

The Synthesis of Modernity & The Values of Tradition

Exploring the works of Le Corbusier and Balkrishna Doshi

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'Architecture has its own realm. It has a special relationship with life'

Peter Zumtor



(Figure 1) food served on a plantain leaves

Introduction

It is Onam, the festival of harvest in the Hindu calendar and our house is filled with the familiar aroma of spices. Fifteen traditional curry dishes (Figure 1), to be served on plantain leaves, are being prepared in anticipation of the family's arrival. Traditional family gatherings differ in my house, in comparison to the Christmas dinners or Easter tea parties celebrated by most Western families. Although I have deep inherited roots in the East, I consider myself a very modern British person, as I was born and brought up in the West. As a result of my roots, I find myself interested and connected to something ancient and spiritual that I believe adds value to my existence and to the world around me.

The conflicts and complexities of being a British Indian add up to the contemporary, cosmopolitan, diverse society we live in today. Despite living in a global world, people often do not know or lose track of who they are, amounting to a loss of identity. The lifestyle I lead in the UK is often in conflict with my own sense of cultural origins and the spiritual depth of my inherited tradition.

What impact does this have on the issue of finding my identity as an emerging architect? You begin as an architectural student finding your feet within a new world. Then the adolescent stage of beginning to understand what architecture could mean. Then you find yourself as the architect, who is coming of age. It is during this psychological human development that you begin to question; who am I? This leads towards reflecting on identity and a cultural heritage. It raises the issues of an architectural identity and forms a personal journey.

To find out more about these overlapping identities, architectural and personal, I will explore a variety of questions. Should our cultural identity play a key factor within the future? And what are the implications for design of this meeting point of different strands of cultural heritage? How does this have an impact on how I anticipate my creativity and architecture becoming meaningful? These questions raise issues about what the traditional word value means and whether erasing the past and adapting to the fast-paced, modern metropolis we live in today is the way forward. In an attempt to answer these questions I will explore the crossroads between two different world views, the western and the eastern world, the new and the old. This will address a complex deeper understanding behind western and eastern values.

To address these conceptual questions, and to relate them to my own emerging architectural identity, I will consider my own architectural heroes, as they bring together the many things that we hold dearest to us and the values that we aspire to. Le Corbusier and his work is the best architectural example of the modern period in the Western world. He brings together ideas about modernity, social change, mechanisation and human freedom. Another hero who is architecturally connected with Le Corbusier but diverted in his way of thinking is Balkrishna Doshi. Less known and established in the West but incredibly influential within the East.

By looking at these two architectural heroes of mine, I aim to compare and contrast their values and their attempts to reconcile opposite pursuits in their views and work. These studies will help me explore the crossroads between two different world views as it will create a better understand of how a fusion of dimensions could be created on a personal level. This will help me to also understand the complexity of my identity and how these could be intertwined together.

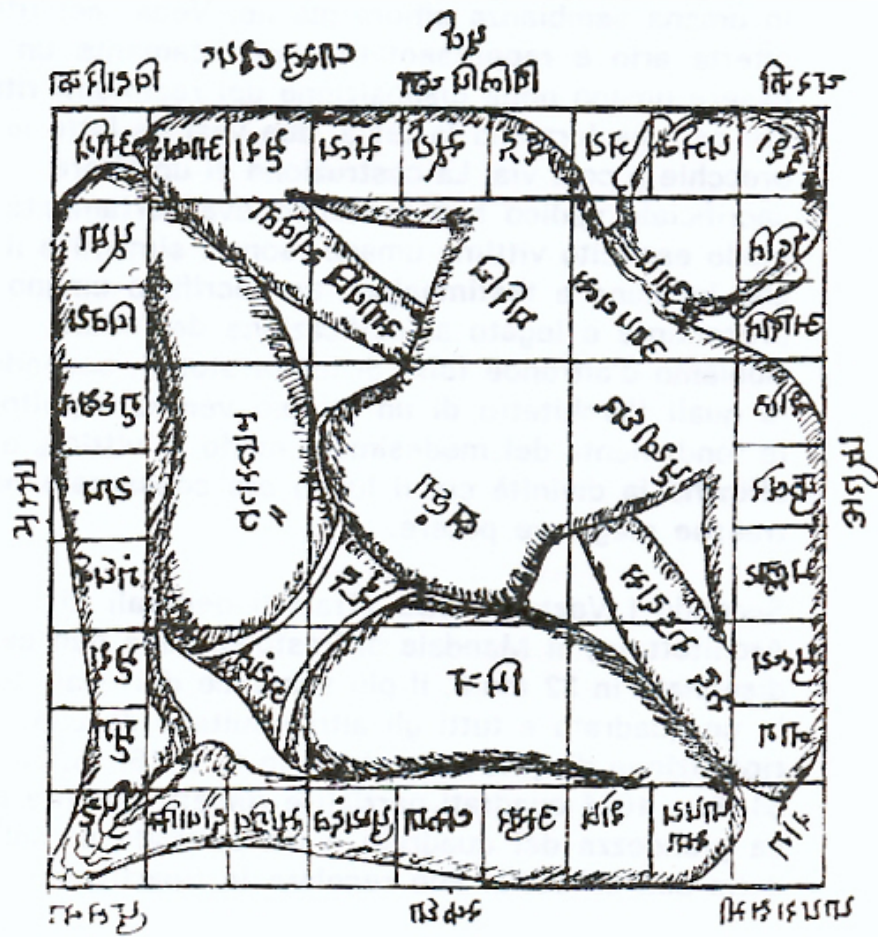
Before I look at the specific lives and works of Le Corbusier and Balkrishna Doshi I am going to analyse the implications of identity regarding architecture. This will address issues about spirituality, the effect of history and the relevance of tradition and modernity. I am going to explore how tradition attempted to create meaning, with particular reference to the ancient spiritual idea of Vastu Shastra and how The Modern Movement played a key factor within history. This will help me better understand the two different dimensions of modernism and tradition that create my identity. Once I have reflected on the identities of the West and East, I will move to the works by Le Corbusier and Balkrishna Doshi. Given the enormous scope of questions I am addressing and the massive portfolio that these architectural heroes represent, I have chosen to focus on one project by each architect. Looking more in-depth will help me answer my question on how a fusion of a western and eastern dimension can be created successfully. The two architects are directly related to my dissertation at hand as they both explore the spiritual realm in their later lives, that will lead me to a comparative study of ideas.

Through this architectural criticism, I aim to use the architecture as a vehicle for discussing wider issues. It is understandable that the idea of modernity and traditionalism can be unified into a single entity because it is this fusion that creates my identity. Therefore, I hope to gain some insight into this notion of fusing opposites, whether it is through conflicting ideas or through spatial comparisons.



(Figure 2) Balkrishna V Doshi was a favorite of Le Corbusier

Traditional values: Eastern Identity



(Figure 3) diagram used within Vastu Shastra

I will begin by addressing the question of ‘who am I’? Beginning with an insight into my average day to day activities. This includes traveling to the university every day. Where social media helps me to stay connected with friends and family during this busy, nonstop lifestyle. To my understanding If I stop, I would not progress in stabilising myself for the future, so keeping up with the latest trends and technology allows me to stay up to date with the Western lifestyle I lead. However, physically it is very isolating and it is this fine line between keeping up with a fast passed life and stopping to admire the bigger picture that makes me wonder, can a balance between both be created?

My day to day activities on average are very similar to the majority of my fellow friends, but what differentiates me from some, is the Hindu custom of prayer. I have been taught from a very young age the significance of prayer. Once I return home from university, I would light a lantern and recite a Mandra¹ to images of Hindu gods. This aspect of my daily lifestyle is culturally inherent in my nature.

¹ A Mandra is a Hindu prayer that is infused with spiritual meaning

Spirituality: The meaning of having meaning

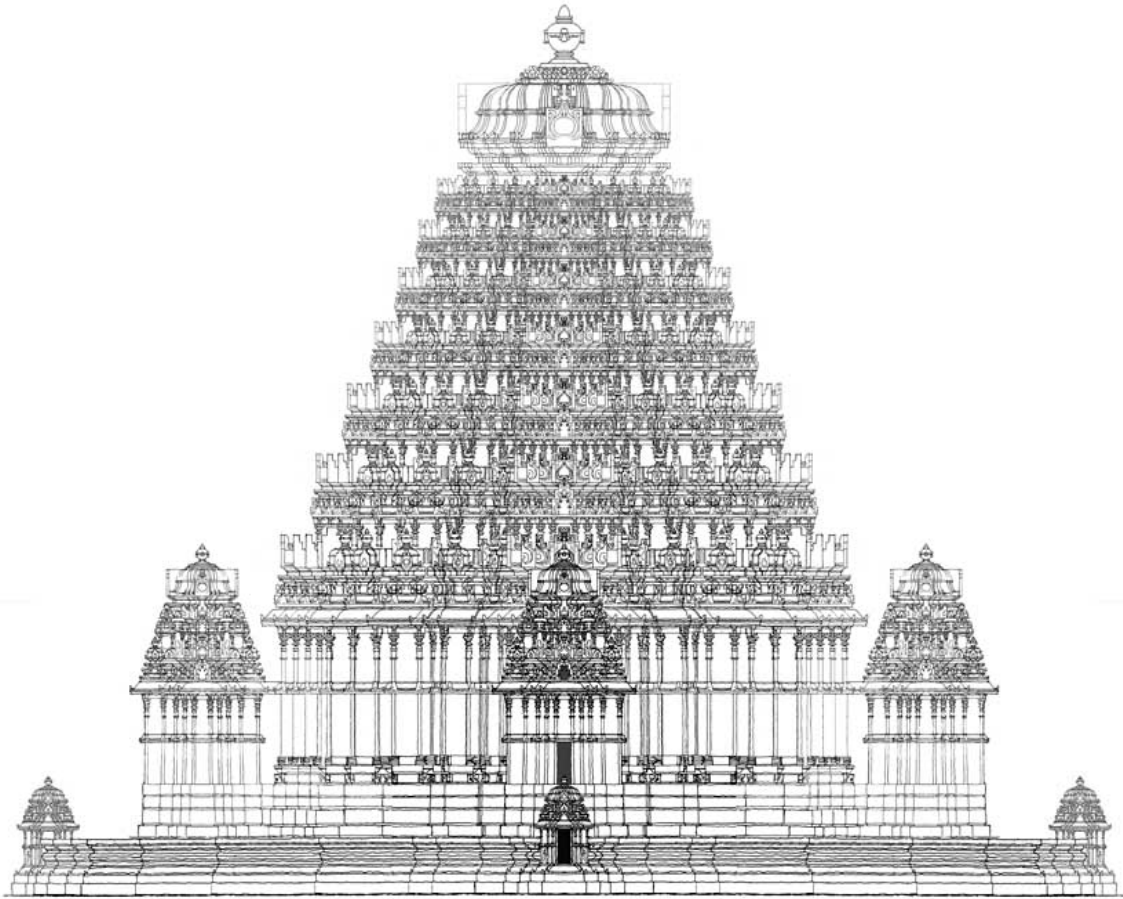
I will begin to decipher the question relating to the existence of cultural background by looking into spirituality as it plays a large part within Hinduism and historical culture. This will give me a better understanding of what it means, 'to have meaning'. Spirituality can be termed in many ways, such as the search for 'the sacred.' This would include the attempt to place themselves within a broader context, forcing them to choose how to interact with the world, finding a purpose and meaning in life. This experience of finding meaning is one of man's basic needs to develop as an individual and society as a whole.

The transmission of experiences have been expressed through the use of symbols, from one generation to another, to allow a socially valid perception of what has been experienced. The symbolic systems constitutes to the common order we class as culture. This order would help find meaning between man and his environment, where he would experience an act of identification, with the use of symbolism. The symbol systems can be separated into the non-descriptive (expressive): art and religion. Religious symbolism teaches to make the same choices repeatedly, to relate to and shape the environment around us. Expressing the feeling that reality is a meaningful order, giving the notion that the universe and the individuals life are all based on the same orderly pattern. Where religious symbolism addresses how vital it is to have meaning, with a universal connection, which would enrich one's life.

Peter Ludwig Berger a sociologist, who's work focuses on the sociology of religion agrees that creating meaning is set by religious choices made and passed down generations, but as humans we have alternative choices. However, society has already set these choices and reinforced them through religion. If there was no meaning created through order there would be random chaos. Berger explains that over time social views are legitimised by connections with the cosmic force. So that ordinary experiences take on extraordinary meaning giving the individual a sense of cosmic importance as it can be seen as a sacred canopy, providing answers to experiences that cannot be understood. This gives the individual the identity they are seeking and prevents them from becoming lost in a world of disarray and uncertainty, nourishing the man both emotionally and spiritually. 'Part of the unconscious consists of a multitude of temporarily obscured thoughts, impressions, and images that, in spite of being lost, continue to influence our conscious minds.'²² This kind of religious behaviour linking to symbolism can be seen to contribute to maintaining the sanctity of the world so that it is not lost in history.

The world we live in today gives importance to intelligence, where aspects such as the economy manipulate our way of thinking creating a lack of awareness for the intangible aspects of life such as spirituality. Spirituality teaches us that we must find a connection with everything and everyone to find inner peace and fulfilment. By reconnecting with our surroundings, we find freedom and become at one with the world, creating an awareness and respect for the environment we live in. However in this day and age we are detaching from one's cultural or spiritual background, which highlights the fact that the process of modernism is eroding what once was. This is also apparent within the field of architecture as Vastu Shastra is an ancient set of guidelines within the field that is hardly recognised or used today.

Ancient treaty: Vastu Shastra



(Figure 4) Hindu Temple

Vastu Shastra has a complex and deep rooted relationship with my religion of Hinduism. The architectural significance of this, in relation to the question I am addressing is that Vastu Shastra is part of my cultural heritage but should one detach themselves from these historical knowledge that has been developed over centuries? Has it no value in today's technological world? Considering my Eastern roots, a concept which addresses this awareness of meaning and a connection with everything is through the bridging created with architecture. Therefore this ancient set of guidelines used in the East called Vastu Shastra addresses my architectural identity in terms of tradition.

Hindu philosophy, mythology and literature played a significant roll in the influence of architecture, especially on sacred Hindu temples (Figure 4). As well as having a rich history connected to Hinduism, which has been practiced for more than 3000 years, Ancient India manifested a deep and close relationship with architecture and science at the same time. Ancient Indian literature provides evidence of a relationship connected with numerals, astronomy, astrology and other branches of science.

All buildings were built in accordance to the basic principles of Hinduism which was governed by the Vastu Shastra. For a building to be sacred, the architectural principles on the physical level had to integrate with structure on a metaphysical level. Its fundamental principle that 'earth or soil is a living organism out of which other living creatures and organic forms emerge,'³ is the basic foundation from which another is inferred or followed as a conclusion.

The highly complex set of guidelines began to explore the laws of nature, where designs were based on precise geometry and directional alignments that reflect the cosmos. The rules and regulations, that could be classed as physical elements linked with metaphysical rhythms, established harmonies between the natural and the supernatural forces. Vastu Shastra notably became to be known as the science of construction. Vastu combines elements of nature and balances them with man and material. When our place of business interacts with nature's energies, the location becomes a dynamic location, which becomes the bridge between man and nature.

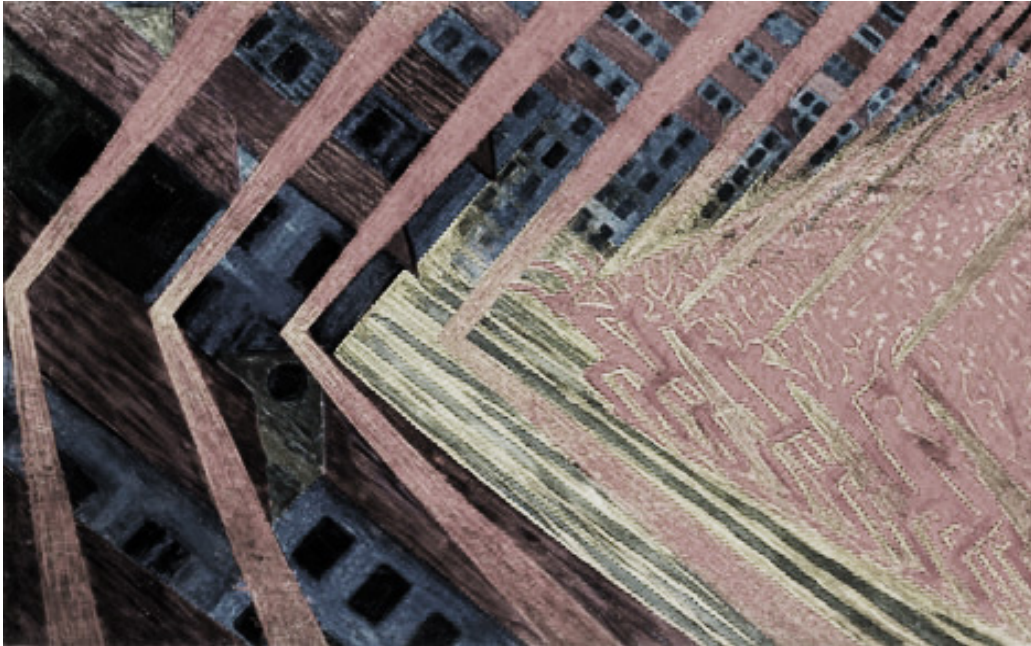
A common Yantra motif used within Vastu is formed of two interpenetrating triangles. Where the shapes traditionally symbolise the union of Shiva and Shakti, the male and female divinities of the Hindu custom. It psychologically expresses the union of opposites, 'the union of the personal, temporal, world of the ego with the non-personal, timeless world of the non ego.'⁴ It is the union between man and the gods, the union of fulfilment. Like animal sculptures, it also depicts the wholeness of the psyche, of which consciousness is just as much as part of the unconscious.

Vastu was religiously used once in India, where only basic components of the instructions are still seen used today. It is a highly complex concept that required years of learning and a good understand of Sanskrit (oldest language in the world). This part of my identity relating to spirituality and Vastu Shastra as an ancient sacred structure creates meaning to life, where a connection with the world is emphasised for our own well-being to find freedom to become at one with the world. However the authenticity of such sacred notions are unintentionally lost over time where the fast paced world we live in today has no time to address such complex concepts. However it is important to remember, we cannot utterly abolish this rich knowledge of the past, since we ourselves are a product of this development.

3 Thapar, B. *Introduction to Indian Architecture* p.30

4 Jung, C. *Man and his Symbol* p.240

Modernism: Western Identity



(Figure 5) Painting by Luigi Russolo: *The Revolt*

The rise of the Modern movement

I began by situating my own experience within aspects of an Eastern Identity to create a dialogue between a Western Identity which I will refer to by discussing the phenomena of Modernism and the Postmodern Movement. I will look at how the rejection of my heritage (whether conscious or unconscious) is a reflection on the history of human beings in a broader context, which will begin by understanding the rise of The Modern Movement, the challenges of creating meaning through this new movement and how heritage was dealt with in Postmodernism.

Modernism saw a rise in rejecting our rich past identity and creating a new one. Immediately this creates an issue as the idea of having meaning is lost and architecturally a form without meaning is bland and devalued. Most historians would agree that the modern era began around the 1700s when we began to industrialise. It was suggested that symbolic images had no relation to the reality that it represented. For example a tree could be called a shed, but it would not change the tree or our experience of it, highlighting the idea that images and words were arbitrary. The next step to prosper was to take a technological approach to reality which also rejected the traditional idea that images could have many symbolic meanings. Where a tree now only represented a single, isolated part of reality, a collection of modules, a self-referential.

The break from the past which was now lost, was replaced with the advances of science and technology. Where a symbolic language was now being replaced with facts, creating a materialistic world, as famously put by the German philosopher, Friedrich Nietzsche, 'god is dead.' This allowed isolated images to be separated from external realities allowing new ways of seeing and experiencing reality. This was classed as a new phenomena called Modernism that was largely connected with the Industrialisation period. However, before The First World War it was seen that modern artists produced work that added to this view society had portrayed, with slow adequate progression and change. It was regarded more as evolutionary rather than revolutionary.

The turning point of The Modern Movement was defined during the late nineteenth and early twentieth century. It was 'welcomed as a necessary cleansing of design'⁵ from the past. The socio cultural trauma caused by the first large-scaled industrial war were among the factors that shaped Modernism. It developed a modern industrial society and saw a rapid growth in cities. The shift in human consciousness addressed the new cultural formation which a radical rejection of traditional perspectives as being outdated in the new fully industrialised world. Where the view that a slow and steady progress became seen as being ridiculous with the new machine age.

Modernism was classed as finding new methods to produce new results, where it gave a perception to the public that the world was changing, recognising that the world was becoming more complex. So even if our psychic needs are remarkably similar to our ancestors, technologically we were becoming very different. The decades saw an enthusiasm for cars, aircrafts and other technological advances.

An example of a movement that was influenced by this change was Futurism (Figure 5) with its use of long horizontal lines that suggested speed, motion and urgency. These three ideas expressed the changes the world was facing, where the use of technology allowed for speed to take place at all different levels. An example would be the development of machinery for mass production, where sufficient tools and vision would allow rapid growth. However, repetition would mean that there was no conscious connection through the process of producing the end product.

The value and richness of crafting a product by hand and understanding its qualities is lost when mass produced. This links in with the very idea of detaching oneself from ones environment and nature, and only seeing the end product after it is put through a machine.



(Figure 6) Michael Graves, Portland building

This split between our conscious and unconscious mind, leads to a separation now found in the modern age. Where the unconscious dealt with phonemes of a symbolic language and the conscious is more interested in a scientific and technological reality. Thomas Barrie explains that, 'the widening gap between our inner and outer self, the process of erecting boundaries is partly a result of our rational, scientific, technological age.'⁶ The method of producing radically new results was, by believing that rejecting tradition would provide freedom to explore. Setting out to transform society, and an emphasis into new forms of existence and experience.

However, the economic freedom that the movement allowed, raised new problems, where it failed to understand the non-rational elements of human nature. Taking the tree as an example, which was now just seen as an isolated object from its environment, this absence of a relationship to reality raised the question of, could we still have authentic experience with this new way of thinking? Are we isolating ourselves from reality? These questions raised issues on whether traditional cultures and heritage with their use of symbolic images had offered a direct connection with reality. For example if the tree image represented a connection between earth and the heavens, it would not be looked at in terms of molecules but highlights a relationship with the Universe, its external surroundings, the bigger picture.

Modernisms inheriting isolation was eventually understood as leading to a fragmented society, an erosion of spiritual values and a decline of quality in all areas. This addresses the question of identity, where the rise of the twentieth century Modern Movement created a barrier between understanding heritage. As Le Corbusier described in his early years, buildings were machines for living in but is it in the nature of human needs to live in machines?

The Postmodernism stance

During the late twentieth century, Modernism generated reactions such as the Postmodern Movement, where some saw it as a continuation of the process of economical development within capitalism, and others saw it from a phenomenological point of view, reinvigorating our spirits. Where an awareness of making contemporary architecture meaningful began to be addressed. Seeking to correct the failings of The Modern Movement which described reality through facts which essentially, come across as soulless. This could not be said for the latter as Le Corbusier the greatest modernist of all was not interested in facts but there was an element of his work that incorporated rationality. The phenomenological point of view of Postmodernism offers a perspective which recognises what Modernism was lacking, an importance towards having meaning which was eroding a cultural identity.

Robert Venturi, one of the protagonist of the trend, addressed the theory of restoring ones cultural identity, however he quoted himself as not being a Postmodernist. He made people see the past anew and the inadequacy of Modernism both as an ideology and a language. Like Venturi, many other Postmodernists accepted the industrial society but gave it an imagery that suppressed that of machinery. 'A valid architecture evokes many levels of meaning and combination of focus: its space and its elements become readable and workable in several ways at once.'⁷ Venturi believed that the complex behaviours of human beings and how they moved through their environment could not be reflected upon a simplified form. Where simplicity leads to a bare and bland architecture which separated humans and their complex nature it accommodates.

6 Barrie, T. *Spiritual path, sacred place - myth, ritual and meaning in architecture* p.12

7 Venturi, R. *Complexity and Contradiction in Architecture* p.16



(Figure 7) painting by Gustave Courbet



(Figure 8) Peter Blake's 'The Meeting'

Modernism would say, 'less is more' but Postmodernism would argue that, 'less is bad' because it would turn us into machines. As man has a complex life, complex history and complex needs and if he carried on for this strict isolated architecture it would devalue his life where the richness of complexity would be lost.

Venturi's philosophy conveyed meaning, it helped restore a sense of cultural belonging that was lacking in the early years of twentieth century architecture. He signaled the importance of a cultural meaning being present in the historical styles and reinstated that the past was a legitimate source of inspiration. This included reviving the complexity of traditions and aspects of its methodology which created a renewed connection with the past and nourished the mind to the nature of things as they are, which responded to everyday life. This included the appreciation of symbolism and explicit meanings which lies within thousands of years of application associated with a familiarity of history.

However 'Bad' Postmodernism produced buildings that ended up being focused on the problem of pastiche. Imitations would be used for their surface effects without due attention to underlying principles, making the building very two dimensional. An example would be Michael Graves, modernist Portland building (Figure 6), giving an impression of a theatrical scenography which aesthetically is not appealing. His intentions may be seen as trying to create meaning to a simple modern box, which unfortunately failed.

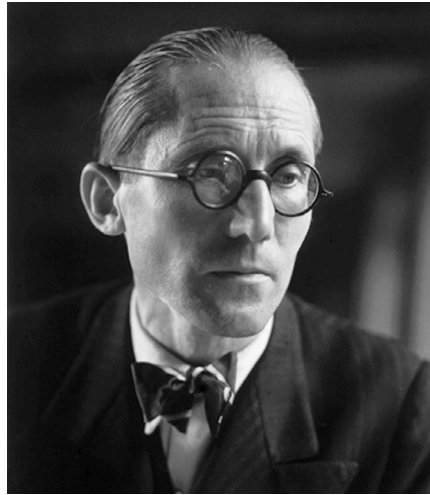
On the other hand, Postmodernism could be seen as a success through the world of art. An example would be Peter Blake's 'The Meeting' (Figure 8) painted in 1981 which takes Gustave Courbet (Figure 7), an eighteenth century painters work and re-interoperates it to make it current, with cultural references, which also brings history into the present day without it being a mere copy of the past.

The other point of view of Postmodernism was that buildings could be seen as accompanied the economy that the world was facing at the time, a consumerist world. Like Michael Graves superficial building, was it just fashion to imitate elements from the past for the consumerist world? An economist would argue that Postmodernism was merely a follow on from Modernism which tries to sell Modernism more effectively. This could be seen as a new fashion which continues the same critical path as Modernism but happens to be dressed up to sell it better by associating it with the past.

Most of Ventures best work happened before 1974 in the Oil crisis, where Postmodernism began to unfold as it was seen to some as a response in the lack of profits within American businesses. It was seen simply as an increase in economical activities of late Capitalism which was very much a Marxist view. For example, Graves' building (Figure 6) could be labeled as comically 'more fun'. Where it pretends to be more meaningful than it can be to keep up with fashion, through a materialistic view.

The different views of Postmodernism links to my dissertation as it addresses the issue of erasing the past within The Modern Movement and how over time it was recognised by some that meaning was lost but this problem was not addressed in the right way through what was classed as Postmodernism. This did not allow the world to flourish in the Modern realm at the same time and highlights the question of whether a fusion between a modern and a traditional dimension is possible.

Biography of Architectural Pioneers



(Figure 9)

The multiple shades of Le Corbusier

The first two chapters analysed the background of cultural traditions and the historical development of Modernism. Relating this to an architectural identity, I will begin by exploring a biographical account of Le Corbusier and Balkrishan Doshi, which will set the scene in understanding their thought process of individual projects and whether they managed to fuse the two opposing dimensions.

I will begin by looking at Le Corbusier (Figure 9), an architect whose designs were built across Europe. I have chosen to look at him within my dissertation as he was one of the main pioneers of The Modern Movement. However this stance derived from a reaction to the war and economical development. This architectural path helps to illustrate the complexity of my dissertation subject because Le Corbusier was part of the new but drew upon the old in his later years. Highlighting the notion that your heritage is deeply seeded within you subconscious cannot be dispensed.

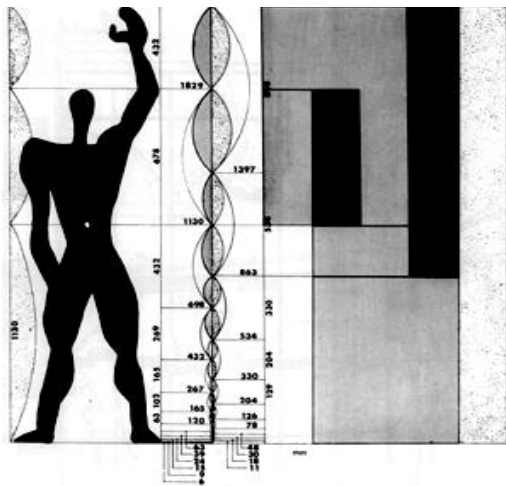
His earlier works were revolved around this new phenomena of modernism that avoided cultural influences, however the work over his life time became more meaningful and symbolic, through spirituality. Therefore this biographical account will help me better understand the architect as a whole and the degree to which he eventually intertwines tradition into the modern influence. At a young age his passions were related to the notion of accepting a connection with the natural, higher world, but was not realised. This was probably due to the economical situation the world was dealing with at the time, which swayed him towards the new and exciting modernist approach.

In his later years, his vision changed to believe that the modern era was about rediscovering the lost knowledge and harmonies of the past period. This meant the rejection of the false aesthetic of decoration and returning to the fundamental principles of architecture, which included proportion and composition. His fascination with proportions grew from a combination of factors, which included his training, travels and importantly his philosophy, which was a combination of form, material and structural expressions. The use of proportional systems was not simply an abstract technique but the manifestation in art and architecture of hidden truth.

Le Corbusier also explored the spiritual dimensions of his own inner life and that of his work. For him this meant a constant and ongoing engagement with the natural world and the diverse cultural heritage of the numerous countries and people that he visited on his travels. The effect of these different influences was adopted by him to a deep appreciation of which he perceived as important natural laws and harmonies, evident in nature, the human body and the mathematical rules that appeared to govern them.

It is evident, Le Corbusier believed incredible importance and profound knowledge lay locked within the patterns embodied by the famous Golden Section and a large influence was set on Leonardo Da Vinci's, 'Vitruvian Man,' to create 'La Modular'. (Figure 10) According to this concept, every part would comply with a human version of the divine proportion, creating a cosmic harmony. This was very different from the modern approach of cutting away from historical studies. Le Corbusier therefore encapsulated a style of work which centered upon old age knowledge which supports the architect having a cultural identity.

Narrowing down on Le Corbusier's perspective on spirituality within architecture, the architect's, 'Poem of the right-angle' is considered to be his most personally expressed combination of what could be called the truth. He described the layout of the poem as an iconostasis, where the poem could be seen as a form of connecting the worlds (the human world and the natural world). The same idea is highlighted within the Vastu Shastra guidelines of construction where the human world attempts to connect with the divine.



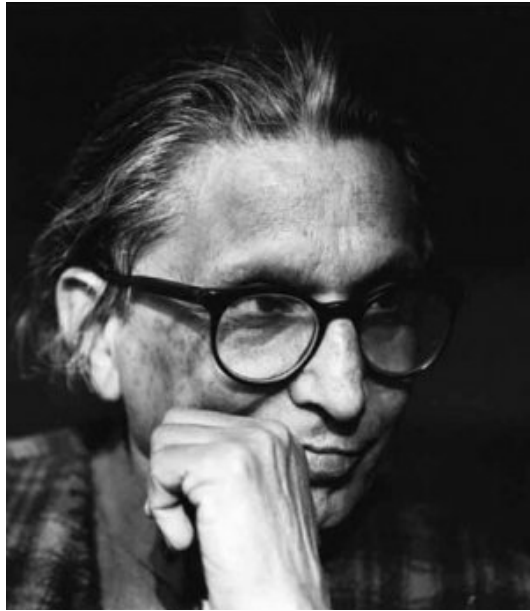
(Figure 10) 'La Modular'.



(Figure 11) expressing opposites through painting

Le Corbusier's idea is much more abstract in contrast to the scientific natures of Vastu, however there is one main connection between both, to find harmony with opposing worlds. Another example of opposites would include, Western modernity and Eastern traditions, which illustrate the complex issues of bringing together opposite dimensions. The idea of opposites is repeated through the poem through text and images (Figure 11). Examples would include the opposites of the sky and earth and man and women.

Le Corbusier created three different languages through his life time. A geometric Art Nouveau, Purism and then Brutalism around his 60's, a language that stemmed directly from a change in technology. This also lead him to become spectacle of spirituality in his later years where his development of his philosophies could be a reflection of his counter balancing of opposites. These opposites would include his modernist approach which he came to believe could not be without a spiritual meaning as the fusion of these opposites created harmony.



(Figure 12)

The tree hugging Balkrishna Doshi

The second architect I will be looking into is an Indian architect Balkrishna V Doshi, (Figure 12). What connects the two architects is that Doshi worked with Le Corbusier in Paris for four years at the beginning of his career, where he was taught the ideas behind Modernism. Therefore his early years were largely influenced by The Modern Movement. Although he was born in 1927, during the main turning point of the movement he differentiates from Le Corbusier as he was brought up in India where his culture and religion played a large influence on his personal life.

Collaborations with Le Corbusier in Chandigarh and Ahmedabad saw the realisations of buildings that became symbols of his countries independence and icons of modern architecture which had a pro-founding affect on his approach to architecture. In his later years Doshi liberated himself from this master and established his own firm, the famous Vastu Shilpa. It was here, around the beginning of the 1970s that he experienced a personal turning point. 'Doshi himself has radically changed, he did not let himself become petrified in his role as a great modernist.'⁸ However he did not get stuck within the uncertainties of Postmodernism, and looked to find a meaningful connection with his historical culture and religion.

There are distinct stages within his work, which began with a modernist influence, which then lead to a search for original Indian models. This officially lead him to a phase of primal, mystic studies that related to Hindu models as a point of reference. These studies filtered into modernism, a woven content of historical, religious and social intricacy. 'Even though I learned from great masters, I was nevertheless educated outside myself. This is why I have tried to become a son of the soil, to go back and see what it is really like to cast off the skin as a snake would and become again.'⁹

Doshi categorised principles in traditional architecture which he believed would enrich a modern contemporary design. These principles included; A mythical influence relating to symbolism, transformation between the building and the people, the order

8 Tillotson, G. *The Traditions of Indian Architecture* 1989 p.30

9 Steele, J. *The complete Architecture of Balkrishna Doshi* p.16

of Heterogeneous and Homogeneity, energising voids, the Vastu-Pursha Mandala (Figure 2) and Timelessness. Doshi evidently supports the argument of creating a fusion of different dimensions, as he is the epitome of the inclusion of traditionalism within his contemporary works.

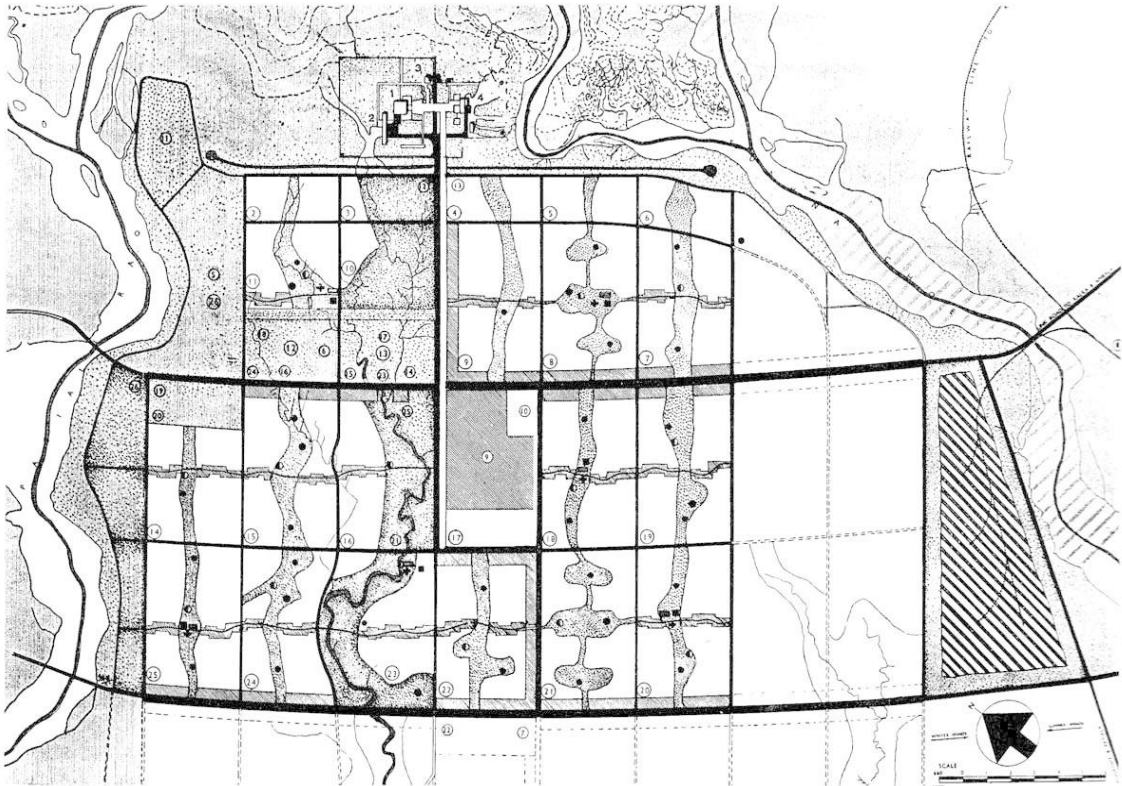
A particular style Doshi adopted was that the building profile would have natural light, air, movement and access elements against the sky to express the cosmic relationship. He finds a personal connection with the earth and the cosmos which is a consequential belief within Hindu philosophy, to create well-being for the human through a harmonious connection with a wider spiritual context. He therefore differs from Le Corbusier's idea of addressing opposites to create connections and believes that a connection is already there where only the bridges now need to be created.

Through the study of both these influential pioneers it is clear they both have many similarities, developed through different routes and create meaning within their architecture through different ideas. They both started their career off with a firm grounding within a Modernist dogma, but Le Corbusier's was a reaction to the war and the economical development that was taking place in the West. Doshi was taught the modernist approach through teachings and collaborations with Le Corbusier in his early years. The independence of India would have also heightened his influence towards the movement.

Over the decades, their personal intellect grew which also evolved through their architecture and finding meaning within their work. Le Corbusier was interested in the notion of opposites and how these opposites would create harmony. Doshi moved from pure modernism towards a mystical understanding of the influences that shaped his historical country of India. The next chapter will look in more detail into specific works of both these influential masters of architecture. I will compare the complex nature of both their work to address the different approaches they both took to create meaning.



(Figure 13) Doshi places importance within with elements such as water



(Figure 14) plan for the the new city of Chandigarh



(Figutr 15) The General Assembly

Fabrication of Philosophies

Le Corbusier: The General Assembly

As Le Corbusier's earlier works focused on the five points of architecture which isolated the projects from the surrounding context, I have narrowed down into the buildings in his later years, where he developed his philosophies. This will help understand how he created connections between opposites, through a spiritual and modern dimension within the built form.

In 1947 the first Prime Minister Jawaharlal Nehru ordered for a new India to be created. It was during this reconstruction phase that the famous Le Corbusier was invited to design the new city of Chandigarh (Figure 14) It was the first planned city in India where Nehru aspired for a modern city, where Le Corbusier was encouraged and supported with his modernist approach.

Le Corbusier designed the city in such a way that the government buildings were symbolically and dramatically separated to the north end of the site called the Capital Complex. It could be seen as the head of the city where the main axis of the roads lead, like arteries to the head of the development (Figure 14). Where these government buildings supplied the city with legislations, decisions and orders. It consists of three main structures, the Secretariat, the General Assembly Hall (Figure 15) and the High Court.

Le Corbusier was around 60 years old when he was commissioned to design Chandigarh. 'His vocabulary is extended but not fundamentally redefined.'¹⁰ By this age he had evolved personally and architecturally through his philosophy, travels and studies. Therefore I have chosen this site, as the study of the building should give me an insight into understanding his ideas of a modern and spiritual approach that he developed over his life time, once put in practice. I have chosen the General Assembly (Figure 15/16) to focus on specifically as it evokes ideas of modernity from the west and respects the cultural context of the site in India. The study will help me have a better understanding on how Le Corbusier fuses the two dimensions.

At a glance the structure is a large square block with distorted geometrical bodies on the roof, created out of concrete. The square form and material is very modern which the Prime Minister aspired for, but the craft dimension of constructing the building was very traditional, where the local people were involved. Local Indians were found dressed in their simple clothing, carrying the materials up and down unstable bits of scaffolding, which was completely different to the way mass production and machinery was being utilised in the west. This dimension of using craft, intertwines tradition into this modern design.

Le Corbusier used concrete throughout his work but in India, the natural quality of the material comes close to that of stone which was a very common material used to create sacred ancient temples in the passed, which again was traditionally crafted by the locals. With the use of material and construction method, was Le Corbusier trying to recreate a method to enforce the importance of his design. Where 'Gandhi's philosophy of rural rejuvenation offered a felicitous balance to Nehru's technological bias'¹¹

This craft dimension he incorporates reflects upon India's cultural identity, as it would have been much easier to utilise Western machinery to speed up the process of construction. However age old craft techniques would embed a dialogue between the building and the people that will transcend functional use. This highlights that different dimensions can be fused to create a connec-

10 Gast, K. *Le Corbusier: Paris -- Chandigarh* p.98

11 Weber, N. *Le Corbusier: A Life* p.646

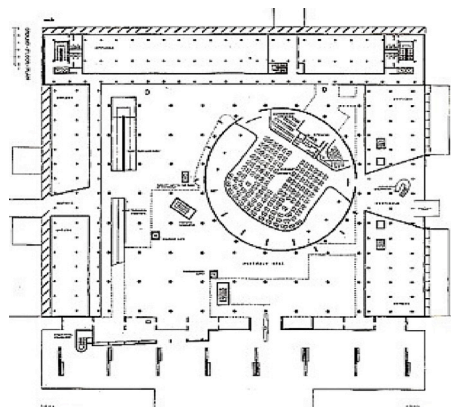
tion with traditional values while still driven to create a modern design, which is shown here through Le Corbusier's approach to construction.

The building consists of two auditorium chambers used for political discussions. One is lit by a skylight in the shape of a tetrahedron and the other opens up at the roof which is very reminiscent of a cooling tower.(Figure 15). It is circular in its geometry contrasting to its square outline of the building below it. It was also designed to deal with natural light, artificial lighting and ventilation. The main idea which never followed through was to lend itself to solar festivities to remind man that they are children of the sun. This was an idea that was forgotten in the fast paced western civilisation. This emphasises on the simultaneous hope and tragedy Le Corbusier was beginning to understand about the world he lived in, and therefore implemented this complexity through forms.

It is important to note Le Corbusier's intentions to evoke a synthesis of ideas. The idea of a cooling tower immediately highlights a metaphor of hot air which politicians talk during heated debates and the need to cool down these tempers. Another idea could be that the curved and stretched surface symbolically 'appear as mediators of something sublime and dignified that reaches out beyond man.'¹² Like the intention to link the chamber to a sun festival to make man aware of his connection to something beyond our world, the form could be seen as an instrument for communicating between the earth and the heavens, between a physical world and a transcendental world. It creates a metaphysical connection between the two opposing worlds.

A design element that could also have a sublime connection with the sky is the massive portico (Figure 17) covering the main entrance. It is a concrete roof supported by eight large wall slabs which also functions like a gigantic gutter. The curve could be seen as opening out, inviting the sky in. Where 'perhaps the intension is that man the lawgiver should be made aware of his relative role in the vents of the world when faced with all-powerful nature, captured in the symbol,'¹³ of the curve.

This form has a connection with the shape of a bulls horn, which is not created in isolation but they continue to occur throughout his sketches and eventually find themselves within the architecture (Figure 18). It is very different from his building within the 1920s, as the portico was not predetermined by geometry. The base of the buildings square block was influenced by the golden section, but the curve of this roof was created with no geometrical or mathematical control, only that of laws to make the design stable.



(Figure 16) Plan of The General Assembly

12 Gast, K. *Modern Traditions: Contemporary Architecture in India* p.116

13 Gast, K. *Modern Traditions: Contemporary Architecture in India* p.121/122



(Figure 17) Portico

It creates a sense of freedom that highlights the significants of sacred cows in India as they are free to roam around, in contrast to the strict rules and regulations implemented by the government that we humans have to follow, where the curve of the roof and the program of the building creates a collision of opposites. It is clear to see that over his lifetime through his sketches and ideas, grew a personal connection with the natural world that eventually began to express through the built form.

In addition to creating this collision between opposites through the built forms, the entrance leads into large dark hall ways which are in complete contrast to the Indian sunlight provided outside. He did not draw on religious traditions, but the idea of light playing an impact on form for him was regarded as spiritual. It is clear to see that Le Corbusier's connection with the sun is prominent through out this building but his modern spirt is not forgotten.

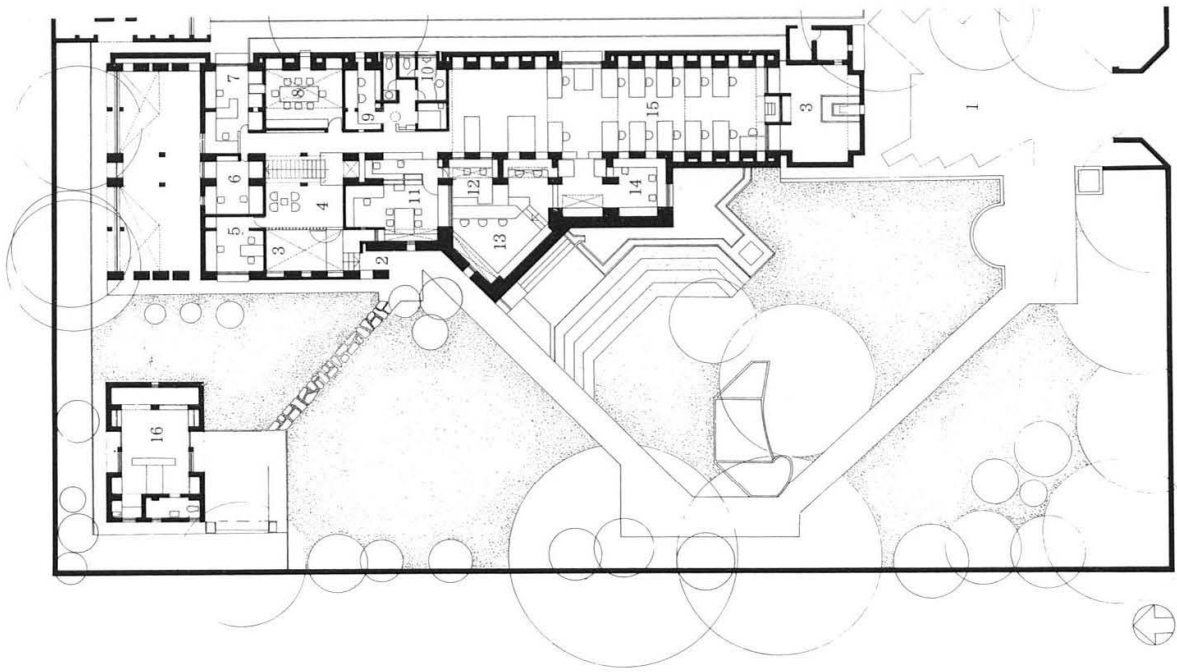
As well as celebrating the spiritual sublime, he also celebrates the industrial, through his use of ramps through out the building. Ramps, loops and bridges were forms used as roadways for motorised traffic that inspired Le Corbusier as a symbolism for modernity. This idea of moving around in a modern city was something Nehru the prime minister aspired too. The General Assembly 'represent the fulfilment of ideas and concepts that had been developed, questioned and redefined during a long and party still unexplored process of covering the whole of the architects creative lifetime.'¹⁴ This has given an insight upon how he created harmony between opposing elements reflected in the building through his morphological roots from his earlier works.



(Figure 18) A drawing of a Bull, commonly found within his sketch books



(Figure 19) Sangath built in 1978



(Figure 20) Plan of the complex

Balkrishna Doshi: Sangath

'Sangath is a fragment of Doshi's private dream: a microcosm of his intentions and obsessions.'¹⁵ Studying Balkrishna Doshi's building specifically in detail will help understand how he creates bridges that connect human beings with the world through the build form. As Sangath remains the most clearest expression of his design philosophy.

In 1981 Doshi at the age of 57 completed the construction of the Sangath complex, situated in the North corner of the site on the outskirts of Ahmedabad. The complex houses his office and the Vastu Shipa foundation which was realised in 1978. It is used for studies and research in environmental design, which contains studio space, offices and meeting rooms. Sangath means, 'moving together through participation,' in Sanskrit where Hinduism was a growing role within the architects development at this stage in his life. The building expresses Doshi's desire for bridging a connection between nature and the individual.

Distinct rectangular volumes of various lengths align along a north-south axis inside a green compound (Figure 19). They are arranged in four parallel ranks with a gap for an outdoor amphitheater for informal gatherings. Experimenting with curved corrugated sheets, resulted in the vaulted roofs of these volumes. The proportions in relation to the base was similar to Indian temples so he sought out to re-create this proportion at a larger scale. The system of vaults was a style that was invented in the Indian series during the Mughal Empire where Le Corbusier sought to use these prototypes that he saw, as suitable for the Indian culture. He envisioned covering the roofs with soil and grass, which highlights his five points of architecture. However, Doshi abandoned that dream, which was European in nature and did not suit the Indian climate. The roof needed to protect the occupants from the hot sun and monsoon weather. It is clear to see that Doshi learnt a lot from this master of architecture but adapted his knowledge to suit the context of his design.

The vaults were positioned to complete a cooling system that optimised natural ventilation and natural light. They were constructed of ceramic tubes covered in concrete, painted white and covered in china, which helped reduce temperatures in the hot summer months. A functional approach which was the main driving force of The Modern Movement is evident here with his approach to creating concrete earth like mounts that are sunk into the ground to help for thermal comfort.

Like Le Corbusier's Assembly Building, a handcraft dimension was also applied to the construction of Sangath's concrete shell formwork. (Figure 21) Where the surfaces of the shells are covered with pieces of broken china which required extensive meticulous detailing. Environmental intelligence is also considered here as the surfaces provide high reflectivity. Originating new ways to explore such a craft allows to maintain a dying skill to transform it within the modern realm. It is evident to see Doshi has the adeptness to intertwine new materials with age old methods.

However, Doshi takes on a direction that goes beyond that of just The Modern Movement, which has a complete adherence to the landscape. The vaults are sunken into the ground, interweaving the architecture and the garden, highlighting the notion that it is part of the earth, and what is visible are the white concrete domes which could also be read as being part of the sky. The arch of these vaults can be read to led the eye up from the ground back down to the ground to create an all round connection with the cosmos and earth. This is of great importance as it illustrates how Doshi has shown that a fusion between a functional approach

15 Curtis, W. (1988) *An Architecture of India* (New York: Rizzoli) p.118



(Figure 20) Concrete shells were handcrafted



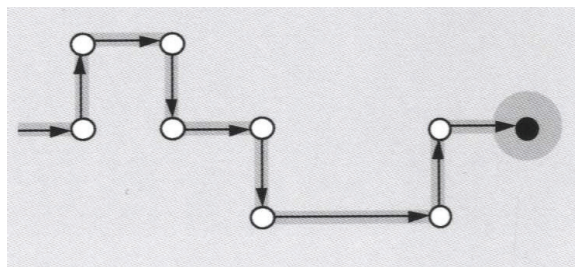
(Figure 22) Broken white china handcrafted on

and a connection to nature can be achieved simultaneously, though the same built form, in this case the curved dome structure.

During the rainy season water falls of the broken white china surfaces (Figure 22) covering the vaults into a drainage system that circulates throughout the complex, transforming the whole into a garden. 'He explicitly connected with Indian culture, in terms of spatiality, materials and the relationship to water.'¹⁶ Water can be seen as life itself, that refreshes people and irrigates the gardens. As well as water, other elements of air, earth and fire are equally apparent, which are also important within Vastu Shastra, leading to principles beyond form, that us humans adhere to, in terms of basic human needs that are beyond materialistic needs.

The overall form of the sunken concrete vaults exaggerates the details of nature with its rolling mounds, cave-like spaces, water channels and reflective china mosaic surfaces. This expresses his architectural principle of the Heterogenous and Homogeneity. From a distance the subject looks like one large mass but as you get closer it is evident it is much more complex than what expected at first glance. The same can be said for human beings as we are also very complex in nature than understood at first glance and the same is applied to the universe. This highlights the notion that merging homogeneity and heterogenous complexities can be created within one entity.

'Doshi admires the temple cities of Southern India with their labyrinths of halls, galleries and courts, and it is possible that these have influenced the warren-like interiors of Sangath.'¹⁷



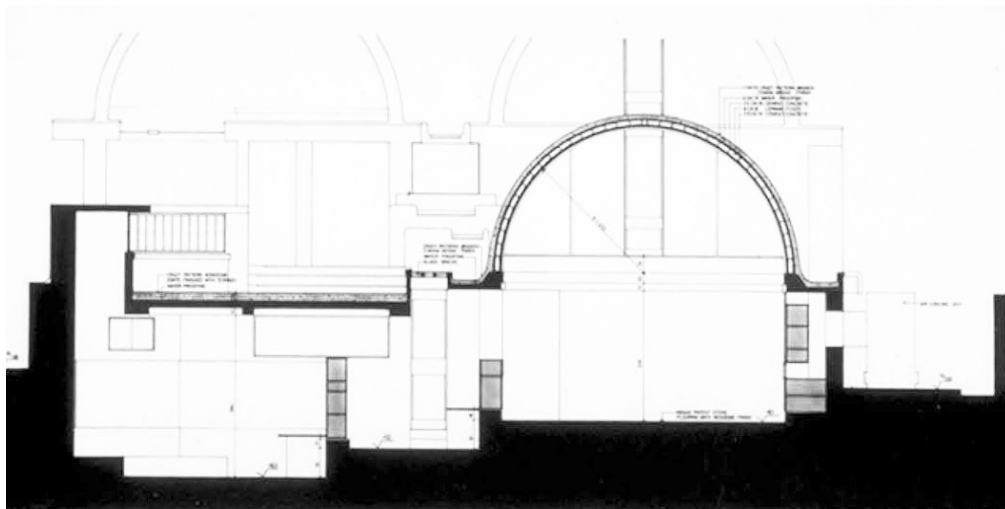
(Figure 23) Movement through a Temple to reach the final platform

16 Contal-Chavannes, M. *Sustainable design* p.30
 17 Curtis, W. *Modern architecture since 1900* p.396

The main entrance lowers the visitor a few steps into the vault and proposes the choice of an ascending staircase or continuing through a small corridor by Doshi's office and into the main drafting hall. The layout resembles a similar way in which an Indian temple develops a series of stages into a final platform. (Figure 23) The layout of temples allow you to see the Sanctum from the entrance but you cannot walk straight there. A sense of discovery is created through this indirect path of movement within a temple. 'This extended movement, adding the element of time over space, helps in the conditioning of the mind. This makes the journey both physically and mentally engaging and, this, fulfilling.'¹⁸ This unconscious stimulation creates a dimension removes the barriers separating the human mind and its surroundings, providing opportunities to preserve things differently.

At the end of the hall in the Sangath lies the opening seen from the site entrance where one can regain their sense of place along the main axis. This lack of symmetry and shift in axis gives an unexpected experience and provides ambiguous impressions just like the journey through a temple. Doshi describes space, which would, "activate the human psyche and induce it to sink towards the centre, the mythical world of man's primordial being."¹⁹ This is evident through the movement within Sangath, where it is clear Doshi is concerned in rationalising the physical, intellectual and psychic aspects of architecture.

The plans and sections were also determined by the golden section, which was most likely influenced through Le Corbusier. As well as incorporating an element that is evident within temple layouts, proportional aspects of the plan was just as important to Doshi. Overall Doshi's work shows that a fusion between tradition and modernity is possible in regards with establishing meaning through this complexity. Where a bridge between man and the structure can be created through stimulation of the mind unconsciously through movement within a modern geometry.



(Figure 24 Section through one of Sangath's vault structure)

18 Pandya, Y. *Concept of Space in Traditional Indian Architecture* p.22
19 Curtis, W. (1988) *An Architecture of India* (New York: Rizzoli) p.165



(Figure 25) Sangath's Dome roof structure



(Figure 26) The General Assembly's portico roof structure

Realizing the Synthesis

By looking at the works and lives of these two inspirational architects it has become apparent that they both seek a spiritual connection between architecture and the world, but in very different ways. Highlighting that a modern approach is relevant but erasing the past and spiritual heritage from our ancestors is impossible, as seen through the biographical account of the architect's lives.

However, Doshi's approach is much more about a subjective beauty. 'Beauty has no quality in things themselves; it exists merely in the mind which contemplates them and each mind preserves a different beauty.'²⁰ Like Vastu, Doshi tries to create this connection with nature that ignites the subconscious, Doshi sees that a connection with nature, will gain a sense of wholeness. Therefore creating an environment that expresses symbolism through sight, sound or smell that taps into the subconscious mind.

Le Corbusier's approach is much more about an objective idea of beauty. 'Symmetry and order; proportion; closure' convention; harmony; and also novelty and excitement: all these seem to have a permanent hold on the human psyche.'²¹ Again Le Corbusier also seeks to find a connection with the psyche through ancient concepts like the golden section which is used to create the plans of majority of his later works. It is evident that Le Corbusier believed that incredible importance and profound knowledge lay locked within the patterns embodied by the famous Golden Section and a large influence was set on Leonardo Da Vinci's, '*Vitruvian Man*'.

Roger Scrutons category that seems to have a hold on the human psyche includes novelty which is particularly important in this list of attributes that connect with architectural values in the modern age. The dimension of progress, novelty and always looking forward creates excitement and allows the world to grow, as the human mind has unlimited abilities to develop endless new technologies which will create advanced innovative possibilities, allowing us to explore the unknown. 'Technology determines process and production, and process and production determine technology.'²² Some would say that technology translates the power of human thought into physical realisations, where an organic design can be realised with computer aided systems to construct complex geometry.

The modern world, (a new sense of space and time) sees the racing cars and aircrafts that widen the range of movement, and the distance between us and the earth, which is also reflected through the world of the media. The combination of all this, expresses, the general changes in the relationship between man and his environment through mobility and interaction to what it was like thousands of years ago. Through the buildings in the Capitol Complex, Le Corbusier opens the site up by creating large voids between the buildings and expressing the notion of mobile movement through his ramps. This highlights the importance of traditional and cultural values as modernity alone would widen the gap between man and his environment, if this alone is the driving force of the future. This addresses the initial questions raised within the dissertation, of whether it is important to incorporate traditions that emphasis on creating meaning through adhering man with his environment.

However, the perception of novelty is not very important to spiritual traditions, in-fact the very opposite. Establishing a sense of continuity with the past and reinterpreting ideas can be seen through Doshi's work, where the earth like mounts are closely aligned together and intertwined with the use of water that create a vertical extension with the sky. Which is also apparent within the Gen-

20 David Hume, *The Standard of Taste* 1757

21 Roger Scruton, *Beauty* 2009

22 Gast, K. *Modern Traditions: Contemporary Architecture in India* p.7

eral Assembly through its use of forms. This addresses the overlapping of identities and whether the conceptual question of fusing traditionalism with modernity is possible.

The core of the Indian culture lies in spirituality and relates to ancient myths but modernism cannot be ignored as it represents future direction and global growth. However, 'the ancient Indian past could not be ignored in architecture because the ancient past is also its living present.'²³ It is difficult to describe the world today in spiritual terms but it is not devoid of spiritual values, which the two famous architects , Le Corbusier and Doshi have shown.

Overall creating this fusion that the architects have expressed through their work is importance but as 'Bad' Postmodernism would show it is necessary to avoid repeating the mere surface effects of predecessors. Le Corbusier and Balkrishna Doshi have shown a capacity to inject new meaning into the basic formulation of the modern realm with spirituality. Where over time they have learnt from their own experiences and their ancestors to crystallise a personal style which blend their own preoccupations with appropriate solutions that are addressed through the modern age.

The phenomena of symbolism is embedded in both architect's work but there is a lot more understanding and respect of tradition in the works of Le Corbusier than initially thought. He also has an unconscious link with Vastu that psychologically expresses the union of opposites. Le Corbusier has a key interest between the opposites of males and females, where Vastu also highlights a fusion of genders through the yantra motif. Doshi is much more verbal about his approach to putting emphasis on Vastu Shastra within buildings, all of his work draws on this vocabulary of modernism. This creates a design that is modern but creates a traditional dimension that is not always physical, for example, the movement through a space can nourish the mind, which created a meaningful connection to man and his environment.

One such concern is the desire to create a link with the sky. This is evident within both their building designs, with the use of a curved contemporary roof forms. (Figure 25/26) However both the curves are used in different directions that link with the sky metaphorically but the metaphors are expressed through very different approaches.

In Doshi's work, the curve addresses a connection with the sky where you start from the earth and follow the curve up to the sky and back around again to the earth. This highlights a connection that we are all at one with nature. This also links with the Vastu Shastra writings, that human beings and animals are all the same and how crucial it is for man to integrate into his life this psychic instinct. 'An animal is good nor evil, it is a piece of nature.'²⁴ The animal can obey its instinct, which may seem mysterious to man but it is the foundation of human nature. There is an 'animal being' in every man, creating a link between the man and the animal. 'The acceptance of the animal soul is the condition for wholeness and a fully lived life.'²⁵ It is this acceptance that would bridge man and animal together. Therefore the concept of creating a curve that connects with the sky expresses Doshi's theory of bridging the connection with man and the world as a whole.

23 Gast, K. *Modern Traditions: Contemporary Architecture in India* p.9

24 Pandya, Y. *Concept of Space in Traditional Indian Architecture* p.22

25 Jung, C. *Man and his Symbol* p.23

However, Le Corbusier's approach is different, where the curved roof is built upside down. This highlights the idea of opening up to the sky and welcoming it in. This idea emphasises the notion that we are completely different from our surroundings as human beings and that we should accept this difference and embrace it to create a harmonious balance. This idea of fusing opposites is apparent throughout his paintings, sculptures and architecture and was also an on going struggle throughout his personal journey of self-realisation.

Conclusion

The dissertation addressed the idea of connecting to something ancient and spiritual that adds value to our existence and to the world around us. However living within a global world, it obscures the tracks of who we are, our identity. This raised the complex questions on whether our cultural identity plays a key factor within the future. It raises issues about what the traditional word 'value' means and whether erasing the past and adapting to the fast-paced modern metropolis we live in today is the way forward.

It is important to face the future with a modern approach as the human mind is a complex and powerful element of nature that has the ability to reach new heights if given the opportunity. Modern approaches allow the freedom to explore new dimensions never seen before which helps us grow and in turn helps improve the quality of life. It is also a natural instinct for the human mind to explore, experiment and grow. An example would be Nehru's desire to incorporate a modern approach into the design of the new city allowing India the freedom to develop and prosper as a country, as it is important for humans to be modern to enable them to function in today's society, where society is ever evolving.

On the other hand it is important to accept traditional values as it adds richness to the complexity of human nature. It helps develop the individual through finding meaning in life. The set of instructions refined through generations gives direction into the unknown. Culture creates a sense of stability, as it allows us to feel like we belong, as it creates a sense of familiarity and comfort. Another element of culture is heritage, a principle determined by Vastu Shastra and the Golden Section, which were very much developed from different sides of the world yet they both enforce great importance on principles that enrich an experience.

Modernity alone sways us towards a numb world of technology and cultural isolation that can potentially be self destructive. It could be argued that the world we live in today would be very different if meaning was not created through the order of religious choices made and passed down through generations. Without it we could be living in a world of chaos, disarray and uncertainty, but we are a product of historical development. On the other hand, focusing on traditional values alone can prevent humans from progressing, where small town thinking is not an option in a world where development is now faster than ever. Clearly a synthesis of modernity and the values of traditional are dimension that cannot create fulfilment without one another.

Through the works of Le Corbusier and Balkrishan V Doshi and their inheritance of The Modern Movement, it is evident that their respect of cultural traditions and spirituality is woven into their design process with different dimensions, brought together in a manner that adapts to the reality of today's world. Where both the pioneers express the capacity for innovation, through the intertwining of new materials and old age methods as an example. The dissertation focused on addressing what the implications are of this meeting point of dimensions and how they can be fused.

There is a need to connect the conscious with the unconscious as non-rational elements of human nature and technological realities are both important to create fulfilment. One cannot be without the other as Le Corbusier highlights through his constant battle to fuse opposites, where the combination would create harmony within design and life itself. It is also evident that different dimensions can be fused for example a dimension that triggers the senses. This is evident through Doshi's plans of Sangath that creates obstacles to reach the desired location which conditions the mind through time lapsed events. As well as this being illustrated through events, Doshi explores principles of fusing heterogeneous and homogeneity concepts into one entity.

It is important to understand that the questions raised are very complex in nature and that such topics cannot be answered within one dissertation as it holds different levels of complexity and richness that would take much longer to analyse and understand. It is a topic that has been addressed in many different forms through centuries, such as the story of Faust, a character depicted as the dreamer, the lover and the developer. The play written by German writer, Goethe in the 1800's and addressed by Marshal Berman between 1971-1981 both convey a conflict between two worlds and the consequence of accepting and rejecting these different dimensions.

Within the context of this dissertation, both modernity and traditions are inherent within us and a balance of both is required to embrace conditions that humans require as complex living organisms, putting an emphasis on channelling the effects of design to nourish culture and the economy together will provide the optimum outcome.



(Figure 27) Visual concept of the organic dimension fusing with robotic uniformed structures

'Do what he will, he is an inheritor. He cannot utterly abolish his past,
since he is himself the product of his past'

Mircea Eliade

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