 389 AP - Fonds Louis Carré, in <http://www.archivesdefrance.culture.gouv.fr>)

⁵⁴⁵ Mardges Bacon, *Le Corbusier in America: Travels in the Land of the Timid*, Cambridge, Mass.; London: MIT Press, c2001, p. 222.

⁵⁴⁶ Louis Carré, 'The Royal Art of Benin' in *Bronzes and Ivories from the Old Kingdom of Benin*, Catalogue of exhibition at M. Knoedler and Company, November 25 – December 14, 1935 New York, unpagged.

⁵⁴⁷ FLC 150, 1935.



Fig. 4.26 Le Corbusier, 'La pêcheuse d'huîtres', FLC 150, 1935.



Fig. 4.27 Le Corbusier, 'La pêcheuse d'huîtres', 1932.

The painting shows a fisherwoman holding a basket over her arm with another larger one on her back. It was developed from a sketch (fig. 4.27). Here each colour block is relatively flat. The colour code is simple: the flesh is pink, tools are grey and the clothes are blue and white. The contour, undulating in various breadths, is conveyed by different pressure on the brush, which represents the painter's inner energy. Le Corbusier's paintings in the 1930s have this character of calligraphy of contours, which was probably connected with Japanese prints.⁵⁴⁸

The folk life of fishermen has been passed on from generation to generation since ancient time. It would be similar in a way to the primitive Oceanic people and close in spirit to the society in Benin. In 1928, Le Corbusier spent a holiday at La Piquey in the Arcachon Basin. He made sketches of the landscape, bathers and boats, from which these fisherwomen were derived. They echoed his writing about primitive men being admirable not for their barbarity but for their wisdom.

⁵⁴⁸ Le Corbusier purchased prints by Hokusai and Hiroshige at Printemps Department Store in Paris. See Le Corbusier, *Sketchbooks A2*, no. 96.

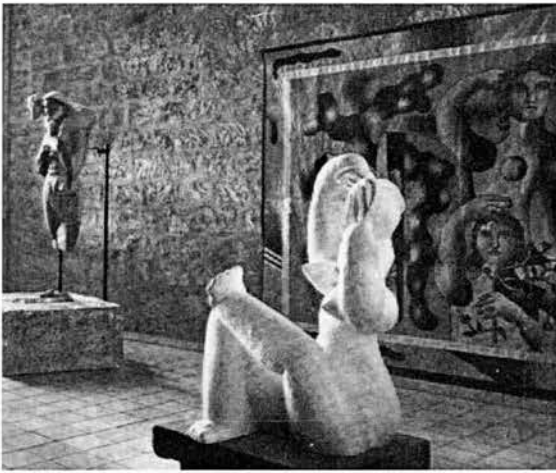


Fig. 4.28 Exhibits in studio.
Left: Moscophore; middle front: Henri Laurens' sculpture; right: tapestries by Léger.
Le Corbusier, *My Work*, p. 119, detail.



Fig. 4.29 Henri Laurens, 'La négresse', 1934, Bronze, Von der Heydt-Museum, Wuppertal, Germany.⁵⁴⁹

Behind the Benin statuette and Le Corbusier's fisherwomen was Henri Laurens' sculpture of a female figure, most likely 'La négresse' (fig. 4.28) of 1934.⁵⁵⁰ The colour of the one in the exhibition was nearly white. Laurens' early sculpture was Cubist with hard edges and angles. His later work gradually became softened with more rounded shapes. By the 1930s his figures had become large and rich in form. In contrast to the western faces and the column-like frontal perspective in Léger's work behind Laurens', the spirit of this black woman is much more lively, expressive and rhythmic in gesture, and more simplified and geometrised in form. It consists of primitive traits but is somewhat modern for being abstract, simplified and pure.

⁵⁴⁹ http://www.von-der-heydt-museum.de/untermenus/sammlung/galerien/galerie_themen/Skulpturen [2006/3/31]

⁵⁵⁰ See the parallel example in Von der Heydt-Museum, fig. 4.29.



Fig. 4.30 Original image of Léger's tapestry, 'Composition aux trois figures', Oil on canvas, 1932. This image was later reversed, a border added and was made into a tapestry. (cf. fig. 4.24 & 4.31)

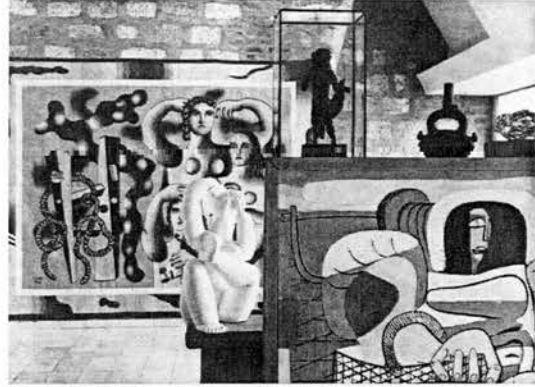


Fig. 4.31 Léger's tapestry, behind Henri Laurens' sculpture.

Behind Laurens' 'La négresse', there was a tapestry by Léger on the rubble wall, which acted as a terminus of the pieces presented in a sequence. This tapestry was a reverse replica of his painting 'Composition aux trois figures' (1932, figs. 4.28, 4.31, cf. 4.30) with additional decorative borders. It was made of silk and wool at Aubusson in 1935.⁵⁵¹ It shows three monumental figures on one side, a fence or a ladder, a rope and a cloud-like form behind on the other. Léger's early typical machinery elements were not in this work. 'Nude, the figures are timeless. They are also rendered with a certain deliberate naïveté, for example in the simplicity of their anatomical construction.'⁵⁵²

⁵⁵¹ Matthew Affron, *Léger's Modernism: Subjects and Objects*, from Lanchner, Carolyn, *Fernand Léger*, New York: Museum of Modern Art, 1998, p. 137.

⁵⁵² Carolyn Lanchner, *Fernand Léger*, New York: Museum of Modern Art, c1998, p. 226.



Fig. 4.32 Moscophore. Detail of *Architecture d'aujourd'hui*, July 1935, p. 83.

Le Corbusier, *My Work*, p. 118, detail.

To the left of this tapestry was a reproduction of a Greek sculpture, the Calf-Bearer or 'Moscophore' (figs. 4.28, 4.32) circa 570 B.C.⁵⁵³ 'It is a votive figure representing the donor with the sacrificial animal he is offering to Athena.'⁵⁵⁴ Le Corbusier was involved in the debate whether or not it should be polychrome. In the beginning of this exhibition, this plaster cast was pure white upon arrival. Le Corbusier said to Carré: 'Telephone the Louvre and ask them what colours would have been used originally on a splendid sculpture like this from the golden age of Greece.'⁵⁵⁵ He followed the instruction and finished 'a poem in polychrome was the result, sparkling with life, brilliant... L-C [Le Corbusier] commented: "It can never have been white."⁵⁵⁶ In the archaic time this work was very likely a polychrome statue.⁵⁵⁷ Such an inference on the original colour of archaic art echoes the arguments on the polychromy of Parthenon, and might anticipate Le Corbusier's application of colours in his architectural design. The Villa La Roche and the workers' housing in Pessac are examples of buildings in which colours have become a means of orchestrating the

⁵⁵³ It was obtained with the assistance of Louvre Museum from Acropolis Museum, Athens where Le Corbusier first saw this work.

⁵⁵⁴ Horst Woldemar Janson, *A History of Art: a Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 84.

⁵⁵⁵ Le Corbusier, *My Work*, p. 118.

⁵⁵⁶ Ibid.

⁵⁵⁷ Horst Woldemar Janson, *A History of Art: a Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 84.

interior space and the exteriors.

Le Corbusier discussed sacrifice and purging on the Acropolis, the site of such votive sculpture, in *Towards a New Architecture*:

Emotion is born of unity of aim of that unperturbed resolution that wrought its marble with the firm intention of achieving all that is most pure, most clarified, most economical. Every sacrifice, every cleansing had already been performed.⁵⁵⁸

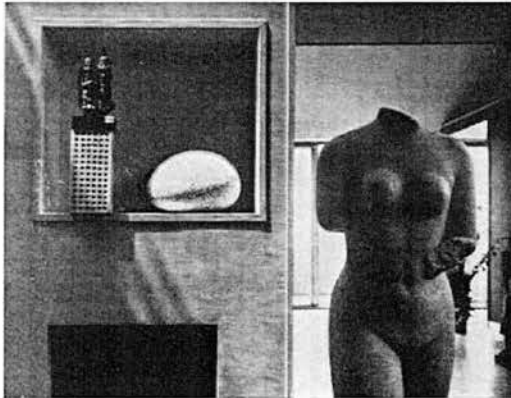
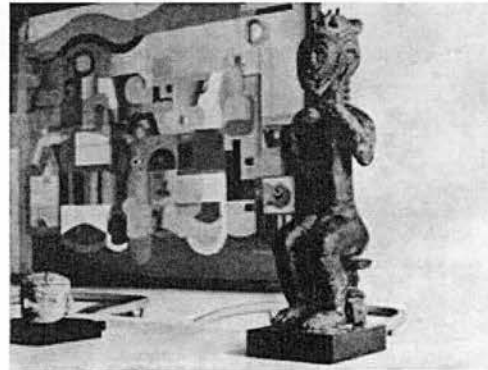


Fig. 4.33 Exhibition in the sitting room. Upper left Benin statuette on the top of brick; middle: pebble from Brittany; right: Hellenistic statue. Part of Lipchitz's statue was in the lower right corner. *Architecture d'aujourd'hui*, July 1935, p. 84.



ART AFRICAINE: STATUE BAOULE (COTE D'IVOIRE)
ART AMERICAIN: MASQUE JADE (PRECOLOMBIEN)
ART MODERNE: PEINTURE DE LE CORBUSIER

Fig. 4.34 Exhibition in the dining room. Lower left: pre-Colombian jade mask; right: Baoulé (Baule) statue, Ivory Coast; background: Le Corbusier's purist painting of 1923. *Architecture d'aujourd'hui*, July 1935, p. 84.

In another exhibition space in his sitting room (fig. 4.33), there was a combination of African art (another Benin statuette), a European folk object (the pebble from Brittany) and a European archaic object (Hellenistic female statue). The round pebble echoed the forms of statue next to it with its smooth volume and its texture of weathered stone. It expressed the natural force, recalled the natural 'right angle' formed by a vertical rock and the sea horizon on the seashore of Brittany, and folk architecture in Breton village, which was regarded as a standard of regionalism and eternal truth.⁵⁵⁹ These three items were consistent in their innate indigenous character but diverse in their themes, cultural backgrounds and materials.

⁵⁵⁸ Le Corbusier, *Towards a New Architecture*, p. 206.

⁵⁵⁹ Le Corbusier, *Almanach d'architecture moderne*, pp. 83-5.

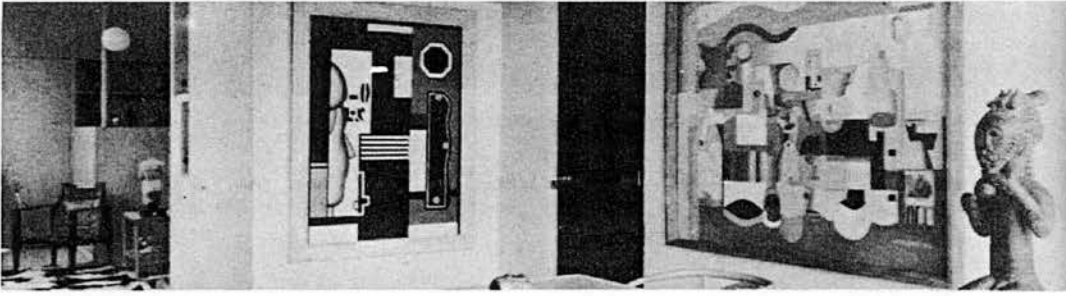


Fig. 4.35 Exhibition in the sitting and dining rooms. From the left: sitting room with the back of Hellenistic statue; dining room: Léger's 'Composition avec profil', Le Corbusier's 'Nature morte aux nombreux objets', and Baoulé (Baule) statue. From Le Corbusier, *New World of Space*, p. 76.

In the open dining room (figs. 4.34, 4.35), a Lipchitz's statue stood against the wall; a pre-Columbian jade mask and Baoulé (Baule) statue of Ivory Coast were on the dining table; Le Corbusier's Purist painting 'Nature morte aux nombreux objets' (FLC 175, 1923) and Léger's 'Composition avec profil', 1926 were on the two sides of the wall as a background.⁵⁶⁰ Purist paintings celebrate universality and the invariable. In their manifesto *Après le cubisme* of 1918, Ozenfant and Le Corbusier stated that from the universality of the natural law, it was possible to link man-made works to those of nature (Euclid), such natural law, they argued, was known to most ancient civilizations such as the Egyptians, the Assyrians, the Greeks, and the Persians.⁵⁶¹ Thus the modern Purist paintings here corresponded to African and American indigenous arts.

The primitive, distant cultures and modern art were heterogeneously juxtaposed and profusely correspondent, complementary and inspired by each other. As Le Corbusier noted in his *Oeuvre complète*, vol.3:

The art of being able to group objects together is, in some way, an expression of modern sensitivity towards the past, towards exoticism, and towards the present. It is the ability to form 'sets' or 'series', to create 'utilities' out of different periods, to once

⁵⁶⁰ See photographs in Le Corbusier, *New World of Space*, Reynal & Hitchcock, New York, 1948, pp. 76-7.

⁵⁶¹ *Ibid.*, p. 157.

again render the excitement and novelty to those things which man created at some point in the past.⁵⁶²

These heterogeneous collages embrace different cultures and periods, such as the juxtaposition of the classical Benin statuette with modern paintings, and the cultural collage of African statuettes with a Pre-Columbian American mask. A similar juxtaposition is exemplified in *L'Esprit nouveau* and other articles. Many great cities, capitals of worldwide civilizations with clear orders, provide a good case of a cultural collage.

In these juxtapositions, there is an emphasis on the human figure which prevades the whole exhibition. All these cultures and periods with different expressions were based on the human figure. Even the Breton pebble was connected with a Greek female statuette in terms of its roundish form and texture. The theme of human figure was the leitmotif of Le Corbusier's paintings in mid 1930s.

In addition to this specific exhibition, Le Corbusier's flat as a museum constantly displayed a variety of natural objects, ethnic artefacts and modern work. It was a cultural receptacle, rich and inspiring, and became a domain of creativity. His main resources were collected during his various journeys through diverse cultures; thus in the next two chapters, Le Corbusier's collections will be examined through the categories of country and culture.

⁵⁶² Le Corbusier, *Oeuvre complète* vol. 3, p. 157, trans. Jacques Sbriglio in *Apartment Block 24 N.C. and Le Corbusier's House*, pp. 57-60.

Chapter Five
Inspiration from Other Cultures (I)
European Distant Cultures and Borderland between Europe and Asia

The past has been my one master and continues to be my constant guide...the signposts time has left standing are of permanent human value.⁵⁶³

It [the study of folklore] lovingly teaches the profound, natural needs of man as they are revealed to us in solutions that have stood the test of time...and results in a feeling of unity and a sense of profound harmony with the laws of site and climate.⁵⁶⁴

-- *Le Corbusier Talks with Students*

Being based in Paris, Le Corbusier was exposed to a range of diverse cultures from around the world and also the European primitive. What and how he selected from different cultural resources reflected his contemporary cultural background, his current ideas and ongoing work. Le Corbusier's first catalogue of his architectural work, *Oeuvre complète 1910-1929*, does not begin with his earliest building or painting, but instead with his study of Balkan and Turkish houses, which were followed by further research into Pompeii, the Acropolis, some ancient European cases, then primitive huts and Asian examples. All these seem a very meaningful initiation of his modernist architectural poetry.

The avant-gardes of the twentieth century looked for distant inspiration. The European primitive and ancient examples were illuminating and important as they were much more accessible to Le Corbusier; especially the architectural space always needed to be experienced directly. They were closer to the genius loci of the land where Le Corbusier lived and worked.

Le Corbusier's resources from primitive and distant cultures can be found throughout his various documents and publications. This chapter focuses on the primitive, classical and

⁵⁶³ *Le Corbusier Talks with Students*, pp. 56-7.

⁵⁶⁴ *Ibid.*, pp. 60-1.

medieval aspects in Europe and certain areas of Istanbul, which Le Corbusier visited.

Cultures outside Europe will be discussed in the following chapter. These sources are examined in terms of the broad spectrum of civilizations in Le Corbusier's personal museum. I will discuss how he selected and interpreted specific examples, and how they related to his work and were reflected in the larger cultural environment.

L'Esprit nouveau, like many others (especially, *Une Maison – un palais*), incorporates examples from diverse cultures. Prior to *L'Esprit nouveau* in the early 1910s Le Corbusier researched many cities for a book about city planning called 'La Construction des villes'. This provided him with an understanding of diverse cities and multiple cultures. The book, however, was never finished and was later recast as *The City of Tomorrow*, and incorporated in *Concerning Town Planning*, his urban treatise of 1946. A preparatory file for this book contained more than 160 drawings from his study records of city elements and compositions, mainly from European case studies but with a few East Asian examples. The European category covers numerous cities and buildings, medieval, Baroque and later. Later, in *L'Esprit nouveau*, the scope of foreign cultures was significantly increased.

The European primitive cases that Le Corbusier studied include the folk houses of Brittany, the Arcachon Basin, and on the Cyclades. He journeyed as far as Bulgaria and Western Turkey, traditionally considered the borderlands of Europe. Chronologically, the primitive art and architecture he discussed date back to the prehistorical periods of Stonehenge, ancient Greek and Roman civilizations. He also elaborated medieval examples, but, in his publications, these appear less frequently than the ancient Greek and Roman civilizations.

Part I. European Primitive: Ancient and Current

This fisherman: why should he not be a poet? Primitive man is indeed a poet.
- Le Corbusier, *Une Maison – un palais*.⁵⁶⁵

Le Corbusier enumerated European ancient and primitive examples to support his argument, notably illustrated in *Une Maison – un palais* and *L'Esprit nouveau* publications. The examples with religious settings include the Ggantija temples on Gozo, Stonehenge and the Jewish Tabernacle. The Irish Crannog is an ancient dwelling discovered by archaeologists in the nineteenth century. Many existing primitive dwellings and folk houses were very inspiring to Le Corbusier: the villages in Brittany, the fishermen's huts of the Arcachon Basin and the cottages in the Alps, for example.

Prehistoric Sanctuary

The pre-historic world is unadulterated and unpolluted. On Gozo, Malta, there is a megalithic temple complex (fig. 5.1) constructed during the third millennium BC. This is known as "Ggantija" (Tower of the Giants) and consists of two sets of temples; each composed of two pairs of semi-circular chambers along an axis, with an apse as a terminus, and enclosed by a megalithic curvilinear wall. The chambers were for 'a cult of the dead or ancestor worship and the adoration of a corpulent fertility deity.'⁵⁶⁶ Le Corbusier drew a plan of its east wing and noted: 'Going beyond the intentions of utilitarian order...enclosures where fervent rites will be performed...And this arrangement is ordered by a thought. Today

⁵⁶⁵ 'Ce pêcheur, pourquoi ne serait-il pas poète? Le sauvage l'est bien.' Le Corbusier, *Une Maison – un palais*, p. 50. Trans. Cynthia Ann Poole, PhD Thesis, 1997.

⁵⁶⁶ Ing. Karl Mayrhofer, 'Introduction', in Sir Themistocles Zammit, *Malta, the Prehistoric Temples, Hagar Qim and Mnajdra*, Malta: Interprint Limited, 1994, p. 6.

we are still disturbed by these active relationships; there already is great architecture.⁵⁶⁷

Le Corbusier's later design works may be partially inspired by this model; in the plan of the most remarkable of these, Ronchamp Chapel (fig. 5.2), its side chapels echo the apses of Ggantija. Another such case is the ground plan of his Brazil Student Dormitory (fig. 5.3), where the circular concave form of the junction between the lounge and the office also recalls the configuration of Ggantija.



Fig. 5.1 Eastern wing of Ggantija temple. LC, *Une Maison – un palais*, p. 39.

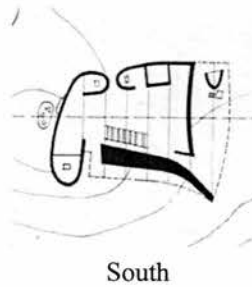


Fig. 5.2 Le Corbusier, plan of Ronchamp Chapel. *O.C. 6*, p. 20.

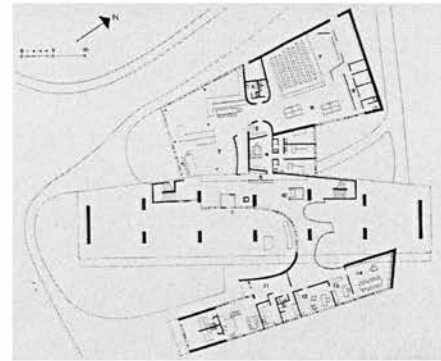


Fig. 5.3 Le Corbusier, Brazil Dormitory, Paris University, 1957-9. *O.C. 7*, p. 192.

Stonehenge is a neolithic open-air religious setting on Salisbury plain, England (c.2600-1800 B.C.) with a pure concentric circular layout. Astronomically, the axis of the central setting of sarsen stones points to the mid-summer sunrise. Le Corbusier drew a reconstructed high perspective and noted its gigantic scale, inevitable architectural power (*la faculté architecturale fatale*) and clear order: 'To make architecture is to put in order; in this way, architecture transmits down the millennia the order of thought.'⁵⁶⁸ This circular setting echoed his example of the plan of Palmanova as the 'Great City' in *The City of Tomorrow*.

The Primitive Hut

One of Le Corbusier's main references for the primitive hut is from Rienhold Freiherr von Lichtenberg's *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes* (*House, Village, Town; A developmental History of Townscapes in Antiquity*), in which he

⁵⁶⁷ Le Corbusier, *Une Maison – un palais*, p. 38

⁵⁶⁸ *Ibid.*

studied several primitive tents and huts, and reinterpreted them into *Towards a New Architecture* and other publications. In his book, von Lichtenberg suggested the hut and tent were the first architecture as they were simple and original, with differences in the way of thinking and mode of life.⁵⁶⁹ A Jewish Tabernacle and an Italian hut in the book became Le Corbusier's main icons of primitive architecture. Additionally, Le Corbusier accumulated many other similar resources from his visits and researches. The folk houses in Brittany and the Arcachon Basin were major examples in his publications in 1920s.

A. Primitive Temple or Biblical Tabernacle?

A key icon of Le Corbusier concerning the primitive hut and temple (or, in fact a Jewish tabernacle) is presented in *Towards a New Architecture*, *Une Maison - un palais*, *Precisions* and *Oeuvre complète* vol.1. There is a remarkable description justifying his 'regulating lines' in *Towards a New Architecture*:

PRIMITIVE man has brought his chariot to a stop, he decides that here shall be his native soil. He chooses a glade, he cuts down the trees which are too close, he levels the earth around; he opens up the road which will carry him to the river or to those of his tribe whom he has just left... The men of the tribe have decided to form a shelter for their god... they put him under cover in a substantial hut and they drive in the pegs of the hut to form a square, a hexagon, or an octagon. They protect the hut by a solid palisade and drive in the pegs to take the shrouding of the ropes attached to the tall posts of the fence. They mark out the space to be reserved for the priests and set up the altar and the vessels of sacrifice... You may see, in some archaeological work, the representation of this hut, the representation of this sanctuary: it is the plan of a house, or the plan of a temple. It is the same spirit that one can find again in the Pompeian house. It is the spirit indeed of the Temple of Luxor.⁵⁷⁰

The 'regulating lines' is one of Le Corbusier's major disciplines in his modern architecture and painting, and is demonstrated with a series of his examples. His narration begins with a primitive temple, on which he elaborated a mythic portrayal of a primitive man who built up his votive temple with measuring by his elbows and with regulating lines by his primordial instinct. He illustrated this with a drawing (fig. 5.7) of the plan and section.

⁵⁶⁹ Rienhold Freiherr von Lichtenberg, *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*, Leipzig: R. Haupt, 1909, p. 13.

⁵⁷⁰ Le Corbusier, *Towards a New Architecture*, pp. 69-70.

This description is an imaginary mythic story, but his drawing is precise in a clear geometrical composition. He discussed it again in *Une Maison - un palais* as a votive enclosure and a product of order. 'This architecture is in power, completely, totally, the clear and vigorous seed of which, in later centuries, will form forums, vestibules, halls, columns, pediments, domes.'⁵⁷¹ In other words, it is a prototype of more a advanced and sophisticated architecture.

He did not credit his source except in one of his study drawings (FLC 2277, fig. 5.4) later published as a small icon in *Oeuvre complète* vol.1. As pointed out in *passé*,⁵⁷² the resource of this primitive temple or votive hut, as noted in this drawing, is in fact a Jewish tabernacle, drawn from images in Freiherr von Lichtenberg's *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*.⁵⁷³ It elaborated the reconstruction of this tabernacle based on the description of it in the Old Testament of the Bible,⁵⁷⁴ about the tabernacle through the ages of Moses, David and Solomon.⁵⁷⁵

⁵⁷¹ 'L'architecture est en puissance, toute, totalement, germe clair et vigoureux de ce qui, des siècles plus tard, formera les forums, les vestibules, les salles, les colonnes, les frontons, les domes.' Le Corbusier, *Une Maison – un palais*, p. 40.

⁵⁷² *Le Corbusier: le passé à réaction poétique*. Exposition présentée à l'Hôtel de Sully, 62, rue Saint-Antoine, du décembre 1987 au 6 mars 1988. Paris: Caisse nationale des monuments historique et des sites, 1988, p. 40.

⁵⁷³ Lichtenberg, Rienhold, Freiherr von, *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*, Leipzig: R. Haupt, 1909.

⁵⁷⁴ Exodus, chapters 25 – 27 and 35 – 40; II Samuel 7, and I chronicle 17.

⁵⁷⁵ Lichtenberg, Rienhold, Freiherr von, *Haus, dorf, stadt*, pp. 16-20.

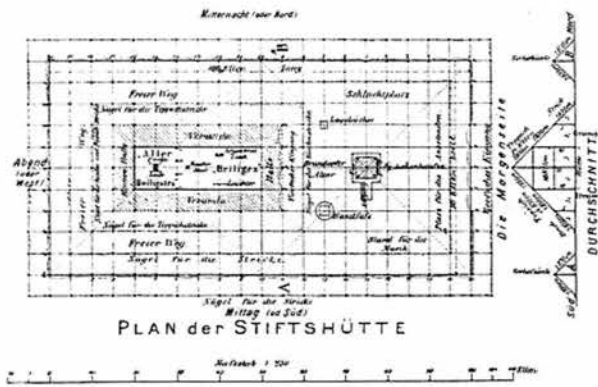


Abb. 10. Plan der Stiftshütte. (S. 17.)

Fig. 5.4 Reconstruction drawing of Tabernacle. *Haus, dorf, stadt*, p. 18.

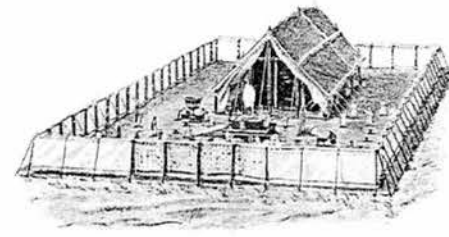


Abb. 12. Ansicht der Stiftshütte mit Giebeldach, nach Schick. (S. 17.)

Fig. 5.5 Reconstruction model of Tabernacle, *Haus, dorf, stadt*, p. 19.

In Exodus, chapters 25 to 27, Moses received the Ten Commandments. He followed His detailed instructions to build an ark and also a temple to accommodate the Holy Ark. ‘Make this tabernacle and all its furnishings exactly like the pattern I will show you...’ (Exodus 25) ‘Make twenty frames for the south side of the tabernacle’ For the other side, the north side of the tabernacle, make twenty frames ... Make six frames for the far end, that is, the west end of the tabernacle, and make two frames for the corners at the far end.’ (Exodus 26) ‘Make a courtyard for the tabernacle. The south side shall be a hundred cubits long ... The north side shall also be a hundred cubits long... The west end of the courtyard shall be fifty cubits wide and have curtains.’ (Exodus 27) Therefore, in this sanctuary, the proportion of the regulating lines of the courtyard is 1:2, and those of the tabernacle are 1:2 and 1:3, which are all ordained by God. These regulating lines are laden with sacred meanings. The reconstruction drawing and model are shown as figs. 5.4 & 5.5.



Fig. 5.6 Le Corbusier, drawing after Haus, *dorf, stadt*, detail of FLC 2277.

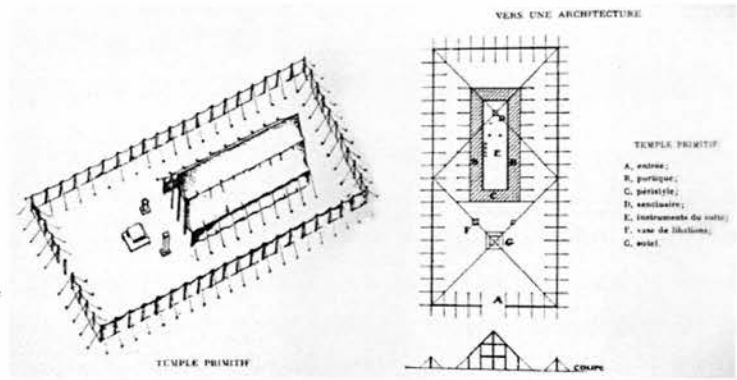


Fig. 5.7 Le Corbusier, a primitive temple. LC, *Towards a New Architecture*, pp. 70-71.

Le Corbusier studied its composition thoroughly (fig. 5.6), including the proportion of the plan and section (in the upper part of FLC 2277) and noted in this drawing that the great tent is a sanctuary.

The division is purely geometric and completely symbolic (the two squares) at the same time. Thanks to the fence posts all controlled by the order and was similar to the buttresses of a cathedral.⁵⁷⁶

Le Corbusier duplicated it faithfully in *Towards a New Architecture* (fig. 5.7) except for some minute variations in the altar area, annotated with his version of ‘primitive man’. The unit of measurement of the biblical temple is the cubit, which corresponds to Le Corbusier’s human measurement: ‘The builder takes as his measure what is easiest and most constant, the tool that he is least likely to lose: his pace, his foot, his elbow, his finger.’⁵⁷⁷

Such a primitive hut did not originate in Europe or in the Bible, but stems from an ancient tradition. Le Corbusier’s narrative makes the hut more familiar and appealing though he did not specify it as a source in his writings. He created a mythic discourse of the ‘primitive

⁵⁷⁶ ‘1 g[ran]de tente: le sanctuaire / La division est purement géométrique, même tout-à-fait symbolique (les 2 carrés) ceci grace aux pieux de palissade qui commandent toute l’ordonnance com[m]e les bas-côtés d’une cathédrale.’ See *passé*, p. 40.

⁵⁷⁷ Le Corbusier, *Towards a New Architecture*, p. 71.

man' who built a votive temple, by instinct, for his god. Similarly Marc-Antoine Laugier claimed that the primitive hut was a product of nature. In Laugier's illustration the posts are not man-made but are trees rooted in the ground.⁵⁷⁸

Why was this selected for Le Corbusier's treatise? First, Le Corbusier was, more or less, an atheist; he maintained in the beginning of the same book: 'Religions have established themselves on dogmas, the dogmas do not change; but civilizations change and religions tumble to dust.'⁵⁷⁹ He read Edouard Schuré's *The Great Initiates*, in which there were many great spiritual leaders in the world; Moses is only one of them. Le Corbusier was also familiar with Nietzsche's notion of the 'superman' in *Thus Spoke Zarathustra*. Secondly, he wished for a new clean start at the time of *L'Esprit nouveau*, which could avoid the burden of religion. Thirdly, he was not a scholar of the Bible or an archaeologist. In *Haus, dorf, stadt*, there are many discussions on the style of the Jewish temple, but Le Corbusier did not get involved in them. He only needed a powerful support to his argument. The Jewish tabernacle was a tent as an example of the early nomadic life. Moses received the Ten Commandments and built the first temple to house the Holy Ark. 'Primitive' here for him meant 'original, primordial, sacred and unadulterated', in a highly honoured sense. The 'primitive' man's instinct for the right angle, proportion and regulating lines preoccupied Le Corbusier all his life.

B. Italian Conic Hut

⁵⁷⁸ Wolfgang Herrmann, *Laugier and Eighteenth Century French Theory*, p. 215.

⁵⁷⁹ Le Corbusier, *Towards a New Architecture*, p. 14.

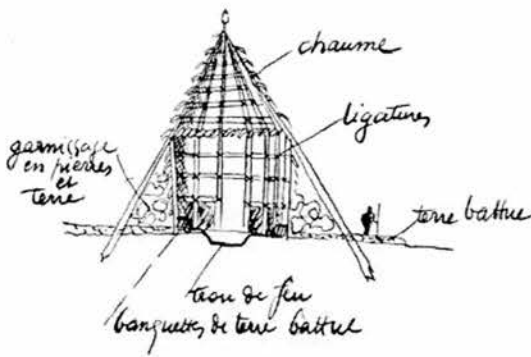


Fig. 5.8 Le Corbusier, primitive hut, *Une Maison- un palais*, p. 39. Annotated: garnissage en pierre et terre (stuffed with stone and soil) / chaume (thatch) / ligatures (binding) / chaume / terre battue (battered soil) / banquette (bench) en terre battue / trou de feu (fire pit). In his original drawing (FLC B-20 644/179) there are niches in the stuffed stone and soil.

A conic hut (fig. 5.8) on the same page resonates with one of Le Corbusier's pure prisms in 'Lesson of Rome' of *Towards a New Architecture*. This is one of his key icons of the primitive hut, which appeared in a number of his books.⁵⁸⁰ Le Corbusier acknowledged its source in none of these publications. It is, however, a folk hut in Italy (fig. 5.9), which Le Corbusier selected from Rienhold Freiherr von Lichtenberg's *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes* of 1909. It is a conic framework that could be built up with straight trunks, covered by thatch, set on a stone base with a fire pit in the centre. There was an existing folk example around the turn of the twentieth century, drawn by Italian scholar Barnabei, which seemed to preserve the character of a hut in Romulus time.⁵⁸¹ Freiherr von Lichtenberg also discussed similar modern folk houses, such as Sardinian cone-shaped huts (fig. 5.10).⁵⁸² This conic hut echoes Viollet-le-Duc's origin of architecture, the simplest of solid forms and most easily constructed

⁵⁸⁰ Such as *Almanach d'architecture moderne* of 1926, *Une Maison - un Palais* of 1928, *Precisions* of 1930, and *La Ville radieuse* of 1933, and *Oeuvre complète* vol. 1.

⁵⁸¹ Rienhold Freiherr von Lichtenberg, *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*, p. 26.

⁵⁸² *Ibid.*, pp. 15-6.

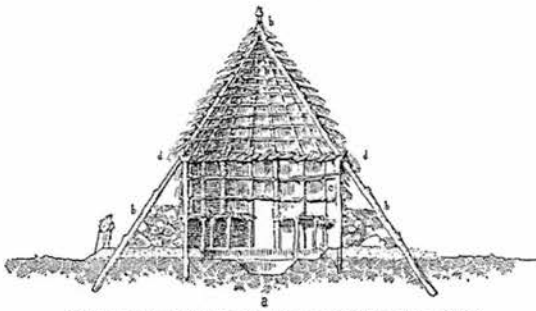


Abb. 22. Durchschnitt durch eine moderne italienische Hütte. (S. 26.)

Fig. 5.9 Modern Italian Hut. From Freiherr von Lichtenberg, *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*, 1909, p. 26.



Fig. 5.10 Sardinian hut. From Freiherr von Lichtenberg, *Haus, dorf, stadt: eine entwicklungs-geschichte des antiken städtebildes*, 1909, p. 15.

Le Corbusier discussed this primitive hut in *Une Maison - un palais* and noted next to its picture: ‘There man labels himself a creator of geometry...The house type is the height of economy. In geometry, the ordering carries nobility and beauty forcefully. Will this hut not one day become the Pantheon of Rome, house of gods?’⁵⁸³ This viewpoint responds to his annotation and drawing (FLC B-20 644/179) on von Lichtenberg’s book.

C. Irish Crannog

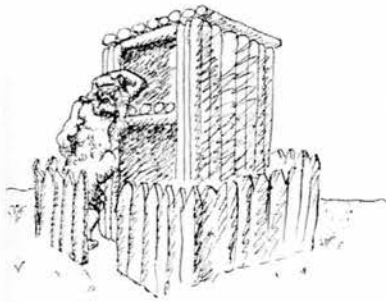


Fig. 5.11 Le Corbusier, Irish Crannoges, *Une Maison – un palais*, p. 39.

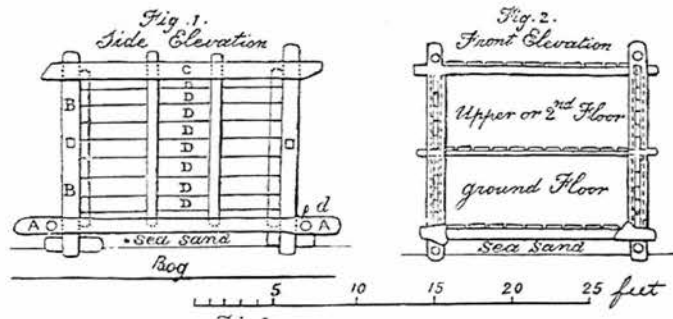


Fig. 5.12 Crannoge, discovered in Drumkelin, parish of Inver, Donegal county by Captain Mudge in 1833. From Wood-Martin, *The Lake Dwellings of Ireland*, plate III.

A crannog, derived from *crann*, “tree” in Irish, is an ancient “loch-dwelling” (lake-dwelling),

⁵⁸³ Le Corbusier, *Une maison – un palais*, p. 38.

which can be found throughout Scotland and Ireland. Crannogs could be dated back to the first half of 1000BC.⁵⁸⁴ They were built in the water as defensive homesteads, secure from wild animals and invaders. Most of them are circular in plan, but there were exceptional instances of wooden rectangular huts discovered in Ireland with a boxlike outlook and one or two floors inside.⁵⁸⁵ There are examples in Kilnamaddo (one floor) and Donegal (two floors, discovered by Captain Mudge in 1833, fig. 5.12). The one discovered by Captain Mudge, which is described in Frédéric Troyon's account is illustrated as one of Le Corbusier's sources in Adolf Max Vogt's book.⁵⁸⁶ Le Corbusier's source may come from the same family as Mudge's hut (fig. 5.12), which is a box-like composition of twelve feet wide by nine feet high in total and around four feet high for each floor. This may not be the case as Vogt stated that it was taken from Troyon's book.⁵⁸⁷

Le Corbusier drew a sketch of a square crannog with an aboriginal leaning against it (fig.11), and noted that this house is erected straight and rectilinear; each structural component has an architectural force. He further commented that one day, the man would contemplate this rustic tool (*outil rustique*) and perceive an uplifting lyricism: 'the brutal fact is spiritualising, the hovel will become the materialisation of lofty intentions and the temple of the deity will

⁵⁸⁴ Michael J. O'Kelly, *Early Ireland: an Introduction to Irish Prehistory*, Cambridge: Cambridge University Press, 1989, p. 298.

⁵⁸⁵ William Gregory Wood-Martin, *Lake Dwellings of Ireland*, Cribyn: Llanerch, 2003, (First published in 1886), pp. 37-43 and Plate I-III.

⁵⁸⁶ Adolf Max VOGT, *Le Corbusier, the noble savage: toward an archaeology of modernism*, Cambridge, Mass.; London: MIT Press, c1998, pp. 202-219.

⁵⁸⁷ If compared with Wood-Martin's drawing of Plate II, they both have similar outlooks and two floors, but in Le Corbusier's drawing it has much higher ground floor interior and shorter width. Le Corbusier's drawing in general is quite precise. Max Vogt's main reference is from Frédéric Troyon's *Habitations Lacustres de Temp Ancient et Modernes* and argued Le Corbusier may have seen this book in his youth. However, in Troyon's book there is only description of Captain Mudge's hut, and the only two architectural drawings PLI&II are examples of a crannog in Drumaleague lake near Lough Scurl, Leitrim county, and other examples. None of them are Mudge's hut in Drumkellin bog, Inver parish, Donegal County. In other words, if Le Corbusier had read this book, he could only imagine the hut from the text.

be placed on the Acropolis.⁵⁸⁸

The height of the hut, compared with the man next to it, in fact would be relatively low; an adult could hardly stand inside. The dimensions are close to Captain Mudge's example (nine feet high and divided into two floors) and the example from Dumkelin⁵⁸⁹ in Wood-Martin's book. The interior of Mudge's hut was divided into an upper and a lower chambers which were probably used only as sleeping apartments.⁵⁹⁰ Physical conditions, capacities and comfort level, however, would be properly measured from the viewpoint of ancient times rather than that of today. Le Corbusier's focus was more on the possible spirituality and geometry.

Dignity of the Folk Hut – as House of God or Palace

Le Corbusier's notion of the dignity of architecture generally differed from a traditional concept of 'palace'. He argued that the dignity of architecture should rely on economy, harmony, purity, lyricism and type with profound reasons, which could be well manifested in the folk architecture in Mesopotamia, Brittany and the Arcachon Basin. These dignified houses one day may become a palace or a house of God.

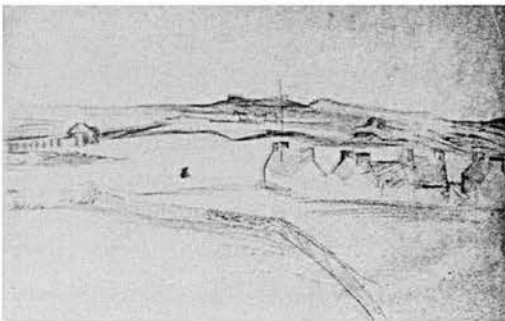


Fig. 5.13 Le Corbusier, a Breton farm, FLC, Carnet no.10, *Passé* 408.

⁵⁸⁸ Le Corbusier, *Une Maison – un palais*, p. 38.

⁵⁸⁹ William Gregory Wood-Martin, *Lake Dwellings of Ireland*, pp. 39-40 and Plate II-III.

⁵⁹⁰ William Wakeman, *A Hand Book of Irish Antiquities, Pagan and Christian*, 1891, p. 244.

In 1924 Le Corbusier travelled to Brittany and visited seashore villages such as Ploumanach⁵⁹¹ and Trégastel-Bourg.⁵⁹² The Breton farm as Le Corbusier described it was far 'at the other end of Europe' and had the similar character and architectural provision (*réserve architecturale*) as the Mesopotamian house.⁵⁹³ Even though the Mesopotamian houses are humble in simple materials; they reveal the splendours of Babylon and Nineveh.⁵⁹⁴ In other words, these folk houses may have the same characteristics as, and therefore contain the potential to evolve into, great architecture.

These Breton folk houses represent a standard type, of regional architecture, as Le Corbusier discussed in *Almanach d'architecture moderne* of 1926. He believed that through a long time a model had been built up, that reaches the perfection of a standard type. A regional vernacular is the outcome of a particular climate and availability of materials, and is created subject to the spiritual beliefs of the builders. Through a sequence of consequences this regionalism becomes rooted as the basis of a true style. 'Type needs, type houses. Breton Style...It is like an eternal truth...A house is laid out exactly, as the rising tide is exact...a house is pure as a fruit is true – an apple, a pear'.⁵⁹⁵ He further discussed the new material introduced to this local type, and maintained that one day reinforced concrete would be accepted, and that the newly built reinforced concrete rooms of the local inns could effectively resist the sea. He further noted that the new building material might end up changing the whole form of local buildings. The new standard of a roof terrace, one of his

⁵⁹¹ Le Corbusier, *The City of Tomorrow and its Planning*, p. 223.

⁵⁹² Le Corbusier, *Une Maison – un palais*, p. 45. Original sketch is from FLC Carnet no.10, 5096-5101, see *passé*, p. 174.

⁵⁹³ *Ibid.*, pp. 42-4.

⁵⁹⁴ Le Corbusier, *Une Maison – un palais*, p. 42.

⁵⁹⁵ 'Besoins types, maisons types. Style Breton...Il y a là comme une vérité éternelle...Une maison se dresse exacte, comme la marée qui monte est exacte...Une maison est pure, comme est vrai un fruit, - une pomme, une poire'. From Le Corbusier, *Almanach d'architecture moderne*, p. 85-6.

‘five points of modern architecture’, would be established in Brittany and in Paris.⁵⁹⁶

On the seashore of Brittany, Le Corbusier was much impressed by a natural right angle: a vertical stone standing against the sea horizon. To him, this was a ‘complete symphony, a magnificent relationship, nobility...[and] a power of synthesis’.⁵⁹⁷ It is a type of natural constant and ‘the point of all dimensions’ (fig. 5.21).⁵⁹⁸ He illustrated a plan (fig. 5.14) and a perspective of a Breton village on the seashore for his urban theory, in which the layout of local buildings in the village plan is arranged orthogonally with a circuitous road through them.

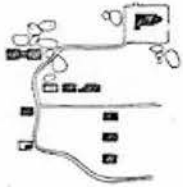
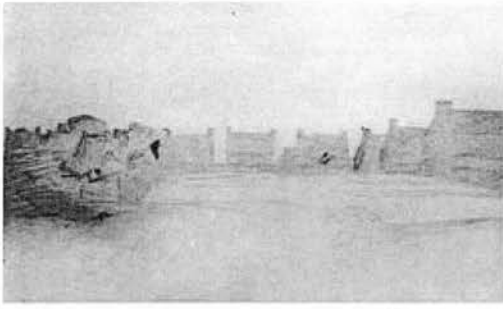
To Le Corbusier, the simple and economical characteristics of the Breton house were beautifully fulfilled in Auguste Perret’s works: the Church of Notre-Dame at Le Raincy near Paris (1922-3) and the docks in Casablanca, as they express the strictest ‘economy’. Inside the church, the surfaces of the pure concrete walls were illuminated by light shining through stained glass. Le Corbusier praised this simple, functional church, and examined its elements closely. A calm feeling of jubilation without a traditional religious style was achieved.⁵⁹⁹

⁵⁹⁶ See Le Corbusier, *Almanach d'architecture moderne*, pp. 83-91. Even though he thought that the vernacular type would be changed into new standard by the new technology, he still praised the existing types.

⁵⁹⁷ Le Corbusier, *Precisions*, p. 75.

⁵⁹⁸ *Ibid.*, p. 76.

⁵⁹⁹ Le Corbusier, *Une Maison – un palais*, p. 44.



A BRETON VILLAGE (PLOUMANACH)
The street curves amid the rectangular alignment of the houses. The direction of the prevailing wind determines the orientation of all the houses. This uniformity is pleasant.

Fig. 5.14 A Breton Village at Ploumanach. LC, *The City of Tomorrow*, p. 223

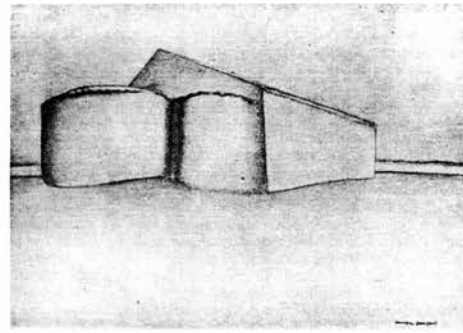


Fig. 5.15 Ozenfant, a church in Andernos, Arcachon Basin, 1918. LC, *Une Maison - un palais*, p. 47.

Another vernacular example in western France, the folk architecture in the Arcachon Basin near Bordeaux, is a case presenting purity, economy, harmony, lyricism, and representing a type with profound reason, as described in *Une Maison - un palais*. Le Corbusier tried to enhance the status of this place by relating it to ancient civilization; he praised Arcachon Basin as ‘an old Greek colony’.⁶⁰⁰ This is, however, not the case.⁶⁰¹

To Le Corbusier, the folk house, pure, with a single intention and eloquent prismatic forms, could be a house of God, such as a church in Andernos (fig. 5.15) which Le Corbusier and Ozenfant visited in 1918. Le Corbusier praised this building ‘a little house, charming and so pure, which is an echo of ancient Greece, became a church – a house of man became a house of God.’⁶⁰² He illustrated it with a drawing by Ozenfant, where all the windows and details were omitted leaving an idealized pure geometric volume. He further maintained: ‘The architectural fact expressed by geometry, is rooted in profound standard (type) causes, needs

⁶⁰⁰ Le Corbusier, *Une Maison – un palais*, p. 46.

⁶⁰¹ The Greek colony in France was likely Marseilles, around 600 BC.

⁶⁰² ‘La maisonnette charmante et si pure qui est un écho de l’Hellade est devenue église, – maison d’homme devenue maison de Dieu.’ Le Corbusier, *Une Maison – Un Palais*, p. 46.

and means.⁶⁰³ Towards the end of his life, Le Corbusier restated this theme: 'I brought back the temple to the family, to the home. I restored the conditions of nature to the life of man.'⁶⁰⁴



Fig. 5.16 Le Corbusier, Fishermen's huts in the Arcachon Basin. *Une Maison - un palais*, p. 49 & the front cover.

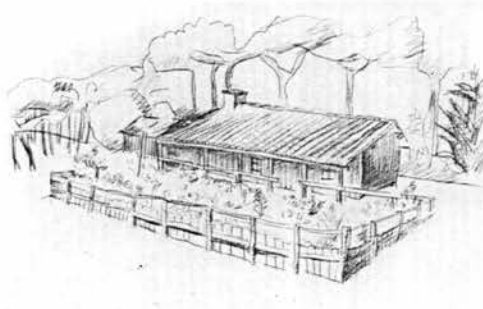


Fig. 5.17 Le Corbusier, Fishermen's huts in the Arcachon Basin. *Une Maison - un palais*, p. 51.

Folk architecture, to Le Corbusier, is like a tree from deep roots. There is a point of spontaneity with a long conditioning little by little, and types are then established. The fishermen's huts in the Arcachon Basin (figs. 5.16, 5.17) were simple, plain, in local materials, economical but achieved the maximum effect by the minimum means without a pretension of history, culture or the current taste. The fishermen gradually found a balanced and harmonious state. Their lyricism came spontaneously and is entirely human. These huts derived from primitive origins are pure, original, and become an ideal type.

⁶⁰³ 'Le fait architectural expérimenté par la géométrie, raciné dans de profondes causes standard (types), besoins et moyens.' Ibid.

⁶⁰⁴ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 96.



Fig. 5.18 Le Corbusier, fisherman's huts in the Arcachon Basin. LC, *Modulor II*, p. 159. It is a postcard to him in 1950. FLC F2-2-14-1.



Fig. 5.19 Post card showing a fisherman's street in the Arcachon Basin. Le Corbusier, *The Radiant City*, p. 137.

All the elements were arranged in a great order that ennobles the whole. These houses had a common measure: the human scale on which everything was based; one measured the foot, the shoulder and the head. Le Corbusier exclaimed: 'Maximum economy. Maximum intensity. One glorious day...these houses are palaces!'⁶⁰⁵

The fisherman huts demonstrate the symphony of the human scale and environment which is the true essence of architecture (fig. 5.18), as he notes in his *Modulor II*:

All academic ambiguity aside, this humble picture postcard from the Basin d'Arcachon puts us face to face with our tasks...the fishermen have built their house, dug the canal, equipped the boats, planted trees and created a complete and ingenious symphony to the human scale. Here is the true essence of architecture!⁶⁰⁶

Generally, economy is not the character of a palace; what Le Corbusier meant is more likely dignity. To him, dignity is a part of the character of a palace and a house for God, which is a dominant attitude from a decent control (*tenue décente*). This attitude is dominant because

⁶⁰⁵ Ibid., pp. 50-2. In *Precisions*, p. 161, Le Corbusier noted on primitive and folk huts: 'these organisms created with the authenticity that nature itself places in its works – economy, purity, intensity...one day of sunshine and clear-sightedness, become palaces.'

⁶⁰⁶ Le Corbusier, *Modulor 2*, p. 159.

what it constitutes is the monumental order. To Le Corbusier, pure forms, which were assembled according to a harmonious law, were considered monumental.⁶⁰⁷ Finally, he wanted to transform these ephemeral phenomena into solid contemporary architecture. 'If we know how to achieve the harmonious organization of new themes, we can make our houses palaces.'⁶⁰⁸

The folk house, simple and humble, could be an epitome of great civilizations. They have accomplished many qualities of purity, economy, truth, order, harmony, lyricism and standard type; thus they are noble, dignified and could be palaces or temples. These qualities are indeed the characteristics of Le Corbusier's modern architecture.

Part II. Archaic and Medieval

In the early twentieth century, there was a resurgence of classical values in Europe.⁶⁰⁹ Being distant from the contemporary Europe, ancient Greek and Roman architecture such as that of Pompeii was very inspiring to Le Corbusier. He celebrated the classic: 'a work is decreed classic if it attains to the highest levels of thought...notion of "classic" implies a tendency: rejection of the accidental and incidental; manifestation of the most highly filtered qualities, a nobility and dignity of form.'⁶¹⁰ He discussed many ancient examples in the city of Rome, such as a Byzantine chapel⁶¹¹ but paid little attention to the Renaissance works except some

⁶⁰⁷ Le Corbusier, *Une Maison – un palais*, p. 52.

⁶⁰⁸ 'si nous savons réaliser l'harmonieuse organisation de données nouvelles, faire de nos maisons, des palais'. Ibid.

⁶⁰⁹ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 96.

⁶¹⁰ Le Corbusier, *Concerning Town Planning*, trans. Clive Entwistle, from the French *Propos d'urbanisme*, London: Architectural Press, 1947, pp. 18-9.

⁶¹¹ S. Maria in Cosmedin, see Le Corbusier, *Towards a New Architecture*, pp. 160-3.

of Michelangelo's. More ancient than Roman architecture, the ancient Greek was re-discovered in the eighteenth century, and some masterpieces, such as the Parthenon, reached the zenith in ancient times and their status remains unchanged today.

Ancient and Vernacular Greece

Le Corbusier had a special passion for mediterranean art. As he said; 'I have always had a great affinity for the southern regions, for the Mediterranean. I have looked for an art which is Mediterranean amid the world corruption.'⁶¹² During his journey to the East in 1911, after Istanbul he visited Mount Athos, Athens, Eleusis and Delphi in Greece. The Acropolis was a pilgrimage that he had conceived a long time ago. The Parthenon was an architectural climax for him, a fulfilment of his dream for perfection. He read Ernest Renan's *Prière sur l'Acropole*, which represents the Parthenon as a perfect manifestation on earth of the universal ideal.⁶¹³ Le Corbusier studied many other examples of Greek architecture and artefacts, such as ceramics and jewellery. The Parthenon and Greek pottery were much elaborated in *L'Esprit nouveau*, and remained a haunting theme throughout his life. He also read extensively about Greece in his library.⁶¹⁴

A. Greek Architecture: a Type or Perfection?

The Acropolis in Athens is a supreme Greek sanctuary, which had long been a destination of

⁶¹² John Peter, *The Oral History of Modern Architecture: Interviews with the Greatest Architects of the Twentieth Century*, p. 138.

⁶¹³ Paul Venable Turner, *The Education of Le Corbusier*, pp. 97-102.

⁶¹⁴ Such as Maxime Collignon's *Mythologie figurée de la Grèce* (Inscribed 1903) and *Le Parthénon*, Homer's *L'Iliade* and *L'Odyssée* (Inscribed 1909), Christopher Wordsworth's *Le Grèce, pittoresque et historique* (Inscribed 1916), Baedeker's *Grèce* and others. See Paul Venable Turner, *The Education of Le Corbusier, a Study of the Development of Le Corbusier's Thought, 1900 -1920*, Ph.D. Dissertation, Harvard University, 1971, Appendix A&B.

pilgrimage to Le Corbusier. He spent more than two weeks sojourning there and noted: ‘To see the Acropolis is a dream one treasures without even dreaming to realize it...and a long time ago I accepted the fact that this place should be like a repository of a sacred standard, the basis for all measurement in art...everything here is resolved in accordance with an unsurpassable formula.’⁶¹⁵



Fig. 5.20 Le Corbusier, ‘Those are styles.’ LC, *Precisions*, p. 69.



Fig. 5.21 Le Corbusier, The right angle on Brittany seashore. LC, *Precisions*, p. 76.

Le Corbusier loved the Parthenon, but at the same time the Greek temple could become just a style. In his lecture made during a trip to South America in 1929, he sketched a façade of a Greek temple and typical orders (fig. 5.20), an architectural motif which had been borrowed and re-used countless times. He stated that these were merely ‘styles’ instead of architecture.⁶¹⁶ In the same lecture, he introduced the right angle as a natural phenomenon in Brittany, which ‘evokes the Parthenon, its sublime entablature of such overwhelming power.’⁶¹⁷

In *Towards a New Architecture*, there are almost two full chapters dedicated to the Parthenon and the Acropolis. The layout of the Acropolis seemed to lack order, but in fact the elements are well balanced as a whole. As he argued, the site of the Acropolis, responding to the larger

⁶¹⁵ Le Corbusier, *Journey to the East*, p. 216.

⁶¹⁶ Le Corbusier, *Precisions*, pp. 68-9.

⁶¹⁷ *Ibid.*, p. 75.

environment runs from the seaport of Piraeus to the mountain of Pentelicus. The Acropolis extends its effect to the horizon, where temples make an enclosure and the distant sea harmonizes with the architraves, columns and so on. Generally, the plan is not conceived from a bird's eye view but to be seen from the ground. From the Propylea, the Parthenon and the Erechtheum can be seen through a three – quarter view, instead of as central symmetrical axes.⁶¹⁸ The asymmetrical composition in his future architecture may derive from this inspiration.

The Parthenon in Le Corbusier's viewpoint has reached perfection. In *Towards a New Architecture* he juxtaposed images of the Parthenon with a new model of a Delage racing car to elaborate the 'standard' and 'perfection' in both of them. As Greek temples have their standardized parts such as types of order, each part of the Parthenon is 'decisive and marks the highest point in precision and execution: proportion is clearly written therein.'⁶¹⁹ A standard is a matter of logic, analysis and precise study; all men have the same organism, functions and needs.⁶²⁰ Consequently, a universality of standard and perfection was inferred here through two different fields and periods of the Parthenon and the racing car. Similarly in *Almanach d'architecture moderne*, an image of the Parthenon was placed side by side with a Picasso cubist painting, and airplane, etc, with the title 'L'Esprit Nouveau en Architecture' (fig. 3.18).⁶²¹

Beside precision and standard, the Parthenon creates a poetic emotion. Le Corbusier argued that this poem is from a harmony with the site, with nature and the laws of the universe, but

⁶¹⁸ Le Corbusier, *Towards a New Architecture*, p. 189.

⁶¹⁹ *Ibid.*, p.140.

⁶²⁰ *Ibid.*, pp.138 & 145.

⁶²¹ Le Corbusier, *Almanach d'architecture moderne*, 1926, p. 18.

also from a plastic system throughout every part. This temple has a strong unity of aim and idea, which reaches the unity of materials and general contour. The clear resolution, which wrought its marble, achieves all that is the purest, most clarified and economical. Everything is stated exactly; every inch of elements comes into play. It is no longer a question of a customary use or tradition but a pure creation of mind, as it has a clear statement, a living unity and a fundamental attitude. It holds the truth and emotion of a superior and mathematical order.⁶²²

The mathematical basis of Greek temples is another instance of a search for constants, ideals and purity. At Delphi, there are three stone dice near the Temple of Apollo, which 'speak of the sublime. It is therefore on geometry that temples and palaces are to be raised.'⁶²³ The façade of the Arsenal at Piraeus is an archaic example of the use of 'regulating lines'.⁶²⁴

The Parthenon became the highlight of Le Corbusier's journey to the East, and was hence inseparable from his life, as he wrote in the last paragraph of his notes:

Pediments all abolished but not the one on the Parthenon, the contemplator of the sea, a block from another world. It takes a man and places him above the world. Acropolis that fulfils, that exalts! The joy of remembering seizes me, and it is uplifting to carry away the sight of such things as a new part of my being, hereafter inseparable.⁶²⁵

⁶²² Le Corbusier, *Towards a New Architecture*, pp. 204-223.

⁶²³ Le Corbusier, *Une Maison – un palais*, pp. 12-14. Also see the note of *Voyage d'Orient Carnet 3*, 147.

⁶²⁴ Le Corbusier, *Towards a New Architecture*, p. 75.

⁶²⁵ Le Corbusier, *Journey to the East*, The MIT Press, 1987, p. 238.



Fig. 5.22 Le Corbusier, The Acropolis viewed from the north. *Journey to the East*, p.211, and also in *Towards a New Architecture*, p. 222.



Fig. 5.23 Le Corbusier, Ronchamp Chapel, preliminary study, *Sketchbooks* D17, No.27220-May-1950.

In 1911 Le Corbusier made many sketches of the Acropolis (fig. 5.22) and almost forty years later, a similar perception can be found in Ronchamp Chapel. The Acropolis extends its effect to the horizon, demonstrating around the landscape and gathering it into the composition. Similarly resonant to the asymmetrical layout between the Parthenon and its larger surroundings of mountain and sea, at Ronchamp Le Corbusier's sensibility toward the hill site led him to begin 'with the acoustic of the landscape...this design is conceived with these horizons, in acceptance of them',⁶²⁶ 'they are the hosts'⁶²⁷ and 'an acoustic phenomenon introduced into the realm of forms'.⁶²⁸ These insights brought him to an organic layout, instead of a traditional symmetrical cruciform plan.

Le Corbusier made two sketches of both sanctuaries (figs. 5.22, 5.23) standing out against the sky. The towns below are left undefined. The façades of this white high architecture are always radiant and luminous under the sun because they both are situated on the south of the hill. The processional paths leading upward and toward the sanctuaries have similar zigzag

⁶²⁶ Le Corbusier, *Oeuvre complète* vol. 4, p. 72.

⁶²⁷ Jean Petit, *Texts and Sketches for Ronchamp*, Association oeuvre de N.D. du Haut, Ronchamp, English Edition, 1989 (un-paginated).

⁶²⁸ Le Corbusier. *Modular 2*, London: Faber and Faber Limited, 1955, English edition: 1958, p. 253.

patterns.

In his last year of life, Le Corbusier told Hugues Desalle in an interview that the Parthenon is ‘certainly one of the purest works of art that man has ever made...’ and ‘the Greek scale, the Greek measure of man, the human presence in all Greek works has stayed with me always.’⁶²⁹ All of these were rooted in his mind and were one of his major personal references.

B. Folk Houses on the Cyclades

The folk houses on the Cyclades inspired Le Corbusier. In 1933 he revisited Greece for the CIAM IV and found that the folk huts on the Cyclades very meaningful for their primitivism, paradisaical setting and human scale. In his *Sketchbooks I*, B5, he noted:

...aboard the *Argos* August, 1933 Cyclades the idea comes back of the house in Brittany of 1924 starting out from a central nucleus...’(314) ‘a writer should describe the simple and vigorous life and the plan décor of the golden age...(315)

When Le Corbusier discussed an efficient height for a house in the chapter ‘modern technique’, he celebrated the Greek houses on the Cyclades, which were very primitive and can be traced back thousands of years. He called such a house an ‘eternal house, living house, house of today’ and that was exactly what he had been searching for years:

...we travel through the Islands, the Cyclades. Here the profound life of past millennia has remained intact; the wheel does not yet exist. Perhaps it never will exist, the topography is so rough. We discover the eternal house, living house, houses of today which go far back in history and whose plan and section are exactly what we have been thinking of for a decade. Here in the bosom of human measure, here in Greece, in this soil redolent of decency, intimacy, well being, of what is rational forever; guided by the joy of living, we find measurements on the human scale.⁶³⁰

This view of these houses as a part of long-standing tradition is a specific vision as looking

⁶²⁹ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 117.

⁶³⁰ Le Corbusier, *The Radiant City*, p. 52.

at primitive art and architecture as static and isolated from history,⁶³¹ preserving fundamental human values. Later, when Le Corbusier explained that that cleanliness was a national virtue in America, he illustrated it by reference of the Cyclades:

A true culture manifests itself in fresh colour, white linen, and clean art. Among the Cyclades of Greece, in the islands where a volcanic topography has prevented the introduction of the wheel- cart, bicycle, car- where transportation is possible only by mule-back; where consequently customs have remained millenary; where you still seem to recognize Agamemnon or Ulysses in the villages, the tradition of a living culture demands that, each Saturday, the joints of the stones forming the steps of the house and those of the flagstones in front of the house, be painted with bright whitewash- a radiant filigree. Thus in the Islands each Sunday begins in cleanliness and whiteness; life is magnified by this testimony: be clean.⁶³²

In the following passage he criticized 'beautiful' France on 'this fundamental feeling of life, always renewed or renewable, [which] has died down; that cracked wall, dirt, and negligence are masters of our spirits.'⁶³³

To which island of the Cyclades Le Corbusier referred is unclear in his writings. It could be Delos,⁶³⁴ Santorin (Santorini or Thera),⁶³⁵ or another Aegean island, such as Aegina or Poros.⁶³⁶ Sigfried Giedion, the secretary of the CIAM, noted the 'shimmering whiteness of a row of houses cresting the cliff of some Aegean island'⁶³⁷ and on Santorin:

Dawn revealed the summit of Santorin – its whitewashed houses trailing like a drift of last year's snow along the edge of its precipitous cliff – and later in the morning we lay to before that island. When we climbed up to those houses, Moholy [-Nagy] pointed out they merged so plastically into one another that the children were playing on their neighbours' flat roofs and how, being built up a steep slope in graduated steps, every house enjoyed a free and uninterrupted view over the sea.⁶³⁸

⁶³¹ Colin Rhodes, *Primitivism and Modern Art*, p. 19.

⁶³² Le Corbusier, *When the Cathedrals Were White*, pp. 46-7.

⁶³³ *Ibid.*, p. 47.

⁶³⁴ Le Corbusier, *The Athens Charter*, New York: Grossman, 1973, p. 25.

⁶³⁵ Sigfried Giedion, *Architects' Year Book: 3*, London: Elek, 1949, p. 39.

⁶³⁶ *Ibid.*, pp. 38-9. Le Corbusier sketched the temple of the Aegians.

⁶³⁷ *Ibid.*, p. 38.

⁶³⁸ *Ibid.*, p. 39.



Fig. 5.24, A photograph by Moholy-Nagy during CIAM IV. Varoujan Arzoumanian and Patrick Bardou, ed., *Le Corbusier et la Méditerranée*, p. 79.

The characteristics on the ‘roof garden’, ‘whitewash’, strong ‘plasticity’ and human measure are close to Le Corbusier’s modern concrete architecture, and serve as important reference. A photograph was taken by Moholy-Nagy while the members of CIAM visited one of the Greek Islands,⁶³⁹ where the buildings are in cubic form, flat roof and whitewash, or very light colour surface, with limited openings. These cubic houses are built along the sloping rocky shore, stepping down towards the sea.

C. Varieties in Greek Decorative Art

Greek decorative art also interested Le Corbusier. During his early journey and sojourn in Paris, he studied numerous Greek decorative arts on vases, statuettes, bas-reliefs, coins and jewellery, exhibited mainly in the Louvre and in Greek museums. Le Corbusier was extremely interested in vases; he celebrated them in a specific article ‘Des Pots’ in *L'Esprit nouveau* no. 16, which was later republished in his *Almanach d'architecture moderne*. Many

⁶³⁹ *Le Corbusier et la Méditerranée*, Musées de Marseille, 1987, p. 79.

of the Greek vases which he researched have folk or mythological themes, such as a Funeral krater in the Louvre,⁶⁴⁰ a vase from Rhodes painted with a folk theme of geese and goats,⁶⁴¹ another of a grape harvest with a theme with Dionysus (FLC 2013) or fighting lions and bulls (FLC2249), an alabastron of a female with wings,⁶⁴² which was similar to an item in one of Sigmund Freud's collections (see the Chapter one), was published in *The Decorative Art of today*.

Statues of humans are illustrated in many of his sketches, such as a Biton in Delphi⁶⁴³ and a statuette of a snake goddess from Knossos published in *Decorative Art of Today* (FLC1869). Some of these drawings, done quite late in his life, revealed his recurring interest in Greek mythology. Le Corbusier drew a fresco of two females of Knossos during his visit to New Delhi in 1951 (FLC436), when he was working on *Poème*. He also drew Apollo and a lion's head in his sketchbook III, no. 256, from 1954 to 1957.



Fig. 5.25 Le Corbusier, Theseus was held by Triton, FLC 2241.⁶⁴⁴



Fig. 5.26 Le Corbusier, Orestes leaning towards sleeping Electra, FLC 2240⁶⁴⁵

Two bas-reliefs with mythological themes, in the Louvre, drew Le Corbusier's attention. One is of the young Theseus held by Triton (fig. 5.25) who has a long sinuous s-shaped fishtail.

⁶⁴⁰ Louvre, A 517, see chapter 7.

⁶⁴¹ Louvre A 314, FLC5859.

⁶⁴² FLC 1985, see chapter 1, discussion of Freud's collection.

⁶⁴³ Biton are paired by Cleobis. Le Corbusier, *Voyage d'Orient Carnet 3*, p. 161.

⁶⁴⁴ Annotation: 'à échelle 1/2 terre cuite estampée et ajourée 1 cm épais'. See *Passé* 321-2.

⁶⁴⁵ *Passé* 323-4.

Both Theseus and Triton are children of Poseidon. Triton is a combination of human, horse and fish, which may relate to numerous heterogeneous compositions in Le Corbusier's artwork. There is a photograph of Triton wrestling with Heracles in one of Le Corbusier's articles on the Acropolis, which shows a detail from the pediment of an old temple of Athena in the Acropolis Museum.

A fragmented plaque about the story of Agamemnon (fig. 5.26) shows a scene of Orestes leaning towards his sleeping sister Electra with his friends, servants and horse. The relationships among them are tangled with tension between revenge and love of parents, etc. It is an irregular composition centred on the left where the standing brother and dreaming sister are positioned. It is like an exercise of compressed and expanded space; many figures are arranged in multi-layered space but presented on the same plan. These drawings are early examples of Le Corbusier's interest in the theme of Homeric and ancient Greek mythology, and anticipate his later works on these themes such as his painting 'Le jugement de Pâris' 1935-44,⁶⁴⁶ and his *L'Iliade dessins*.

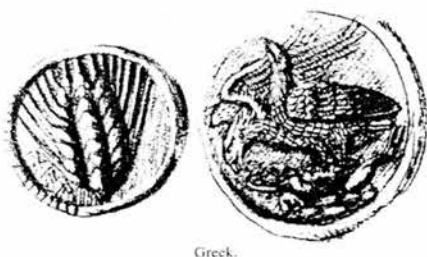


Fig. 5.27 Le Corbusier, Images of Greek coin. The left from Metapontum; The right from Acragas. LC, *The Decorative Art of Today*, p. 121.

Le Corbusier's interest in visual art ranges from large-scaled projects, such as urban designs,

⁶⁴⁶ Mogens Krustrup, *L'Iliade dessins / Le Corbusier*, Introduction.

to tiny coins and delicate jewellery. His interest in these artefacts is probably due to the early training he received as a watch decorator. Two images of coins are collected in *Decorative Art of Today* (fig. 5.27).⁶⁴⁷ One is an ear of corn icon from Metapontum, which may symbolize agriculture, fruitfulness and harvest. According to Le Corbusier, it is a developed 'type'.⁶⁴⁸ This icon is important to him as it reappears later in the main hall of his Pavillon des Temps Nouveaux in 1937 and also in the collection of signs for Chandigarh. The other is of a pair of eagles standing on the upturned body of a hare. It is from Acragas (Akragas), Sicily, and is like 'a poem full of lofty nobility.'⁶⁴⁹ Le Corbusier sketched many examples of Greek jewellery in the National Museum in Athens, such as a pedant, bracelet and necklace.⁶⁵⁰ Le Corbusier was interested in their composition, materials, construction and colours.

Compared with the natural limitation of architecture, decorative arts are much freer in their forms of presentation and can fully reflect many varieties of folk culture, local life, mythology, ideas and handicraft. Their forms could be realistic or abstract, organic or geometric because their sizes are much more manageable and easier to be made than buildings, and their purpose varies much more. These made decorative arts inspiring to Le Corbusier for his graphic art, paintings and architectural designs.

Roman Architecture

⁶⁴⁷ Le Corbusier, *The Decorative Art of Today*, p. 121.

⁶⁴⁸ Ibid.

⁶⁴⁹ Ibid.

⁶⁵⁰ Source of them are from *passé*: Pedant (no. 345, FLC1902); plaque (no.348 FLC1901, which was published in *The Decorative Art of Today*, p. 203); necklace (no.349 FLC5884); Mycenae necklace (no.350 FLC2502); Mirror handle (no.327 FLC1898), etc.

In October 1911, Le Corbusier visited Rome⁶⁵¹ and Tivoli for about two weeks. He observed Rome thoroughly and sketched on more than ninety pages of *Voyage d'Orient Carnet 4 & 5*, and more than sixty of Tivoli (Hadrian Villa, c. AD 118-134, and Villa d'Este built in the sixteenth century) in *Carnet 5*. In 1921, he revisited Rome with Ozenfant to breathe the air of the ruins, to see the Sistine Chapel and to prepare material for *L'Esprit nouveau*.⁶⁵² He seldom recorded the seventeenth-century Baroque designs.⁶⁵³ Later in his 1920s' publications, examples selected and discussed were rarely Renaissance. It was obvious that he preferred classical to Renaissance architecture.

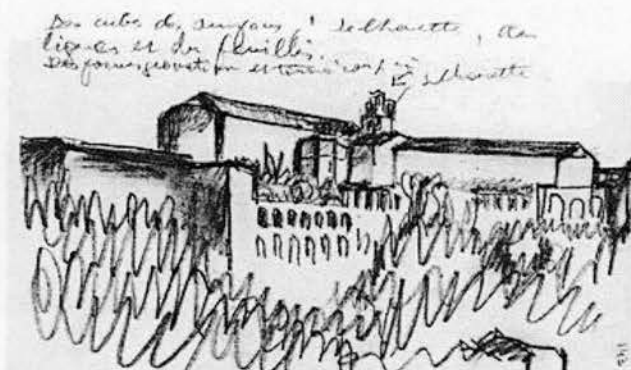


Fig. 5.28. Le Corbusier, Saint Alexis and Saint Sabina. 'Des cubes des surfaces! silhouette, Des formes geometriques et tout à coup ça'. LC, *Voyage d'Orient Carnet 4*, p. 143.

A new element of this period appeared in his drawings. He started to analyse buildings and their visual composition 'in terms of basic geometric elements such as horizontals and verticals, or square, cube, cylinder, cone, sphere, and pyramid.'⁶⁵⁴ This insight led his vision of Rome to become crystallized. For example, in his *Voyage d'Orient Carnet 4*, p.139, he noted on a sketch of Temple of Antoninus and Faustina in the Roman Forum, 'Verticale / cube en haut / colonnes / rondes'; and in p.143 (fig. 5.28), on a sketch of the Aventine, with

⁶⁵¹ It includes St. Peter's, the Sistine Chapel, Hadrian's Tomb, the Pantheon, Piazza Navona, Capitoline, Forum, Arch of Constantine, Basilica of Santa Maria Maggiore, Santa Maria in Cosmedin, Atrium of the Vestals, Villa Farnesina (1509-11), Villa Lante (1523- 4 by Giulio Romano), and the Bath of Caracalla.

⁶⁵² Stanislaus von Moos, 'Rome', in Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier*, p.193.

⁶⁵³ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 295.

⁶⁵⁴ *Ibid.*

the churches of St. Alexis and Santa Sabina (422-32), he noted: '*Des cubes des surfaces! silhouette, Des formes geometriques et tout à coup ça*'. He looked at the Roman architecture, not only for the style, but also its intention, purpose, basic geometry and spatial effect.

Geometry is an essential element in Roman architecture. As Vitruvius states, an architect 'versed in geometry and optics, (Book I, Ch.1.3) ...assisted by the laws of geometry, determines those abstruse questions, wherein the different proportions of some parts to others are involved.' (Book I, Ch.1.4) 'Proportion is that agreeable harmony between the several parts of a building, which is the result of a just and regular agreement of them with each other; the height to the width, this to the length, and each of these to the whole' (Book I, Ch2.3). There is further discussion on proportion in Vitruvius' Book III, VI and V.

Le Corbusier's main discussion on Rome is in three chronological series: ancient, Byzantine and Michaelangelo, omitting the Baroque or later architectural works. The issue of ancient Rome is spirit of order, which is fundamental and simple. The word 'Roman' means 'unity of operation, a clear aim in view, classification of the various parts.'⁶⁵⁵ He enumerated the examples of Colosseum, the Aqueducts, the Pyramid of Cestius, the Triumphal Arches, the Basilica of Constantine, the Baths of Caracalla, and the Pantheon.

When Le Corbusier discussed how its sensibility came into play, he noted of the Pantheon, that 'we have a summing-up of all the might of Roman equipment; it stands for a plain and objective state of mind.'⁶⁵⁶ He noted its exterior on the cubic marble portico, which was

⁶⁵⁵ Le Corbusier, *Towards a New Architecture*, p. 158.

⁶⁵⁶ Le Corbusier, *The City of Tomorrow and its Planning*, p. 49.

inserted into the cylindrical temple.⁶⁵⁷ Another powerful image, the Colosseum, frequently appears in Le Corbusier's Purist publications. The chapter, 'Permanence' in *The City of Tomorrow*, begins with a drawing of the Colosseum as an emblem of permanence.⁶⁵⁸ The same image of this sketch is used in his *Une Maison - un palais*,⁶⁵⁹ where he juxtaposed a drawing of Chinese landscape and an Indian temple of a large scale, and discussed the order in nature, hierarchy, power and subtlety. As the theme of this book stands for his design of 'League of Nations', this could be a good reference of large-scale geometrical architecture with metaphors of power and order.

To Le Corbusier, the city of Rome conveyed the ideas of 'Geometry, implacable order, war, organization, civilization.'⁶⁶⁰ He maintained, when the Romans expanded their territory and arrived at a place, they took a square and set out the plan of a rectilinear town, so that it should be clear, well arranged, easy to police and to clean, a place in which one could find one's way about, and in which one could stroll with comfort, like Pompeii, for example. The orthogonal plan was considered to be in conformity with the dignity of the Roman citizen.⁶⁶¹ To him, Timgad (in Algeria), the huge Roman city, with its clear checkers board layout, is an example of his 'Great City'. Not only buildings, but also many Roman bridges and aqueducts were examples to Le Corbusier as being meaningful, both in technology and aesthetic. For instance, he noted on the Byzantine Aqueduct of Valensas: 'an immense horizontal running along the surrounding country and forming a rigid background along the Seven Hills,'⁶⁶² and on the Pont du Gard, 'among the very great works of architecture.'⁶⁶³

⁶⁵⁷ 'Le cube de marbre de portique pénètre arbitrairement ds le cylindre du la nef.' Le Corbusier, *Voyage d'Orient Carnet V*, p. 13.

⁶⁵⁸ Le Corbusier, *The City of Tomorrow and its Planning*, p. 61.

⁶⁵⁹ Le Corbusier, *Une Maison - un palais*, p. 11.

⁶⁶⁰ Le Corbusier, *The City of Tomorrow and its Planning*, p. 77.

⁶⁶¹ *Ibid.*, p. 25.

⁶⁶² *Ibid.*, p. 79.

In addition to the ancient Roman work, a Byzantine church, S. Maria in Cosmedin (790-1120) was discussed as an instance of 'The Lesson of Rome'. This church, founded for Rome's Greek immigrants, 'proclaims the noble pomp of mathematics, the unassailable power of proportion, the sovereign eloquence of relationship... There is only one colour, white; always powerful since it is positive.' He maintained: 'architecture is nothing but ordered arrangement, noble prisms, seen in light.'⁶⁶⁴ In 1911, Le Corbusier measured the building, sketched the interior perspective and cross section and noted: '*une Basilique plus petite*'.⁶⁶⁵ His sketch of this church is similar to the picture published in *Towards a New Architecture*, but without the choir. He seems to have been touched by the pure cubic volumes of the interior.

Of the Renaissance, another glorious epoch of Rome, Le Corbusier only celebrated Michaelangelo. 'The work of Michael Angelo is a creation, not a Renaissance.'⁶⁶⁶ Le Corbusier maintained: the stones are lifeless, 'but the apses of St. Peter's are a drama... The drama of Architecture is the same as that of the man who lives by and through the universe.'⁶⁶⁷ Le Corbusier celebrated Michelangelo's scheme for St. Peter as a complete unity in which elements of the noblest and richest are grouped together. The rest, added by others, was considered unsuccessful as having fallen into barbarians' hands and all were spoilt. Bernini's colonnade is beautiful but it blocks the full view of the dome. Le Corbusier further criticized many other Roman Renaissance architects for their bad taste and overloaded decorations. Michelangelo's Capitoline serves as an example of Le Corbusier's

⁶⁶³ Ibid.

⁶⁶⁴ Le Corbusier, *Towards a New Architecture*, pp. 161-3.

⁶⁶⁵ Le Corbusier, *Voyage d'Orient, Carnet V*, p. 19.

⁶⁶⁶ Le Corbusier, *Towards a New Architecture*, p. 168.

⁶⁶⁷ Ibid., p. 164.

regulating lines;⁶⁶⁸ and Michelangelo's entrance vestibule and staircase of the Laurentian Library in Florence are considered as an image of 'L'Esprit Nouveau en Architecture', in Le Corbusier's *Almanach d'architecture moderne*.⁶⁶⁹ These characteristics and elements of Roman architecture were all seminal in Le Corbusier's references in development of his works.

A. Pompeii

Before going to Rome in 1911, Le Corbusier travelled to Naples and visited Pompeii for five days. He was amazed. He studied and made records by taking many photographs and making more than one hundred pages of sketches, including buildings, mosaic patterns and statues in the National Museum in Naples.⁶⁷⁰ He was most interested in the Forum, with Jupiter's temple, and the spatial organization of the Pompeian houses,⁶⁷¹ including the Casa del Noce d'Argento, House of Sallustius, the House of the Tragic Poet, the House of Diomedes, the House of Marcus Lucretius, as well as the House of the Labyrinth. They were very important to him as many of them were later published in *Towards a New Architecture*, which inspired his modern architecture. Most of the places he visited were on the west half of the ruined Pompeii, as far as the House of Diomedes in the suburb. Even his hotel was near the Amphitheatre⁶⁷² at the far eastern end of Pompeii. He only recorded the profile of the steps of the Amphitheatre, without mentioning the other major structure, the Large Palaestra.

⁶⁶⁸ Ibid., p. 78.

⁶⁶⁹ Le Corbusier, *Almanach d'architecture moderne*, p. 18.

⁶⁷⁰ During his stay in Pompeii, he spent some time in Naples for research in National Museum (carnet 4, pp. 51-59) and also visited The Church of San Salvatore near Pompeii (nineteenth-century, carnet 4, p. 39).

⁶⁷¹ Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier, Applied Arts, Architecture, Painting, Photography, 1907-1922*, New Haven, Conn.; London: Yale University Press, c2002, p. 186.

⁶⁷² Giuliano Gresleri, note no. 48 of Carnet 4, *Voyage d'Orient Carnets*.

In Pompeii, Le Corbusier first visited the Forum, which was surrounded by many building complexes and he recorded his observation with many sketches. Unlike the huge, pure square structure of the Palaestra, the Forum was structured by architecture of various orientations, configurations, scales and functions in different degrees of openness or closeness, organized around a large rectangular square. This was interfaced with layers of colonnades, recessions, walls and openings, pavements, and so on. Here, symmetry and asymmetry, rectilinear and non-rectilinear are overlaid, which made this public space rich with orders and variations at the same time, and this character also permeated into surrounding private houses.

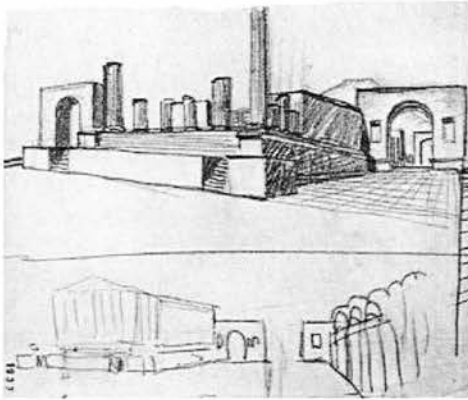


Fig. 5.29 Le Corbusier, Temple of Jupiter, Pompeii. FLC 1937.

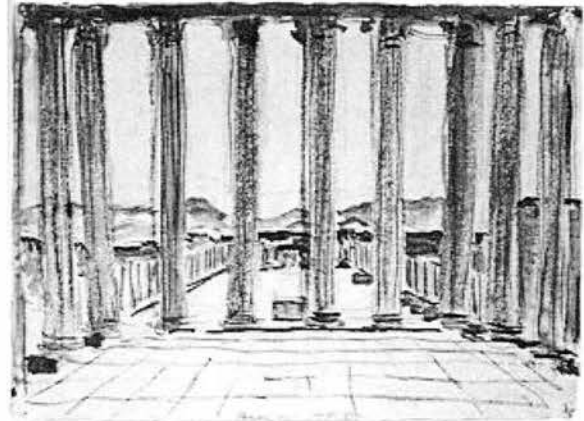


Fig. 5.30 Le Corbusier, Temple of Jupiter, Pompeii. FLC 2859.

Le Corbusier discerned the dynamic and asymmetrical city structure, which was not in a strict orthogonal order. Flanking the Temple of Jupiter, for example, there are two arches in different positions (fig. 5.29), which he noted: ‘The irregularity of the 2 triumphal arches / determine 1 rhythm and 1 balance / corresponding.’⁶⁷³ It is similar to the interior and courtyard of the Forum at Bath: ‘This is good. It is asymmetry and these several exits direct

⁶⁷³ ‘L’irrégularité des 2 arcs de triomphe/ déterminent 1 rythme et 1 équilibre/ correspondants.’ Le Corbusier, *Voyage d’Orient Carnets IV*, p. 47.

toward the courtyard.⁶⁷⁴ This irregularity is enriched by the existing ruined condition, where an irregular opening was improvised upon the original symmetrical structure. Le Corbusier had both visions of a pure, integral box and irregular, dissected ruins, as manifested in his reconstruction of the Temple of Apollo,⁶⁷⁵ and a view of the Forum from Temple of Jupiter (fig. 5.30, cf.5.29),⁶⁷⁶ interested him for its spatial effects, rather than its archaeology.⁶⁷⁷ These experiences may foreshadow many of Le Corbusier's modern architectural designs, which have an appearance of a cube but with irregular fragments and subdivisions inside. The architectural scale and proportion were also discerned in the page next to his reconstruction drawing, as he always measured the dimensions of main parts of a building.

More than simply illustrating the form and composition, Le Corbusier perceived multiple layers of intention among various building complexes. He demonstrated this in many of his drawings of the Forum,⁶⁷⁸ the House of the Tragic Poet, and the Casa del Noce d'Argento in *Towards a New Architecture*, and noted:

Arrangement is the grading of aims, the classification of intentions. The plan of the Forum contains a number of axes,...It is a joy to the mind to consider such a plan and to walk in the Forum....In the Forum of Pompeii, with its vistas of each building in relation to the whole and to every detail, there is a grouping of varied interest constantly renewed.⁶⁷⁹

⁶⁷⁴ 'ce qui est/ bien c'est l'assymétrie / et ces plusieurs/ sorties directes/ sur le parvis.' Ibid., p. 74.

⁶⁷⁵ Le Corbusier, *Voyage d'Orient, Carnets IV*, pp. 31-33.

⁶⁷⁶ Ibid., p.103. His note is on p. 102.

⁶⁷⁷ Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier, Applied Arts, Architecture, Painting, Photography, 1907-1922*, New Haven, Conn.; London: Yale University Press, c2002, p. 186.

⁶⁷⁸ Le Corbusier, *Towards a New Architecture*, pp. 188 & 194.

⁶⁷⁹ Ibid., pp. 189 & 193.

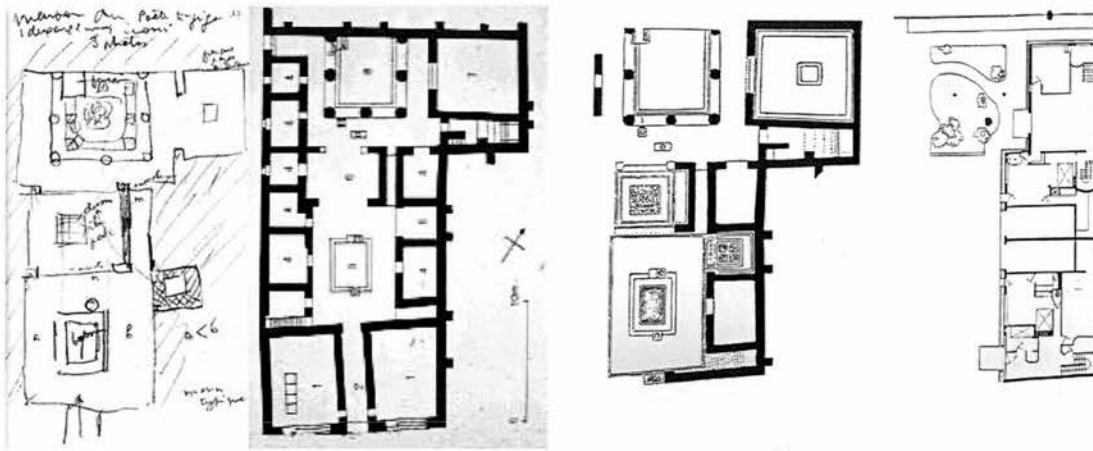


Fig. 5.31 Plan of House of the Tragic Poet, Pompeii. Left drawing by LC, *Voyage d'Orient Carnet 4*, p. 87.

Fig. 5.32 House of the Tragic Poet (left) and the Villa La Roche (right). Comparison diagram by Kurt W. Foster, 'Antiquity and Modernity in the La Roche-Jeanneret House of 1923', in: *Oppositions Reader*, p. 481.

Located immediate north of the Forum and Forum Bath, the House of the Tragic Poet (Fig. 5.31) was observed and sketched by Le Corbusier. While discussing the arrangement of the architectural plan, he thought this House has the 'subtleties of a consummate art' where everything is on an axis without following a strict central line. And, at the end inside the building, a right turn happened to extend to the other rooms. He maintained: 'The axis is in the intention, and the display afforded by the axis extends to the humbler things which it treats most skilfully...by optical illusions...you then note clever distortions of the axis which give intensity to the volumes.'⁶⁸⁰

This L-shaped composition and the shifting axes of the Pompeii houses may be connected with Le Corbusier's Villa La Roche-Jeanneret designed in 1923 (fig. 5.32). Entering from the Square du Docteur-Blanche, one passes a baywindow at one end, through the main façade to the L-shaped gallery and a shaded garden at the terminus, and then turns right to the entry for the interior. A similar shifting path indoors proceeds along the main hall, dining room, bridge,

⁶⁸⁰ Le Corbusier, *Towards a New Architecture*, pp. 189-90.

gallery and throughout the whole building.

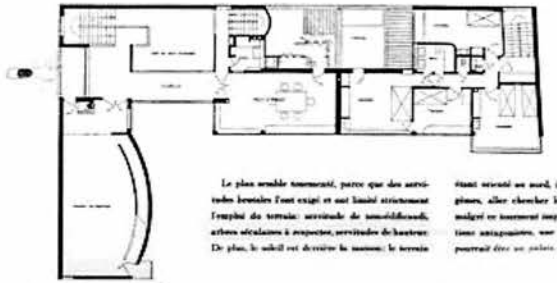


Fig. 5.33 Le Corbusier, plan, Villa La Roche. *O.C.* 1, p. 64.

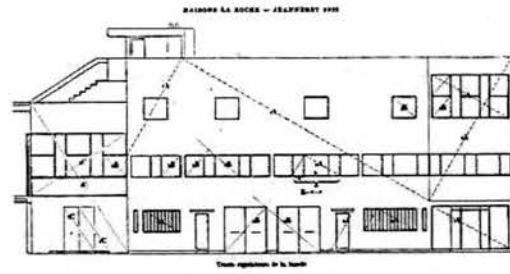


Fig. 5.34 Le Corbusier, elevation, the Villa La Roche. *O.C.* 1, p. 68.

In addition to the shifting axis, the ancient rule of symmetry is displayed in some parts of Villa La Roche-Jeanneret. The art gallery of this villa is located at the end of a street as a terminus. Approaching it from the street, one can see this gallery is symmetrically arranged with its bulging curve and its window. To the right, the middle façade of two abutting buildings and the rear façades of these two buildings are generally symmetrical. Some rooms, such as garages, are identically mirrored.

Kurt W. Foster observed explicit correspondences between House of the Tragic Poet and the Villa La Roche, including eccentric passages: the axial deployment of the atrium house afforded a promenade through highly differentiated cubicals with subtle shifts of alignment. Thus Foster argued that, 'it is in fact to Pompeii that one must turn for the ultimate sources of the La Roche-Jeanneret house.'⁶⁸¹

⁶⁸¹ Kurt W. Foster, 'Antiquity and Modernity in the La Roche-Jeanneret House of 1923', Hays, K. Michael, ed., *Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984*, New York: Princeton Architectural Press, 1998, pp. 475-483.

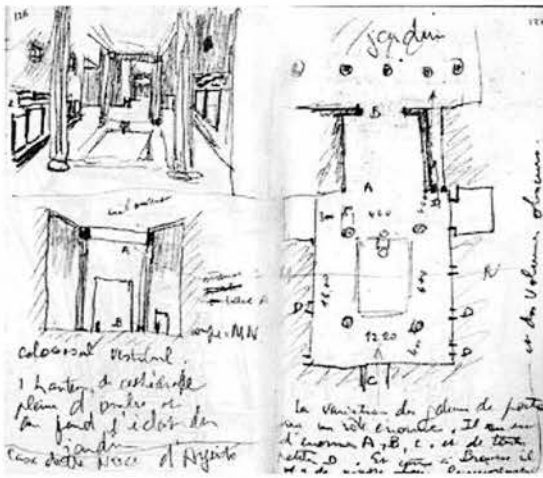


Fig. 5.35 Le Corbusier, Casa del Noce, Pompeii. *Voyage d'Orient Carnet 4*, pp. 126-7.

Fig. 5.36 Casa del Noce, Pompeii.⁶⁸²

In a typical Pompeian house entrance, there is an atrium surrounded by four columns. One can see this at the Casa del Noce (Casa del Noce d'Argento or Silver Wedding House, figs. 5.35 & 5.36), where Le Corbusier sketched the atrium area, parts of the garden, and admired its 'magisterial grandeur, order, a splendid amplitude.'⁶⁸³ In Le Corbusier's Villa Stein at Graches, there is a similar four-column atrium immediately adjacent to the entrance, which directs to inner rooms.

B. Hadrian's Villa, Tivoli

⁶⁸² From Vitruvius Pollio, Marcus. *Vitruvius the Ten Books on Architecture*, trans. Morris Hicky Morgan, New York: Dover Publication Inc, 1960, p. 177. Original drawing is by A. Mao.

⁶⁸³ Le Corbusier, *Towards a New Architecture*, p. 184.

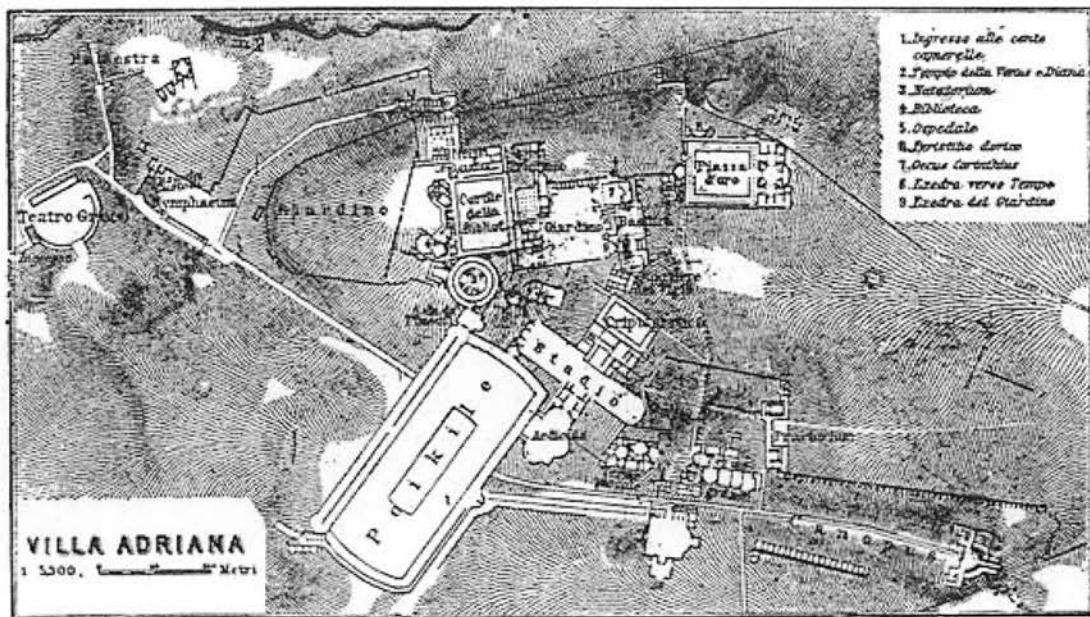


Fig. 5.37 Plan of Hadrian's Villa. Le Corbusier, *Towards a New Architecture*, p. 149.

Le Corbusier carefully studied Hadrian's Villa near Tivoli in 1911. His journey started from Poikile (Percile) with grand views, then through the circular Island Villa to the Residence Quadrangle ('Cortile della Bibliot' in Le Corbusier's plan) and a Portico suite at the northeast end. He continued to pass the Bath to the Canopus and entered the chamber inside it, where the lighting effect impressed him profoundly. After that, he observed the Bath complex and studied the Piazza d'Oro.

This villa is a synopsis of Emperor Hadrian's travels, a kind of an open-air museum of antiquities, in which Hadrian, the connoisseur, assembled his collections of Egyptian, and classical art. Moreover, his keen historical appreciation encouraged him to 'turn the very building into revivalist museum-pieces so that they were recalling celebrated monuments of antiquity which he had seen on his travels',⁶⁸⁴ such as the 'Stoa Poikile', called after the north of the Agora in Athens from which the Stoic School took its name. It is a one-sided roofed colonnade where the lectures were given. The 'Canopus' is named after the two-mile

⁶⁸⁴ David Watkin, *A History of Western Architecture*, 3rd ed. London: Laurence King, 2000, pp. 74-5.

long canal connecting Canopus with Alexandra.

Many of Le Corbusier's studies of this villa were published in *L'Esprit nouveau*. In his 'The Lesson of Rome'⁶⁸⁵ the general plan of Hadrian's Villa (fig. 5.37) is placed right above the title. This plan, organic and containing various axes, to him was great and well planned.⁶⁸⁶ It followed the topography of site: 'the levels are established in accordance with the Campagna; the mountains support the composition, which indeed is based upon them.'⁶⁸⁷

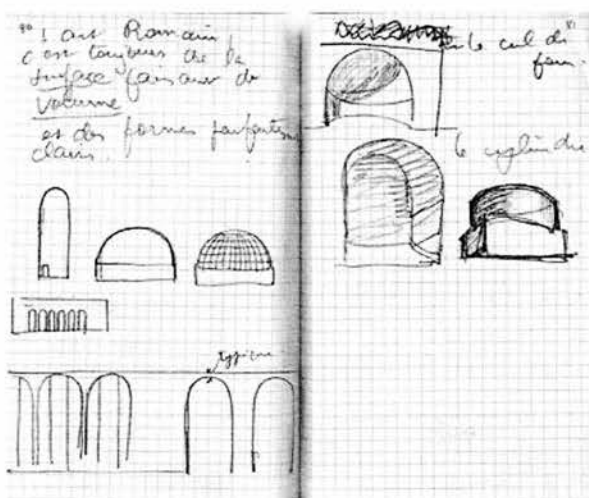


Fig. 5.38. Le Corbusier, Hadrian's Villa, *Voyage d'Orient Carnet 5*, pp. 80-81.

In Roman architecture, Le Corbusier found that the surface and volume are the major characteristics. Half way to Tivoli, he noted (fig. 5.38): 'L'art Romain c'est toujours de la surface faisant du Volume et des formes parfaitement claires typique.' This is a conclusion that he summarized from his study of the Praetorium, south of Large Bath. This drawing is recast in *The City of Tomorrow* where he noted: 'Rome; Geometry, implacable order, war,

⁶⁸⁵ Le Corbusier, *Towards a New Architecture*, p. 149.

⁶⁸⁶ Le Corbusier, *The City of Tomorrow and its Planning*, p. 26.

⁶⁸⁷ Le Corbusier, *Towards a New Architecture*, p. 193.

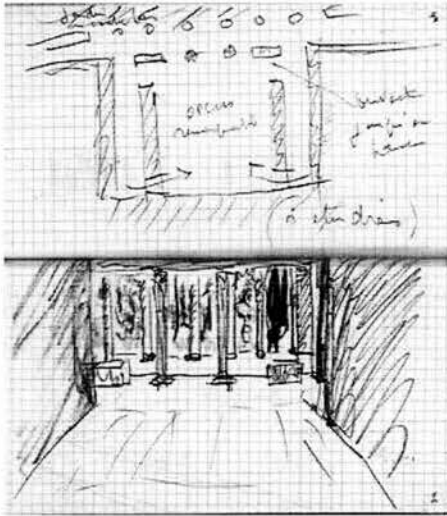


Fig. 5.39 Le Corbusier, Portico suite, Hadrian's Villa, *Voyage d'Orient Carnet 5*, pp. 44-5, *Towards a New Architecture*, p. 185.

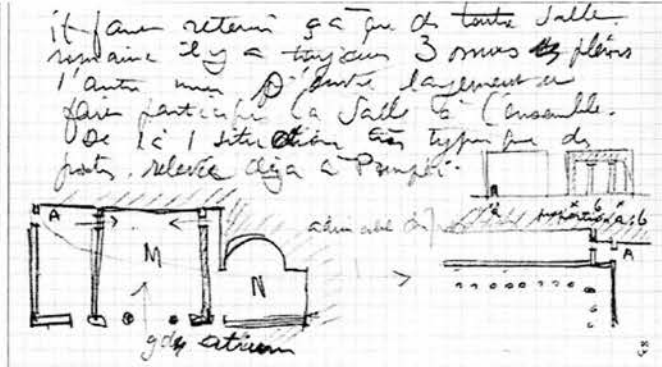


Fig. 5.40 Le Corbusier, rooms in the southeast corner of the Piazza d'Oro, Hadrian's Villa, *Voyage d'Orient Carnet 4*, p. 83; *Towards a New Architecture*, p. 186.

Le Corbusier was interested in their lighting and disposition. He drew a plan and a perspective sketch of the oecus (a large room, fig. 5.39) of the 'Portico suite' near the east garden and residence quadrangle. He sketched and noted: '*jardin en contrebas / oecus remarquable overt jusqu'en haut (à étudier)*'. This sketch is a reconstruction drawing, where the roof is missing and the remaining columns are irregular. He paid attention to the lighting and the front columns screening the lower greenery and scenery afar. This drawing was later published as an example in *Towards a New Architecture* when he discussed the architectural elements of the interior. 'The light bursts on you, by a definite intention... There are no other architectural elements internally: light and its reflection in a great flood by the walls and the floor, which is really a horizontal wall.'⁶⁸⁹

⁶⁸⁸ Le Corbusier, *The City of Tomorrow and its Planning*, p. 77.

⁶⁸⁹ Le Corbusier, *Towards a New Architecture*, p. 186.

Another example (fig. 5.40) in the same section consists of three rooms in the southeast corner of the Piazza d'Oro. He noted on these Roman rooms with three main walls, diverse degrees of opening: '*l'autre mur s'ouvre largement et fait participer la sale à l'ensemble ... admirable disposition*'. Here the consecutive rooms are diversified in configuration of rooms, axis of paths and wall openings, which bring sensations of architecture.

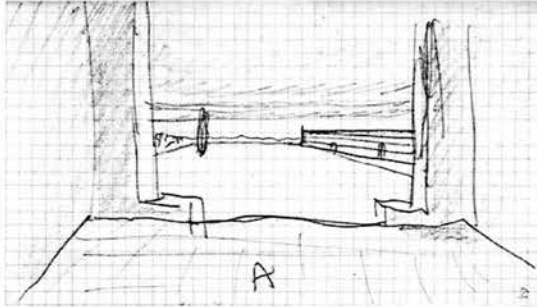


Fig. 5.41. Le Corbusier, *Voyage d'Orient Carnet* 5, p. 61; *Towards a New Architecture*, p. 193.



Fig. 5.42. Le Corbusier, *Voyage d'Orient Carnet* 5, p.34; *Towards a New Architecture*, p. 194.

When Le Corbusier claimed that 'the exterior is always an interior', in *Towards a New Architecture*, he maintained that in architectural ensembles 'the elements of the site itself come into play by virtue of their cubic volume, their density and the quality of the material of which they are composed, bringing sensations which are very definite and very varied.'⁶⁹⁰ Two sketches of Poikile, a large east-west platform and the Propylea at the Acropolis, were used as examples for his argument. One of them (fig. 5.41), drawn from a room located in the middle of the eastern apse of the Poikile, was noted the dimension of the room and '*au fond du jardin est l'oeus qui synthetise les cypress du jardin*'.⁶⁹¹ Here is grand scenery with asymmetrical balance, where a long extensive wall is balanced by cypress. The scenery is framed by an opening of walls and the view extends toward the immense landscape and sky. In his mind, trees always play a part in architecture and are an active element, such as in his

⁶⁹⁰ Le Corbusier, *Towards a New Architecture*, pp. 191-2.

⁶⁹¹ Le Corbusier, *Voyage d'Orient, Carnets* 5, p. 60.

discussion on the colour and form of Turkish architecture, and the tree in his later design, the L'Esprit Nouveau Pavilion in 1925.

Another sketch, fig. 5.42, is viewed from the other end of Poikile, the first sketch he made in Hadrian's Villa. The wall in the light and shade brings 'sadness, gaiety or serenity, etc. Our compositions must be formed of these elements.'⁶⁹² The wall, a long structure, may act as a reference to his later large-scale buildings, such as his long Secrétariat in Chandigarh, which similarly faces a big plaza and extends toward the Himalayas.

From the ruins here he saw the historical course of progress. A sketch of the Large Bath in Hadrian's Villa was later published, with the inscription: 'Roman remains, after the Barbarian invasions.'⁶⁹³ Roman cement, as he said, has preserved the great domes, arches and monolithic vaults, of which one side was destroyed but the other still hangs, suspended in a void. The Barbarians destroyed the Rome, but they also learned from the Romans and had their own progress. Therefore, in modern times the dwellings and towns resulted from the modern spirit, but were 'derived from the slow efforts of our forefathers.'⁶⁹⁴

Le Corbusier studied the Scenic Triclinium, at the south end of the Canopus, and recorded its dimensions, configuration, lighting effect and spatial experience. This provided him with inspiration for his design of La Sainte-Baume (1948) and Ronchamp Chapel in 1950.⁶⁹⁵

⁶⁹² Le Corbusier, *Towards a New Architecture*, p. 193.

⁶⁹³ Le Corbusier, *The City of Tomorrow and its Planning*, p. 48; *Carnet 5*, p. 65.

⁶⁹⁴ *Ibid.*, p. 57.

⁶⁹⁵ See Danièle Pauly, *The Chapel at Ronchamp*. Paris: Foundation Le Corbusier, 1997, pp. 88-9.

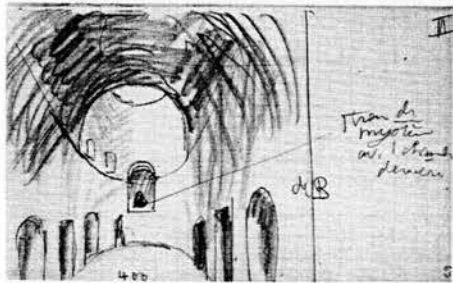
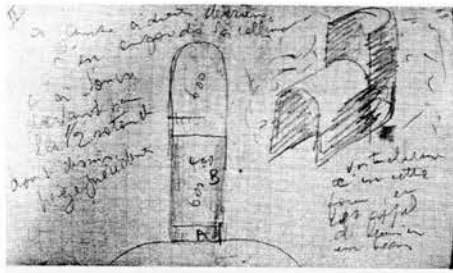


Fig. 5.43 Le Corbusier, Tivoli, Hadrian's Villa, apsidal end of the Canopus. *Voyage d'Orient Carnet 5*, pp. 68-9, October 1911.



Fig. 5.44 Le Corbusier, Lighting effect, Hadrian's Villa, Tivoli, Pencil sketch in *Voyage d'Orient Carnet 5*, p. 71, October 1911.



Fig. 5.45 Scenic Triclinium, axial extension, interior, looking south⁶⁹⁶, Hadrian's Villa, Tivoli.



Fig. 5.46 Scenic Triclinium, interior, looking southwest⁶⁹⁷, Hadrian's Villa, Tivoli. The excavation was carried out during the 1950's.⁶⁹⁸

In Ronchamp Chapel, the major reference of the three small side chapels with lighting towers is to the top lighting inside the ruin of the Scenic Triclinium, where Le Corbusier sketched in October 1911 (figs. 5.43, 5.44). At Hadrian's Villa, more than seven pages of

⁶⁹⁶ William Macdonald and John A Pinto, *Hadrian's Villa and its Legacy*, Yale University Press, 1995, p. 114.

⁶⁹⁷ *Ibid.*, p. 112.

⁶⁹⁸ Four Ionic order in front of entrance were not reconstructed in the earlier photograph. Compare with Henri Stierlin, *The Roman Empire*, vol. I, Taschen, 1996, p. 165.

sketches were devoted to the end apse of the Canopus. He redrew some of these sketches post dated as 1910⁶⁹⁹ and used them as an inspiration for the scheme of La Sainte-Baume. Later, he reinterpreted them into the chapel towers of Ronchamp.

His sketch recorded the site of Hadrian's Villa, which was annotated with the orientation (left, right, buried in a hill), darkness of the half vault, its dimension and light quality (this form and the appeal of light is beautiful (*cet appel de lumière est beau*)). Comparing the two photographs of the Scenic Triclinium (figs. 5.45, 5.46) with his sketches of the same site, one can tell that in his sketches, the rough texture of the ruin, the lighting from above and the proportion of elements were precisely observed and are well presented.

Hadrian's Villa is inspiring as a large-scale composition and a small cellular construction, natural undulating sites and flat ordered planning, the integral, reconstructed building and dissected ruin. Lit through the opening and the sensation of volume are all manifested in Le Corbusier's later architecture. It was normal for him to visit Rome, Pompeii and Tivoli as part of his education, but 'only his acute sense of modernity enabled him to draw momentous conclusions from the "Lesson of Rome"...The mediation of the grand abstraction in every detail recommended Roman architecture to him as a point of departure for the solution of contemporary problems.'⁷⁰⁰

Many other modern architects visited Rome and made their own interpretation. Louis Kahn, for example, took a similar journey and afterwards his architectural language was full of

⁶⁹⁹ This journey was in 1911, as noted in most of data such as H. Allen Brooks, *Le Corbusier's Formative Years*, p. 300.

⁷⁰⁰ Kurt W. Foster, 'Antiquity and Modernity in the La Roche-Jeanneret House of 1923', *Oppositions Reader*, 1998, p. 464.

arches and bricks. Le Corbusier's vision focused more on geometry, lighting, promenade and sensation, rather than the dome, vault or arch. His designs, however, have a few segmental or Catalan arches (e.g. the ceiling of the Maison de Weekend) or parabolic arch (for example the Palace of the Soviets).

Medieval Architecture

The Middle Ages are distant but remain present in the modern sense through religion and media, such as painting, literature, architecture and other artefacts. Le Corbusier read Ruskin's writings and was influenced by his medievalism. Unlike the Parthenon, which has reached an apogee in Le Corbusier's mind, the Middle Ages represented a progression of development; 'The Barbarian is there, with a striving after culture. This year of 1300 is not a culmination, the Barbarian is still too near at hand.'⁷⁰¹ 'With a primitive but admirably ingenious equipment invented in the Middle Ages, it inscribed certain points of great splendour in the eighteenth century.'⁷⁰²

When Le Corbusier travelled to Italy in 1907, his preference was for the medieval architecture. His favourite buildings were the cathedrals of Pisa and Milan, the Doges' Palace and S. Marco in Venice, Palazzo Vecchio, the Or San Michele and the Bargello courtyard in Florence, but not the architecture of the Renaissance.⁷⁰³ His interest in these buildings was more about decorative arts than architecture. He later studied three major Gothic cathedrals in depth: Chartres, Rouen and Notre Dame in Paris. Many sketches were dedicated to the Chartres Cathedral, on which he noted with a sentimental tone: *Cette*

⁷⁰¹ Le Corbusier, *The City of Tomorrow and its Planning*, p. 51.

⁷⁰² *Ibid.*, p. 56.

⁷⁰³ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 96.

*cathédrale est aussi bien Maison au DÉMON qu'à DIEU. L'héroïsme tragique de pierre vaut un portique d'Enfer.*⁷⁰⁴ While working for Perret, Le Corbusier spent afternoons in Notre-Dame in Paris and studied the details thoroughly. To him, it was an ideal example of his 'regulating lines' and a Gothic epic poem. The Gothic plan and shape, he maintained, are magnificent, sparkling with ingenuity⁷⁰⁵ and an astonishing climax for engineers. He discussed Rouen Cathedral with 'its evident desire for order; but lacking completely that calm and balance which witness to mature civilization.'⁷⁰⁶ When he elaborated the natural right angle in Brittany, which evoked the Parthenon with its sublime entablature it was contrasted with the aborted and unaccomplished Butter Tower of Rouen and the flamboyant Gothic vaults, for which so much "unused" genius was spent without achieving the brilliance of the Parthenon.⁷⁰⁷ He further stated in *Towards a New Architecture* that gothic architecture is a great achievement but is not based on prisms and thus not plastic.⁷⁰⁸

In short, Gothic architecture achieves its regulating lines, plan and engineering construction, but is not plastic or pure enough because of its non-prismatic composition. On the other hand, to Le Corbusier, Romanesque architecture seemed more successful. For the cathedral complex of Pisa, he noted: 'cylinders, spheres, cones, cubes.'⁷⁰⁹ When he designed the Palace of the Soviets, his boldest constructivist project, he drew it along with the cathedral

⁷⁰⁴ To William Ritter and Janko Cadra, in *Le Corbusier: le passé à réaction poétique*, p. 90.

⁷⁰⁵ Le Corbusier, *The Decorative Art of Today*, pp. 204-5.

⁷⁰⁶ Le Corbusier, *The City of Tomorrow and its Planning*, p. 50.

⁷⁰⁷ Le Corbusier, *Precisions*, pp. 75-6.

⁷⁰⁸ 'Gothic architecture is not, fundamentally, based on-spheres, cones and cylinders. Only the nave is an expression of a simple form, but of a complex geometry of the second order (intersecting arches). It is for that reason that a cathedral is not very beautiful and that we search in it for compensations of a subjective kind outside plastic art. A cathedral interests us as the ingenious solution of a difficult problem, but a problem of which the postulates have been badly stated because they do not proceed from the great primary forms. *The cathedral is not a plastic work; it is a drama; a fight against the force of gravity, which is a sensation of a sentimental nature.*' Le Corbusier, *Towards a New Architecture*, p. 30.

⁷⁰⁹ Le Corbusier, *The City of Tomorrow and its Planning*, p. 73.

complex of Pisa, and published it in *Oeuvre complète* vol. 2. ‘The Pisa studies, along with those from the Acropolis in Athens, have become emblematic of Le Corbusier’s “heroic” urban landscape study.’⁷¹⁰ He stated in 1911 that Pisa, instead of Florence, had been and remained his first love.⁷¹¹

Le Corbusier’s attitude towards Gothic architecture gradually changed after 1930. The Gothic style ceased at that time to be either explicitly or implicitly opposed in his mind to the pure forms of Mediterranean classicism.⁷¹² In *The Radiant City*, Notre-Dame in Paris stands in line with his Plan Voisin (Horizontal skyscrapers), against the undulating skyline of New York as ‘tumult, bristling chaos...new medievalism.’⁷¹³ The Middle Ages, in his treatise of 1937, ‘falsely seem to us like a massacre...[but] everywhere you could see the eager search for the law of harmony.’⁷¹⁴ They were later glorified again in the following publications.⁷¹⁵

Le Corbusier also studied the decorative arts of this period. On his journey to northern Italy in 1907, he was less occupied with three-dimensional architecture than two-dimensional work. ‘It was painting and decorative art, not architecture, that pleased him most and it was the late Middle Ages, with its stylistic continuance into the fifteenth century, that he especially admired.’⁷¹⁶ In the Museums of Comparative Sculpture (Musée de Sculpture comparée, later Musée des Monuments Française) in the Trocadéro, Paris, he had sketched many Romanesque and Gothic examples. This museum was initially set up by

⁷¹⁰ Stanislaus von Moos, ‘Pisa’ in Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier, Applied Arts, Architecture, Painting, Photography, 1907-1922*, c2002, p. 194.

⁷¹¹ H. Allen Brooks, *Le Corbusier’s Formative Years*, p. 301.

⁷¹² Pierre Vaisse, ‘Le Corbusier and the Gothic’, in Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier*, p. 53.

⁷¹³ Le Corbusier, *The Radiant City*, p. 133.

⁷¹⁴ Le Corbusier, *When the Cathedrals Were White*, p. 6.

⁷¹⁵ Pierre Vaisse, ‘Le Corbusier and the Gothic’, in Stanislaus von Moos and Arthur Rüegg, ed., *Le Corbusier before Le Corbusier*, p. 53.

⁷¹⁶ H. Allen Brooks, *Le Corbusier’s Formative Years*, p. 97.

Viollet-le-Duc to gather casts of the best monuments of the medieval art and French national art from the eleventh to the sixteenth centuries. Much of Le Corbusier's study was later published in *The Decorative Art of Today*,⁷¹⁷ such as a Romanesque sidewall with a gate in Tarn-et-Garonne (FLC 5863) and a typanum of St. Pierre in Carennac (FLC 1909). Other instances of different stages of art were the details of a stall in Amiens cathedral with a herd of cattle (FLC5380) and a capital from a church at Poissy (FLC 5864). He thought that medieval art went beyond folk culture through carrying observation and the exercise of free will. This herd of cattles whose uncontrolled mass overflows the limits which a more pedestrian imagination has assigned to it. (...*dont la masse informe déborde des cadres qu'une sagesse plus assie leur eût assignés*).⁷¹⁸ Romanesque art is 'the prolongation of a marvellous civilization,...it reflects the continuing influence of mathematics, albeit heavily, but everywhere its healthy and vital forces manage to synthesize the forces of nature'.⁷¹⁹ Apart from this museum, there were many others he visited for study, such as the tapestry of 'La Dame à la Licorne' in the Cluny Museum, and a lot more in the Louvre, such as Byzantine arts of Ravenna and Medieval art of northern Italy. The study may have inspired his later graphic works, such as his icon of a winged female with a unicorn after 1950. This way of inspiration will be discussed in chapter seven.

Venice – Vernacular

Le Corbusier praised the folk architecture of Venice for being rooted in the environment, but

⁷¹⁷ Publication of those following drawings: Sidewall of a gate: FLC 5863, *Decorative* p. 197; Typanum of St. Pierre church FLC 1909, *Decorative* p. 201; Stall of cattle: FLC5380, *Decorative* p. 123; A capital at Poissy: FLC 5864, *Decorative* p. 123. Also see the *passé*, 1.10.

⁷¹⁸ Le Corbusier, *The Decorative Art of Today*, p. 122. The English translation is not very clear here, attached French version from *L'Art décoratif d'aujourd'hui*, p. 124.

⁷¹⁹ Le Corbusier, *The Decorative Art of Today*, p. 122.

criticized that of the High Renaissance for being not vernacular. He denounced architects as being rootless during the Fourth *Entretien d'Art* at the Ducal Palace in July 1934:

The house, the little bridge, the quays and the piles of Venice were made without 'architect.' Everything was rooted in the environment. Then came the 'architects'; with them the great palaces of the High Renaissance. They are all without roots (architects and palaces).⁷²⁰

The High Renaissance palaces that Le Corbusier criticized did not include the Doges' Palace.⁷²¹ He once sketched the details of its gallery in the same fashion as John Ruskin's in *The Stones of Venice*. In a letter to L'Eplattenier, Le Corbusier said 'the Doge's Palace, St. Mark's, and the Ca d'Oro were the "pearls" of the city.'⁷²² Moreover, no Venetian buildings after the 1300s were ever mentioned by him.⁷²³ What bothered him may have been some of the palaces discussed in the conference, or some buildings near Doges' Palace, such as the Sansovino's library (begun in 1536), or perhaps the *Loggetta* at the foot of the medieval Campanile (in 1537), and Scamozzi's *Procuratie Nuove* (1586-1616), which all fall within the High Renaissance.

Le Corbusier, however, praised the folk architecture 'without architect' and Venice, a city of joy, peace in mind and precision. 'The pedestrian is king: he has never lost his dignity.' He maintained: 'Have you noticed how gay and proud are the people of Venice? Gay because they are on their feet, free to go where they like, never in danger, never jostled, never bothered; happy to be alive and living in a city of serenity.' Moreover, Venice is a functional city: '... Venice is a perfectly conceived machine, a clever set of precision instruments, an

⁷²⁰ Le Corbusier, *Aircraft*, notes next to fig.33 and 34.

⁷²¹ Built in c. 1345 – c. 1365, with a façade of the 1420s, in Gothic style.

⁷²² A letter to L'Eplattenier on November 1st, 1907. See H. Allen Brooks, *Le Corbusier's Formative Years*, p. 114.

⁷²³ *Ibid.*

accurate product of true human dimensions.⁷²⁴ Here though the city is not arranged rectilinearly, every piece of the folk architecture rooted in the environment is precise, functional, human and pleasant.

The Modern City and a Social Laboratory: the Collective and Individual in a Carthusian Monastery

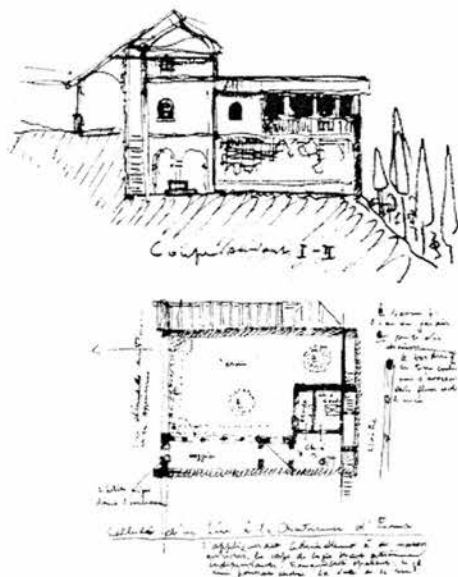


Fig. 5.47 Le Corbusier, the plan and cross section of a cell for a monk, Carthusian Monastery, 1907.

Petit, Jean, *Le Corbusier lui-même*, p. 43.

The Carthusian Monastery near Florence is a large-scale building complex of the late Middle Ages, which Le Corbusier visited in 1907 and 1911 (fig. 5.47). There, ‘he underwent the most profound architectural experience of this life’⁷²⁵ and was deeply inspired by the idea of the building complex in which individual and communal life could coexist. Ideas derived from this monastery formed the basis of his Immeuble-Villas of 1922 and numerous Unités d’Habitations.

This order was founded by St. Bruno in France in 1084. The monastery was consecrated in

⁷²⁴ Le Corbusier, *The Radiant City*, p. 269.

⁷²⁵ H. Allen Brooks, *Le Corbusier’s Formative Years*, p. 105.

1395 but most of the structures were remodelled in the seventeenth century. In 1957, the monks left and the monastery was turned over to the Cistercian Order.⁷²⁶ In the large complex, Le Corbusier was fascinated by the cloister, which is composed of a big central courtyard surrounded by the dwelling units for the monks. All of them are very pure, simple and sparsely decorated. Each solitary monk stayed in his own living unit, which is delicately composed of modest rooms and a small garden with a cistern and plants. There was a workshop and wood-shed on the ground floor; on the upper floor, at the same level as the walkway of the cloister, there was an entrance hall and three rooms for dining, studying and sleeping. Daily meals were brought in through a small square door in the cloister wall. Each monk was permitted to come out only for the liturgical celebrations and feast days.⁷²⁷

In 1929, when Le Corbusier discussed the dwelling of the human scale, he emphasized that what initiated this study was his visit to the Carthusian Monastery close to the Ema River near Florence. 'In the musical landscape of Tuscany', he said,

I saw a *modern city* crowing a hill. The noblest silhouette in the landscape, an uninterrupted crown of monks' cells; each cell has a view on the plain, and opens on a lower level on an entirely closed garden... This 'modern city' dates from the fifteenth century.⁷²⁸

This 'modern city' is in fact isolated on the top of a hill in the countryside next to the village of Galluzzo, around a half hour's drive from Florence. The building complex is pure, ordered by the right angle, and is a self-sufficient world, which foreshadows Le Corbusier's later project for an ideal city, the Unité d'Habitation. He noted in his *Oeuvre complète* vol. 5 that the theme of the Unité d'Habitation initially came to mind during his first visit to the

Carthusian Monastery in 1907:

⁷²⁶ P. Goffredo Viti, *The Chartreuse of Florence*, trans. Anan Moore Valeri, Monaci Cistercensi della Certosa, 1994, p. 1.

⁷²⁷ P. Goffredo Viti, *The Chartreuse of Florence*, p. 25.

⁷²⁸ Le Corbusier, *Precisions*, p. 91.

It [the Chartreuse] appeared in my plans at the Salon d'Automne in 1922: a contemporary town for 3 million inhabitants: 'les Immeubles Villas' and again at the Pavillon de l'Esprit Nouveau in 1925. It did not cease to haunt me throughout all the projects on which I worked so indefatigably during the next 30 years (town plans for large and small towns, etc.)⁷²⁹

Again, the Unité d'Habitation of individual collectivity is 'a social laboratory':

The key to all that, appearing again after fifty years, was the visit to the Carthusian Monastery at Ema in Tuscany in 1907: the appearance of a possible harmony, fashioned a thousand years before, but transposable to the present since involving the indissoluble binomial – 'individual collectivity'. The monastery of Ema has shown the way...this realization is a social laboratory – first Marseille-Michelet with an extremely variable and heterogeneous population...⁷³⁰

In 1911, on his way to the East, a small village near Baja, Hungary, reminded him of the Carthusian Monastery of Ema. Le Corbusier looked for 'a country that had retained its integral character.' There, he and his friend, Auguste Klipstein, found a pottery shop, which nestled at the edge of an exquisite courtyard. In this village, the streets were straight, broad and at right angle. The houses were lined up and each had its own courtyard. He described:

...branches of climbing roses fill with enchantment the courtyards behind them. Imagine these courtyards to be like a room, a summer room. Since all the houses are equally spaced from the enclosure wall, their windows open only on one side, behind an arcade. Thus each house has its own courtyard, and the intimacy in them is as perfect as in the gardens of the Carthusian Monastery of Ema...Beauty, joy, serenity gather here...its white arcades bring comfort, and the three great whitewash walls, which are repainted each spring, make a screen as decorative as the background of Persian ceramics.⁷³¹

Some elements reappeared in his later designs. The plank desk, in the monk's dwelling unit of the Monastery at Ema and attached to the wall at one end next to a screen with an aperture, which he must have seen, was adopted in the garden of his mother's house by Lake Léman and in the elevated courtyard of the Villa Savoye.

⁷²⁹ Le Corbusier, *O.C.* 5, p. 191.

⁷³⁰ Le Corbusier, *O.C.* 6, p. 176.

⁷³¹ Le Corbusier, *Journey to the East*, p. 23.

Part III. Folk Houses in the Balkans and Istanbul

The first image of his *Oeuvre complète* vol. 1 begins with Balkan and Turkish architecture. This area has been the threshold between Europe and the Orient. The Balkans were part of the Ottoman Empire for centuries and their diverse cultures have mixed with the influences from Turkey, Slavic people, Greece and central European countries. Both Turkish and Bulgarian folk houses have their native origins, but were also influenced by other areas. In the Ottoman Empire, several regional cultures with their traditional materials and architectural forms co-existed simultaneously. Their traditional buildings do not vary greatly.⁷³² In Bulgaria there has been a vernacular revival since the nineteenth century when the ruling power of the Ottoman Empire declined.⁷³³ In Turkey the most highly developed classical type of Turkish house can be seen in Bursa and Istanbul.⁷³⁴ Here, east of the Mediterranean region, the weather is warmer so the architectural features are different from those of Western Europe. Le Corbusier was fascinated by the wooden folk house in this area, and made many sketches and photographs of them during his 'journey to the East'. He visited Tŭrnovo (Veliko Turnovo), Karanlik (Kazanlık) and Stara Zagora in Bulgaria; Edirne (Adrianople), Istanbul and Bursa in Turkey. Before this journey, Le Corbusier became acquainted with William Ritter while in Germany. He was influenced by Ritter's writing, in which the settings are usually the Slavic countries and there is an enthusiasm for their peasant life.

⁷³² Doğan Kuban, 'Architecture of the Ottoman Period' in Ekrem Akurgal, ed. *The Art and Architecture of Turkey*, Oxford: Oxford University Press, 1980, pp. 167-8.

⁷³³ Stefan Stamov, ed., *The Architectural Heritage of Bulgaria*, Sofia: Union of Architects in Bulgaria, Tehnika, 1972, p. 173.

⁷³⁴ Behçet Ünsal, *Turkish Islamic Architecture in Seljuk and Ottoman Times, 1071-1923*, London: Tiranti, 1959, p. 70.

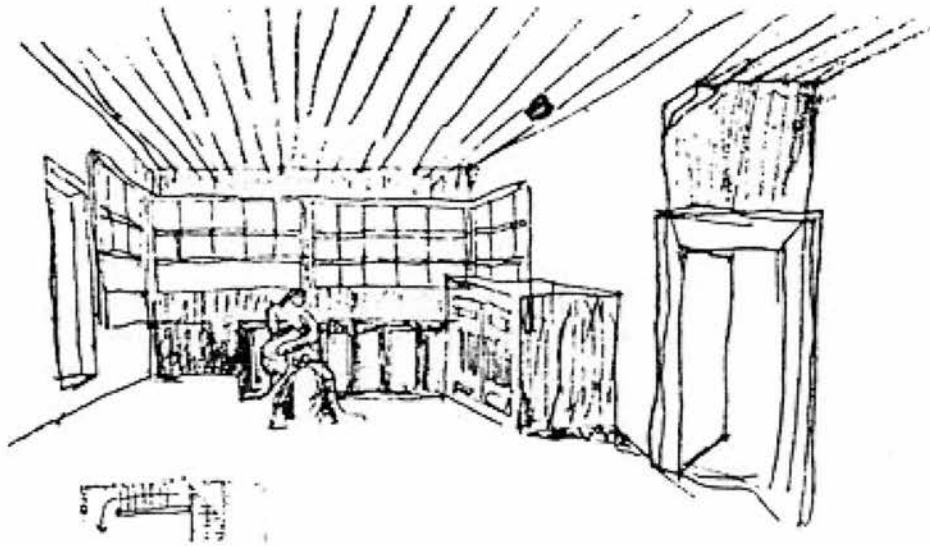


Fig. 5.48 Le Corbusier, Interior of a house in Tŭrnovo. *Oeuvre complète* vol. 1, p. 17.

In Tŭrnovo, Le Corbusier spent a long time wandering through the streets. He visited a house and sketched its interior (fig. 5.48), where it had a ‘fenêtre en longueur’, a key feature of his manifesto ‘Five Points towards a New Architecture’ in 1926. He noted during his journey: ‘Each house has its main room; a very large window, wider than it is tall and checkered with windowpanes, opens out on the trees and flowers of the garden...the window takes up the entire wall.’⁷³⁵ He also observed a sofa next to a big window in a room; he studied its arrangement, materials and dimensions.⁷³⁶

Such a horizontal window is a typical style in the Balkans and a certain areas of Turkey. It projects and overhangs from the main structure. It could be one of Le Corbusier’s sources for his ‘horizontal window’ or the ‘glass curtain wall.’

⁷³⁵ Le Corbusier, *Journey to the East*, Cambridge, Mass.; London: MIT Press, 1987, pp. 60-2.

⁷³⁶ Le Corbusier, *Voyage d'Orient, Carnet I*, p. 73.

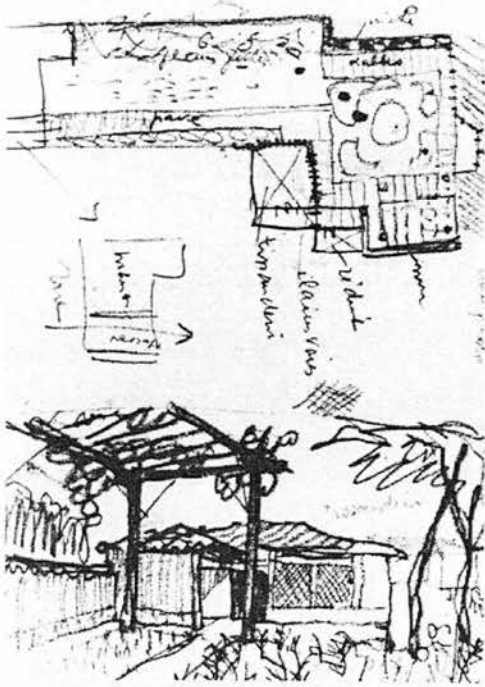


Fig. 5.49 Le Corbusier, a house in Karanlik, Bulgaria. Top: garden plan; below: viewed from garden and to the house. (FLC 6072)

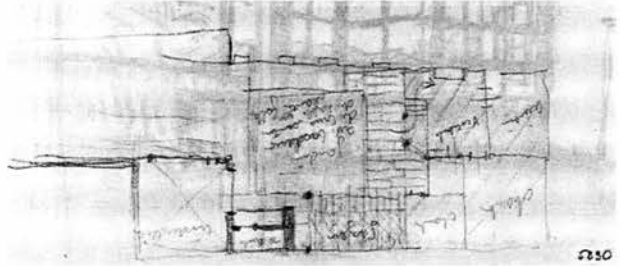


Fig. 5.50 Le Corbusier, plan of house (right part) and garden (left part, link to the left garden plan) (FLC 5890).

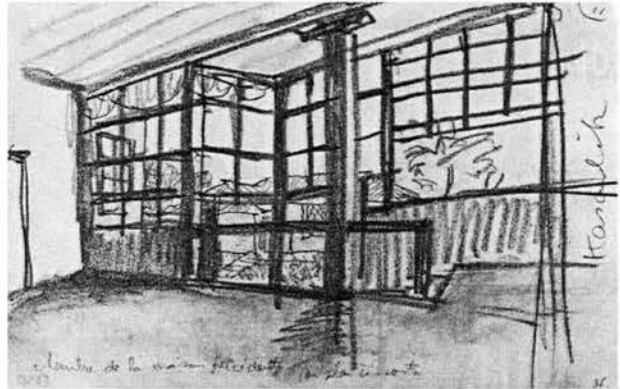


Fig. 5.51 Le Corbusier, interior of the house in Karanlik, viewed from vestibule towards the entry and garden. (Reverse side of FLC 5890)

After Tŭrnovo, Le Corbusier visited Karanlik (Kazanlŭk) in Bulgaria and sketched quite a lot and took photographs of the local folk houses. He studied a local house with a garden (figs. 5.49-5.51), where he drew the garden plan and building plan, interior and exterior perspectives, with notes on the name of each area. It was the first example exhibited in the first volume of *Oeuvre complète*. From a street through a passage next to the house, a long pavement covered by trellis leads to the inner garden and house. The whole composition is arranged in a rectangular but asymmetrical setting, where people walk along the shifting and turning axes. The vestibule (fig. 5.51) is a room with asymmetrical projecting glass window-walls and a stair down to the left to the garden. In the drawing, the movement of vision is layered firstly the floor with shadows as the foreground, secondly the column and balustrade in the middle ground, then stair and projecting window, followed by the trees in

the garden, and finally reaches the other houses in the distance.

Thus the whole composition, except the low pitch roof, could be modern architecture. The long path to the entrance from the street and a passage through a front house all corresponds to Le Corbusier's Villa Stein. At the end of the path, there is even an expanding courtyard with a high tree on the right. The shifting axes in the rectangular setting could be comparable to his later studies of Pompeian houses, but the components of wooden houses are lighter and more freely arranged for its larger wall openings, floor spans and overhanging, more suitable for the application of reinforced concrete than masonry structures. Since these houses were built with timbers, 'their plastic character was of a geometrical nature'⁷³⁷ rather than other folk building using mud or rough concrete. These wooden folk houses brought great influence on Le Corbusier's modern architectural language.

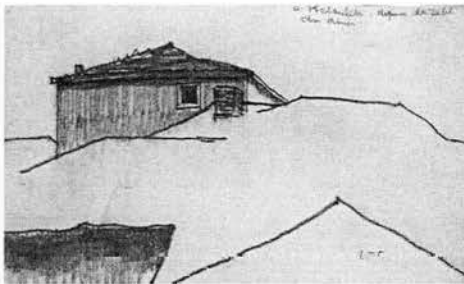


Fig. 5.52 Le Corbusier, a house in Karanlık, Bulgaria. (FLC 6094)



Fig. 5.53 Le Corbusier, a house in Istanbul. LC, *The Decorative Art of Today*, p. 209.

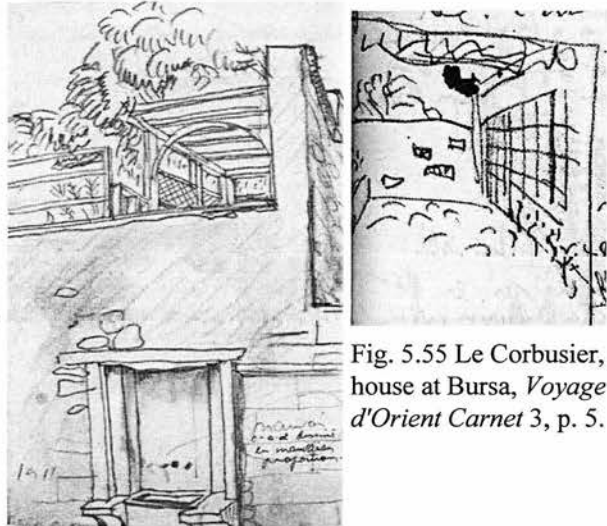


Fig. 5.54 Le Corbusier, a hanging garden in Istanbul. (FLC 6100)

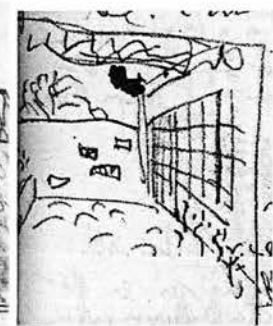


Fig. 5.55 Le Corbusier, A house at Bursa, *Voyage d'Orient Carnet 3*, p. 5.

⁷³⁷ Doğan Kuban, 'Architecture of the Ottoman Period' in Akurgal, Ekrem, ed., *The Art and Architecture of Turkey*, Oxford: Oxford University Press, 1980, p. 168.

A further example close to a modern design is Le Corbusier's drawing of a house in Karanlik (fig. 5.52), where the building is exhibited as a pure box rooted in a hilly topography. A cubic wooden house in Istanbul (fig. 5.53) with simple volume may anticipate numerous of his modernist work, such as the Villa at Vaucresson and the Maison Guiette. A sketch of a garden with trellis and an arch above a retaining wall (fig. 5.54) might foreshadow that of Villa Jeanneret-Perret and his idea of a hanging garden. A trellis detached from a house could have inspired Le Corbusier's later work, reflected in his design of the trellis on the roof garden of staggered houses in Pessac (1924) and the Weissenhof Apartments in Stuttgart (1927).

The whitewashed wall is another feature of this area. Le Corbusier's fascination with such walls began at this time. The wall during this period involved complex issues such as hygiene and purity of that period and his moral concern. In Tŭrnovo, he noted,

Each spring, the house that one loves receives its new coat: sparkling white, it smiles the whole summer...the rooms are whitewashed, and the white is so beautiful...Already last year I had become enthused over the decorative power that people and things take on when seen against the white of peasant rooms. Serbia, Rumania, Bulgaria, Constantinople, and Athos, from which I have just returned, have once again confirmed this impression.⁷³⁸

While in Istanbul, Le Corbusier was interested in the wooden house but could study only its exterior since most were private. He studied dozens of street scenes on the arrangements of building exteriors, massing, entrances and walls. Many observers have commented on the remarkable similarities between the sketches of the rectangular buildings along streets of Istanbul and his early designs for the Dom-ino project published in 1923 in *Towards a New*

⁷³⁸ Le Corbusier, *Journey to the East*, Cambridge, Mass.; London: MIT Press, 1987, p. 60.

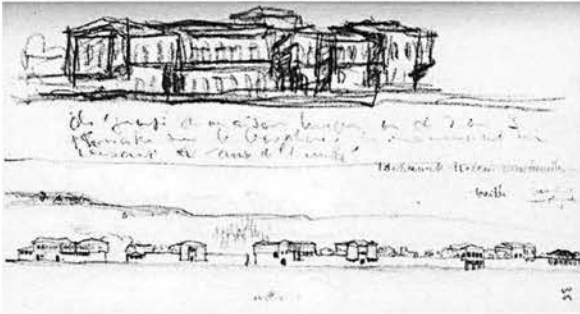


Fig. 5.56 Le Corbusier, Bosphorus. LC, *Voyage d'Orient Canets* 3, p. 35.

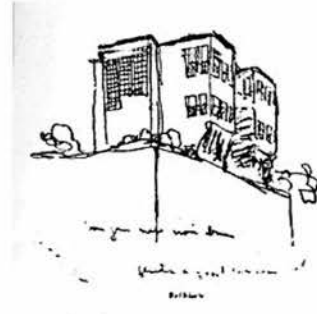


Fig. 5.57 Similar wooden buildings along Bosphorus. Behçet Ünal, *Turkish Islamic Architecture*, photograph 166.

Fig. 5.58 Le Corbusier, Buildings in Bosphorus. LC, *My Work*, p. 31.



122. ISTANBUL. Köşeroglu yalısı

A series of geometrical rectangular units with a rhythm of projection and recession existed along the shores of the Bosphorus, as Le Corbusier observed and sketched the Turkish *Konarks* (mansion) group (figs. 5.56-5.58). He commented on them as a monument and they had been well preserved because of the unity.⁷⁴⁰

Though he could not enter private Turkish houses in Istanbul, he had experienced the interiors of Balkan and other houses, which could be referred to those he saw afterwards. For instance, the Turkish house in Bursa (Fig. 5.55), as Le Corbusier observed, 'gives again the lesson of Kasanlic and / Baya [Baja]. The principle is / precise...A / trellised vineyard covers

⁷³⁹ Giuliano Gresleri, 'Catalogue', in *Le Corbusier before Le Corbusier, Applied Arts, Architecture, Painting, Photography, 1907-1922*, New Haven, Conn.; London: Yale University Press, c2002, p. 180.

⁷⁴⁰ 'Le monumental est conservé à cause de l'unité.' Le Corbusier, *Voyage d'Orient, Carnet III*, p. 35.

/ a part. Geometry / windows on the right / wall on the left'.⁷⁴¹ The whole architectural experience in this region was a meaningful lesson for Le Corbusier, and contributed much to his modern architectural language.

The mosque in Istanbul was very inspiring to Le Corbusier. As he observed, its interior was spacious so its worshippers could feel at ease, and the internal height made its visitors experience the immensity within a simple form.⁷⁴² The mosque in Istanbul is in the orders of a square, cube and sphere,⁷⁴³ with an orientation towards Mecca in unity with the faith.⁷⁴⁴ Further discussion of this follows in chapter eight.

To Le Corbusier, the European examples were extremely important as they offered direct three-dimensional architectural experiences, which serve as close references to his future architectural compositions. They were not only more accessible to him, but were also rooted in his most familiar surroundings. His selection of resources was based on both the principles of his ideal compositions, such as a clear geometry and order, and maintained a distance from academicism. Many of these principles were similarly applied to his Oriental sources, and will be discussed in the next chapter.

⁷⁴¹ 'Les maison torques de Brousse redonnent les/ cours de Kasanlic et/ Baya. Le principe se/ précise... Une / treille couvre / 1 partie. Geometrie / des fenêtres à droite / mur à gauche.' Le Corbusier, *Voyage d'Orient Carnets*, English edition, c2002. Carnet III, p. 5. Kasanlic is in Bulgaria, and the Baya [Baja] is in Danube, near south border of Hungary.

⁷⁴² Le Corbusier, *Journey to the East*, p. 100.

⁷⁴³ Le Corbusier also discussed the prism of square, cube and sphere on the architecture of Rome and Pisa Cathedral.

⁷⁴⁴ *Ibid.*, p. 104.

Chapter Six Inspiration from Other Cultures (II) The Orient and Others

Since the fall of ancient of civilization...there has been revolutionary thought only when there has been a new source of knowledge, such as the Crusades, the fall of Constantinople, or the discovery of America...Suddenly ethnography, a modern science, offered us the opportunity to readjust our points of view.

--- Le Corbusier, *Le Corbusier Talks with Students*, p. 85.

Non-European civilizations and cultures were meaningful to Le Corbusier and will be examined in this chapter with reference of his works 'La Construction des villes', *L'Esprit nouveau* series and *Une Maison - un palais*. Similar to the forementioned European instances, his first *Oeuvre complète*⁷⁴⁵ does not begin with his modernist design, but instead, with his study of distant architectures such as some Chinese, Japanese, Indian and Cambodian examples.

In 'La Construction des villes', there are a few East Asian examples but nothing from the Middle East, Africa or America is found in his data file.⁷⁴⁶ Le Corbusier intentionally encompassed those cultures as shown in the notes in *Sketchbooks A1*.⁷⁴⁷ In the Asian examples, there are drawings of a Japanese house and a temple, one each of Indian and Cambodian temples, and eight of Chinese temples, gardens and palaces. This treatise, revealing Le Corbusier's earlier interest in representative cities and architecture, informs the construction of his ideal city. His primitivist tendency at this point was primarily directed towards the earlier European examples, with certain examples from East Asia, especially ancient China.

⁷⁴⁵ Le Corbusier, *Oeuvre complète 1910-1929*, p. 21.

⁷⁴⁶ See 'Index des Lieux' in Philippe Duboy, *Architecture de la ville: Culture et triomphe de L'Urbanisme, CH.E. Jeanneret, 'La Construction des villes', Bibliothèque Nationale de Paris, 1915, Ministère de L'Urbanisme, du Logement et des Transports, 1985.*

⁷⁴⁷ Le Corbusier, *Sketchbooks A1*, No. 56-71,152.

Mesopotamian and Persian cases had not yet been incorporated in this treatise, but he should have had some understanding of the art of that region from Owen Jones' book. The regulating lines of a Persian temple were studied and recorded in his sketchbooks in 1915. Many historical accounts attracted his attention, such as Marcel Auguste Dieulafoy's *L'art antique de la Perse*. The geographical scope was later expanded, and in *L'Esprit nouveau*, the extent of foreign cultures was significantly increased. Furthermore, examples of the Middle East and Africa were consolidated in this and later publications.

Le Corbusier's journey to the East in 1911 ended at Istanbul, but he intended to explore further. He had never been to China, nor visited Egypt or Japan until late in his life. He was exposed to these cultures through publications and artefacts in museums. These sources might be regarded in the context of Negrophilia or Orientalism. The influences were less direct than European ones, but were nonetheless inspiring and illuminating. His travel experiences of three-dimensional architecture were transformed and saved in drawings, photographs and notes. He was a writer and a decorator; thus he could bridge the gap between a text and reality, and also between an artefact and its background.

Part I. Africa

Le Corbusier studied many African tribal artworks and architectures in addition to the Egyptian examples. He had projects in North Africa such as an urban design for Algiers and another architectural one in Tunisia. He also owned artworks from the French colonies, such as statues from Dahomey. The 'Bongo hut' in *The City of Tomorrow and its Planning* was sourced from German publications; while artefacts, such as a statue of a Nimba goddess,

which he studied in museums, were published in *The Decorative of Art Today*.

Bongo Hut

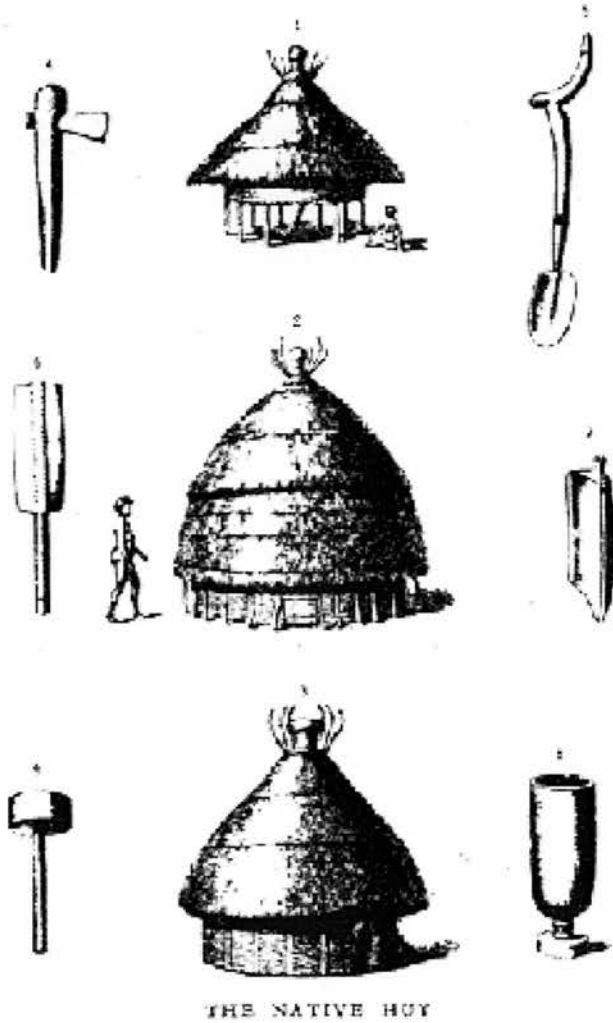


Fig. 6.1 Bongo hut. Le Corbusier, *The City of Tomorrow*, p. 36.

The drawings of a primitive hut in *The City of Tomorrow* (fig. 6.1) provide a model for a discussion on 'order'. Le Corbusier maintained that the house, street, and town, as the focuses to which human energy is directed, should reflect human order. These African conical huts, being natural, geometrical and pure, serve as excellent examples. He wrote:

'The prehistoric lake village; the savage's hut; the Egyptian house and temple; Babylon, the

legend of which is a synonym for magnificence...on the other hand, they are evidence of a spirit working right up to the limits of its own force and grandeur.⁷⁴⁸ The key issue of nature is order: '...the spirit which animates nature is a spirit of order.'⁷⁴⁹ In the book, the concentric order of this hut echoes the city plan of Palmanova as in his work the order is manifested in various scales and media. This sense of order, either concentric or rectilinear, is manifested in his books, painting, architecture, and notably his urban design.

As usual, Le Corbusier did not specify the source of these drawings. They are reproductions from *Artes africanae: Illustrations and Descriptions of Productions of the Industrial Arts of Central African Tribes*, TAB. VI. The author, Dr. Georg August Schweinfurth, recorded his adventures in the unexplored regions of Central Africa between 1868 and 1871. These huts and tools belong to the Bongo people who live on the middle course of the Dyoor River and the southern tributaries of the Bahr-el-Ghazal and southwestern Sudan, a region predominantly grassland. They are agriculturists, possess domestic fowls, goats and dogs, and they hunt and fish according to the seasons and locality.⁷⁵⁰ The ground on which the huts are situated is well levelled. On the ground, corn is thrashed and winnowed, and tobacco leaves are scattered and dry out. For their dwellings, they invariably adopt a conical shape. The building materials consist of upright tree trunks, plaited faggots, bamboo, clay of the mushroom-shaped white-ant hills, tough grass and bast (phloem) of the *Grewia*.⁷⁵¹

In these drawings, the first conical hut at the central top (no.1) is a 5 to 6 metres high

⁷⁴⁸ Le Corbusier, *The City of Tomorrow and its Planning*, pp. 42-3.

⁷⁴⁹ *Ibid.*, p. 37.

⁷⁵⁰ Georg August Schweinfurth, *Artes africanae: Illustrations and Descriptions of Productions of the Industrial Arts of Central African Tribes*, Leipzig: F.A. Brockhaus London: S. Low, Marston, Low, and Searle, 1875, III.

⁷⁵¹ Georg August Schweinfurth, *The Heart of Africa: Three Years' Travels and Adventures in the Unexplored Regions of Central Africa, from 1868-1871*, 2nd ed., London: Sampson Low, Marston, Low, and Searle, 1874, v.1, p. 276.

storehouse for corn. The wooden 'pilotis' creates an open ground level, so the upper space is moisture free. A ladder in the centre goes up to the interior space. The application of pilotis and elevated space may well have inspired Le Corbusier's 'Five Points towards A New Architecture'. In some smaller Bongo storehouses, the entire roof can be opened like a lid for convenience. On top of the roof, there are 6 to 8 horn-like curved sticks projecting out of the roof framework, which is a common characteristic of all Bongo huts.

The second and the third huts are residences, 5 to 7 metres high. The roof rests on the posts outside a free wall (middle, no.2) or is embedded in a wickerwork wall (bottom, no.3). The internal floor is covered with hard clay and lime for protection from white ants. These huts have a clear geometrical order and are developed from a natural primitive state.

The six tools next to the huts are mainly for their daily work. No.4, a hatchet for chopping wood; no. 5, an iron hoe with a handle for weeding and sowing; no.6, a threshing club; no.7, a wooden trough for making oil; no.8, a wooden mortar of a goblet shape which is a common object in Le Corbusier's painting; no.9, a wooden hammer. These objects are all primitive everyday tools and had been developed over many years. They are 'object types' and a human limb objects, according to Le Corbusier's treatise.

Most of the tools are actually between 0.5 to 0.6 metres in length but look as tall or even larger than the huts. This juxtaposition of different scales may make the hatchet or hammer look enormously big or like a huge totem. The collage of objects in different scales or various traits foreshadows Le Corbusier's Surrealist paintings in the late 1920s. For example, in *Le déjeuner près du phare*, 1928, FLC 263, there is a juxtaposition of fork, cup and a little lighthouse, the mouth of a glass and the sun.

African Art

During the art revolution in Paris, which reached its climax before World War I, an admiration of Negro sculptures was one of the enthusiasms that bound together young artists of the most varied tendencies.⁷⁵² Le Corbusier had been interested in African art since his early study in museums and later he collected many African statuettes and masks. He found African art very revealing: 'In the Ethnographic Museum at the Trocadéro: the Mexicans, the Peruvians, the Negroes. One was alone there in 1907! Not a cat! The Negroes – what a revelation! Nimba, god of maternity.'⁷⁵³

In the Trocadéro, the sculptures of Dahomey and Nimba interested him. Dahomey was at one time a militant and widespread kingdom, which became a French colony in 1872. Many prestigious courtly sculptures were shipped to Europe. Some of their bronze castings are technically equal to the best of European work.⁷⁵⁴

⁷⁵² E.H. Gombrich, *The Story of Art*, p. 562.

⁷⁵³ Le Corbusier, *The Decorative Art of Today*, p. 199. The year he mentioned may not be very precise. Trocadéro Museum is in Paris, where his first visit is in 1908.

⁷⁵⁴ Erwin O. Christensen, *Primitive Art*, New York, Thomas Y. Crowell Company, 1955, p. 27.

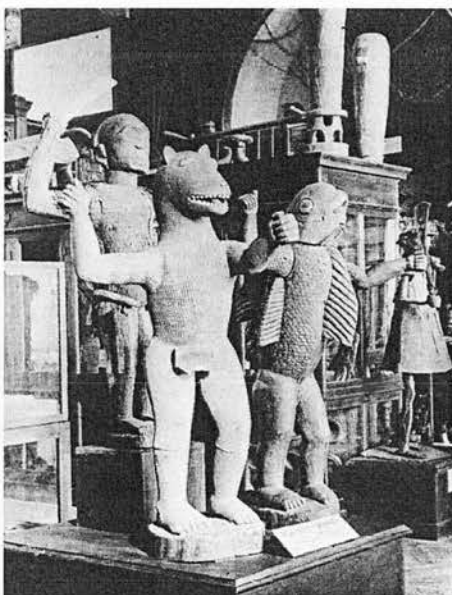


Fig. 6.2 Statues from Dahomey, Musée Ethnographique, 1895. Middle left: king *Glélé*; middle right: king *Béhanzin*. *Passé*, no.291.



Fig. 6.3 Le Corbusier, drawing of statues in Musée Ethnographique, Trocadéro, Paris. FLC, carnet no.10, dessin 3864 .



Fig. 6.4 God of war, Fon, 'Gu'. Musée de l'Homme, Paris; temporarily exhibited in Louvre. cf. *Passé* no.292. Photo by author.

Le Corbusier studied the sculptures of the King of Dahomey (figs. 6.2, 6.3), the heraldic portraits of King *Glélé* (man-lion) and King *Béhanzin* (man-shark).⁷⁵⁵ They are perfect examples of a human bestiary, on which Le Corbusier began to work in the 1930s. Among them, a life-sized wrought-iron figure was from the Fon tribe in the nineteenth century (fig. 6.4) and housed at the Musée de l'Homme in Paris. It represents Gu, the Dahoman god of war and iron. It is an 'assemblage' of metal and wood, forming a body and abstract limbs, which holds genuine weapons. It anticipated the Surrealist-Expressionist works.⁷⁵⁶

⁷⁵⁵ Michel Leiris and Jacqueline Delange, *African Art*, trans. Michael Ross, London: Thames & Hudson, 1968, p. 231.

⁷⁵⁶ Luis Pericot-Garcia, John Galloway, Andreas Lommel, *Prehistoric and Primitive Art*, London: Thames and Hudson, 1969, p. 162.



Fig. 6.5 Le Corbusier, Nimba Goddess. Annotation: NIMBA idole de la maternité Baga. Guinée. FLC 5535. LC, *Decorative Art of Today*, p. 117.

Le Corbusier also made several sketches on a statue of Nimba (fig. 6.5), one of which was later published in *Decorative Art of Today*. Nimba is the Baga goddess of fecundity.⁷⁵⁷ The Baga people belonging to the Guinea Coast, was a French colony in West Africa. This wooden sculpture is a unique shoulder-and-helmet mask, and its features are simplified and abstracted. A sense of a mysterious power is obtained through the precisely carved shapes of human breasts with a bird-like head.

By 1920, Le Corbusier embraced African art under the influence of Amédée Ozenfant and Léger. ‘Like them, he admired its geometrical, formal, mechanistic, decorative, and expressive properties.’⁷⁵⁸ Le Corbusier himself collected some African masks and statuettes (see chapter 4), and also suggested that his clients purchase African statues for interior decoration.⁷⁵⁹

Casbah and Ghardaïa, Algeria

⁷⁵⁷ Michel Leiris & Jacqueline Delange, *African Art*, trans. Michael Ross, London, Thames & Hudson, 1968, p. 141.

⁷⁵⁸ Mardges Bacon, *Le Corbusier in America*, The MIT Press, 2001 p. 221.

⁷⁵⁹ Arthur Rüegg, ‘Marcel Levailant and “La Question de mobilier”’, in: *Le Corbusier before Le Corbusier*, Yale University Press, New Haven, p. 127.

While the Bongo territory was deep in the interior of Africa, Algeria is on the Mediterranean, forming part of the traditional 'Orient'.⁷⁶⁰ In 1930 Le Corbusier began to work on an urban design for Algiers, a French colony from 1830 to 1962. His contact with Algeria began as early as 1908-9 when he worked for Perret Brothers on a working drawing of a cathedral.⁷⁶¹ The French-built new town formed the lower part of the city with wide boulevards, an opera house, cathedrals, theatres, museums and galleries. In contrast, the Casbah composed the upper part, full of labyrinthine passages, a walled fortress, the remains of a citadel, old mosques, palaces in Ottoman-style, as well as the vestiges of a traditional urban structure.

While discussing his new urban proposal for Algiers in *The Radiant City*, Le Corbusier celebrated the old quarter, the Casbah, and annotated an aerial photograph of the city: 'Pure and efficient stratification of the Casbah...not an inch is wasted.' Meanwhile, he criticized the new region: 'Harmful stratification (touching the walls of the Casbah itself) of the civilized houses...Here is the problem backwards!'⁷⁶² At this point, the 'civilized' French influence became 'backward' and retrogressive. In contrast, the vernacular Arabic houses, cool, quiet, ample, intimate, and well proportioned. He commented on two interior photographs of a local house on the same page:

O inspiring images! Arabs, are there no peoples but you who dwell in coolness and quiet, in the enchantment of proportions and the savour of humane architecture?...Arabs, you are at home within the hospitable and charming house, so clean, so measured, ample and intimate.⁷⁶³

⁷⁶⁰ Edward W. Said, *Orientalism*, p. 52.

⁷⁶¹ Ivan Žaknić, *The Final Testament of Père Corbu: a Translation and Interpretation of Mise au point*, p. 107.

⁷⁶² Le Corbusier, *The Radiant City*, p. 230.

⁷⁶³ Ibid.

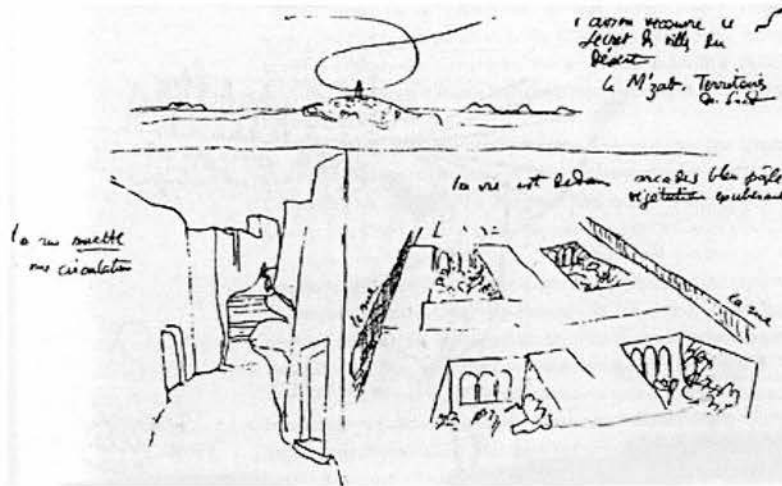


Fig. 6.6 Le Corbusier, M'zab. *The Radiant City*, p. 231.

In 1931 Le Corbusier visited some oases in M'zab, including Ghardaïa. Le Corbusier observed this village from the air and on the ground. On a sunny winter afternoon in the early 1930s⁷⁶⁴, he flew from Algiers with his friend, Durafour, who steered his little plane and swooped several times like a falcon over the towns of M'Zab and came round in a spiral (fig. 6.6). Thus Le Corbusier was able to discover the layout of the towns. 'The airplane had revealed everything to us, and what it had revealed provided a great lesson.'⁷⁶⁵ They flew over several towns in M'Zab such as Berriani, where an aerial view revealed sound biology and brilliant anatomy; Ben-Isghem, a rectilinear city: 'Such order, such decisiveness, such choice, such a sensitive instrument ready to serve men.'⁷⁶⁶ Le Corbusier recorded these with several sketches and noted:

The airplane reveals to us a miracle of sagacity, of knowing and beneficent arrangements; within, living shells, as it were, open up to the luscious greenery of gardens. The elegant line of arcades reveals a genuine civilization in the midst of the land of thirst.⁷⁶⁷

⁷⁶⁴ Another record is 'With Durafour across the Atlas (Algiers-Ghardaia), March 18, 1933.' In Le Corbusier, *Aircraft*, notes next to fig. 116.

⁷⁶⁵ Le Corbusier, *Aircraft*, p. 12.

⁷⁶⁶ Le Corbusier, *The Radiant City*, p. 231.

⁷⁶⁷ *Ibid.*

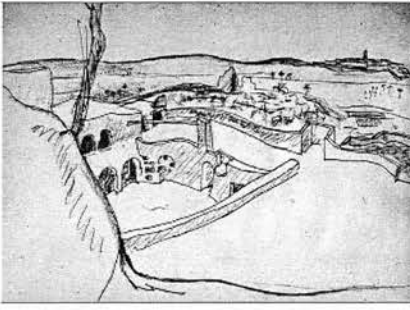


Fig. 6.7 Le Corbusier, Ghardaïa, M'zab. (FLC5230)



Fig. 6.8 Le Corbusier, The palm grove of Ghardaïa, M'zab. LC, *The Radiant City*, p. 232.

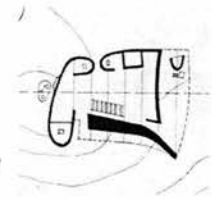


Fig. 6.9 Plan of Ronchamp. *O.C.* 6, p. 20.

He was amazed by the houses in this village (fig. 6.7), especially their function, human scale and the contrast between within and outside the wall:

The streets are completely enclosed by walls measuring 1.8 m; they are 2 m. wide. The houses are completely closed off toward the alley. But inside it is a complete and perfect tool, efficient and eminently functional, in human scale. It is all here: family, coolness, [intimacy], fruits, greenery, arabesques, and architecture. The oasis is an immense collective undertaking masterfully conceived and laid out.⁷⁶⁸

The village is composed of largely rectilinear courtyards and some irregular structures. Le Corbusier was much interested in the irregular and organic compositions. His travel sketches and observations were illustrated in *The Radiant City* (fig. 6.8), where exquisite non-rectilinear compositions of space were studied, together with the layers, depth and enclosure of space through various plans and perspectives. These irregular rooms and plaster walls may anticipate Ronchamp Chapel, as both of them are composed of curved convex and concave walls⁷⁶⁹ with several niches (compare figs. 6.8& 6.9). He was also fascinated by the standardised elements of space and composition: 'Each house is equipped in a standard way. Everything has been foreseen...the same law prevails. But what diversity: standards form a

⁷⁶⁸ Le Corbusier, *Sketchbooks I*, B7, 453-4.

⁷⁶⁹ Stanislaus von Moos, *Le Corbusier, Elements of a Synthesis*, MIT Press, 1985, p. 103.

stable basis for imagination.⁷⁷⁰

To Le Corbusier, the so-called ‘primitive’ habitation was a sort of paradise, a paradigm for human habitation that caused him to re-evaluate civilization. With the advancement in transportation, which facilitated communication and mobility, the local people no longer worked for the daily subsistence but to make money. He maintained, ‘The modern world having lost contact with or the memory of its deeper realities, would welcome the teachings of a new Jesus who is strong, simple and human.’⁷⁷¹ The deeper realities lost to the modern world need a strong, simple and human hand to reinstate it. Indeed, Le Corbusier proposed a series of urban projects of Algeria in simple and strong gestures.

In 1931, Le Corbusier proposed an urban project for Algiers named ‘obus’ (fig. 6.10). This word ‘obus’ means ‘shell’, which, according to Tim Benton, was ‘to indicate the explosive potential of the project (bombshell), had unmistakable militaristic connotations in line with much colonial discourse of the period.’⁷⁷²



Fig. 6.10 Le Corbusier, project of Algiers. *O.C.* 2, p. 141.

In this powerful project, modern technology ‘lays siege to the political realm...presents itself

⁷⁷⁰ Le Corbusier, *The Radiant City*, p. 232.

⁷⁷¹ Le Corbusier, *Sketchbooks I*, B7, pp. 459-60.

⁷⁷² Tim Benton, ‘Urbanism’, in: *Le Corbusier, Architecture of the Century*, p. 218.

as a form of knowledge endowed with power.’ As pointed out by Manfredo Tafuri, in the Plan Obus, Le Corbusier ‘seems to want to shatter all disciplinary barriers: the figurative world of this painting directly invades the structuring of the urban machines, which is, nevertheless, represented as a single architectonic object.’⁷⁷³

Compared with the existing urban fabric, Le Corbusier’s urban proposal was definitely simple but strong. His biological cells inside the urban structure meet the human scale and recall his notes on the local Arab houses. The whole urban structure he proposed, however, was ironically gigantic and out of the human scale. Le Corbusier’s biological cell was standardized but the Casbah’s is not; the latter indeed grew up biologically. It is the emblem of native life, humanity and the memories of the colourful past empire. Tafuri comments:

The Casbah’s time is an eternal present. The time of the “new Algiers” is that of the total uprooting from all here and now, the time of unsuturable wounds, of a moving-ever-onward that renders all lingering impossible: a time when happiness can no longer be even remembered...For this very reason, the two structures, both of them integral, are juxtaposed. Between them there can be no intercourse, nor even a clash, at the limit.⁷⁷⁴

Le Corbusier’s project was not carried out, since no official commission had ever been made by the local government. Under these circumstances, he could freely elaborate. His plan, however, was rejected in 1932, 1934, and once again in 1942.

Part II. Egypt – The Orient in Africa

Le Corbusier began to examine Egyptian culture during his early study of ornament in La Chaux-de-Fonds. Later, in Vienna, he studied Egyptian objects in the Kunsthistorisches Museum. At the end of his Journey to the East, he intended to go to Egypt, as previewed in the pictures of Pyramid, but at that time he was preoccupied with other things including the Parthenon and the Carthusian Monastery, thus he decided to go back to Italy.⁷⁷⁵ He subsequently illustrated many Egyptian temples in *L’Esprit nouveau*, and finally visited

⁷⁷³ Manfredo Tafuri, *Machine et mémoire: The City in the Work of Le Corbusier*, in H. Allen Brooks, *Le Corbusier: The Garland Essays*, Garland Publishing, Inc., New York, 1987, p. 209.

⁷⁷⁴ *Ibid.*, p. 211.

⁷⁷⁵ Le Corbusier, *Journey to the East*, p. 236.

Egypt in 1952.

Ornament



Fig. 6.11 Le Corbusier, drawing of Egyptian ornament, FLC 1778.



Fig. 6.12 Egyptian ornament, O. Jones, *The Grammar of Ornament*, PL IV.

While studying in the Ecole d'Art Le Corbusier imitated the Egyptian ornament in Owen Jones' *The Grammar of Ornament*. He chose plates IV and V, and composed two colourful drawings. For his composition in fig. 6.11 he drew upon Jones' PL IV (fig. 6.12) selecting only the more geometrically ordered elements, rather than the organic ones, and the positions of the two papyri are exchanged. The drawing fig. 6.13 has elements from both PL IV and V (fig. 6.14), with the selected images arranged into a more or less orthogonal order, an early example of his preference for the right angle. This early study foreshadows characteristics of his future artworks, such as order and geometry; reinterpretation of nature; fragmentation and reorganization.

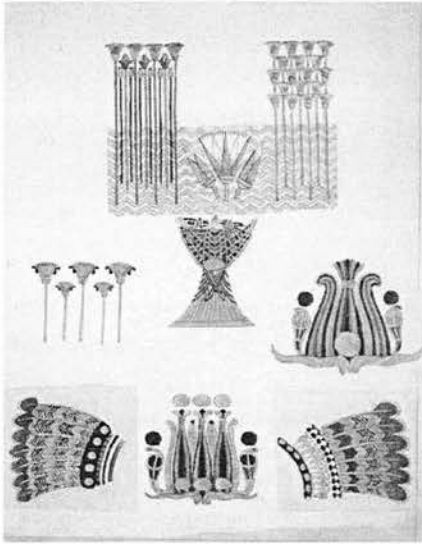


Fig. 6.13 Le Corbusier, Egyptian ornament, FLC 1779.

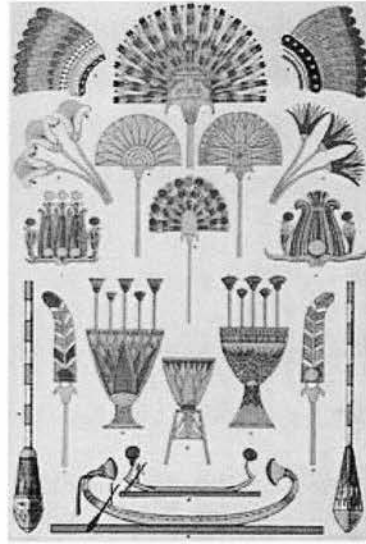


Fig. 6.14 Egyptian ornament, O. Jones, *The Grammar of Ornament*, PL.V.

The fragmentation and reorganization in these drawings are typical of his design method. For example, in the middle lower right of PL.V a gold and enamelled vase is in the form of a lotus. Whereas in Le Corbusier's drawing (fig. 6.13), he removed the set of papyrus from the vase and put it in the middle left of his drawing as an equivalent to the royal headdress, and transformed the vase into a base supporting the image of 'lotus and papyrus growing in the Nile', originally in the middle bottom of PL IV. In this reorganization new interpretations and forms are generated. The Nile in the air was elevated above a vase, which may foreshadow Le Corbusier's Surrealist work in late 1920s.

These ornaments, not simply the geometrised forms, have their symbolic meanings. The lotus and papyrus are 'growing on the banks of their river, symbolising the food for the body and mind; the feather of rare bird...as emblems of sovereignty.'⁷⁷⁶ A lotus flower is a

⁷⁷⁶ Owen Jones, *The Grammar of Ornament*, London, Studio Editions, c1986. p. 22.

symbol of the sun and of rebirth. Ra, the sun god, rises from the primeval water enclosed with the lotus blossom, which enfolded him once more each night.⁷⁷⁷

This image of 'lotus and papyrus growing in the Nile', later published in *Decorative Art of Today* (p. 124), is as a counterpart to the Pectoral of Ramses II, a symbol denoting an eternal journey and resurrection (this will be further discussed later). He noted that the Egyptians stylised the forces of nature, and that animal figures implied esoteric mysteries.⁷⁷⁸ Papyrus in a line have a connotation with the temple pylon, or, the 'food for the mind' leading to eternity and resurrection.

Owen Jones saw Egyptian art as pure, original, and derived directly from nature. As he observed:

We must believe the architecture of Egypt to be a pure original style, which arose with civilisation in Central Africa...to the culminating point of perfection...In the Egyptian we have no traces of infancy or of any foreign influence; and we must, therefore, believe that they went for inspiration direct from nature.⁷⁷⁹

As with the inspiration for Egyptian ornaments claimed by Jones, nature is also one of the sources for Le Corbusier's artwork. An interpretation of nature became one of the bridges linking his works and primitive art.

The Home-coming: an Egyptian House

⁷⁷⁷ Veronica Ions, *Egyptian Mythology*, New York, Peter Bedrick Books, c1990, p. 35.

⁷⁷⁸ Le Corbusier, *Decorative Art of Today*, p. 123.

⁷⁷⁹ Ibid.

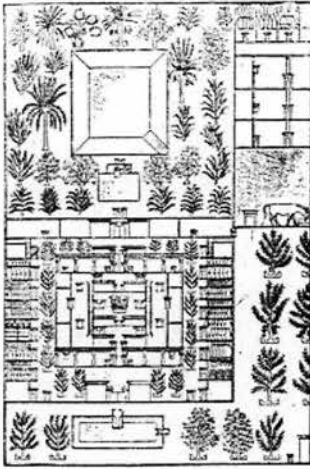


Fig. 6.15 An Egyptian House.
LC, *The City of Tomorrow*,
p. 37.

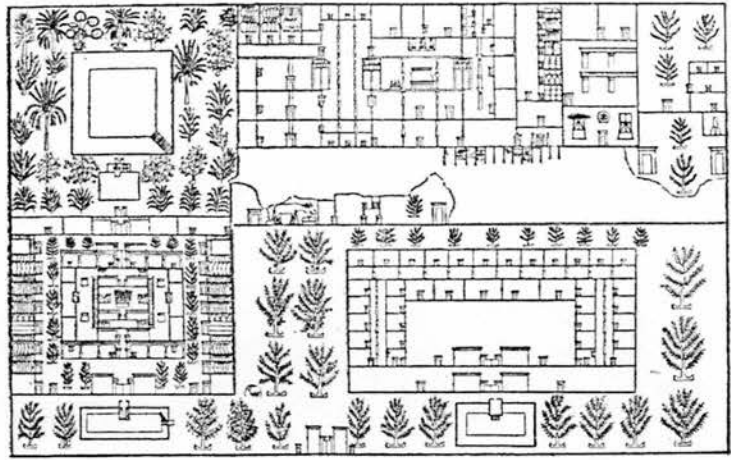


Fig. 6.16 Drawing of home-coming of Meri-Ra, Tell-el-Amarna.⁷⁸⁰

This drawing of fig. 6.15 appears in *The City of Tomorrow* illustrating Le Corbusier's discussion on 'order'. He annotated 'The Egyptian house' without crediting the source or giving further interpretation. It is, in fact, the left part of an inscription from Meri-Ra's tomb in Tell-el-Amarna. The relief was inscribed on the northeast wall in the Hall of Columns and is the left portion of the drawing (fig. 6.16) depicting the home-coming of Meri-Ra⁷⁸¹ along with a royal garden, a storehouse and stables. Meri-Ra was a high priest of Aten and a royal chancellor. Tell means a town-mound, and Tell-el-Amarna between Thebes and Memphis, was where the Amenhetep IV (Akhenaten),⁷⁸² a religious reformer built a new capital for himself. This capital was abandoned after Akhenaten's death.⁷⁸³

In this drawing the enclosure, with its subdividing walls, is presented in a plan, but the objects and doors within it are in an elevation. Elements, such as buildings, ponds and the

⁷⁸⁰ Edward Bell, *The Architecture of Ancient Egypt: a Historical Outline*, London: G. Bell and sons, ltd., 1915, p. 83.

⁷⁸¹ Norman de Garis Davies, *The Rock Tombs of El Amarna*, London; Boston: offices of the Egypt Exploration Fund, 1903-08, vol. 1, p. 38.

⁷⁸² Akhenaten, Early New Empire, XX dynasty, between c. 1850 B.C. and c. 1350 B.C.

⁷⁸³ Edward Bell, *The Architecture of Ancient Egypt: a Historical Outline*, London, G. Bell and sons, ltd., 1915, pp. 78-83.

layout of trees all follow a strong orthogonal order. In Le Corbusier's book, this left section (fig. 6.15) is composed of a large building complex with the house and a garden at the back. A pond is in front of the main entry pylon. The building complex is a quadrangle with storerooms filled with vessels flanking the left and right. At the end of storerooms, a stairway leads up to the flat roof. In the middle of the complex, surrounded by inner courtyards planted with trees, a quadrangle supported by papyrus columns has a central elevated courtyard. In this courtyard an altar piled with offerings in the centre implies a religious purpose.⁷⁸⁴ The walled garden behind the building is filled with an enormous pond, palms and pomegranates.

Compared to the original archaeological drawing⁷⁸⁵ and the partial reconstructive drawing (fig. 6.16), only the left fragment was adopted in Le Corbusier's book; even the trees in the middle were awkwardly cut into half and a new 'wall' added to complete this enclosure. This arrangement might have been made either by Le Corbusier or by archaeologists proposing versions. After being cut off, the original palace shrinks and its new scale is more appropriate to a house.

Other than a strong clear rectilinear composition, there are multiple layers in this building complex, which make it very rich. The opulent vegetation and pond also make it a paradise in the desert. This homecoming and paradise anticipates Le Corbusier's urban utopia with greenery, rectilinear order, strict zoning and flat roofs amongst expansive reinforced concrete structures.

⁷⁸⁴ Norman de Garis Davies, *The Rock Tombs of El Amarna*, London, Boston, offices of the Egypt Exploration Fund, 1903-08. vol. 1, p. 41.

⁷⁸⁵ *Ibid.*, PL. XXV, XXXII.

Geometry and Rhythm in a Temple

Le Corbusier studied several medium and small-scaled temples with a strong rectilinear order, as paradigms of the right angle, rhythm and purity, but did not mention large-scaled temples, such as temple of Ammon in Karnak or the famous pyramids in Gizeh, even though he celebrated such pure forms.

In *The City of Tomorrow* next to the forementioned Egyptian house is a plan of an early excavation of a temple, for which the source is not credited. It is the Temple of Hatshepsut (1520 B.C., fig. 6.17) in Dêr El Bahri, near Luxor. There is a long processional route following a strong axis from the Nile, moving up along ramps and terraces extended finally to the sanctuary inside the rocky cliff. The temple itself is not large, but the whole magnificent cliff is a grand backdrop for the procession. Many similarities can be found between this temple and the Basilica of Sante-Baume, Le Corbusier's project of 1948 (fig. 6.18), especially the natural setting, a long path extending from the 'Permanent City' and the basilica within the rock cliff.

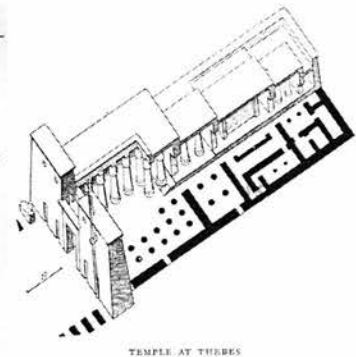
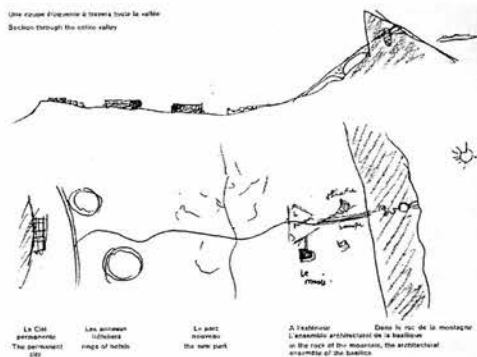
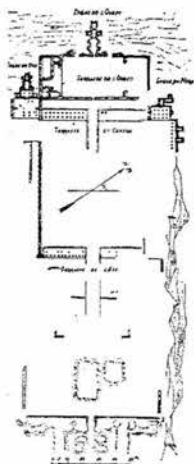


Fig. 6.17 Early excavation of Temple of Hatshepsut. LC, *The City of Tomorrow*, p. 37.

Fig. 6.18 Le Corbusier, Basilica of Sante-Baume. *O.C.* 5, p. 31.

Fig. 6.19 Temple of Khons, Karnak at Thebes. LC, *Towards a New Architecture*, p. 50.

The Temple of Khons at Karnak of Thebes (1198 B.C.; fig. 6.19) was cited by Le Corbusier, who discussed the rhythm, symmetry and repetition of the plan. This plan is organized ‘in accordance with the axis of the main entrance: the Avenue of Sphinxes, the pylons, the courtyard and peristyle, the sanctuary.’⁷⁸⁶ Another example of historical architecture cited is a small Mammisi Temple (1408 B.C.), also named the Birth House, on the Island of Elephantine. This single chamber temple perpetuates the tradition of the divine birth of a Pharaoh from a union of the god Horus and a mortal mother.⁷⁸⁷ Le Corbusier’s drawing was taken from Auguste Choisy’s *Histoire de l’architecture*.⁷⁸⁸

Animal Gods

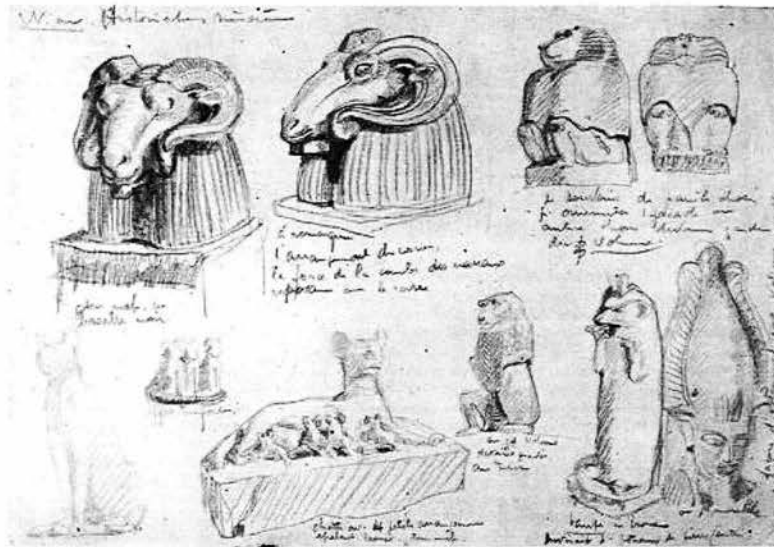


Fig. 6.20 Le Corbusier, Egyptian sculptures in [Kunst] Historisches Museum, Vienna⁷⁹⁰, FLC 2077.



Fig. 6.21 Statuette of Ram’s head (offering to the god Amen), New Kingdom, ca. 1250 B.C. Kunsthistorisches Museum, Vienna.⁷⁸⁹

⁷⁸⁶ Le Corbusier, *Towards a New Architecture*, p. 50.

⁷⁸⁷ Sir Banister Fletcher, *Sir Banister Fletcher’s a History of Architecture*, 19th ed., edited by John Musgrove, London: Butterworths, 1989, p. 57.

⁷⁸⁸ Le Corbusier, *Almanach d’architecture moderne*, p. 9.

⁷⁸⁹ Ram’s head: Black steatite, possibly 19th dynasty, ca. 1250 B.C. Quoted from: Georg Kagler, ed., *The Masterpieces of the Kunsthistorisches Museum in Vienna*, tr. Erika Pauli, English ed. Firenze: Bonechi, c1986, p. 42.

In 1907, Jeanneret, the young Le Corbusier, went to Vienna to study contemporary design. He often researched at museums, but did not sketch paintings of European masters; instead, he was fascinated by the artworks from distant cultures and made sketches of them.⁷⁹¹ An Arabian room (FLC 2077 in Kunstgewerbe Museum) and Egyptian sculptures (fig. 6.19 FLC 2077) were his focuses. The Egyptian sculptures he studied were head of a pharaoh and statuettes of sacred animals, such as rams, a baboon, cats, a monkey and a mole. He commented on the material and power of these sculptures. On the ram's head, he noted: 'notice the arrangement of the horns, the force of the nostril's curve resting on the edge.'⁷⁹²

These sculptures are not simply representations of animals but all are associated with gods in Egyptian mythology. The ram's head (figs. 6.20, 6.21) was an offering to Amon, god of the city of Thebes. It was said that the soul of Amon, the creative god, was enshrined in either a ram-sphinx or a serpent-sceptre.⁷⁹³ Thoth, a dog-headed baboon, was called the Measurer of Time. As scribe of the gods and god of wisdom, Thoth was worshipped by all the learned men in Egypt and had an important role in funerary mythology.⁷⁹⁴ He recorded the results of the weighing of the deceased's heart. The mole or ichneumon, a slayer of snakes and an incarnation of Atum, the setting sun wears the sundisk and *uraeus*.⁷⁹⁵ The cat was associated with Bast or Bastet, goddess of joy and the fertilising warmth of the sun.⁷⁹⁶ These figures in general symbolized knowledge, creativity, protection and measurement, which to Le Corbusier are certain fundamental characteristics of architecture.

⁷⁹⁰ Le Corbusier annotated: 'Wien Historisches Museum'. Many items in the drawing, however, appeared in catalogue of Kunsthistorisches Museum in Vienna of 1967. See Mary Patricia May Sekler, *The early drawings of Charles Edouard Jeanneret (Le Corbusier) 1902-1908*. Garland, 1977, p. 465.

⁷⁹¹ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 121.

⁷⁹² 'à remarquer l'arrangement des cornes, la force de la courbe des naseaux reposant sur le carré'. FLC 2077, also see *Passé* p. 143.

⁷⁹³ Veronica Ions, *Egyptian Mythology*, New York: Peter Bedrick Books, c1990, p. 93.

⁷⁹⁴ *Ibid.*, p. 85.

⁷⁹⁵ *Ibid.*, p. 37.

⁷⁹⁶ *Ibid.*, p. 100.

Ceremonial Breastplate: Leading to Resurrection

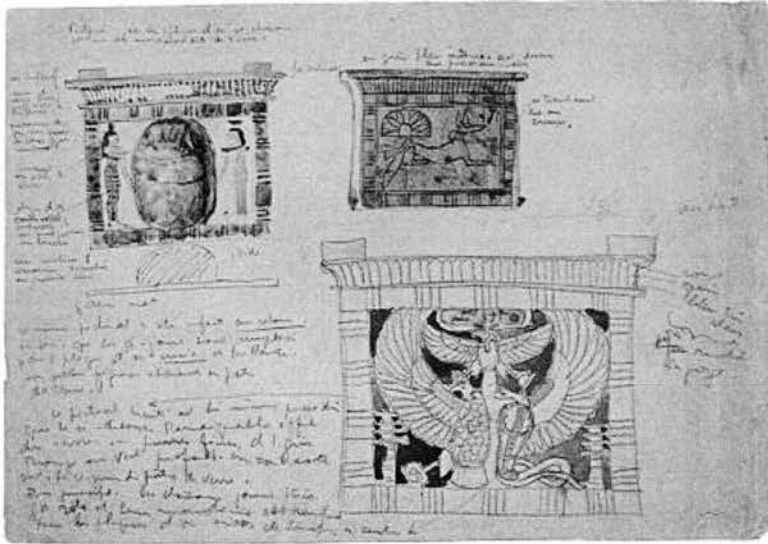


Fig. 6.22 Le Corbusier, drawing of Egyptian Jewellery in the Louvre, *Passé* 312, FLC 5848; LC, *The Decorative Art of Today*, p. 124.

The ceremonial breastplate, or 'pectoral', was designed to be attached to the specified areas on the mummified bodies of the dead. Le Corbusier studied several pectorals in the Louvre (fig. 6.22). One of them is the Pectoral of Ramses II⁷⁹⁷ (fig. 6.22 lower right, fig. 6.23), which is made of colourfully inlaid cloisonné. This type of jewellery dated back to the most ancient times and was directly inspired by Egyptian architecture. This pectoral of Ramses II was discovered under the coffin facing the door of the tomb. It has the form of a trapezoid frame in imitation of the pylon of a temple, capped with a cavetto cornice. The highly decorated complex fretwork combines writing, protective symbols, and emblems of the royal power. In its centre, the vulture and cobra symbolize the two Egyptian kingdoms of the pharaoh's realm, Upper and Lower, and is balanced by two *dead* hieroglyphs signifying stability, associated with Osiris, lord of the afterlife. Above the bird and snake is a ram-headed falcon with outspread wings holding the sign of *Chen* (or Shen), a loop of a rope

⁷⁹⁷ Pectoral of Ramses II, the Nineteenth Dynasty (c. 1279-1213 B.C.) Electrum with red, turquoise, green, white, and yellow glass. Colour inlay in cloisonné, 13.5x 15.7x 0.25 cm. Picture from Jean-Marcel Humbert; Michael Pantazzi and Christiane Ziegler, *Egyptomania: Egypt in Western Art, 1730-1930*, p. 353.

without a beginning, nor an end, which represents eternity in his talons.⁷⁹⁸ Royal pectorals often identify the sovereign with Ra, god of the sun, who carries him off on his eternal journey. This notable pectoral was copied by Gustave Moreau, Jean-André Rixens⁷⁹⁹ and appeared in his painting ‘The Death of Cleopatra, 1874’.⁸⁰⁰



Fig. 6.23 A pectoral of Ramses II, the Nineteenth Dynasty.⁸⁰¹

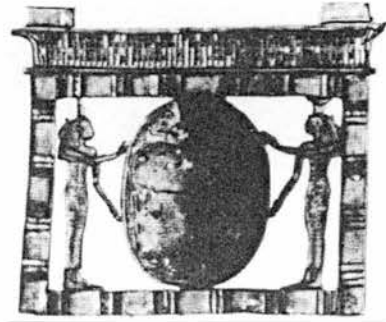


Fig. 6.24 A Pectoral, XIXth Dynasty, the Louvre Museum.⁸⁰²

Another pectoral from the same Serapeum (fig. 6.21 upper left, fig. 6.24) shows the divine mourners, Isis and Nephthys, supporting a scarab, the symbol of renewed life.⁸⁰³ The scarab's habit of laying its eggs in a ball of dung, which is then rolled along the ground and dropped into a hole, made it an obvious symbol for the sun god. In the drawing Le Corbusier noted their different designs, materials, colours and some effects.

The serpent and eagle are the counterpart goddesses of Lower and Upper Egypt. The cobra,

⁷⁹⁸ Jean-Marcel Humbert; Michael Pantazzi; and Christiane Ziegler, *Egyptomania: Egypt in Western Art, 1730-1930*; [catalogue of an exhibition] Paris, Musée du Louve, 20 January-18 April 1994; Ottawa, National Gallery of Canada, 17 June-18 September 1994; Vienna, Kunsthistorisches Museum, 16 October 1994-29 January 1995. Ottawa: National Gallery of Canada, c1994, p. 352.

⁷⁹⁹ *Ibid.*, p. 353.

⁸⁰⁰ *Ibid.*, p. 576.

⁸⁰¹ Jean-Marcel Humbert; Michael Pantazzi; and Christiane Ziegler, *Egyptomania: Egypt in Western Art, 1730-1930*, p. 353.

⁸⁰² Charles Boreux, *L'art égyptien*, Paris: G. van Oest, 1926, PL. LXIII.

⁸⁰³ Veronica Ions, *Egyptian Mythology*, New York: Peter Bedrick Books, c1990, pp. 24-5.

presented as *uraeus*, is a royal symbol in Egypt. The serpent-goddess of the Delta, Buto or Wazit, which is the national goddess and a guardian deity of Lower Egypt, is an aggressive defender of her sister Nekhbet (Nekhebet), the vulture-goddess and Buto's counterpart in Upper Egypt.⁸⁰⁴

To Le Corbusier, this pair may be associated with Zarathustra as he read Nietzsche's '*Thus Spoke Zarathustra*', in which, at the beginning, a serpent and an eagle are always accompanied by Zarathustra. This symmetrical composition, a rectangular outside and a freeform inside, may be one of the early inspirations for his later work such as the Villa Savoye (fig. 6.25), where the box-like volume contains a bright, illuminating ascending ramp in the symmetrical centre, with free sneaking meandering paths throughout pairs of *ying* and *yang* space in the building. This composition also reappears in the geometrical pattern of paintings such as his '*La Bouteille de vin orange*', FLC 140, 1922 (fig. 6.26).

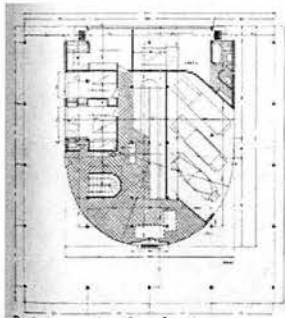


Fig. 6.25 Le Corbusier, Villa Savoye, Ground floor plan. *O.C. 2*, pp. 24-5.

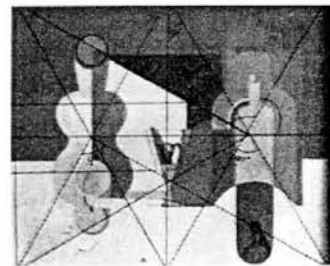
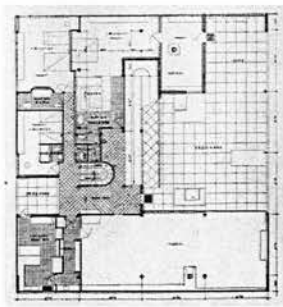


Fig. 6.26 Geometrical diagram of Le Corbusier, '*La Bouteille de vin orange*', FLC 140, 1922. The Lantern may relate to the ascending ramp to the left.

Even though Le Corbusier did not write down the mythological association in these drawings, he researched them in detail, studied their interpretation at museums and clearly read many

⁸⁰⁴ Samuel A. B. Mercer, *The Religion of Ancient Egypt*, London: Luzac and Co. Ltd., 1949, pp.196-8.

other related documents. Many of his works reveal mythological associations. The image of this pectoral was published in *The Decorative Art of Today*, along with his 'lotus and papyrus growing in the Nile',⁸⁰⁵ which was duplicated from Owen Jones' book. Le Corbusier noted in his book:

The Egyptian had also stylised the forces of nature: but within the high priestly caste subtle relationships linked the eagle, the snake, and the winged bull, implying esoteric mysteries which for us still entail an inescapable poetic disquiet.⁸⁰⁶

Both images also reappeared in his painting and in the lower section of the enamel door of the Assembly Building in Chandigarh (fig. 6.27). In this section, the snake is once again arranged in the lower and the falcon is in the upper area, following the previous mentioned Egyptian example. In the western interpretation the whole picture here is an interpretation of Genesis, and depicting the earthly paradise.⁸⁰⁷

Even though the symbols on this door were not suggested by the client, they contained layers of Indian cultures and had local reference. For example, in Hinduism snakes are sacred and the category of *naga* rooted in Sanskrit comprises all kinds of serpents. The giant eagle, Garuda, is Vishnu's vehicle. Garuda carries Vishnu to Vaikuntha (heaven) where Garuda lives. These images were later adopted in his painting and *Poème*.

⁸⁰⁵ Le Corbusier, *The Decorative Art of Today*, p. 124.

⁸⁰⁶ *Ibid.*, p. 123.

⁸⁰⁷ Mogens Krustup, *Porte email, Emalljeporten, La Port emaillee; The Enamel Door: Le Corbusier, Palais de l'Assemblée de Chandigarh*, Copenhagen: Arkitektens Forlag, 1991, p. 32.



Fig. 6.27 Le Corbusier, enamel door of the Assembly Building in Chandigarh, exterior, detail.

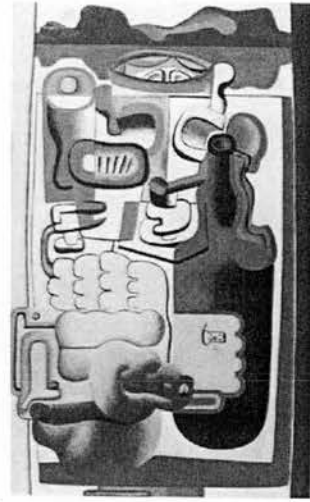


Fig. 6.28 Le Corbusier, 'Composition avec la lune', Example of scaling, FLC146, 1929

In Egyptian architecture the pylon is the mass of masonry flanking a monumental entrance of Egyptian temples; in this pectoral (fig. 6.23) the pylon was diminished into 13.5x 15.7 cm with protective symbols. Like these correspondence of pectoral and pylon (figs. 6.23, 6.24); and combination of human form and a huge scarab (fig. 6.24), there is a juxtaposition of diverse scales in these Egyptian artefacts, as well as in Le Corbusier's paintings and architecture. His 'Composition avec la lune', (fig. 6.28) is an example, where a diminished church on the lower right is much smaller than the surrounding bottle, meat and glove. On the upper left, the reflection of the moon is in the centre of a cup.

Exposed Concrete and the Egyptian Temple

Le Corbusier used exposed concrete as early as his Swiss Pavilion in 1930. In the late 1940s and 1950s, ancient Egypt provided him again with a valuable reference. When he discussed the exposed concrete of the Unité d'Habitation in Nantes, he described how the concrete kept the imprint of its mould: 'Recessed mouldings appear in the face of the concrete, thus

achieving a situation similar to that in which the Egyptians prepared sculptured frescos in their temples 5000 years ago.’⁸⁰⁸ Moreover, such a natural application of materials was also expressive in ‘their place in the work, the meaning of the times, the rigorous schedule and the discipline of the job site.’⁸⁰⁹ Le Corbusier put a bas-relief of his Modulor man on each of his Unité d’Habitations. Egyptian temples, however, were usually polychromatic while exposed concrete is only monochromatic. In the long course of time the colours of the Egyptian temples faded away and their surfaces turned to their original state as we see nowadays.

Measurement and Modulor

Among the leaders of Modernism, Le Corbusier was the only one who put a system of harmony and proportion at the centre of his design philosophy.⁸¹⁰ Egyptian measurement served as a reference to his dimensional system, the Modulor, in the late 1940s. The principal unit of measurement in ancient Egypt was the royal cubit for sacred constructions, which inspired Le Corbusier for his Modulor. It is a length of 52.4 cm, approximately the length of a man's forearm. Le Corbusier thought that, being based on a system of human proportion, ‘The Egyptian Cubit irradiated the culture of the ancient world... The palm contains four fingers; the foot contains four palms; the cubit contains one foot and two palms.’⁸¹¹ Le Corbusier’s Modulor is also based on the human statue, which establishes kinship with the great traditional systems of measurement, and as he noted in his *Modulor II*, ‘most

⁸⁰⁸ *Oeuvre complète 1952-1957*, vol. 6, p. 180.

⁸⁰⁹ *Ibid.*

⁸¹⁰ Richard Padovan, *Proportion: Science, Philosophy, Architecture*. London: E & FN Spon, 1999, p. 317.

⁸¹¹ Le Corbusier, *Modulor II*, p. 51.

particularly with the “Egyptian Cubit”, which marks a peak in this domain.⁸¹² Another measurement in Egyptian temples was researched by Le Corbusier from the low relief of the Temple of Seti I and Abydos. This measurement seems to conform to the Fibonacci series and is based on the human proportion.⁸¹³

Part III. The Cradle of Civilizations: Mesopotamia and Persia

The creator seeks fellow-creators, those who inscribe new values on new tables...Zarathustra seeks fellow-creators, fellow-harvesters, and fellow-rejoicers...I will make company with creators, with harvesters, with fellow rejoicers
---Nietzsche, *Thus Spoke Zarathustra*, Prologue.
(Underlined by Le Corbusier.⁸¹⁴)

Le Corbusier was fascinated and also inspired by the ancient cities and architecture of Persia and Mesopotamia when he looked for new developments of architecture. In *Une Maison – un palais* he presented many drawings of Persia on page 43, and claimed that the peasant residence of Mesopotamia revealed the spirits of the historical prestigious empires. He replicated some examples of Persian architecture including huts, the palaces of Persepolis, Ctesiphon, and the tombs at Naksh-e Rostam. On this page, the image of the royal tombs and the palace at the lower level seem supportive for the farmers’ houses on the above, which are cubic and modernistic. The theme of this book, ‘maison’ and ‘palais’ is highlighted through these images. Even though he did not mention the sources of these series of sketches, they have been taken from the illustrations in Marcel Auguste Dieulafoy’s *L’Art Antique de la Perse*,⁸¹⁵ a five- volume survey of Persian cities and architecture. Similarly, when Le

⁸¹² Ibid., p. 16. See also p. 51.

⁸¹³ Le Corbusier, *Modulor*, p. 193.

⁸¹⁴ Friedrich Nietzsche, *Thus Spoke Zarathustra: a Book for Everyone and No One*. Penguin, 1969, p. 52. The underlined passages here interested Le Corbusier and are marked by him in his own volume. See H. Allen Brooks, *Le Corbusier’s Formative Years*, pp. 174-5.

⁸¹⁵ Marcel Auguste Dieulafoy, *L’art antique de la Perse*, vol. II, Paris: Librairie centrale d’architecture, 1884. Le Corbusier did not mention the source of his reproduction of drawings in *Une*

Corbusier discussed the order of a great city, he used the examples of Khorsabad and Babylon to support his principles.

Farmer's House and Palace

To support his argument for modern architecture, Le Corbusier took two farmers' houses as examples (figs. 6.29-6.32). Both are pure and simple and, consisting of pilotis with a flat roof, serve as marvellous templates for the new epoch. He also claimed; 'ancestral residences of the peasants of Mesopotamia made of wood and cob reveal prestigious splendours of Babylon and Nineveh; they sink our memory into the past.'⁸¹⁶

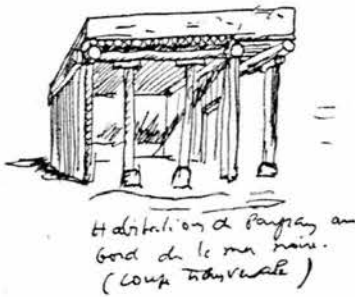


Fig. 6.29 'Habitation de Paysans au bord de la mer Noire (Coupes transversales)', Le Corbusier, *Une Maison – un palais*, p. 43.

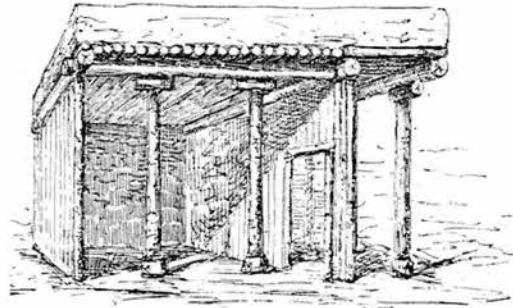


Fig. 6.30 Cross section, farmer's house on the shore of eastern Black Sea. From Dieulafoy, *L'art antique de la Perse*, vol. 2, fig.34.

These are farm houses, one at Lazistan (on the shore of the eastern Black Sea), the other at Ghilan and Mazaderan (northern Iran near the Caspian Sea).⁸¹⁷ Neither is really in Mesopotamia but within the territory of the great ancient kingdoms such as Assyria and the

Maison – un palais. However, his drawings fit Dieulafoy's pictures well, and Le Corbusier mentioned it in his other books, such as *Towards a New Architecture*, p. 76, and his *Sketchbooks I*, A2, no.113 and 114.

⁸¹⁶ Le Corbusier, *Une Maison – un palais*, p. 42. 'Ces humbles maisons de bois et de torchis dévoilent les prestigieuses splendeurs de Babylone et de Ninive; elles enfoncent notre mémoire dans le passé.'

⁸¹⁷ Marcel Auguste Dieulafoy, *L'art antique de la Perse*, vol. II, Paris: Librairie centrale d'architecture, 1884, pp. 46-7.

Persian Empire; the former was centred in Babylon and Nineveh. Such peasant houses are considered more likely to have maintained the local legacies and should be similar to the architecture of ancient times. They tend to bear some characteristics of the royal palace, such as the post and capital of Persian Palace of Cyrus at Pasargadae, which Chipiez and Perrot observed.⁸¹⁸ *History of Art in Persia* was also an important source of ancient civilization for Le Corbusier.⁸¹⁹



Fig. 6.31 Le Corbusier, *Une Maison –un palais*, p.43.

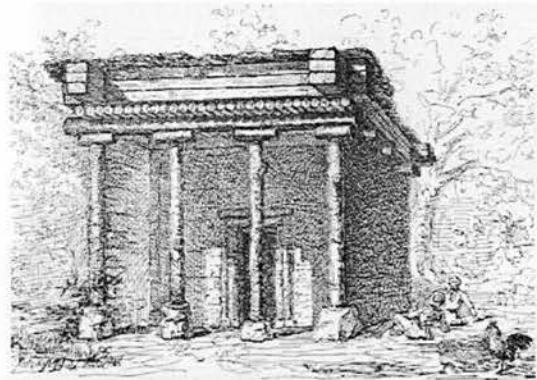


Fig. 6.32 Farmer's house in Mazenderan, northern Iran. From Dieulafoy, *L'art antique de la Perse*, vol. II, fig. 35.

Many other examples of Persian Palaces consisted of a flat roof on a rectilinear box volume suitable in the relatively dry weather and tell of the availability of wood in the certain area on the plateau. Such a flat roof has been sustained in Iran even nowadays. It is about one metre thick, and consists of *pisé* mixed with chopped straw rammed solid.⁸²⁰ Meanwhile, the pure volume from the days of the Empire provided a foundation of modernist ideals.

Achaemenian Cupolas and Regulating Lines

⁸¹⁸ Charles Chipiez, Georges Perrot, *History of Art in Persia*, London: Chapman and Hall, 1892, p. 98.

⁸¹⁹ See Le Corbusier, *Sketchbooks I*, A2, nos. 56, 58, 109, 152.

⁸²⁰ Charles Chipiez, Georges Perrot, *History of Art in Persia*, London: Chapman and Hall, 1892, p. 82.

In Le Corbusier's tenets, 'regulating lines' is one of his key themes and an inevitable element in modern architecture, which is rooted in both European and Asian ancient architecture. He noted in *Sketchbooks I*, 'the building of every great period of architecture conformed to an elementary geometric "module", with every part submitting to its multiples and submultiples. The vaulted Achaemenid monuments: the Porte-Saint-Denis / the Piraeus Arsenal / the façade of Notre Dame / the interior of Cathedrals....'⁸²¹ Most of these buildings are examples of regulating lines, as shown in *Towards a New Architecture*. He focused on the façade except in the case of the Persian palace, where he analysed the major section of its cupola, the key space of the building, which fascinated Le Corbusier.

Le Corbusier researched this Persian palace in 1915,⁸²² a few years before the publication of *L'Esprit nouveau*. At that time Auguste Choisy and Marcel Auguste Dieulafoy had already discussed the idea of architectural proportion, which was also referred to by Le Corbusier. Choisy's regulating lines in *Histoire de l'architecture* brought Le Corbusier certainty in his designs.⁸²³

The modular proportion of Sassanian Persian architecture had been researched by Marcel Dieulafoy, who stated that the proportion of a gate related to the hierarchical status of the owner of the architecture. The standardized modular of arches was already there: 'the barrel vaults, all the domes, all the arches were created in ancient Persia by the same elliptic

⁸²¹ Le Corbusier, *Sketchbooks I*, no. 112.

⁸²² These sketches (nos. 113,114) are in his *Sketchbooks A2*, dated 1915-6 (see introduction on p.4). A few pages after these sketches, a note of 'September 03, 1915' on no.130 proves that these two sketches have been made before then.

⁸²³ Le Corbusier, *The Modulor*, p. 27.

curve.⁸²⁴ Of the monument of Sarvistan and Firouz-Abâd, ‘... but one can at least approach the study of the Iranian modular system. ...The Greeks determined the dimensions of the temple according to the average radius of the columns. The Persians adopted as basis of their modular combinations the opening of the arches. This choice was judicious, because in an vaulted architecture the span of the domes or barrel vaults plays a dominating role.’⁸²⁵

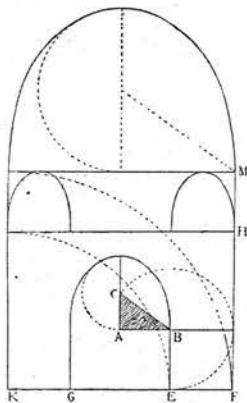


Fig. 22. — Coupe transversale de la salle B, pl. III (Épure de construction).

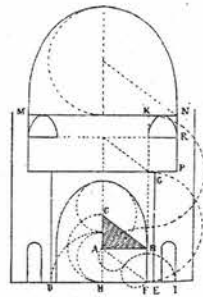


Fig. 23. — Coupe transversale de la salle C, pl. III (Épure de construction).

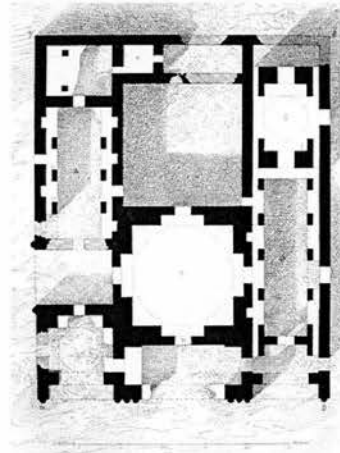


Fig. 6.33 Diagram of proportion. Section of cupolas of Sarvistan Palace, from Dieulafoy, *L'art antique de la Perse*, vol. IV, p.28. Left, fig. 22, section of the room B; right, fig. 23, section of the small room C.

Fig. 6.34 Plan, Sarvistan Palace. Dieulafoy, *L'art antique de la Perse*, vol. IV, PL3. Room B: centre lower middle; Room C: upper right.

The case Le Corbusier studied in this book is the Sarvistan Palace (near Persepolis, c.350, figs. 6.33, 6.34) built in the Sassanian Dynasty. This palace is composed of rectilinear rooms covered with a major cupola, two minor cupolas and several barrel vaults. The cupola is a principal space in the Persian architecture and the proportion of its cross section is an important framework to structure the space. Dieulafoy surveyed this attentively and illustrated his findings with diagrams in his book.

⁸²⁴ ‘...que tous les berceaux, toutes les coupoles, tous les arcs ont été engendrés dans la Perse antique par la même courbe elliptique’ from Marcel Auguste Dieulafoy, *L'art antique de la Perse*, vol. IV, Paris: Librairie centrale d'architecture, 1884, p. 23.

⁸²⁵ ‘mais on peut au moins aborder l'étude du système modulaire iranien... Les Grecs déterminaient les dimensions du temple d'après le demi-diamètre moyen des colonnes. Les Perses adoptèrent comme base de leurs combinaisons modulaires les ouvertures des arcs. Ce choix était judicieux, car dans une architecture voûtée la portée des coupoles ou des berceaux joue un rôle prépondérant.’ Ibid., p. 27.

When Le Corbusier studied these diagrams (fig. 6.35) in 1915 and copied the left one, he noted: ‘modulor lines / of Archemenid vaults / Dieulafoy. The [point of departure] is the right triangle with proportions 3, 4, 5, which is used to determine the elliptical vault / so the hypotenuse turns out to be constantly repeated.’ Furthermore on the right diagram, he found it ‘much more complicated but rigorously precise.’⁸²⁶

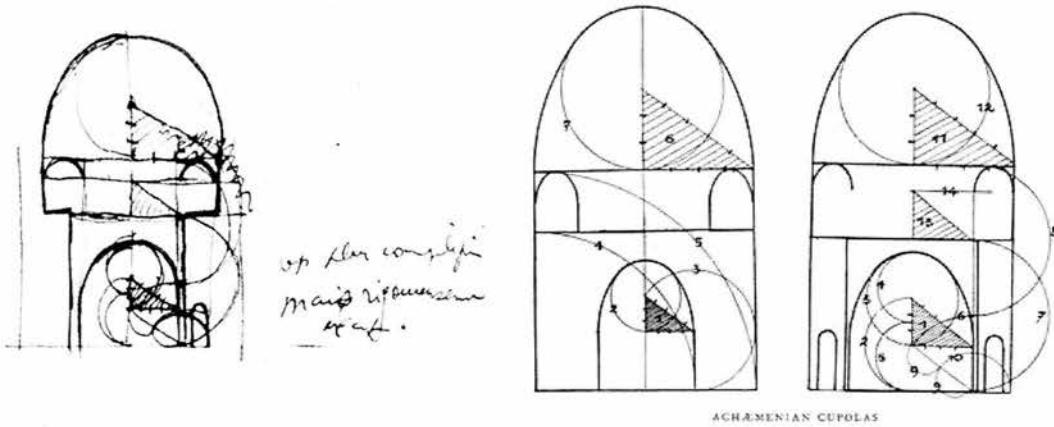


Fig. 6.35 Le Corbusier, study of regulating lines. Fig. 6.36 Le Corbusier, Regulating lines of Achaemenian cupolas. LC, *Towards a New Architecture*, p. 76.

He then built up his own version of this regulation line, which combined the sections of Room B, C, and was slightly different from Dieulafoy’s version. The sectional diagram of small cupola Room C was enlarged and the side aisle was trimmed off. Le Corbusier’s interest was obviously focused on the elaboration of proportion, so he even disregarded the relative scale and hierarchy of rooms. He might have seen Auguste Choisy’s diagram of these two cupolas for reference, in which two rooms are equal in height.⁸²⁷ He consequently proclaimed the ‘great Achaemenian cupolas form one of the most subtle conclusions of geometry. Once the conception of the cupola was established in accordance with the poetical

⁸²⁶ Le Corbusier, *Sketchbooks I*, nos. 113, 114.

⁸²⁷ Choisy, Auguste, *Histoire de l'architecture*, p. 137.

needs of this race and of this epoch, and in accordance with the static data of the constructive principles applied to it.’⁸²⁸

The Palace of Persepolis

Le Corbusier sketched the photograph of the Palace of Persepolis from Dieulafoy’s book (fig. 6.37) and published it in his *Une Maison – un palais*⁸²⁹ without noting the source. This splendid palace, initiated by Darius I in 518BC, was mostly executed by Xerxes I (486-465 BC) and accomplished by Artaxerxes I around 460 BC. The various buildings stood on a platform rising about 15 metres above the rocky plain.⁸³⁰

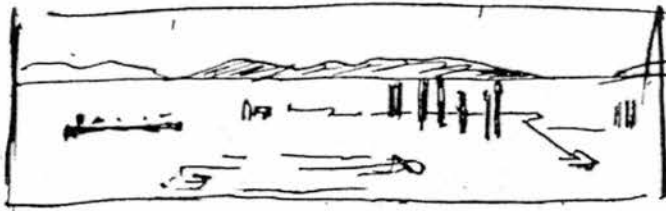


Fig. 6.37 Le Corbusier, *Une Maison – un palais*, p. 43.



Fig. 6.38 Palace of Persepolis, Iran, photograph from the east, from Dieulafoy, *L'art antique de la Perse*, vol. II, PL 8,9,10,11.

The original photograph (fig. 6.38) is a general elevated view of the ruin from the east before excavation. In his sketch, Le Corbusier praised the high, vertical columns of Apadana, which rises up from the platform against the expanded horizon and mountain afar. The ruins of the Throne Hall with low double walls in the near front are intentionally simplified into a few

⁸²⁸ Le Corbusier, *Towards a New Architecture*, pp. 76-77.

⁸²⁹ Judged by the shape of mountain, column, platform, etc, even the column groups should ground in the latter platform. In Adolf Max Vogt, *Le Corbusier, the Noble Savage: Toward an Archaeology of Modernism*; he wrote that it is ‘a water expanse set against some hills in the background.’ (p. 201) which may not be the case.

⁸³⁰ Sir Banister Fletcher, *Sir Banister Fletcher's a History of Architecture*, 19th ed., p. 89-93.

lines. The gate of Xerxes on the far right, Darius' Palace in the middle left background, and the Palace of Xerxes to the left are all represented, but simplified. Elements of this palace in Le Corbusier's drawing were abstracted and rearranged (the columns, for example) as an orthogonal, pure and clean setting, which reflects his modernist utopian preference, with an association of glorious magnificence.

Technology of Ancient and Modern: The Palace of Shapur, Ctesiphon



Fig. 6.39 Le Corbusier, *Une Maison – un palais*, p. 43.

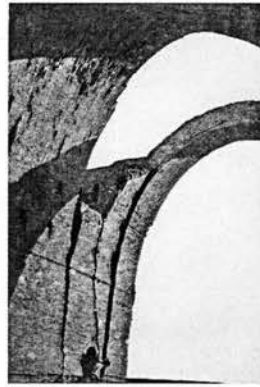
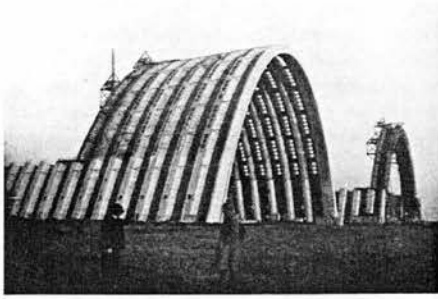


Fig. 6.40 Ctesiphon Palace, Iraq, from Dieulafoy, *L'art antique de la Perse*, vol. V, PL V.

Le Corbusier was also fascinated by the highly developed technology of the great civilizations. An image he selected in his book (fig. 6.39) is the Palace of Shapur, Ctesiphon near Babylon, south of Baghdad (fig. 6.40), with its enormous brick vaulted audience hall.⁸³¹ This palace, a brick structure, is on the Mesopotamia plain and was built in the fourth century, at the height of Sassanian power (224 - 637 AD). Its arch was one of the largest single-span vaults of un-reinforced brickwork in the world. The elliptical barrel vault over the banquet hall rises 36.7 metres from the ground to cover the 25.3 metres span. One wing of the façade fell in 1909 after an exceptional flood of the Tigris.⁸³²

⁸³¹ Horst Woldemar Janson, *A History of Art: a Survey of the Visual Arts from the Dawn of History to the Present Day*, p. 95.

⁸³² Sir Banister Fletcher, *Sir Banister Fletcher's a History of Architecture*, 19th ed., pp. 92 & 94.



A HANGAR (FREYSSINET & LIMOUSIN)

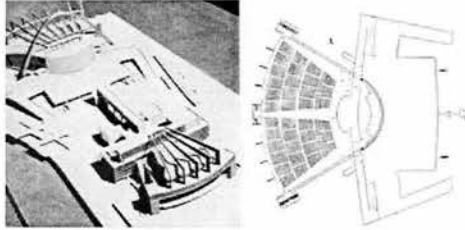
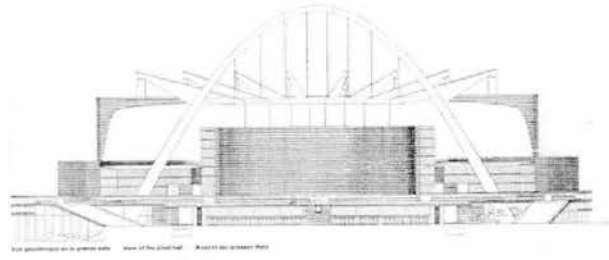


Fig. 6.41 Airship hanger at Orly (Freyssinet & Limousin). LC, *Towards a New Architecture*, p. 284.

Fig. 6.42 Le Corbusier, Palace of the Soviets, Moscow, 1931. *O.C. 2*, p. 127-137.

This arch was reincarnated in the modern era, for example in the Airship Hanger at Orly (Freyssinet & Limousin, fig. 6.41), using the modern technology of reinforced concrete, which Le Corbusier celebrated in *Towards a New Architecture*. Later, in his design for the competition of Palace of the Soviets, Moscow in 1931 (fig. 6.42), this grand arch was reinterpreted in a concrete arch with the same metaphor: public gathering, audience hall, and the majesty of centralized power.

The fragmented front belt of the arch in Le Corbusier's sketch is obviously reinterpreted into the main arch of the Palace of the Soviets. He further stated that the cathedral complex of Pisa reflects the same rules, which controlling the design of the Palace of the Soviets refer to a unity in detail, a human scale and also a disorder within the general layout.⁸³³

⁸³³ On his trip to Pisa on June 4, 1934, 'note le principe architectural des édifices constituant le magnifique ensemble du Dôme, du Baptistère, de la Tour penchée et du Campo Santo; tout à coup, il réfléchit que les mêmes règles architecturales ont présidé à la conception du Palais des Soviets: de l'unité dans le détail (unite à échelle humaine); du tumulte dans l'ensemble (propos de l'Abbé Laugier sous Louis XIV). Le Corbusier, *O.C. 2*, p. 132. In *The City of Tomorrow and its Planning* (p. 86), he maintained the same point: Chaos and disorder in the general layout, but uniformity in detail, which was proposed by Abbé Laugier in the time of Louis XIV.

The Cruciform Royal Tomb of Darius, Naksh-i-Rustam



Fig. 6.43 Naqsh i Rustam, Iran, from Dieulafoy, *L'art antique de la Perse*, vol. III, PL I, II, III.



Fig. 6.44 Le Corbusier, sketch of Neocropole de Nakhchè-Roustem. LC, *Une Maison – un palais*, p.43.

The Tomb of Darius, Naksh-i-Rustam (485 BC), 13 km north of Persepolis (fig. 6.43), is one of the four rock-hewn sepulchres of the great Achaemenian kings. Le Corbusier sketched this necropolis from Dieulafoy's book (fig. 6.44). The façade of this royal tomb has a cruciform shape, with four columns and one door in its centre, leading to chambers where the king's body was buried.

This series of cruciform-standardised architecture was arranged in a roughly equal distance in natural surroundings, which may be a prototype for a utopian urban project of Le Corbusier. At the time when Le Corbusier worked with Dieulafoy's treatise in 1915, he made two drawings in his sketchbook.⁸³⁴ These 'represent the first instance of Jeanneret's interest in skyscrapers and their placement in large green areas in the city.'⁸³⁵ The cross with the

⁸³⁴ Le Corbusier, *Sketchbooks I*, A2, 89-90.

⁸³⁵ *Ibid.*, p. 5.

'right angle' is the main theme and order of Le Corbusier's work throughout his life.

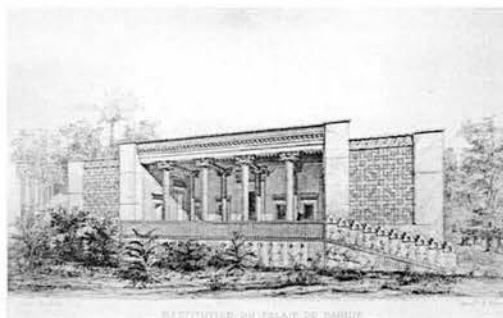
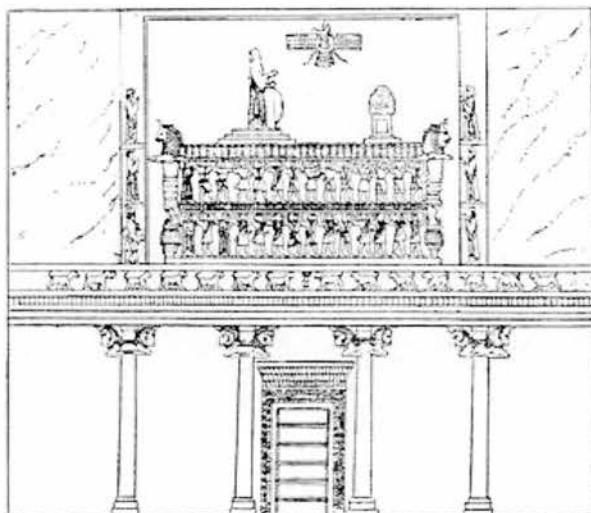


Fig. 6.45 Reconstruction of Darius Palace. From Dieulafoy, *L'art antique de la Perse*, vol. III, PL VII.

Fig. 6.46 Darius' tomb. LC, *Une Maison – un palais*, p.43.

On the same page of Le Corbusier's *Une Maison – un palais*, there is a line drawing of the façade of Darius' tomb (fig. 6.46). In the lower part, there are four columns with a central decorated door, similar to Darius's palace in Persepolis (fig. 6.45), a cubic volume with ramps and a flat roof. This palace may anticipate Le Corbusier's Purist architectural volume. On the middle level, twenty-eight people, perhaps representing the subordinate nations, are carrying the platform on which Darius is sitting. On the upper level, Darius, in front of a fire altar, is praying to Ahuramazda who is shown as a winged disk. Ahura (spirit) mazda (wise) means 'Wise Lord', the supreme god of the Persians, whose cult is propagated by the prophet - Zarathustra, who preaches as a supreme god that has created the world and embodiment of all good things in his holy spirit. For Zarathustra, the meaning and destiny of the world is accomplished by a retrieval of the original state of Ahura Mazda. 'In the system that bears the name of Zarathustra...this world is the scene where Ahurâ-Mazda, the wise spirit, and Angrô-Mainyûs, the destroyer, are opposed to each other; but in the end good prevails.'⁸³⁶

⁸³⁶ Charles Chipiez and Georges Perrot, *History of Art in Persia*, London: Chapman and Hall, 1892, p. 12.

Le Corbusier had known certain things about Zarathustra before his study of Dieulafoy's treatise as he purchased and read Nietzsche's *Ainsi parlait Zarathoustra* (Thus Spoke Zarathustra) during his first visit in Paris from 1908 to 1909. He read and marked the prologue of this book, and later he reread it in 1961.⁸³⁷ The three-level structure of this drawing could foreshadow somewhat Le Corbusier's Purist architectural elements such as the 'pilotis' and the 'toit-jardin' (roof-garden). Other references for the roof garden were the famous Babylonian and the Assyrian hanging ones.

In the same page of his *Une Maison – un palais*, as marked on this line drawing, Le Corbusier made a comparison of it with Erechtheion which was built slightly later (421-405BC). Both of them used a human form to support a platform. He wrote:

We rediscover those conquering and voracious kings who carried their artists with them in their retinues along the trails of Asia Minor...in this flower of Asia are the Caryatids of Erechtheion at the Acropolis, Athens.⁸³⁸

What Le Corbusier suggested is that Europeans learned the essence from Asia. Dieulafoy also discussed that 'the cornice, the frieze and the architrave of the portico of Aréphores [Erechtheion] are an imitation made with particular taste and tact of Greek artists.'⁸³⁹

Power and Mythological Theme: Assyrian Seals

⁸³⁷ H. Allen Brooks, *Le Corbusier's Formative Years*, pp.174-5.

⁸³⁸ 'nous retrouvons ces rois conquérants et voraces qui traînaient à leur suite leurs artistes par les chemins d'Asie Mineure... dans cette fleur d'Asie qu'est la Tribune des Caryatides de l'Erechthéion sur l'Acropole d'Athènes.' Le Corbusier, *Une Maison – un palais*, p. 42.

⁸³⁹ Marcel Auguste Dieulafoy, *L'art antique de la Perse*, vol. II. Paris: Librairie centrale d'architecture, 1884, p. 73.



Fig. 6.47 Inscription of a cylinder seal. Le Corbusier, *Une Maison – un palais*, p. 43.



Fig. 6.48 L. Delaporte, *Cat. des Cylindres orient*, PL. 24, 354, Musée du Louvre. Paris: Hachette, 1920.

Ancient inscribed seals were usually owned by important officials. An Assyrian inscribed seal (fig. 6.47) was arranged in the middle of Persian images in *Une Maison – un palais*, page 43 without any reference. In fact, this seal is an official seal of Nergal-eresh, governor of Rasappa about 800 B.C. (fig. 6.48). The inscribed image here is of a ritual scene. In Assyrian seals, the gods are represented only by symbols or by cult statues. Some of the divine figures are personifications of the planets and constellations.⁸⁴⁰

The image on the left is the male god, Adad, mounted on a bull, with his hand holding his distinctive weapon the axe. To the right is the Ishta, the goddess of fertility,⁸⁴¹ lady of ladies and goddess of battle, who is regularly depicted with the planet Venus⁸⁴² above her. This goddess of battle would cast a shadow on Le Corbusier's connection with Athena, as well as his series of woman and horse painting, such as 'Les amazones' in 1958. In front of her is a sacred tree, the source of a magic virtue, or source of power.⁸⁴³ On the top is a crescent, a winged disc hovering above the sacred tree. The god of the winged disc appears in all the monuments associated with the king. It was originally an Egyptian solar symbol, which was

⁸⁴⁰ Henri Frankfort, *Cylinder Seals: A Documentary Essay on the Art and Religion of the Ancient Near East*, London: Macmillan, 1939, p. 195.

⁸⁴¹ Dominique Collon, *First Impressions, Cylinder Seals in the Ancient Near East*, British Museum Publications, 1987, p. 165.

⁸⁴² *Ibid.*, p. 215.

⁸⁴³ Henri Frankfort, *Cylinder Seals: A Documentary Essay on the Art and Religion of the Ancient Near East*, p. 204.

taken over by Hatti, Mitanni and Assyria because it enjoyed an enormous prestige as symbol of imperial power.⁸⁴⁴ The deity Pleiades is never personified but occurs frequently rendered as seven dots.⁸⁴⁵

This image is composed in a symmetrical geometrical setting with basic ‘regulating lines’ behind it. This image in the book was arranged in the centre of the page; reminds one of the ancient splendours of Babylon and of Ninevah, which Le Corbusier intended to discuss in the connection with the folk house and palace. It also brings in supernatural, mythological, and astrological themes; dialectical dialogue of male and female deity which protect the figure between them, etc. The consecrated subject matter of sun, tree and life would share a common ground of *The Radiant City* in early 1930s. It also foresees mythological figures in *Poème*, such as the winged Capricorn on page 108, or a goddess on page 131.

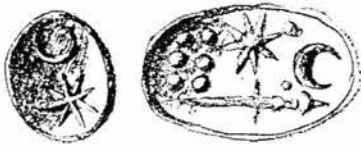


Fig. 6.49 Assyrian seals. Le Corbusier, *The Decorative Art of Today*, p.121.



Fig. 6.50 Ur, seal of crescent and star.

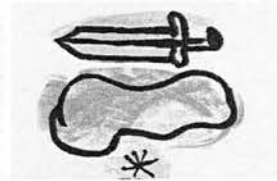


Fig. 6.51 Le Corbusier, *Poème* p. 8, detail.

Another two images of Assyrian seals in *The Decorative Art of Today* (fig. 6.49) have a similar theme, without reference to its source.⁸⁴⁶ It is from ancient Assyria and similar to a

⁸⁴⁴ Ibid., p. 209.

⁸⁴⁵ Ibid., p. 195.

⁸⁴⁶ There is no source mentioned in *The Decorative Art of Today*, but in *L'Esprit nouveau* no.27, it noted ‘Assyrien’(Assyrian).

seal from Ur⁸⁴⁷ (fig. 6.50). The right image has seven dots, a star, a crescent and a mace. Le Corbusier celebrated its essential simplicity:

And so here is lyricism at its most absolute, the quintessence extracted from the natural phenomenon, the force of pure meaning; the complete realisation of a relationship established between certain human emotions: the crescent moon, the star, the sword-blade.⁸⁴⁸

The sword-blade, if observed carefully, is in fact a mace, a symbol of power, which Le Corbusier needed to fulfil his urban utopia. His homage to Louis XIV at the end of *The City of Tomorrow* is clear evidence of this craving for power. In the discussion of 'Decision' in *The Radiant City*, he maintained that what we need is a 'despot', which is a plan, and that is 'your despot: a tyrant, a tribune of the people.'⁸⁴⁹ In the early thirties, Le Corbusier believed that 'new political and social institutions were requisite to environmental improvements.'⁸⁵⁰

The theme of these two seals continues on page 8 in *Poème* and above the iconoclast there is an image of sword, seven-ray star and a blue cloud form (fig. 6.51). The sword on the top has its source in the mace on the seal. The blue cloud shape in the middle could be interpreted as the sky, as on the cover of *The Radiant City*⁸⁵¹ and the page 17 in *Poème*. The sword-blade reminds us of his 'physic or surgery' or 'mobilization of land' in his urban treatise. This situation for protection may relate to the note on his sketch of this image: 'La vie est sans pitié'.⁸⁵² The crescent, reappeared on the cover of *Poème*. The star, which is frequently mentioned in *Journey to the East*, also reappeared in different versions on his stained glass and the door of Ronchamp Chapel.

⁸⁴⁷ Ur, Crystal conical Seal, star and crescent, no.682, (CBS. 16319).

⁸⁴⁸ Le Corbusier, *The Decorative Art of Today*, p. 121.

⁸⁴⁹ Le Corbusier, *The Radiant City*, pp. 153-4.

⁸⁵⁰ Mary Caroline Mcleod, *Urbanism and Utopia, Le Corbusier from Regional Syndicalism to Vichy*, Ph.D. Dissertation, Princeton University, June 1985, p. 6.

⁸⁵¹ Le Corbusier painted it with blue colour and wrote 'espace' over it. He celebrated increasing space between buildings, which allowed more skies and sunshines.

⁸⁵² Le Corbusier, *Sketchbooks II*, 610.

His view on the gigantic force of nature may relate to the thought that 'La vie est sans pitié'.

In March 1933 when he made the flight from Algiers to Ghardaia, he observed the formation of the Earth, the vicissitudes of river erosion and circulation of water vapour. With this

God-like view, he is assured of having delivered Earth from its fate. He maintained:

And man, introduced into this unrelenting, impassive, careless game of gigantic forces out of all proportion to himself, man within his human years, human seasons, and human span, is forced to bow before the unforeseeable moves of the elements which play their own games, and go their own way without heed. A mere sigh, a faint shiver, the slightest frown indicating their activity is a frightful catastrophe to him.⁸⁵³

This set of images, as pointed out by Mogens Krusturp, is Le Corbusier's coat of arms,⁸⁵⁴

which functions like a seal to mark ownership and, by extension, protects what was so marked. This protective quality gave the seal an amuletic value and the rightful owner and wearer of a seal was also protected.⁸⁵⁵ In architecture the bas-reliefs imprinted in Le

Corbusier's Unité and Chandigarh are indeed his personal seal.

The Order of Assyrian City: Khorsabad

Antiquity has left us, in its various remains, a demonstration of this fact. There have been golden moments when the power of the mind dominated the rabble. We have already seen it clearly in regard to Babylon and Peking [Beijing]...great cities and smaller ones...which during certain noble periods were illumined by talent, science and experience. Everywhere there are remains...which provide us with a model.

– Le Corbusier, 'The Great City', *The City of Tomorrow*, p. 105.

Le Corbusier was inspired by the ancient Assyrian and Babylonian worlds. Khorsabad, an Assyrian city near Tigris, built as a new capital by King Sargon II (722-705 BC), particularly

⁸⁵³ Le Corbusier, *Aircraft*, notes next to fig. 116-7.

⁸⁵⁴ Mogens Krusturp, *Porte email, Le Corbusier, Palais de l'Assemblée de Chandigarh*, Copenhagen: Arkitektens Forlag, 1991, p. 39.

⁸⁵⁵ Dominique Collon, *First Impressions, Cylinder Seals in the Ancient Near East*, British Museum Publications, 1987, p. 113.

interested him. The city was not completed when Sargon died in 705 B.C. His son and successor, Sennacherib, moved the capital to the old established city of Nineveh, about 15 miles south. It is almost square in plan⁸⁵⁶ and a defensive perimeter surrounds nearly one square mile.

This square plan interested Le Corbusier, who reproduced the city's archaeological plan in *The City of Tomorrow* as an example of a great city (fig. 3.2). Although there is no description of the city in this book, he mentioned it in his sketchbook: 'Assyria, palace of Sargon, temple of Sargon.'⁸⁵⁷ Later measurement shows that the city was not very square. His source of this plan is most likely Charles Chipiez's book,⁸⁵⁸ one of his main sources of ancient history.

In the northwest of the city, there was an enclosed citadel accommodating many major buildings; among them the Palace of Sargon. A ziggurat, associated with the palace temples, in the citadel was on a square base of 45 metres side. Its seven tiers rose up to the same height and it was ascended by a winding ramp.⁸⁵⁹ Le Corbusier's Mundaneum of 1929 bore strong similarities to this citadel (fig. 3.16). Both are oriented in a diagonal of the cardinal points. Both ziggurats were located on the side of the major or secondary axis with a big courtyard next to it. The rectilinear exhibition buildings of Mundaneum, having a series of square courtyards, were the main compositional language of this Palace.

⁸⁵⁶ Charles Chipiez and Georges Perrot, *History of Art in Chaldea and Assyria*, trans. & ed., Armstrong, Walter, London: Chapman and Hall, New York: A.C. Armstrong and Son, 1884, p. 312-4. The Drawing Le Corbusier reproduced was from Chipiez's book.

⁸⁵⁷ Le Corbusier, *Sketchbooks I*, no.57.

⁸⁵⁸ From Le Corbusier's *Sketchbooks*: 'Assyria, palace of Sargon, temple of Sargon.' (*Sketchbooks I*, 57) which is at Khorsabad; 'Study Chipiez / Assyrian' (*Sketchbooks I*, 109) 'Ninevh-Chipiez; Babylon [-Chipiez]' (*Sketchbooks I*, 152).

⁸⁵⁹ Sir Banister Fletcher, *Sir Banister Fletcher's a History of Architecture*, 19th ed., p. 78.

As architecture and urban design, many objects of the decorative art of the Near East culture were studied by Le Corbusier. Other than Assyrian seals, there are small statuettes of the Head of a Deer (FLC 1869) and a Chaldean Bull (FLC 5862),⁸⁶⁰ which achieve a high standard of craft. It is an example of the high technology of the ancient world, which was especially appreciated by Le Corbusier because of his background as a Swiss clock decorator.

Part IV. India and Indochina

In south Asia, the British dominion of India and the French dominion of Indochina both have magnificent large-scale religious architecture. In India the sacred monument or temple is symbolically identified with the temporal and formal structure of the universe. In the spatial continuum that links the human world to the gods; architectural forms make specific reference to cosmic pattern, including the mathematical structure of the cosmos. Their regulating lines are based on 'mandalas', geometrical diagrams that reproduce the pattern of this universe. Instrumentally, Indian sacred architecture is based on symbolic and formal principles, 'shastras', that give information on building forms and techniques, as well as astronomical and astrological data. These permit sacred monuments to be related to the heavens. Shastra assures the architect that if he masters the mathematics of his building, then harmony will reign throughout the world.⁸⁶¹

⁸⁶⁰ Head of deer, collection of Louvre, FLC 1869 and also see *Passé* 343. The Chaldean Bull, FLC 5862 published in *The Decorative Art of Today*, p. 203, collection of the Louvre.

⁸⁶¹ George Michell, *The Penguin Guide to the Monuments of India*. vol. 1, *Buddhist, Jain, Hindu*, London: Penguin, 1990, c1989, pp. 63-4.

Building types that interested Le Corbusier were large-scale temples. Even when they have various ornate towers, there is a strong, clear, and orthogonal order in their plan. The examples he studied appeared in his publications: the Ramalingeshvara Temple in south India in *Une Maison – un palais* and the Tyagaraja Temple in Tiruvalúr in *Towards a New Architecture*. Three more images of temple plans were illustrated in *Oeuvre complète* vol. 1: the Temple of Jagannath in Puri, the Gondeshvara temple in Sinnar and Angkor Wat in Cambodia. His interest in rectilinear order is evident in his focus on rectilinear plans rather than the curved tower (*gopura*) in elevation.

In the plan of the building complex of the Indian temple, the votive image is housed in the sanctuary, known as the ‘garbhagriha’ or womb-chamber. It coincides with the centre of the regulating mandala, its most powerful point; it also dictates the arrangement of the other architectural element. The main axis is most often laid out on an east-west direction, and doorways are often positioned along the line, followed by series of mandapas (columned hall) to the sanctuary. Secondary axes and side porches are sometimes provided. In its elevation, the temple is conceived as a mountain. The tower rises directly above the garbhagriha (sanctuary), and its summit being positioned over the middle of the sanctuary. In this way, the highest point of the elevation is coordinated with the innermost point in the plan.⁸⁶²

Ramalingeshvara Temple

In *Une Maison - un palais*,⁸⁶³ a sketch of the plan of the Rameswaram temple (fig. 6.52) is discussed along with a drawing of a summer residence near Beijing and the

⁸⁶² George Michell, *The Penguin Guide to the Monuments of India*. vol.1, *Buddhist, Jain, Hindu*, p. 68.

⁸⁶³ Le Corbusier, *Une maison - un palais*, p. 11.

Colosseum in Rome. He noted on his drawing of this Indian temple: ‘The temple of Rameswaram—a number of enclosures, avenues, porticos, the sacred pools.’⁸⁶⁴

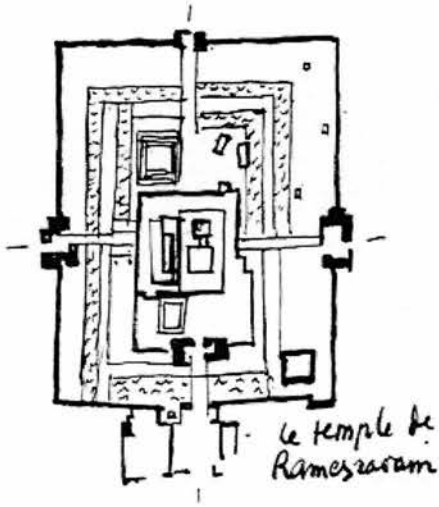


Fig. 6.52 Le Corbusier, Temple of Rameswaram. LC, *Une Maison – un palais*, p. 11.

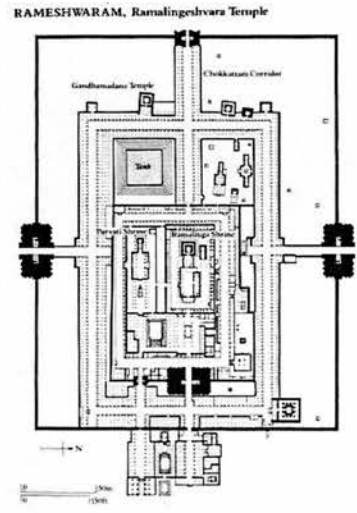


Fig. 6.53 Plan of Temple of Juganât at Puri. James Fergusson, *History of Indian and Eastern Architecture*, 1891, p. 430.

This temple is located at Rames(h)waram, a sacred Hindu island in Tamil Nadu, south India and connected to the mainland by a causeway. It is believed to be the place where Rama (incarnation of Vishnu) worshipped Shiva after crossing over from Sri Lanka.⁸⁶⁵ This temple complex (fig. 6.53) is composed of a vast rectangle of high walls, around 200 metres (612 ft.) by 260 (868 ft.) metres with rectilinear X-Y axis crossing in the centre. Each axis is followed by an entrance of a high wall, a towered *gopuras* (a tower gateway in monumental structures) and a long corridor. Within this wall is the second layer, an intermediate square enclosure with long corridors, water tank, and secondary shrines. Furthermore, in the centre of the intersecting axes is the third layer of enclosure, the innermost sacred shrine. Everything is arranged in a rectilinear order and layers of hierarchy, from outer to intermediate to inner

⁸⁶⁴ Ibid.

⁸⁶⁵ George Michell, *The Penguin Guide to the Monuments of India*, vol. 1, *Buddhist, Jain, Hindu*, London: Penguin, 1990, p. 464.

sanctuary, without a strict symmetry. In *Une Maison-un palais*, Le Corbusier follows his description of Rome as iron vigour, ordered ruthlessly, with one of this temple: 'And here are expressed, in the great temples of India, the actual conditions of all architecture; the order, the hierarchy. Power, flexibility and subtlety. Nuance.'⁸⁶⁶

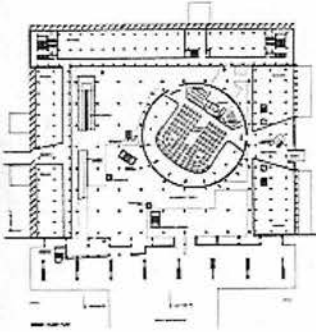


Fig. 6.54 Ground plan, Assembly, Chandigarh. *O.C.* 2, p. 88.

This concentric type of Hindu temple may cast some light on his later work of the Assembly Hall in Chandigarh (fig. 6.54). The whole precinct is a rectangular setting in an orthogonal order. Both of their entries will pass through a reflective pond. The sacred centre located in the innermost area, corresponds to the assembly hall at Chandigarh, and is located off the geometrical centre. In the hall of Assembly, as Le Corbusier noted, 'will lend itself to possible solar festivals recalling to men, once a year, that they are children of the sun...it will display, by its proper geometric definition, an amazing architectural nobility.'⁸⁶⁷

The Temple of Tyagaraja

The Tyagaraja temple in Tiruvalúr, Tamil Nadu, south India, is another type of Indian temple. It has similar arrangement, with layers of enclosure, but the towered *gopuras* are aligned

⁸⁶⁶ 'Et voici s'exprimer, dans les grands temples des Indes, les conditions mêmes de toute architecture: l'ordre, la hiérarchie. Puissance, souplesse et subtilité. Nuance.' Quote from Le Corbusier, *Une Maison-Un Palais*, p. 10.

⁸⁶⁷ *O.C.* 6, p. 94.

along the central east-west axis. It was featured in *Towards a New Architecture*,⁸⁶⁸ as he discussed in ‘Three reminders to architecture’. He remarked on the simplified drawing (fig. 6.55): ‘Types of Hindoo Temple; The towers make a rhythm in space.’ In Indian sacred architecture, ‘a correctly proportioned building is considered to be in harmony with the principles of a universal order such a building can also bring perfection to the community.’⁸⁶⁹

The source of this drawing is not credited, but is in fact taken from Auguste Choisy’s *Histoire de l’architecture*. As Choisy noted, he had referred to a book by Rám Ráz. Thus this image in Le Corbusier’s book is most likely the Tyagaraja Temple in Tiruvalúr, which Choisy made after Rám Ráz’s *Essay on the Architecture of the Hindus* (fig. 6.56).⁸⁷⁰

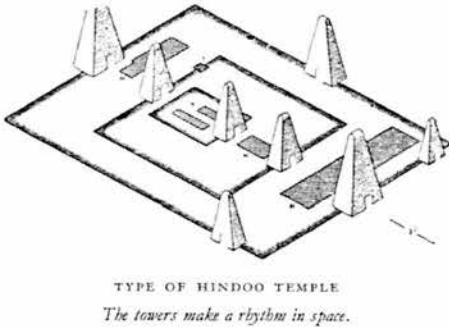


Fig. 6.55 A Hindoo temple. LC, *Towards a New Architecture*, p. 48.

⁸⁶⁸ Le Corbusier, *Towards a New Architecture*, p. 48.

⁸⁶⁹ George Michell, *The Penguin Guide to the Monuments of India*, vol. 1, *Buddhist, Jain, Hindu*, p. 64.

⁸⁷⁰ Rám Ráz, *Essay on the Architecture of the Hindus*. London: J. W. Parker for the Royal Asiatic Society of Great Britain and Ireland, 1834, PL XLVII, The Pagoda of Tiruvalúr; PL XLVIII, Ground plan of the Pagoda of Tiruvalúr.

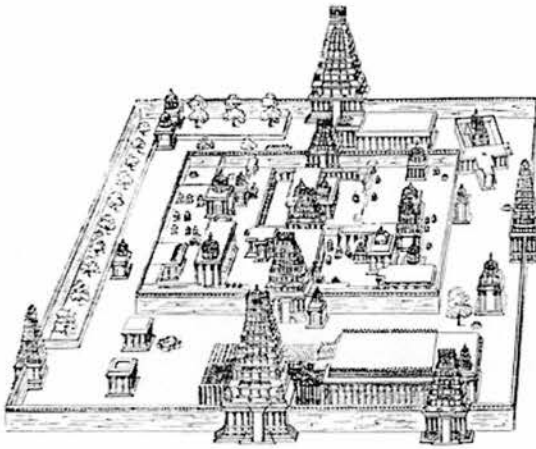


Fig. 6.56 Pagoda of Tiruvalúr. Rám Ráz, *Essay on the Architecture of the Hindus*, PL XL VII.

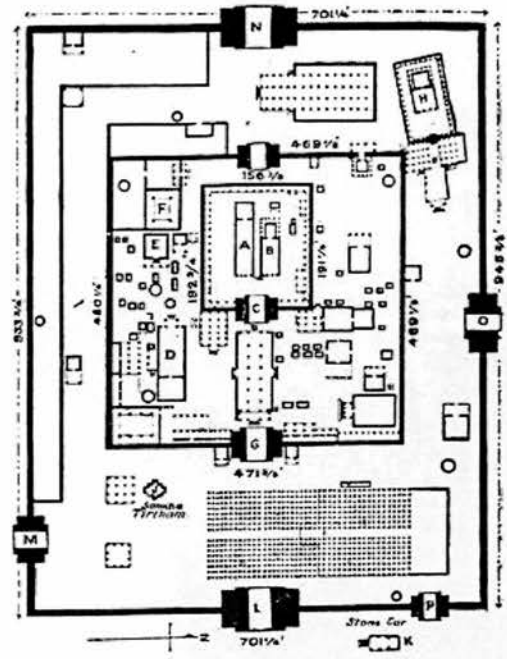


Fig. 6.57 Temple of Tiruvalúr. Michell, George, *The Penguin Guide to the Monuments of India*, vol. 1, p. 485.

Tiruvarur (Tiruvalur, Tiruvalúr) temple, in the district of Tanjore, is famous for the shrine of Tyagaraja. The temple is a gigantic structure. From miles distant the *gopurams* are visible. It is a great pilgrim centre, throughout the year, particularly in the month of *Chittirai* when the most important festival, the annual festival of Sri Tyagaraja, is performed. There are four *gopurams* on four sides. The colossal structure of the temple has a length of 846 feet with a breadth of 666 feet. Pilgrims take their bath before entering into the precincts of the temple. Similarly in his design of Chandigarh, an entry through a cleansing pond dignifies the Assembly, High Court and Governor's Palace. It also echoes the washing basin at the entrance of the Villa Savoye, a house – a temple.

Jagannath Temple

The Jagannath Temple (Jagannatha, Juganât) is in Puri, and was built in the twelfth century, with later developments. Le Corbusier studied the plan of this temple (fig. 6.58) and noted on two extreme ways of managing the symmetry of temple: ‘Determination of the rigours and flexibility of Symmetry.’ (*‘Détermination des rigueurs et des laisser-aller de la Symétrie.’*)

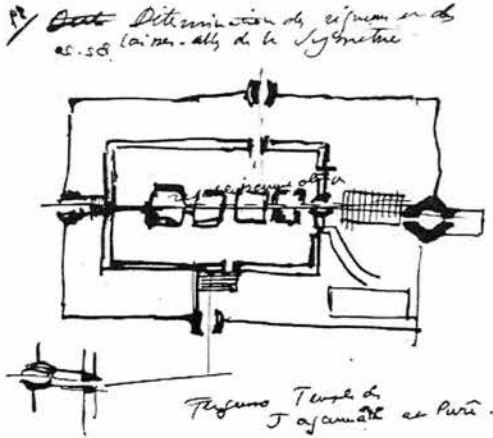


Fig. 6.58 Le Corbusier, Temple of Jagannath, from his *Oeuvre complète* vol. 1, p. 21.

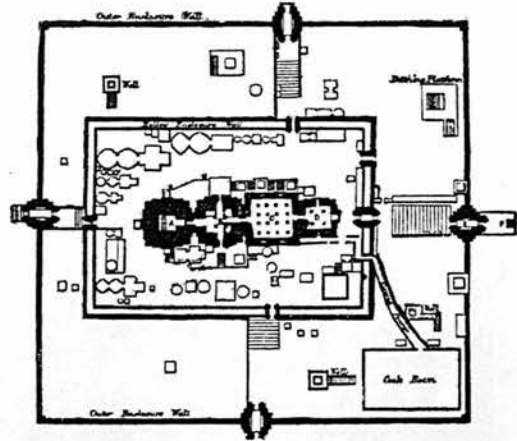


Fig. 6.59 Plan of Temple of Juganât at Puri, From Fergusson, James, *History of Indian and Eastern Architecture*, 1891, p. 430.

Puri, as it is known to the Hindus, is a holy town located on the bank of Bengal Bay, Eastern coast of India. The temple of Jagannath (fig. 6.59), Lord of the universe and an incarnation of Vishnu, is one of the four most sacred places (Dhams) of worship for Hindus. This temple has a double enclosure. Externally it measures 670 ft. by 640 ft., and is surrounded by a wall 20 ft. to 30 ft. high, with four gates. The inner enclosure measures 420 ft. by 315 ft., and is enclosed by a double wall with four penings.⁸⁷¹ Rising to a height of about 56.7 m (186 ft), the tower over the sanctuary is a powerful composition (fig. 6.60).⁸⁷²

⁸⁷¹ James Fergusson, *History of Indian and Eastern Architecture*, London: J. Murray, 1891, p. 430.

⁸⁷² George Michell, *The Penguin Guide to the Monuments of India*, vol.1, *Buddhist, Jain, Hindu*, p. 251.



Fig. 6.60 Puri, Temple of Jagannath.⁸⁷³

Gondeshvara (Gondeshwar) Temple

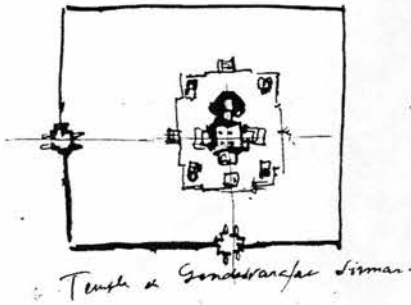


Fig. 6.61 Le Corbusier, Temple of Gondeshwar, Sinnar, from *Oeuvre complète*, vol. 1, p. 21.

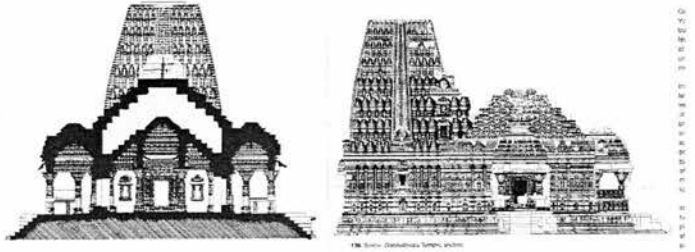


Fig. 6.62 Section and side elevation, Temple of Gondeshwar, Sinnar.⁸⁷⁴

This temple was built in Sinnar, Maharashtra, western India, in the eleventh century. It is one of the largest temples in the region. The principal temple and its facing pavilion are elevated on plinth.⁸⁷⁵ A hall with three porches adjoins a towered sanctuary (fig. 6.62). Le Corbusier sketched its plan (fig. 6.61) and pointed out its clear orthogonal axes. This image is placed next to the images of temple of Jagannath and Angkor Wat, which all have a strong

⁸⁷³ From Mario Bussagli, ed., *Oriental Architecture*, trans. John Shepley, New York: H.N. Abrams, c1973, p. 129.

⁸⁷⁴ From Tadgell, Christopher. *The History of Architecture in India: from the Dawn of Civilization to the End of the Raj*, London: Phaidon Press, c1990, Pl. 138.

⁸⁷⁵ George Michell, *The Penguin Guide to the Monuments of India*, vol.1, *Buddhist, Jain, Hindu*, p. 394.

rectilinear order.

Indochina: Angkor Wat

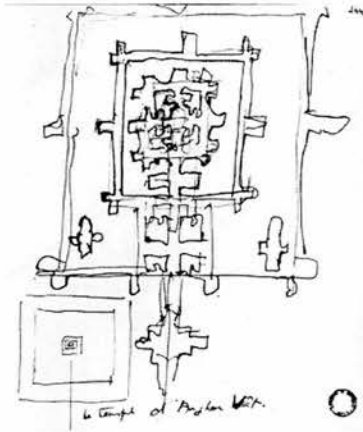


Fig. 6.63 Le Corbusier, Sketch of plan of Angkor Wat. *Oeuvre complète* vol. 1, p. 21.



Fig. 6.64 Le Corbusier, Sketch of a Cambodian Stele, FLC 1928, *Passé* 304.

Even though Indo-China was a French colony, the materials selected for publications by Le Corbusier were quite limited, compared to his Indian and Chinese sources. The most notable example is Angkor Wat, part of the Temples of Angkor, a jungle city of water and mountain-temples on the Cambodian Lake Tonle Sap. It was founded as the capital of the Khmers about AD 900.⁸⁷⁶ The huge building complex was laid out in a strict centralized rectilinear order, within an immense area of jungle. A sketch of its plan is published in *Oeuvre complète* vol. 1 (fig. 6.63). Its serrated plan-form of the stepped temples and clear orthogonal order might inspire Le Corbusier's urban idea such as central cruciform glass towers.⁸⁷⁷ He also studied a Cambodian stele with a dancing female figure (fig. 6.64), style of Angkor Wat, at the Guimet Museum. His annotated drawing makes the claim that these group ornaments are harmonious combination.

⁸⁷⁶ Susan and Geoffrey Jellicoe, *The Landscape of Man: Shaping the Environment from Prehistory to the Present Day*, Rev. and enl. ed., London: Thames and Hudson, 1987, p. 67.

⁸⁷⁷ Kenneth Frampton, *Le Corbusier*, p. 49. Le Corbusier had studied Angkor in his 'La Construction des villes'.

Part V. Journey to Further East and China

In his treatise Le Corbusier discussed several exotic examples from the Far East Asia. Though Indo-China was a French colony, he paid little attention to it, being more interested in China and Japan, perhaps because he was more interested in remote lands, and focused more on the major civilizations to support modernist arguments.

In 1965, three months before the end of his life, Le Corbusier was interviewed by Hugues Desalle: “Is there any other architecture, other than Greek architecture, which was an important element in your life as an architect and builder-innovator?” Le Corbusier answered:

Yes, yes! I’ve travelled all the countries of the world, except for two cities...Peking and –what is the other? Peking and Mexico City...I am trying to go to those countries...in addition to the palaces... I admired the peasants’ house, the house of man, the huts, the modest thing on a human scale.⁸⁷⁸

Even though he did not reply to Desalle precisely, his response explicitly revealed his intentions and expectations.

Several illustrations of the Far East were randomly integrated in Le Corbusier’s ‘La Construction des villes’, *The City of Tomorrow*, *The Decorative Art of Today*, *Une Maison-un palais* and other treatises mainly before 1930s. Some of his study results on ‘La Construction des villes’ were published in his first *Oeuvre complète 1910-1929*, where pages of his sketches from around the world were presented at the beginning. One of them (p. 21) was annotated: ‘Chine-Japon’, which in fact consists of drawings of China, Japan, India, Cambodia

⁸⁷⁸ Ivan Zaknić, *The Final Testament of Père Corbu: A Translation and Interpretation of Mise au point*, p. 117.

and even some European cities.

Rectilinear Order – The Great City

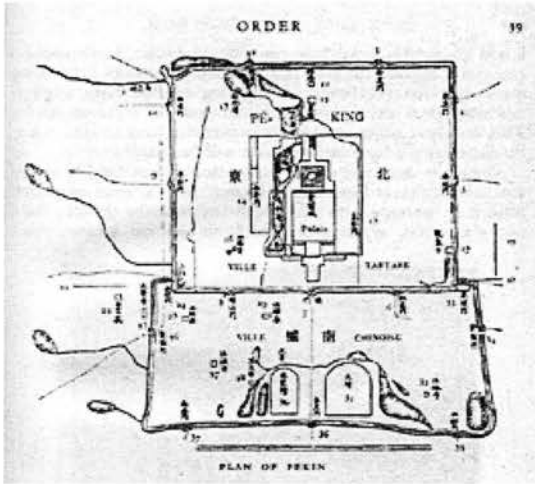
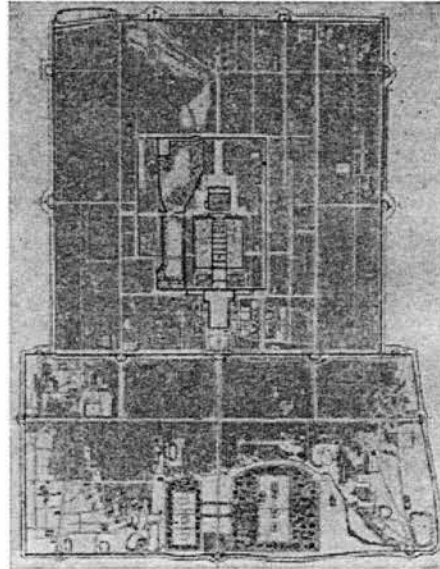


Fig. 6.65 Early plan of Peking (Beijing), Le Corbusier, *The City of Tomorrow*, p. 39



Compare this plan with that of Paris, a little further on. And we Westerners felt called on to invade China in the cause of civilization!

Fig. 6.66 Early plan of Peking (Beijing). ‘Compare this plan with that of Paris, a little further on. And we Westerners felt called on to invade China in the cause of civilization!’ . LC, *The City of Tomorrow*, p. 102.

A number of researches made in the French national library were repeatedly mentioned in Le Corbusier’s publications, such as the rectilinear order and discipline of Peking (Beijing, figs. 6.65, 6.66) in the discussion of ‘The Great City’. Beijing city, laid out in a strict order and hierarchy, inspired Le Corbusier’s modern city. He noted in his *Sketchbooks*: ‘Peking for unity strong / and complete / (spirit unity?)’⁸⁷⁹ He also intended to use the plan of Kūfu (Qu-Fu, 曲阜) the birth place, temple and tomb of Confucius, the great philosopher and teacher of China.⁸⁸⁰

⁸⁷⁹ Le Corbusier, *Sketchbooks I*, no. 152.

⁸⁸⁰ See FLC B2-1-80.

In ancient Chinese cosmology, people believed in the ‘spherical heaven and square earth.’⁸⁸¹ Consequently, human beings should harmonize themselves with the universe by having houses and cities primordially in a rectilinear composition. In contrast, non-formal structures such as garden following the topography are more liberal and natural. In Le Corbusier’s project of the Radiant City, the cruciform towers in the business district, as Kenneth Frampton stated, correspond to the ‘center of divine power in traditional Chinese city planning.’⁸⁸²

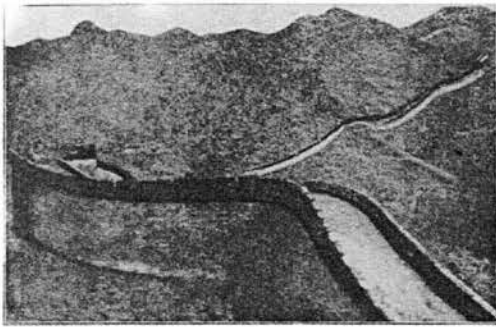


Fig. 6.67 The Great Wall of China.
Le Corbusier, *The City of Tomorrow*,
p. 167.

THE GREAT WALL OF CHINA, NEARLY 2,000 MILES IN LENGTH

The Great Wall of China was constructed primarily to protect the ancient Chinese Empire from invasion by the northern tribes. This huge wall, from Kansu Province in the west to the Yellow Sea in the east, was initially built in the third century B.C. When Le Corbusier discussed the technical equipment in *The City of Tomorrow*, he used this picture of the Great Wall (fig. 6.67) as an epilogue to the chapter on technology, with no description in the text except the annotation below the picture: ‘The great wall of China, nearly 2,000 miles in Length.’ This picture is taken from *L’illustré*, no.7, p. 83 (FLC B2-2-50) with the caption ‘La muraille de Chine, au nord de Pékin.’ This page is composed of several pictures from around

⁸⁸¹ In Chinese ‘天圓地方’. There are many archaic sources of this such as Confucius’ words. see Sun, Tzong-wen, *Chinese architecture and philosophy*, China: Jiang-Su Science and Technology pub., 2000, p. 33. (孫宗文, 中國建築與哲學, 江蘇科學技術出版社, 2000)

⁸⁸² Kenneth Frampton, *Le Corbusier*, p. 53.

Beijing, and a brief introduction to China in the early twentieth century. In *The City of Tomorrow*, Le Corbusier did not explicitly elaborate on the picture of the Great Wall, but his description on the following page could be interpreted as a footnote to this picture. ‘The vital thing is to have an idea, a conception, and a programme... Haussman’s equipment was meagre...and in destroying chaos he built up the Emperor’s finances!’⁸⁸³ It is a similar case to ancient China, which was able to use primitive equipment to accomplish a remarkable monument of a powerful empire and a miraculous architecture in the world. It seems that this picture informs Le Corbusier’s urban project in Algiers (fig. 6.10) with its sinuous viaduct-like structure meandering along with the natural topography.

Asymmetrical Disposition - A Private Chinese Garden in Quanton (Canton)

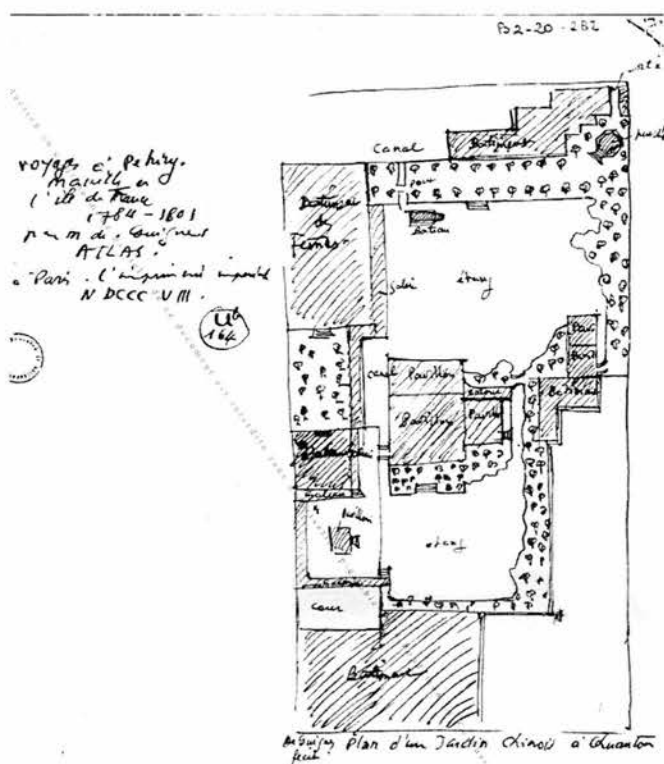


Fig. 6.68 Le Corbusier, A Chinese garden in Quanton (Canton), south China. FLC B2-20-282.

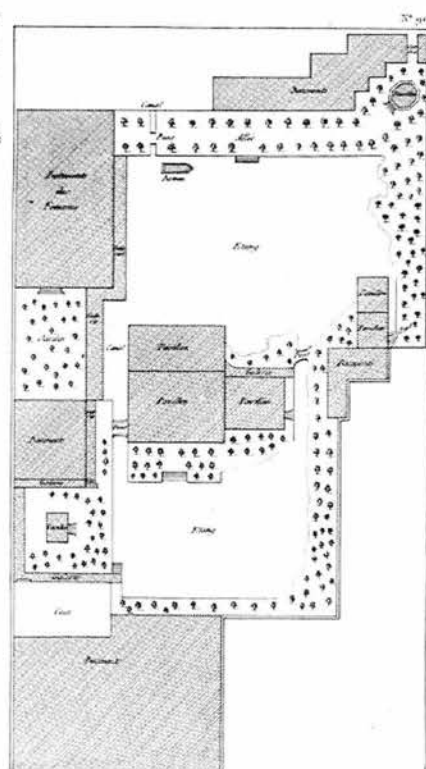


Fig. 6.69 Chretien Louis Joseph de Guignes, *Voyages à Peking, Manille et l'île de France*, Atlas, Plate 90.

⁸⁸³ Le Corbusier, *The City of Tomorrow and its Planning*, p. 166.

A Chinese garden at Quanton (Canton, or Guang Zhou, a seaport of south China) with an asymmetrical composition interested Le Corbusier. His study was recorded in 'La Construction des villes' and published in the *Oeuvre Complète 1910-1929*. This plan (fig. 6.68) of a small private garden is taken from the book *Voyages à Peking, Manille et l'île de France* by Chretien Louis Joseph de Guignes, a former *Résident de France* in China.⁸⁸⁴ It is the only architectural plan (fig. 6.69) in the *Atlas* volume of the book; the others are scenery and maps. This garden was located on the outskirts of Canton and belonged to M. de Grammont.⁸⁸⁵ Le Corbusier imitated this plan precisely and recorded all the notes and names of each part.

Water is the key element of this Chinese garden. Two ponds, separated by an island with three pavilions, are the focus of the entire garden, surrounded by galleries, corridors, buildings, courtyard and trees. No further drawing of this garden is provided in this book, but many similar examples can be found in other plates of the same book, such as pavilions (plates 13 and 59), gardens and buildings with curved pitch roofs (*Batiment* from the original drawing). The latter are mainly wooden trabeated structures.

This plan (fig. 6.69) interested Le Corbusier and might have inspired him in various ways. From the northeast corner (upper right in the drawing), one enters the garden through a small gate and walks along a short narrow corridor. An octagonal pavilion situated at the end of the corridor diverts the path to the pond. By such a delicate design, the visitor will not be led to the pond directly. Furthermore, a scene of contrast, expanded and spacious, surrounded by

⁸⁸⁴ Chretien Louis Joseph de Guignes, *Voyages à Peking, Manille et l'île de France: faits dans l'intervalle des années 1784 à 1801*, Paris: Imprimerie imperiale, 1808, Atlas, Plate 90.

⁸⁸⁵ *Ibid.*, volume II, p. 192.

trees and other corridors, is surprisingly presented. Each side of the upper pond is planned differently with various views.

As the central pavilions and corridor are all visually permeable,⁸⁸⁶ the other shimmering half of the garden is the next pond surrounded by plants, which could be perceived as a further layer of space and creates a deeper effect. This building complex, with its asymmetrical orthogonal layout, delighted Le Corbusier. Within this order, people can promenade in a free-flowing but dynamic space entwined with naturalistic and informal waterfront and vegetation. This naturalistic and organic ethos permeates the garden, as described by the author: '*L'art des jardins, chez les Chinois, consiste à copier la nature: imiter ses beautés et rendre ses désordres, sont chez eux le comble du génie.*'⁸⁸⁷ Following the zigzag path, a series of interesting and thoughtful designed vistas emerge one after another. Le Corbusier may have observed that Chinese architecture is mostly made of wood with a post-and-lintel structure. Usually, the columns of a pavilion are only to support the roof.⁸⁸⁸ Walls of a pavilion with large openings, such as the examples in this book, offer a great deal of visual transparency on the ground level. This composition has a similar effect to Le Corbusier's 'Piloti'. The type of arrangement, creating a journey through a tiny entrance, a zigzag path and along a sequence of multi-layer space in a rectilinear order adopted in this Chinese garden, is also frequently applied in Le Corbusier's work.

⁸⁸⁶ The typical Southern Chinese architecture is built up with wooden trabeated structure system (piloti and beam), and the pavilion is usually a structure open to the surrounding.

⁸⁸⁷ Chretien Louis Joseph de Guignes, *Voyages à Peking, Manille et l'île de France: faits dans l'intervalle des années 1784 à 1801*, Paris: Imprimerie imperiale, 1808, Volume II, pp.189-190. Le Corbusier may read this section, as this part is in the whole book, or may not read it, as his annotation is only basic information.

⁸⁸⁸ '*le vrai mot, celui qui convient le mieux à la colonne Chinoise, et pillar* [compare with the Greek one]...*La majeure partie des matériaux d'un édifice Chinois, est en bois; le toit est supporté par des colonnes.*' Ibid., p. 173.

Examples in this book are introduced as etchings seen from a Westerner's eyes, in which a certain distance from real Chinese architecture can be discerned. A few characteristics of typical Chinese architecture are not presented ideally. For example, details of *Dou-Gong* (box and arch system as a connection between column and roof, in Chinese 斗拱) in the drawing are always blurred in de Guignes's book, but *Dou-Gong* is indeed a unique and delicate kind of Chinese wooden construction. However, Le Corbusier's personal interest in Asian architecture, as revealed by his other drawings, actually focused more on the composition than the wooden construction details.

Geometry in Nature: a Chinese Royal Summer Residence

One of Le Corbusier's studies of Chinese landscape (fig. 6.70), most likely from 'La Construction des Villes', was published in *Une Maison - un palais*.⁸⁸⁹ This landscape was juxtaposed with drawings of the Colosseum and a large-scale Indian temple complex. In this work, he discussed the order within nature exemplified in building in Chinese landscape drawing, and further elaborated on hierarchy and power, as well as other subtleties in these cases. This juxtaposition implies that these three architectures remain equally magnificent: a moderate Chinese pavilion complex within a natural setting, an architectural landmark of a great empire, and a powerful influential religious monument.

⁸⁸⁹ Currently this drawing is not in 'La Construction des villes' but belongs to the same family of Chinese drawings there. See discussions in the following paragraph.

Fig. 6.70 Summer residences around Peking (Beijing). From Le Corbusier, *Une Maison – un palais*, p. 11.



This specific Chinese landscape drawing, illustrates a low quadrangle complex and a pavilion on the shore of an extensive lake, which gradually merges with the distant mountains. This drawing is annotated: ‘The summer dwellings around Peking.’ (*Les résidences d’été aux environs de Pékin.*); and the text reads: ‘In a variegated setting, the Chinese erect a house, clear, lucid, precise: a regular event.’ (*Dans le site bigarré, le Chinois élève sa maison, nette, limpide, précise: événement régulier.*)

Le Corbusier’s argument is precise and reasoned, as the leitmotif of the book is to support his argument against losing the competition for the League of Nations buildings. Both building complexes, the Chinese residence and the League of Nations, were situated on natural lakeshores. His modernist design for the competition is geometrically pure, and rectilinear. It is also a manifestation of his ‘five points’. As he notes, he cherished the regular, clear, limpid and precise characteristics of this Chinese architectures placed amongst the irregular, natural and picturesque setting. The right angle, his lifelong delight, is manifested in this Chinese pavilion, and supported the universality of his design. As the League of Nations was an international institution, his design drew upon universal solutions.

A. A Summerhouse or a Palace

There is no further description of this Chinese summer residence in the book regarding its source, which is not unusual for Le Corbusier. But where and what is this summer residence near Beijing? Unfortunately, this drawing is not shown in Philippe Duboy's research on 'La Construction des villes',⁸⁹⁰ nor in the archive file of *Une Maison - un palais* at the Fondation Le Corbusier. From the characteristics and history of Chinese architecture, it is clear that this quadrangle and pavilion complex is not an ordinary residence as it is not arranged symmetrically, which has always been a typical feature of the Chinese residence. It is more like a large-scale garden, and its grand scale suggests that it is most likely a royal garden. The capital of Qing Dynasty (1644-1911) was Peking and there were several summer palaces nearby built in this Dynasty. Among them, the most remarkable was in Chengde, north of Peking. In Philippe Duboy's research, a Chinese landscape drawing of the same source, but with a different vista (FLC B-20-218 or F/19), provides evidence of its source. Comparing this drawing (FLC B-20-218) with the royal collections of the thirty-six beautiful vistas at the Summer Palace in Chengde (figs. 6.73-6.75), it is clear that the former comes from one of the latter. In Le Corbusier's eyes, this building is clear, lucid and regular in a variegated setting. But if examines from Chinese document, what does this architecture and landscape convey?

⁸⁹⁰ See 'Index des Lieux' in Philippe Duboy, *Architecture de la ville: Culture et triomphe de L'Urbanisme*. CH.E. Jeanneret, 'La Construction des villes', *Bibliothèque Nationale de Paris*, 1915, Ministère de L'Urbanisme, du Logement et des Transports, 1985.



Fig. 6.71 'Spring sound resonates near and far' (in Chinese 遠近泉聲, Yuan Jin Quan Sheng), Summer Residences in Chengde. Woodcut by court artisans from original painting by a Chinese court artist.⁸⁹¹

Ancestors of the royal family of the Qing Dynasty were originally from Northeast China. This summer palace, closer to their ancestral home, was built for the emperor to escape from the summer heat in Peking (Beijing). The natural scenery of lake and mountain provides a grand setting to this resort and provides the main theme of this royal garden. Many other themes, such as legends, mythology and poetry are also incorporated in the garden in various forms. To harmonize with nature, the original topography was conserved as far as possible when the buildings were constructed.⁸⁹² The volume of the architecture is subdued into a moderate size instead of the grand scale of the Forbidden City. Nevertheless, the royal grandeur and beauty remain appealing through a harmony with the splendid surrounding mountains. Emperor Kang-xi, who initiated this palace, selected the thirty-six most beautiful vistas, composed a poem for each of them, and ordered his court artist to make a drawing of

⁸⁹¹ Shengzu (Qing Dynasty), *Palace Illustrated Poem of Summer Palace*, (yu zhi gong he bi shu shan zhuang tu yong). Note: in Xi-yong xuan cong shu; Taipei, 1983. 御製避暑山莊圖詠不分卷/(清)聖祖撰;(清)揆敘等注;(清)高宗和;(清)鄂爾泰等注;(清)沈喻繪. 附注: 書名頁題<清聖祖避暑山莊圖詠> 收於:喜詠軒叢書 (臺北:廣文書局,民國 72 年[1983])

⁸⁹² It was ordered by Emperor Kang-xi, the initiator of this royal garden. See Tianjin University, Bureau of Cultural Relics of Chengde, *Ancient Architecture of Chengde*, Beijing: China Architectural Industry Press. 1982, pp. 27-31. 天津大學建築系, 承德文物局, 承德古建築, 北京, 中國建築工業出版, 1982.

each vista. These poems and drawings were then collected, transformed into woodcut drawings and edited as an anthology for publication.

One of the vistas, 'Spring sound resonates near and far' (in Chinese, 遠近泉聲 'Yuan Jin Quan Sheng', fig. 6.71) provides the source of Le Corbusier's drawing (fig. 6.70), in which a quadrangle is encircled by an extensive lake with the magnificent mountains as the backdrop. The composition of this landscape painting is arranged in a 'rising-eye-level' sequence, a vertical viewing system of successive eye-level vistas and perspectives, which conveys an expression of depth when the viewer shifts his focus from the architecture at the bottom to the winding lake and the mountain peaks on the top, and from the foreground to background.

The buildings in the painting are for leisure and therefore do not follow the conventions of formal residence, which always follow rigid symmetry. Chinese formal architecture is always composed of rectilinear courtyards and quadrangles arranged along a central axis. The distribution and a sequence of the interior space reflect Chinese social and ethnical values as well as hierarchy.⁸⁹³

The traditional Chinese gardener treasures a natural setting. It always follows the existing natural topography and further enhances the characteristics of the natural landscape. Many Chinese gardens were constructed or commissioned by intellectuals proficient at painting and poetry.⁸⁹⁴ Building columns and wooden beams support a curved roof, whereas walls are only enclosing partitions. This echoes Le Corbusier's 'Free plan', as he proposed in his

⁸⁹³ Dun Zen Liu, *The History of Ancient Chinese Architecture*, Beijing: China Architectural Industry, 1980, p.9. 劉敦禎, *中國古代建築史*, 中國建築工業出版社, 北京, 1980.

⁸⁹⁴ Xu Jie Liu, *Introduction to Ancient Chinese Garden (Zhong Guo Gu Dian Yuan Lin Gai Shu)*. Beijing: China Architectural Industry Press, 1986. 劉敘杰, *中國古典園林概述*, 中國古典建築學術講座文集, 山西省古建築保護研究所編, 北京, 中國建築工業出版社, 1986.

'Five points towards a new architecture'. His interest in oriental quadrangle settings was revealed in several sketches made during his journey to the East. These include a Turkish house between Murattis and Rodosto,⁸⁹⁵ and a sacred necropolis in Eyüp enclosed by walls as a quadrangle setting.⁸⁹⁶ This leisure residence in a rectilinear layout but avoiding the strict symmetry of the Beaux-Art school, and synchronised with the landscape inspired Le Corbusier, and hence was chosen as a case study.

The title of this painting – 'Spring sound resonates near and far' (in Chinese, 遠近泉聲) – refers to a spring in the north and a waterfall in the west in that region. The painting contains not only a picturesque lake and mountain but also an imaginary resonance from the sound of the spring, and even the temperature is cooled down by water, shade and wind. This image was also perfectly conveyed by Emperor Kang-xi, in his beautiful symmetrical "Dui-Lian" (in Chinese 對聯), a Chinese traditional literary format, two regulated sentences in a certain strict and consistent rhymes and rhythms, which symmetrically respond to each other: 'An image of the sun emerges among the surrounding floating waterweed; a celestial spirit is reflected in a lucid green lake.' (in Chinese : 四面浮青開日景, 一泓澄碧見天心) and in his poem: 'Draw spring to hear the cascade, dancing water arouses dewdrops; jade-like sound echoes in the air; they exist but are invisible.' (in Chinese : 引泉聞瀑布, 迸水起飛珠, 鏘玉雲巖應, 色空有若無).⁸⁹⁷ The buildings, however, were not the Emperor's focus; neither did he praise the architecture. Instead, he wrote in appreciation of the natural scenery and sound, which contrast strongly with Le Corbusier's interpretation of the architectural order within nature.

⁸⁹⁵ Ivan Žaknić (ed), *Journey to the East, Le Corbusier*, Cambridge, Mass.; London: MIT Press, 1987, p. 80.

⁸⁹⁶ *Ibid.*, pp. 125-6.

⁸⁹⁷ He Kun *et al* (ed), *Qin Din Re-He Zhi* (2), vol.28, Taipei, Wen-Hai Press, 1966, p. 17. 和坤等修欽定熱河志(二),卷二十八,行宮四,臺北,文海出版社,1966.

B. A Variegated Chinese Landscape

Following the discussion of this Chinese landscape painting, Emperor Kang-xi's anthology concerning this scenery was illustrated by Chinese woodcut landscape drawings. Chinese landscape painting and poetry had been developed within an autonomous and matured system for thousands of years. The appreciation of nature was a leitmotif of Chinese landscape painting, which was formalized in the Six Dynasties (265-581AD).⁸⁹⁸ Painters of that time regarded landscape painting as a high art because landscape was thought to have both substantive and spiritual qualities.⁸⁹⁹ 'The Chinese were the first people...who placed the painter on the same level as the inspired poet.'⁹⁰⁰ Both painting and woodcut were commissioned by the Emperor and were of the highest artistic level in China. Why was it 'variegated' (*bigarré*) in Le Corbusier's eyes?

⁸⁹⁸ Michael Sullivan, *The Arts of China*, University of California Press, 1977, p. 139.

⁸⁹⁹ These words were probably by Tsung Ping (宗炳, 375-442), a Buddhist scholar and painter, in his 'Preface on Landscape Painting (山水畫序)'. See *Ibid.*, p. 98.

⁹⁰⁰ Ernst Hans Gombrich, *The Story of Art*, p. 150.



Fig. 6.72
 'Spring sound resonates near and far' (Yuan Jin Quan Sheng), copperplate etching⁹⁰¹ made after woodcut print. This was the version that Le Corbusier drew from.

The original illustration in the Emperor's anthology was a woodcut copied from a painting by court artist Yu Shen (in Chinese 沈喻) and beautifully carved by a court artisan. It was later reproduced as a copperplate etching (fig. 6.72) by Matteo Ripa, an Italian missionary,⁹⁰² in 1713 under the Emperor's order, and it mainly followed the woodcut version. This etching, however, was the first of a series of copper etchings made in China. Matteo Ripa was the only westerner in the court who knew etching and his knowledge was limited. He knew only what he had learned from a single class taught by an artist in Rome. The required materials were difficult to obtain and tools were not available. The ingredients for aqua fortis (nitric acid) were inadequate, with the result that the lines of the etching were very shallow. The ink

⁹⁰¹ Shengzu (Qing Dynasty), *Palace Copperplate Etchings of the Thirty-Six Vistas of Summer Palace*, Beijing, Xue Yuan Press, 2002. 銅版避暑山莊三十六景詩圖/(清)聖祖撰;(清)王曾期書詩文;(清)沈喻繪圖, 北京: 學苑出版, 2002. 附注: 亦名<御制避暑山莊三十六景詩圖> 影印本, 圖為清康熙五十二年[1713] 內府銅版印刷.

⁹⁰² Matteo Ripa (Chinese name 馬國賢), 1682-1745, Italian missionary who stayed in China from 1710-1723. Author of 'Memoirs of Father Ripa, during thirteen years residence at the court of Peking in the service of the Emperor of China.'

was not suitable for printing; nor was there a machine for pressing. Matteo Ripa did many experiments before finally achieving a measure of success.⁹⁰³

These two versions reveal the difference in the disciplines between two cultures, as well as maturity in technique. The woodcut drawing (fig. 6.71) follows the basic technique of strokes in the Chinese brush painting ('Tsuen' or *cun*, in Chinese 皴法), a special technique of modelling strokes that Chinese artists have been using to depict the textures of the tree, rock, mountain and land. The brushstroke allows varying thickness of line and changes of direction in the same stroke. Conversely, in copperplate etching the artist 'draws' the line with a sharp needle over the resinous layer on the plate; thus the line is very fine and delicate.

There are significant differences between these two versions, as revealed in the manner of depicting the mountains. In the woodcut (fig. 6.71), the mountains are depicted abstract and flat, either covered by slender dots where they are near or by just a contour line for these further distant; whereas in the copperplate version (fig. 6.72), all the mountains are of uniform shade. There are also some minor variations. In the woodcut there is an area of lines representing the waves in the centre of lake, but in the copperplate etching it is lacking. A short bridge leads to a small island on the lower right corner; but in the copperplate version, the linkage is unclear. Thus the copperplate version becomes 'variegated', as Le Corbusier described. The woodcut drawing by the Chinese painter and artisan is closer to the Chinese poetic and naturalistic spirit, whereas Le Corbusier's drawing is reproduced from the copperplate etching.

⁹⁰³ Matteo Ripa, *Memoirs of Father Ripa During Thirteen Years' Residence at the Court of Peking in the Service of the Emperor of China*, New York AMS Press, 1979, pp. 77-84.

C. Hermitage within Lakes and Mountains



Fig. 6.73 Le Corbusier, Royal palace of Chengde.
Le Corbusier, 'La Construction des villes'. FLC B2-20-218

Another Chinese landscape painting in 'La Construction des villes' (fig. 6.73) came from the same source (fig. 6.74). It is another of the thirty-six vistas in this royal garden and was named by Kang-xi, 'Orchid path to cloudy isles' (芝逕雲隄, Zhi Jing Yun Ti). When Emperor Kang-xi commissioned this royal garden, he instructed, 'The local farmlands and trees shall remain intact; follow the natural topography to elaborate the beauty!'⁹⁰⁴ The vista, 'Orchid path to cloudy isles', was accomplished as this instruction. The theme is a path bordered with orchids leading to a cloud-shaped isle. This isle becomes a floating cloud in the "sky" reflected in the lake. A similar technique of such a double-meaning layout was actually often applied in Le Corbusier's work. However, his viewpoint of this painting was focused on an interpretation of a hermitage in a grand natural landscape as quoted:

⁹⁰⁴ In Chinese: '莊田勿動樹勿發,自然天成地就勢', 欽定熱河志(二), 和坤等修, 卷二十六, 文海出版社, p. 3.

Creeks, isthmuses, pavilions, small islands, mountains are very high and really far, a grand loneliness in an ample landscape. Ask the conservator who engraved these plates which seems made by Mantegna and are so much Chinese in spirit?⁹⁰⁵



Fig. 6.74 Orchid path to cloudy isles, copperplate etching, which Le Corbusier drew upon.



Fig. 6.75 Orchid path to cloudy isles (芝逕雲隄, Zhi Jing Yun Ti), woodcut version.

Both Chinese landscape paintings, in a diagonal composition, depict small buildings in a lake with mountains in the background. Le Corbusier was attracted by such scenery, which could be compared to his passion for the landscape of his hometown, the Jura Mountains and Lake Neuchâtel. He praised the beauty of Andrea Mantegna's work in the Gonzaga Palace in Mantua while travelling to north Italy in 1907.⁹⁰⁶ For the Chinese, mountains convey many spiritual and symbolic meanings, as observed by Boerschman:

And if the Chinese, familiar as they are with their native earth, regard themselves as part of it, look upon it as the source of their power and soul, they also lift their eyes up to the mountains the source of the soil. In them they see the origin of their own being and of holiness, the seat of the Deity. The mountains connect earth with heaven.⁹⁰⁷

Mountains inspire religious feelings in all parts of the world. The ancient Greeks believed

⁹⁰⁵ 'Des criques, des isthmes, des pavillons, des ilots, des monts très hauts très très loin, une gr[an]de solitude dans un très ample paysage. Demander au conservateur qui a gravé ces planches qui semblent faites par Mantegna et qui sont si chinoises d'esprit?' Annotation of FLC B2-20-218 ('La Construction des villes').

⁹⁰⁶ 'A Mantoue, Mantegna, très beau, sûrement son chef-d'oeuvre (bibliothèque des Gonzagues)... Letter to Charles L'Eplattenier, Nov.1 1907, *Le Corbusier / choix de lettres*, p.39. Andrea Mantegna made a number of engravings during his stay in Mantua.

⁹⁰⁷ Ernst Johann Robert Boerschmann, *Picturesque China; Architecture and Landscape: a Journey through Twelve Provinces*. Trans. Louis Hamilton. London, 1924, p. VI.

Mount Olympus to be the home of gods. Temples and monasteries are frequently sited on, or related to, mountains, which are regarded as holy places.

This Chinese copperplate etching was brought to Europe by Mateo Ripa and by other ways.⁹⁰⁸ After 1908 Le Corbusier lived in major European cities such as Paris, Berlin and Vienna, studying, working as an apprentice, and writing books of *Étude sur le mouvement de l'art décoratif en Allemagne* and 'La Construction des villes'. He revisited the Bibliothèque Nationale de France, Paris in 1915 to further research for the latter book⁹⁰⁹ and others. Here he was exposed to Matteo Ripa's Chinese drawing⁹¹⁰ and to other resources, including the schematic analysis of the Achaemenian cupolas in Dieulafois's *L'art antique de la Perse*, subsequently included by Le Corbusier in *Towards a New Architecture*.

D. A Romantic Conjecture

Architecture in this drawing actually is not a house as stated in Le Corbusier's book, but a royal pavilion at the Emperor's summer palace, which is quite the opposite to Le Corbusier's idea of 'une maison' (a house) but it is indeed a part of 'un palais' (a palace). Nor is the main theme of this setting visual order but a poem set to the sound of water. Le Corbusier idiosyncratically selected what he needed for his argument, and made a personal interpretation on the setting of this part of the summer palace. Nevertheless, the orthogonal

⁹⁰⁸ In January 1724, Matteo Ripa left China. On his way to Italy, he visited London in September and paid a courtesy visit to King of England and Duchess of Arlington, to whom he gave the etchings before heading for Leghorn (Livorno, west Italy) and Naples. This early trade in Chinese images was enormously increased over the nineteenth century, when many Chinese treasures were pillaged for western museums.

⁹⁰⁹ H. Allen Brooks, *Le Corbusier's Formative Years*, pp. 430-5. Also, the vista from the same source (FLC B-20-218 or F/19) was in Philippe Duboy's research of 'La Construction des villes' with a title, 'Ch.E. Jeanneret, "La Construction Des Villes" Bibliothèque Nationale De Paris, 1915.'

⁹¹⁰ A copy of this etching is in the Bibliothèque nationale de France, Paris. BNF, Etampes et Photographie, Rés. Hd 90. (Entré avant 1833)

order in the painting is explicit.

It is interesting to see how a western artist selected, manipulated and utilized this distant source. The original context would have inevitably been reinterpreted by Europeans with their different cultural perceptions. Of course, Le Corbusier was an architect, painter and writer, not an archaeologist. Other artists, such as Picasso, were inspired by African artefacts but did not undertake scholarly research into the context and meaning. Whether consciously or not, an artist 'shapes his artist expression to fit the use for which the work is intended, and in the process adjusts the themes to the psychological and aesthetic environment of the time.'⁹¹¹

Even if Le Corbusier could have undertaken scholarly research on it, the authenticity of Chinese traditional painting does not care for realism. The Chinese, instead, care for an imaginary expression and a cognitive presentation. This is evident by the high viewpoint of this painting rather than from an eye-level perspective, as there is no such a high standing point on the real site. The spiritual meaning of the landscape is more important than the precise photographic reproduction. From the painting, Le Corbusier seized upon the order in nature for his own purpose.

Le Corbusier's appropriation of this painting took place against the larger backdrop of Orientalism in Europe, which was 'a kind of second-order knowledge – lurking in such places as the "Oriental" tale, the mythology of the mysterious East, notions of Asian

⁹¹¹ Jean-Marcel Humbert, *Egyptomania: A Current Concept from the Renaissance to Postmodernism*, in Jean-Marcel Humbert, Michael Pantazzi, Christiane Ziegler, *Egyptomania: Egypt in western art, 1730-1930*; [catalogue of an exhibition] Paris, Musée du Louvre; Ottawa, National Gallery of Canada, Vienna, Kunsthistorisches Museum, c1994, p. 25.

inscrutability – with a life of its own.⁹¹²

Imaginary Building Complex

In ‘La Construction des villes’, there is a set of three consecutive drawings of large-scale Chinese building and garden complexes, which Le Corbusier studied assiduously and made lengthy notes on. Not surprisingly, Le Corbusier did not bother to indicate the sources.⁹¹³

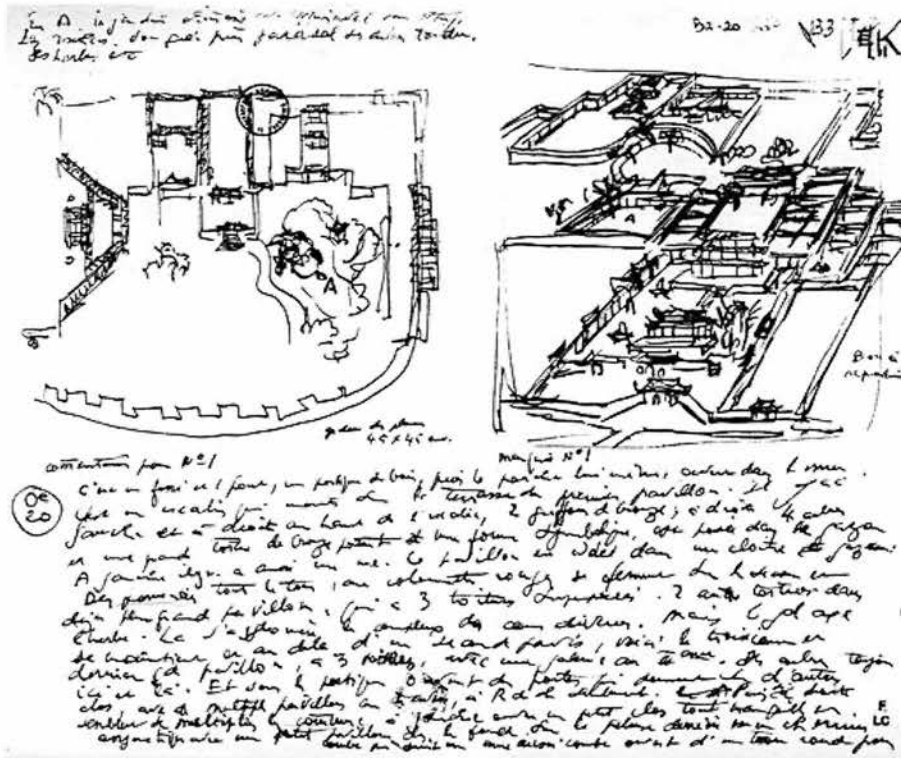


Fig. 6.76
Large Chinese
garden and
building
complex, FLC
B-20-264

⁹¹² Edward William Said, *Orientalism*, p. 52.

⁹¹³ This drawing Philippe Duboy noted on his ‘Construction des Ville’ with ‘Architecture Chinoise, palais d’été Pekin.’ However, some of his notes on East Asian drawings are not correct, such as FLC B2-20-230 and 231, which are P’u T’o Shan in China, but are categorized as ‘Japanese temple.’

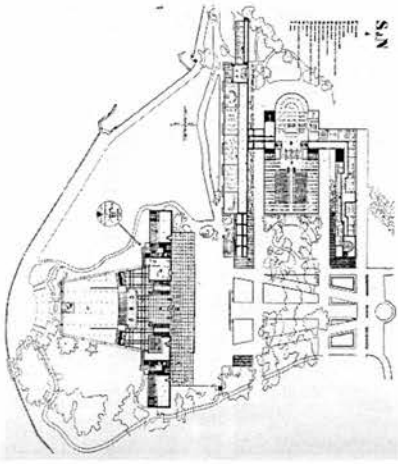


Fig. 6.77 Le Corbusier, Plan, League of Nations project, turned 90 degree. *O.C.* 2, p. 162.

The first sketch (fig. 6.76 FLC B-20-264) was important to Le Corbusier as he published it in his first *Oeuvre complète*. On the left side of the sketch is a building complex within a landscape. The layout is presented as a floor plan, but in the plan each building is shown in elevation. Such a collage is common in ancient Chinese architectural engraving, and can also be found frequently in Le Corbusier's paintings. The entrance is presumably located on the left recess, and followed by a series of orthogonal courtyards surrounded by buildings. The lower half of the complex is presumably a garden with vegetation. Le Corbusier noted: 'In A, the Chinese garden is exquisite with its pond, the rocks, its large pine umbrella, its twisted trees, its grasses, etc.'⁹¹⁴ This asymmetrical orthogonal layout with a sequence of courtyard, green area and a wedge shaped complex along the central axis, with buildings on one side of the axis and landscape on the other bears resemblance to his later project for the League of Nations, Geneva in 1927 (fig. 6.77).

On the right of fig. 6.76 is another Chinese large-scale, tall building and garden complex, in

⁹¹⁴ *En A le jardin chinois est exquis avec son étang, les rochers, son g[ran]d pin parasol ses arbres tordu, ses herbes, etc.*

which he showed much interest and wrote a lengthy note.⁹¹⁵ Since he never had a chance to visit China, and did not have first hand knowledge of Chinese architecture and landscape, he could only refer to secondary sources. In the sketch he tried to visualize what it was like to wander around the complex and follow the sequence of space from statues, pavilions, and gardens to courtyards. He made a detailed description of the sequence and transitions of space: one crosses a moat and enters into a series of buildings, courtyards and later a hermitage beyond. Various courtyards are formed by wooden porticoes, galleries, walls and buildings, are linked and defined by stairways and doors. Inside the courtyards are there trees and statues.

Le Corbusier did not mention the precise source. It is in China, as a note on the top of this drawing (fig. 6.77, FLC B-20-264): '*le jardin chinois*' and on the top of fig. 6.82 (FLC B2-20-266), he notes: '*Onze maisons imperials qui sont sur la route de Pekin à Nankin.*' Secondly, it should be a royal palace, garden or a very high-level temple, as they are large-scale, and have at least three consecutive large buildings. Two of them have three

⁹¹⁵ (Oe 20) *C'est un fossé et 1 pont, un portique de bois, puis le porche lui-même, ouvert dans la mur. C'est un escalier (stair) qui monte sur la terrasse du premier pavillon. Il y a à gauche et à droite au haut de l'escalier, 2 griffon de bronze; à droite 4 arbres et une grande tortue de bronze portant une forme symbolique est posée dans le gazon. A gauche il y a aussi une vue. Ce pavillon est cerclé dans un cloître (cloister) de gazon: des pomeis[?] tout le tour, au colonnettes rouges se ferment sur le second et déjà plus grand pavillon, qui a trois toitures superposées. 2 autres tortues dans l'herbe. La s'agglomère le complexe des eaux diverses; Mais le g[ran]d axe se maintient et au delà d'un second parvis, voici le troisième et dernier grand pavillon, à 3 toitures, avec une galerie, au IIIème, des arbres toujours ici et là. Et sous le portique ouvert des portes qui donnent sur d'autres clos, avec des multiples pavillons en travers, à R[ez] de ch[aussée] seulement. Et sous le portique ouvert des portes qui donnent sur d'autres clos, avec des multiples pavillons en travers, à R[ez] de ch[aussée] seulement. Puis si à droite semblent se multiplier les com[m]uns (cour vues ?), à gauche ouvre un petit clos tout tranquille et asymétrique avec un petit pavillon de le fond sur la pelouse derrière est un chemin courbe qui suit un mur aussi courbe ouvert d'un trou rond pour[note: move to next page] regarder dans une grande thébaïde avec pavillon qui encerclent en plan de grecque, com[m]e une petite pagode. C'est retiré derrière le grand pavillon ouvre un parvis desert clos de murs dont de grandes portent doubles ouvrent dans le clos qui dessert les com[m]uns. Et en fin à l'angle droit c'est un clos avec 1 pavillon loggia se mirant dans un étang contourné Le mur de cloture évidemment ferme le tout. Il y a une grande géométrie mais pas une symétrie froide; au contraire. Ces vues sont en couleurs exquises.*

superimposed roofs (one roof and two layers of eaves, in fact), and multiple pavilions.

Behind them there are also a large hermitage with a garden and curved walls. The statues of griffons (gryphons) and tortoises in the courtyard are further evidence of the building's status.

It must have been amazing for a westerner to see a grand wooden pavilion with three imposing curved roofs, porticos and galleries with wooden posts, lintels and sophisticated joints. To Le Corbusier, this huge wooden building complex is very different from western architecture. Wooden *pilotis* are much thinner than those of stone structures and are common in Chinese pavilions. These provide easy communication and an open layout to the ground floor. Under the open portico, doors lead toward other enclosures with many traversed pavilions.⁹¹⁶

Le Corbusier was also curious about exotic mythical animals and mentioned the bronze griffons and the tortoise bearing symbolic objects.⁹¹⁷ The griffon, a freak combination of lion and eagle, is a mythological animal in the West and the Middle East, but scarcely appears in Chinese culture. A more reasonable interpretation is that this pair of bronze griffons are actually 'Chi-lin' (麒麟), one of the mythical animals of the Chinese. As it symbolizes blessing, a pair are sometime placed in front of the main gate of a royal residence or temple. A tortoise bearing an object is rare in the western world, but it is commonly used in Chinese traditional temples and palaces. In fact, this is a *Bi-Xi*,⁹¹⁸ a legendary animal in

⁹¹⁶ *Et sous le portique ouvert des portes qui donnent sur d'autres clos, avec des multiples pavillons en travers, à R[ez] de ch[aussée] seulement.*

⁹¹⁷ *'Il y a à gauche et à droite au haut de l'escalier, 2 griffon de bronze; à droite 4 arbres et une grande tortue de bronze portant une forme symbolique est posée dans le gazon.'*

⁹¹⁸ Bi-Xi (鼇), a fabulous tortoise in China who can bear heavy loading and also has a very long life.

Chinese mythology, which is the eldest son of a dragon. It is said that a *Bi-Xi* can bear heavy loads and also represents longevity.

Le Corbusier might have been as fascinated by these mythological figures. The image of a turtle reappeared in *Poème* (page 137). He noted that ‘to create architecture is to make a creature.’ The turtle shell, with its metaphor of a house bearing the loading of weather and providing protection, is divided into a geometrical pattern, like a sort of regulating lines. The turtle is also an alchemical symbol.⁹¹⁹

Le Corbusier continued his imaginary journey to the rear part of the complex and came to a hermitage: ‘behind there is a curved path which follows a wall are also curved, opened by a round hole looking into a large hermitage.’⁹²⁰ In Chinese architecture, the curved wall, round window and door are used in informal settings, such as gardens, pavilions and leisure buildings. Within a limited space, these small gardens create sensuality and eliminate the solemnity conveyed by a symmetrical layout. It is also frequently used in the vocabulary of Le Corbusier’s designs. On the other hand, there is a great geometry, but not a cold symmetry; on the country,⁹²¹ an obvious central axis is maintained and permeable to the second courtyard, whereas the informal aspect is expressed by a curvilinear composition. This ethos of an antithetical combination of geometry and freeform has echoes in most of his architectural compositions.

⁹¹⁹ Morgens Krustup, *Porte Email*, 1991, Copenhagen, p. 34.

⁹²⁰ ...derrière est un chemin courbe qui suit un mur aussi courbe ouvert d’un trou rond pour regarder dans une grande thébaïde...

⁹²¹ *Ily a une grande géométrie mais pas une symétrie froide; au contraire.*

Waterfront Pagoda



Fig. 6.78 Le Corbusier, Sketch of an island and a pagoda, FLC B2-20-265.

Another example in this series is an island with low pavilions, buildings and trees, highlighted by a pagoda on the summit (fig. 6.78). Le Corbusier annotated its waterfront and architecture.⁹²² He noted there was an island washed by waves with a pagoda on top of the rock. At the bottom, walls plunged into the waves and were crowned by top pavilions or by beautiful loggias. There were one or two small islands, but their slopes were too steep. One passes through red and blue lattice, red wooden columns, and white or pink walls, and he imagined what a cheerful climbing experience this would be. All the buildings were juxtaposed orthogonally. This layout is similar to the imperial garden in Chende, as in both cases all the buildings have an orthogonal juxtaposition within the natural surroundings.

The pagoda, a highlight of this setting, is a symbol of the Buddhist doctrine, as 'a lighthouse

⁹²² Ici c'est une île battue des flots. Au sommet du rocher est la pagode. Au bas des murs plongent dans les flots et sont couronnés de pavillons à pic ou de loggias d'où l'agrément est extrême. Il y a une ou deux îles petites. Mais le sol est trop en pente. Les lattis sont rouges, d'autres bleu, les colonnes de bois rouges. Les murs blancs ou roses. Quelle gaie escalade! Tous les bâtiments ont une juxtaposition orthogonale.

of the Buddhist universal law.⁹²³ As observed by Ernst J. R. Boerschmann, pagodas had become indispensable and integral parts of the perfect Chinese landscape, as tall, usually massive towers that contrast with other lower horizontal edifices or with natural mountains. They emphasize ‘an individual note which is both conspicuous and strange in surroundings.’⁹²⁴

Virtual Journey to a Holy Island – P’u T’o Shan

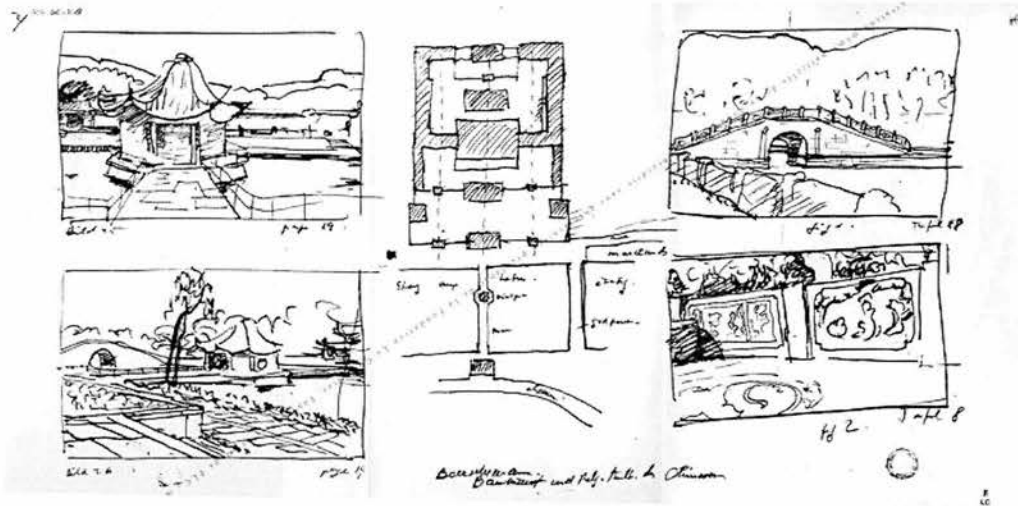


Fig. 6.79 Le Corbusier, Sketch of P’u Tsi Temple (普濟寺) (left and middle) and Fa Yü Temple (法雨寺) (right), P’u T’o Mountain. FLCB2-20-230.

In ‘La Construction des villes’ there are two Chinese temples redrawn by Le Corbusier from the photographs of Ernst Boerschman’s book (fig. 6.79, FLC B2-20-230 & B2-20-231). Le Corbusier did not cite the name of the place or building. In fact, they are major temples of P’u T’o Shan (P’u T’o Mountain, 普陀山), an island in the East China Sea, south of Shanghai, east of the city of Nin-Bo. It is one of the four most important and holy mountains of the Buddhists in China. There are many temples on these mountains, which attract numerous pilgrims.

⁹²³ Ernst Johann Robert Boerschmann, *Picturesque China; Architecture and Landscape: a Journey through Twelve Provinces*. Trans. Louis Hamilton. London, 1924, p. XV.

⁹²⁴ Ibid.

In China, Buddhism: 'adopted the idea of the sacredness of mountains, and created its own four Buddhist sacred mountains: also called Four Great Celebrities. Seats of the four great Bodhisattvas, they too were placed in distant parts of the country as symbols of Buddha's doctrine, as religious lighthouses erected by nature...'⁹²⁵ P'u T'o Shan is the sacred religious centre of Bodhisattva Avalokitesvara, or Kuanyin (觀音), the Goddess of Mercy, who is worshipped by many Chinese, especially in the coastal provinces.

Monasteries and sanctuaries to the goddess are all over the island, which is similar to Mont-St-Michel in France, but it is slightly larger and more distant from the coast. Pilgrims have to travel by boat for hours to reach it. The Mont-St-Michel is also featured in 'La Construction des villes' (no. 159). There are numerous examples in Ernst Boerschman's book, but Le Corbusier was most impressed by the temples of P'u Tsi Sze⁹²⁶ and Fa Yü Sze.⁹²⁷

Le Corbusier did not annotate the drawings apart from a few words from the original pictures such as 'bridge', 'lotus pond' and 'kiosk'. He did not bother to write down the name of the place, or the function of the building. In such circumstances, these drawings reflect his personal preferences and fantasies at that time. He tried to catch images of the architectural scenario, a procession of spaces rather than a fixed picture, three-dimensional instead of two-dimensional.

⁹²⁵ Ernst Johann Robert Boerschmann, *Picturesque China; Architecture and Landscape: a Journey through Twelve Provinces*. Trans. Louis Hamilton. London, 1924, p. X.

⁹²⁶ P'u Tsi Temple, 普濟寺.

⁹²⁷ Fa Yü Temple, 法雨寺

Le Corbusier appreciated a strong architectural order surrounded by a natural landscape. Approaching from a rural setting, one purges one's mind while crossing a bridge over the lotus pond and enters the sacred shrine. In Buddhism, the lotus represents 'grace', a holy symbol, and in Chinese culture and literature, it also stands for purity. The Chinese admire the lotus because, while it grows in dirty mud, the flower remains pure. This holy precinct consists of a square compound with several courtyards. Though it is arranged in strict symmetry, the passage in the central bridge is detoured from the main axis by a kiosk. To visit the shrine, ordinary people enter it from the right side door and get out from the left. Thus even though the layout of the temple itself is symmetric, the space sequence for visitors is complex. The main hall on the central axis is the shrine dedicated to the major god, while the side halls are also important for pilgrims to venerate the subordinate deities housed there.

Framed Sacred Vista



Fig. 6.80 Le Corbusier, Sketch of Pai-Fang and a temple of four guardian gods (Sze ta t'ien wan) behind in Fa Yü Temple, P'u T'o Mountain. detail of FLC B2-20-231.

When Le Corbusier drew a vista, he usually chose either a front view, with layers and depths,

or a side view, which was more dynamic. This perspective of P'u T'o Shan (mountain) (fig. 6.80 FLC B2-20-231) is an entry view of the Fa Yü temple, which is framed by a "Pai-fang" (牌坊) or "Pai-lou" (牌樓), a detached gate composed of post and a lintel frame with inscribed decorations and calligraphy of poetic phrases. Such a framed gate is used in front of temples and palaces to define a specific precinct, a similar function to the Torii in Japanese architecture. This Chinese memorial gate erected in honour of gods or meritorious men, as Boerschman observed, is a 'harmonious blending of the two basic conceptions: simple constructive outlines and vivid ornamental decorations, Yin and Yang, the female and male principles.'⁹²⁸ Another detail on the top of FLC B2-20-231 is a bas-relief on the railing of a stairway. It has the theme of bulls, trees and clouds, and is part of the bull series, which is a theme throughout his life.

Visiting this temple involves passing through a sequence of spaces, the framed gate, trees, and stairs to the entrance chamber of four guardian gods (Sze ta t'ien wang, 四大天王), the first of a series of chambers of the temple. Le Corbusier specifically selected this picture (p. 47 in the book) instead of the next one, a similar view without a framed gate, probably because he was interested in more spatial depths and variations. In Le Corbusier's design, a vista created by a specific frame is a common technique to represent spatial depth and variety.

Chinese architecture uses exquisite timber structures, especially in the highly hierarchical architecture of temples. However, perhaps due to the European architectural legacy, Le Corbusier was more interested in the masonry parts, such as the kiosk, stone bridge, and

⁹²⁸ Original text is 'Yang and Yin'. See Ernst Johann Robert Boerschmann, *Picturesque China: Architecture and Landscape: a Journey through Twelve Provinces*. Trans. Louis Hamilton. London, 1924, p. XIV.

details of the railing decorated narrative reliefs.

A Book Case – Folding and Illumination

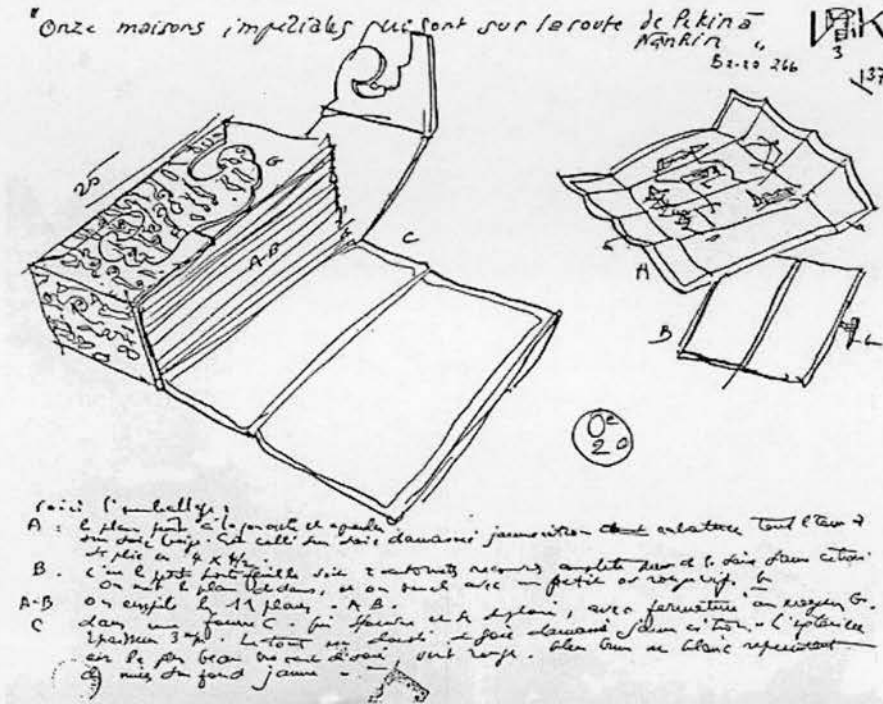


Fig. 6.81 Le Corbusier, study of a Chinese royal bookcase. FLC B2-20-266.

A special delicate Chinese folding case made of cardboard covered with silk (Fig. 6.81) interested Le Corbusier. He sketched the case with detailed notes⁹²⁹ but without an indication of the source. Inside the box the drawings were folded into a standard size and assembled systematically as a set. This special cut “case” can be unfolded and re-folded at each side. Its cloud-shaped pieces convey a metaphor of a free and lofty mind, interlocking perfectly.

This set of books, which Le Corbusier studied is probably from the Bibliothèque Nationale in Paris. One of this series is ‘Imperial edition of the praise of the town of Moukden’

⁹²⁹ voici l'emballage:

A: le plan peint à la gouache et a [?] sur soie beige est collé sur soie damassée jaune citron rabattue tout le tour a se plie en 4 x 4/2 B C'est le petit portefeuille soit 2 cartonnets recouverts complètement de la soie jaune citron. on met le plan dedans et on boucle avec un petit os rouge vif b. A-B on empile les II plans A B.
 C: dans une fourre C qui s'ouvre et se déploie, avec fermeture au moyen G. Epaisseur 3mm. Le tout est doublé de soie damassée jaune citron. L'extérieur est le plus beau brocard de soie vert rouge, bleu brun et blanc représentant des nuées sur fond jaune.

(Shenyang, fig. 6.82).⁹³⁰ The author, Hong-li, was Emperor Qianlong (1736-1795), of Qing Dynasty. Thirty-two booklets of this edition, printed in 1748 and covered with silk, are well preserved in four silk cases.



Fig. 6.82 Imperial edition in praise of the town of Moukden. From Monnet, Nathalie, *Chine: l'empire du trait: calligraphies et dessins du Ve au XIXe siècle*, p.189, and <http://expositions.bnf.fr/chine/grand/c117.htm>

Le Corbusier made a detailed description of its colours, how and what it was made of, and how the books and pamphlets were accommodated and opened systematically. The sketch on the right hand side in fig. 6.81 showed a drawing pasted on lemon-yellow damask silk folded in four times and inserted in a thin cardboard wallet fastened with a buckle.

The motif of wrapping and expansion can be observed repeatedly in Le Corbusier's work. An image of a domino, always 'expanded', frequently appears in his paintings. The example of a domino here (fig. 6.83) expands along each edge in 90 degree and becomes a sheet of paper, which is presented in the same fashion as the Chinese set of books. The six surfaces of

⁹³⁰ In Chinese 御製盛京賦, (yu zhi sheng jing fu), 清武英殿刊本, 乾隆十三年, 清高宗弘曆乾隆. Collection of Bibliothèque nationale de France, Manuscrits orientaux, chinois 1582-1589. Its composition dated back to 1743, Edition printed in 1748. Moukden or Mukden, former capital of Manchu, had been named Fengtianfu and Shenyang.

this box, original elevations and plans of it were expanded, turned ninety degree and recomposed in one plan. Here the plan and elevation are transferable, as Le Corbusier's claimed in *Towards a New Architecture*: 'the floor...is really a horizontal wall.'⁹³¹ This was discussed by Colin Rowe: 'For, if walls become floors, then sections become plans; and, as the building becomes a die to be thrown on the table, then all the rest results.'⁹³²

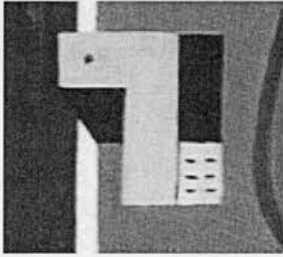


Fig. 6.83 Detail, Nature Morte a la fourchette, FLC 257, 1929.

The folding of a plan (fig. 6.81, right) is a method of collage, which is elaborated in his Cubist and Purist painting. In Le Corbusier's Purist paintings, plans, elevations and sections of still life are always collaged together. The image is as seen from several orthogonal angles simultaneously, with the fourth dimension, the dimension of time, frozen and added to the traditional image.⁹³³

The Chinese theme in Le Corbusier's work was suppressed after his Purist phase as he had become an established architect. In the 1930s most of his travels were in Europe, America and Algeria. Nevertheless, he remained interested in other societies, including China. In *The Radiant City* (1932), he discussed how his earlier proposals for modern city planning had

⁹³¹ Le Corbusier, *Towards a New Architecture*, p. 186.

⁹³² Colin Rowe, 'The Provocative Façade: Frontality and Contrapposto', in *Le Corbusier Architect of the Century*, London: Hayward Gallery, 5 March-June 1987, p. 27.

⁹³³ The idea of the *fourth dimension* had influenced many of the avant-garde artists of Futurism, Suprematism, Cubism, and others who challenged the old notions of space. Le Corbusier have been much inspired by the "fourth Dimension". See Le Corbusier, *New World of Space*, p. 8.

been rejected by politicians. He mentioned how the European countries were suffering a slump, the U.S.S.R. had interminable conflicts with China, and that Japan had begun to invade China.⁹³⁴ He criticized the European politicians who only calculated how much money they could make from the arms trade to enhance their domestic economy. Le Corbusier claimed that 'In order to realize our plan, we should need new institutions, total political redevelopment...let us continue to draw up our plan for the machine era under this sign, *the only true one*: harmony.'⁹³⁵

In the late 1940s when arguing for his *Modulor* system, he recalled again the contact between ancient civilizations: 'I know that Crusades set out to Jerusalem, that Marco pole went to China.'⁹³⁶ He was also a member of Association France-Chine.⁹³⁷ From Le Corbusier's interview with Hugues Desalle in 1965, we find that Le Corbusier would still like to have visited China for further exploration. Unfortunately, this dream never come true but the Far East had made its mark upon him, leaving significant traces in his work.

Part VI. Japan

Le Corbusier's Japanese source are known to have included two examples of Japanese architecture from documents; three Buddhist statues at the Guimet Museum in Paris; a *Tsuba* with an inscription of bulls, later published in *The Decorative Art of Today*. He had two

⁹³⁴ In 18 September 1931, Japan initiated war against China with a pretext of Chinese destroyed the railway in north China.

⁹³⁵ Le Corbusier, *The Radiant City*, p. 185.

⁹³⁶ Le Corbusier, *Modulor 2*, tr. P.de Francia and A.Bostock. London: Faber and Faber, 1958, p. 50.

⁹³⁷ He was the member of Liaisons artistiques, culturelles et universitaires in the Association. Auguste Perret (Architecte & membre of l'Institut) was also a member. See FLC T2-1-103 in category T2-1-101-111, Association France-Chine 1945.

Japanese colleagues in his office from the late 1920s. Lafcadio Hearn, an English writer who lived in Japan for fourteen years, is mentioned several times in his *Sketchbooks*, as well as the American-Japanese sculptor Isamu Noguchi. Le Corbusier went to Japan after war and designed the National Museum of Western Art in Tokyo in 1957.

Two Drawings of Architecture

For 'La Construction des villes', Le Corbusier examined two examples of Japanese architecture in documents and illustrations. For one of them, he recorded the general plan, noted each room but without description, while for the other he copied the perspective and made an imaginary visit, without citing the source.

The plan studied by Le Corbusier (fig. 6.84 FLC B2-20-243) is Toshogu (東照宮), a funeral temple of Iéyas from Fernand Levieux's *Essai sur l'architecture japonaise*. He carefully drew the general plan of this building complex on page 14 and noted the function of each space. Japanese architecture at that time was quite fresh to the European as Levieux pointed out, 'In Japan, for example, we find an architecture fundamentally original, differing from ours from the triple point of view: material, form and method, but susceptible as well to a degree of development.'⁹³⁸

The Toshogu (東照宮) at Nikko City (日光), was reconstructed in 1636 as a mausoleum for Tokugawa Ieyasu (徳川家康, 1453-1616), founder of the Tokugawa Shogunate. It is a

⁹³⁸ 'Au Japon, par exemple, nous rencontrons une architecture foncièrement originale, s'écartant de la nôtre au triple point de vue des matériaux, des formes et des méthodes, mais susceptible tout comme elle d'un haut degré de développement.' From: Fernand Levieux, *Essai sur l'architecture japonaise*, Bruxelles, Société Générale d'Imprimerie, 1895, p. 6.

complex group of many buildings, each richly adorned. The principal buildings include a main hall and a worship hall in the Gongen style, approached through the famous Yomei Gate, which divides the forecourt and the holy precinct.⁹³⁹ LeVieux's book contains two illustrations of this building; a photograph of Yomei Gate and a general plan. Instead of the richly decorated Yomei Gate, Le Corbusier was attracted by the simple, rectilinear ordered plan which he sketched.

The Toshogu is like the Abbey of St. Denis, near Paris, which is the burial place of the French royal family, inasmuch as it is the eternal resting place for one of the most powerful kings in Japanese history. Unlike the church in a single volume, the Toshogu is composed of a series of smaller buildings. It has a rectilinear order along its central axis, and is enclosed by walls and gates creating a sequence of enclosures. The procession route is hierarchically arranged with the primary sanctuary located in the innermost position. The main entry is located on one side, rather than at the centre, which makes the procession longer, deeper and more dynamic.

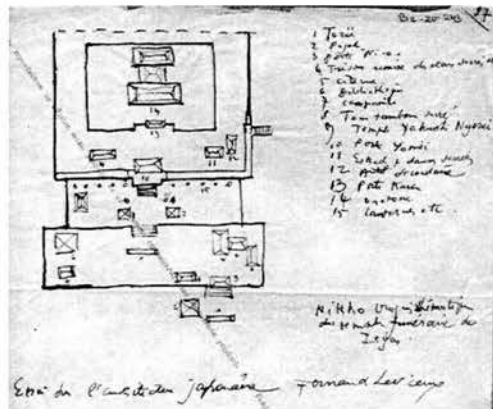


Fig. 6.84 Le Corbusier, temple plan of Toshogu. (FLC B2-20-243)

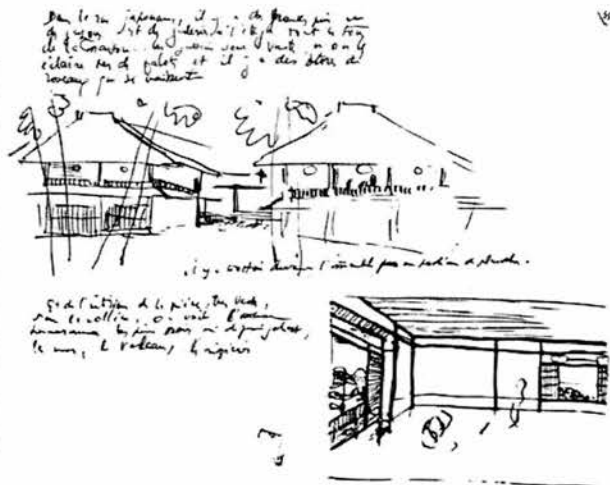


Fig. 6.85 Le Corbusier, sketch of Japanese buildings (FLC B2-20-224)

⁹³⁹ Sir Banister Fletcher, *Sir Banister Fletcher's a History of Architecture*, 19th ed., edited by John Musgrove, London: Butterworths, 1989, p. 724.

Another Japanese example (fig. 6.85) that interested Le Corbusier is a medium-sized two-story building complex near the sea and a volcano, probably Fuji Mountain, and it was published in his first *Oeuvre complète*.⁹⁴⁰ No further indication on its name, function or location is available. However, it is based on another author's pictures and descriptions.⁹⁴¹ Le Corbusier described the experience of a journey into the building complex and its interior:

In the Japanese street there are large pines and lawns, and upper floor galleries all around the house. The galleries are vast, and they are illuminated by lanterns, and there are reed blinds which can be lowered. There is a pavement in front of the building... a podium of boards. And from inside the very big room on the hill, one sees the immense panorama, the black pines... the sea, the volcano, the rice plantations.⁹⁴²

The interior is built up with thin wood frames with large openings on the walls. The sliding partitions act as flexible doors and windows. The building is very neat and pure, and is almost devoid of decoration, externally and internally. Because of its wooden construction, the interior of Japanese architecture is freely partitioned and could be expanded flexibly by sliding partitions. This design demonstrates the concept of the 'free plan'. The building measurement is subdivided according to the Japanese modular unit, the 'Ken'. Le Corbusier noted this later in *Modulor*: 'It has been the Japanese tradition through the ages to construct their admirable wooden house on a modulus which is certainly much subtler than this [chess board system]: the plait (the *tatami*).'⁹⁴³

Le Corbusier greatly admired Japanese architecture as stated in *Oeuvre complète 1929-1934*,

⁹⁴⁰ *Oeuvre complète 1910-1929*, p. 21.

⁹⁴¹ He did not visit Japan until after WWII.

⁹⁴² 'Dans la rue japonaise il y a des grands pines et des gazons, et des galeries à l'étage tout le tour de la maison. Les galeries sont vastes, et on les éclaire par des falots et il y a des stores des roseaux qui se baissent. Il y a trottoir devant l'immeuble... un podium de planches.

Et de l'intérieur de la pièce très vaste sur la colline, on voit l'immense panorama, les pines noirs... la mer, le volcan, les rizières.' FLC B2-20-224.

⁹⁴³ Le Corbusier noted this later in *Modulor*, p. 54.

in which he cited the example of a modern house close to Tokyo:

it is certain that the art of architecture in Japan is better prepared than our western counterpart to exploit successfully the modern architectural thesis. Japan possesses an admirable tradition of dwelling. It has at its disposal an exceptionally refined and spiritual craftsmanship. The old Japanese teahouses are adorable works of art. Moreover, the Japanese have adopted the principles of modern architecture. They have applied them with undeniable flair. They are capable of endowing modern architecture with discernible refinements.⁹⁴⁴

His knowledge of Japanese architecture came from research and from his Japanese colleague.

Traditional Japanese architecture, especially the modest house without excessive decoration, has many features in common with modern architecture, such as flexible partitions and spaces, post and lintel structure, purity in materials and space, standard rectangular module.

Although Japanese architecture shows some modernist parallels, and was studied by Le Corbusier, his notes on Japanese architecture are limited. Moreover, Japanese and Chinese architecture are both normally composed of many delicate wooden elements and joints, which are far from the plastic and monolithic concrete favoured by Le Corbusier. A correspondence between Le Corbusier's architecture and that of Japan is less straightforward than with the work of other modernists such as Frank Lloyd Wright.

Three Buddhist Statues

Le Corbusier also studied several Japanese Buddhist statues at the Guimet Museum in Paris. One of them is *Ida ten* (*Weit'o*, 韋駄天, FLC 2251, fig. 6.86) that is tall and straight. He is a legendary patron and guardian of Buddhist temples, monasteries and law (dharma). He is usually presented in armour, palms closed with a sword laid horizontally across his arms.

⁹⁴⁴ O.C. 2, p. 52. Trans. Kenneth Frampton, *Le Corbusier*, p. 135.



Fig. 6.86 Ida ten (Weit'o, 韋駄天), Guimet Museum. Photo by author.



Fig. 6.87 Le Corbusier, Ida ten, FLC 2251.

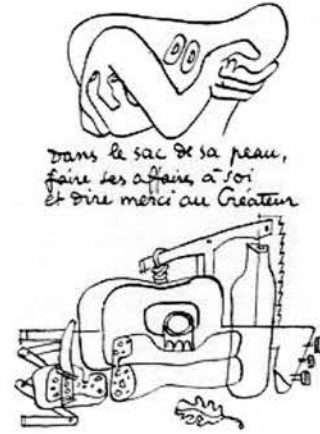


Fig. 6.88 Le Corbusier, *poème* p. 92.

Le Corbusier did not sketch the entire statue, (fig. 6.87). The head almost disappears; and the base was completely omitted, while he concentrated on the frightening, monstrous face in the centre of the armour protecting his heart. The vertical hands, horizontal sword over the arms, and the terrifying face expelling evils amid two sleeves form an enigmatic triangle in the middle of the composition. This expressive form conveys mysteries within the orthogonal, symmetrical composition of this martial statue. This sketch could very well be an early prototype of a curious figure with two strange eyes staring at the viewers in Le Corbusier's *poème* p. 92 (fig. 6.88). In the process of development, it began as two figures embracing; then the heads were omitted and the woman's breasts became eyes; a similar approach to the sketches of the Japanese statue. It is also possible that Le Corbusier was inspired by Man Ray's photographs in *Minotaure* no.7 of 1935 which shows a female torso as a bull's head⁹⁴⁵ and her head, like that of two previously mentioned drawings, remains invisible. Le

⁹⁴⁵ Mogens Krusturp, *Porte email, Emalljeporten, La Port Emailée, The Enamel Door: Le Corbusier, Palais de l'Assemblée de Chandigarh*, Copenhagen: Arkitektens Forlag, 1991, p. 41.

Corbusier contributed an article to *Minotaure* no.9 of 1936.



Fig. 6.89 Le Corbusier, Sketch of Bodhidharma or Daruma –daishi (達摩大師), FLC 1897, (left). It drew after the wooden statue in Guimet Museum, Paris, no.205 (right, photo by author)



Fig. 6.90 Le Corbusier, Sketch of Zaô-gongen (Zao-gongen, 藏王權現), FLC 2246 (left), It drew after the wooden statue in Guimet Museum, Paris. (right, photo by author)

Le Corbusier also studied and sketched two more Japanese Buddhist statues. One is Bodhidharma (fig. 6.89),⁹⁴⁶ better known as *Ta-mo* (*Daruma*, or *Daruma –daishi*),⁹⁴⁷ a famous Indian monk who brought the disciplines of Zen meditation to China in the sixth century. He was venerated as the founder of Zen Buddhism in China. The other is *Zaô-gongen* (fig. 6.90),⁹⁴⁸ a Buddhist deity said to have control over all evils. He is always depicted with a wrathful face, right leg striding up and out into the air, and he holds a pestle in his raised right hand. This Buddhist king is the deity of secret virtue who can overrule the ordinary.

These two wooden statues contrast strongly in form and expression. One gesture is indeed

⁹⁴⁶ In Chinese and Japanese: 菩提達摩.

⁹⁴⁷ In Chinese and Japanese: *Ta-mo* (Japanese: *Daruma*, 達摩) or *Daruma –daishi* (達摩大師)

⁹⁴⁸ *Zaô-gongen* is a Buddhist king displayed in different appearance, according to each circumstance. In Chinese and Japanese 藏王權現. 藏王, 即金剛藏王, 多現憤怒狀, 舉右足, 右手持三鈷(股)杵。(中文大辭典, vol.29, p. 169; 大漢和辭典, vol. 9, p. 981) 權現, 指菩薩為普渡眾生, 化身於世也。(中文大辭典, vol.18, p. 83, 大漢和辭典, vol. 6, p. 606). 金剛藏王, 現威勇之形, 具降魔之力, 故名金剛。蘊秘密之德, 攝金剛之衆, 故稱藏王。

calm and meditative, while the other is active and aggressive. Such a contrast also reflects different aspects of the Buddhist path to enlightenment. Bodhidharma's tenets are based on spiritual enhancement and the elevation of the mind through meditation for enlightenment and epiphany. The other holds a substantial weapon in an intimidating gesture to overcome evil and delusions in order to achieve virtues and liberation. The influential power of Bodhidharma is conveyed as a tranquil inner state, whereas the *Zaô-gongen's* is external visual violence. Le Corbusier's interest in these deities may be an indication of his obsession with the antithetical counterparts, which he frequently exhibited in his works.

Tsuba of Bull



Fig. 6.91 *Tsuba*, Le Corbusier, *The Decorative Art of Today*, p.199.

Tsuba is the part of a Japanese sword that serves as a hand guard. It is shaped like an oval metal plate with an opening in the middle to accommodate the blade, and is placed between the blade and hilt to protect the Samurai's hands. A *tsuba* is often decorated with subjects that illustrate mythology, customs, legends, folklore, scenery, celebrities, and historical events. As the demand for swords 'grew during the warring times, the production of swords as well as *tsuba* increased, but as the world became peaceful, decoration overwhelmed function.'⁹⁴⁹ The *tsuba* Le Corbusier selected is decorated with images of bulls (fig. 6.91) and is one in a series of bull images, which recurs throughout his life.

⁹⁴⁹ Rdko Hara, Akiko Fukuno, ed., *Tsuba: Japanese Sword Guards from the Ota Collection*. [Tokyo]: International Christian University, Hachiro Yuasa Memorial Museum, 1997, p. 3.

Personal Connections with Japan

Le Corbusier's observation of the Japanese influence on Europe was at a very early stage. In *Étude sur le mouvement de l'art décoratif en Allemagne*, his first book on research in Germany published in 1912, he noted that the new orientation of arts spreading over Germany was affected by the accidental revelation of the arts of Japan. 'It is probable that the land was favourable, because the assimilation was radical... Vienna offers a sensitive ground, and revolutionizes through Japanese study.'⁹⁵⁰

Le Corbusier made several Japanese acquaintances around 1930. Two Japanese architects worked as assistants for him in this period: Sakakura Junzo (坂倉準三), who had worked with Le Corbusier since 1927, returned to Japan in 1936 to design the Japanese pavilion for the Paris International Exposition at 1937. Junzo received Charlotte Perriand, Le Corbusier's partner and designer of furniture and interiors, when she visited Japan in 1940.⁹⁵¹

Meanwhile, Maekawa Kunio (前川國男) studied with Le Corbusier from 1928 to 1930.⁹⁵²

Jean Bodavici, an architect and editor, was Le Corbusier's friend since the early 1930s. His partner, Eileen Gray had an association with Seizo Sugawara, a Japanese lacquer master from 1907. Le Corbusier painted two murals in their houses 1934 and 1938. Le Corbusier also knew Isamu Noguchi, the American-Japanese sculptor, as noted in his *Sketchbooks II*, 254: 'Noguchi (New York) October 1950 tells me that the Japanese are counting on me,

⁹⁵⁰ 'Il est probable que le terrain était favorable, car l'assimilation fut radicale... Vienne offre un terrain sensible, et révolutionne en japonisant.' Le Corbusier, *Étude sur le mouvement de l'art décoratif en Allemagne*, pp. 14-15.

⁹⁵¹ GILLES Fage et Laurence Barbier, édition, *Charlotte Perriand, Fernand Léger, une connivence*, Paris: Réunion des musées nationaux, 1999, p. 24.

⁹⁵² Yutaka Tazawa, editor, *Biographical Dictionary of Japanese Art*, Tokyo: Kodansha International in collaboration with the International Society for Educational Information New York: Distributed by Kodansha International / USA, through Harper & Row, 1981.

would like me to go there etc.’

Le Corbusier later designed the National Museum of Western Art, in Tokyo in 1957. Though the basic composition was Le Corbusier’s proposed Museum of Unlimited Growth in 1930s, many parallels can be discerned with his early drawings of two examples of architecture in ‘La Construction des villes’. The spatial sequence of this museum echoes that of the temple: a progression and a right turn after the entrance, then through a ramp going up to the next upper enclosure. Many characteristics are similar to other Japanese buildings, such as large galleries around the centre, the layers of spaces created by trees, pavement and a reed screen. The solar panel on the ground floor of the museum recalls the window screens and grates used in traditional Japanese building. Although Le Corbusier employed modern exposed concrete, a wooden texture from concrete moulds was imprinted on the surface of the concrete and still provided a reminiscence of traditional wooden structures. The exterior is sheathed with green pebbles set in concrete panels, a common feature of the local architecture of that period. Moreover, the stable rectilinear order contrasted with a dynamic ramp with a diagonal pyramidal skylight above it, reminds one of the antithesis of the two Buddhist statues.

Lafcadio Hearn

Le Corbusier read Lafcadio Hearn’s writing and noted in *Sketchbooks I* 152 ‘...Japan Streets / see Lafcadio Hearn.’ Le Corbusier learned about his work during his visit in Istanbul and noted: ‘Lafcaïdo Hearn / ses oeuvre sur le Japon (Parfait / dit Augugste [Klipstein])’.⁹⁵³

⁹⁵³ *Carnet I, Voyage d'Orient Carnets*, English edition, trans. Mayta Munson and Meg Shore, Electa spa. Milano & Fondation L.C., Paris, c2002, p. 82 and note 77.

Lafcadio Hearn (1850-1904), an important English journalist and writer on the Japanese culture stayed in Japan as an English teacher between 1890 and 1904.⁹⁵⁴ He was one of the greatest interpreters of Japan to the English-speaking world.⁹⁵⁵ Another note in *Sketchbooks* I, 57 is likely on Hearn's work: 'JAPAN Poetry— the gods / about death in a subjective presence / not picturesque but noble grace / (The sacred isle of ...).'

The illustrations in Hearn's books represented with customs, insects, religious stories and folklore, but little architecture, unlike the rich pictures in his book on West Indies. He wrote about several Japanese streets, but the drawing of a Japanese building (fig. 6.85) is not from his sixteen works on Japan.⁹⁵⁶

Part VII. Other Cultures

South America was an early source of inspiration that began with his study at museum of ethnography in Paris, in 1909. These sketches are of pre-Colombian Peruvian vases (FLC 5858, 256, 5865, etc), mostly with human or animal form. An example of this surrealistic juxtaposition is discussed in chapter 7. Two of his studies were published in *The Decorative Art of Today*, a set of duck-vases (p. 201) as an example of museum study, a drawing of two owl-vases and a vase decorated with an albatross and waves (p. 30, FLC 1984, fig. 6.92) as examples of folk culture.

⁹⁵⁴ He lived in Matsue, Kumamoto in Kyushu, Kobe, Tokyo and visited many other places. He married a Japanese, chose a Japanese name, Koizumi Yakumo (小泉八雲), and wrote numerous books about Japanese religions, customs, belief, folklore and music.

⁹⁵⁵ Bibliotheca Hearniana, University Library, Kyoto University of Foreign Studies, 1976. p. viii.

⁹⁵⁶ For the list of these sixteen works, see Bibliotheca Hearniana, University Library, Kyoto University of Foreign Studies, 1976. p. 2-4.

Later, in 1929, he travelled to South America, where he gave lectures, observed the Argentina folk house (see chapter 3) and made many sketches of exotic local women. He went there again in 1936 for the projects in Rio, which were for the Brazilian Ministry of Education and Public Health, and the University City. He made sketches of local scenery and women, which were later developed into important paintings such as 'Les Trois Musiciennes' (1936) and 'Alma Rio' (1949). He also designed Maison Curutchet in Argentina in 1949. In 1935, a Peruvian pottery⁹⁵⁷ and a pre-Colombian jade mask⁹⁵⁸ were displayed in the 'Exposition d'art dit Primitif' in his apartment. These two objects seem to have come from Louis Carré.⁹⁵⁹

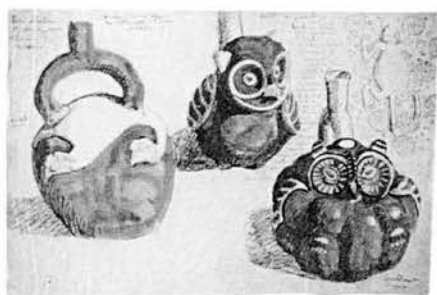


Fig. 6.92 Le Corbusier, Peruvian vase, FLC 1984.

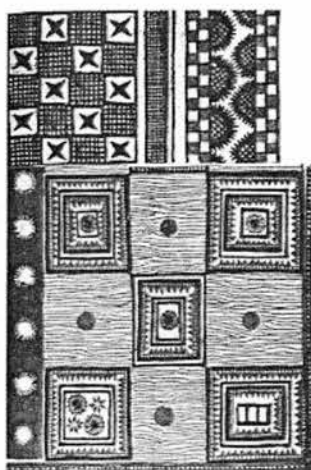


Fig. 6.93 Le Corbusier, Polynesian ornaments from portions of clothing. *The Decorative Art of Today*, p. 29.



Fig. 6.94 Le Corbusier, a peddle of Papua, FLC 1767, *The Decorative Art of Today*, p. 120.

His sources for the islands of Oceania are the decorative art from his early study of Owen Jones' *The Grammar of Ornament*, his text book in L'Ecole d'Art, of which two examples

⁹⁵⁷ There are several pictures slightly different in detail. A Peruvian vase appeared in his picture, *OC3*, p. 157

⁹⁵⁸ *Architecture d'aujourd'hui*, July 1935, p. 84.

⁹⁵⁹ These two are not listed in FLC inventory 'Objets ayant appartenu a Le Corbusier.'

reappeared in *The Decorative Art of Today*. A study of Polynesian orthogonal decorative pattern (p. 29, fig. 6.93) is used as an example together with his Peruvian vases for his discussion on folk culture. It is drawn after Plate I from Jones' book, and is about ornaments from portions of clothing made chiefly from the bark of trees. Le Corbusier selected plates, no.2, 6, 11, and 13 for his purpose. Later he selected again no.2 and 13, and turned them through 90 degrees for *The Decorative Art of Today*. Interestingly, in the upper left of the decorative pattern, there are orthogonal grid, subdivided blocks and diagonal lines extremely similar to the order of his ideal plan of 'A Contemporary City',⁹⁶⁰ in which orthogonal urban fabric was intervened continuously by a diagonal grid road system.

While discussing 'Respect for Works of Art', he stated that decoration promotes decorum and illustrated images including a paddle of Papua (p. 120, fig. 6.94). He noted:

The shepherd who shapes his staff... the Papuan who inscribes on his paddle the figure of an albatross and a surging wave; they are both making an act of devotion towards nature. The practice of their art has amassed the experience of generations and their candid works have thus passed beyond the level of superficial observation to that of true re-creation. Integration.

These two images appear at the very beginning of Jones' book in the chapter, 'Ornament of Savage Tribes', which Jones praises highly. Jones stated that the efforts of a people in an early stage of civilization possess a grace and naïveté rarely found in mid stage, and never in manhood's decline. He maintained, 'this evidence of mind [the desire to create] will be more readily found in the rude attempts at ornament of a savage tribe than in the innumerable productions of a highly-advanced civilization.'⁹⁶¹ This paddle shows a far higher advance in their ornament.⁹⁶² These two earliest researches of both rectilinear and free curves are

⁹⁶⁰ Le Corbusier, *The City of Tomorrow and its Planning*, p. 184-5.

⁹⁶¹ Owen Jones, *The Grammar of Ornament*, p. 14.

⁹⁶² While discussing on the head of a canoe, Jones noted: 'In the distribution of curved lines, the twisted rope forming the type as it naturally would be of all curved lines in ornament.' *Ibid.*, p. 16.

manifested as a dialectic in most of Le Corbusier's works.

In addition to Oceania or Southeast Asian examples, Le Corbusier's sources were gathered extensively from the Five Continents. Among them, the French colonies, however, account for only a small portion, which reflects his desire for more exotic inspiration. Based on them, new interpretations and visual languages kept presenting themselves to Le Corbusier as he experimented with complementary possibilities and potentialities. The next chapter will discuss how these visual sources were reinterpreted and transformed into his modern architecture and art.

Chapter Seven

Creative Visual Language: Transformation, Purism, Surrealism and Others

Here I have been allowed to speak as a man of the laboratory, dealing with his personal experiments carried out in the major arts which have been so unfortunatly dissociated or separated for a century. Architecture, sculpture, painting: the movement of time and of events now unquestionably lead them toward a synthesis.
– Le Corbusier, 1948⁹⁶³

Le Corbusier's gallery of so many themes and images in his 'imaginary museum' was, of course, as a resource for his creativity in both his art and architecture. In the footsteps of Cubism, Le Corbusier and Ozenfant initiated 'Purism' in 1918. Celebrating the characteristics of modern life such as the machine and geometry, Purism was an important stream in both modern paintings and architecture followed by the International Style and CIAM. In late 1920s, Surrealism and other influences emerged in Le Corbusier's work, but there was still a certain Purist ethos.

In his artworks, the primitive and distant cultural sources are manifested in several ways as fragments, elements, compositions and themes. For example, a flint is an ancient tool for igniting fire or sharpening objects. Le Corbusier noted in *Towards a New Architecture* how 'primitive man squared a board very badly with a flint or a knife.'⁹⁶⁴ He brought a flint to his studio and presented it in his paintings interlocked with his hand as in 'La main et le silex vert'⁹⁶⁵ and 'La main et le silex'.⁹⁶⁶ It turned into something much more than merely a primitive tool as he annotated on the latter painting: 'The human creative work stands midway between the two poles of the objective and subjective, a fusion of matter and

⁹⁶³ Le Corbusier, *New World of Space*, pp. 8-9.

⁹⁶⁴ Le Corbusier, *Towards a New Architecture*, p. 74.

⁹⁶⁵ 1930-32, FLC 101.

⁹⁶⁶ 1930, FLC 345.

spirit.⁹⁶⁷ Here his subjects have their own metaphorical structures formed through his life experiences, during which these elements in his repository were constantly subjected to reinterpretation and transformation, emerging in the visual language of his painting, architecture and sculpture. In a series of reformulations, they appear firstly as Purism, and subsequently Surrealism and other developments.

Part I. Transformation and Reinterpretation in Le Corbusier's Visual Language

The application and interpretation of Le Corbusier's collections expressed in his art and design work are usually not straightforward. Instead, these elements are always decomposed, metamorphosed and recomposed into numerous new visual languages, which are able to express his new poetry of design. Metaphor was very important to Le Corbusier's visual languages. He always 'collected' images and motifs for use in his art and architecture.

Metamorphosis

While looking at an object, Le Corbusier was constantly thinking of how to develop and transform it. One way was to abstract and fragment it.⁹⁶⁸ Morphing of objects into various forms led towards Le Corbusier's ideal. In his Purist age the object is always geometrised, mechanized, or expressed in an orthogonal projection. After this stage, transformation tends to be plural.

⁹⁶⁷ Le Corbusier, *The Radiant City*, frontispiece.

⁹⁶⁸ Richard D. Coyne, *Designing Information Technology in the Postmodern Age: from Method to Metaphor*, Cambridge, Mass.; London: MIT Press, c1995, p. 254.

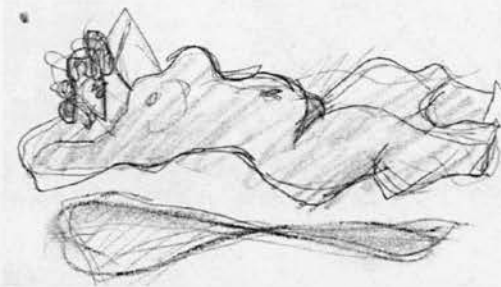


Fig. 7.1 Le Corbusier, sketch of a woman, *Sketchbooks I*, B8, No. 487.

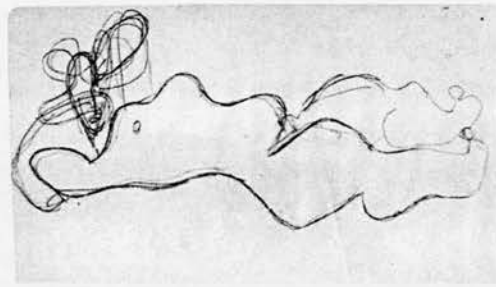


Fig. 7.2 Le Corbusier, sketch of a woman, *Sketchbooks I*, B8, No. 489.

For example, in his *Sketchbooks B8*, he drew a female nude on the beach (fig. 7.1). Two pages later (fig. 7.2), the head of the same woman was transformed into a group of winding, flowing lines; no colour or volumetric expressions for the body except for a few geometrical lines. A concrete image of the body here is with new possibilities of associations opened up.



Fig. 7.3 Le Corbusier, sketch of a woman and trees. *Sketchbooks B8*, No.488.

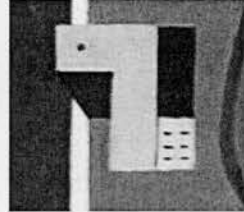


Fig. 7.4 A die in Le Corbusier's 'Nature morte a la fourchette', 1929, FLC 257

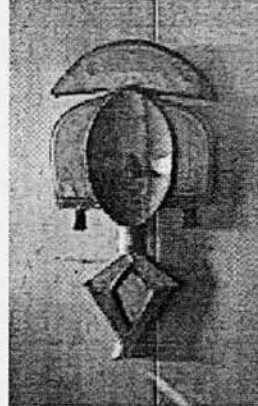


Fig. 7.5 A Gabon mask in LC's apartment 24 N.C. Detail of FLC L2-10-89.

It was always Le Corbusier's primary aim to use ambiguity to make multiple meanings by transforming heterogeneous objects. Thus a visual pun is created in which a simple hand can also be read as a dove, a nude as a trunk (fig. 7.3, *Poème* p. 145), etc. Le Corbusier always showed three-dimensional components in projection drawings – plan, section, elevation and axonometric, etc which are quite architectonic. He criticized the conventional perspective as it only gave an accidental view of objects, and deprived them of universal and durable

expressions.⁹⁶⁹ These images of projection are usually transparently illustrated for the overlapped area in his Purist painting. The components in these paintings are commonly re-scaled (for instance, a small building façade in his 'Composition avec la lune' 1929 (FLC 146), is reversed, transposed, expanded and mirrored like his icons of a die or a domino (fig. 7.4). These methods are similar to Le Corbusier's Gabon mask (fig. 7.5), which suggests reversion (a concave face), scaling (a diminished torso and a leg) and geometrization (an ovoid face and lozenge legs).

Reinterpretation

Another approach is to change an object's property rather than only modifying its shape, giving the same element with multiple folds of meanings. For example, a rounded pebble reflects natural phenomena; the tree and leaves are compared to an office building in Algeria; contour lines of objects in his painting were reinterpreted into an architectural plan or section, and an ocean liner could be turned into an apartment.

Being a part of Le Corbusier's design process, what Alan Colquhoun called a 'displacement of concepts',⁹⁷⁰ was often employed as a vehicle of reinterpretation. According to Colquhoun, Le Corbusier 'refers constantly to the architectural tradition either by invoking its principles and adapting them to new solutions or by overtly contradicting them in such a way that some knowledge of the tradition is necessary in order to understand his architectural message.'⁹⁷¹ The change in the arrangement and interpretation of existing

⁹⁶⁹ Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, Englewood Cliffs, N.J.: Prentice-Hall, 1964, pp. 65-6.

⁹⁷⁰ Alan Colquhoun, *Essays in Architectural Criticism*, MIT Press, 1985, p. 51.

⁹⁷¹ Ibid.

elements takes several forms. Le Corbusier often studied familiar three-dimensional objects, human bodies and architectural precedents. He then recorded them in drawings, and recomposed them, or further developed them into two-dimensional paintings, and again reinterpreted them into three-dimensional architecture. The orthogonal projection is a common form of architectural drawing, which Le Corbusier applied in his sketches and paintings. For instance, the contour of a foot (fig. 7.6 right) could be projected as a curved surface. This interpretation is seminal for his architecture as the three-dimensional elements could be generated from any two-dimensional images of banal daily objects. For instance, the shower 'capsule' in his bedroom at 24 N.C. is a projection from a square with rounded corner, which is a motif of a distorted glass in his painting, 'Nature morte verres et cartes' (fig. 7.7). Moreover, the characters, themes and qualities can be expressed by physical objects and examples, or be developed into his personal visual language of art and architecture.

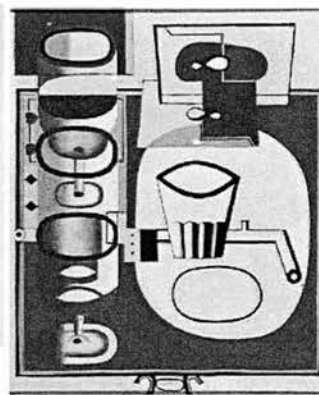
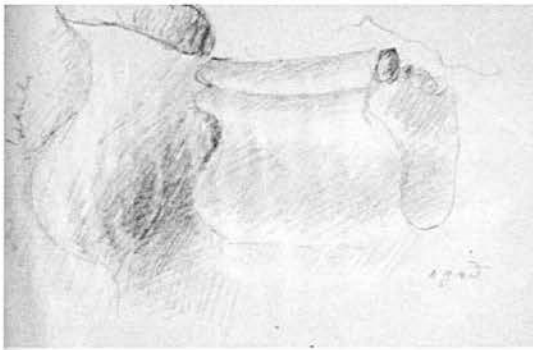


Fig. 7.6 Le Corbusier, Sketch of a jar (left) and projection of a foot (right), *Sketchbooks I*, B8, No.495.

Fig. 7.7 Le Corbusier, 'Nature morte verres et cartes', 1929, FLC 172.

A. Objects and Artefacts

Our concept of the object comes from total knowledge of it, a knowledge acquired by the experience of our senses, tactile knowledge, knowledge of its materials, its volume,

its profile, of all its properties. ---*Purism*⁹⁷²

Some daily objects such as a bottle, wine glass, pebble and seashell are profusely illustrated in Le Corbusier's paintings. In his Purist paintings, bottles and plates are not only ordinary objects but they also respond to a man's imperative needs in all ages and express the law of selection – the economy.⁹⁷³

As stated in *Purism*, there are primary and secondary sensations. The former released from elementary objects are constant and universal; the latter, grafted from the primary ones, are individual and depend on one's hereditary or cultural background.⁹⁷⁴

His '*objets à réaction poétique*' are indeed ordinary pebbles, rocks, seashells, bones or woods, but are 'evocative companions' to him:

...by means of them friendly contact between nature and ourselves is woven... Through them, characters emerges: male and female, vegetable and mineral, bud and fruit (dawn and noon)... in direct contact with nature which gives us a sense of strength and purity, unity and diversity... Pebbles, crystals, plants and all their parts extend their meaning even to the clouds and rain, even to erosion, that crucial geological phenomenon.⁹⁷⁵

To Le Corbusier, poetry was the purest of all things, and is 'the capacity to go into the richness of nature.'⁹⁷⁶ Thus interpretations of nature provided numerous associations to facilitate his artwork. The associations of a seashell, one of his major motifs, included cultural aspects, in which the seashell is 'smooth as porcelain or carved in Greek or Hindu fashion.'⁹⁷⁷ The proportions of its original structure were natural regulating lines, and had

⁹⁷² Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, Englewood Cliffs, N.J.: Prentice-Hall, 1964, p. 65.

⁹⁷³ Ibid., pp. 63-4.

⁹⁷⁴ Ibid., pp. 61-2.

⁹⁷⁵ Le Corbusier, *Le Corbusier Talks with Students*, trans. Chase, Pierre, New York: Princeton Architectural Press, 1999, pp. 71-2.

⁹⁷⁶ Le Corbusier, *My Work*, p. 300.

⁹⁷⁷ Le Corbusier, *Le Corbusier Talks with Students*, p. 70.

associations with precedents in many distant cultures,⁹⁷⁸ which could be seen as evidence of a universal law.

When Le Corbusier travelled to Rome, he sketched a decoration of a pinecone from the former Vatican basilica of St. Peter's and noted that it was similar to the Omphalus of Delphi, the legendary sacred stone from Heaven that was seen as the World's navel and a centre of the Earth. This pinecone reappeared in his painting 'Le masque et la pigne de pin', 1930, FLC 237, and later again in *Poème* in p.58 with notes: 'Free of fetters than before the house of man mistress of his forms; take its place within nature; whole in itself; coming to terms with the terrain.'



Fig. 7.8 Le Corbusier, 'Nature morte (a l'accordéon)', 1926.⁹⁷⁹

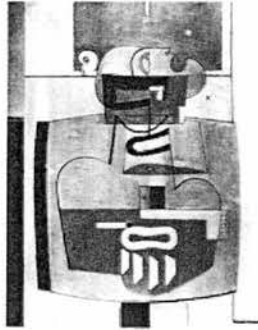


Fig. 7.9 Le Corbusier, 'Composition spirales logarithmique', 1929, FLC 171.



Fig. 7.10 Le Corbusier and Joseph Savina, *Totem*, 1950.



Fig. 7.11 Le Corbusier, Peruvian vases with image of feasting birds and trees, FLC 5865.

Le Corbusier's large sculpture, *Totem* was evolved from a collage of different bottles in his painting 'Nature morte (a l'accordéon)' of 1926 (fig. 7.8). Later, profiles of bottles were reinterpreted as the shoulders of a woman with a head on the top (fig. 7.9), which may associates with a Peruvian vase he studied around 1910 (fig. 7.11). Finally, in 1950, it was

⁹⁷⁸ See examples in the chapter 'Regulating Lines' in *Towards a New Architecture*.

⁹⁷⁹ Le Corbusier, *Le Corbusier: architecte/artiste*. [computer file] London: Infinitum publications & Fondation Le Corbusier, 1997, painting 29/195.

further developed as a sculpture named Totem (fig. 7.10) by Joseph Savina. The name, 'totem', may imply an emblem of his Purism, or even an incarnation of his guardian spirit. It consists of a figure and a representation – reincarnated from his Purist objects.



Fig. 7.12 Gabon mask, side view, Royal Museum of Scotland.

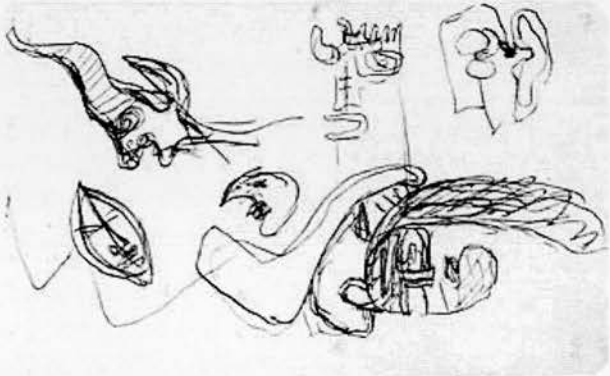


Fig. 7.13 Le Corbusier, *Sketchbooks* F24, no.705, 1952.

A Gabon mask in Le Corbusier's collection might have inspired a female figure with a sharp oval face. A side view of the similar guardian mask (cf. fig. 7.12) could be related to this sharp oval face and another similar work, his tapestry 'Presence II' (1949) and to the lower-left figure on a page from *Sketchbooks*, F24, no. 705

(fig. 7.13). His Kpelie mask with a long face and a sharp chin (fig. 7.14) may also be another inspiration.



Fig. 7.14 Kpelie mask, Senufo, Ivory Coast. (FLC slide: Masque FLC5)

La mer est redescendue
 au bas de la marée pour
 pouvoir remonter à l'heure.
 Un temps neuf s'est ouvert
 une étape un délai un relai



Alors ne serons-nous pas
 demeurés assis à côté de nos vies.

116

Fig. 7.15 Le Corbusier, *Poème* p. 116.

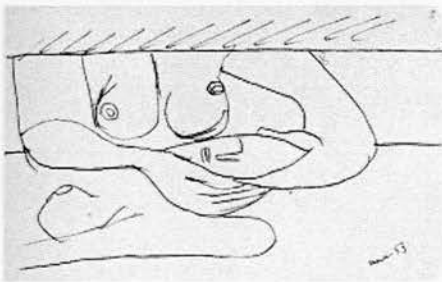


Fig. 7.16 Le Corbusier, *Sketchbooks II*, no.1011, 1953. It is a source of *Poème* p. 116.

Kpelie (fig. 7.14) is a blackened wooden ancestral mask from Senegal. It consists of a stylised human face and ram's horns, and was worn during the ceremonies at harvest festivals. It combines both human and animal features. This long face mask may be linked to an image in his *Poème* (fig. 7.15).⁹⁸⁰ Another reference to this page of the *Poème* is his sketch (fig. 7.16) showing a woman embracing a baby. He noted on p. 116 in *Poème*:

The sea has gone out the low tide at low ebb will rise again in time / A new time has begun / a phase a limited a transition / and thus we shall not have mistaken our life.

This implies that a new generation has begun, either in the human life cycle or expressed in primitive art as a new inspiration for modern work. There are also a number of examples of reinterpretations in his works.⁹⁸¹

B. Qualities and Themes

In Le Corbusier's repository, there were plenty of objects and drawings immediately available for development, but there were also some intangible issues to be dealt with, such as his modernist values and themes. These intangible qualities could be expressed in specific examples in his writing, and illustrated in his prints and designs.

⁹⁸⁰ p. 116.

⁹⁸¹ Such as in his *Poème* p.9, islands above sea were transformed from a sketch of parts of his body above water. An open box in his painting *Sculpture et nu* 1929, FLC 342 and *Lignes de la main* of 1930, FLC246 very likely influenced his design of the belfry of monastery at La Tourette, France.

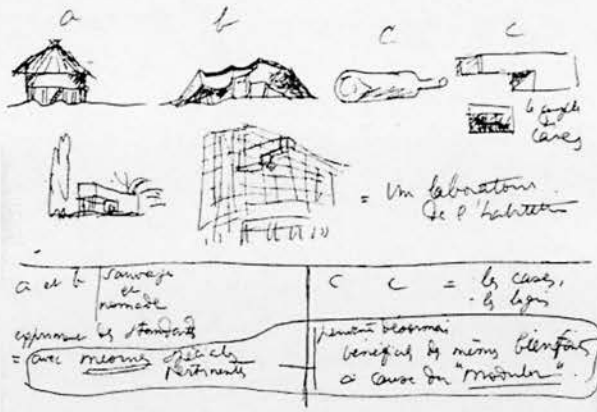


Fig. 7.17 Le Corbusier, Diagram for Unité d'Habitation with annotation on hut and tent: 'a and b / primitive and nomad / express the standard (a et b / sauvage et nomade / expriment les standard). Le Corbusier, *My Work*, p. 160.

In another drawing for Unité d'Habitation (fig. 7.17), Le Corbusier celebrated 'type' as having developed paradigms – the nomad tent⁹⁸² and an African hut,⁹⁸³ which were reinterpreted as a standard unit in his Unité d'Habitation. He wrote, 'From the nomad and the savage we arrive quite logically at the plan for south Marseilles.'⁹⁸⁴ This type of nomad dwelling was also reinterpreted in his projects *Pavillon des Temps Nouveaux* 1937, and *Philip Pavilion* 1958.

For Le Corbusier, the celebrated values of type, standardisation, progress, economy, precision and creativity were all accomplished in the Parthenon, many folk houses in Brittany and Arcachon. Many other principles of this kind, epitomised in examples of primitive and distant cultures, were reinterpreted in his modernist works.

Regulating lines were illustrated in many examples such as Jewish tabernacles, Greek temples and Gothic cathedrals. The prism was demonstrated in the city of Rome and the Cathedral of Pisa. The orders and right angles in Hindu temples and the Chinese Forbidden City were illustrated in his writing. The shifting axis resembles a meander, which is

⁹⁸² A photo of tent is likely Berbers, in *The City of Tomorrow and Its Planning*, trans. Frederick Etchells, London: The Architectural Press, 1947, p. 44.

⁹⁸³ The first drawing of 'native hut', in fact is in Africa, *Ibid.*, p. 36.

⁹⁸⁴ Le Corbusier, *My Work*, pp. 159-60.

illustrated in the plans of Pompeian houses or a Chinese garden. These principles were reinterpreted into most of his modern designs, such as the Villa Savoye.

The classical principle of the tripartite facade is another example of reinterpretation. The classical composition of base, shaft and capital could be applied to modern high-rise architecture, as demonstrated by Louis Sullivan⁹⁸⁵ and also applied in Le Corbusier's Swiss Pavilion; where the massive podium was transformed into a floating piloti, and the capital became the top level, which is a roof garden.⁹⁸⁶

C. Architectural Precedent

Many architectural precedents were reinterpreted in architecture of the modern movement. The economical folk hut was reinterpreted in Le Corbusier's 'Une Petite Maison' and his 'Cabanon' in Cap Martin. His design of 'Maison de Weekend' of 1934, where the vaulted ceiling was covered by turf on the roof above, was an interpretation of the primal cave dwelling. The top-lit cave tunnel of Tivoli was reinterpreted as the side chapel of Ronchamp forty years after his visit to Tivoli. The serrated Observatory in Khorsabad was transformed into the World Museum in his 'Mundaneum' project. The horizontal windows and free plan of Balkan wooden architecture were reinterpreted in most of his modern work. This is a much more direct way of architectural reinterpretation than his techniques of morphing and abstraction.

⁹⁸⁵ 'The true prototype of the tall office building is the classical column, consisting of base, shaft and capital'. Quote from Louis H. Sullivan, 'The Tall Office Building Artistically Considered' (1986). In *Louis Sullivan: the Public Papers*, ed. Robert Twombly, Chicago; London: University of Chicago Press, 1988, p. 109.

⁹⁸⁶ Alan Colquhoun, *Essays in Architectural Criticism*, MIT Press, 1985, pp. 51-2.

D. Icons from Crystallized Images

A large part of Le Corbusier's collections is visual. Some of his favourite motifs were distilled into his personal icons or 'hieroglyphs', which frequently reappeared in his architecture, paintings and in *Poème*. In his lifelong development, Le Corbusier tended to 'reduce the phenomena of culture and nature to a group of iconographic types whose authority derives from such a network of relationships as the Iconostase for the *Poème*, where they could be regarded as a sort of universal scheme of meaning appropriate to all human situations.'⁹⁸⁷ This network of his life-long icons or hieroglyphic elements in *Poème* can be composed as a series of stories, which follow page numbers and texts, or allow other collagistic combinations, as each page in *Poème* is a separated sheet rather than a bound book.

Most of the icons in *Poème* can also be found in his paintings and publications. They originated partially from his collection of objects, such as multifarious seashells and stones, which reflected the natural rules and forces; partially from images collected from his trips such as female bodies, which revealed human desire and fecundity. Motifs such as 'The Law of Meander', as a metaphor for vicissitude, were crystallized as paradigmatic images. Some of them are his lifelong icons, such as the lantern, which appeared in the 1920s and lasted until the end of his life. It represents illumination, enlightenment and, as observed by Mogens Krstrup, his self-portrait.⁹⁸⁸ The icons reappearing in Le Corbusier's works exhibit two forms of thought. Peter Carl pointed out:

One of these is grounded in metaphor and analogy, which is to say, experience, memory and judgement; the other is conceptual and relies upon the internal consistency of formal patterns and relationships, mostly of number and geometry. As far as the

⁹⁸⁷ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), p. 44.

⁹⁸⁸ Mogens Krstrup, *Porte email*, p. 23.

painting and architecture are concerned, the mediating structure is supplied by cubist space.⁹⁸⁹

His icons and texts in this collagistic composition are also parallel to some contemporary poetry if they were expressed in writing.⁹⁹⁰

Icons, such as Le Corbusier's personal ones, consist of three strata of subject matter or meaning, as Erwin Panofsky discussed: configurations of shapes (such as numbers and geometry), themes or concepts (such as metaphor, analogy, memory and judgment) and the basic attitude towards a nation, a period or a class.⁹⁹¹ Le Corbusier's icons echoed his cultural background and typical European interests at that time, together with his personal preferences. Peter Carl asserted that to 'overlay competing realities with his speculative, hypothetical and symbolic thinking is a matter of the play of analogies within an iconographic field which is the basis of the urban thinking, the architectural design, and the painting and writing.'⁹⁹²

New Composition

Le Corbusier adopted several approaches to composition for painting and architecture. The transformed elements and fragments were recomposed into new works. To him, 'composition comprises choice of surface, division of the surface, co-modulation,

⁹⁸⁹ Peter Carl, 'Natura Morta', *Modulus 20* (1991), p. 38.

⁹⁹⁰ Ibid.

⁹⁹¹ The first is 'primary or natural subject matter', either factual or expressional, which is apprehended by identifying certain configurations of lines, colours, shapes and so forth. The next is a 'secondary or conventional subject matter', about specific themes or concepts manifested in images. The third is an 'intrinsic meaning or content', which is apprehended by ascertaining those underlying principles which reveal the basic attitude of a nation, a period, a class, a religious or philosophical persuasion – qualified by one personality and condensed into one work. See Erwin Panofsky, *Meaning in the Visual Arts*, London: Penguin, 1987, pp. 53-56.

⁹⁹² Peter Carl, 'Natura Morta', *Modulus 20* (1991), p. 41.

relationships of density, colour scheme.⁹⁹³ The creator of artwork chooses languages and groups them together ‘to create a symphony of sensations ... a state of a particular quality, joy, gaiety, sadness, etc.’⁹⁹⁴ In his Purist painting, collage is a basic method, which follows the principles of Cubism. Geometrical order is common in organizing Purist painting and architecture. Architectural experience is perceived while one is moving or working in a series of spaces, which is like a collage consisting of series of images, which are generated and recorded in one’s mind. As the transformed elements and fragments are juxtaposed, their forms, themes, metaphors and associations interlace with each other and produce new extended meanings.

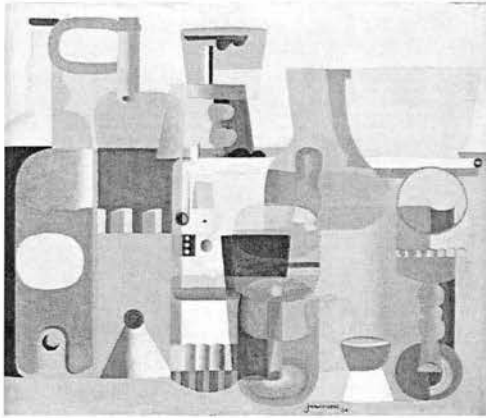


Fig. 7.18 Le Corbusier, ‘Nature morte du pavillon de l'Esprit Nouveau’, 1924, FLC 141.

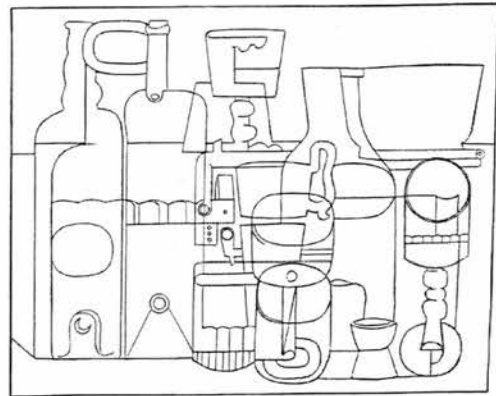


Fig. 7.19 Le Corbusier, ‘Nature morte du pavillon de l'Esprit Nouveau’. From Le Corbusier, *La peinture moderne*, p. 169, and *L'Esprit nouveau*, vol.27.

Collage and composition in Le Corbusier’s artwork are organized in various ways. Firstly, the elements are sometimes placed side by side with different views and materials as a whole new piece. For example, in fig. 7.18, the wine glass on the right of the painting is composed of a plan as its top part, a side elevation for the middle part, and the plan again as the bottom

⁹⁹³ Le Corbusier and Ozenfant, ‘Purism’, in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, p. 67.

⁹⁹⁴ Ibid.

part. Another example is an extended die (fig. 7.4); its elevations, plans, axonometric are all juxtaposed. This combination is a legacy of synthetic Cubism commonly used in his Purist painting.

Secondly, while real elements are positioned in spatial depth, different layers of Purist painting are collaged together, and certain parts are transparent. Consequently, the contours are intertwined. Le Corbusier called this 'marriage of contours' (fig. 7.19). This creates visual echoes and puns. The area confined by the contour line can be recomposed and reinterpreted again to generate new combinations for his later work.

Thirdly, the elements can be related through resemblance. In fig 7.20, the top of a glass, on the left, coincides with sound hole of a guitar, the wine glass in the middle coincides with the mouth of a pot, and the cup on the right corresponds to the bottom of a bottle. This creates visual puns and multiple connections. The glass at the lower left corner of the painting is fluted, perhaps a connection with classical columns.

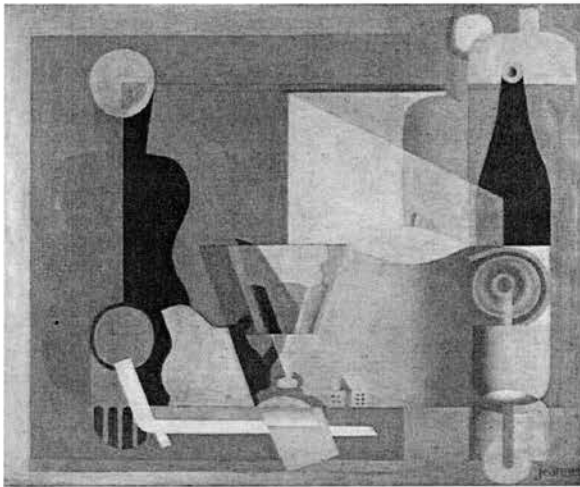


Fig. 7.20 Le Corbusier, 'Nature morte pale a la lanterne', FLC 209, 1922.

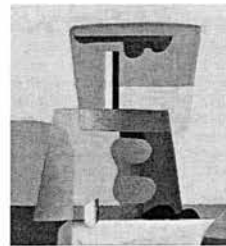


Fig. 7.21 Le Corbusier, interlocking glasses, detail of 'Nature morte du pavillon de l'Esprit Nouveau', 1924, FLC 141.

Fourthly, heterogeneous elements are combined such as a human head on top of the bottle; a woman with a pair of wings; or the combination of roots and pebbles, which become a 'bull'; thus a mythical or surrealist theme is generated.

Unlike most Cubist paintings, elements in Le Corbusier's painting and architecture are often ruled by a set of geometrical orders, his 'Regulating Lines' and later the 'Modulor' system. He stated in *Purism*, 'there is no art worth having without this excitement of an intellectual order, of a mathematical order.'⁹⁹⁵ These provide a harmony among elements, intended to conform to that of cosmos. Le Corbusier maintained, 'But as craftsmen-builders, sculptors, painters, organizers of space – we are dazzled by the wealth of combinations offered by the Golden Mean.'⁹⁹⁶ Furthermore, the golden section 'haunts studios like the spectre of the philosophers stone...It is a mathematical section permitting the division of a straight line so that a harmonious relation reigns between the two segments.'⁹⁹⁷

The motif of interlocking glasses (fig. 7.21), two glasses with one upright and the other upside down, were one of the main icons of Purist painting. This symbol of interlocking oppositional elements relates to the images of copulation in painting (such as 'Deux femmes assises avec collier' FLC 89, 1930, and 'Deux femmes au repose', FLC 54, 1939), as well as interlocking space in architecture, such as the section of Villa Carthage, the plan of the Carpenter Centre and the section of two interlocking units in Unité d'Habitation.

He sometimes made a composition first, and then interpreted from it, as in the Ubus series,

⁹⁹⁵ Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, p. 60.

⁹⁹⁶ Le Corbusier, *Modulor 2*, p. 20

⁹⁹⁷ Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, p. 68-9.

first created in the Pyrenees (1940-2), as he stated:

Stones and pieces of wood led me on involuntarily to draw beings which became a species of monster or god. The wild rumblings and gesticulations which plunged the poor world into delirium filled the atmosphere with obsessive presence. Having painted them for four years without knowing it, I one day recognized them and called them the *Ubus*.⁹⁹⁸

This sculpture of *Ubus* can have multiple interpretations as landscape, building or cities, as he maintained: 'hints of landscape, of lagoons or beaches, or other things. It is also a house or a large building raised up on posts, it is a city lifting up in the sky of its future the spheres, cones and cylinders arranged in certain order, of Saint-Gaudens, of Barcelona, of Algiers or of Paris, or of Rio de Janeiro.'⁹⁹⁹

Situational and Non-perspectival Space

Artists of all the periods 'have tried to put forward their solution to the essential paradox of painting, which is that it represents depth on a surface.'¹⁰⁰⁰ Paul Cézanne had already ceased to take any of the traditional methods of painting for granted. Each brush stroke in his paintings contains air, light, outline and character in order to achieve a sense of depth and orderly arrangement without sacrificing the brightness of colours, while ignoring the conventional outline¹⁰⁰¹ or perspectival space.

In Cubism, the traditional perspective was replaced by a perception of space which was often more dynamic and situational. The dissolution of objects in analytic Cubism creates a situation in which fragments preserve some connection to the original condition, while situating those objects in a radically new structure of space. As George Braque said in 1917,

⁹⁹⁸ Le Corbusier, *New World of Space*, p. 21.

⁹⁹⁹ *Ibid.*, p. 23.

¹⁰⁰⁰ Ernst Hans Gombrich, *The Story of Art*, 16th ed., p. 575.

¹⁰⁰¹ *Ibid.*, pp. 543-4.

'The subject is not the object; it is the new unity, the lyricism which stems entirely from the means employed.'¹⁰⁰² To Braque, the 'space between objects' seems as essential an element as the objects. The subject matter consists precisely of the relationship between these objects...and the intervening space. The relationship between them is always based on the context of a particular setting. Its nature is thus determined by the logic of the situation and the meaning of individual elements.¹⁰⁰³

The similarity between different objects is established by composition, metaphor and analogy. The metaphor depends on a productive imagination.¹⁰⁰⁴ Thus the setting of objects and the space between the objects become non-perspectival and situational. In Surrealist art, the analogy 'can be the deep relation between realities which the logical functioning of our mind cannot link together.'¹⁰⁰⁵ Le Corbusier's Bestegui penthouse is a good example.

Transformation among Different Domains: Object, Painting and Architecture

Le Corbusier could 'observe the same phenomenon through the practice of three arts: architecture, sculpture and painting.'¹⁰⁰⁶ He stated that through painting, he arrived at his architecture.¹⁰⁰⁷ Through his whole life, Le Corbusier was dedicated to many visual arts: architecture, urban design, painting, sculpture, tapestry, enamel and lithography. Even though they are very different, they have certain common characteristics, especially those of them

¹⁰⁰² Edward F. Fry, *Cubism*, trans. J. Griffin, London: Thames and Hudson, 1978, p. 147.

¹⁰⁰³ Dalibor Vesely, 'Architecture and the Ambiguity of Fragment', in Robin Middleton, ed., *The Idea of the City*, London: Architectural Association, 1996, p. 114.

¹⁰⁰⁴ Ibid.

¹⁰⁰⁵ Ibid., p. 117.

¹⁰⁰⁶ Le Corbusier, *New World of Space*, pp. 8-9.

¹⁰⁰⁷ *Le Corbusier, maler og arkitekt: Le Corbusier, Painter and Architect, Catalogue for Exhibition at Nordjyllands Kunstmuseum, Aalborg, Denmark, September 30- December 10 1995*, Paris: Fondation Le Corbusier, p. 6.

which were made in the same period. His paintings remained a secret laboratory to him and were a generator of forms.¹⁰⁰⁸ They are also a revelation of his personal cosmology:

Architecture, sculpture and painting are, by definition, dependent on space, tied down to the necessity to come to terms with space, each by its own means. The essential point I wish to make is that the key to aesthetic emotion is a function of space...my entire intellectual activity has been directed towards the manifestation of space. I am a man of space, not only mentally, but also physically.¹⁰⁰⁹

Many similarities and correspondences exist between Le Corbusier's painting and architecture. A painting to him is 'an association of purified, related, and architected elements...we think of the painting not as a surface, but as a space.'¹⁰¹⁰ The interpretation from two-dimensional media into three-dimensional space is very creative and suggests more spatial possibilities. The orthogonal projection is a common expression in architectural drawing.

Images and lines in drawings could be interpreted directly as a normal drinking glass, a folk pot, or part of a human body. Reading them is like reading architectural drawings such as a set of rooms or the parts of building elements. Thus the bottles, jars, and human bodies are turned into building elements in plan, section and elevation (fig. 7.22). As a result, his works could inspire and respond to each other and bring in endless creative possibilities.

¹⁰⁰⁸ Françoise de Francieux, notes on *Le Corbusier Sketchbooks II*, 1950-1954, London Thames and Hudson in collaboration with the Fondation Le Corbusier 1981, p. 11.

¹⁰⁰⁹ Le Corbusier, *Modulor 2*, pp. 25, 27.

¹⁰¹⁰ Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, p. 67.

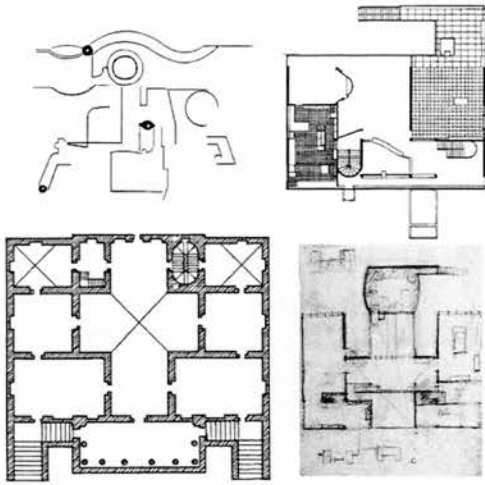


Fig. 7.22 Diagram of Le Corbusier's 'Still Life with Numerous Objects' (top left), Villa Stein (top right), Palladio's Villa Malcontenta (bottom left) and Study for Villa Stein, spring 1926.

William Curtis, *Le Corbusier*, p. 82.

Architectural experience is composed of a series of consecutive vistas, which are dynamic according to its user's movements. Similarly in Le Corbusier's painting, space is revealed in both physical, perspectival aspects, where objects are arranged in depth, and non-perspectival aspect, where there are multiple readings and metaphorical effects are generated. As his painting is a juxtaposition of multiple images with a 'marriage of contour', the revealing dialogues among them are consequently generated and the space implied there could open to multiple interpretations. This is further enriched by his discussion of the fourth dimension, which is 'the moment of limitless escape evoked by an exceptionally just consonance of the plastic means employed.'¹⁰¹¹

Part II. Distant Cultures and Purism

Le Corbusier and Ozenfant established a new avant-garde stronghold, known as Purism,

¹⁰¹¹ Le Corbusier, *New World of Space*, p. 8. He further stated: 'Then a boundless depth opens up...accomplishes the miracle of ineffable space.'

after World War I. It celebrates the art and architecture in the new epoch. In their manifesto *After Cubism* of 1918, however, many ancient and distant cultures were involved to support their arguments. It is also, as Robert Goldwater stated, an 'intellectual primitivism' (see chapter three).

In the fourth issue of *L'Esprit nouveau* of 1921, Le Corbusier and Ozenfant published *Purism*, which maintained that one's aesthetic sensations depend on individual hereditary and cultural background.¹⁰¹² In *After Cubism*, ancient Greece is celebrated as clear, bright and ordered, the characteristics of 'purity'. The ancient Greeks, for the Purists, prefigured the modern spirit, which had a tendency 'toward rigor, toward precision, toward the best utilization of forces and materials, with the least waste, in sum a tendency toward purity.'¹⁰¹³

This spirit is manifested in the machine and in modern art, where the machine is 'attaining a remarkable refinement and purity. This purity creates in us a new sensation, a new delectation...it is a new factor in modern art.'¹⁰¹⁴ The works since the industrial revolution 'bring us the perception of a beauty that is clear, light, general. Not since Pericles has thought been so lucid.'¹⁰¹⁵ Painters, as stated in *After Cubism*, 'should make purity, a spiritual aspiration, real. Clear pictorial organization is satisfying because it realizes the simplicity that nature seems to favour.'¹⁰¹⁶

The Parthenon is a height of achievement in this essay: 'All of this advances toward a realization of something that the Greeks, so attuned to this [modern] spirit, had envisioned

¹⁰¹² Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, pp. 61-2.

¹⁰¹³ Carol S. Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*, Los Angeles, Calif.: Los Angeles County Museum of Art in association with Harry N. Abrams, c2001, p. 147.

¹⁰¹⁴ *Ibid.*, p. 143.

¹⁰¹⁵ *Ibid.*, p. 142.

¹⁰¹⁶ *Ibid.*, p. 162.

but could never realize, lacking methods and means comparable to those of modern industry. Today we have builders. If today we have our Ponts du Gard, we will also have our Parthenon, and our age is better equipped than that of Pericles to realize the idea of perfection.¹⁰¹⁷ The clarity and purity were expressed in the Greek age, which was a model for the spirit of modernity:

The true Purist work should conquer chance and channel emotion; it should be the rigorous image of a rigorous conception: by means of a clear, purely realized conception, it should offer *facts* to the imagination. The modern spirit requires it; this novelty for our era will re-establish a link with the era of the Greeks.¹⁰¹⁸

Indeed Le Corbusier's early reading, Edouard Schuré's *The Great Initiates* taught him that Pythagoras 'illuminated [esoteric teaching] with Hellenic simplicity and clearness, giving it a stronger sentiment and a clearer idea of human liberty.'¹⁰¹⁹

In *After Cubism* the authors stated that 'the goal of serious art is the search for the *Invariable*'¹⁰²⁰ as expressed in certain everyday objects and in natural laws. The chosen subject looks simple but it has associations. A bottle, for example, has a high degree of generality. Intellectual beauty was celebrated as that appreciated by the Greeks 'hidden beneath sensory beauty.'¹⁰²¹

Le Corbusier celebrated *objets type*, which responded to 'type-needs', along with human scale and human functions,¹⁰²² of prime necessity, and respond to the eternal human. He was also eager to 'respect and even to re-establish the traditional iconography of Cubist still life

¹⁰¹⁷ Ibid., p. 144.

¹⁰¹⁸ Ibid., p. 163.

¹⁰¹⁹ Edouard Schuré, *The Great Initiates, Sketch of the Secret History of Religions*, trans. Fred Rothwell, Rider & Co., 1929, vol. II, p. 10.

¹⁰²⁰ Ibid., p. 151.

¹⁰²¹ Ibid., p. 157.

¹⁰²² Le Corbusier, *The Decorative Art of Today*, p. 75.

painting.¹⁰²³

For order, clarity and invariability, Purism celebrates geometry. Its purity was both antique and scientific, and they maintained that pure art and pure science had a common spirit. Art and science were dependent on number, thus 'A painter's studies are analogous to the analyses undertaken by physicians and mathematicians; knowledge of the natural order.'¹⁰²⁴

This order provides the harmony connected to the law of nature. 'Verified laws are human constructs that coincide with the natural order; they can be expressed in numbers...They will restore art.'¹⁰²⁵ The natural law is the correspondent of the ancient and modern world. To Le Corbusier, ancient canons, such as the Greek, were based exclusively on precise knowledge of the universality of the natural laws that governed the exterior world and works of art.

[The universality of the natural laws] made it possible to link human works to those of nature (Euclid, Pythagoras, Archimedes). These same canons (Egyptian triangles, numerical relationships, etc.) were known to the most ancient civilizations. The Egyptians, the Assyrians, the Greeks, the Persians, and the Goths knew them.¹⁰²⁶

In *After Cubism*, this natural law has made it possible to construct works 'whose plastic originality is as pure and various as the Pyramids, the palaces of Assyria, the Parthenon, Persian domes, Gothic naves...'¹⁰²⁷ Further ancient examples were discussed in Le Corbusier's publications in 1920s, such as *The City of Tomorrow* and *Une Maison- un palais*.

At the beginning of the manifesto, Cubism was criticised as non-representational, obscure, inappropriate, and poorly conceived. The Cubists' technique of using elements extracted and

¹⁰²³ Stainslaus von Moos, Le Corbusier, *Elements of a Synthesis*. The MIT Press, 1982. p. 285

¹⁰²⁴ Carol S.Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*, Los Angeles, Calif.: Los Angeles County Museum of Art in association with Harry N. Abrams, c2001, p. 153.

¹⁰²⁵ *Ibid.*, p. 151.

¹⁰²⁶ *Ibid.*, p. 157.

¹⁰²⁷ *Ibid.*

isolated from nature had been tried in all periods. The use of isolated elements, non-narrative representation, was not new; the Mycenaeans, the Orientals, and the Negroes had constantly used them already.¹⁰²⁸ Later in 1931, however, Le Corbusier celebrated Cubism as ‘it is true, exact (relationships). But the mind has been at work: inventing and composing.’¹⁰²⁹

In Cubist work, two-dimensional and three-dimensional ambiguity is a major characteristic. It was deemed by the Purists too fragmental and ephemeral. Purism sought stability and typicality, but used essentially Cubist space. In Purist work, objects or vistas were presented in successive views instead of from a traditional single view, and were collaged together. Elements of portrait, for example, ‘are composite and never appear to us in a single glance; we encounter all of them in succession: front view, profile view, three quarter view, etc.’¹⁰³⁰

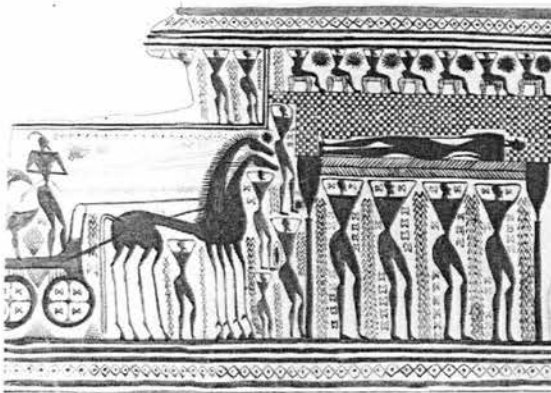


Fig. 7.23 Le Corbusier, drawing of a funeral scene on a Greek vase, FLC 4101. The vase was from the Louvre, A517.

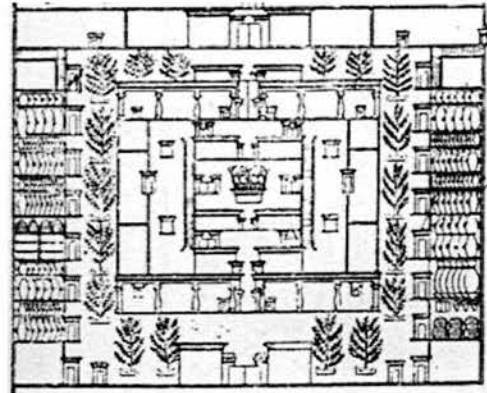


Fig. 7.24 Details of an Egyptian house, in *The City of Tomorrow and its Planning*, p. 37. cf. 6.15, 6.16.

This type of collage is not new, but existed in certain ancient Egyptian and Greek drawing, which Le Corbusier had studied. For example, in this drawing of an ancient Greek funeral scene by Le Corbusier (fig. 7.23), the two wheels of the cart on the left were put side by side.

¹⁰²⁸ Ibid., p. 135.

¹⁰²⁹ Le Corbusier, *Sketchbooks* 1, B7, 428-9.

¹⁰³⁰ Carol S. Eliel, *L'Esprit nouveau: Purism in Paris, 1918-1925*, p. 164.

The legs of the two horses are shown together as four in the front and another four in the back; the platform holding the deceased is expressed in plan, as is the body, but the persons in front and behind it are in elevation, etc. This is similar to the drawing of an Egyptian house (fig. 7.24, see chapter six), where the plan was juxtaposed with elevation of trees, gates and walls. Both drawings have a clear orthogonal order. There are further discussions on the Greek vase later in this chapter.

In Le Corbusier's books and *Poème*, the text and images are always juxtaposed as collage, as Peter Carl observes:

As far as the painting and architecture are concerned, the mediating structure is supplied by cubist space. As for the writing, he deploys adjectives, adverbs and metaphors in a compared *collagiste* manner which derives from contemporary poetry, and which has the virtue of allowing double readings to arise from what at first appear to be the flattest statements of fact.¹⁰³¹

Even though Le Corbusier's Purist period ended in the late 1920s, many of his Purist characteristics and his appreciation of distant cultures lasted all his life. His later work *L'Iliade*,¹⁰³² for example, was finished a year before his death. In the book his drawings were made directly juxtaposed over the existing illustrations in the book, which create a dialogue between ancient epic and contemporary heroic interpretation.

Part III. Surrealism and Others

Le Corbusier always pushed forward to extend the meaning of objects or images in his collection. Among his compositions, some were juxtaposed in non-logical combinations in the manner of Surrealism. Such compositions, however, already existed in primitive art. For

¹⁰³¹ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), p. 38.

¹⁰³² Mogens Krstrup, *L'Iliade / Le Corbusier*, Borgen Copenhagen: M. Krstrup, 1986.

example, a Nimba statue illustrated in his book¹⁰³³ has a human body with a bird's head.

Surrealism and the Subconscious

The Surrealists tried to integrate conscious and unconscious realms; and sought to explore the frontier of experience and broaden it by fusing the logical reality with the subconscious and dream experience. As Breton said, the aim is a 'resolution of these two states, dream and reality, which are seemingly so contradictory, into a kind of absolute reality, a surreality.'¹⁰³⁴

The Surrealist vision often focuses on dreams, automatism and irrationality to reveal the subconscious world. Underneath daily phenomena, the Surrealists were also involved with 'esoteric science, hermetism, divination and rituals, myths and folklore...attempt to reconstruct the... "*monde perdu*" – forgotten and buried behind the positivistic world of quantities.'¹⁰³⁵

The Surrealist vision is 'born by juxtaposition of two different realities, and it is on the spark struck by their meeting that the beauty of the image depends, the more different the two terms of the image are, the brighter the spark will be.'¹⁰³⁶ This juxtaposition could be of scale, or content, such as a female body and tree trunk, stone and head, etc. It could also be overlapped, based on the sameness in location or characteristic as visual puns. This juxtaposition could be through automaticism and by chance, in order to bypass reason.

The Surrealists were inspired by poetry, such as Arthur Rimbaud's, by Sigmund Freud's

¹⁰³³ Le Corbusier, *The Decorative Art of Today*, p. 117.

¹⁰³⁴ André Breton, 1924, *Manifesto of Surrealism*, trans. Richard Seaver & Helen R. Lane, Ann Arbor Paperbacks, The University of Michigan Press, 1972, p. 14.

¹⁰³⁵ Dalibor Vesely, *Surrealism, Myth & Modernity*, *Architectural Design*/2-3/1978, pp. 77-78.

¹⁰³⁶ *Ibid.*, p. 126.

theory of psychoanalysis, and the painting of Giorgio de Chirico, as well as Symbolism and Primitivism. Surrealism has a broad range in art as observed by Dawn Ades:

Within the visual arts Surrealism was one of the most voracious of all modern movements, drawing into its range the art of mediums, children, lunatics, the naïve painters, together with primitive art which reflected their belief in their own 'integral primitivism'.¹⁰³⁷

This range overlaps largely with the 'primitives within' listed by Colin Rhodes as a sort of 'twisted return to primitive states'.¹⁰³⁸

With critical insight, Robert Goldwater questioned whether the reading of the subconscious picture actually belongs to the realm of reason;¹⁰³⁹ some surrealist works manipulate with too deliberate and programmatic 'subconscious' iconography.¹⁰⁴⁰ At the same time, however, Goldwater pointed out three aspects of the surrealists' method that may be called primitivist: firstly they continue a tradition of anti-rational exteriorising of the subconscious that went back to the alchemists; secondly as pioneer explorers in the realm of the subconscious, and initially to investigate systematically by artistic means; lastly, by working with the essentials of human nature as finally revealed by psychology.¹⁰⁴¹ The surrealists were interested in what they considered the pre-rationalist aspects of primitive art and its more 'fantastic' inventions, and so were more drawn to Melanesia and the Northwest Coast than to Africa.¹⁰⁴²

The dream is a core theme in Surrealism. It is a chain of thoughts, images, and fancies passing through one's mind during sleep or a similar mental state. In Freud's theory, the content of the dream is the fulfilment of a wish. There thus occurred a textual difference

¹⁰³⁷ Dawn Ades, 'Dada and Surrealism', in: Nikos Stangos ed., *Concepts of Modern Art*, 3rd Rev. and enl. ed., London: Thames and Hudson, 1995, p. 127.

¹⁰³⁸ Colin Rhodes, *Primitivism and Modern Art*, p. 23.

¹⁰³⁹ Robert Goldwater, *Primitivism in Modern Art*, p. 221

¹⁰⁴⁰ *Ibid.*, p.260.

¹⁰⁴¹ *Ibid.*, pp. 218-9.

¹⁰⁴² *Ibid.*, p. 222.

between the dream and the thought-content, as the dream-displacement.¹⁰⁴³ The construction of collective and composite images is one of the chief resources of the activity of dream-condensation.¹⁰⁴⁴ The displacements were shown to be substitutions of one idea for another.¹⁰⁴⁵ Hence the 'dream-displacement' and 'dream-condensation' are the two major mechanisms that mould dreams, according to Freud.¹⁰⁴⁶

Displacement corresponds to the mechanism of 'metonymy' in language, where one thing is replaced by something corresponding to it; or by the transformation of an image.

Condensation occurs when a set of images is packed into a whole, or complex meanings are condensed into a simpler one; it is similar to 'collage' or 'double images.' The Surrealist painters used methods and motifs from psychoanalysis to express the unconscious, and to replicate the condition of dreaming.

Myth, Primitive and Surrealism

There is a fascination with "exotic" subjects, as in Orientalist painting, from the nineteenth century to the time of Matisse and after. The yearning for the mystical and the mythic is apparent in contemporary art. All of these elements have been called 'primitive'.¹⁰⁴⁷

All primitive cultures and ancient civilizations have their own beliefs. In this legacy of beliefs, myth tried to interpret certain aspects of the world around man, and was concerned with the powers controlling the human world, and the relationship between those powers and human beings. Myths represent human experience, and are the earliest form of history,

¹⁰⁴³ Sigmund Freud, *The Interpretation of Dreams*, p. 286.

¹⁰⁴⁴ *Ibid.*, p. 275.

¹⁰⁴⁵ *Ibid.*, p.314.

¹⁰⁴⁶ *Ibid.*, p.286.

¹⁰⁴⁷ Colin Rhodes, *Primitivism and Modern Art*, p.11.

science, philosophy, or moral values. Each community tends to take its inspiration from the local surroundings or gods of other time and places.

Myth was regarded as a symbolic representation of the external environment. But in the twentieth century, the symbolic interpretation of myths moved from the external environment to the internal environment of the unconscious mind. Sigmund Freud and his followers regarded myths as the expression of the individual's unconscious wishes, fears, and impulses. Carl Jung and his followers viewed myths as the expression of a universal, collective subconscious. Myths from around the world contain many similar themes that suggest the existence of a common collective unconscious. Anthropologist Claude Levi-Strauss looked at myths with a common underlying structure rather than narrative content.¹⁰⁴⁸ They are often thought of as pre-scientific attempts to interpret the natural world, or to explain the origins and nature of the cosmos, validate social, or economic issues.

The mythology of a society is presented through ceremony, ritual, custom and art. Thus their artworks always represent their interpretation of the natural world, and the origins and nature of the cosmos. The art reflects people's deep mental states and needs, which are in common with the characteristics of modern Surrealism. One of the surrealist aims was to create new myths, as Breton proposed in his question:

What should one think of the postulate that 'there is no society without a social myth'?
In what measure can we choose or adopt, and impose, a myth fostering the society that we judge to be desirable?¹⁰⁴⁹

He followed by 'a certain return to the study of the philosophy of the Middle Ages. He maintained:

In the measure, I repeat, surrealism tends to create a collective myth; it must gather

¹⁰⁴⁸ Donna Rosenberg, *World Mythology: an Anthology of the Great Myths and Epics*, London: Harrap, 1986, pp. xix-xx.

¹⁰⁴⁹ André Breton, *Manifestoes of Surrealism*, pp. 287-8.

together the scattered elements of this myth, beginning with those which proceed from the oldest and strongest traditions.¹⁰⁵⁰

The surrealist experience was a liberation of those powers, which might help to revive archetypal symbols capable of creating a general adherence of humanity – a new myth. As Dalibor Vesely pointed out, Surrealist myth (Sur-reality) is the imaginary-real world of certain primitives, stripped of all supernatural implications and meanings. Surrealists felt a deep nostalgia for archaic forms of existence,¹⁰⁵¹ and a world of dreams and fantasy. Ancient myths have resonance as part of modern life, as European heraldry employs mythical symbols. Greek mythology is still broadly remembered in the modern European world. The natural force, such as fate, which could be interpretable by modern science and logic, is still limited.



Fig. 7.25 Le Corbusier, Le Corbusier, 'La Dame à la Licorne'. A sketch of part of tapestry in the Musée de Cluny. FLC2250. FLC2250.

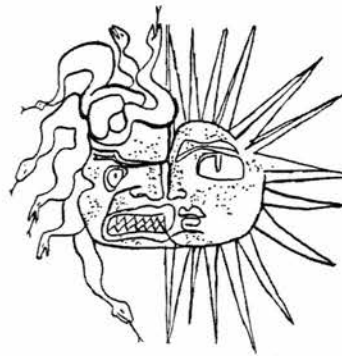


Fig. 7.26. Le Corbusier, Apollo and Medusa. LC, *The Home of Man*, p.156.

The responses of ancient civilizations to their natural world produced their authentic art. Superhuman power was imagined through combinations of two distant species such as man and animals such as the sphinx, or in the combination of two different animals such as the griffon, which has the attributes of lion and eagle.

¹⁰⁵⁰ André Breton, *What is Surrealism*, ed., Franklin Rosement, London, Pluto Press, 1978, p.159.

¹⁰⁵¹ *Architecture Design* / 2-3 / 1978, p. 88.

Le Corbusier studied myths of many civilizations and sketched their examples, which he later expressed in various works. For instance, his sketch of a tapestry 'La Dame à la Licorne' (fig. 7.25) was based on a tapestry in the Musée de Cluny; both the woman and her unicorn have a horn. He studied in 1909 Triton (fig. 5.25) of the Greek mythology, who has a human body but a fish tail; a Benin statue of a human body with the head of a shark or lion (fig. 7.36) was sketched around 1910, also a human figure with wings, such as the Persian god 'Ahuramazda' in the 1920s (figs. 6.47-6.49) and another Capricorn (fig. 1.11) of his creation.

Informed by his studies of the primitive, many of Le Corbusier's works have a certain mythological aura, including his surrealist paintings, designs and other works. He created a twin head of Apollo and Medusa in the 1940s (fig. 7.26), to express the good and evil situation of architecture. Several images of a human bestiary we recreated, such as the combination of a human female body, bird's wings and unicorn of his Capricorn in the late 1940s, etc.

Le Corbusier's Relationship with Surrealism

In Le Corbusier's writings, he frequently supported Purism and Cubism but was more sceptical about Surrealism. Nevertheless, he was acquainted with the Surrealists very early on and produced a number of surrealist works.



Fig. 7.27 Le Corbusier, *Une rêve* (A dream), watercolour. FLC 5160, 1917.

One of Le Corbusier's early Surrealist drawings is *Une rêve* (A dream) in 1917 (fig. 7.27). A huge tulip with upright leaves growing from clouds occupies the centre of the

drawing; it seems to be in dialogue with a flying dragon above it. In the background a leaning broken bell tower, possibly of that of St. Mark's in Venice, is submerged in water. This dreamlike and uncanny setting is an entirely surrealist composition. In his writings of 1925 Le Corbusier acknowledged this new movement:

The new 'Surrealists' claim to lift themselves above the brute nature of the object and are ready to recognize only relationships which belong to the invisible and subconscious world of the dream.¹⁰⁵²

But Le Corbusier also expressed his own view of reality as interpretation on Surrealism as mathematical, which was quite far removed from Surrealist's leitmotifs:

And the supremely elegant relationships of their [Surrealists'] metaphors – as they impress one who is not such a 'high dreamer' [i.e., Le Corbusier himself] – are all the time very clearly dependent on the products of straightforward conscious effort, sustained and logical, cross-checked by the necessary mathematics and geometry.¹⁰⁵³

Even so, Le Corbusier was still impressed by the Surrealists' imagination and the free associations of their works, especially those pertaining to machine, as described by De Chirico:

They are like levers, as irresistible as those all-powerful machines, those gigantic cranes which raise high over the teeming building-site sections of floating fortresses which heavy towers like the breasts of antediluvian mammals.¹⁰⁵⁴

Even though Le Corbusier accepted the exaltation of emotions, he generally expected them in the 1920s to be based on objects with a function. The poetry of Surrealism 'can only be based on their poetics on realism... which is the magnificent fruit of the machine age',¹⁰⁵⁵ he asserted. This vision, a mixture of emotion, the subconscious together with a realistic and logical approach, explains why Le Corbusier distanced himself from Surrealism. However, some of his architecture and paintings after 1928 have clear affinities with Surrealism.

¹⁰⁵² Le Corbusier, *The Decorative Art of Today*, p. 187.

¹⁰⁵³ Ibid.

¹⁰⁵⁴ De Chirico wrote it in the first number of *Revolucion Surréaliste*, December 1924. See Le Corbusier, *The Decorative Art of Today*, p. 187.

¹⁰⁵⁵ Le Corbusier, *The Decorative Art of Today*, p. 188.

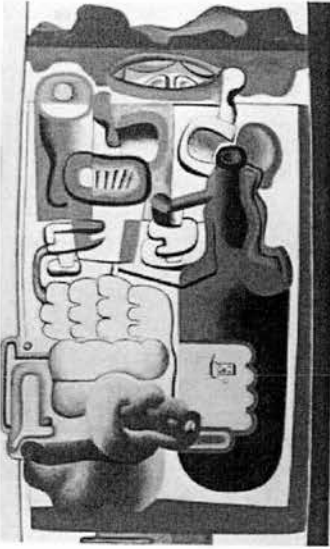


Fig. 7.28 Le Corbusier, 'Composition avec la lune', 1929 FLC 146.



Fig. 7.29 Le Corbusier, Beistegui penthouse, 1930-1. *O.E.2*, p. 54.

In the late 1920s, Le Corbusier's works, both architecture and painting, became broader in subject matter and mode of execution, but he was still pre-occupied with certain Purist notions, such as mathematics. But as he pursued a combination of distant realities and intellectual possibilities, some paintings were predominantly surrealistic in character. For example, in his canvas 'Composition avec la lune', 1929 FLC 146 (fig. 7.28), a tiny image of a building elevation was juxtaposed with bottle at the lower right, and the image of moon at the upper left is reflected in the mouth of a glass. It illustrates a tension between realistic and abstract representation, for example between big and small (building and bottle), celestial and mundane (the reflection of the moon in the glass), and between dream and reality.

This juxtaposition of scale recalls his Gabon mask (fig. 7.5) where the face has the same height as the body and legs, or his drawing of an Egyptian pectoral (FLC 5848, see chapter six), where a sacred beetle is the same height as human being.

In architecture, his Beistegui penthouse in Paris (fig. 7.29) was an explicit example of Surrealism. The exterior courtyard can be read as a room, the grass as a carpet. The door can be read as a fireplace, and the Triumphal Arch beyond echoes this fireplace. As Kenneth Frampton pointed out:

...works such as the de Beistegui Penthouse unexpectedly revealed a Surrealist side to Le Corbusier's imagination... This Surrealist sensibility (cf. Magritte and Piranesi) is latent throughout the whole of Le Corbusier's return to the vernacular, from the Maison de Mandrot of 1931 to the Ronchamp pilgrimage chapel built in the mid-1950s.¹⁰⁵⁶

During his trip to the United States, Le Corbusier expressed his scepticism toward Surrealism after he saw a student studying the art of Caravaggio and felt 'his [Caravaggio's] case belongs to psychiatrists.'¹⁰⁵⁷ To Le Corbusier the idea of art 'implies knowledge, consciousness, mastery, perpetual discovery...the mathematics of ingenious, fertile, and infinitely varied equation.'¹⁰⁵⁸ As for European Surrealism, he said: 'Born in the uncertainty of war, triumphed in the unchained post-war period...Cubism is health, strength, optimism, creation, the contribution of a few strong and healthy men...Surrealism is a noble, elegant, artistic, funereal institution.'¹⁰⁵⁹

Moreover, Le Corbusier was satirical about the excessively irrational:

Dream! Freud! Phantoms in limbo! Almost spiritualism. Spiritualism, stories, evocation. Literature. There are no bones in it any longer, but disjointed things, unearthly, passing over into stupefying and promiscuous combinations. Sensitive souls, lacking in solidity, occupy themselves with these precious, crepuscular decorations.¹⁰⁶⁰

Such a comment might be the result of a negative impression of the United States, as the

¹⁰⁵⁶ Kenneth Frampton, *Modern Architecture, a Critical History*, third ed., pp. 224-225.

¹⁰⁵⁷ Le Corbusier, *When the Cathedrals Were White*, p. 147.

¹⁰⁵⁸ Ibid.

¹⁰⁵⁹ Ibid.

¹⁰⁶⁰ Ibid.

titled of the book: 'a journey to the country of timid people.'¹⁰⁶¹ In another text published in 1938, Le Corbusier commented with a similarly ironic tone:

The painting, at the extreme of its development, fell into the abstract and at a time, by the automatic reaction (automatism), Surrealism created surprising and exciting themes and described dreams or hallucinations. Here all literature, there its negation itself.¹⁰⁶²

In spite of this, however, he contributed an article to the journal *Minotaure*¹⁰⁶³ about a mentally ill artist, Louis Sutter (or Soutter, 1871-1942),¹⁰⁶⁴ who was Le Corbusier's and Pierre Jeanneret's cousin. Soutter made drawings and finger paintings. In 1936, Le Corbusier wrote several letters to John Nef (on 6 March) and to Jean Giono (on 16 October)¹⁰⁶⁵ to promote Soutter's works. After this, there are still a number of Surrealist works by Le Corbusier in painting and architecture, such as arguably the Chapel of Ronchamp.¹⁰⁶⁶

There are other connections between Surrealism and Le Corbusier. An important member of the Surrealist movement, Roberto Sebastian Antonio Matta Echaurren, worked in Le Corbusier's office in 1934-35. Matta remembered this episode years after and 'commented in detail on how troubled Le Corbusier was by his drawings of floor plans based on drawings of

¹⁰⁶¹ The subtitle: 'voyage au pays des timids' is displaced in French version of the book, and appeared as 'a journey to the country of timid people' in many English version, but was omitted in other English versions such as McGraw-Hill Paperbacks. See *Ibid.*, cover and p. 146.

¹⁰⁶² 'La peinture, à l'extrême, de sa course, a chu dans l'abstrait alors qu'en même temps-et par réaction automatique- le surréalisme créait des thèmes inattendus et excitants, décrivant des rêves ou des thèmes inattendus et excitants, décrivant des rêves ou des hallucinations. Ici toute la littérature, là sa négation même.' Le Corbusier, *Oeuvre Plastique Peinture, Architecture et dessins*, Paris 1937, p. 4.

¹⁰⁶³ Le Corbusier, 'Louis Sutter; L'inconnu de la Soixantaine', *Minotaure* No.9, 1936, pp. 62-65.

¹⁰⁶⁴ The name 'Sutter' in *Minotaure* should be 'Soutter'. In Le Corbusier's letter to Louis Sout(t)er on 24 December 1935 as he travelled to United States, he wrote: 'J'ai écrit un article assez important sur tes dessins qui va paraître dans le prochain numéro du Minotaure avec de très belles planches reproduisant tes dessins.' See *Le Corbusier / Choix de lettres*, no. 104. Sélection, introduction et notes par Jean Jenger, Birkhäuser-Éditions d'Architecture, 2002, p. 234.

¹⁰⁶⁵ See *Le Corbusier / choix de lettres*.

¹⁰⁶⁶ In Ronchamp the roof incorporates multiple meanings; in interior the dark grey heavy ceiling is floating above the white wall; the exterior east façade is also the inner part of congregation.

female nudes.’¹⁰⁶⁷ Brief notes in Le Corbusier’s *Sketchbooks* indicate some relationships between Le Corbusier and André Breton through others, such as Malraux in the late 1950s.¹⁰⁶⁸

Alchemy, Esoteric and Surrealism

Surrealism has explicit connections with the esoteric and alchemy, as Breton mentioned in the Second Manifesto of Surrealism in 1930:

I would appreciate your noting the remarkable analogy, in so far as their goals are concerned, between the surrealist’s effort and those of the alchemist: the philosopher’s stone is nothing more or less than that which was to enable man’s imagination to take a stunning revenge on all things, which brings us once again after centuries of the mind’s domestication and insane resignation, to the attempt to liberate once and for all the imagination by the ‘long immense reasoned derangement of the senses,’ and all the rest.¹⁰⁶⁹

This hermeticism can be traced in the writings of surrealism’s precursors, such as the poet Arthur Rimbaud (1854-1891) who pursued the unknown by the systematic disordering of all senses. He talked about ‘quintessence’ and ‘alchemy of the word’ and celebrated enchantment and hallucination in his poem ‘A Season in Hell (*Une saison en enfer*)’ which were also discussed by Breton.¹⁰⁷⁰ In a section of ‘The Ravings II: Alchemy of the word (*Alchime du verbe*)’ Rimbaud wrote:

I love absurd pictures...I believed in all enchantments...Poetical archaism played an important part in my alchemy of the word. I accustomed myself to pure hallucination: I

¹⁰⁶⁷ In a recent letter sent by Luis Pérez Oramas to Paulo Herkenhoff in the framework of our work together on the curatorship of the historical section. Quote from Justo Pastor Mellado, *Matta: malaise of origin; origin of the malaise*, Note 3. http://www.uol.com.br/bienal/24bienal/nuh/expo_matta.htm.

¹⁰⁶⁸ In 1955: ‘Write Jeanne [Heilbuth] or L-C write tell Tériade to send Malraux + Camus + Cendrars + complete [the list] with André Breton Question Jardot.’ (*Sketchbooks III*, No.326) And No.959: ‘Delange [Ministère des] Affaires Etrangères L-C painting get back in touch with André Breton + Jean Paulhan. / on painting.’ Le Corbusier, *Sketchbooks III*, No. 959, 1957.

¹⁰⁶⁹ André Breton, ‘Second Manifesto of Surrealism’, 1930, in: *Manifesto of Surrealism*, trans. Richard Seaver & Helen R. Lane, Ann Arbor Paperbacks, The University of Michigan Press, 1972, p. 174-5.

¹⁰⁷⁰ *Ibid.*, p. 173.

saw very clearly a mosque instead of factory...coaches on the roads of the sky, a drawing-room at the bottom of a lake...I ended up by reading my mental disorder as sacred.¹⁰⁷¹

This phrase, 'alchemy of the word', was further explored in André Breton's *Before the Curtain* for Surrealism in 1947:

Rimbaud...wished to have attributed to the words 'alchemy of the word', and it will be asked whether the whole secret of the passionate interest aroused successively, within the surrealist movement itself.¹⁰⁷²

Alchemy, an ancient mystical discipline, aimed to refine base materials to produce gold and other pure substances. In ancient Greece, Empedocles (ca.440 B.C.) believed that the world is composed of four elements (earth, air, fire, and water). Later the 'Mohammedan's alchemists embarked upon their search for the philosopher's stone, the elixir of life, and a method of transmuting base metals into gold.'¹⁰⁷³

The alchemists did not deal only with metallurgy, but also 'postulated and believed in a very real sense in the essential unity of the Cosmos...there is a correspondence or analogy existing between things spiritual and things physical, the same laws operating in each realm...the natural world is only an image and material copy of a heavenly and spiritual pattern.'¹⁰⁷⁴ The study of alchemy 'had been revived as a vital area of scholarship in the thirties, and by the mid-forties had reached its highest level of accomplishment with the writings of Carl Jung and his Zurich circle of friends and associates.'¹⁰⁷⁵

In 1907-8 Le Corbusier read *Les Grands Initiés* by Edouard Schuré. It begins with an

¹⁰⁷¹ Arthur Rimbaud, *A Season in Hell*, from: Authur Rimbaud, *Collected Poems*, Penguin Books, ed. Oliver Bernard, 1962, 1986, pp. 326-330.

¹⁰⁷² André Breton, *What Is Surrealism?* ed. Franklin Rosemont, 1978, Pluto Press, London, p. 278.

¹⁰⁷³ Bertrand Russel, *A History of Western Philosophy*, Simon& Schuster, Inc, 1972, p. 43.

¹⁰⁷⁴ Herbert Stanley Redgrove, *Alchemy: Ancient and Modern*, 2nd ed., 1922, pp. 9-10. Quote from: Electronic Text Centre, University of Virginia Library.

¹⁰⁷⁵ Richard A. Moore, 'Alchemical and Mythical Themes in the Poem of the Right Angle 1947-1965', *Oppositions* 1980:19/20, p. 135, note.3.

introduction to esoteric teaching, stating that all the great religions have exterior and interior histories. The latter, meant the profound science, the secret doctrine and the occult actions of the great initiates, prophets and reformers.¹⁰⁷⁶ In ancient theosophy, there were ‘Alchemy or the transmutation of metals, the disintegration and re-integration of matter by the universal agent.’¹⁰⁷⁷

In the early twentieth century, theosophy played a considerably influential role. A prominent figure was Johannes Ludovicus Mathieu Lauweriks whose ‘importance for architects such as Berlage, Behrens, Adolf Meyer, Gropius and Le Corbusier has yet to be fully assessed’.¹⁰⁷⁸ Lauweriks designed Thorn Prikker’s houses in the Artist Colony in Hagan. Le Corbusier happened to be in Hagan at the same time, and he very likely visited this building.¹⁰⁷⁹ ‘Le Corbusier’s later “Modulor” idea may possibly owe its inception to Lauweriks.’¹⁰⁸⁰

The text of Le Corbusier’s *Poème* is clearly suggestive of the transformative processes of alchemy, and there are parallel examples in other work. According to Richard Moore’s observation:

Alchemy appealed to Le Corbusier first for the way in which opposites were separated and jointed (*solve et coagula*); second, for its attempt to transformation of basic matter or the original four elements, into a higher fifth substance known as the ‘quintessence’ or ‘philosopher’s stone’; third, for its assertion that earthly elements and processes were expressions of greater cosmological phenomena and events.¹⁰⁸¹

Dissolution and coagulation’, *solve et coagula*, is a repeated process of division and union,

¹⁰⁷⁶ Edouard Schuré, *Les Grands Initiés*, Volume I, p.xvi.

¹⁰⁷⁷ *Ibid.*, p.xxii.

¹⁰⁷⁸ Hanno-Walter Kruft, *A History of Architectural Theory*, p. 377.

¹⁰⁷⁹ See Le Corbusier, *The Modulor*, p.26, and Tummers, Nic. H. M., *The Claw of the Lion*, Wiederhall, 1987, PT.6-8, p. 3.

¹⁰⁸⁰ Hanno-Walter Kruft, *A History of Architectural Theory*, p. 377.

¹⁰⁸¹ Richard A Moore, ‘Alchemical and Mythical Themes in the Poem of the Right Angle 1947-1965’ *Oppositions 19/20* (Winter/Spring 1980), p. 111.

dissolution of the old matter into the *prima material*, and the coagulation of that basic material into a new and more beautiful form. Dissolution is associated with the moon (moisture and coldness) while the coagulation, with the sun (dryness and heat).¹⁰⁸² The cover of *Poème* is a manifestation (fig. 7.30) of this process of the union of opposites.

In the architectural design process, Le Corbusier classified various primary dwelling units, reorganized them and repeated the process until a good solution was finally reached.

Similarly in his painting, elements such as bottles, bones, pebbles and women are always abstracted and recomposed into a new entity. The regulating lines in his mind would act as an alchemical measure, just as the golden section 'haunts studios like the spectre of the philosophical stone... It is a mathematical section permitting the division of a straight line so that a harmonious relation reigns between the two segments.'¹⁰⁸³ His pseudonym of 'Le Corbusier' was chosen in 1920. Le Corbusier's signature, a raven or *corbeau*, is the 'alchemical symbol of change from material to spiritual, black to white.'¹⁰⁸⁴

Le Corbusier's writing of 1925 reveals some alchemical tendencies as he described the folk culture, discussing extracted quintessence from natural phenomena and the synthesis of the symbol:

And so here is lyricism at its most absolute, the quintessence extracted from the natural phenomenon the force of pure meaning...observation of the spectacle of nature to the lyrical synthesis of the symbol – a symbol that is nevertheless explicit. One step further leads to the word of hermeticism, outside art.¹⁰⁸⁵

¹⁰⁸² Lyndy Abraham, *A Dictionary of Alchemical Imagery*, Cambridge University Press 1998, pp. 186-7.

¹⁰⁸³ Le Corbusier and Ozenfant, 'Purism', in: Herbert Robert L. ed., *Modern Artists on Art: Ten Unabridged Essays*, p. 68-9.

¹⁰⁸⁴ Richard A. Moore, 'Alchemical and Mythical Themes in the Poem of the Right Angle 1947-1965', *Oppositions* 1980:19/20, p. 111.

¹⁰⁸⁵ Le Corbusier, *The Decorative Art of Today*, pp. 121-122.



Fig. 7.30. Front cover, Le Corbusier, *Le Poème de L'angle Droit*, 1955.

One sense of symbolism in the *Poème* is alchemy, and such allied symbolic languages as astrology and Greek mythology.¹⁰⁸⁶ The front cover (fig. 7.30) with two interlocking colours, the sun in the cold (blue) side, the moon in hot (red) side, is a good example. In section D3 'Fusion' of *Poème*, Le Corbusier wrote:

Tolerate the fusion of metals;
the alchemies in any case commit you
to nothing¹⁰⁸⁷

*Laissez fusionner les métaux tolérez des
alchemies qui d'ailleurs vous laissent
hors de cause*

An image next to the text is a pregnant boar about to give birth. This image, symbolising fertility, was reproduced from his *Sketchbooks II*, no. 916, drawn in Delhi in 1953. The image of two rhinoceri facing each other, reproduced from his *Sketchbooks II*, no.798, was drawn in Cairo in 1952. One day before he made this drawing, he wrote in Cairo zoo about the fusion and inspiration from different and exotic cultures: 'let us overlook our kind of street; we knew it in our childhood. But the street of the Indians, the Egyptians, the Chinese, it's a huge thing in full ferment and possible bloom.' This text implies the fusion of exotic cultures to reach proliferation and blossoming.

¹⁰⁸⁶ Moore, Richard A, 'Alchemical and Mythical Themes in the Poem of the Right Angle 1947-1965', *Oppositions* 1980:19/20, p. 111.

¹⁰⁸⁷ Le Corbusier, *Le Poème de L'angle Droit*, 1955, p. 114.

Metamorphose – Human Bestiary

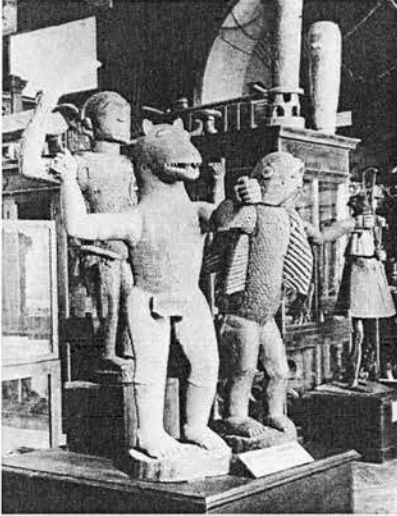


Fig. 7.31 Statues from Dahomey, Musée Ethnographique, 1985. *Passé* no.291.



Fig. 7.32 Le Corbusier annotated: Musée Ethnographique. Paris. Tocadéro. FLC, carnet no.10, dessin 3864.



Fig. 7.33 Le Corbusier, Nimba, Baga goddess, Guinia. FLC5535. LC, *The Decorative Art of Today*, p. 117.

In ethnic and Western art there are hybrid mythical and superhuman creatures, which are a combination of different human and animal parts. Le Corbusier visited in the Ethnographic Museum in Paris in 1908 and sketched a number of statues, including those from Dahomey (figs. 7.31, 7.32). These were the deity king, Glélé, with a lion figure; King Dahomey of Béhanzin with a shark figure; and the deity Ghézo, another king of Dahomey with a sword in his hand. In a sketch of a Nimba statue (fig. 7.33), a bird's head is on a female body, representing a goddess of fertility. These mixtures of human beings and animals provide a superhuman power in order to fulfil man's desire.

From the early 1930s Le Corbusier was interested in fusing his figures with animal forms and exploring multiple characters and metaphors (figs. 7.34, 7.35). He wrote in 1952:

Intuitively over the past 20 years I have evolved my figures in the direction of animal forms, vehicles of character, force of the sign, algebraic capacity for entering into a relationship between themselves and thereby producing 1 poetic phenomenon.¹⁰⁸⁸

¹⁰⁸⁸ Le Corbusier, *Sketchbooks II*, 1952, No.700.



Fig. 7.34 Example of human bestiary in Le Corbusier's *Sketchbooks*, 1952 F24 No.700.

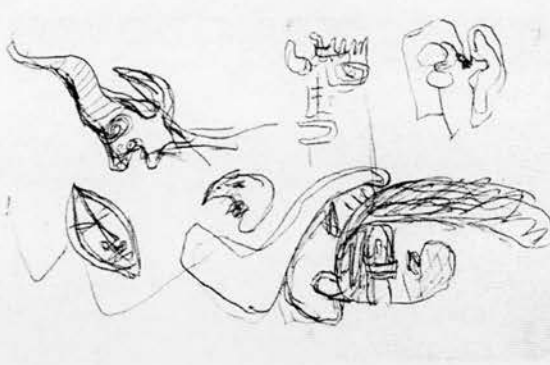


Fig. 7.35 Le Corbusier, *Sketchbooks*, 1952 F24 No.705.

Many of these metamorphoses have a Surrealist resonance, since the Surrealists explored analogies in order to destroy artificial distinctions between categories. Since Le Corbusier's early study of African art, this bestiary was generated subconsciously in response to people of various social classes and situations. The human figures in his paintings are mostly females, except for the Taureau series. Thus, the 'bestiary' becomes a personal reflection largely on characters of women. He noted:

This idea (notion) of a human bestiary perhaps came to me unconsciously through such frequent contact throughout the world and throughout all social class, with men and women, in business circles, committees, intimate moments. The characters appear, qualifying people and keeping or / proposing / their typology.¹⁰⁸⁹

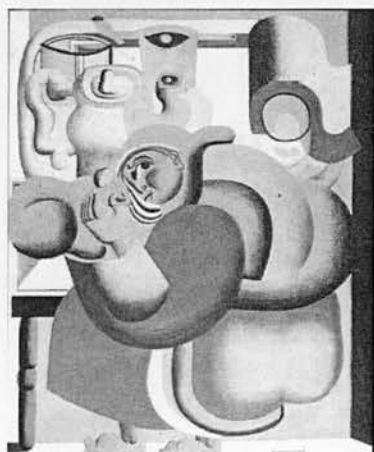


Fig. 7.36 Le Corbusier, 'Woman with Cat & Teapot'. FLC 85, 1928.



Fig. 7.37 Le Corbusier, 'Etude pour le cheval de cirque', FLC 2983, 1935.



Fig. 7.38 Le Corbusier, 'Poème Electronique' for the Philips Pavilion. LC, *My Work*, p. 281.

¹⁰⁸⁹ Ibid., No.707.

For instance, in Le Corbusier's painting 'Woman with cat and teapot' of 1928 (fig. 7.36), the face of the cat is simultaneously the face of a woman. This face is the most realistic part in a rather abstract setting. Another instance is in the sketch 'Etude pour le cheval de cirque' 1935 (fig. 7.37). Here the woman's leg becomes part of the horse's leg; her hair fuses into the hair of horse. We find this again in paintings, such as 'Femme au cheval' FLC114 1936, and the plates of *Poème* (p. 125 and p. 121).¹⁰⁹⁰

Human capacities can be enhanced with specific animal powers. A physical attribute, such as the eye of a bird, represents an additional overview:

A new eye: the eye of a bird transplanted into the head of man. A new way of looking: aerial view.¹⁰⁹¹

But today it is a question of the airplane eye, of the mind with which the Bird's Eye View has endowed us; of that eye which now looks with alarm at the places where we live, the cities where it is our lot to be.¹⁰⁹²

A lion-headed figure from Dahomey was later selected to be displayed at the Philips Pavilion for the 1958 electronic poem (fig. 7.38). Le Corbusier's 'Poème Electronique' consisted of an eight-minute film juxtaposing images, which represent the progress of mankind, in which this primitive deity was juxtaposed with machinery, Charlie Chaplin, Le Corbusier's 'open hand' and the ominous mushroom cloud of a nuclear explosion. These images were projected with part of multi-media performance relying on modern technology within a primitivistic nomad tent. This contrast was intended to accomplish a harmonious integration of the primitive and technological.

¹⁰⁹⁰ Additional instances are the fusion of a tree trunk and a nude female, in his *Sketchbooks* B8, 488, and in the late 1940s more examples occurred, such as *La Biche*, a combination of a female and a deer, and *Capricorn*, a mixture of a woman's body with a unicorn, which that may symbolizes his wife Yvonne's star sign.

¹⁰⁹¹ Le Corbusier, *The Radiant City*, 1935, pp. 78-79.

¹⁰⁹² Le Corbusier, *Aircraft*, p. 5.

Other surrealist motifs such as the double image, visual puns, the found object, and expressions of desire, are profuse in Le Corbusier's work, but do not fall into the category of primitive or exotic cultures; thus will not be discussed here.

Part IV. Other Themes

Decorative Art as a Foundation

Through his training as a watch decorator, Le Corbusier's foundation in the visual arts was through decorative art. His early reference book *The Grammar of Ornament* provided examples of ornament from a range of cultures and civilizations and discussed patterns and motifs. From Eugène Grasset's *Méthode de composition ornementale*, he also learned how to develop abstract and geometric forms from plants. Le Corbusier continued his study of decorative art in museums and collected artefacts during his time in Paris and elsewhere, publishing *The Decorative Art of Today* in 1925.

This pre-occupation with decorative art continues as an influence in his painting and architecture. Geometry, abstraction and two-dimensionality are basic traits in decorative pattern. These have arisen as a cultural response to an environment. It is a blueprint for architectural design: selection, transformation and composition, as the architect's response to society, and to the client. Many principles are common among the arts. Indeed, the principle of ornament, as proposed in *The Grammar of Ornament*, emerges in his architectural tenets: 'As architecture, so all works of the decorative arts, should possess fitness, proportion,

harmony, the result of all of which is repose.¹⁰⁹³

Despite the profound influence of Jones' rather academic summary of the world's culture, Le Corbusier was aware of all the implications. 'Ethnographic significance, documentary importance, historical value, collectable value, all these are superimposed on its beauty or ugliness...our admiration for the artefacts of an earlier culture is thus often objective.'¹⁰⁹⁴

Decorative art has traditionally been conceived as microcosm. The acanthus on Greek and Etruscan vases was not only a 'microcosm of botany, but has given expression to the architecture of creation.'¹⁰⁹⁵ Decorative art at its most absolute can be the quintessence of natural phenomena, the force of pure meaning, or the lyrical synthesis of the symbol.¹⁰⁹⁶

Le Corbusier's admiration for decoration eventually diminished, and he declared that architecture was a play of space and light and had nothing to do with decoration.¹⁰⁹⁷

Nevertheless, it was not fully eliminated. In his writings, decorative art remained a rich source for his argument. He made murals, enamel doors and tapestries in Chandigarh, imprinting icons onto them as a relief sculpture on the concrete wall. These icons include symbols of folk culture, nature and the cosmos, as when his 'Modulor Man' appeared on the exposed concrete wall of his Unité d'Habitation.

Exotic Women Themes: Muse and Metamorphosis

In modern art the human figure remained a key preoccupation among artists. The depiction of the body, allowed the exploration of psychological, sexual and social themes. Le

¹⁰⁹³ Owen Jones, *The Grammar of Ornament*, Studio Editions, London, 1856, p. 5.

¹⁰⁹⁴ Le Corbusier, *The Decorative Art of Today*, pp. 9-10.

¹⁰⁹⁵ *Ibid.* p. 121.

¹⁰⁹⁶ *Ibid.* p. 121.

¹⁰⁹⁷ *Ibid.* p. 207

Corbusier's paintings largely focus on the still life and the nude, the female nude became important, in the first half of 1930s, when he met Josephine Baker in 1929, married Yvonne Gallis in 1930, and travelled for the first time to Algiers in 1931. The subjects of many of Le Corbusier's painting are Oriental women, black women or fisherwomen. Le Corbusier admitted that he never really studied the human figure before arriving at the academy in Vienna in 1907.¹⁰⁹⁸ Nevertheless, as early as 1911 during his trip to the East, Le Corbusier was fascinated by exotic women.

In 1911, when Le Corbusier visited Bucharest, he did not compliment Carmen Sylva, the famous literate and Queen of Romania, he criticized her taste in art and her exhibition rooms which were congested with the collections. Le Corbusier was more interested in the local women, especially gypsies on the streets of Eastern Europe: 'Here again are those splendid women! ... For us, the tziganes will become a symbol, the only possible expression of this city in which we were so tortured.'¹⁰⁹⁹

In Istanbul, he saw two high walls along the street and imagined the scenery behind them. He visualized not only a sequestered garden in the architecture but also the lively women and odalisques inside:

They were nevertheless perfectly happy, reflecting on the joyful life that goes on behind some fifty centimetres of brick and stone – a life of day – dreaming in carefully sequestered gardens. Prisons, perhaps, but the prisons of odalisques. For us at this moment it felt like a slightly painful, melancholic, beneficent poem.¹¹⁰⁰

His early fantasy on the nude in Greek mythology, 'L'enlèvement d'Europe' of 1912-3 (fig. 7.39), depicted a nude woman riding a bull with her arm upright reaching for a bird, as she crosses the water pursued by a man in a sailing boat. In Greek mythology, it was Europa, a

¹⁰⁹⁸ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 123.

¹⁰⁹⁹ Le Corbusier, *Journey to the East*, p. 54.

¹¹⁰⁰ *Ibid.*, p. 93-4.

Levantine woman seduced by Zeus as a bull, who was carried on his back to Crete. The reddish background and the yellow bull may suggest the flame of desire. Le Corbusier's later Purist work became ascetic and the theme of the exotic woman was less blatant.



Fig. 7.39 Le Corbusier, 'L'enlèvement d'Europe', 1912-3.

Later still, Le Corbusier's paintings became diverse and women returned as a theme. From 1932, the woman theme increased in his works quite remarkably. From 1933 to 1937, women, particularly in pairs, dominated his paintings as musicians, fisherwomen, and on boats, as well as resting, or intertwining with one another.

For Surrealists, a woman could be as a muse, lover, friend, a mannequin, or a participant in games and collaborator in image-making sessions. Le Corbusier had a variety of significant muses. The exotic African-American singer, Josephine Baker, with whom he had an intimate relationship, can be seen in many of his drawings, a number of them nude. She helped him to 'appreciate the character of the American woman and that of the African-American... By the 1930s he was predisposed to look upon African-American culture as a more noble one.'¹¹⁰¹ According to Mardges Bacon, the Negro's intrinsic culture, art of movement and music 'liberated his spirit and his soul.'¹¹⁰² To Le Corbusier, Baker's music was 'not merely

¹¹⁰¹ Mardges Bacon, *Le Corbusier in America*, The MIT Press, 2001 p. 223.

¹¹⁰² *Ibid.*, p. 224.

“intense” and “dramatic”; it shared with his own architecture the primal, the modern, and the universal.’¹¹⁰³

During his numerous trips abroad he had the opportunity to sketch many women. A number of exotic women appeared in his painting, as observed by Frampton: ‘He appears to have associated the females form with the undulating character of the Brazilian landscape and vice versa, with a profound effect on his entire personality.’¹¹⁰⁴

In Algiers, Le Corbusier was fascinated by the beauty of two young girls and then sketched them in nude with a colour pencil on graph paper. A few months after his sojourn in Algiers, Le Corbusier began to rework his original sketches into numerous studies. His method was to lay transparent paper over the original, which allowed him to retrace his sketches step by step. His lines were gradually simplified and became more concise, until finally only the decisive contour remained.¹¹⁰⁵

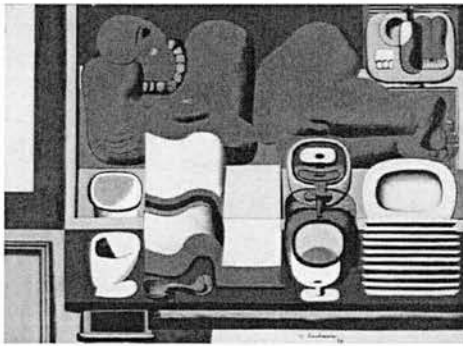


Fig. 7.40 Le Corbusier, ‘Figure rouge’, 1929.



Fig. 7.41 Matisse, ‘Odalisque rouge’, 1926.

The theme of the oriental odalisque had been pervasive in Parisian art since the time of

¹¹⁰³ Ibid.

¹¹⁰⁴ Kenneth Frampton, *Le Corbusier*, Thames & Hudson, 2001, p. 90.

¹¹⁰⁵ Stanislaus von Moos, ‘Le Corbusier as a Painter’, *Oppositions* 19/20 (Winter/Spring 1980), pp. 89-91.

Ingres and Delacroix. In the 1920s Henri Matisse, whom Le Corbusier admired very much, produced a series on the Odalisque. Comparing two paintings from the same period, for example, the ‘Odalisque Rouge’ by Matisse of 1926 (fig. 7.41) and ‘Figure rouge’ by Le Corbusier of 1929 (fig. 7.40), one can see shared a rectilinear order, similar gestures, and still life objects in the foreground. Compared with the lively woman in Matisse’s painting, the nude in Le Corbusier’s painting is heavier, simplified, and geometrised, reminiscent of a ceramic object-type. All the objects in this painting share similar features. Her hair is short, slicked down with a cowlick on the forehead, and the red colour may suggest a dark skin as well as a mood of passion. Josephine Baker could be the subject of this painting. Her image appeared frequently in Le Corbusier’s work especially in 1929 and early 1930s.



Fig. 7.42 Le Corbusier, sketch of women in Rio de Janeiro. *Sketchbooks C12*, No.728.

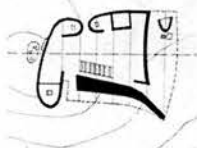


Fig. 7.44 Le Corbusier, plan of Ronchamp Chapel.



Fig. 7.43 Le Corbusier, ‘Alma Rio’, 1949.

Sketches of women made in Rio de Janeiro in 1936 (fig. 7.42), in *Sketchbooks C12* (No.728), were later developed into several important paintings, such as ‘Deux figures Rio’ (1943) and ‘Alma Rio’ (1949, fig. 7.43).¹¹⁰⁶ ‘Alma Rio’, meaning the ‘soul of Rio de

¹¹⁰⁶ Le Corbusier, *Sketchbooks 1, 1994-1948*, noted by Françoise de Franclieu, Thames and Hudson, 1981, p. 33. Sketch No.727 was mentioned in this introduction, but Sketch No.728 seems better fit these paintings.

Janeiro' was special to Le Corbusier as it was hung on the wall of his apartment at rue Nungesser-et-Coli. The contours of the rough sketch are transformed into a composition full of undulating elastic lines and rich colours. It contains 'a symphonic rhythm of outlines and an interplay of depths and heights which seems to evoke memories of rivers, peninsulas, mountain ranges and hills.'¹¹⁰⁷

von Moos sees 'Alma Rio' as Le Corbusier's invocation of Rio, his memories of thirteen years earlier stimulated by the sketch. The contours of 'Alma Rio' occur again in the plan of the Chapel of Ronchamp (fig. 7.44). In the middle of the painting, a pair of back-to-back C-shapes (i.e., the breasts) now seems to evoke a metaphor of nursing as spiritual nourishment, as they become a pair of small chapels in Ronchamp; the red colour of this part of the painting is even repeated on the interior red wall of the small chapel. The profile of the left woman of 'Alma Rio' foreshadows a part of the west wall of Ronchamp. Thus elements in this painting have been interpreted as a plan or a section of the building. It is common in Le Corbusier's Purist painting, that objects be presented as plan, section, axonometric, collaged into one picture.

The 'primitive woman' is another source of inspiration to Le Corbusier. He drew fisherwomen in the Arcachon Basin, and this was a frequent subject during his journeys to South America, North Africa and elsewhere. Their way of life and occupation, as well as their archetypically female bodies stimulated Le Corbusier's imagination. The 'primitive men' in his writing means primitive 'people' or 'women' in particular, as he only rarely sketched men.

¹¹⁰⁷ Stainslaus von Moos, *Le Corbusier, Elements of a Synthesis*, MIT Press, 1985, p. 288.

The Bull Series



Fig. 7.45 Le Corbusier, sketch from the Musée du Sculpture Comparée, on a carving of the stalls of the Amiens cathedral, 1908, FLC 5830.

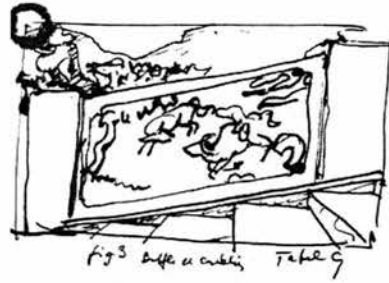


Fig. 7.46 Le Corbusier, sketch of a Chinese balustrade (bulls and rider, surrounded by trees and clouds)¹¹⁰⁸, FLC B2-20- 231, ca. 1915.



Fig. 7.47 Le Corbusier, drawing of a Japanese *tsuba*. LC, *The Decorative Art of Today*, p. 199.

The bull is another icon that recurs in Le Corbusier's painting. He was familiar with cattle from his childhood in the countryside at La Chaux-de-fonds and he was interested in bulls as they appear in folk art and mythology. When he was studying at the Musée du Sculpture Comparée, in 1908, Le Corbusier made a careful sketch of a cast taken from a carving on the stalls at the Cathedral of Amiens. This naturalistic work depicts a group of bulls clambering over each other as they descend the slope of the stall (fig. 7.45). He also sketched a Japanese *Tsuba*, the hand protection for a sword, composed of a circle with two interlocking bulls, one in top view and the other in side view. In his works of Greek mythology 'L'enlèvement d'Europe' in 1912-13 (fig. 7.39), the bull transformed from the Zeus is the central figure, which reveals Le Corbusier's early interest. In his 'La Construction des villes' he made a drawing after a photograph of a Chinese railing at a temple on a sacred island. The theme is folk: a bull with a rider, surrounded by trees and clouds (fig. 7.46).

Le Corbusier seems to have been passionate about this theme. For, from the dozens of *Tsuba* in the Guimet museum, where he sketched many Japanese and Cambodian statues, he

¹¹⁰⁸ A stone balustrade of Fa yü sze, Puto Shan, China. Le Corbusier drew it after Ernst Boerschmann, *Die Baukunst und religiöse Kultur der Chinesen*, Band I, Putuo shan, Berlin, 1911, fig.3, plate 9.

specifically selected the one with the image of bulls (fig. 7.47).¹¹⁰⁹ This interlocking reversal image functions as protection of the knight and as an emblem of social standing, reflecting the beliefs and tastes of its owner. This symbol may have informed Le Corbusier's personal emblem, the interlocking glass.

In the 1930s the 'Minotaur' became also the name of the surrealist journal, in which Le Corbusier published an article.¹¹¹⁰ Later the theme of bull seemed to haunt imagination – bull and Minotaur in *Poème*, and the *Taureau* series of painting in the 1950s. At the same time, while designing Chandigarh, he sketched local bulls in India.

There are at least two series of it. One series was created through combination of pebble and root (figs. 7.48, 7.49, cf. 7.50) during his stay in the Pyrenees in 1940-42. Le Corbusier notes in his *Poème*: 'The key is a / stump of dead wood and a pebble /...ox / and plough passed / all day before my window. / Because I drew and redrew it/ the ox - pebble and root - / became the bull.'¹¹¹¹ In the Pyrenees he also made another series of compositions with similar elements. This series, four years after making the composition, was one day recognized by him and called *Ubus*.¹¹¹² Through his imagination, alchemical transformation happens between inorganic and organic matter, vegetation and animals; these daily objects were thus given life.

¹¹⁰⁹ This *tsuba* may have been in Guimet museum or may have come from another source.

¹¹¹⁰ Le Corbusier, 'Louis Sutter; L'inconnu de la Soixantaine', *Minotaure* No.9, 1936, pp. 62-65.

¹¹¹¹ Le Corbusier, *Poème*, pp. 75-6.

¹¹¹² Le Corbusier, *New World of Space*, p. 21.



Fig. 7.48 Le Corbusier, Study of a mural painting, Ozon 1940, Vichy 1941. LC, *New World of Space*, p. 108.



Fig. 7.49 LC, *Poème*, p. 77.



Fig. 7.50 Le Corbusier, *Sketchbooks II*, Detail, 1952 F24, no. 700.

In the 1950s during his flight above the Indies Le Corbusier made as sketch after a photograph of his early canvas (fig. 7.51), which his turned by 90 degrees (fig. 7.52), and developed as series of bull (fig. 7.53).¹¹¹³ During this development elements were added, reduced, exaggerated and combined, producing a series of varieties (figs. 7.54- 7.56). This bull-minotour regenerated through a series of metamorphoses over ordinary objects.

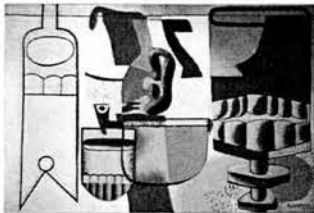


Fig. 7.51 Le Corbusier, 'Le grande verre à côtes et l'écharpe rouge', FLC 226, 1927-40.



Fig. 7.52 The fig. 7.51 was turned 90 degree.

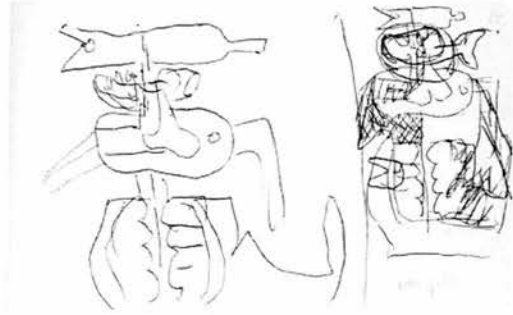


Fig. 7.53 Le Corbusier, *Sketchbooks II*, F24 no.713.

¹¹¹³ Le Corbusier, *My Work*, p. 232.



Fig. 7.54 Le Corbusier, *Sketchbooks II*, F24, no.718, 1952.



Fig. 7.55 Le Corbusier, 'Taureau IV'¹¹¹⁴, 1953.



Fig. 7.56 *Poème* p. 149.

These images of bull fuse many motifs: still life, natural objects, and mythological themes.

Le Corbusier knew Greek mythology and owned several book of it. In Greek mythology, the Minotaur was half man, half bull and dwelt in the Labyrinth; a creature in Le Corbusier's human bestiary.



Fig. 7.57 Chandigarh, section of Administration building, vernacular building and bull. Kenneth Frampton, *Modern Architecture: a Critical History*, third edition, p. 230.

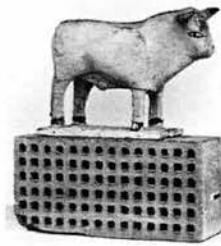


Fig. 7.58 Statuette of Bull collected by Le Corbusier at 24 N.C.¹¹¹⁵



Fig. 7.59 Le Corbusier, *Poème*, p. 99.

¹¹¹⁴ The date of this painting, in Le Corbusier, *My Work*, p. 233 is 1953, with signature of 1953; whereas in Jean Petit, *Le Corbusier lui-même*, p. 229. It is 1959. As Taureau III and V are all in 1953, this painting is likely to have been completed in 1953.

¹¹¹⁵ Arthur Rüegg, ed., *Le Corbusier: Moments in the Life of a Great Architect*, photo by René Burri, 1999, p. 150.

The bull motif makes several appearances in Le Corbusier architecture. At Chandigarh (fig. 7.57), here is an association between a roof element of the Administration building and bull's horns, as pointed out by Frampton. Other bull motifs appeared in the Assembly hall, where an upturned crescent, or bull's horn, is on the slanted plaque on the top of a funnel; or on the side elevation, in the curved porch. On the roof of Ronchamp, the downspout recalls the bull's nose, while the peak recalls a horn. In his apartment he also kept a small statuette of a bull, which was sometimes displayed in a niche on the stairway, as shown in René Burri's photographs of 1959/60 (fig. 7.58). In his *Poème* C.4 Flesh, there is a series of images on the theme of the couple with the annotation: 'Men tell of women in their poems and music. Their sides eternally rent from top to bottom. They are but half...And the second half comes to them and binds...' Le Corbusier wants to establish 'the reciprocity between carnal love and desire for truth (in philosophy).'¹¹¹⁶ On page 99, there is an image of a couple (fig. 7.59) with a bull instead of a man beside the woman.

The Serpent Motif

In contrast to his geometrical prism, the serpent-like image appeared in many of Le Corbusier's studies and works. Early study provided images published in *The Decorative Art of Today*: Egyptian pectoral of Ramses II (p. 124, Ch. 6, fig. 6.22), a standing snake (p. 220), Minoan goddess with snakes (p. 204), and Athena's shield (p. 119). It later reappeared in his icon of Medusa and Apollo (fig. 7.30), the lower section of enamel door of the Assembly Building in Chandigarh (fig. 6.27), and the exterior side of the door at the south

¹¹¹⁶ Section C in *Poème* concerns with the 'flesh' as the matrix of sexual contact, which is a metaphor for a creation of art. See the Becket-Chary, Daphne, *A Study of the Le Corbusier's Poème de l'Angle Droit*, unpublished M-Phil Thesis in History and Philosophy of Architecture, Cambridge University, January 1990, note 168.

entrance of Ronchamp chapel. Bearing similar visual traits, images of winding ropes and meandering river are also important in his visual language.

The snake has variable features in Egyptian and Greek art. In *The Decorative Art of Today*¹¹¹⁷ a serpent appears on the circular shield of Athena, the goddess of the Parthenon, a paradigmatic building for Le Corbusier. When he talked about the antithesis of virtue versus evil, and for the cooperation between architects and engineers, he used as his symbol an image of a double-faced head with sun-rayed Apollo on the right and snake-haired Medusa on the left.

While discussing alchemy in the Fusion section of the *Poème* (p. 115), Le Corbusier used a drawing of a snake with a similar gesture to the Egyptian standing snake,¹¹¹⁸ approaching female nudes to express its desire. These females are in a state of metamorphosis into wood trunks,¹¹¹⁹ and their pose resembles the Greek sculpture of the 'Three Graces'. This metamorphosis refers to that Daphne pursued by Apollo who was turned into a laurel tree to escape from him. Interestingly, Le Corbusier's signature stands for a 'crow', the bird of Apollo. This could be interpreted as Le Corbusier's intention in pursuing women and beauty, which is revealed by the snake.¹¹²⁰

A serpent can also be seen on the exterior side of the door at the south entrance of Ronchamp chapel. Here it is the scene of Apocalypse¹¹²¹ or Revelation and the serpent has a different

¹¹¹⁷ Le Corbusier, *The Decorative Art of Today*, p. 200.

¹¹¹⁸ Ibid., with a group of images of a bull and an insect. (FLC 2463)

¹¹¹⁹ Similar transformation can be found in Le Corbusier, *Sketchbooks I*, B8, no. 488.

¹¹²⁰ Mogens Krstrup, *Porte email, Emalljeporten, La Port emailée, The Enamel Door: Le Corbusier, Palais de l'Assemblée de Chandigarh*, Copenhagen: Arkitektens Forlag, 1991, p. 34.

¹¹²¹ Ibid., p. 29.

significance: 'The woman was given the two wings of a great eagle, so that she might fly to the place prepared for her in the desert, where she would be taken care of for a time, times and half a time, out of the serpent's reach.'¹¹²²

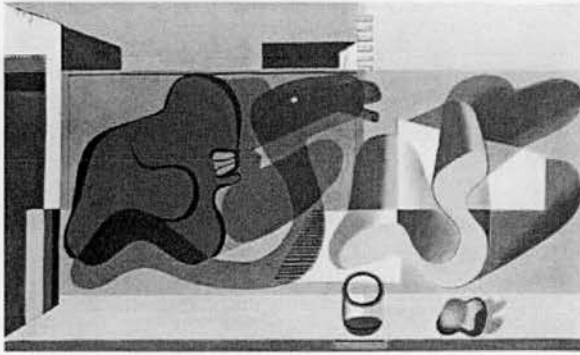


Fig. 7.60 Le Corbusier, 'Perspective animée' ('Le Chameau hypothétique'), 1932, FLC 256.

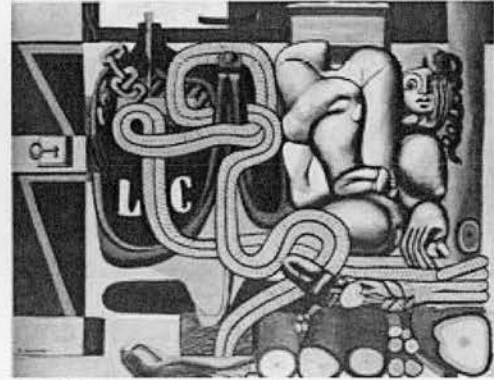


Fig. 7.61 Le Corbusier, 'Femme, cordage, bateau et la porte ouverte', 1935, FLC 361.

The snake played various roles in ancient art, so did its interpretations in Le Corbusier's compositions. One of his paintings, 'Perspective animée' ('Le Chameau hypothétique', fig. 7.60) is a juxtaposition of what seem like snake groups, with some objects and their shadows. On the left of this painting, the green snake in the front can be read as a camel where it merges with the red form behind it. Furthermore, if one turns the painting ninety-degrees clockwise, a sitting figure is revealed in the upper part. The left foot of this figure happens to be the camel's mouth, and the pink table becomes the sidewall.

Le Corbusier was fascinated by winding and meandering elements. The circulating route in Le Corbusier's architecture is always winding as through dynamic spatial sequences, such as that of the Villa Savoye, which promenades circuitously through a pure, box-like mass. The rope around a boat was the theme of several of his works in the 1930s and afterward, such as 'Femme, cordage, bateau et la porte ouverte', 1935, FLC 361 (fig. 7.61). A thick winding rope, the major component in this painting, is emphasized, geometrised and positioned in the

¹¹²² Bible, Revelation (12:14)

centre. It winds around the hull, encircles the nude's foot and also serves as a foreground in the painting. Here the transformed upright hull seems to have phallic meaning, while the foot and many parts of the nude suggest female genitalia. A similar image reappears in *Poème*, on page 82, where Le Corbusier noted:

...love is a question of fate of number and chance; where at the accidental even inexorable meeting of two roads is suddenly marked with amazing joy...it is essential to bring together each alas quite blind not seeing the ineffable something which he holds at arm's length.

The form of winding snake is also associated with his 'law of meander', a significant theme from 1929 onwards, as noted in the 'Milieu', A4 of his *Poème*:

the worms / and the snakes ...The springs streams and / rivers do the same. / From a plane one sees them teeming / in families on the deltas and/ estuaries of the Indus / the Madgalena or the margins of / California...An obstacle stands on the bank / will trigger the great cycle one / day began. Meander will live / its adventure to its / absurd consequence; moreover take / its time millennia / if necessary.

Le Corbusier observed the meandering of rivers in 1929 when he flew over South America, and he often discussed the natural cycle and vicissitude in his *Précision*, *The Radiant City*, *Aircraft* and *Poème*, on pages 37, 38 & 41.

Visual themes such as serpent, rope, bull or exotic women from Le Corbusier's personal museum were transformed and reinterpreted. The seminal factor was his use and manipulation of these as he created a language to express ideas or support his agendas. Each of his designs, however, has different sources, and according to the characteristics of each design, certain sources were specifically selected. These will be discussed in the next chapter.

Chapter Eight

Modern Architecture of Primitive, Folk and Distant Cultures

Our great schools would do far better to send their students into the countryside of France...nourished by the vitality of the countryside, equipped with modern technology's methods and tools, architects would then join together in a unanimous effort to create a new folklore. --- Le Corbusier¹¹²³

Reflecting the spirit of the new epoch, the ethos of Le Corbusier's pioneering modern architecture was grounded in an appreciation of vernacular, primitive and exotic motifs. In this dissertation the previous chapters examine these sources based on his collection, different cultures and visual languages. This chapter will examine these sources from the standpoint of architecture.

Part I. Purist Characteristics

Le Corbusier's Purist architecture seemed pioneering and pure, but was in fact inspired by primitive, archaic and exotic sources. All his 'five points towards a new architecture' are preceded in these sources. The 'pilotis' could be found in an African Bongo hut, Persian folk houses or Japanese wooden buildings (see Ch. 6); the 'roof garden' is exemplified in the drawing of an Egyptian house (Ch. 6), or the folk houses on Santorini, the Cyclades; the 'horizontal window' and the 'free façade' including the curtain wall and the 'free plan' all were realized in the wooden houses in Bulgaria, western Turkey (Ch. 5) and Japan (*O.C. I*, p. 21).

His Purist characteristics underpinned by these sources will be demonstrated with the Villa Savoye. While the villa may be a perfect manifestation of his 'five points towards a new

¹¹²³ Le Corbusier, *Le Corbusier Talks with Students*, p. 62.

architecture’, a ‘dual status as a paradigm of modernism and as an assertion of classical values’¹¹²⁴ is also achieved.

The villa is cubic, ‘a pristine healthy house open to light, sun and views over greenery’.¹¹²⁵ In Le Corbusier’s eyes, this prism is a component of the cathedrals of Rome and Pisa, a mosque in Istanbul, and perhaps a monk’s cell in a Carthusian monastery. It also reflects the images of his primitive hut in the Alps or the exotic dwellings in Persia or China.¹¹²⁶ Behind the white radiant cubes, as illustrated in his first painting ‘La Cheminée’, there is an image of the Parthenon.

Within the pristine volume of the villa, the inner composition is very asymmetrical, and the axis always shifts to create a dramatic effect. The experience of Pompeian houses is a good reference, such as the House of the Tragic Poet:

You then note clever distortions of the axis, which give intensity to the volumes: the central motive of the pavement is set behind the middle of the room; the well at the entrance is at the side of the basin. The fountain at the far end is in the angle of the garden.¹¹²⁷

Le Corbusier’s designs disclose his struggles, as William J. Curtis pointed out: he ‘tried to reconcile Classical symmetry with the explosions of the free plan, frontal facades with turbulent inner events, the *machine à habiter* with the archetypes of Pompeii.’¹¹²⁸ The Bulgarian house Le Corbusier studied (see Ch. 5) is another example.

The entry to the modern machine-like villa is through a four-column foyer, a motif of

¹¹²⁴ William J. Curtis, *Le Corbusier, Ideas and Forms*, p. 94.

¹¹²⁵ Ibid.

¹¹²⁶ See Le Corbusier, *Une Maison – un palais*, pp. 10-42, and Ch. 5 & 6.

¹¹²⁷ Le Corbusier, *Towards a New Architecture*, pp. 189-90.

¹¹²⁸ William J. Curtis, *Le Corbusier, Ideas and Forms*, p. 84.

Palladian and Pompeian houses. Both the Villa Savoye and the Villa Rotonda can be described as ideal villas, if that can be defined as a four-façade house on a hill.¹¹²⁹ Le Corbusier knew the Villa Rotonda well and deemed it in *The City of Tomorrow* as an example of ‘permanence’.¹¹³⁰

In the villa, the *piano nobile* or the hanging garden raised by piloti amongst greenery, and the horizontal windows are part of rural life, beautiful and intact as a lyrical dream:

The inhabitants, who came here because this countryside with its *rural life* was beautiful, will contemplate it, maintained intact, from their hanging gardens, or through the four sides of the long windows. Their home life will be set a Virgilian dream.¹¹³¹

The ancient Arcadian dream in this design is displaced by the promenade, an Arabic fantasy in Le Corbusier’s imagination:

Arab architecture gives us a precious example. It is appreciated in perambulation, it is while walking that one sees things change, that one sees develop the harmonious orders of architecture...I prefer the teaching of Arab architecture.¹¹³²

The promenade is also manifested in the Acropolis and discussed by Auguste Choisy (see Ch.2).¹¹³³

Whitewash, as the basic exterior finish of the villa, in Le Corbusier’s mind, is moral, pure, absolute and exotic, also reminiscent of the Mediterranean. He was much impressed by the whitewashed buildings in Bulgaria during his Journey to the East:

At Tŭrnovo the rooms are whitewashed, and the white is so beautiful that I was very impressed. Already last year I had become enthused over the decorative power that people and things take on when seen against the white of peasant rooms.¹¹³⁴

¹¹²⁹ Tim Benton, ‘Villa Savoye and the Architects’ Practice’ in: H. Allen Brooks, ed., *Le Corbusier: The Garland Essays*, Garland Publishing, Inc., New York, 1987, p. 85.

¹¹³⁰ Le Corbusier, *The City of Tomorrow and its Planning*, p. 71.

¹¹³¹ Le Corbusier, *Precisions*, p. 139.

¹¹³² It is appreciated in perambulation: *Elle s’apprécie à la marché*. Le Corbusier, *O.C. 2*, p. 24. Trans. by Charles Jenks, *Le Corbusier*, p. 184. By 1929 as he published this project in his *O.C. 1*, he had never been to an Arabic land. He had never been to Tunisia for his Village Carthage.

This lesson of the Arab was likely noted down after his journey to Algeria.

¹¹³³ Richard A. Etlin, ‘Le Corbusier, Choisy and French Hellenism: The Search for a New Architecture’, *Art bulletin*. vol. 69, no. 2 (June 1987), pp. 264-278.

¹¹³⁴ Le Corbusier, *Journey to the East*, p. 60.

It is primitive and primal, as the whitewash has 'been associated with human habitation since the birth of mankind...the white of whitewash is absolute...it is honest and dependable...whitewash is extremely moral...the sign of a great people.'¹¹³⁵ When one follows the 'Law of Ripolin', Le Corbusier maintained, 'His home is made clean...Then comes inner cleanness... Whitewash existed wherever peoples have preserved intact the balanced structure of a harmonious culture'.¹¹³⁶

The plan of the villa is a square; it basically follows the geometrical checkersboard grid and encompasses many circular and rectangular elements. Geometry was an essential attribute that he found in representations of gods in the ancient world and in a certain primitive cultures. As he stated in *The Decorative Art of Today*:

The machine is all geometry... The machine brings before us shining discs, spheres, and cylinders of polished steel, shaped with a theoretical precision and exactitude which can never be seen in nature itself.... Our heart recalls from its stock of memories the discs and spheres of the gods of Egypt and the Congo. Geometry and gods sit side by side!¹¹³⁷

The regulating lines are largely borrowed from distant examples.¹¹³⁸ Le Corbusier believed that such regulating systems are rooted in the human instinct. The primitive man used his foot, elbow and arm to create a measurement system with which he could regulate his construction himself.¹¹³⁹ Among Le Corbusier's Purist work, the Villa Savoye is not the only instance that manifests these sources. Conversely, most of his Purist works like this villa are significantly associated with primitive, ancient and exotic cultures.

¹¹³⁵ Le Corbusier, *The Decorative Art of Today*, pp. 190-192.

¹¹³⁶ *Ibid.*, pp. 188-90.

¹¹³⁷ *Ibid.*, p. xxiv.

¹¹³⁸ In *Towards a New Architecture*, regulating lines are supported by Jewish tabernacle, Persian Palace, Greek temple, Notre-Dame de Paris.

¹¹³⁹ Le Corbusier, *Towards a New Architecture*, pp. 71-2.

Part II. Post-Purist Architecture

From 1930 onwards Le Corbusier's architecture turned more diverse and was expressive with more folk, primitive and exotic influences. The cubic prism remained strong but no longer dominant. In this period the typological theme of the primitive dwelling appeared. The tent, hut and cave were regarded as the origin of architecture, as Quatremère de Quincy had maintained.

Le Corbusier emphasized this point in the exhibition of his Pavillon des Temps Nouveaux with a series of images and texts describing the beginning of dwelling in caves, huts and tents. In the chapter, 'Habitation, Loisirs' in *Des Canons, des munitions? merci! des logis...S.V.P.*, Le Corbusier stated:

The primitive men isolated in the natural elements seek natural shelters: caves. They improve their insulation; they ensure their safety by building artificial shelters: lake huts and houses.
The pastoral people following the seasonal migrations for their herds invent light and mobile shelters: tents with skins of animals.¹¹⁴⁰

Alongside this theme of origins, the tectonic primitive also emerged.

Tectonic Primitive

The tectonic aspect came to the fore when Le Corbusier was designing the Maison de Mandrot and the Villa at Mathes, which mixed modern motifs with vernacular. The rubble

¹¹⁴⁰ *Les hommes primitives pour s'isoler des éléments naturels recherchent des abris naturels: les grottes.*

Ils améliorent leur isolement, ils assurent leur sécurité en construisant des abris artificiels: huttes et maisons lacustres. Les peuples pasteurs, pour suivre les migrations saisonnières des leurs troupeaux inventent des abris légers et mobiles: tentes en peaux de bêtes. Le Corbusier, *Des Canons, des munitions? merci! des logis...S.V.P.* Éditions de l'architecture d'aujourd'hui, pp. 42-44.

wall, an almost universal method of construction by hand, is built with local stone and produces a surface texture, natural and 'truthful'. It was used as early as Le Corbusier's first building, the Villa Fallet, which aspired to a Jura vernacular. It appeared again in his study of a Breton village. But in his Purist period, the whitewashed stucco was his favourite way of expressing purity and the Mediterranean vernacular. He used rubble walls in this period in a subdued manner in the garden walls of 'Une Petite Maison' and the Villa Savoye.

But from the end of 1920s onward, the rubble wall was expressed more explicitly, as in the partition wall of Maison Loucheur (1929), Maison Errazuris (1930), Maison de Mandrot (1931), Le Corbusier's apartment (1934), Villa Le Sextant (Mathes) (1935), and Maison de Weekend (1935). Several projects were designed during World War II and built afterwards, such as the factory at St. Dié of 1946/51. Its sidewalls were made of sandstone rubble and exposed concrete. There were more refined versions of exposed stone, such as in the Monastery at la Tourette of 1953, where smaller pebbles were applied to the surface of the balconies and juxtaposed with exposed concrete, and similarly in the Museum of Western Art in Tokyo of 1957, where it was given a local oriental natural flavour.

Here, exposed concrete is a primitivistic and honest expression, but also a new material, another version of 'Purism'. It was commonly applied with the texture of the mould or even in bas-relief. 'Exposed concrete shows... the fibers and knots of the wood, etc. But these are magnificent to look at, they are interesting to observe, to those who have a little imagination they add a certain richness.'¹¹⁴¹ It is also considered as a faithful material: 'Le béton, le plus fidèle des matériaux, plus fidèle peut-être que le bronze, peut prendre place dans l'art

¹¹⁴¹ Le Corbusier, *O.C.* 5, p. 191.

architectural et exprimer les intentions du sculpteur.¹¹⁴² It was applied to the Pavillon Suisse of 1930/32. After this design, exposed concrete was adopted in most of his buildings. He used it for the Unité d'Habitation, Nantes, and regarded it as equivalent to ancient Egyptian fresco:

Once the pouring of the concrete is completed, recessed mouldings appear in the face of the concrete, thus achieving a situation similar to that in which the Egyptians prepared sculptured frescos in their temples 5000 years ago. That is to say the architecture brings forth here that by which surface and volume are known (the recognition of the wall), that by which the materials, their place in the work, the meaning of the times, the rigorous schedule and the discipline of the job site are also recognized.¹¹⁴³

This expression of exposed concrete was pioneered by Auguste Perret at the Cathedral of Notre Dame du Raincy of 1922-3, with interiors of exposed concrete bathed in colourful light from the stained glass. Clearly, this influenced Le Corbusier.¹¹⁴⁴ This expression of exposed concrete became the basis of Brutalism in the 1950s.

Hut and Folk Houses



Fig. 8.1 Le Corbusier, House at Mathes, 1935. *O.C.* 3, p. 134.

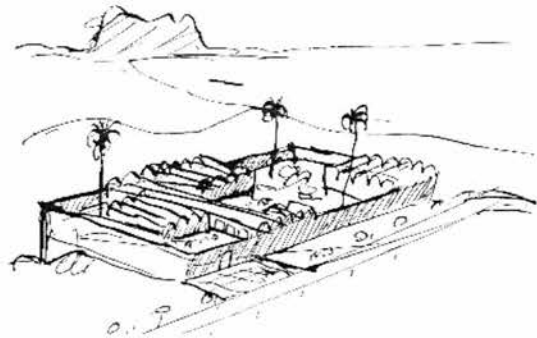


Fig. 8.2 Le Corbusier, Resident at Cherchell Bay, Algeria, 1942. *O.C.* 3, p. 117.

¹¹⁴² *Ibid.*, p. 225.

¹¹⁴³ Le Corbusier, *O.C.* 6, p. 180.

¹¹⁴⁴ Le Corbusier, *Une Maison – un palais*, p. 44.

Vernacular architecture begins with the simple economic form of a hut and retains its original character in later development because of local climate and environment. Le Corbusier experienced many kinds of vernacular architecture: in the villages of Brittany, Swiss farmhouses, Turkish houses, fisherman's huts in the Arcachon Basin, and he studied the Persian flat-roofed house in a library from secondary sources.

Maison Errazuris in Chile (1930) is Le Corbusier's first fully developed manifestation of primitive architecture. The site was near the Pacific Ocean and the building materials were local. It used a wall of large blocks of stone, with the building frame and pitched roof made of tree trunks and covered with local tiles. The rusticity of materials was no hindrance to Le Corbusier in the expression of a clear plan and a modern aesthetic.¹¹⁴⁵

In the Maison de Mandrot in 1931, the load-bearing wall is of rubble, combined with wooden window frames and a pitched roof. Le Corbusier's 'House at Mathes (Villa Le Sextant, fig. 8.1)' in 1935 incorporated more local materials and modes of construction. The budget was so modest that it was impossible for the architect to travel to the site either before or during construction, thus the local contractor greatly contributed to the conception of the plan. Instead of specially designed elements, vernacular rubble masonry and local carpentry were employed.

During World War II, Le Corbusier developed a series of designs to be executed without specialized craftsmen and material. In 1940 he proposed the 'Murondins' (*mur + rondins*) for refugee camps during the war, using primitive methods and *bricolage*, rammed earth walls

¹¹⁴⁵ 'La rusticité des matériaux n'est aucunement une entrave à la manifestation d'un plan clair et d'une esthétique modern.' Le Corbusier, *O.C.* 2, p. 48.

and a pitched thatched roof. In the same year he proposed a house type for foreman and engineers using local materials without the aid of sophisticated machinery.

Similarly, Le Corbusier designed a project at the west of Cherchell Bay, (fig. 8.2) Algeria in 1942. Cherchell is a city by the sea founded by the Phoenicians in the fourth century BC. This building was intentionally constructed without specialized craftsmen, but by native labour with local stone. The floors were made of wood and the vaulted roofs of locally manufactured hollow bricks. The building seems to reinterpret the most fundamental forms of the Mediterranean tradition!¹¹⁴⁶

Le Corbusier's humble single-cell vacation *cabanon* at Roquebrune-Cap Martin of 1950 is his most eloquent manifestation of the primitive. The site is by the Mediterranean, his place of spiritual origin and the region of his wife, Yvonne's birthplace. The *cabanon* is a cubic hut with a single-pitched roof arranged within an area of 3.66 m x 3.66 m, plus a corridor of 0.7-meter wide and 2.26-meter high. The external surface, with half round timbers, recalls the huts in the Arcachon Basin and the primitive Irish Crannogs. The interior furniture was of wood veneer and arranged ingeniously for optimum efficiency. Le Corbusier could certainly afford a larger vacation house; deliberately a modest hut was a refuge for an expression of free creativity, a shelter from Parisian business, engagement with the local environment. Also, as Frampton pointed out, 'On one hand one witnesses the quintessential primitive hut revisited in mid-20th-century terms, on the other the sole full-scale realization of Le Corbusier's Fourierist utopia.'¹¹⁴⁷

¹¹⁴⁶ Le Corbusier, *O.C.* 3, p. 116.

¹¹⁴⁷ Kenneth Frampton, *Le Corbusier*, p. 227.

The Cave

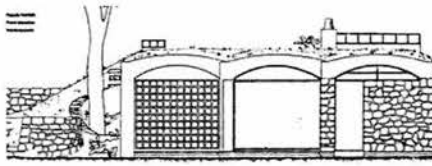


Fig. 8.3 Le Corbusier, Maison de Weekend, 1935. *O.C.* 3, 129.



Fig. 8.4 LC, Maisons Jaoul, 1954/56. K. Frampton, *Le Corbusier*, p. 145.



Fig. 8.5 Le Corbusier, Basilica of Sante-Baume. *O.C.* 5, p. 29.

The concept of the cave is clearly expressed in his Maison de Weekend in 1935 (fig. 8.3), the same year as the exhibition of primitive art in his apartment. This house was intended to be as little visible from the street as possible, situated at a corner of the site behind a curtain of trees. It was only 8 feet high and employed naturalistic traditional quarry stonewall masonry, both externally and partially internally. Moreover, the roof was covered with grass extending to the garden. The ceiling below was vaulted, which was a metaphor of the ancient cave, and the hearth-column used exposed brick. Frampton pointed out: ‘...the troglodyte dwelling at St-Cloud recalled Le Corbusier’s Maison Monol of 1919 as well as the vaulted Mediterranean megaron from which it derived.’¹¹⁴⁸ A similar language of exposed brick appeared in his later designs for the Maisons Jaoul, 1954/56 (fig. 8.4), and the Villa Sarabhai, 1955.

Le Corbusier studied the Temple of Hatshepsut (1520 B.C.)¹¹⁴⁹ at Dêr El Bahri, near Luxor, where the main structure of the temple is carved into the rock cliff. Many similarities can be

¹¹⁴⁸ Ibid., pp.136-7.

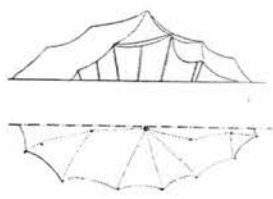
¹¹⁴⁹ Le Corbusier, *The City of Tomorrow and its Planning*, p. 37.

found between this temple and his project for the Basilica of Sainte-Baume of 1948 (fig. 8.5). It cuts into the rock to make a cavernous Basilica within a natural cliff and is approached by a long path.

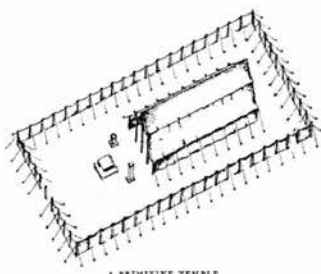
The cave lit from above was experienced by Le Corbusier in the Scenic Triclinium at Hadrian's Villa, Tivoli. This was reinterpreted as the top lighting by skylight in his *Maison de Weekend*, *Maisons Jaoul*, the *St. Baume* and the side chapels of *Ronchamp*. Le Corbusier's own penthouse at 24, rue Nungesser-et-Coli, Paris has a cave-like space close to the rather dark entry and a rubble wall with vaulted ceilings and translucent glass in his studio. This entrance area is composed of a high horizontal window on one side and two small skylights above. The one above the sitting room casts mysterious light on the objects in the niche. An oculus above the spiral staircase 'allows release from the "cave"'.¹¹⁵⁰ In his studio, there is a vaulted ceiling with a clearstory illuminating the rubble wall, and translucent glass is largely used on one side. Thus the studio is invisible to the external world. The vaulted ceiling, also above the dining room and bedroom, recalls his *Poème C2*: 'Because the profound refuge is in the great cavern of sleep / that other side of life in the night.'

¹¹⁵⁰ Peter Carl, *Le Corbusier's Penthouse in Paris, 24, rue Nungesser-et-Coli*, in *Daidalos* 28, p. 69.

The Nomad Tent



La tente du nomade.



A PRIMITIVE TEMPLE



THE NOMADS' CAMP



THE NOMAD HAS TAKEN ROOT
(and this is the sort of small town or village
which so delights the town planner!)

Fig. 8.6 Nomad tent. LC, *Almanach d'architecture moderne*, p. 8.

Fig. 8.7 Primitive temple. LC, *Towards a New Architecture*, p. 71.

Fig. 8.8 Nomad tent settled as a village. LC, *The City of Tomorrow*, p. 44.

The history of architecture begins with the nomad tent at the beginning of Le Corbusier's book *Almanach d'architecture moderne* (fig. 8.6). A modified version of the primitive tent (fig. 8.7), as discussed in *Towards a New Architecture*, becomes a sanctuary. The primitive condition for him is original and unspoiled. In this case the dignified tent is also a Jewish tabernacle.

Various examples of the nomadic tent are illustrated in Le Corbusier's publications. In *The City of Tomorrow*,¹¹⁵¹ a picture of a nomad camp on rural land with several camels as the background (fig. 8.8) is likely a Berber camp in North Africa, possibly Touareg. It is juxtaposed with a medieval town and a modern skyscraper. Le Corbusier remarked on the medieval town: 'The nomad has taken root', which implied that the origin of the town is

¹¹⁵¹ See picture in *The City of Tomorrow and its Planning*, p. 44. Judge from the characters of their costume and so on, the group is likely Berber camp, possibly Touareg group. Le Corbusier also displayed Berber carpet in *L'Esprit Nouveau Pavillon*, see his *Almanach d'architecture moderne*, pp. 170-1.

from a nomad camp. He did not specify the name of the nomad camp nor the town, but it was Altdorf in 1649, which Le Corbusier drew after Mattheus Mérian's drawing and annotated: '*en croquis schémas montrant cas exceptionnel et barbare de bourg moyen age.*'¹¹⁵² Altdorf is in southern Germany, near Nuremberg. To Le Corbusier, the nomads in general sheltered in tents and later may have settled somewhere for a certain reason. The tent is primitive architecture and the tent camp can be regarded as the origin of a city. Le Corbusier maintained: 'Born in the first place in the scattered tents of pastoral peoples, as mankind developed a social life so its field of action was transferred to villages and towns, and finally to the great capitals.'¹¹⁵³

The discussion of the nomad tent as a primordial state is carried on in *The Radiant City*,¹¹⁵⁴ in which there is a picture of a nomad yurt contrasted with one of skyscrapers, perhaps in New York. Below the picture of the yurt Le Corbusier wrote: 'In the Asian steppe', we 'must try to define the modern consciousness...we must bring the falsified equation we see today (the relationship of man to his environment) back to its true form'. These pictures and text were from his article in the syndicalist journal, *Plans*,¹¹⁵⁵ in which these pictures are on the right opposite the title: 'Invitation to Action'. The text begins with 'The world is sick...'

¹¹⁵² *Le Corbusier: le passé à réaction poétique*, no. 258-9.

¹¹⁵³ Le Corbusier, *The City of Tomorrow and its Planning*, p. 99.

¹¹⁵⁴ Le Corbusier, *The Radiant City*, p. 93.

¹¹⁵⁵ *Plans*, I, January 1931, p. 51.

The tent of the Pavillon des Temps Nouveaux contained cubic standard framework units for the exhibition, stacked and arranged as a metal version of the 'Dom-ino' system. The ground was covered with pebbles to accentuate a primitive favour.

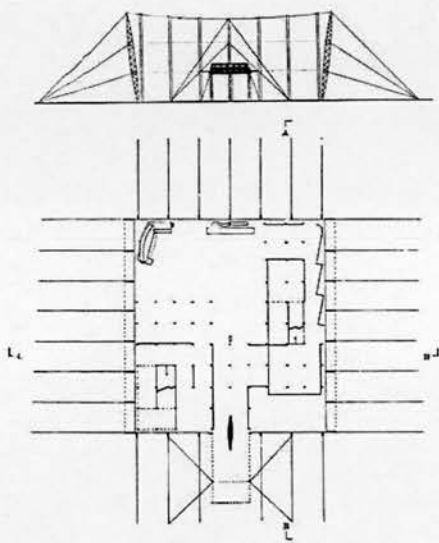
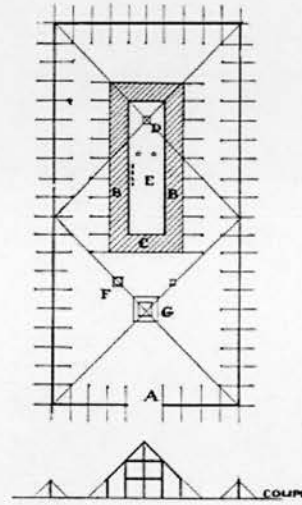


Fig. 8.11 Le Corbusier, Pavillon des Temps Nouveaux, 1937. *O.C.* 3, p. 160.



A PRIMITIVE TEMPLE
 A. Entrance.
 B. Portico.
 C. Peristyle.
 D. Sanctuary.
 E. Instruments of worship.
 F. Vase of oblation.
 G. Altar.

Fig. 8.12 Le Corbusier, Jewish tabernacle. *Towards a New Architecture*, p. 70.

The pavilion (fig. 8.11) is, in many ways, reminiscent of the Jewish tabernacle (fig. 8.12). The regulating lines in both cases are a grid system in both plan and elevation. The entrances are all in the centre with widths of two grid units, followed by a raised platform. In the tabernacle the raised platform is an altar (no. G in fig. 8.12). The pavilion has echoes of the aeroplane, representing Le Corbusier's ideal of logic, economy and standard. Following the main axis of the pavilion are two flanking exhibition areas; in the tabernacle there were a flanking post and a vase of oblation (no. F in fig. 8.12). In the pavilion the terminus was a table or 'altar' inscribed with a twenty-four hour solar day diagram and Le Corbusier's personal motif of the 'open book' of the Charter of Athens, whereas in the tabernacle the Ark occupied this position. The background colour of the altar in the pavilion was red, which bore a connotation of sacrifice.

In the pavilion the construction was similar to a nomad tent: a metal post structure, covered with a translucent canvas roof of 1200 square meters. The sagging and bulging ceiling and the pivotal gate all anticipate Le Corbusier's later designs for the Chapel of Ronchamp in the 1950s.

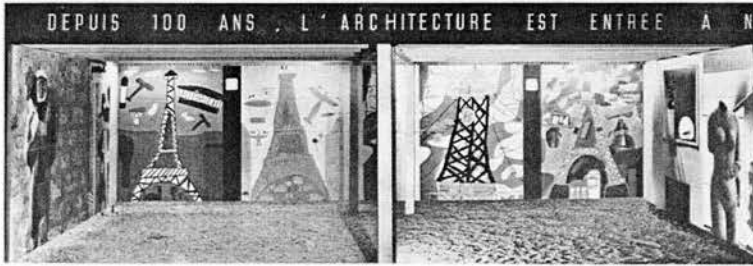


Fig. 8.13 Exhibition right to the entry, Pavillon des Temps Nouveaux, 1937. Le Corbusier, *Des Canons, des munitions? Merci! des logis ...S.V.P.* p. 29.

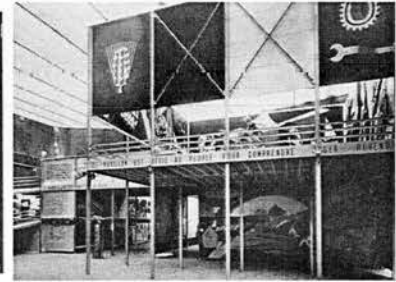


Fig. 8.14 Main hall, looking back entrance, Pavillon des Temps Nouveaux, 1937. *O.C. 3*, p. 169.

The interior walls were decorated with photomontages, collages, murals, architectural drawings and painted panels. It was experienced as a potential reconciliation of fragments.¹¹⁵⁸ When visitors entered the tent, to the right on the vestibule wall was the exhibition, 'The accomplished architectural revolution (*La revolution architecturale accomplie*, fig. 8.13)'.¹¹⁵⁹ There were photographs of a modern large-scale construction, labelled 'For 100 years, architecture has entered a new age in life: it is in all things. (*Depuis 100 ans, L'architecture est entrée a nouveau dans la vie: elle est en toutes choses*).'¹¹⁶⁰ In the vestibule were two documentary photographs of the 'primitive art exhibition', held in Le Corbusier's apartment in 1935, and next to them four enlargements of paintings of the Eiffel Tower drawn by children; a sort of 'primitive in the contemporary Western world'.¹¹⁶⁰ Two

¹¹⁵⁸ Peter Carl, 'Natura Morta', *Modulus 20* (1991), pp. 42-43.

¹¹⁵⁹ Document of this exhibition, see Le Corbusier, *Des Cannons, Des Munitions? ... S.V.P.*

¹¹⁶⁰ Colin Rhodes, *Primitivism and Modern Art*, p. 11.

photographs faced each other: the Greek statue of the Calf Bearer and a Greek statue of a female torso next to a niche. In the picture of the niche a granite pebble from Brittany and a bronze statuette from Benin were displayed.

The backdrop of this exhibition, the primitive nomad tent was juxtaposed with a sophisticated modern cable construction. In a similar juxtaposition of themes: the symbol of advanced technology (the Eiffel Tower) was placed next to that of archaic wisdom (the Greek statues), enriched by the African primitive (Benin statuette) artwork and the primitive within modern Europe (the pebble from Brittany).

Le Corbusier's diagram of the circulation route is reminiscent of the meander (fig. 8.10). In the metaphors of civilization, it represents the battle of life and death, right and wrong,¹¹⁶¹ good and evil, or Medusa and Apollo. The architectural plan is rectilinear, following the axis of a right angle, but the real path of the promenade, as with a river, and shown in this diagram, is always circuitous and non-axial.

Many primitive images were shown in the section on 'urban history'. The tent was present both on a panel in the exhibition and in the structure of the pavilion. The cave, the hut and the tent, as illustrated in this exhibition, were frequent features, whether literally or implicitly, in many of Le Corbusier's architectural designs.

In the main exhibition hall (fig. 8.14), two icons were displayed on the wall of the upper level: a spanner and cogwheel to the right, and an ear of corn to the left. Le Corbusier's caption reads: '*Ce pavillon est dédié au peuple pour comprendre, juger, revendiquer*' (This

¹¹⁶¹ Peter Carl, 'Natura Morta', *Modulus* 20 (1991), pp. 40-41.

pavilion is dedicated to people to understand, to judge and to claim). The spanner and pinion wheel symbolized the machine and technology; the ear of corn represented agriculture and harvest. These two icons were important to Le Corbusier as they reappeared in the collection of signs for Chandigarh, as 'images pertaining to a dialectics of human productivity, related to his larger effort to reconcile engineering with nature.'¹¹⁶² This ear of corn icon most likely came from a Greek coin of Metapontum, which Le Corbusier sketched and published in *The Decorative Art of Today*. The image of 'ear of corn' maintained by Le Corbusier is a 'type'¹¹⁶³ which is developed to a pattern like that of the acanthus on a Greek vase. This 'has not only conceived a microcosm of botany, but has given expression to the architecture of creation.'¹¹⁶⁴ Le Corbusier visited the area of Metapontum during his journey of 1911. He sailed to Brindisi in southern Italy for research¹¹⁶⁵ before taking the train to Naples via Oria.¹¹⁶⁶

His image of the tent also appeared in his later projects. The convex ceiling of the Chapel of Ronchamp clearly refers to a tent, using the metaphor of the sacred Jewish tabernacle. In the Philips Pavilion, the theme of a tent was reinterpreted in response to the electronic music and images. The structure was composed of hyperbolic-parabolic shells, and the walls constructed of rough slabs cast in sand moulds on the ground, with a double network of cable.¹¹⁶⁷ The electronic poem was a synthesis of colour, imagery, music, words and rhythm. An African deity from Dahomey was displayed among the electronic images. In many of Le Corbusier's houses, the nomadic metaphor was also employed with leather furniture and

¹¹⁶² Ibid., p. 68.

¹¹⁶³ Le Corbusier, *The Decorative Art of Today*, p. 121.

¹¹⁶⁴ Ibid.

¹¹⁶⁵ Le Corbusier, *Journey to the East*, p. 240.

¹¹⁶⁶ Le Corbusier, *Voyage d'Orient Carnet 3*, 173.

¹¹⁶⁷ Le Corbusier, *OC 6*, p. 200.

carpets, which evoked a pre-industrial or even pre-agricultural civilization.

Part III. Contemporary City

In many of Le Corbusier's projects for contemporary cities, an orthogonal order predominates especially on extensive flat sites, such as the urban project for Three Million Inhabitants. Such an order is not simply a matter of pure geometry but also of principles prefigured in the series of the worldwide 'great city' illustrated in *The City of Tomorrow*. Freedom under this order is exemplified in a Breton village.¹¹⁶⁸ In many projects the central cruciform glass towers, as Kenneth Frampton pointed out, 'were reminiscent in their serrated plan-form of the stepped temples of Angkor.'¹¹⁶⁹ These towers, such as the business area in his Radiant City, also correspond to the central divine power in Chinese traditional city planning.¹¹⁷⁰ His Mundaneum of 1929 was inspired by the ziggurat of Khorsabad,¹¹⁷¹ which was in an orthogonal order and 'regulating lines'. The conservation of historical architecture in city planning was discussed in the Athens Charter in 1943. Le Corbusier's Unité d'Habitation manifests the theme of a social laboratory of a Carthusian monastery, where its living units were derived from a type of primitive dwelling (fig. 3.17). His design of Chandigarh copes with the local climate carefully. He used primitivistic exposed concrete and inscribed the images of bulls as well as many primitivistic icons, plus nomadic tapestries hung inside the courts. Other than a cruciform layout, behind the circuitous

¹¹⁶⁸ Le Corbusier, *The City of Tomorrow and its Planning*, p. 223.

¹¹⁶⁹ Kenneth Frampton, *Le Corbusier*, p. 49. Le Corbusier had studied Angkor in his 'La Construction des villes.'

¹¹⁷⁰ Kenneth Frampton, *Le Corbusier*, p. 53.

¹¹⁷¹ Alfred Willis, 'The Exoteric and Esoteric Functions of Le Corbusier's Mundaneum', in: *Modulus* 11, 1980, p. 13.

viaduct city project for Algiers, the sinuous topography and metaphor of Le Corbusier's robust Algerian women can be traced;¹¹⁷² the graphic feature of an Islamic script could also be borrowed.¹¹⁷³

As these examples manifested, Le Corbusier's pioneering modern projects were strongly underpinned by folk, ancient and exotic cultures. These sources were all collected in his 'museum' and incessantly inspired his work. This made his architecture simultaneously primitive and progressive, archaic and modern, also timeless and advanced.

¹¹⁷² Mary Mcleod, 'Le Corbusier and Algiers', *Oppositions 19-20* (Winter-Spring 1980), p. 63.

¹¹⁷³ Stanislaus von Moos, 'Le Corbusier As Painter', *Oppositions 19-20* (Winter-Spring 1980), p. 90.

Conclusion

As I have shown, there is a consistent thread of fundamental sources and archetypes running through Le Corbusier's life's work. Historically and culturally diverse, his achievement was facilitated by his own study and the ambience of Paris, a cultural melting pot in the early twentieth century. This enabled him to conceive of his work as especially significant, imbued with the essence of universality and timelessness.

1930 was a watershed in Le Corbusier's work. Before then, these primitivistic, folk and exotic sources were profusely elaborated in his writing and presented abstractly in his machinistic design, such as the regulating lines. Later these references were less to the fore in his writing but more explicit in design.

Modernism Built up from Fragments of Tradition and Distant Cultures

Formulating a strong unorthodox trend in the turbulent early twentieth century, many modernists in various fields studied distant sources to explore new frontiers, such as Freud in psychology, Picasso in modern art, as well as Le Corbusier in modern architecture. Le Corbusier had an innovative insight into architecture, which grasped the very essence of architectural space. Meanwhile, he celebrated his modernist aesthetic, purity, economy, geometry and rhythm in irregular compositions, and fulfilled them with new technology.

Le Corbusier insisted that his designs were modern while he used numerous fragments of the ancient civilizations. These primitive and distant cultures and histories, previously ignored in Western society, were often demonstrated in modernism after they were transformed or reinterpreted. Consequently, in his treatises and works, modern and traditional characteristics

remain somewhat undifferentiated. The modern work was gathered, transformed from traditional elements and recomposed for new conditions in social, technological, urbanistic and aesthetic aspects. Renato Poggioli pointed out:

Like any artistic tradition, however antitraditional it may be, the avant-garde also has its conventions. In the broad sense of the word, it is itself no more than a new system of conventions.¹¹⁷⁴

A certain avant-garde spirit called for all connections with the past and with tradition to be discarded. The Manifesto of Futurist Architecture stated:

Architecture now makes a break with tradition. It must perforce make a fresh start...I combat and despise: ...All classical architecture, solemn, hieratic, scenographic, decorative, monumental, pretty and pleasing...¹¹⁷⁵

Le Corbusier on the other hand, was actively involved with historical traditions. They were collected and ruminated over as creative resources in his personal museum, which supported his argument and progressive design. He claimed that he had learned from history, but it is indeed an unorthodox history or an unconventional interpretation of history.

Instead of the academic and noble histories, Le Corbusier built up his own vision and sought out folk, primitive, and distant cultures. He developed it through his idealistic interpretation with a cyclic and progressive notion, and made it conform to modernist criteria, such as purity, proportion and standardization. Clearly in his publications and designs, the juxtaposition of new and historical images is profusely illustrated and reveals a dialectical duality, such as that manifested in the duality of order and meander simultaneously existing.

Le Corbusier's generation was exposed to and had a broader contact with history and civilization through travels, documents and artefacts, especially in a cultural centre like Paris.

Many avant-garde artists like Le Corbusier were deeply imbued with a sense of historical

¹¹⁷⁴ Renato Poggioli, *The Theory of the Avant-garde*, p. 56.

¹¹⁷⁵ Umbro Apollonio, ed., *Futurist manifestos*, London: Thames and Hudson, 1973, pp.169-171.

precedent from around the world. Thus the most aggressive and cutting-edge ideas were largely inspired by primitive, archaic and primordial sources. European nations had colonized many countries, and ultimately these reciprocated by 'colonizing' European culture.

To an extent, Le Corbusier's career serves as a mirror of European artistic and aesthetic trends in the early twentieth century. Learning from history is a repetitive course in human development. Culturally, the exchange and interaction of arts and heritage has a long history. Ethnically, the advanced and the primitive were frequently interchangeable, depending on outlook. Le Corbusier's revolutionary accomplishment is only one of the waves or trends in the history of human development, as his work precisely exemplifies a recurrence and reinterpretation of precedents.

Exploring and supporting his pioneering vision on new architecture, Le Corbusier's grand tours and extensive study gave him a broad insight into a long chronological span from prehistory and early geological history to the contemporary age as well as a wide geographical sphere of all five continents, an extensive cultural domain from central Europe to the Far East, from the pinnacle of the Parthenon and Michelangelo to primitive and folk arts. The extensiveness demonstrates his breadth of thought and proves the universality of his argument.

The vast resources of Le Corbusier's personal museum, European and Oriental, and both physical and intellectual, were subjected to a series of seminal transformations and reinterpretations as the core process of his creativity. These measures produced perennially rich possibilities that informed his design and painting. In his studio, the diverse exhibits

became props and characters in his ever-changing stage setting, which would trigger his memories of earlier journeys and inspire new works. In his reinterpretations, archaeological correctness was not his main concern, but more creative outcomes. This combination of his sources and fragments was blended together as if in a dream. Primitive instances were not only transformed, but also borrowed to suggest new possibilities and combinations in the development of new art and architecture. The surreal combination of an animal head and a human body in an African statue is a good example of such a process.

Le Corbusier's modernist language is rooted in history, folk and distant cultures and supported by these references. All his 'Five points towards modern architecture' are facilitated by these sources. Since Le Corbusier's work teems with fragments of the past and distant cultures, where and how does his modernism exist?

Manifested in design and painting, his ideal of a new epoch was established through his fundamental visions on architectural space, his aesthetic belief in the new age (principles of purity and economy), a profound observation of nature, accomplished by the possibilities stemming from new materials and technologies, and reinterpreted as well as catalysed primarily by distant sources. This made Le Corbusier a productive and profound avant-gardist.

Appendix I

A Chronological List of Le Corbusier's Travels before 1935¹¹⁷⁶

Abbreviation:

SkI 314 = Le Corbusier, *Sketchbooks Volume I*, no. 314.

1907 (Sept. to Nov.) To northern Italy for art and architecture; visited the Carthusian Monastery near Florence.

1907-08 Four months in Vienna; studied human figures; visited (Kunst) Historisches Museum for Egyptian, Arabian and Gothic collections.¹¹⁷⁷

1908 (Mar.) – 1909 (Dec.) Twenty-month stay in Paris, apprenticed under Auguste Perret, and researched at various museums, where he observed artefacts of cultures around the world.

1910: Stayed in a Jura vernacular farmhouse *Le Couvent* at La Chaux-de-Fonds near his home.

1910 (Apr.) – 1911 (May) One-year stay in Germany. Apprenticed under Peter Behrens and worked on the book *Étude sur le mouvement de l'art décoratif en Allemagne*.

1911 (May 25 – Nov. 1)¹¹⁷⁸: Five-month travel to the Balkans, Turkey, Greece, as well as central and northern Italy.

1912: Lived in the Jura vernacular farmhouse *Le Couvent* again.

1912-16: For the business of interior decoration, he travelled to Paris to select decoration materials. In 1915 he studied at Bibliothèque Nationale for 'La Construction des

¹¹⁷⁶ This list focuses on his experience on primitive, primitive and exotic in chronological order. His short stay in a Jura farmhouse near his home at La Chaux-de-Fonds in 1910 and 1912 is also part of this personal experience.

¹¹⁷⁷ H. Allen Brooks, *Le Corbusier's Formative Years*, pp. 120-1. The museum is Historisches Museum or Kunsthistorisches Museum see discussion of Egyptian animal gods in the Chapter 6.

¹¹⁷⁸ Departed from Dresden for Prague (May 25) and returned to La Chaux-de-Fonds (Nov. 1, 1911), see H. Allen Brooks, *Le Corbusier's Formative Years*, p. 259 & 307.

villes'.¹¹⁷⁹

1918: A vacation in Brittany including Angers, and spent two weeks with Ozenfant in Andernos near Bordeaux.¹¹⁸⁰

1924: To Brittany to observe vernacular houses (Sk1 314), and being inspired by a natural right angle formed by a vertical rock against the backdrop of the horizon of sea level.

1928: Gave lectures in Madrid, Barcelona, Brussels, Frankfurt, Prague and Moscow. Took a vacation at Piquey in the Arcachon Basin and observed folk houses and fisherman huts.

1929: Travelled to South America by ocean liner and airplane; visited Buenos Aires, Montevideo, Rio de Janeiro, Sao Paulo; observed folk houses of Buenos Aires; met Josephine Baker.

1930: Travelled to Moscow and Algiers. Attended CIAM III.

1931: Trip to Spain, Morocco, Algeria.

In Spain: he travelled along the Mediterranean coast, from Barcelona, Valencia, Alicante, Almeria, Málaga, and further to Tangier of Morocco. He was impressed by the local village: 'I know no country more beautiful...Its purity, nobility, virginity...this where 'the old countries' are. (Sk1 424)

In Morocco (Sk1 432-442): Tangier, Tétouan, Rabat, Marrakech, Fez, etc.

In Algeria: Laghout (Sk1 444-9), Ghardaïa (Sk1 450-462, observed vernacular houses in an oasis), Algiers (Sk1 463-5).

1932: Summer at Le Piquey on the Arcachon Basin, studied a series of female bodies, boats and landscapes, which were developed into various works in the following years. Transformation techniques were adopted in sketching, such as a body and tree trunk; foot and jar.

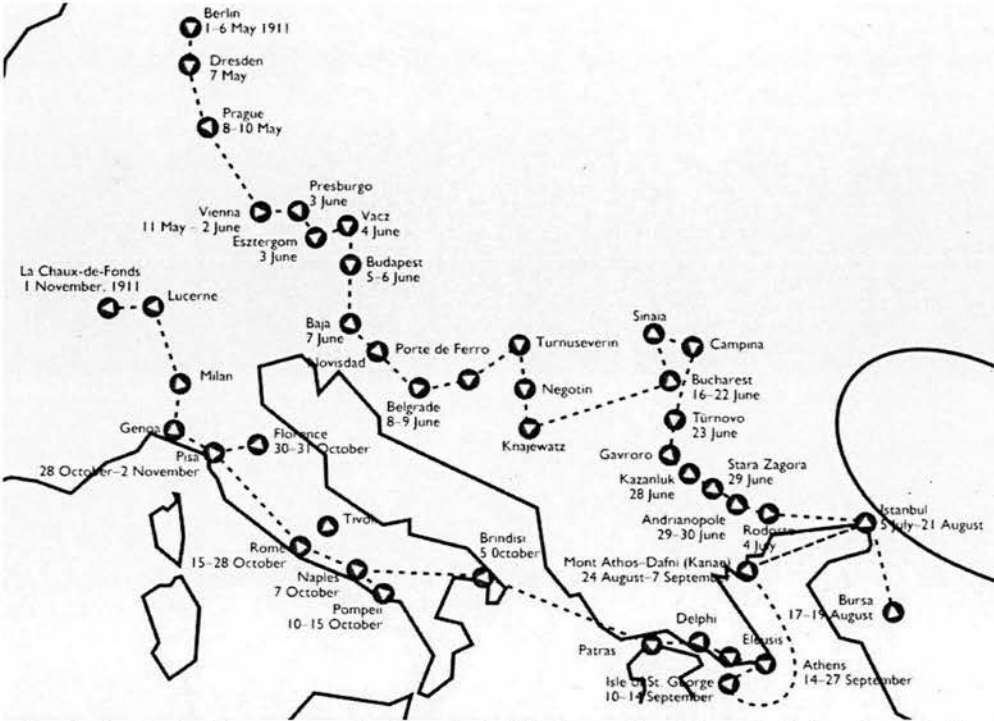
1933 CIAM IV held on a boat that cruised from Marseilles to Athens. Impressed by the vernacular houses on the Cyclades.

1934 Lectured in Rome, Milan, Algiers and Barcelona; visited Algiers and Turin.

¹¹⁷⁹ H. Allen Brooks, *Le Corbusier's Formative Years*, p. 307 & p. 403.

¹¹⁸⁰ *Ibid.*, p. 494.

1935 To United States to visit MOMA, New York and to listen to Jazz music and visit Harlem area.



Le Corbusier's Itinerary to the East in 1911. From Geoffrey H. Baker, *Le Corbusier – The Creative Search*, London: E & F Spon, New York: Van Nostrand Reinhold, 1996.

Appendix II

List of Le Corbusier's Early Study at Museums¹¹⁸¹

Note:

* : Source from Le Corbusier's 'Confession', *The Decorative Art of Today*, pp. 198-200.

** : H. Allen Brooks, *Le Corbusier's Formative Years*.

A. Paris

Cluny Museum: for tapestries, miniatures, Persian ceramics.*

Guimet Museum: for Asian art including deities in bronze, wood and stone.*

Trocadéro:

1. Musée de Sculpture Comparée: Cast of French cathedral portals.

(*and *Passé* pp. 85-7).

2. Ethnographic Museum (later Musée de l'homme): art from Mexico, Peru and

Africa*. From mid-July 1909 Le Corbusier visited there with his brother

Albert to see Hindu, Assyrian, Egyptian and Gothic arts. (** p. 182)

Museum of Natural History:

'There is much at this museum to analyse: shells, birds, big pre-historic skeletons and skeletons of all present day animals. First introduction to the mechanism of things.'*

Louvre:

1. Secluded part where he could study undisturbed.

2. In Marsan Pavilion: Persian watercolours, carpets and brocades. (*, **p. 182) 3. M.

Pottier gallery¹¹⁸²: Greek and Etruscan arts.*

¹¹⁸¹ His museum study focused on his formative years between 1907 and 1911. After this period, he paid his attention on business, teaching, new art and new architecture rather than decorative art, thus record of his museum study in his writing and drawing became less and scattered.

¹¹⁸² Probably in Louvre. Edmund Pottier was the scholar and chief curator of Gréco-Romans and Oriental antiquities of the Louvre museum, and member of the Academy.

4. In mid-July 1909, Le Corbusier visited Louvre with Albert. (** p. 182)

B. Outside Paris

Berlin: Many museums were visited, including National Gallery (** p. 221),

Ethnographic Museum*, Royal Art and Craft Museum (met Bruno Paul, ** p. 250)

Munich: Bavarian National Museum: Applied arts began in the Middle Ages. (** p. 215)

Vienna: (Kunst) Historisches Museum: a sketch of Egyptian sculptures (FLC 2077)

London:

South Kensington Museum: Hindu dancing girls.*

British Museum: the art of Benin*. Le Corbusier came to London from Paris with

L'Eplattenier for a few days in May 1909. (** p. 182)

Belgrade: Ethnographic Museum of Belgrade in 1911:

Popular arts, pots and carpets*; 'clothing...beautiful Serbian pots of the kind we will go looking for in the highlands of the Balkans around Knjaževac [Bulgaria]'.¹¹⁸³

Florence: Ethnographic Museum of Florence: Etruscan art.*

Naples: National Museum of Naples: Pompeian frescos and many statues.*¹¹⁸⁴

Greece:

Athens: National Museum of Athens: Greek jewellery. (*Passé* 348, FLC 1901)

Delphi: A winged sphinx.¹¹⁸⁵

¹¹⁸³ Le Corbusier, *Journey to the East*, p.43.

¹¹⁸⁴ Also see Le Corbusier, *Voyage d'Orient Carnet 4*, 51-65.

¹¹⁸⁵ Le Corbusier, *Voyage d'Orient Carnet 4*, 158.

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