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Spirituality and Space

Exploring the abilities and components of the built environment to provoke a spiritual response; leading to a greater level of wellbeing in an individual or given community.

Holly Renée Moroney

A dissertation presented to the School of Architecture, Oxford Brookes University, in part fulfilment of the regulations for BA (Hons) in Interior Architecture.

Statement of Originality

This dissertation is an original piece of work which is made available for copying with permission of the Head of the School of Architecture.

Signed

Holly Renée Moroney

In gratitude for all those who have contributed to the efforts of this dissertation, including their encouragement and time.
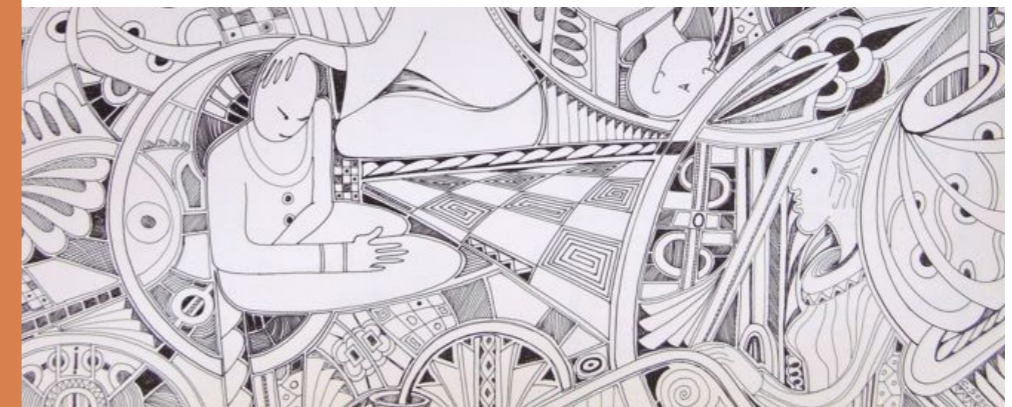

Figure 2.

Contents

Figure 3.

(Figure 1-3)
Seguin, C (2006) *5 - Im - position*.

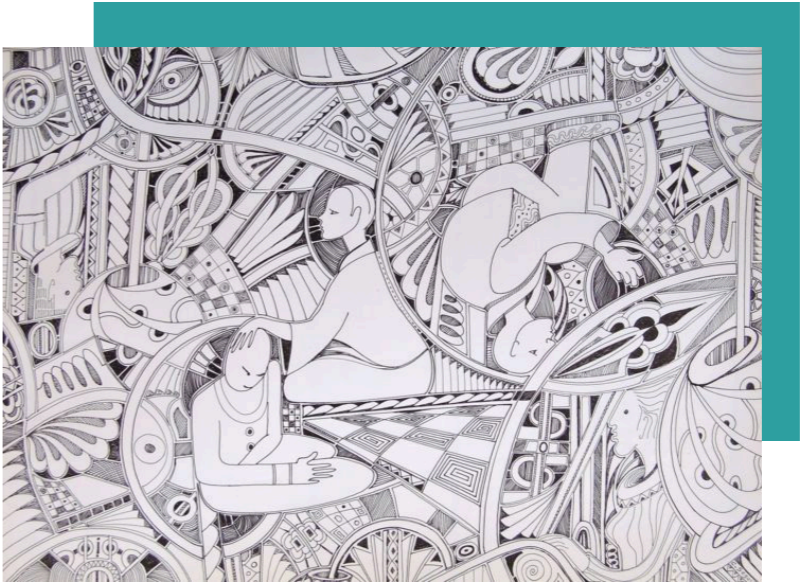A sketch exploring the space as an extension of the body with spiritual connection.

Keyword Definitions

Spirituality

The quality of being concerned with the human spirit or soul as opposed to material or physical things.

(Oxford University Press, 2020)

Spiritual Wellbeing

Spiritual wellbeing relates to our sense of life-meaning and purpose. It can include our connection to culture, community, spirituality and/or religiosity and includes the beliefs, values, mental models and ethics we hold.

(Teach In The Territory, 2018)

Spirit of Place

(Or soul) refers to the unique, distinctive and cherished aspects of a place; spiritual nature of place. Derived from Roman term 'Genius Loci'.

(Wikipedia, 2020)

Living Structure

Discovered by Christopher Alexander, living structure is a physical phenomenon, through which the quality of the built environment or artefacts can be judged objectively. Additionally, a thing or structure that exhibits a high degree of wholeness is called a living structure.

(Jiang, 2019)

Profane World

Consists of all that we can know through our senses; it is the natural world of everyday life that we experience as either comprehensible or at least ultimately knowable — the Lebenswelt or life-world.

(Wikipedia, 2020)

Spirituality
and Space

Exploring the abilities and components of the
built environment to provoke a spiritual response;
leading to a greater level of wellbeing in an
individual or given community.

Artworks by Moonassi used throughout the dissertation are
due to the connotations of a deeper meaning of self and one's
feelings, existence, and belonging. They represent infinite
possibilities of an awakened mind. (Moonassi, no date).
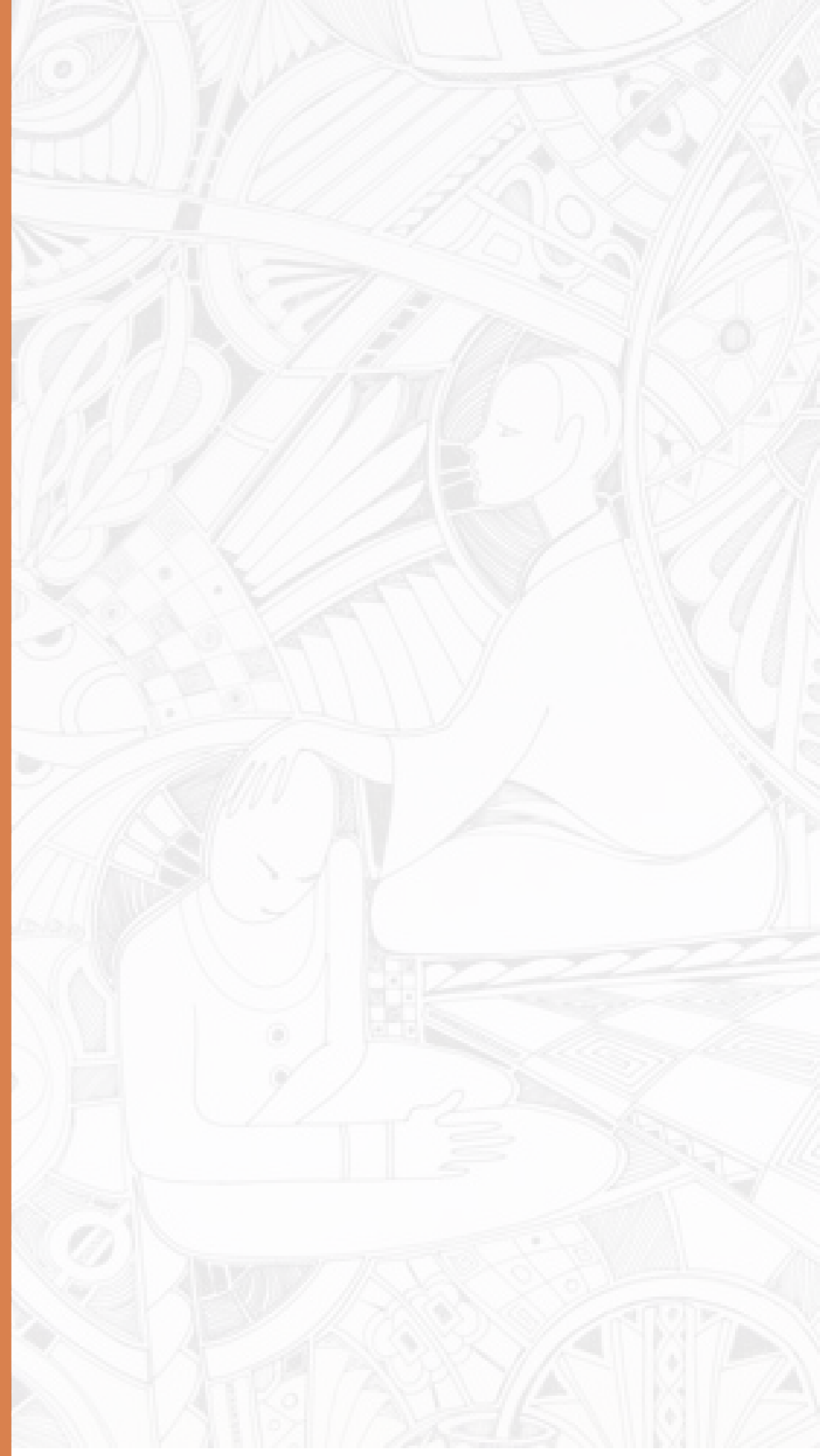
Spirituality and Space

Introduction

This dissertation delves into the importance of the interrelations between the built environment and the spiritual experience of space to create a more meaningful and fulfilling lifestyle. I will consider why it is essential to provoke a spiritual response in users of a space and its prominence on an individual's everyday life.

So often seeking self-enhancing places which provoke a feeling of wholeness, for example, are classed as luxury experiences such as a spa or retreat, which can be expensive or remote or are places accessible for devotional practises such as churches. Neither of which is necessarily found in the everyday accessible place; that is in the profane. According to my survey, 82.6% of the participants answered 'yes' when suggested, "I wish that my everyday environments promoted a better sense of wellbeing, wholeness and fulfilment." (Moroney 2020). Furthermore, the survey participants indicated that the monotonous everyday cycle of nine till five jobs, and the journeying to and from work, and work environments dampen spiritual experience. Additionally, the everyday experience of the profane has more of a negative impact on their wellbeing. In considering the evidence of the survey response and the inaccessibility of spiritual wellbeing in the profane, I wish to evaluate and deliberate the components for spirituality applied into something physical.

According to Maslow Hierarchy of Needs (Maslow, 1943), spirituality sits at the top of the pyramid and is represented through self-actualisation. It is classed as a need, because it is typically required to reach a person's full potential, self-fulfilment, growth and peak experiences. Not only does this address the importance it has sitting at the top of the pyramid as the highest achievement, but it shows the potential value of a space if it could provoke such a response. Designers address many aspects of the pyramid, such as safety and belonging; however, addressing self-actualisation or spirituality is seen as the most dismissed or challenging to achieve. Although, I see this as the most important. However, understandably to achieve self-actualisation, an individual should gain the other steps of the pyramid first. When taking this into account in architecture, it is understood that to achieve spirituality enhancing space, there are several elements to achieve first or combine to create a whole or living structure.
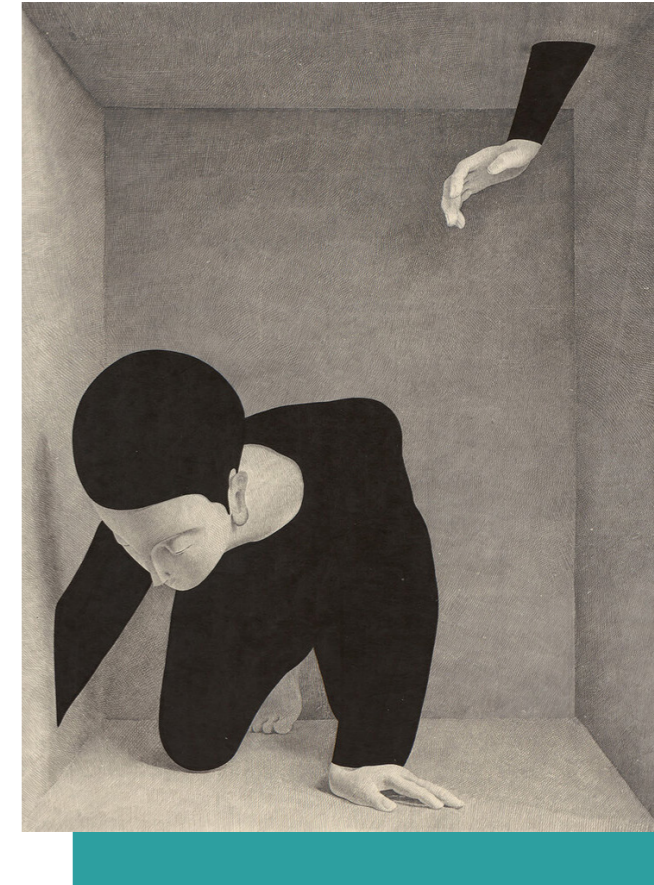

Figure 4.

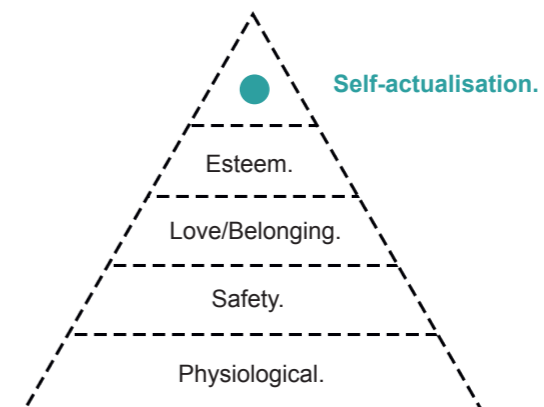'Self-awareness II'.
(Moonassi, 2020).

Figure 5.

'Maslow's Hierarchy of Needs'.
(Moroney, 2020).

Christopher Alexander calls these built environment qualities that enrich lifestyles and provoke wholeness 'living structure'. (Alexander, 2002). My primary approach in this dissertation will be the deliberation of Alexander's writing and research. I have chosen Christopher Alexander, a British-American architect, architectural theorist, and professor because I share his passion for restoring beauty to our physical environment, and share his value placed on human feelings' in the importance of design. He found a way to measure the level of 'life' in a structure to determine if it holds enough wholeness, "Therefore a thing or structure that exhibits a degree of wholeness is called a living structure. Opposite of a living structure is non living or dead structure." (Jiang 2019). Two main case studies are used in the research; Maggie's Centre Oxford to explore living structure, and Westgate Shopping Centre Oxford to initiate spiritual experience in the profane.

This dissertation aims to dissect the meaning of spirituality and its purpose in the built environment whilst exploring how architecture can articulate such an important aspect. With the assistance of my short survey, observations of case studies and research on crucial writers and theories, I will address how the built environment provokes a spiritual response, leading to a greater level of wellbeing in an individual or given community.

Figure 6.
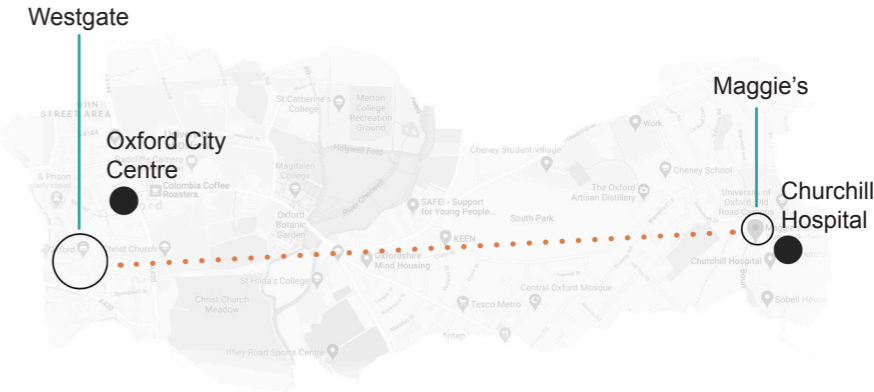
'Westgate Shopping Centre'.
(Westgate Oxford, no date).

Figure 7.

'Pointing out case studies in Oxford'.
(Moroney, 2020).

Methodology

Several methods have been implemented to explore and research the topic of this dissertation. The research methodology will help determine the link between spiritual experience, wellbeing, and architecture.

A qualitative survey was carried out where participants from a range of cultures, ages, and occupations were used to assist in my research of specifying and understanding the subjective term of spirituality. (Appendix contains full survey analysis). This survey was used to correlate common conceptions in the modern world about spirituality, whilst determining any familiarity on the interpretation of spirituality existing in our built environment. By correlating the results, it aimed to place subjective matters more objectively in the dissertation. The survey also determined an essential factor to my research by highlighting the standard connection with nature to enhance spiritual experience.

Maggie's Centre Oxford, has been used as a critical case study in the research. To analyse the case study, I have used a four-factor-framework to highlight the Centre's components and success in achieving spiritual wellbeing. The four factors consist of; physical, physicality, social and self-consciousness. These factors have been formed from the combination of researched theories, with my interpretations. Including those from Christopher Alexander's fundamental properties for living structure, (Alexander, 2002), and Chang's theories on 'spirit of place'. (Chang, 2016).

Christopher Alexander's fundamental properties for living structure have been interpreted into my design project in the secular environment. This methodology allows me to test my design proposal in determining if it holds a spiritual experience and promotes a level of wholeness. Exploring the design components to create spiritual wellbeing, I have researched biophilic design whilst highlighting their properties. These properties are used to support the concept of spaces triggering feelings linked to health and wellbeing, and outlining nature as an essential element.

Throughout the dissertation, the graphics help understand the emotional side of spirituality and wellbeing linked to our environment and existence in everyday life. The artist used is Moonasi (Moonasi, no date), which I have followed his theme to illustrate other graphics. Whilst, other elements contain personal photos from first-hand visits, including the visit to Maggie's Centre.

I have decided to take my topic of study from a phenomenological approach. This approach is due to the nature of the subject based on the experience of spaces and spirituality. Additionally, I have adopted an analytical point of view with the need to determine specific architectural techniques.

Throughout the research topic, I have referenced frameworks, theories and concepts from my key sources to build a strong understanding and viewpoint on the connections between the secular built environment, natural setting and spirituality. I am aiming to determine the link of these with wellbeing.

Spirituality

Part 1

Part one aims to define the meaning of spirituality and spiritual wellbeing. The chapter discusses how spirituality is typically represented in the built environment and commonly known, whilst suggesting how it may be subconsciously present.
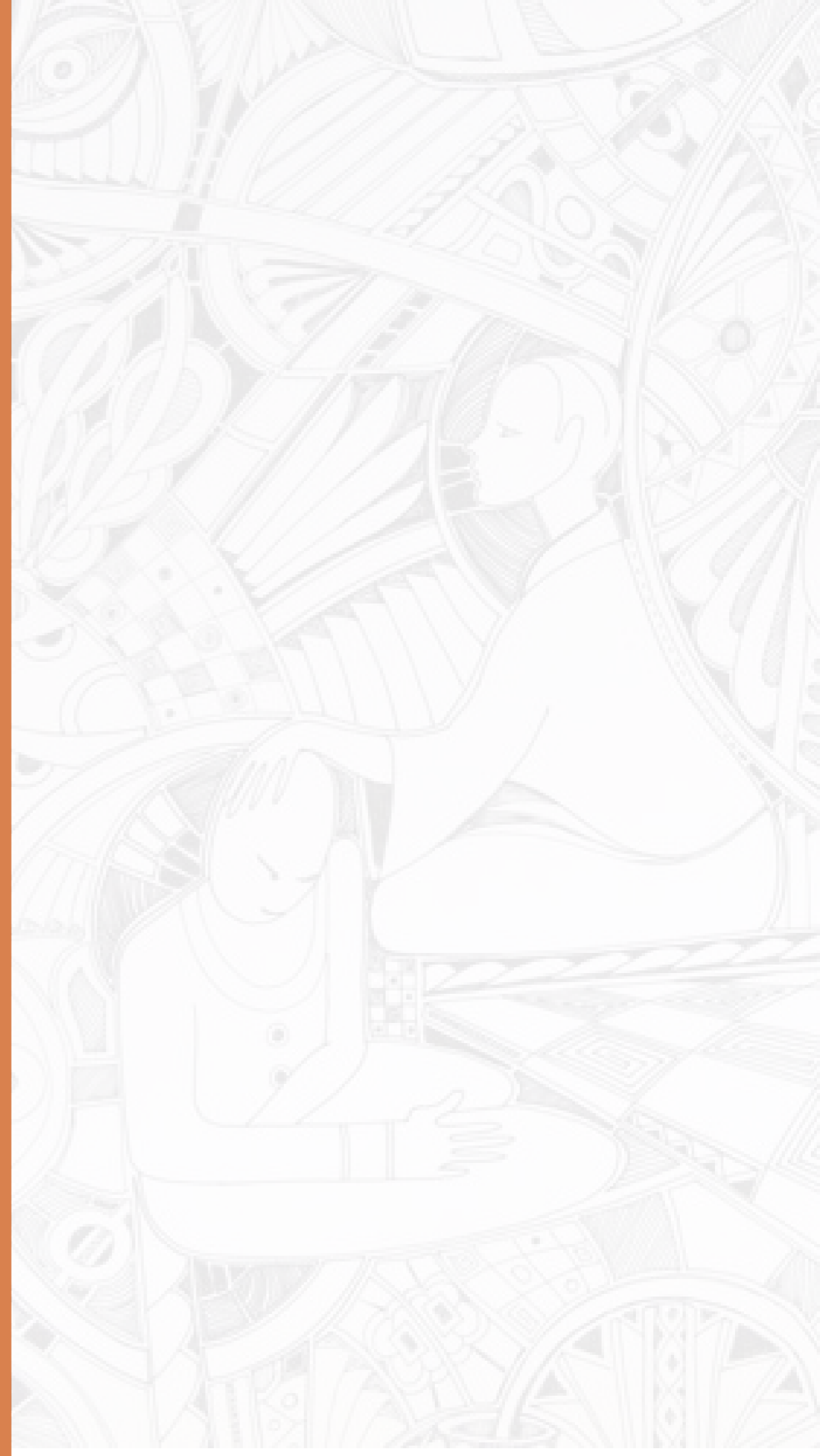
Spirituality

Part 1

The word 'spirituality' is heard as quite a bold term with an extensive interpretation that is not fully and clearly understood. There is not one agreeable statement to describe it best. It covers a large range of definitions subject to change, and additionally, this term is forever changing as our societies do. Spirituality often traditionally associated with a religious belief or ritual, is now turning with the modern world and secular practices into a different definition altogether. According to my keyword definitions (p.4) spirituality is stated as "the quality of being concerned with the human spirit or soul as opposed to material or physical things." (Oxford University Press, 2021) It is an abstract form that is difficult to identify in the physical world, and starts from the individual human. However, this dissertation aims to place it in the built environment for not one person, but objectively for all. The research undertaken will explore how this is possible.

By replacing the word 'spirituality' with 'self-consciousness', we can better understand the term and positively relate to us. Neuroscientist and Psychologist, Lisa Barrett, suggests that the act of consciousness trying to find itself - is spirituality (Greene, 2019). DePung, associates consciousness with Heart, "in the sense I'm referring to it and the way most do, consciousness involves our mind and soul. Consciousness becomes an awareness that we have a higher self, core self, Heart, which is our essence, our true reality, but that core self dwells in the physical realm inhabiting this body. The awareness of Heart, essential Spirit, within our body, initiates consciousness." (DePung, 2017). Understandably, 'Heart' is present within ourselves; however, awakening it is when it becomes more complicated. According to my survey, only 34.8% of participants were able to identify themselves as spiritual; however, more participants (47.8%) could identify themselves as a spiritual person only sometimes (Moroney, 2020). Does this confirm that spirituality is something that can be triggered, or instead that consciousness can awaken? Further, when relating to the physical, it is possible to say that spaces can start a spiritual experience, resulting in 'sometimes' in the survey. Alternatively, space also can reduce spiritual experience resulting in the explanation of 'sometimes'. DePung further states, "however, the ramifications of awakening, spiritual awakening, dawning consciousness, or however, one may wish to reference it leads to a host of wonderful realities." (DePung, 2017). DePung's statement can outline the extraordinary challenge of space; that is how it can provoke the awakening of such ramifications in an individual or community and further, in what form does it begin to show? With this in mind, I began researching the triggers of spirituality to later interpret into the built environment.

> The act of consciousness trying to find itself - is spirituality.

Figure 8.

'Self-awareness I'.
(Moonassi, 2020).

Spirituality is expressed in man by feelings, emotions, instinct, and more and The Four Domains Model (Fisher, 2011), helps us understand this further. The model explores the domains of spiritual wellbeing expressed according to 1) personal, 2) communal, 3) environmental and 4) transcendental positions. Each field contains a knowledge aspect which defines something more. Such as 1) personal gives meaning, purpose, and values whilst creating awareness or self-consciousness, expressed as joy, fulfilment, peace, freedom, and importantly a feeling of wholeness. As for 2) communal, the model says that morality, culture, and religion create in-depth inter-personal relations and reach the Heart of humanity, expressed as love, forgiveness, justice, hope, trust, and more. From this model, we can obtain that self-consciousness holds the ability to trigger strong emotions within an individual and even more within a community. These feelings described in the model, show a positive impact and as a result, undoubtedly create a better sense of wellbeing. "Spiritual wellbeing relates to our sense of life-meaning and purpose" (Teach In The Territory, 2018), as stated in my keyword definitions. If spirituality and wellbeing show such a powerful impact over individuals and communities, this suggests that it is a necessary and significant factor to consider when designing our built environment. Designers should place spiritual wellbeing in the forefront if it triggers such positive qualities in man. However, when you begin to flip this (self-consciousness triggers emotions), we start to look at how feelings can trigger spirituality. These inversions may become one of the tools for designing a spiritually provoked experience.

Culturally sensitive design has the power to promote community, and in doing so, it delivers a sense of belonging. We all crave belonging, and when we find it, we feel whole, we feel at home, we protect it, and we crave it. (Hollingsworth, 2018) This feeling of wholeness and belonging is created by people and buildings together that when combined, it can make people feel more themselves. The built environment impacts the individual, and the individuals will become the key to our communities. It encourages that if space does something so significant to our communities, we need to make sure it does something positive, promoting spiritual wellbeing. It also suggests that people and spaces work in harmony in doing so. When designing in close consideration for people's emotions and feelings, it results in a more positive impact on our communities. Crawford passionately says, "My fundamental hope, really, is that everybody starts to think in terms of putting people first, and that's something that can be done on an individual basis. I mean it's a pretty simple mission; and we do it one space at a time, one piece of design at a time. When you prioritise the human needs within a space, design can have a profound impact. I hope that we can add to the sum of human happiness. To leave the world a better place." (Crawford, 2019). Therefore, designing such qualities can profoundly impact and provoke spiritual emotions, such as the feeling of wholeness.

	PERSONAL	COMMUNAL	ENVIRONMENTAL	TRANSCENDENTAL
Knowledge aspect - filtered by world-view *Inspirational aspect* - *essence* and motivation - filtered by beliefs	**meaning, purpose, and values** - human spirit creates awareness -*self-consciousness*	**morality, culture (and religion)** - *in-depth inter-personal relations* - reaching the heart of humanity	**care, nurture and stewardship** of the physical, eco- political and social environment *connectedness with Nature/Creation*	**Transcendent Other** - ultimate concern Tillich - cosmic force New Age - God, for theists *Faith*
Expressed as	- joy, fulfillment, - peace, patience, - freedom, - humility - identity, integrity, creativity, intuition - self-worth	- love - forgiveness - justice - hope & faith in humanity - trust	- sense of awe and wonder - valuing Nature/ Creation	adoration & worship, being: - at one with Creator - of the essence of the universe - in tune with God

Figure 9.

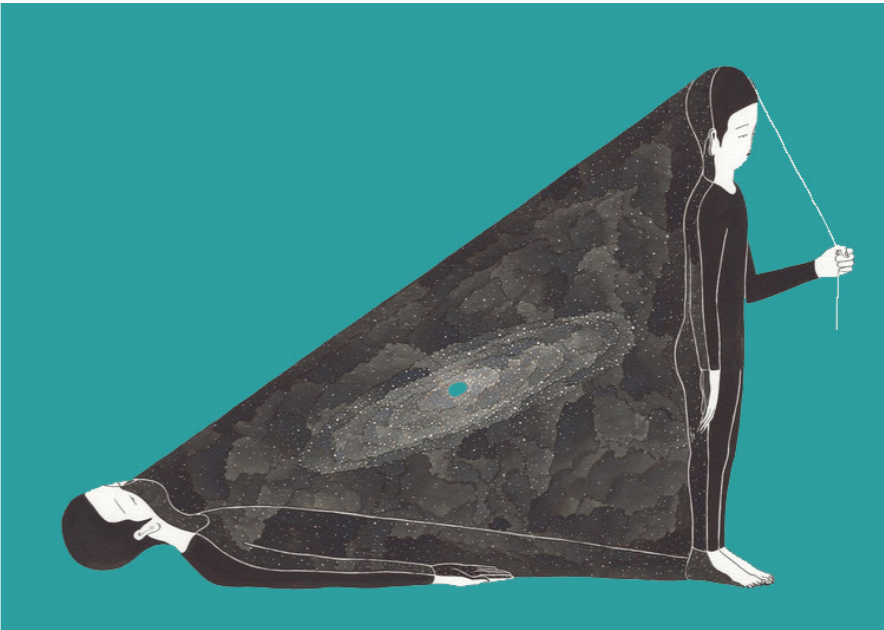'Four Domains Model'.
(Fisher, 2011).

Figure 10.

'Responsible for our own universe'.
(Moonassi, 2017).

We can understand that wholeness is a feeling that is provoked by spiritual experience or triggered by self-consciousness, resulting in a level of wellbeing due to its connotations with the sense in fulfilment of life-meaning and purpose. Alexander (Alexander, 1977) explores this term of wholeness when referring to spirituality and measuring 'living structure'. My keyword definitions state that 'living structure' as discovered by Christopher Alexander, "is a physical phenomenon, through which the quality of the built environment or artefacts can be judged objectively. Additionally, a thing or structure that exhibits a high degree of wholeness is called a living structure." (Jiang, 2019). So, why was this so important to Alexander? He believed that measuring the level of life around us, had the opportunity to create a more meaningful environment that provided users with wholeness. Jiang also outlines that, "He had a passion for creating and restoring life and beauty to our physical environment." (Jiang, 2019), and that living structure was how to do so. To generate a living structure, a set of instructions were laid out in the form of what he called patterns. (Alexander, 1977). Alexander believed that when these patterns were present in the environment, people felt more whole in themselves. However, if a living structure is achievable, it requires the level of wholeness to be maintained throughout a space or thing; it is produced by gradually unfolding wholeness. Maggie's Centre, Oxford, is the perfect example of this explored in Part 2 - Living Structure. This maintained experience created using the patterns, when applied using two or more, is more successful in creating a whole. It is essential to understand that a whole makes up of parts, or what Alexander called centres. A whole consists of the centres it makes and the centre is the living power and essence of the phenomenon. Furthermore, the centres in a whole can intensify each other. In Nature of Order Book One (Alexander, 2002), fifteen fundamental properties outline how centres amplify each other. Figure 12, illustrates these patterns, and is explored in parts two and three.

Level of wholeness to be maintained throughout.

Levels of Scale

Strong Centers

Boundaries

Alternating Repetition

Positive Space

Good Shape

Local Symmetries

Deep Interlock and Ambiguity

Contrast

Gradients

Roughness

Echoes

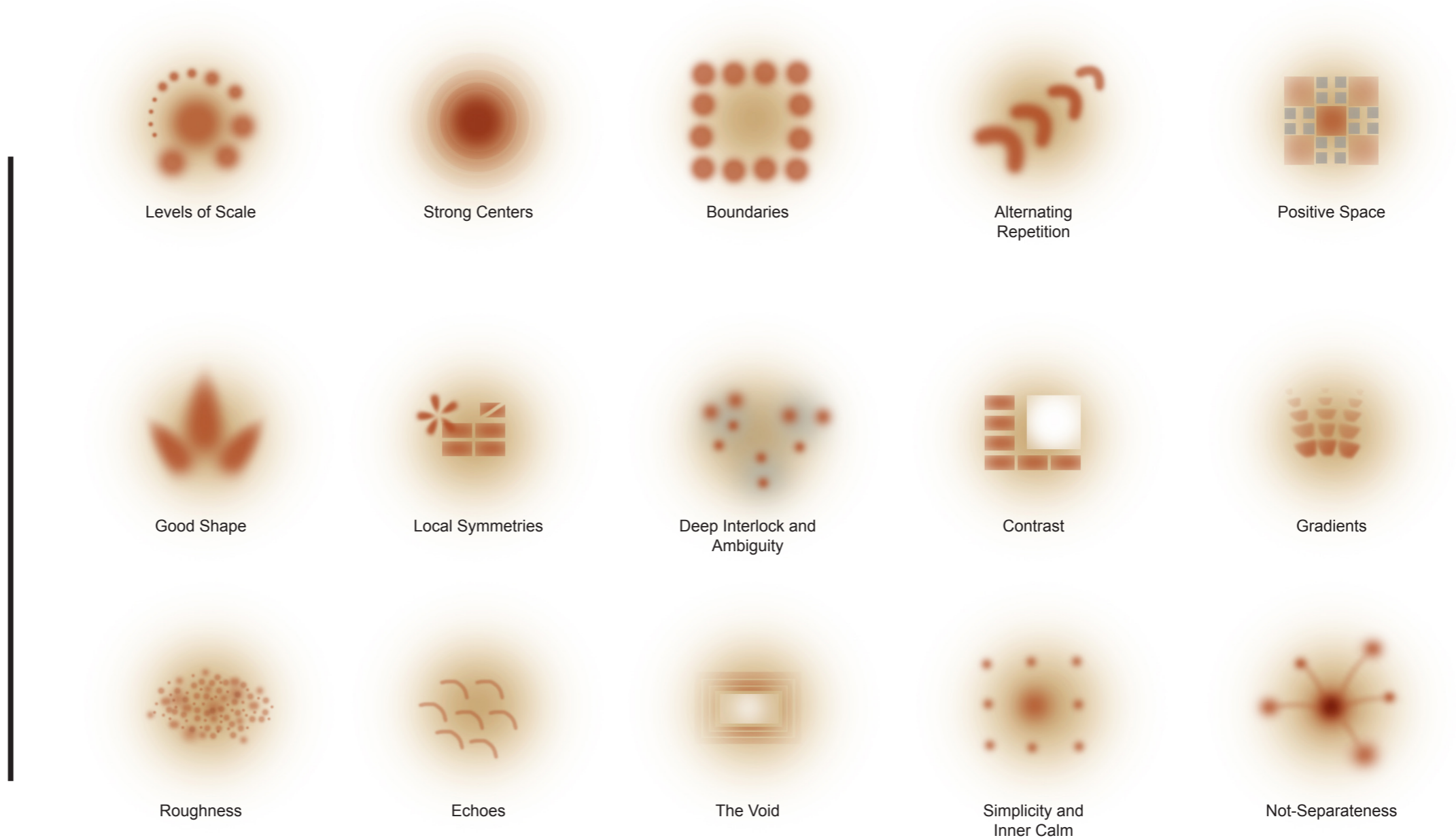The Void

Simplicity and Inner Calm

Not-Separateness

Figure 11.
(Moroney, 2020)

15 Fundamental Properties of Living Structure.
Diagrams re-illustrated from Iba, Takashi and Sakai, Shingo.
(Iba, and Sakai, 2015).

82.6%

With support to this, 82.6% of my survey participants wish that their everyday environments provided a better sense of wellbeing, wholeness, and fulfilment (Moroney, 2020). Therefore, Alexander's valuable views on our built environment are objectively agreeable by many people. Considering living structure and its effect on people, we can relate it to spiritual wellbeing where feelings of wholeness and vice versa can trigger spirituality. This rhythm between spirituality, wellbeing, and feeling whole is fascinating to see how it positions itself in the physical; that is in places. To summarise, it is interesting to see how a place's atmosphere provokes such robust responses in users. Crawford states, "We spend 87% of our lives in buildings, and how they are designed affects how we feel and behave." (Crawford, 2019). I want to explore the term 'Spirit of Place' and its position in this research. Alexander described living structure in a relatable term to 'spirit of place' derived from the Roman term, 'genius loci'. My keyword definition describes, "spirit of place (or soul) refers to the unique, distinctive and cherished aspects of a place; spiritual nature of place" (Wikipedia, 2020). Wholeness is therefore provoked by spirit of place, resulting in a spiritual experience. These contain two main aspects which set the atmospheric conditions. That is the tangible (physical) and the intangible (spiritual). (Bott, 2011) These further contain two variables being 'setting' and 'personal'. Concerning the physical, the 'setting' is the natural and built environment, and the second is 'personal' related to the function. In the spiritual aspect, 'setting' is driven by the social, and 'personal' is the spiritual and psychological. When placed together, there is a system of overlapping layers that form the 'spirit of place'. When relating this to Alexander, if these aspects maintain a level of wholeness throughout, it may result in a living structure that ultimately would provide a better sense of spiritual wellbeing.
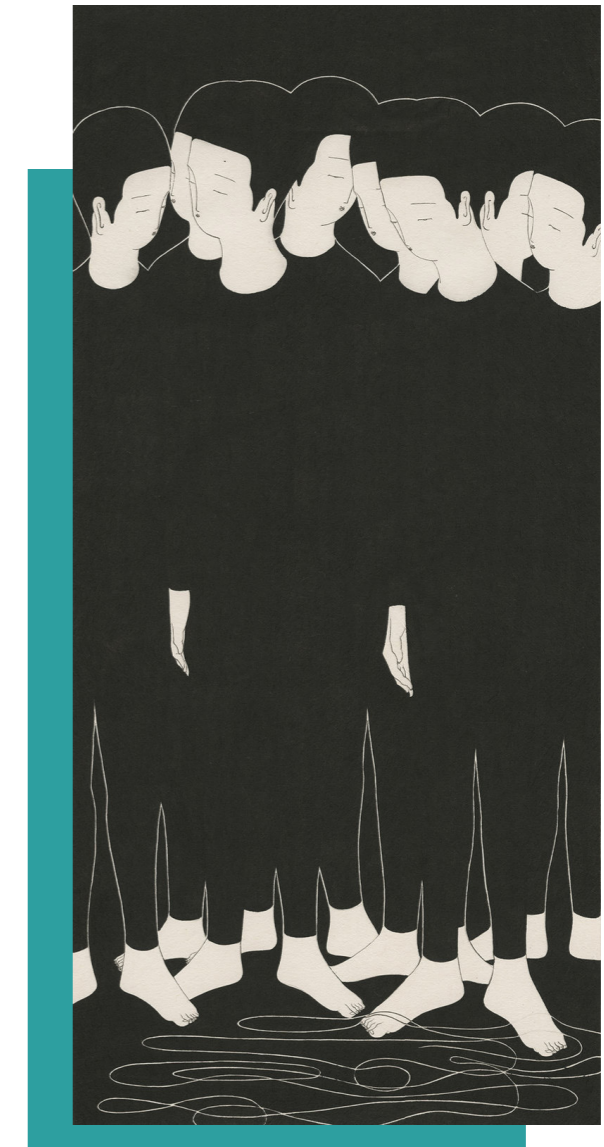

Figure 12.

'A way we can share space'.
(Moonassi, 2017)

Concluding, spirituality is a process of achieving a feeling of wholeness with association to a more profound overlap of personal, social, and environmental values of a place, resulting in an improved level of wellbeing. When considering design, Chang suggests, "a good design of place could then motivate us to have a fuller sense of the self in a place, enliven our meaningful associations with all of its elements, features, and patterns, and inspire us to transcend our narrow notion of self-bound aesthetic delight and moral fulfilment so that we may encompass the whole world." (Chang, 2016). Therefore, we should strive for spiritual experience in place-making; which is achievable using a combination of such factors maintaining a level of wholeness. Chang's research further suggests that three specific factors advance genius loci, supported by Dewey and Maslow. "I have advanced that genius loci is 1) essentially a fuller engagement of the self in place", (Chang, 2016) where we can associate this with self-consciousness. He continues that genius loci is, "2) fundamentally an aesthetic experience of place, and 3) ultimately transcends the moral accountability of the individual toward the community and its broader environment." (Chang, 2016). To summarise, these three factors of spirituality contain the self, aesthetic and moral experience. From these inputs, in addition to Alexander's, we are aware that to achieve a spiritual experience on an individual or community; the spirit of place must consist of a maintained number of factors. Meaning that the built environment in itself is not enough to achieve spirit of place. In parts one and two, the case studies are investigated using a framework of critical factors. These factors derive from the combination of perspectives stated before, with my interpretations and beliefs. They lay out a framework to use in analysing and measuring the level of wholeness in a place:

Analysing the tangible setting; that is the architecture and natural surroundings. (Physical)
Analysing the user's body in relation to their environment. (Physicality)
Analysing the social program as an essential component. (Social)
Looking at the psychological understanding of the user with self-consciousness. (Self-consciousness)

The physical (1) factor accounts for the aesthetic of the built environment, architectural style, architectural techniques, physical thresholds, and more which work in harmony with the other three elements. Physicality (2) outlines the physical relation of the user's body to the space. Physicality may include how it interacts with its surroundings; such as through the use of furnitecture and sense. Furthermore, it entails how the physical affects the user's body. The third factor (social) accounts as an essential component of the framework to achieve spiritual experience. The social program also defines the essence of space. Lastly, from a user perspective, the psychological interpretations and inputs determine the atmospheric conditions. Additionally, self-consciousness (4) holds a significant presence in allowing spiritual experience to take place. Spiritual experience is explored further when analysing Maggie's Centre, Oxford, and Westgate Shopping Centre, Oxford.
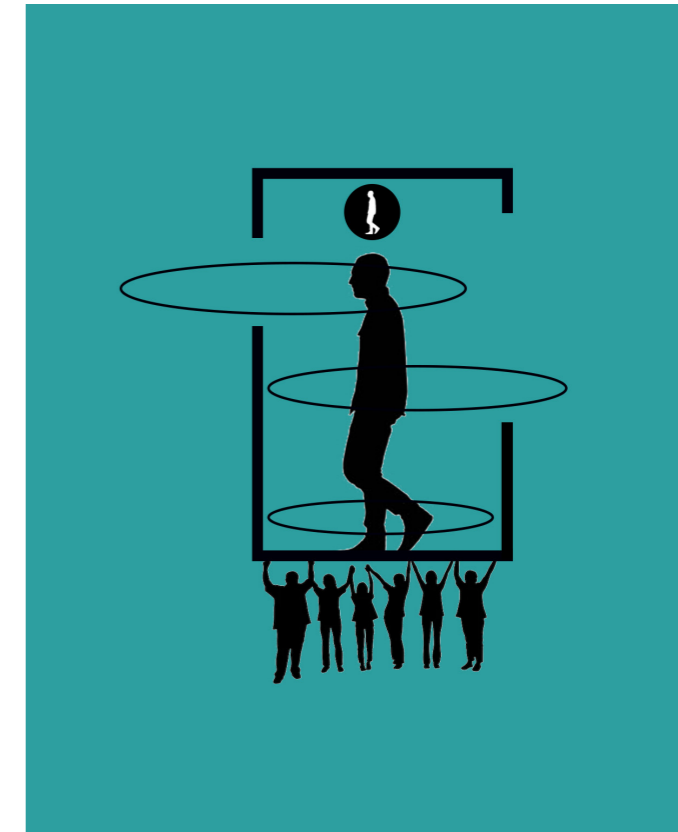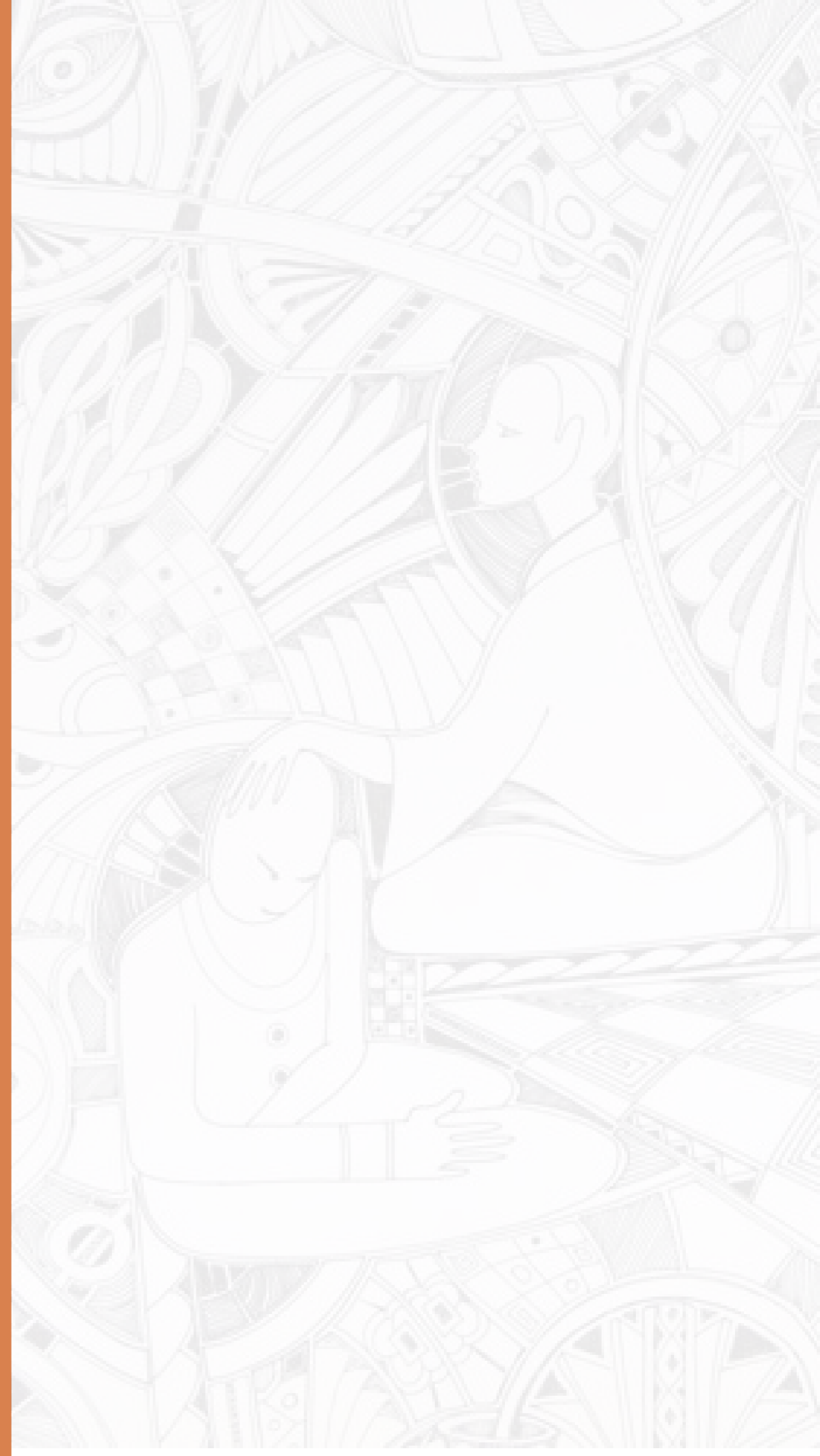

Figure 13.

Four-Factor-Framework.
(Moroney, 2021)

Living
Structures

Part 2

This chapter dives deeper into the analysis of living structure, whilst exploring the first case study, Maggie's Centre, Oxford. It aims to show how architecture has successfully been a medium for spirituality with effect on wellbeing. My four-factor framework sets the methodology.

Living Structures

Part 2

The framework for measuring wholeness in a place, is analysed in this chapter on the case study, Maggie's Centre, Oxford. Using Alexander's 15 fundamental properties of living structure, explored in The Nature of Order Book One (Alexander, 2002), helps to understand the unravelling experience of spirit of place present in the case study. It shows how these properties of living structure and the properties in my four-factor framework, amplify each other, to create such successful atmospheric conditions. These conditions provoke spiritual response and a level of wholeness.

Opened in 2014, Maggie's Centre, Oxford became an addition to Maggie's caring centres for cancer across the UK. Its respectability derives from their three prominent pillars; 1) cancer support, 2) calming space and 3) being alongside the hospital (Maggie's Oxford, no date). The centre offers help to those facing cancer and openly to those whose loved ones face cancer. The support ranges from professional counselling and advice, to informal chats over a cup of tea amongst staff and other patients. This essential program shows that the centre develops a strong community of support amongst its members, laying a foundation for the third factor of my four-factor framework; *social*. The first factor, *physical*, plays a prominent role in creating a sense of wholeness at Maggie's. It is apparent in the design where careful decisions have provided a therapeutic effect. Designed by Wilkinson Eyre "as a sympathetic and caring retreat, in tune with its wooded surroundings" (Maggie's Oxford, no date), users have found the building as a haven against the small forest, acting as a contrast sitting away from the profane hospital. Carefully designed with gentle considerations concerning the user's body in space, *physicality* covers the second factor. The fourth factor, *self-consciousness*, is triggered by combining the other three, resulting in a healing and spiritual experience for the individual user. It is essential to understand that Maggie' Centre achieves living structure through combining the four factors. From the perspective of Alexander's theories, throughout they have also maintained a level of wholeness. Dissecting the analysis using the four-factor framework, will allow a clear insight into the spirit of place whilst allowing details of Alexander's pattern language to be more evident.
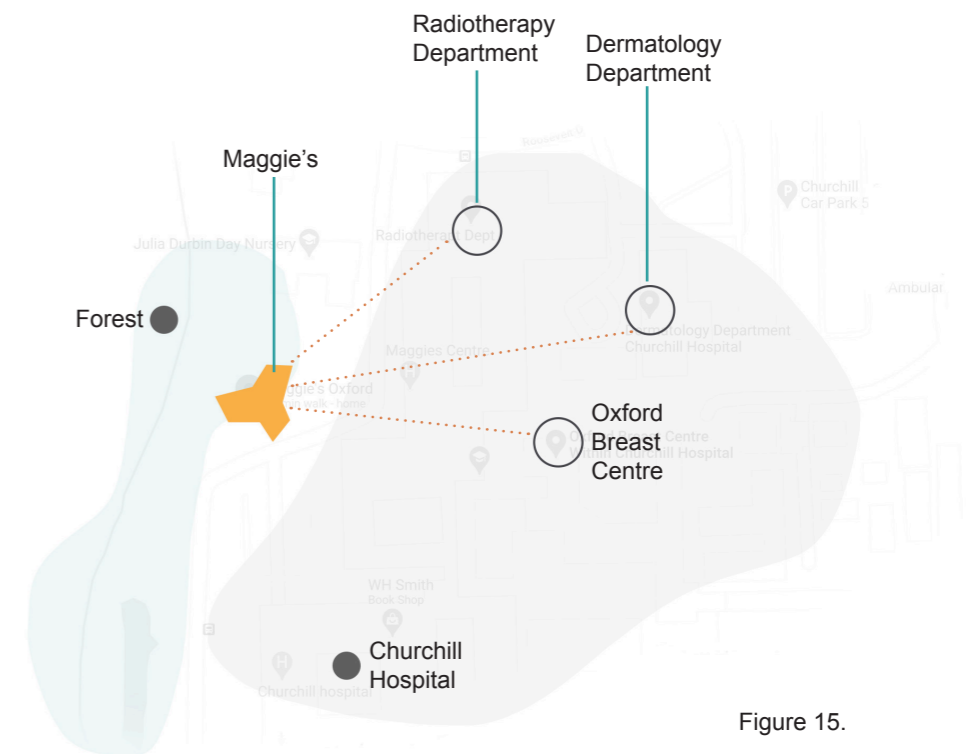

Figure 14.

'Maggie's in context'.
(Moroney, 2020)

Figure 15.

'Mapping Maggie's Oxford in association
with the surrounding context'.
(Moroney, 2020)

Factor One - *Physical*

The centre is not about the building itself, but how the user responds in their self-consciousness to the spiritual experience emanated from the physical design. Most of the achieved living structure is created by maintaining the connection to nature throughout the building, which plays a crucial role in activating spirituality. According to my survey, 87% of participants answered that their wholeness level increased when they are in a natural setting. 65.2% suggested that a natural environment's image felt like a more accurate image of themselves than the built environment image (Moroney, 2020). This identification supports that nature has a profound impact on increasing a level of wholeness and awakening self-consciousness. It is possible to say that nature is "the sacred fabric of the universe" (Winters, 2015). To explore this further, I have considered Winters six signs of sacred landscape (Winters, 2015), to evaluate how wholeness aids the Maggie's Centre. The designers intended harmony between the forest, building, and people; encompasses all values and qualities Winters explores. I have paraphrased the six signs of a sacred landscape and applied them to the centre's physical journey.

Maggie's Oxford can be a physical retreat from the hospital located forty metres away. Patients can separate themselves from the time and medical stresses the hospital demands, whilst still receiving care in a relaxed manner. The spiritual journey is driven by the cancer patient's active interest, starting with seeking the centre's entrance disguised by the organic architecture. The building lays respectfully on the unused land near the car park blending well into the natural forest behind with its use of materials and scale, and as a result, creating a haven close to nature. Providing facilities that the hospital lacks, they work harmoniously to give cancer patients the best support and care. Once arriving at the building, the spatial sequence has already begun before opening the door, as they must move along a bridge towards the forest view. This journey maintains wholeness by providing a different focus on every part, subconsciously removing the user from the profane hospital left behind. Continuing, as their view shifts from the forest, a bold pink signage stating, 'Maggie's', activates the deliberate detachment from the ordinary. Once going through this transition, they self-open a door to enter the centre. These series of active interest movements are continuous throughout the building. The patient's positioning on entrance instantly removes them from the nebulous and chaotic contrasting outside world left behind. Such positioning is due to the views only being directed towards the trees and across to other mindful spaces. The subtle materiality and natural light trigger an instant feeling of inner calm.

Figure 16.

'Bringing outside - in, at Maggie's Oxford'.
(Moroney, 2020)

'Coherent' landscape - "a refuge where busyness and confusion can be left outside." (Winters, 2015).

'Favourable Context' - a "place of refuge and embrace, nestled in the embrace of the landscape." (Winters, 2015).

'Composed' landscape - "an intentional arrangement of form and space." (Winters, 2015).

'Contained' landscape - "In contrast with chaotic or nebulous surroundings." (Winters, 2015).

The areas overlapping with several functions allow for a subjective experience; including spaces for rest, reading, socialising, professional talks and one-on-one support. This choice of spaces to inhabit provides for a personal interpretation equipped to the patient's needs at the time. The functions set in a familiar yet unfamiliar setting work in harmony with creating a comfortable environment; suggested through known domestic objects in a respectable, free-flowing, modern setting. Whilst, the removal of everything unnecessary provides the property of *'simplicity and inner calm'*. (Iba, and Sakai, 2015). With the architecture creating places for moments, indicated through the placement of chairs set with external views; allows individuals time to reflect and enjoy the beauty of the surroundings. They are initiating mindfulness with a positive effect on wellbeing. The act of being present in the centre, enjoying a moment of being away from the profane with peace, beauty and gentle mental support, allows for self-consciousness to awaken. The architectural considerations and the building's placement to its surrounding environment play a crucial role in the success of living structure. Figure 17 shows the building's plan to point out three essential properties of living structure explored by Alexander. (Alexander, 2002). The arrangement of spaces follow *'good shape'* allowing the parts to overlap and interlock together to form a whole, adding to the property of *'local symmetries'*. The '*level of scales'* provides a field effect, with specific placement to create a whole, which is achieved through all Maggie's Centres' brief to follow a form similar to that of a spiral. (Iba, and Sakai, 2015).

'Artistic Expression' - how the "divine sacred space", is inhabited. (Winters, 2015).

'Clarity' landscape - "present and mindful in each moment." (Winters, 2015).

Ground floor Plan

> Entrance
1 External stair
2 External timber deck
3 Sitting / group activity
4 Kitchen and dining
5 Group consultation room
6 Consulting room
7 Library
8 Office
9 Access bridge

Figure 17.

Floor Plan of Maggie's Centre Oxford. (ArchDaily, 2014)

Factor Two - *Physicality*

The Maggie's centre has carefully selected interior components to create a therapeutic environment. These components consider the ergonomics and positioning of the individual in the space to achieve the necessary comfort. Selected pieces of furniture and artwork, work together with the de-materialised architecture to accomplish the spiritual setting. Whilst selected materials, colours and spatial arrangements act as a method in setting the stage for individuals to occupy; they alter the users emotional and sensory experience. Using the seven senses to analyse the physicality, we can see how the designers have considered the human experience several ways. "We have allowed two of our sensory domains - sight and sound - to dominate our design and imagination. In fact, when it comes to the culture of architecture and design, we create and produce almost exclusively for one sense - the visual." (Mau, 2018). Maggie's Oxford has been successful in considering a number of the senses. These considerations are an essential factor when creating spiritual experience. One becomes aware of and recognises all of their senses; they can utilise and expand their physical and spiritual experiences (Wallis, 2020). Wallis suggests further that the sensory system can help progression to a higher self-consciousness state (Wallis, 2020).
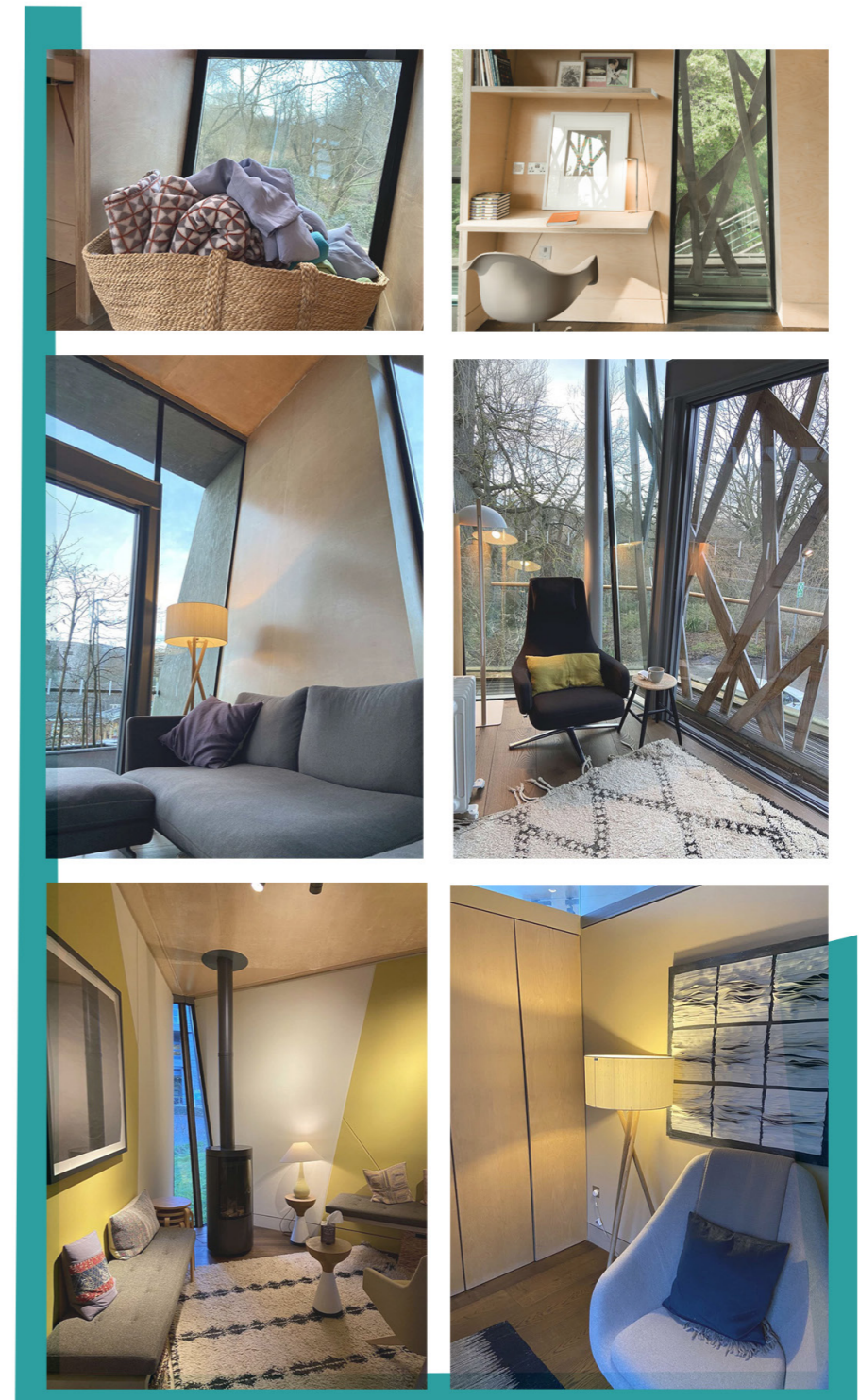

Figure 18.

Observing 'moments' at Maggie's Centre Oxford.
(Moroney, 2019)

The sense of taste is activated with the iconic Maggie's gesture of offering a cup of tea. This gesture proposes an instant homely atmosphere which can be enjoyed on the large central table in the heart of the centre; or relaxing in other spots such as near the contemporary wood burner on soft furnishings. Alexander's property of *'strong centres'* can be applied here as the centre holds an intense principle centre where such activities occur, otherwise known as the heart. (Iba, and Sakai, 2015). "The heart is an integral part of every Maggie's Centre, an inviting place where all the building's users can meet and relax." (Wilkinson Eyre, 2021). Balconies also allow for a moment of self-awareness and observation of the forest, which may trigger the sense of smell with its natural elements. Whilst, scents of lunches being heated up in the kitchen add to this relaxed spirit of place. Due to the arrangement of spaces overlapping and opening onto each other whilst maintaining a connection to outside, this creates visuals to other activities, and the external environment. As a result, it gives the person a balance of prospect and refuge. This balance is essential in creating spiritual wellbeing by not restricting or overextending an individual's comfort. Such a layout follows Alexander's property of *'not-separateness'* due to the centres connecting and melting away into their surroundings, rather than separating. (Iba, and Sakai, 2015).

Specially selected artwork hangs on the walls, which feeds the curious eyes and provides an emotional response such as fullness. The feeling of wholeness is also driven by the centre's surrounding sounds, including the caring discussions heard gently across the rooms, whilst the homely sound of a kettle rumbles in the background as white noise. Due to the centre sitting as a treehouse, the sounds of the leaves blowing also has a therapeutic effect. By having such connections, it suggests to improve a patient's health. "We don't fully understand all the ways in which windows could affect healing. Their influence could stem from the quality of light they provide, the natural array of colours one sees, the sound of nature one hears, the odours one smells." (Sternberg, 2009). This influence suggests that the large span of windows across the centre holds more significant spirituality triggers than what meets the eye. Whilst the glass and wood materials form the skeleton of Maggie's, the soft textures and patterns laid out on rugs, cushions, and seating complete the full sensory experience of touch. Tying these soft interior elements with the architecture, is the accent of yellow set on the spatial partitions. According to the colour therapy, this colour holds a powerful stimuli, "the color yellow has an energising and stimulating effect upon the body and mind, relieving depression, melancholy, and confusion. It helps strengthen the nerves and mind. It can assist in awakening mental inspiration and stimulates a higher consciousness." (ageresdi@aol.com, 2016). Whilst the colour awakens such qualities, it also positively adds to Maggie's Oxford's welcoming atmosphere.

Figure 19.

Heart of Maggie's Oxford.
(Maggie's Oxford, no date)

Figure 20.

Heart of Maggie's Oxford.
(Maggie's Oxford, no date)

Factor Three - *Social*

This factor drives the participatory involvement that forms Maggie's Oxford. Their motto, "here with you", instantly shows that the community built is a solid foundation to the living structure. The notion of 'with' in the motto immediately indicates that the patient's battles don't have to be faced alone. The use of 'here' suggests the centre is present in both physical and emotional forms. This promotes a moment to be consciously present, with the wholesome support, which connects spiritual experience. Not only does the centre provide spiritual wellbeing for individuals, but the cancer community too. It promotes positive and trustworthy healing spaces that can be accessed welcomingly without judgement. This matter supports that the centre is a place of moral experience. (Chang, 2016). The centre's have also become an icon for wellbeing, whereby the profane environment's societal aspects have been challenged. To summarise, the social setting is more dignified and empowering than the passive neutral and intimidating hospital environments. Empowering the patient was one of Maggie's (founder of Maggie's Centres) essential requirements for the centres' design. This requirement has undoubtedly been achieved, through the trained staff that encourage yet never impose. As a result, these social factors lead to a greater sense of spiritual wellbeing in the individuals and community. Alexander's *'echoes'* property is achieved socially by unifying Maggie's morals; non-judging, empowerment, independence, charity and support.

Figure 21.

Community Support.
(Moroney, 2020)

Factor Four - *Self-consciousness*

At Maggie's Oxford, a wholesome atmosphere results by combining the social dimension and the discrete spaces for relaxation and therapy in tune with its surroundings. The aesthetic design serves as a fundamental factor in creating the living structure, providing all the patient's practical and social needs whilst simultaneously creating an emotional response. Self-consciousness is triggered by the individual's active interest when seeking the centre followed by using the facilities. This involvement is crucial in activating the individual's spiritual wellbeing, because this can be used as a way of coping with change or uncertainty. (Reach Out, 2021). By combining the remaining framework factors; *physical, physicality,* and *social*, together with *self-consciousness*, they initiate the emotional response that creates a level of self-awareness. Moments of contemplation in window seats trigger self-consciousness, whilst the journey to access the centres' support starts the patient's awareness and reflection of circumstances. Living structure maintains wholeness and creates a spiritual atmosphere. The centres' sensitive design has the power to motivate and empower the patient, which, in essence, makes them feel a sense of wholeness with better connection to self. The positive impact this centre has had on the cancer patients is abundantly clear. Maggie's Centre Oxford is an encouraging piece of architectural design illustrating the opportunities designers have to create a more positive space, which has a significant effect on spiritual wellbeing and better health. The case study has represented the components to develop living structure to achieve wholeness and provoke a spiritual response in individuals and communities.
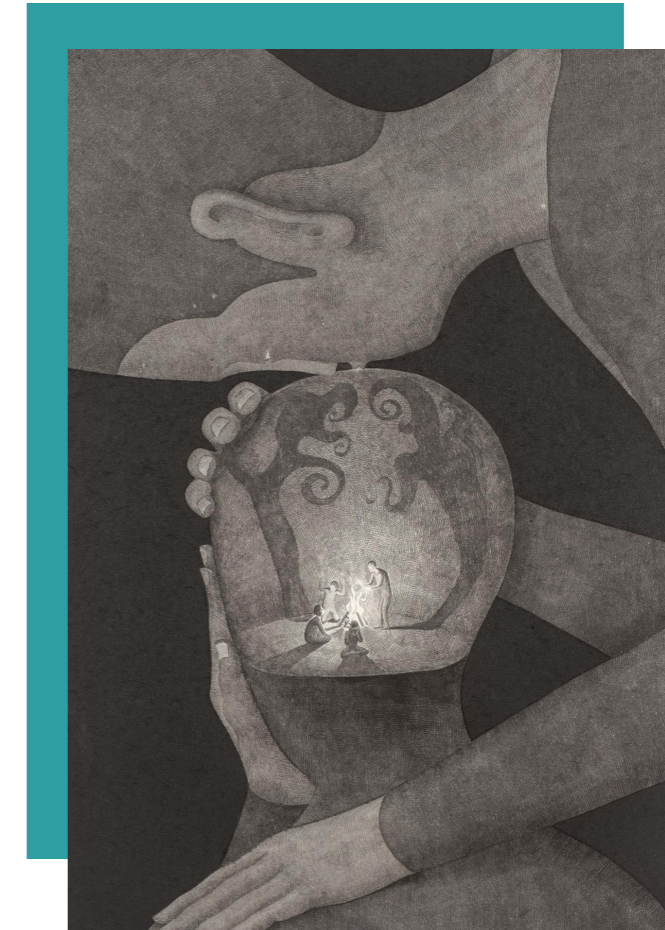

Figure 22.

'The Cessation of Pain'.
(Moonassi, 2018)

The Profane

Part 3

In this part of the dissertation, the case study focuses on Westgate Shopping Centre and a personal design project, applying Christopher Alexander's Pattern Language. It looks closer at the secular built environment where an essence of spirituality is limited and affects wellbeing. Whilst exploring the connection of nature with spiritual wellbeing through biophilic design.
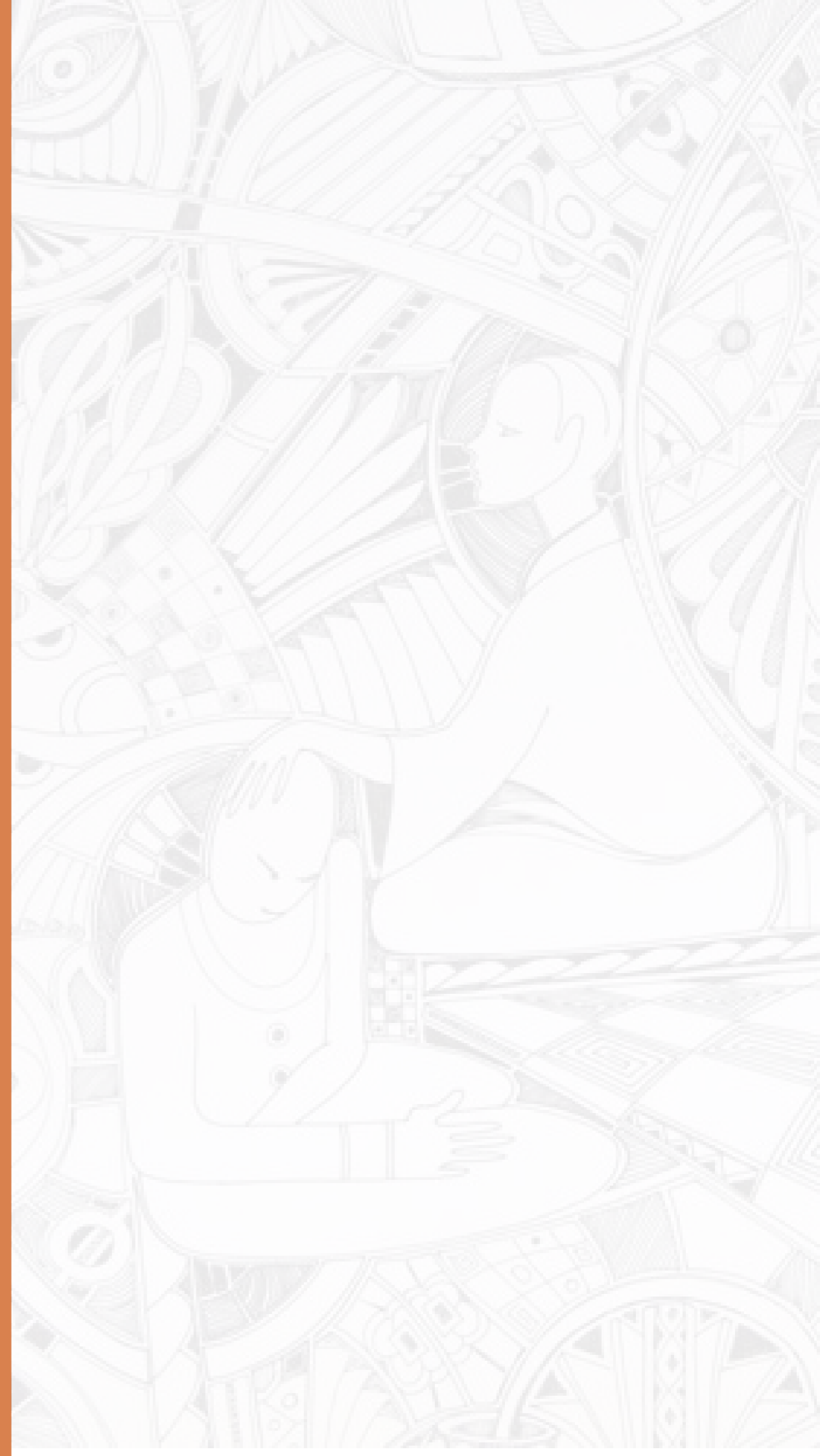
The Profane

The profane world, "consists of all that we can know through our senses; it is the natural world of everyday life that we experience as either comprehensible or at least ultimately knowable — the Lebenswelt or life-world." (Wikipedia, 2020). We experience 87% of our everyday life indoors, 6% in vehicles and only 7% outdoors (Crawford, 2019). Nevertheless, this is outstandingly negative on our wellbeing due to the evidence on increased levels of depression and stress if not seeking the outdoors or natural environment regularly. In part two, the Maggie's Centre has successfully utilised the outdoors to be the critical factor in improving the cancer patient's spiritual wellbeing. Studies show that hospital patients' health was improved if they connected to outdoors, such as being in a room with a view. (Cleveland Clinic, 2017). To summarise, the need for humans' relationship with the outdoors should be improved or utilised daily. Whilst, the indoor environment should be reconsidered to improve wellbeing.

According to the survey, an outstanding 82,6% of participants wish that their everyday environments promote a better sense of wellbeing, wholeness and fulfilment. (Moroney, 2020). Additionally, most commonly, the word 'stress' was used, when reasoning their response to the previous. (Moroney, 2020). This response shows that the profane world has secularised into a stressful environment, detracting from individuals and communities' sense of wholeness. Christopher Alexander's work went into the passion of restoring beauty to the built environment. He saw this as a problem due to the lack of design towards human feelings of wellbeing and wholeness. This chapter will explore this matter further whilst exploring the shopping centre, Westgate, that occupies a large area of the city centre. Whilst Westgate has become an iconic destination to visit in Oxford, from personal experience, it is a perfect example of how commercialisation has taken away moral values of communities, and fed the ego of competition and money.
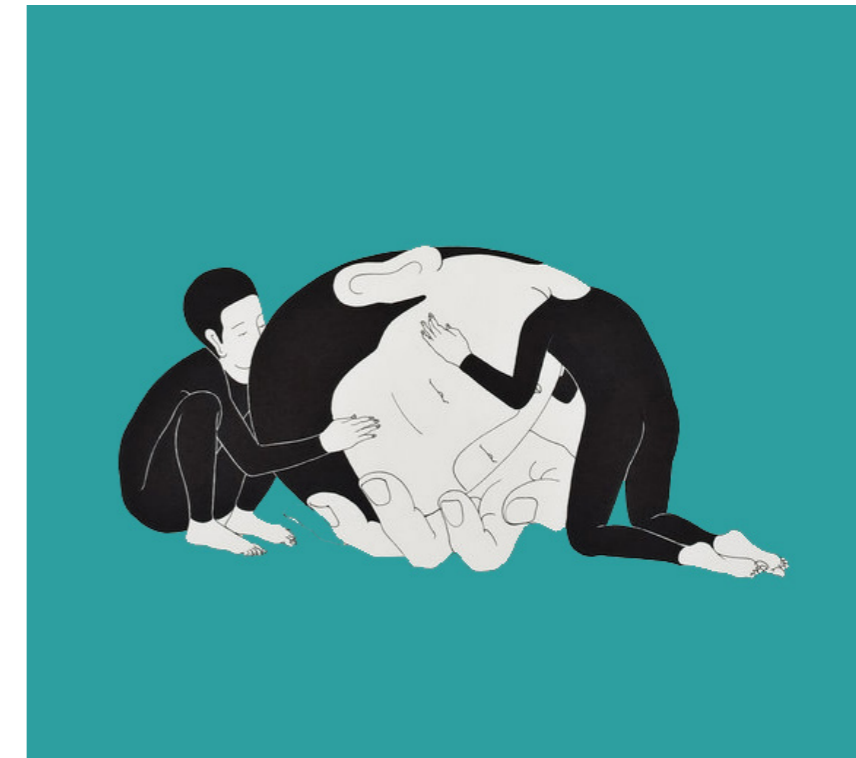
Figure 23.

'Your ego is getting bigger'.
(Moonassi, 2009)

When observing Westgate Shopping Centre, there are several uses of Alexander's fundamental properties (Alexander, 2002); however, the experience still feels overly fast-paced, stressful and provokes anxiety when journeying through. This association potentially shows a flaw in Alexander's properties. When the properties are used two or more together, the achievement should be a living structure showing a maintained level of wholeness reflecting on the users' feelings. Furthermore, living structure has the potential to make people feel more themselves due to the spiritual experience. However, 65.2% of survey participants suggested that Figure 24 with association of self-reflection, calm, and peace, compared to Figure 25; feels like a more true image of themselves (Moroney, 2020). This response suggests that the busy, fast-flowing environment represented in Figure 25, and Westgate does not promote spiritual self-consciousness, making it an unreliable desired experience. However, this atmosphere is normalised in our secular world, removing the focus of design away from wellbeing to instead in Westgate, commercialisation. The journey through the centre starts by entering the 'mouth' that swallows the person through the space channelling them quickly into the 'heart' of the centre. It is then too late to remove themselves from the overwhelming load of shopping advertisements as they are deep within it. Although this is a success in the design as they maximise the attention to shop windows; there seems to be no notion of slowing down the pace to achieve mindfulness or reduce anxiety and stress. Indeed, if the experience through a shopping centre follows this manner, people would feel more inclined to stay longer, resulting in sales. However, from the case study, Maggie's Centre, the success of making patients feel welcome to stay, comes from creating mindful spots. When journeying through the main floor of Westgate, there are very few, if any, spots to rest and recover or enter a state of self-consciousness.

When exploring seeking spiritual experience in the secular world, it is often through retreat. Such as, retreating to the natural environment to escape stress, seeking a sacred building to enter a state of self-reflection, racing home after a long day at work to rest, or escaping to a bench on a lunch break for a moment of pause. Often, seeking a higher state of consciousness in our everyday lives comes from finding a moment to pause, reflect, and breathe. Perhaps, adding spiritual experience to the profane comes from creating spaces for such 'moments'. As explored in my project (a pavilion designed for Westgate), this concept of 'moments' is explored further. The pavilion project aimed to provide a place to seek refuge amongst a busy and stressful environment that would provide the individual with a space to recharge or to practice mindfulness. Figure 26 presents the hubs designed to achieve this which sit in a cluster as a small village promoting improved community morals and acceptance. Positioned as clustered hubs, or separated to be positioned in other profane settings, such as in the workplace or educational facilities; the project design experimented with the qualities of spirit of place in the secular world with its effect on wellbeing. The personal project brief was a challenge to create a mindful break for employees with architecture as the medium. I imagined "a peaceful and serene space amidst all this chaos of the city." (McGahan, 2004).
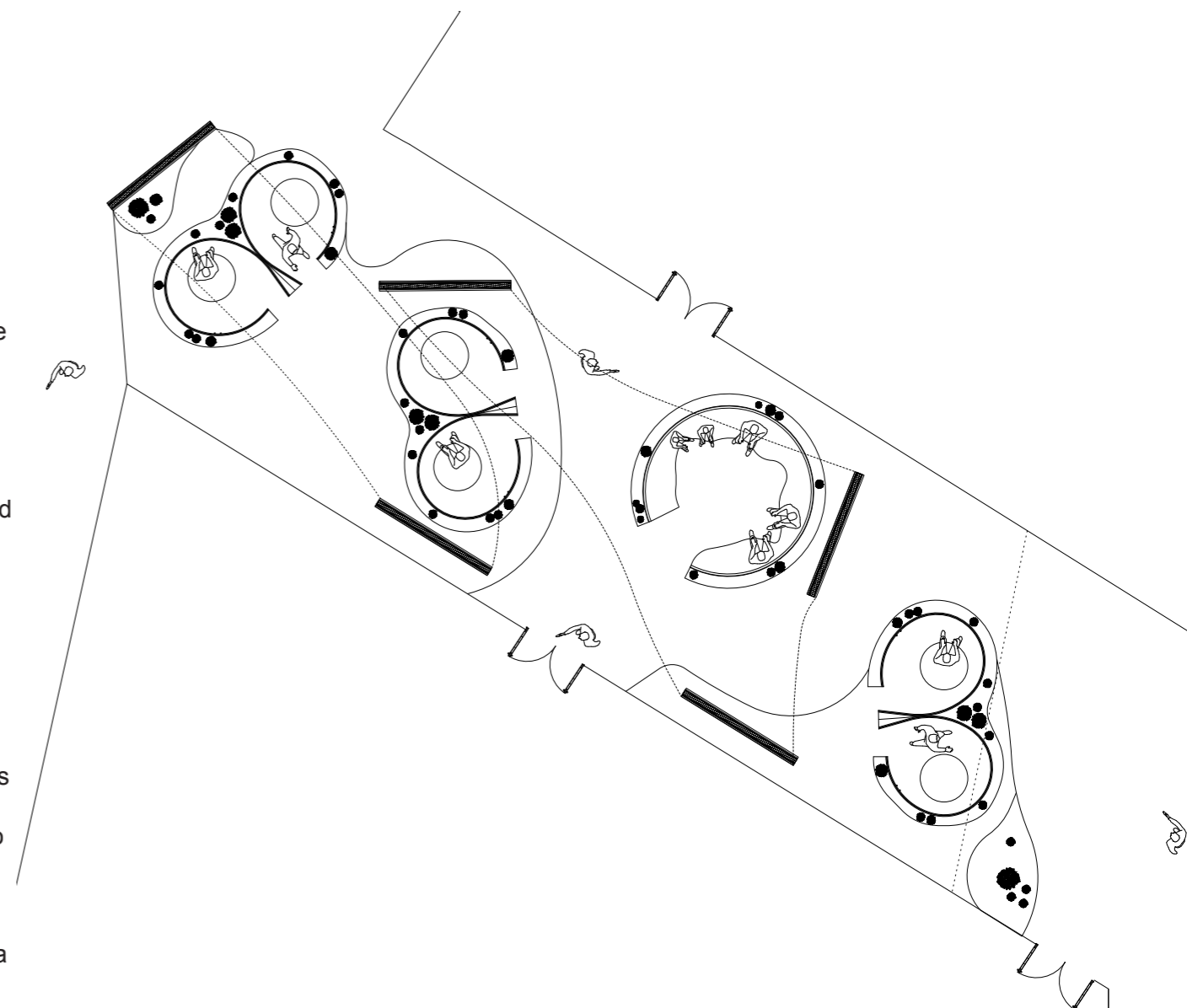

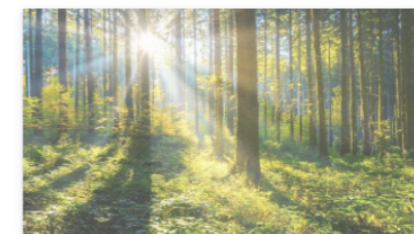
Figure 26.

Pavilion Plan.
(Moroney, 2019)

Figure 24.(Above)
Natural Environment.
(Moroney, 2020).

Figure 25. (Below)
Built Environment.
(Moroney, 2020)

The pavilion aimed to achieve 'living structure' as explored by Christopher Alexander, by combining several of his fundamental properties (Alexander, 2002). Referring to Figure 11, eight out of fifteen properties have been identified in the pavilion, resulting in promoting a level of wholeness in users. The properties further explored by Iba and Sakai are applied (Iba and, Sakai, 2015). 'Levels of scales' are tied to the concept that different sizes are used, intensifying each other to form a whole. The pavilion is formed of several hubs with one more ample space to host groups, seen as the heart. This heart is the principal hub following the property of 'strong centres'. Additionally, the arrangement of spaces is laid out in a field-like effect that in the property of 'boundaries' intensifies each other to create a whole. Individual hubs are designed with a 'twin' and arranged to the context of Westgate to allow pedestrians to pass through and allow repetition with subtle variations (property 'alternating repetition'). Exploring the property 'good shape' Iba and Sakai state, "the good shape is the attribute of the whole, but the whole must be made up from intense centres that themselves are wholes. In that sense, the elements of a good shape are also good shapes themselves". (Iba, and Sakai, 2015). When particularly observing the plan (Figure 26), this property is suggested. Each hub is designed to form a whole within itself, which, when arranged as a pavilion, achieves good shape. However, a degree of 'roughness' is evident as the pavilion shows irregularities resulting from responding to the context. The placement of hubs have allowed doorways to nearby restaurants not to be obscured. Whilst, the necessity of a privacy screen without restricting views results in the partial facade seen as a band around the user. However, according to the 'roughness' property, these irregularities are seen as a form of perfection in a living whole. The privacy screen dissected the view into two parts, one lower and one higher in the hub. (Figure 27) The low window allows views onto the plant mote increasing wellbeing, due to the opportunity to connect with nature for a moment. The higher view forces the users to view upwards and outwards, triggering self-awareness and positioning the body with a better sense of self-empowerment through chin-up. The applied property of 'simplicity and inner calm' shows how removing everything unnecessary from the design creates a sense of peace. With a simple bean bag, a minimal pod leaves the user with less distractions, allowing them to concentrate on mindfulness. The pavilion has an 'echoes' property effect whereby the pods' similarities have a deeper level of structure. The concept derives from an African hut village's organisation, whereby centres exist around one or two hearts, which creates wholeness. The result of the living structure placed on the quieter wing of Westgate shows the potential of a new normalisation for spiritual wellbeing in our society. Integrating small design elements into our profane environment as a new norm, to provide a moment of refuge and mindfulness, could result in improved stress levels.

Small Pod

Figure 27.

Pavilion Experimental Section.
(Moroney, 2019)

Figure 28.

Pavilion Sketch Model.
(Moroney, 2019)

Understanding the increasing levels of stress resulting in the desire for refuge from the profane world, designers are becoming more interested in focussing on wellbeing in the secular environment. Specifically, the workplace is given more attention due to the time people spend in these environments per week, with no escape. Workplace wellbeing is becoming a crucial element whereby the design of offices is being reconsidered. Collaborative spaces, better connection to outdoors, choice of working spots, and more informal furnitecture is fuelling the healthiness of secular workplaces. When remembering the formalised office design of the 1950s to the rationalised and restricting cubes of the 1980s, it is evident that the new upcoming term of biophilic design is creating working environments to be more spiritually enhancing. Biophilia is the design concept which explores the human connection to the natural environment to increase occupant wellbeing. As established in the survey (Moroney, 2020), 87% of participants felt their wholeness increases when in a natural setting, whilst Maggie's Centre's design utilises the surrounding forest to improve the cancer patients' spiritual health. "Biophilic design can reduce stress, enhance creativity and clarity of thought, improve our wellbeing and expedite healing; as the world population continues to urbanise, these qualities are ever more important" (Terrapin Bright Green, 2014).

The importance of urban design goes far beyond feel-good aesthetics. Several studies have shown that growing up in a city doubles the chances of mental health disorders. (Bond, 2017). Therefore, focussing on neuro-architecture, which is the study of how the body and brain respond to the built environment, is as important as the visuals aesthetic. Christopher Alexander's research into living structure became a tool for designers and constructors from the eighteenth century onwards. His pattern theories of which fifteen fundamental properties are highlighted, are more focussed on the aesthetic, providing psychological benefits. However, the patterns of biophilic design focus on psychological, physiological and cognitive benefits. (Terrapin Bright Green, 2014). This focus shows that use of biophilia concept may contribute more to communities' spiritual wellbeing than Alexander's pattern language. (Alexander, 2002). After exploring Alexander's fundamental properties to achieve living structure, I have paraphrased the fundamental properties of biophilic design to establish the relationship between the natural environment, architecture and people. Figure 31 illustrates and paraphrases the properties presented by Terrapin Bright Green in their research for fourteen patterns for biophilic design (Terrapin Bright Green, 2014). Connected with biological responses, and including stress reduction, cognitive performance, emotion and mood enhancement on the human body; the biophilia concept makes it more reliable than Alexander's properties. Details are also more precise on implementing the patterns in design, than Alexander's more abstract terms. The fourteen patterns also determine the level of impact on health and wellbeing marked out of three; three being the most impactful and one the least. (Terrapin Bright Green, 2014).

Figure 29.

Work Rushing.
(Tetsuo, 2015)
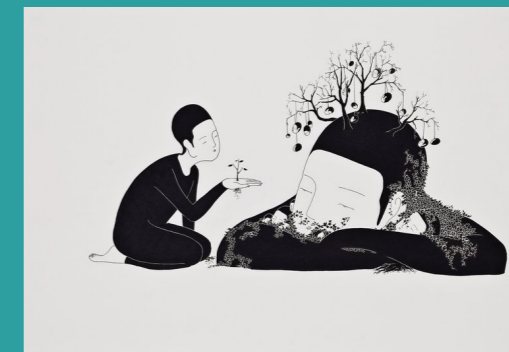
Figure 30.
Being Beautiful Nature.
(Moonassi, 2010)

Visual Connections with Nature

Non-visual Connection with Nature

Non-rhythmic Sensory Stimuli

Thermal and Airflow Variability

Presence of Water

Dynamic and Diffuse Light

Connection with Natural Systems

Biomorphic Forms and Patterns

Material Connection with Nature

Complexity and Order

Prospect

Refuge

Mystery

Risk/Peril
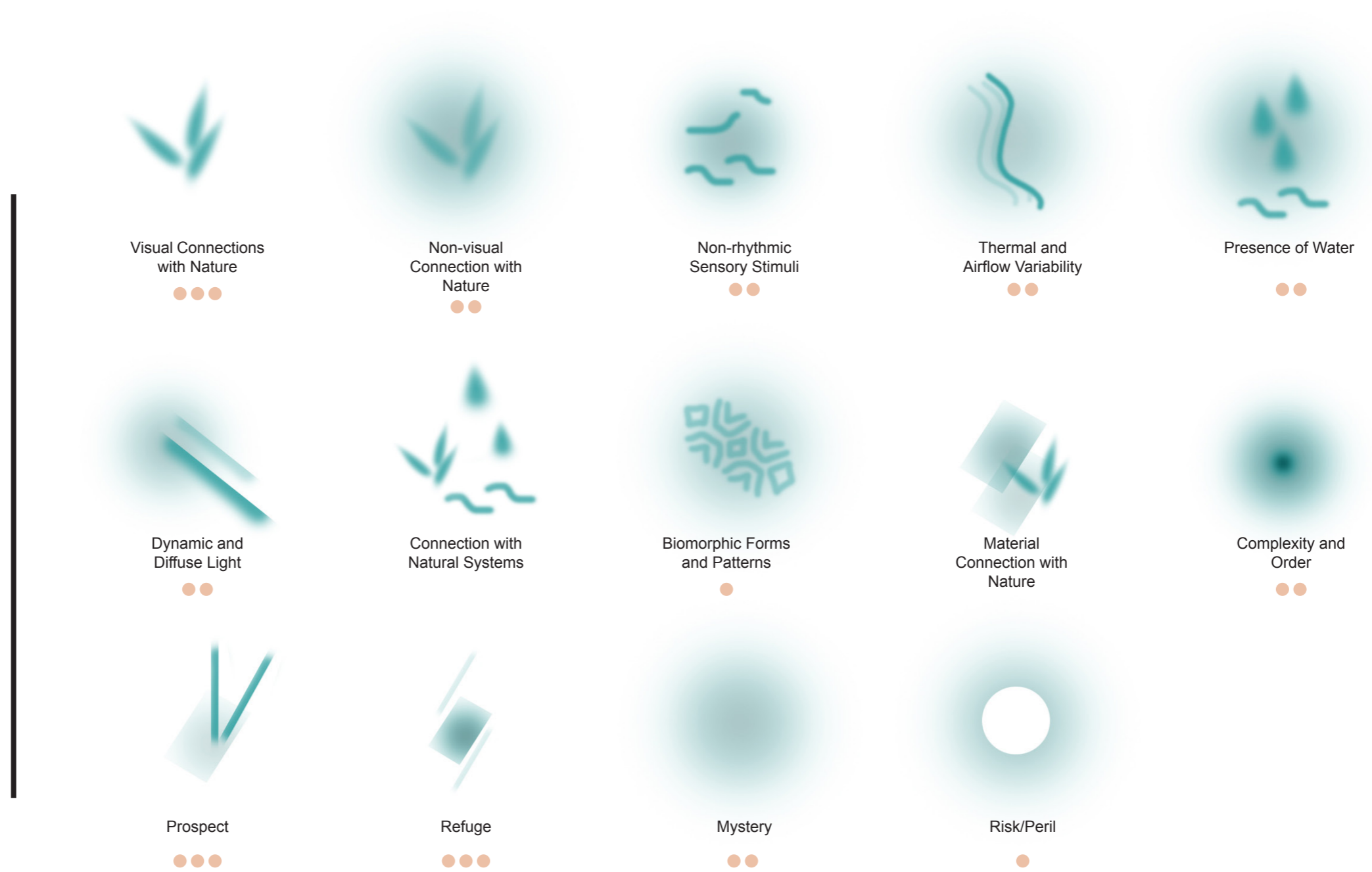
Figure 31.
(Moroney, 2020)

14 Properties of Biophilic Design described by Terrapin Bright Green.
(Terrapin Bright Green, 2014).

29

Visual Connections with Nature (3/3) - Positively impacts attitude and overall happiness, providing a sense of fulfilment.

Non-visual Connection with Nature (⅔) - Reduced stress and improved tranquillity.

Non-rhythmic Sensory Stimuli (⅔) - Observed and quantified behavioural measures of attention and exploration.

Thermal and Airflow Variability (⅔) - Positivity impacts comfort, wellbeing and productivity.

Presence of Water (⅔) - Reduce stress, increased feelings of tranquillity, lower heart rate and blood pressure.

Dynamic and Diffuse Light (⅔) - Positively impact circadian system functioning and increase visual comfort.

Connection with Natural Systems (0/3) - Enhanced positive health responses; shifted perception of environment.

Biomorphic Forms and Patterns (⅓) - Observed view preference.

Material Connection with Nature (0/3) - Improved creativity and comfort.

Complexity and Order (⅔) - Positively impact on physiological stress responses.

Prospect (3/3) - Reduced stress, boredom, irritability, fatigue. Improved safety and comfort.

Refuge (3/3) - Improved concentration, attention and perception of safety.

Mystery (⅔) - Induced strong pleasure response.

Risk/Peril (⅓) - Strong dopamine and pleasure.

(Terrapin Bright Green, 2014).

The London Sky Garden visited by thousands as a city attraction, promotes the integration of nature in our urban spaces. Whilst, the Take Wood Bagot's biophilic office in Melbourne, Australia, "design is a deliberate dedication to the incorporation of natural elements, which span the studio's length. The sustained use of timber and greenery is an intentional effort to counteract the industrial finished of the studio, softening the aesthetic and creating a space that feels more like an airy balcony held aloft trees than merely an office decorated with plants". (Luscombe, 2017). Creating new secular atmosphere norms.

Figure 32.

'London Sky Garden'.
(Beyond The Notebook, 2017)

Figure 33.
'Biophilic Office Design'.
(Luscombe, 2017)

The properties of biophilic design show the psychological benefits to improve overall fulfilment and enliven everyday life experiences. This part concludes that the impact of designers and psychologists working together to create more spiritually enhanced spaces in the profane environment; could result in the new social norms to improve wellbeing on individuals which form our communities. To suggest further, "If science could help the design profession justify the value of good design and craftsmanship, it would be a very powerful tool and quite possibly transform the quality of the built environment." (Place Resources, 2018).
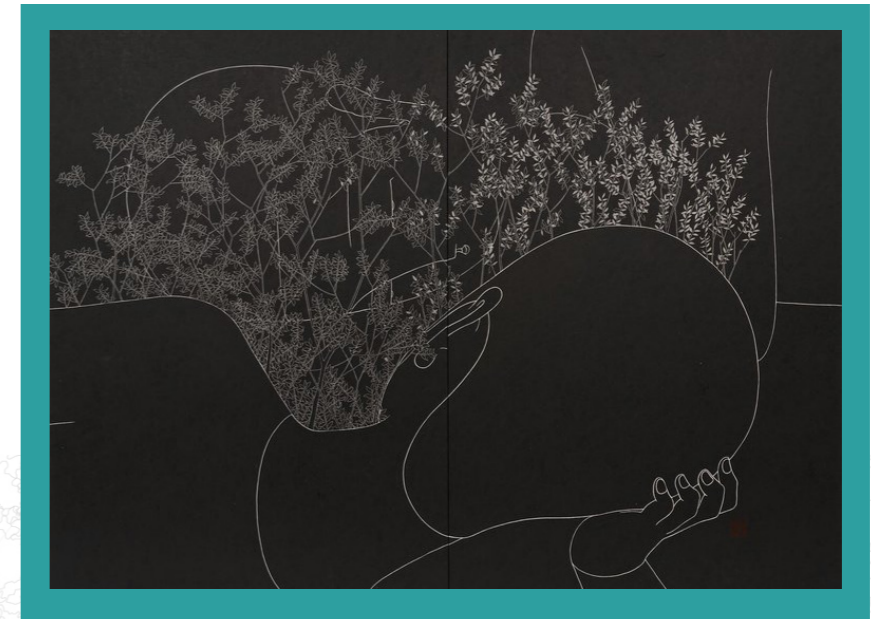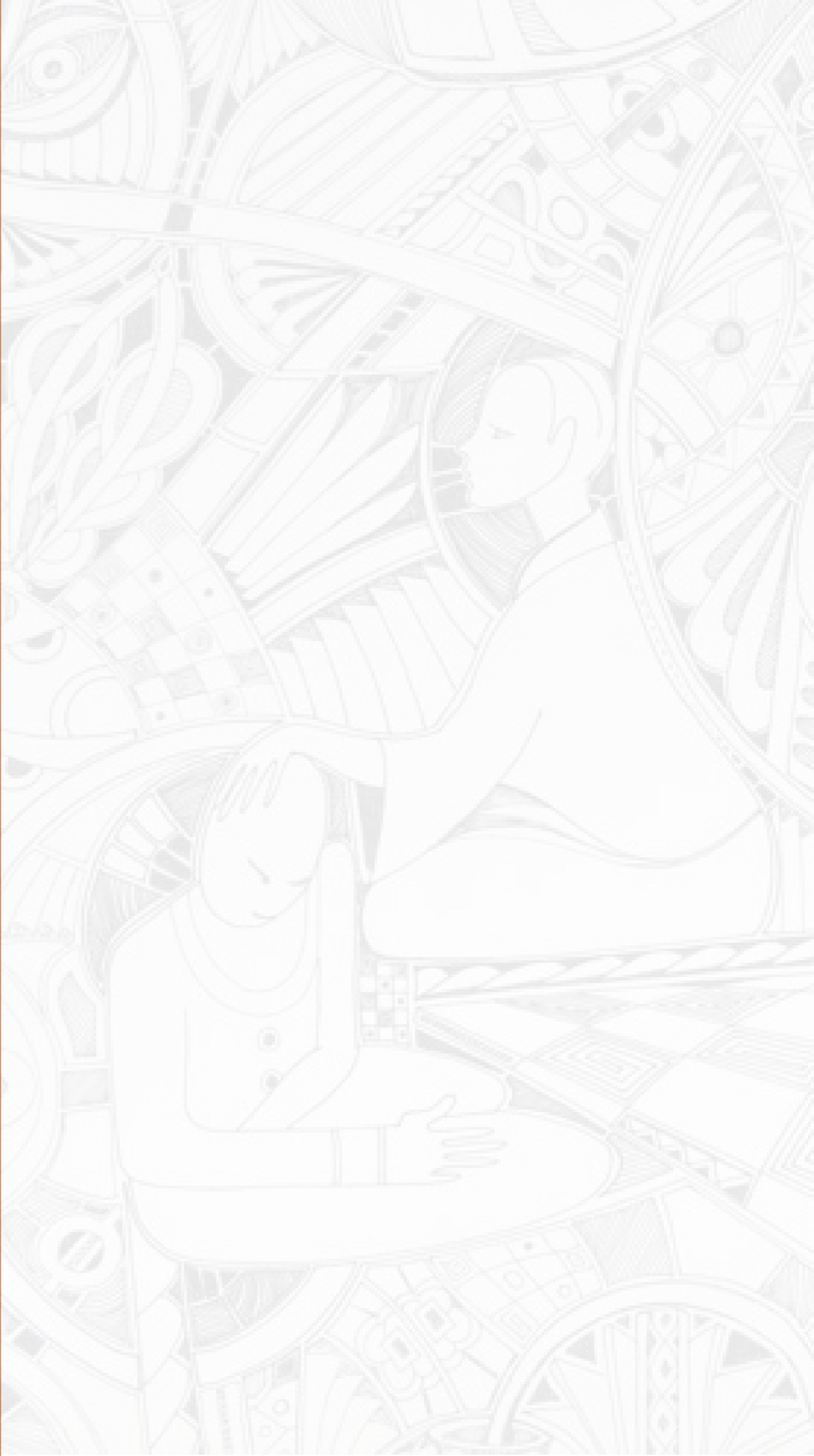

Figure 34.

'Our Nature'.
(Moonassi, 2019)

Spirituality and Space

Conclusions

Concluding research on the dissertation.

Exploring the abilities and components of the built environment to provoke a spiritual response; leading to a greater level of wellbeing in an individual or given community.

Spirituality and Space

Conclusions

The research on spirituality and space has outlined several factors. Including the abilities and components of the built environment to provoke spiritual response in users and determining the health and wellbeing that is driven by spirituality. All of which has an objective effect on individuals and communities.

Explored in part one of the dissertation, spirituality is a term that follows many meanings and beliefs across the globe; however, to my understanding and research, spirituality dwells off the form of self-consciousness. When an individual shows an increased level of self-awareness, it provokes the act of spirituality. Neuroscientist and psychologist, Lisa Barrett, confidently outlines that spirituality is the act of consciousness trying to find itself. (Greene, 2019). Therefore, this dissertation's research has outlined spiritual experience under self-awareness, consciousness, and actualisation. From a personal experience, moments where I sit contemplating my existence and physical, emotional placement in my surroundings, is when I feel most spiritually present. That is, present to the exact moment. I would sense this in myself as a higher level of consciousness reached. Therefore, the notion of 'moments' has been explored in this dissertation - notably present in the case study, Maggie's Centre Oxford.

Figure 35.

'Being an Artist'.
(Moonassi, 2017).

Maggie's Centre has outlined the physical design of spiritual space. Creating moments for contemplation, refuge, and prospect, with a full consideration of the physical environment concerning the human senses, and the awareness of the social foundation that creates the spiritual experience. These factors have contributed successfully to the implementation of spiritual wellbeing for the cancer community. Eight out of the fifteen properties of living structure explored by Christopher Alexander have been applied to the centre's design. The application of these factors suggests a level of wholeness has been achieved in Maggie's Centre Oxford's design. According to Alexander, only two or more are necessary to create a living structure. My visit to the centre also gives me confidence in the design for spiritual wellbeing, as I left feeling uplifted and with a sense of wholeness. This experience suggests that the success of provoking such feelings of fulfilment should not only be set to a specific community. However, it has the potential to be present for all to experience, including daily. If we can associate emotions and feelings with an object, then it is the same for our physical surroundings. Establishing a positive emotional response to spiritual experience sets a foundation for the vital aspect of spiritual wellbeing. Fishers four domains model (Figure 9) highlights these emotional responses based on personal, communal, environmental and transcendental aspects. These domains present the feelings and emotions spirituality expresses, including fulfilment, peace, integrity, value, forgiveness and more. The human qualities that should not be dismissed and, rather importantly, considered when designing our built environment, resulting in improved wellbeing. To promote spiritual wellbeing, design aspects, including creating settings for dwelling moments, are a starting point. The properties laid out by Alexander set an aesthetic framework for implementing structures, maintaining wholeness. Which, as a result, leads to provoking spiritual response in users.

The dissertation research, case study analysis and the results from the survey, brought attention to the crucial connection to nature to provoke spiritual wellbeing. This connection is variable to different forms explored in the biophilic design properties presented by Terrapin Bright Green in Figure 31. An important property, 'visual connections with nature' applies to the survey and Maggie's Centre along with other properties. However, Maggie's Centre is a perfect example of the visual connection with nature as it became the central concept to the design achieved by Wilkinson Eyre. Whilst my design project (pavilion in Westgate) allows the moment of dwelling to have a visual presence with nature. The integration of biophilic design set sustainable achievements both on the environment, and sustainability of the people due to their psychological, physiological and cognitive benefits. These benefits show that the concept holds considerable strengths, including promoting spiritual wellbeing.

Highlighting the properties of biophilic design and living structure shows the importance of combining design elements to achieve a fulfilling experience for people. It also opens the importance of designers and scientists working together to create more positively provoking spaces and briefs for our built environment. Establishing that we spend 87% of our lives inside buildings makes it more critical than ever to promote the process of psychologists working very closely with architects. Neuro-architecture explores the influence of the built environment on our wellbeing. "Today, thanks to psychological studies, we have a much better idea of the kind of urban environments that people like or find stimulating." (Bond, 2017). People are becoming more aware of the architectural impact on their health, pushing the drive in neuro-architecture. The relationship of spaces and the brain is so strong, including the link between spiritual consciousness and spiritual experience in the built environment. These psychological relationships are being explored, quantified and validated.

The ultimate achievement is to create new norms in our society based on spiritual experience and its wellbeing benefits to be integrated into the secular environment. According to my survey, 0% of participants felt their level of wholeness increased when walking through towns (Moroney, 2020). This shocking response provides evidence that our profane setting lacks provoking the necessary human desire of life-fulfilment. By pushing neuro-architecture, biophilic design and living structure in our society, undoubtedly this would start to change. The fundamental conclusion is to form new norms of the profane world's expectations, on improving spiritual experience leading to a higher level of wellbeing on a daily basis.

"Architecture has long been understood as a cultural discipline able to articulate the human condition and lift the human spirit, yet the spirituality of architecture is rarely directly addressed in academic scholarship" (Leatherbarrow, 2015).

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Main Sources for Research

Source V -
Alexander, C. and Center for Environmental Structure (2002) *The nature of order : an essay on the art of building and the nature of the universe.* Berkeley, Calif: Center for Environmental Structure (Series (Center for Environmental Structure), 9).

Alexander's work from The Nature of Order outlines fundamental factors for implementing living structure. I have explored living structure throughout the research.

Source I -
Barrie T, Bermudez J and James Tabb P (2016) *Architecture, Culture, and Spirituality*. Abingdon: Routledge.

This book is the main source of literature for my research, covering the meaning of Spirit of Place and how spirituality manifests in the environment. It also provides case studies, architectural techniques and a combination of analytical and experiential concepts.

Source VI -
Terrapin Bright Green. (2014) *14 Patterns Of Biophilic Design: Improving Health and Wellbeing in the Built Environment*. Available at: http://www.terrapinbrightgreen.com/wp-content/uploads/2014/04/14-Patterns-of-Bi-ophilic-Design-Terrapin-2014e.pdf (Accessed: 14 September 2020).

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Appendix

Ethics Review Form (E1)

OXFORD BROOKES UNIVERSITY

Faculty of Technology, Design and Environment - Ethics Review Form E1

- This form should be completed jointly by the **Supervisor and Student** who is undertaking a research/major project which involves human participants.

- It is the **Supervisor** who is responsible for exercising appropriate professional judgement in this review.

- Before completing this form, please refer to the University **Code of Practice for the Ethical Standards for Research involving Human Participants**, available at http://www.brookes.ac.uk/Research/Research-ethics/ and to any guidelines provided by relevant academic or professional associations.

- Note that the ethics review process needs to fully completed and signed **before fieldwork commences**.

(i)   **Project Title:** Spirituality and Space: Exploring the abilities and the components of the built environment to provoke spiritual response; leading to a greater level of wellbeing on an individual or given community.

(ii)   **Name of Supervisor and School in which located:** Ricardo Assis Rosa

(iii)   **Name of Student and Student Number:** Holly Moroney 18058542

(iv)   **Brief description of project outlining where human participants will be involved (30-50 words):**
The project is research based to explore how the built environment has the ability to provoke a spiritual experience in users which can lead to a level of wellbeing. There are a number of research methods used throughout the project to determine if this is possible and if so, how it is possible. The project requires a short survey using 12 questions to explore people's understanding on spirituality, wellbeing and our built environment's effect on individuals. The survey will only require 5 minutes to answer and is created using google docs forms, which will later be analysed by me using a structure of questions to determine some aspects of the project. It will be used throughout the dissertation, however mostly in chapter 3 - The Profane.

		Yes	No
1.	Does the study involve participants who are unable to give informed consent (e.g. children, people with learning disabilities)?	☐	X
2.	If the study will involve participants who are unable to give informed consent (e.g. children under the age of 18, people with learning disabilities), will you be unable to obtain permission from their parents or guardians (as appropriate)?	☐	☐

3.	Will the study require the cooperation of a gatekeeper for initial access to groups or individuals to be recruited (e.g. students, members of a self-help group, employees of a company)?	☐	X
4.	Are there any problems with the participants' right to remain anonymous, or to have the information they give not identifiable as theirs?	☐	X
5.	Will it be necessary for the participants to take part in the study without their knowledge/consent at the time? (e.g. covert observation of people in non-public places?)	☐	X
6.	Will the study involve discussion of or responses to questions the participants might find sensitive? (e.g. own traumatic experiences)	☐	X
7.	Are drugs, placebos or other substances (e.g. food substances, vitamins) to be administered to the study participants?	☐	X
8.	Will blood or tissue samples be obtained from participants?	☐	X
9.	Is pain or more than mild discomfort likely to result from the study?	☐	X
10.	Could the study induce psychological stress or anxiety?	☐	X
11.	Will the study involve prolonged or repetitive testing of participants?	☐	X
12.	Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?	☐	X
13.	Will deception of participants be necessary during the study?	☐	X
14.	Will the study involve NHS patients, staff, carers or premises?	☐	X

Signed:	Ricardo Assis Rosa	**Supervisor**
Signed:	H R Moroney	**Student**
Date:	10.01.2021	

What to do now:

1. If you have answered **'no'** to all the above questions:

    (a) The student must **send** the completed and fully signed E1 form to their **Dissertation Module Leader.**
    (b) The student must keep a copy of the E1 form which must be bound into their dissertation as an appendix.
    (c) The supervisor must keep a copy of the E1 form as they are responsible for monitoring compliance during the fieldwork.

2. If you have answered **'yes'** to **any** of the above questions:

    (a) The supervisor and student must complete the TDE E2 form available at http://www.brookes.ac.uk/Research/Research-ethics/Ethics-review-forms/
    (b) Note that the information in the E2 must be in **sufficient detail** for the ethical implications to be clearly identified.
    (c) The signed E2 and signed E1 Form must be emailed to Bridget Durning (bdurning@brookes.ac.uk) who is the Faculty Research Ethics Officer (FREO) for review. Please allow **at least two weeks** for this review process.

Appendix

Survey Analysis

(Moroney, 2020)
Moroney, H (2020) Spirituality and Space. Available at: https://forms.gle/kimNLeNbZKWvFNB86 (Accessed: 4 January 2020).

Spirituality and Space.

To analyse the results of the survey, I will use these questions to receive information for the dissertation research:
1. What is the question, and in what manner did I ask the question?
2. What were my expectations for the answers?
3. Was there an average or similar answer?
4. What are the other answers given and what did I learn or discover from them?
5. How can this be applied to the built environment?

Survey Results:

Out of 12 questions asked with taking about 5 minutes to answer, there were 23 participants of which no age, gender or profession were asked. This is because I wanted to keep the survey as objective as possible, or more importantly to give focus to only a certain topic without going too many personal details. This also makes people more willing to take part in the survey. Initially a pilot survey was made, however this was rather extensive with questions of very subjective matter.

Q1:
'The data collected will be used anonymously to support the dissertation research. I agree to proceed with the survey.'
A1: 'I agree'

1. The Question was asked to ensure they understood that their information would go into analysis of the dissertation research. It allowed them to proceed with consent for me to use their information anonymously.
2. 100% of participants answered. I expected full response as it was compulsory to answer in order to proceed. If they were not happy to proceed then they would not take part in the survey.
3. Same as above.
4. No other answer options are given.
5. N/A.

Q2:
'I would call myself a spiritual person.'
A1: Yes
A2: Sometimes
A3: No

1. The question was asked in a manner to ensure it was coming from their perspective to give a more honest response.
2. I expected there would be a mix of answers because spirituality is not as known or profound in some individuals. By adding the option of 'sometimes', it came from an understanding that spirituality is something to be provoked in some occasions.
3. The highest result was 'sometimes' with 47.8%, secondly 'yes' with 34.8%, and 'no' with 17.4%.
4. With 'sometimes' being the highest result, this confirms that spiritual experience is something that is triggered. It can imply that it exists always in us (typically with 34,8% of answers being 'yes') and that it is then something that is triggered. Those who answered 'no' may not have reached their full potential of self-actualisation according to Maslow's hierarchy of needs, or have a different understanding of spirituality.
5. With the highest being 'sometimes' and relating to this as spirituality being triggered in an individual, we can interpret this into the built environment whereby space can trigger a response in spiritual experience resulting in an answer of 'sometimes'. Or alternatively, space has the power to reduce spiritual experience, resulting in anger 'sometimes'.

Q3:
'I feel most spiritually enhanced... (in/at/when/if etc.)
A: (23 written responses)

1/2. The question was asked from a perspective of theirs to encourage a personal response. By allowing them to write a response, it allowed them to give as much information as they felt comfortable with. It also didn't restrict answers or imposed a certain response by giving them a choice of answers. This way I was able to achieve subjective information to determine if there is a common response.
3. There were 3 answers which had 2 identical/similar response. 2 participants wrote 'when I meditate', 2 participants wrote 'when in nature', 2 participants wrote 'I'm not sure'. The other 17 responses were different to each other however raised some similarities around the topics of 'achievement, pause, nature, memories, religion, awareness, exercise."
4. With these answers, I discovered that spirituality is triggered by a number of elements and that it is indeed subjective. However, there are a number of themes which can be associated with it, and of which most of the answers did not come from a response of architecture. Most answers did not associate with religion which confirms that religion is not a fundamental trigger of spirituality and that it can be discovered by other avenues of life.
5. When applied to the built environment, it is evident according to the results that spirituality is triggered by a number of elements, with religion being only one aspect of many. It confirms that to provoke a spiritual experience it takes a number of combined elements and with the individuals subjective interpretation.

Q4:
'My level of wholeness is increased when I am...'
A1: In my work environment
A2: Shopping
A3: At home
A4: In a natural setting
A5: In a sacred place
A6: Walking in town
A7: Visiting a luxury spa

1. This question was to initiate another trigger of spirituality by disguising it with feeling of wholeness which commonly people would not understand to associate it with spirituality. This allows the participants to be in a perspective of emotional response and what triggers it. The word wholeness was used by influence of Christopher Alexander's concept of spirituality and how he measures a level of life in a given area. He commonly asked eg. "Does this building trigger a feeling of wholeness?". The answers were a combination of the profane, nature, religion, luxury and memory and this was done to determine how much of each people feel more wholeness.
2. I expected the highest response from 'in a natural setting' and the least from 'walking in town'. I also expected to see votes across all answers.
3. The highest answered was 'in a natural setting' with 87%. The second highest was 'in a sacred place' with 60.9% and thirdly 'at home' with 17.4%. The others were only answered by 2 or 1 participants and 'walking in town' was voted by none (0%).
4. I was shocked by 0% answers on 'walking in town' as this confirms that 'level of life' is missing in the most important of our built environment which has effect on wellbeing. 'Shopping' was voted by only 1 person and 'in my work environment' by only 2 which means that profane buildings are missing a level of wholeness which promotes a low level of wellbeing. With 17.4% voting 'at home', this can be identified due to home being a place of comfort for some with personal items creating a sacred space and more. With 'in a sacred place' being voted with 60.9%, it confirms that people can identify places with spirituality. 'In a natural setting' voted by 20 of the 23 participants shows that nature plays a significant role in spirituality and triggering a level of wholeness. This matches one of the highest result from the previous question.
5. When applying this to the built environment, it is clearly important that there is a significant relation to nature in order to gain spiritual experience. It is also evident that people can link the feelings of spirituality with spaces. However it also evident that in our everyday buildings, there is no sense of wholeness.

Q5:
'I feel that my everyday experience in spaces promotes wellbeing.'
A1: Yes
A2: Sometimes
A3: No

1. This question was asked to determine if the importance of people's wellbeing is addressed on an everyday basis. It was asked from their perspective to provide a more honest answer.
2. I expected that less people would answer 'yes' and that 'no' and 'sometimes' would be almost even.
3/4. The highest answered was 'sometimes' with 69.6% followed by 'yes' 17.4% and lastly 'no' with 13%. With 16 out of the 23 participants answering 'sometimes' shows that there is a fulfilment of wellbeing in their spaces on an everyday basis, however not completely. With the previous questions, by adding a connection to nature in these spaces could increase level of wellbeing.
5. When applying this to the built environment, it is understood that profane buildings sometimes promote wellbeing which is essential to our everyday experiences to reduce stress and anxiety.

Q6:
'If you answered 'no' in the previous, then please state your reason'
A: (3 written responses)

1. This was asked why they felt there is no experience of wellbeing being promoted in their everyday experiences of space, to help me understand better why they feel that way and discover any architectural missing they notice.
2. I expected answers such as stressful environments with low lighting and no connection to surroundings.
3. 2 of the participants answered that they have less control in their environment. Particularly the one answered that when she needs time out or a break there is no space at her office to do this peacefully and that she uses her weekends to do this outside of the office. The third participant answered strictly that, "My office where I spend most time has no sense of wellbeing."
4. What I discovered by these answers is that participants wished they had control over their space to allow them a form of escape to recharge or simply have the atmosphere taking less control over them.
5. Biophilic design is becoming a great medium of bringing a sense of wellbeing into the work place, additionally having different hubs and arrangements to work in, gives people more control over themselves, their choices and this would therefore give them a better sense of wellbeing. This shows that strict control can dampen flow of spirituality in everyday environments.

Q7:
'Which is a more accurate picture of your true self?'
A1: A (am image of green forest with light shining through, no man-made structures.)
A2: B (an image of busy city street surrounded by man-made structures and people.)

1. This question was asked to discover how individuals can relate to visuals and link it to themselves. It also shows two different vibes which can relate into architecture and spiritual wellbeing. A is an ideal feeling or picture which commonly people would aim to achieve and what commonly architecture should provoke as it relates to serenity and wellbeing. Whereas B is a common image of the stress, anxiety and fast paced lifestyles we live in the modern world with little attention to bringing elements of A. This question is interesting to see how people agree with my concept of this.
2. My expectations were for participants to vote rather evenly.
3. 65.2% voted A (forest), with 34.8% voting B (city).
4. With most participants voting A, this shows two things. Firstly, that people can identify themselves as in that state showing a level of self-actualisation and may not commonly encounter the feelings of B. Secondly, they could relate to the feelings of B but understand that their true self is naturally made to relate more to A.
5. When reflecting this into the built environment, it is evident again that nature holds a great power over relating to self-actualisation and consciousness; affecting spirituality.

Q8:
'I wish that I were the other picture (A or B).
A1: Yes
A2: No

1. This question was asked to discover if those who voted for B in the previous would wish they were the other. It was asked in their perspective to provoke a more honest answer.
2. I expected that those who voted B in the previous question would more likely answer 'yes'.
3. 52.2% voted for 'no', and 47.8% voted for 'yes'.
4. I discovered that of those who answered 'no', were mostly the participants who answered 'A' in the previous; and those which answered 'yes' were mostly the participants who answered 'B' in the previous. However to my surprise, not all that answered 'B' in the previous answered 'yes' in this question. Their reasons follow in Q9.
5. When applying this to the built environment, It is clear that people seek more natural surroundings and feel more like their true self when doing so. It is therefore important that as designers, we built with close relationship to nature and not dismiss it.

Q9:
'If you answered 'yes' to the previous, please state your reason.'
A: (9 written responses)

1. The question was asked to understand their reasoning to determine if it is linked to their spirituality or their wellbeing and so on.
2. I expected for people to respond that if they answered 'B' in Q7; that it disrupts their wellbeing.
3. 3 out of 9 answered in relation to anxiety kicking in from answering 'B' in Q7. 2 out of 9 answered 'it is calm' after answering 'B' in Q7. 2 out of 9 answered in relation to slowing down after answering 'B' in Q7. 1 participant answered that they feel more stressed after answering 'B' in Q7. Out of the 9 answers, only one had answered A in Q7, but by answering 'yes' in Q8, they say they wish they were B because 'I feel there are more options to busy or calm'.
4. By the rare participant answering 'I feel there are more options too busy or calm', can suggest that the built environment can provide mindful moments amongst the chaos. It shows that as modern beings, working and living in a busy world is normal and that many people would happily chose that. However, it shows that by having moments or places of time out would be of benefit to a balanced lifestyle.
5. By providing places/spaces to allow such busy people to take a moment, could provide better wellbeing on the modern people.

Q10:
'I wish that my everyday environments provided a better sense of wellbeing, wholeness and fulfilment. (These spaces may include your work office, school, supermarket etc.)
A1: Yes
A2: No

1. This question was asked to determine if my thoughts on this matter are agreeable to an extent. It was asked in a their perspective.
2. I expected a 1:1.
3. 82.6% of participants answered were agreeable by answering 'yes', with only 17.4% suggesting otherwise by answering 'no'.
4/5. I was surprised that such a large sum agreed with this statement. It shows that it is an important matter to address as designers as these aspects of life are most certainly important on individuals and communities. For those who answered 'no' may feel comfortable with the balance in their environments.

Q11:
'Please state your reason for the previous question'
A: (23 written responses)

1. I asked this question in the survey to further understand the reasoning behind previous questions.
2. I expected a range of responses due to its subjectivity, however with similar cross-overs.
3. The responses were rather mixed of which some positive and negative. However there was a main word that came across 6 of the responses and that was 'stress'.
4. Although the responses were rather mixed, most of them concluded with an agreeable position. This shows that people's lifestyles and wellbeing should be more focussed on. There were a few common phrases and topics used which a chart will be drawn up.
5. To improve the communities lifestyles, the built environment should consider techniques to integrate this into everyday environments (profane).

Q12:
'I am religious'
A1: yes
A2: maybe
A3: no

1. I asked this question to assist in the research of spirituality, to determine if people can associate themselves as spiritual without being religiously devoted.
2. I expected most answers to be 'no' due to religion dying out as a normal.
3. 47.8% was the highest answer being 'yes', followed by 'maybe' and 'no' being 26.1%.
4. This confirms that most participants follow a religion and so that their view on spirituality may come from a religious understanding.
5. When designing for spirituality; it is worth stating in the dissertation by my research, what I determine as spirituality. A lot of people's understanding of spirituality is associated with religion however this is not exactly the case. Research into the design aspect of spirituality will determine many factors and this will be explored throughout the dissertation.