

# Colour as Pathway of Light: Searching the Shadow in Luis Barragán

Maria João Durão

*Faculty of Architecture, Lisbon Technical University, Colour Laboratory of the Faculty of Architecture, APCOR-Portuguese Colour Association, Lisbon, Portugal*  
Email: [mjdurao@fa.utl.pt](mailto:mjdurao@fa.utl.pt)

Published online: 10 September 2010

## Summary

This paper aims to restore some of the meanings that according to Luis Barragán have disappeared from the religious spirituality and the mythical roots that lead us to the very reason of being of the artistic phenomenon, by opposing the endoskeletal conception of Barragán, as to colour and architecture, and the exoskeletal and the one of Calatrava. The study is mainly based on the microcosmos of the studio house and Casa Gilardi. In these 'laboratories', the magic of colour, light and form reveal his material and spiritual vision. For Barragán, beauty is a source of spirituality that mingles the colours with Gods, art and Mexican nature, in a choreography of shadows and the implications of the sun. His dwellings are energised by lighting solutions that provide different tones of shadowy depths enveloping linear and geometric volumes in an atmosphere of contemplative silence, through a labyrinthine search of memories and intuitive resonances of tranquillity.

## Introduction

'I underline the study of colour above all' (Barragán) [1].

Knowing the complex implications of cultural factors involved in art, this paper aims to restore some of the meanings that according to Luis Barragán have disappeared in alarming proportions from publications dedicated to architecture, all of which found loving shelter in his soul: beauty, inspiration, magic, fascination, sortilege, enchantment, as well as serenity, silence, intimacy and amazement.

Born in 1902 in Guadalajara, Mexico, Barragán confirmed that his search was introspective, in his acceptance speech of the Pritzker Architecture Prize in 1980, when he claimed that it 'is impossible to understand art and the glory of its history without avowing religious spirituality and the mythical roots that lead us to the very reason of being of the artistic phenomenon. Without the one or the other, there would be no Egyptian pyramids nor those of ancient Mexico. Would the Greek temples and Gothic cathedrals have existed? Would the amazing marvels of the Renaissance and the Baroque have come about? (...)' [2].

The decision to focus on the work of Barragán in this current paper was triggered by the

experience of his dwellings in Mexico, having previously undertaken research on the relations between art, science and technology in the conception and representation of the work of Santiago Calatrava [3]. The study includes the understanding of how something in our mind takes the form of what is out there, an internal model of perceived reality, as our decoding apparatus works out information we receive in the form of growing speed of vibrating bodies.

From this perspective, the information captured by the external senses sustain the actualisation of the internal senses, with a view to artistic creation. The primacy of experience belongs to vision, as the Divinity of Genesis (I, 1–31) saw and evaluated its own creation. And from the start, ‘light’ was needed for the act of creation (ib.,3), actualising the qualities of the diaphanous, and with them, the affirmation of colours in their physical and psychic dimensions.

The human body, according to Santiago Calatrava’s notes and drawings, is understood as a folding structure, with a large range of possible configurations, positions that translate in buildings and sculptures, and from a symbolic, metaphoric and analogical point of view, require variables such as space–time, light, shadow, reflexes, movements and materials [4].

This understanding is communicated in his light and colour devices, for instance in Calatrava’s Hemispheric building in Valencia – or the ‘Eye’, as it is usually called – reflects environmental colour in constant change, thus creating exoskeletal colour. Contrarily, colour in Barragán’s dwellings is endoskeletal with the probable intention of alienating the external and internal sounds that hinder the way to the centre of the heart. Such is the impression that the guide to the studio house aims to create in the penumbra of the vestibule where a golden canvas, by artist and sculptor Mathias Goeritz, centralises our attention to the impact of the diaphanous character of colour and light.

## Initiation to Les Jardins Enchantés

‘Colour is the most sacred element of all visible things’ (John Ruskin) [5].

An ‘initiation’ is how Pauly [6] describes Barragán’s first trip to Europe. In search of his Spanish roots and Mediterranean culture, he was touched by the experience of the beauty of Alhambra in Granada and the work of French illustrator and artist Ferdinand Bac. Barragán used his work as an interior search in the way that by transforming the parts – object, tree, stone – he would transform the whole (Figure 1, Figure 2 and Figure 3).



**Figure 1 (top left)**  
Casa Gilardi  
(photo credit: M J Durão)

**Figure 2 (bottom left)**  
Casa Gilardi  
(photo credit: M J Durão)

**Figure 3 (right)**  
A façade neighbouring Casa  
Gilardi (photo credit: M J Durão)

His gardens aim to achieve the magic and enchanting qualities of the gardens of the Palacio de Generalife (in Andalusia), paradise on earth for generations of Spaniards. The communion of plants, stone and fountains of purifying water or the high walled patios with streams, the geometric volumes of the outdoor spaces and the aesthetic ideals of the sublime were all adopted by Barragán to materialise a focus directed to interiority: the ideal place. Ferdinand Bac's *Jardins Enchantés* [7] – with their secret Moorish gardens, spaces of intimacy and open-air patio closed-in by hedges – also shaped the design of Barragán's own gardens and terrace in his studio house, inspired by religious spirituality and therefore aiming to achieve a transcendent dimension.

'Let us spend a minute or two to take in the yellow that Barragán wanted you to see before going on to the next room'. These were the words I heard at the entrance hall of Barragán's studio house. At this point, I was still focused on looking at yellow with my eyes leaving the retina and the brain to carry out highly sophisticated tasks, and expecting the complementary colour to affect the perception of the colour we were about to 'see' in the next room.

As I was unweaving phenomena of simultaneous and successive contrasts, Empedocles' remark came to mind that questions the nature of the eye: 'if the eye were not sunny how could we perceive light?' The connotation of the sun to the eye triggered the very notion of the heat/the energy required to see, and to feel. The experience *in loco* of the energy that colour irradiates when one enters a 'three-dimensional painting', as it seemed at the time, would unlock a quality that I have always attached to colour as a painter: the quality of being alive.

The studio house of Barragán is situated in Tacubaya, which means 'place where water comes together'. It develops inwards, underlining the sensation of inner being, and encouraging 'meditation', as Barragán intended. The sense of intimacy was picked up by Louis Kahn when he visited the studio house and remarked that it was not just a house: it is the house. Across the street one finds the garden of the Ortega House where Barragán first lived (Figure 4 and Figure 5).



Figure 4 Ortega House, when viewed from the gardens (photo credit: M J Durão)



Figure 5 Ortega House, when viewed from the gardens (photo credit: J de Almeida Moura)

The studio house was his microcosmos, the place for his introspective memory and a living body that grows and changes. For Barragán, the corporeal has the transcendent mission of representing the spirit and 'the more intimate a human being is, the greater his nullification, which means that his body will talk more of his soul' [8] (Footnote 1). This is what is known as the sublime, the experience either of space or energy that is so overwhelming, that the individual diminishes, in order for revelation to take place.

Art makes one see, hear, think and feel reality on a more profound level since it creates forms not as an imitation but a revelation. Painting is an alchemical process, a ritual act as a psychic container for transformation [9]. For example, the painter Francis Bacon says that the shadow in his paintings is due to its escape from the body and Deleuze, analysing Bacon's *Scream*, remarks that it is the entire body that escapes through the mouth. Deleuze [10] refers to a mass of 'wounding colours' and jagged edges of the body in contrast with the smoothness of the lamella, a thin layer without volume where bodies dissipate in the Triptych.

In Barragán's dwellings, however, bodies do not dissipate; quite the contrary, they work as a 'mythologem' where the body finds communion between that which is physical and metaphysical. 'Mythologems' are tales already well known but open to further reshaping, such as mythology (an art alongside and included within poetry) is the movement of this material, thus adopting the characteristics that enable transformation: solid and yet mobile, substantial and yet not static. Myths do not search for explanations or 'causes', they are 'aetiological' only to the extent that, according to Aristotle, the *aitiái* are *archái*, i.e. 'the beginnings or first principles such as primary states like water, fire, or the boundless' [11].

Sources of mythologies of all cultures embrace tales of light, sun, rainbow, moon, fire and stars [12], and the ubiquity of colour among ancient cultures is apparent in the art of the Egyptians, Sumerian, Babylonian, Assyrian, Persian, Mayan, Aztec, Greek or Roman civilisations. To Jung and Kerényi [11], the happenings of mythology are the *archái* to which everything individual and particular goes back and out of which it is made, while they remain ageless, endless, timeless and primordial such as 'the *archái* of organic being from which we continually create ourselves'.

The *arché* of organic being includes the colour of the body from a microscopic scale for the Hindu. In the *Upanishads*, Hinduism sacred text, the beauty of colour constitutes one of the attributes of bodily perfection as the veins of the body (*Hita*) are described as 'small as a hair divided a thousandfold, full of white, blue, yellow, green and red'. But also the colour and light that surrounded us and is in the making of our bodies, internally and externally (Figure 6 and Figure 7). In nature, we see colour in the sky, water, plants, shells, stones, feathers, furs and so forth. Light, the source of life, is inseparable from the genesis, the structuring and development of our planet and the universe at large.

The influence of the sun and lunar light besides that of other stars, fire, precious stones and a variety of luminescent sources, affects natural life. Light and colour are part of a life giving and life preserving cycle and are vitally significant to the meaning of our interaction with the environment that affects our emotions. In mythology this is expressed by Achilles that in Hades resents the absence of the sun rays, preferring to be a slave among the living than to reign over the dying shadows that surrounded him [13].

---

**Footnote 1** 'Quanto mas intimidad posea un ser, mayor será su nulificación; ou decir, su cuerpo nos ablara mas de su alma' (Barragán).



**Figure 6** Rituals for the Day of the Dead in Mexico City (photo credit: M J Durão)



**Figure 7** Rituals for the Day of the Dead in Mexico City (photo credit: M J Durão)

## Colours as Lines of Memory

Such as Matisse's 'lines of memory' make visible that which is invisible, colour defines the itinerary in the studio house of Barragán that starts and ends with colour. Colour is material and spiritual. Nothing is offered directly, nothing is obvious, each compartment of memories has to be discovered, and surprises us through the fluidity of spaces that are materialised with light and shadows. It is light that guides our movements and the body is immediately drawn to the light that emanates from the first staircase. Álvaro Siza [14] created the remarkable image of our bodies gliding while someone leads us through the spaces.

The initial image of yellow articulates the others in constellations of infinite stars and each hue and tone in myriads of constellations. A fascinating itinerary in its complexity, Barragán's work is a pursuit of simplicity. Such as the *Ur*-line, the primordial line that originates a world of projections that is converted kinetically through the body of the sketch, the experience is mnemotechnic and transforms the analogies of cognition into the visible. The description of the itinerary of our body through the body of the studio discloses the magic impact that colour has – holistically, religiously, involving the whole body and certainly not only on the visual level. That is the reason why it is more of an endoskeletal colour phenomenon than an exoskeletal one.

Between our body and the object seen lies the mystery of colour. For Aristotle, the eye does not see form, but what the eye sees is colour. Not satisfied with the doctrines of Democritus, Empedocles or Plato, he introduced the notion of the diaphanous since the existence of a means is 'necessary' [15]. The diaphanous is not a body, it does not have quality proper it is in nature similar to water and air (contained in them but without identifying with any of them). The diaphanous as an act of the luminous phenomenon allows colours to be perceived by the eye – it is the means, the intermediary between that which is between a perceived object and the

subject that perceives in such a way that they are interdependent: the object we see and the thought of its form and luminosity [16].

‘But who can ever describe the vividness, the profusion of light and colour?’ Barragán asks [17]. Colours that blaze in the Mexican sun have always exuberantly featured in everyday life and rituals (Figure 8 and Figure 9) and, according to Barragán, ‘restore the spirits of our native women, for whose retinas supreme beauty vibrates with the more audacious values and contrasts of variegated tropical colours, the variegated colours of tropical birds and plants’ [17].



**Figure 8** Façade of a house in Tacubaya (photo credit: J de Almeida Moura)



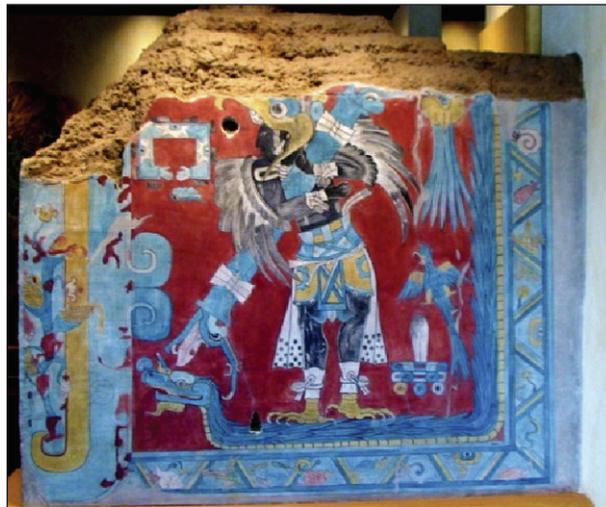
**Figure 9** Xochimilco (photo credit: M J Durão)

Barragán’s houses belong to the places where they are built and are impregnated with the colour of Mexico, of its golden light and the memories of the place making it unique and intemporal. This memory and state of *pregnanz* of the colours of Mexico relate to both the pigments and the application to art. Pigments and dyes come from insects, shells, stones, vegetation and soil. The wealth of colour used in architecture is extraordinary: violets and Mexican rose, all tones of green, jade, sage; blue has an extremely wide range of tones: indigo, green blue, cobalt, sapphire, turquoise; the red colours range from crimson, magenta, fuchsia, bougainvillaea, carmine, vermillion, cadmium or the famous scarlet of the cochineal, from the Aztec *nochezli* ‘blood of the prickly pear’ extracted from millions of insects found in the Mexican cacti (Figure 10 and Figure 11).

On the other hand, the memory of the colours of the Teotihuacán’s palace mural frescoes, where workmen layered coats of ground lime or stucco over the palace’s rough walls. Then pigments were mixed and applied to the wall while still wet. The colours used were earth tones, such as hematite red and ochre, as well as greens, blue, and whites (Figure 12, Figure 13 and Figure 14).



**Figure 10 (left)**  
Frescoes on murals at Cacaxtla; Museo Nacional de Antropología (photo credit: M J Durão)



**Figure 11 (above)** Frescoes on murals at Cacaxtla; Museo Nacional de Antropología (photo credit: M J Durão)

**Figure 12** Murals from Teotihuacán palace (photo credit: M J Durão)



**Figure 13** Murals from Teotihuacán palace (photo credit: M J Durão)



**Figure 14** Murals from Teotihuacán palace (photo credit: M J Durão)



The pre-Colombian painter in Mexico does not use colour for visual aesthetics or expression but for symbolic purposes. Itten [18] observed that when a painter ‘puts a red-clad figure into his compositions, it was understood to pertain to the earth god Xipe Totec and therefore to the eastern sky, with its significance of sunrise, birth, youth springtime.’ White symbolises change, and death is black; yellow symbolises life and the sun; blue, the skies, water and rain;

green stands for vegetation and crimson is the colour of the rising sun, as well as the blood-food for the sun god Huitzilopochtli. Furthermore, for the ancient Maya, white is in the North and yellow is in the South, red is in the East, black is in the West, but the world as a whole is blue–green.

### Indwelling Colour: Laboratory of Experimentation

‘Segredo: I cannot without great astonishment hear it attributed as a primer perfection and nobility of the bodies of the universe that they are invariant, immutable and inalterable. For my part, I consider the earth very noble and admirable precisely because of the diverse alteration, changes, generations, etc. that occur in it incessantly’ (Galileo Galilei) [19].

Barragán made his work a source for experimentation, changing colours as the work developed as a painter would do. It was therefore the result of experiences that determined the colours and also their alterations as a function of surroundings and interplay of light and shadow, location and other influences so that the ‘colour compositions’, as he named his work, are always complex, depend on the surface material as well as neighbouring ones that may reflect or absorb light.

From the small vestibule in lilac and rose, yet perceived golden due to Goeritz’s painting, Barragán’s studio house ascends from the public zone to the private habitation, until the private exterior habitation – the terrace – is reached. Originally, the terrace had the whiteness of vernacular patios but just as traces of chalk we drew on the schoolyard were not the representation of the game but the game itself, Barragán’s colours are not representation of something else, they have their own life, albeit inspired by the memory of a civilization where colours are symbolic.

Barragán altered the configuration of the terrace, elevating the walls, creating a pre-Hispanic habitation without ceiling and experimenting with colour and texture that he had not used before as an abstract composition, yet knowing of the colour traditions of Mexico (Figure 15).



**Figure 15** Two views of the Studio-house terrace (M J Durao; watercolour and gouache sketches on Chinese paper)

For Barragán, light and colour qualifies and transforms space and he used it with the same freedom as a painter, trying out different solutions. As an example of this empirical approach is the stairwell of Barbara Meyer's house that was changed nine times before he finally adopted white.

Casa Gilardi was also subject to many colour experiments, in particular the pool and the corridor that leads to it that is invaded by an atmosphere of sunshine. This spiritual ambience was achieved with a series of deep, narrow and long windows of the corridor, invading it with golden yellow light (see Figure 20).



**Figure 16** Pool of Casa Gilardi (M J Durão and H Soares; composition based on the reflected colours on the walls)

Similarly, he painted the main patio walls that could be seen from the interior of the house in the Mexican palette of pink and violet, the colour of the jacaranda flowers. This tree – an axis mundi – around which the house was built, chromogenously provides colour, light and shadow to all volumes of the house, at all times of the day and throughout the seasons.

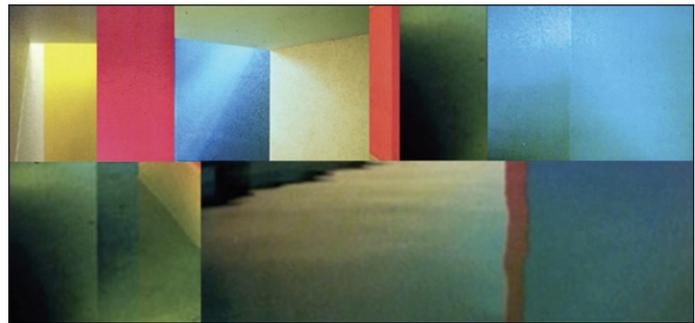
He spent days contemplating the compositions and quite often he explained the choice of colours like a painter: for aesthetic pleasure and in order to form one more colour in the composition, as with the pink column in the pool (Figure 16, Figure 17 and Figure 18). With the colour design of the Casa Gilardi, Barragán conciliates the international with the vernacular architecture, by integrating traditions of Mexican and Mediterranean architecture with the modern. Johannes Itten, Josef Albers and Kandinsky are immediate references as one experiences three-dimensional colour interactions, with interplays of depth of colour and shape, interactions of planes of colour in terms of adjacent volumetry, juxtaposition of tones and the result of the various scenarios that the observer creates, when visually interacting with the pool.

Partly responsible for the expression of colours is the way Barragán deals with interactions. Although Alberti and Leonardo had reported the effect of simultaneous contrast, Chevreul first formulated the theory in 1804 and explains different kinds of contrasts and interactions. Yet it is Albers who probably inspired Barragán mostly and went as far as making a copy of one of Albers' paintings. In *Interaction of Colour*, Albers presents some experiments carried out with his students with additive, subtractive and optical mixtures, after images, simultaneous and alternate contrast, effects of transparency and adjacent areas of colour. Throughout his book, which is the application of many colour theories, we are constantly reminded that colour deceives and that 'experience teaches that in visual perception there is a difference between physical fact and psychic effect' [20].

The varied colour compositions are the result of the amount and quality of light that is cast on the volumes and on the reflecting mirror that is the water of the pool. When mirrored, colours and forms liquefy in the abyss of mystery. A slit of light comes in from above and just as in Mexico where bright sun originates sharp dark contours between light and colour shadows, the pool creates intriguing shapes and a range of colours from which stem the a range



**Figure 17** Pool of Casa Gilardi (M J Durão and H Soares; composition based on the reflected colours on the water)



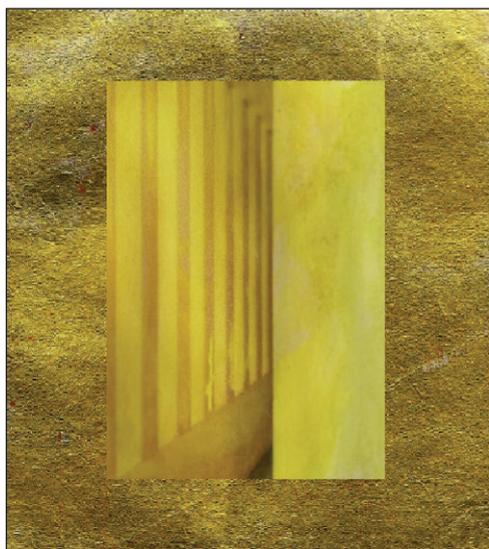
**Figure 18** Pool of Casa Gilardi (M J Durão and H Soares; composition based on the reflected colours on the water)



**Figure 19** Composition with studio-house stairs and Chirico's *Mystery and Melancholy* painting (collage M J Durão)

of greens reflected on the water of the pool. This is a fascinating and unexpected experience since Barragán does not use green in architecture, claiming that it already exists in nature (Figure 18).

The light of the sun, its cast shadows and the multiple reflections of the material on the immaterial 'membrane' of water, extends the walls in spatial and imaginative depth. The beholder becomes part of the scene when the reflection follows the movement of the body (Figure 17). This also happens with the images reflected from the spheres that are found all over Barragán's studio. The gliding images capture the character of fugitive moments and thrust the mirrored images into the realm of differentiation between the world of the real and that of appearances. This strangeness and sense of mystery attracted Barragán to the surrealist school, namely to the mysterious paintings of Chirico, Magritte and Delvaux (see Figure 19).



**Figure 20** Casa Gilardi's corridor bathed with golden sunlight and leading to the pool (M J Durao; watercolour sketch on Chinese paper)

## Searching for the Shadow

'I only remember the emotion of things and forget all the rest. Big are the failures of my memory' [17] (Footnote 2).

The studio house is a laboratory of experimentation of light and colour where yellow light invades the atmosphere and is located almost everywhere through filters. The movement of our body along the silent interiors and the spatial sequences prepare us for perceptual changes that are always indirect and slow, magically discovered with the senses.

The ephemeral character of colour is evident every time we shift point of view resulting in a permeability to multiple mutations: pluri-dimensional planes dissolve, accentuate, intersect and interact and change in colour, evoking multiple and intemporal universal membranes, described by Stephen Hawking as 'space–time of infinite mutability and metamorphosis'.

Whether vision floats on purple velvet of the religious icons or is caressed by the shimmer of gold, it participates in the delight of light. Mathias Goeritz considered the work of Barragán 'emotive' and the spiritual values above all function and aesthetics, comparing Barragán to Le Corbusier who considered emotion to be an essential vehicle for the poetic experience.

For Barragán, beauty is a source of spirituality that mingles the colours with which Gods painted the quetzal feathers, the sky and the trees, the parrot guacamaya and the jaguar according to the Mayas, with the silence he found in Assisi's Franciscan monasteries. Here, the sound of bells, allied to a feeling of solitude propelled the awareness of mystical shadow and light. For the Chapel of Madres Capuchinas he developed 'the idea of semi-darkness' [17] and to master colour and light in order to create ambiances of spiritual meditation he studied chapels and cloisters of Mexico.

---

**Footnote 2** 'Sólo recuerdo la emoción de las cosas y se me olvida todo lo demás. Grandes son las lagunas de mi memoria' (Barragán)

Barragán has memories of childhood such as when he was always observing the choreography of shadows on the walls (Figure 16), and the implications of the sun, that he expressed in an interview to Elena Poniatowska [21]. He recalled how the afternoon sun gradually got weaker – although it was still light – and how the look of things changed, angles got smaller and straight lines stood out even more.

Besides Le Corbusier, Barragán was also inspired by Kiesler's vertical divisions with differences in interior heights and partitions easily extended or retracted. Kiesler's Space House had the possibility of expansion and contraction, features that grounded the fundamental concept of a dwelling and the concept of 'psychofunction'. In fact, Kiesler broadens the concept of Loos. Although both suggested dividing the volume into different heights and dimensions, he converted into as many different functions as might be required in a house, enabling the use of time and space as economically as possible. Therefore, Kiesler's Endless House is made of walls, floor and ceiling that flow into one another, and have the qualities of a living body, with colours and lighting 'breathing heavily and lightly' [22].

The sober, almost windowless façade of the studio house, hides an interior space where different sources of natural lighting interact, ranging from highly controlled luminosity to shadow. The dwelling is energised by lighting solutions that provide different tones of shadowy depths enveloping linear and geometric volumes in an atmosphere of silence.

The interiors are uncovered gradually as the spaces are entered and our body interacts with them, as one transitions through a dwelling that enhances the sense of simplicity with the use of basic forms and geometric structures. The materials used for the walls are adobe or stone, varying in texture, partitioning in plaster, stairs in stone, volcanic rock, wooden ceilings that float magically as also happens with the wooden stairs that seem to defy gravity leading to an intriguing narrow door [23] (Figure 19).

In Mexico, interior patios channel light into the rooms that grow within rooms – smaller rooms within rooms – and as light is filtered through panes of yellow glass (Figure 20), and all sorts of glazing, transparent colours are sensed everywhere. According to Otto Runge transparent colours lie in the air between us and the object. Goethe cites Otto Runge on account of his focus on transparent colours as polymorphous magical substances that lead a life of their own, spiralling off into nether regions of soul and mind [24].

The skin of the partitions filter light, the varying heights of the walls and surfaces reflect the light and project it, duplicating and extending the physicality of space and consequently, the light and colour inherent to it. All bodies mutate internally to forces outside them as the interior of the body flows out and external contingencies flow in. Space–time fragments of movement, colour and light work as blood vessels from aorta to capillaries forming a continuum where they branch and divide: a pattern that is fractal. Likewise, in the studio house, the entrance of light is controlled with windows of many types, different sizes and functions, some of which are symbolically designed in accordance with the golden ratio rectangular (Figure 21).

The depths of the studio are like juxtaposed layers and inside the light is shadowy contrast between the bright exterior light and the rooms of the studio. Wooden shutters, filters and mobile elements. The library was divided and reduced so as to create an intimate space with light channelled by translucent screens. The control that is made of light that enters the library, for example, allowed for a meditative reading of Marcel Proust's *In Search of Lost Time*, considering the notes Barragán took from them. For Proust 'style is to the writer what colour is to a painter' such as Vermeer, since his art, working through layers of colour as well as light is revelatory never consciously, because the real treasure is inaccessible to the intellect [25]. Goethe [26] claims that colours, the 'deeds and sufferings of



**Figure 21** Golden ratio rectangular used in designing the windows at the studio house (M J Durao; gouache and golden leaf)

light' are created from light and darkness: light dimmed by darkness originates the lighter colours of yellow, orange and yellow; whereas, darkness lighted by light originates blue, indigo and violet. For the inner and outer activity of seeing to take place as a cognitive and constructive event (*Bildung*), a sensorial imagination is required of the beholder, and in search of the (*Ur*-phenomenon) he unveiled a phenomenology of nature.

Each room displays memories and dreams through books, tapestries, paintings such as Goeritz's golden painting, Chucho Reyes angel, objects such as sculptures and spheres of multicoloured glass. Translucent materials, such as

screens that filter light using skin, volcanic stone, wood on the ceiling and furniture that he designed, textures of the tapestry and the paintings not only add layers of colour, paint or varnish but are embedded in mythology and symbology. Even the placement of objects has in view spiritual well being with materials such as light, penumbras, transparency, openness and closure, textures, the interior–exterior, unity and integrity and sensorial stimuli achieved through the masterly use of colour [27]. Orozco's volumetry and layered walls influenced Barragán and his drawings are displayed on the walls. One of the many colour interaction compositions by Albers hangs on a wall, near the window where it receives light and consequently changes according to the typology and quality of light that flows in and changes throughout the day and around the year – as if confirming the effectiveness of Albers's claims about 'interactions of colour'.

The passage between the living room and the garden is situated in the corner of the room, next to the transparent glass window that prepares the passage to another place: a mysterious garden with different depths of green and spatial configurations. The window does not allow physical access to the garden. The living room-cum-library is divided by partitions and a great aperture brings in the garden making it omnipresent, although its visibility is only possible from some angles and a focal point for contemplation is in the cross. Nevertheless, the house and garden constitute a whole (Figure 22).

Over the library the terrace echoes other presences that mingle in the imagination with the shadows on the protective and enclosing walls. A golden stairway takes us up to the terrace with the sky as its ceiling – a hidden paradise – that brings together the earth and the sky, the gods and the mortals.



**Figure 22** Studio-house garden (H Soares; composition built and framed by the cross and depths of green)

## Conclusion

Barragán is inspired by the memory of a culture and civilisation that merges reality with imagination that results in an atemporal and universal work: interior spaces, patios, gardens and terraces are spiritually charged and places of emotional well being. The perception of colour engages not only the eye, but the whole body. Colour is alive like energy in constant transformation that is used vitally, not featuring decoratively but evoking memories of Mexican vernacular architecture with the same hues and tones.

Barragán creates sacred places, with colour brought in from the frescoes that adorn temples, palaces and tombs, that are built, rebuilt, transformed, continuously growing as a body exposed to light in search of the shadow. Experimentations range colour and light in conjunction with relations between interior and exterior so that his dwellings act as sensitive sensorial devices that control the effective impact that light has on spatial colour, as a body exposed to light and searching for its physical and Jungian shadow.

Colour compositions are used to test colour–light–shadow interactions, qualitative features of spatial depth as mediations to the emotional and spiritual dimensions of our body. In these ‘laboratories of colour’, experimentation involves the movement of our body along spatial sequences that prepare us for perceptual changes, always indirect and slow, magically discovered through the senses. Barragán’s creative process was a transcendent search, a labyrinthine search of memories and intuitive resonances.

Colours emerge by themselves according to an intrinsic tendency that make them ascend to the realm of consciousness, like body-intelligent energy, along a process that combines the creative dynamics of *natura naturans* and with the apparent fixedness of *natura naturata* simultaneously intertwined. Barragán knew there is an inherent energy in colour and that it is colour that forces the character of something to reveal itself and so he used it in all its extent to unify cultures and integrate the body in its physical and metaphysical dimensions as to seek for a possible serenity for the body and spirit.

We have his work to confirm this, and his words, ‘Serenity is the great and true antidote against anguish and fear, and today, more than ever, it is the architect’s duty to make of it a permanent guest in the home, no matter how sumptuous or how humble. Throughout my work I have always strived to achieve serenity, but one must be on guard not to destroy it by the use of an indiscriminate palette’ [2] (Footnote 3).

## References

1. J Salvat, Luis Barragán: *Riflessi messicani, Colloqui di modo* (Milan: Modo, 1981).
2. L Barragán, *The Pritzker Architecture Prize Acceptance Speech* (1980) (online: <http://www.pritzkerprize.com/laureates/1980/index.html>; last accessed, 21 May 2010).
3. M João Durão, *Art, science and technology in the conception and representation of the work of Calatrava*, post-doctoral research programme, University of Salford, UK and the Technion Institute, Israel (2009) (funded by the Fundação para a Ciência e Tecnologia).

---

**Footnote 3** ‘La serenidad es el gran y verdadero antídoto contra la angústia y el temor, y hoy, la habitación del hombre debe propiciarla. En mis proyectos y en mis obras no ha sido otro mi constante afán, pero hay que cuidar que no la ahuyente una indiscriminada paleta de colores’ (Barragán’s Pritzker prize acceptance speech).

4. Santiago Calatrava online presence: [www.calatrava.com](http://www.calatrava.com) (last accessed, 21 May 2010).
5. J Ruskin, *The Stones of Venice*, Vol. 2 (London: George, Allen and Unwin, 1925), chapter 5.
6. D Pauly, *Barragán-Space, and Shadow, Walls and Colour* (Basel: Birkhäuser, 2002).
7. F Bac, *Jardins enchantes: Un Romancero* (Paris: Louis Conard, 1925).
8. M E Orendain, *El Recorrido de la simplicidad*, Ed. De la Noche (Mexico: Ciudad de Mexico, 2004).
9. M J Durão, *FABRIKART-Arte, Tecnología, Industria, Sociedad*, **8** (2008).
10. G Deleuze, *Francis Bacon: Logique de la Sensation* (Paris: De la Différence, 1984).
11. C G Jung and C Kerényi, *The Science of Mythology* (London: Routledge Classics, 1985).
12. M J Durão, *Proc. 6th Int. Conf. Design History Design Studies*, Osaka, Japan (2008) 467.
13. Homère, *L'Odysée (XI, 498)* (Paris: Les Belles Lettres, 1963).
14. A Ruiz Barbarin, *Luis Barragán frente al espejo*, Colección Arquia/Tesis No. 26 (Barcelona: Edición Fundación Caja de Arquitectos, 2008).
15. Aristóteles, *De Anima (419–420)* (Lisboa: Edições 70, 2001).
16. M J Durão, *Ar-Cadernos da Faculdade de Arquitectura da Universidade Técnica de Lisboa*, **6** (2006) 144.
17. J Salvat, *Luis Barragán: Riflessi messicani, Colloqui di modo* (Milan: Modo, 1981).
18. J Itten, *The Art of Color* (New York: Reinhold Publishing Corporation, 1961).
19. Galileo Galilei, *Dialogue*, Trans. S Drake (Berkeley: University of California Press, 1953).
20. J Albers, *Interaction of Color* (New Haven, Yale University Press, 1971).
21. E Poniatowska (interview), *Diario Novedades, Cidade do Mexico* (28 Nov and 5 Dec, 1976).
22. F Kiesler, *Inside the Endless House* (New York: Simon and Schuster 1966).
23. M J Durão, *Seminário Permanente de Estética e Filosofia, O Som e a Cor*, Lisbon, Portugal (2009).
24. A Albus, *The Art of Arts* (New York: Knopf, 2000).
25. M Proust, *In Search of Lost Time – Time Regained*, Trans. A Mayor and T Kilmartin (New York: Modern Library, 1993).
26. J W von Goethe, *Theory of Colours* (Cambridge: MIT Press, 1970) (originally published in 1840).
27. M J Durão, *Artitextos*, **8** (2009).