

**Meditation Interiors:
Exploring Spatial Qualities for Well-Being and
Spirituality**

Fatemeh Monzavi

Submitted to the
Institute of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Master of Science
in
Interior Architecture

Eastern Mediterranean University
July 2020
Gazimağusa, North Cyprus

Approval of the Institute of Graduate Studies and Research

Prof. Dr. Ali Hakan Ulusoy
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science in Interior Architecture.

Assoc. Prof. Dr. Zehra Öngül
Chair, Department of Interior
Architecture

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Master of Science in Interior Architecture.

Prof. Dr. Maya Nanitchkova Öztürk
Supervisor

Examining Committee

1. Prof. Dr. Maya Nanitchkova Öztürk

2. Assoc. Prof. Dr. Hüriye Gürdallı

3. Asst. Prof. Dr. Kamil Güley

ABSTRACT

The relationship between interior space qualities and well-being is being understood as consequential and reciprocal. On the one hand, the place has been demonstrated to have a strong psychological and physiological effect; on the other hand, feelings and human experience play a significant role in what individuals perceive to be efficient design. However, such research on well-being is predominately concerned with the health and work environments, and partial to more general features such as accessibility, comfort, or positive distraction.

This thesis aims to bring well-being and spirituality to the foreground, including the spiritual relation with physical space into the discussion, and produce a framework for design thinking that includes a broad list of concerns, qualities, principles and approaches relevant to the construction of appropriate spatial identity and atmosphere. Hence, the focus is on the framework for meditation interiors, recreation, and spiritual experience where these qualities are desired. The main research questions of this study are; which features, elements, or qualities of interior space may be most effective in experience with respect to well-being and spirituality? What may be the physical features or qualities of interior architecture or space for healing and well-being?

Accordingly, this study has a qualitative methodology. To extend understanding of the qualities that underlie the healing potential of interior architecture or space, it surveys relevant theoretical sources for clues on the concept of well-being and spirituality in correlation with the experience of space/place. Furthermore, in order to obtain the principal features of spatial identity and atmosphere for spirituality, along with design

tools and principles contributing towards it, the study surveys architectural theoretical sources and conducts a brief overview of traditional meditation or religious interior spaces. Finally, it focuses on the spatial analysis of contemporary meditation interiors chosen from selected practice examples of the world.

This thesis does not address the full scope and possibilities that architectural space may present for the experience of well-being or spirituality. However, it offers inception – an initial and broad list of concerns, qualities, principles, design approaches, and criteria that address the constitution of spatial identity and atmosphere for spirituality. In this respect, it is a pilot study for frameworks and is open to further refinement. Nevertheless, research on such potentials of space do have broader significance and implementation in places like spas, elderly homes, schools, and other public and private institutions.

Keywords: Meditation Interiors, Spiritual Practices, Space Quality, Healing, Well-Being, Interior Space

ÖZ

İç mekan nitelikleri ve iyi oluş arasındaki ilişki, sebep sonuç bağlantısı içeren ve birbirlerini karşılayan iki bağlam olarak anlaşılmaktadır. Buna ilaveten, mekanın güçlü bir psikolojik ve fizyolojik etkiye de sahip olduğu gösterilmiştir; Öte yandan, duyguların ve insan deneyiminin, bireylerin verimli bir tasarım olarak algıladıkları durumlarda önemli bir rol oynadıkları görülmüştür. Ancak, iyi oluş üzerine bu tür araştırmalar ağırlıklı olarak sağlık ve çalışma ortamları ile ilgili olmaktadır ve erişilebilirlik, konfor veya olumlu dikkat dağıtma gibi daha genel özellikler kısmen değinilmektedir.

Bu tez fiziksel mekan ile manevi ilişkiyi ön plana çıkarıp, refah ve maneviyatı konularını da tartışmaya katarak, mekansal kimlik ve atmosferin oluşumu hakkında bir dizi ilke ve prensip niteliğinde içerikler oluşturmayı amaçlamaktadır. Bu nedenle, odak noktası bu niteliklerin var olması beklenildiği meditasyon iç mekanları, rekreasyon ve manevi deneyim çerçevesi üzerinde durulmaktadır. Bu çalışmanın temel araştırma soruları; iç mekanın hangi özellikleri, unsurları veya nitelikleri iyi oluş ve maneviyat deneyimde en etkili olmaktadır?; iç mimarının veya bir mekanın iyileştirme ve iyi oluş açısından barındırması gereken fiziksel özellikler veya nitelikler neler olmalıdır?

Buna göre, bu çalışma nitel bir metodolojiye sahiptir. İç mimarının veya mekanın iyileştirme potansiyelinin arkasında yer alan niteliklerin anlayışını derinleştirmek amacı ile, yer / mekan deneyimi ile ilişkili olarak, iyi oluş ve maneviyat kavramı hakkında ipuçları edinerek teorik kaynaklar incelenmektedir. Ayrıca, mekânsal kimlik

ve maneviyatın kalitesinin altında yatan sebeplerin altını çizmek için, ona katkıda bulunan tasarım araçları ve ilkeleri ile birlikte, mimarlık alanından teorik kaynakları inceler, ve geleneksel meditasyon veya dini iç mekanlara analitik bir genel bakış sunar. Son olarak, dünyanın en iyi uygulama örneklerinden seçilen çağdaş meditasyon iç mekanlarının mekansal analizine odaklanmaktadır.

Bu tez, mimari mekanın iyi oluş veya maneviyat deneyimi için sunabileceği tüm kapsam ve olasılıkları ele almamaktadır. Buna rağmen bir başlangıç sunmaktadır – bu deneyimleri destekleyen mekânsal kimlik ve atmosferin oluşumunu ele alan kriterler, kaygı, nitelikler, ilkeler, ve tasarım yaklaşımları içeren geniş bir liste oluşturmaktadır. Bu bağlamda, bu tasarıma yönelik öneriler için bir pilot çalışması olarak nitelendirilebilir ve daha fazla ayrıntı andırmaya açıktır. Bununla birlikte, kaplıcalar, bakım evleri, okullar ve diğer kamu ve özel kurumlar gibi benzer mekanlar için de uygun olup, bu çalışma daha geniş bir öneme ve uygulama potansiyeli taşımaktadır.

Anahtar Kelimeler: Meditasyon İç Mekanları, Manevi Uygulamalar, Mekan Kalitesi, Şifa, İyi Oluş, İç Mekan

To My Family

ACKNOWLEDGEMENTS

I would like to thank my beloved supervisor Prof. Dr. Maya N. Öztürk, who performed precious guidance, supplied advice, suggestions, enlightenment, encourage and be a model for me in all aspect of life; She was always available whenever I ran into a trouble spot or had a question about my research or writing. She consistently allowed this paper to be my own work but steered me in the right direction whenever she thought I needed it.

Definitively, I must express my very profound gratitude to my lovely parents and my sympathetic friends for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without them. Thank you.

TABLE OF CONTENTS

ABSTRACT.....	iii
ÖZ.....	v
DEDICATION	vii
ACKNOWLEDGEMENTS.....	viii
LIST OF FIGURES.....	xii
1 INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.2 Problem Statement.....	11
1.3 Aim and Objectives of the Study.....	12
1.4 Research Questions.....	13
1.5 Methodology.....	13
1.6 Limitation and Scope of the Study.....	14
1.7 Structure of the Thesis.....	14
2 INTERIOR SPACE QUALITIES: THEORIES ON SPACE CONSTITUTION AND PERCEPTION IN CORRELATION WITH SPIRITUALITY.....	16
2.1 The Concept of Space in Philosophy.....	18
2.2 The Concepts of Space and Place in Theory.....	19
2.3 Theories of Perception and Experience: Space Features and Effects.....	21
2.3.1 Human Body and Perception.....	21
2.3.2 The ‘Sense of Place’.....	24
2.3.3 Phenomenological Perspectives of Space and Place.....	27
2.4 Understanding Healing, Well-Being and Spirituality in Correlation with Qualities of the Environment.....	32

2.4.1 Healing and Well-being.....	32
2.4.2 The Concept of Spirituality and Well-Being.....	37
2.4.3 Spiritual Practices: Religious Ritual and Meditation.....	45
2.5 Interior Space as Experiential Source: Deriving Theoretical Findings.....	46
3 INTERIOR SPACE CONSTITUTION AND THE FORMATION OF EFFECTS: IDENTIFYING DESIGN TOOLS FOR SPIRITUALITY AND MEDITATION PRACTICES.....	51
3.1 Design Elements and Principles in Theory.....	52
3.1.1 Enclosure and Openings.....	52
3.1.2 Form and Volume.....	54
3.1.3 Organization and Composition.....	56
3.1.4 Size and Proportion.....	59
3.1.5 Furniture and Furnishing.....	63
3.1.6 Light and Lighting Systems and Fixtures.....	63
3.1.7 Articulation/Surface Treatment.....	68
3.1.7.1 Materials.....	72
3.1.7.2 Color, Texture, and Pattern.....	72
3.1.8 Sound and Smell.....	76
3.1.9 Style, Correlations and Effects	79
3.2 Deriving Design Findings: Design Elements and Principles in Theory.....	82
4 CASE STUDIES: REFINING THE FRAMEWORK FOR MEDITATION SPACES FROM SELECTED TRADITIONAL AND AWARDED CONTEMPORARY EXAMPLES	86
4.1 Spaces for Religious Ritual.....	86
4.1.1 Early Temples Architecture and Spatial Features.....	87

4.1.2 Early Church Architecture and Spatial Features.....	89
4.1.3 Early Mosque Architecture and Spatial Feature.....	91
4.2 Deriving Design Findings for Features and Principles of Places for Religious Ritual.....	93
4.3 Case Studies.....	94
4.3.1 Windhover Meditation Center at Stanford University, USA, 2014.....	96
4.3.2 Waterside Buddhist Meditation Center Memorial, China, 2017.....	104
4.3.3 Vajrasana Buddhist Retreat Center, England, 2016.....	112
4.3.4 Meditation Hall Meditation Center, China, 2018.....	119
4.3.5 GMAA’S Meditation Pavilion and Garden, Switzerland, 2013.....	127
5 A FRAMEWORK FOR DESIGN THINKING: CONCERNS, QUALITIES AND PRINCIPLES IN MEDITATION SPACES	135
5.1 List of Findings: Design Concerns, Desired Qualities, Principles and Approaches for Meditation Spaces	135
5.2 Discussion.....	146
6 FINDINGS AND CONCLUSION.....	151
REFERENCES.....	160

LIST OF FIGURES

Figure 1: The Positive Design Framework, Desmet & Pohlmeier, 2013, p.7.....	35
Figure 2: Spirituality in the Physical Environment (Bille & Sorensen, 2016).....	40
Figure 3: The Sanchi Buddhist Temple, 3rd Century BC, Shelton, 2019 (URL20).....	42
Figure 4: Senses and Materials (Birch, 2006).....	43
Figure 5: Sagrada Familia Columns Designed Like the Tree (Bille & Sorensen, 2016)	44
Figure 6: Shape (Ching, 2014).....	55
Figure 7: Form (Ching, 2014).....	56
Figure 8: The Sacred Enclosure, Ise Shrine, Mie Prefecture, Japan, 690 A.D. p.156 (Ching, 2014).....	56
Figure 9: Spatial Organization, 1996, p.179 (Ching, 2014).....	57
Figure 10: Centralized Organization (Ching, 2014).....	57
Figure 11: Mosque of Tinnal, Morocco, 1153–54, p.232 (Ching, 2014).....	58
Figure 12: Visual Scale, Human Scale, Size and Proportion, P.331-333 (Ching, 2014).....	59
Figure 13: Golden Sections, P.303 (Ching, 2014).....	61
Figure 14: Classical Orders, P.309-312 (Ching, 2014).....	61
Figure 15: Renaissance Theories, Palazzo Iseppo Porto, Vicenza, Italy, 1552, Andrea Palladio, P.303 (Ching, 2014).....	61
Figure 16: Modular, Plans and Section of Typical Apartment Unit, Unité d’Habitation, Marseilles, 1946–52, Le Corbusier, P.303 (Ching, 2014).....	62

Figure 17: Ken, Traditional Japanese House, Elevation & Plan, P.303 (Ching, 2014).....	62
Figure 18: Anthropometry, P.303 (Ching, 2014).....	62
Figure 19: Notre Dame Du Haut, Ronchamp, Le Corbusier, Photo: Paul Kozlowski (Velarde, 1929).....	63
Figure 20: Interior lighting of San Giovanni Battista Church, Mogno, photo: Anat Geva (Tabb & Barrie, 2015).....	64
Figure 21: Placement of an Opening, P.177 (Ching, 2014).....	66
Figure 22: Design and Articulation of an Opening, P.177 (Ching, 2014).....	66
Figure 23: Exterior Focus, the Interior of Horyu-Ji Temple, Nara, Japan, 607 A.D., P.180 (Ching, 2014).....	67
Figure 24: An Internal Focus: Tokonoma, the Spiritual Center of a Traditional Japanese House, P.180 (Ching, 2014).....	67
Figure 25: Articulation / Surface Treatment, P.83 (Ching, 2014).....	69
Figure 26: Visual Meaning, p.83 (Ching, 2014).....	69
Figure 27: Volume, p.83 (Ching, 2014).....	69
Figure 28: Different Shape of a Plane, p.88 (Ching, 2014).....	70
Figure 29: Size & Scale, p.88 (Ching, 2014).....	70
Figure 30: Color & Texture, p.88 (Ching, 2014).....	70
Figure 31: Visual patterns, p.88 (Ching, 2014).....	70
Figure 32: Color, p.90 (Ching, 2014).....	74
Figure 33: Texture, p.90 (Ching, 2014).....	74
Figure 34: The Early Temple's Plan (URL 20).....	88
Figure 35: Main Chaityagraha Cave, with Stupa - Photo Dharma, from Sadao, Thailand (URL 20).....	88

Figure 36: Ancient Indian Temples Interior (URL 20).....	89
Figure 37: Old St. Peter’s Basilica, Rome, (330 CE), Early Christian Architecture, Giovanni Ciampini, 1693, P. 33, Photo by Lena Ha (URL 11).....	90
Figure 38: Durham Cathedral, England, 1087-1133. photo by Nicole Ritz (URL 11)....	91
Figure 39: Courtyard and Minaret, Great Mosque of Kairouan, Tunisia, c. 836-75, Photo by Watson, CC BY-SA 2.0 (URL 24).....	92
Figure 40: Plan and Section of Fahraj Friday Mosque (URL 18).....	92
Figure 41: Court Yard View of Fahraj Friday Mosque (URL 18).....	92
Figure 42: Ground Floor Plan (URL 17).....	98
Figure 43: Entrance (URL 17).....	98
Figure 44: Main Meditation Space (URL17).....	99
Figure 45: Meditation Gallery (URL 17).....	99
Figure 46: Courtyard with Landscape (URL17)	99
Figure 47: Courtyard/Water- garden (URL 17).....	99
Figure 48: Ground Floor Plan (URL 21).....	106
Figure 49: Entrance (URL 21).....	106
Figure 50: Meditation Hall (URL 21).....	107
Figure 51: Meditation Hall (URL 21)	107
Figure 52: Meditation Hall (URL 26).....	107
Figure 53: Courtyard View (URL 26).....	107
Figure 54: Courtyard View (URL 21).....	107
Figure 55: Ground Floor Plan (URL 6)	113
Figure 56: Ground floor Plan Remodeled Part (URL 6).....	113
Figure 57: Site View of Vajrasana (URL 6).....	113

Figure 58: Main Meditation Hall (URL 22).....	114
Figure 59: Pathway (URL 6)	114
Figure 60: Akshobya Courtyard (URL 6)	114
Figure 61: Stupa/ Temple Peak (URL 6).....	114
Figure 62: Bedroom (URL 22)	114
Figure 63: Shared / Public Area (URL 22).....	114
Figure 64: Ground Floor Plan (URL 1).....	121
Figure 65: Façade (URL 1)	121
Figure 66: A Tunnel-Like Entrance (URL 25).....	121
Figure 67: Reception (URL 25)	122
Figure 68: Corridor (URL 25).....	122
Figure 69: The Tunnel-Like the Water Yard (URL 1).....	122
Figure 70: Main Hall (URL 1).....	122
Figure 71: Main Hall Openings (URL 25).....	122
Figure 72: Private Meditation (URL 25).....	122
Figure 73: Ground Floor Plan (URL 8).....	129
Figure 74: Walkway through Building (URL 8).....	129
Figure 75: Entrance (URL 8).....	129
Figure 76: Front View with Garden View (URL 8).....	129
Figure 77: Front View (URL 8).....	129
Figure 78: Meditation Hall (URL 8).....	130
Figure 79: Meditation Hall (URL 8)	130
Figure 80: Meditation Hall Backside (URL 8).....	130
Figure 81: Interior of the Kitchen (URL 8)	130
Figure 82: Interior of Bathroom (URL 8).....	130

Chapter 1

INTRODUCTION

1.1 Background of the Study

Recently, there has been growing interest in interior architectural design and their positive or negative effects on human well-being. However, few investigations and attempts have been made in this field to understand the influences on human beings. The foremost aim of this study is to identify and extend the understanding of the qualities that underlie the healing potential of interior architecture or space.

This study advocates the importance of promoting the concept of well-being and spirituality as part of a guiding framework for interior architects. It will seek to explore the special healing potential of interior space with respect to the quality of life, both through theoretical sources and through case studies on contemporary and historical interiors. It will aim to gain and clarify a deeper understanding of how well-being and spirituality may depend on environmental features. Also, distinguishing qualities or properties of interior space that support well-being and spirituality, theoretically by a survey of concepts in philosophy, theories of architecture, and interior architecture.

In order to derive concrete frameworks for design concerning well-being and spirituality, it will then analyze relevant case studies, both historical, focusing on sacred space, and contemporary meditation interiors, focusing on selected practice examples. Although, over the past few decades, well-being and spirituality have been

explored at various levels, such as in philosophy and theory of architecture and interior architecture. There is still a lot of research work needed to shift the framework of design beyond image and visual qualities and towards more complex notions of atmosphere and spiritual values of space.

The life that we live in today's world is not an easy one. Urban life causes a lot of pressure and stress as humans are required to serve in various roles and spaces, which at times can be overwhelming and anxiety-provoking. In this regard, well-being and spirituality are two aspects of urban life that can counter-balance the negativity and stress. Thus, it is essential to understand and to consider the relationships between the environment, humans, and well-being under such circumstances. We should also bear in mind that environmental and spiritual factors impact human beings in various ways and that such an impact should be considered as an essential aspect of human life.

According to Desmet and Pohlmeier (2013), well-being and spirituality go hand in hand and influence each other. It should be distinguished here between the concept of well-being and health. Well-being is a general term that refers to a state of being happy, healthy, and comfortable (The Oxford dictionary, 2019). It also encompasses one's mental health status in which the person feels satisfied with one's life and has a sense of vision and mission in their lives.

Thus, well-being entails both physical and mental health of an individual in society. The root of the word health is *hæ̆lth* in the Old English and comes from a Germanic origin related to the word, whole. In this regard, Nejati (2012) defines the word health as wholeness and wholeness as being whole, sound, or well.

On the other hand, spirituality is etymologically related to the word spirit, which comes from a Latin root, Spiritus meaning soul, courage, vigor, breath, as well as to activate or to energize. Spirituality is also related to the individual's spirit, which is the opposite of materialism or physicality. That is, spirituality is like a breath of life that makes our physical world meaningful and makes us who we are as human beings. According to Nejati (2012), spirituality and well-being are two interrelated concepts; when a person is spiritually aware and satisfied, she/he becomes more active and energetic, and consequently, they reach to the better health and well-being.

The recognition of how spirituality and well-being are interrelated concepts have sparked a growth of interest in exploring the healing power of the environment on human being's feelings of happiness or well-being. Thus, a lot of researchers and scholars have come to consider the healing properties of physical spaces on human life and, as such, have made efforts to work on the design of physical spaces. It is noteworthy here that healing is contrasted with curing in the sense that it is to do with an individual's psychological and spiritual health. Thus, 'healing' is susceptible to other psychological processes and, as such, can be influenced by physical environments (Ananth, 2008).

As a result, the interior design features and characteristics should be recognized as the significance and its various aspects. Such as enclosure and openings, form and volume, organization and composition, size and proportion, furniture and furnishing, lighting, articulation, material, color, texture, sound and smell and style, should be emphasized as influential elements of interior design since they play an essential role in the well-being and health of each individual.

In this regard, Botton (2006) acknowledged both the positive and negative impact of environments such as buildings on people's happiness and well-being. Also, this study analyzes some reviews of related topics to expose, stressing identifying, and finding gaps with their similarities and dissimilarities of design criteria. There are few surveys and attempts of interior architectural design and their beneficial or detrimental impacts on human well-being to understand the individual effects of them. The purpose is trying to reach a well understanding of how well-being and spirituality rely on spatial qualities and clarify interior space potentials that endorse well-being and spirituality.

As has been established above, well-being and spirituality have been discussed in philosophy and theory of architecture and interior architecture in general terms. However, turning the profound conceptions of a healing environment and the spiritual principles in space into a workable framework for design requires more concrete study. Several other academic studies appear at least in part relevant to this current research, either for having analogous topics or for employing similar conceptions. Some have the same aims and objectives but different views, methods, and frameworks, or vice versa. This brief survey aims to identify research material relevant to the current study.

The first research on practicing Pilates "Pilates Method As A Kind Of Mind-Body Practice: Women Practitioners' Opinions On Their Physical And Psychological Well-being" by Filiz Öztürk aims to evaluate the views of the female participants as to their physical and mental well-being. A qualitative analysis methodology is utilized. Data was gathered using a semi-structured system of interviewing involving face-to-face discussions and video interviews. Qualitative data were collected, evaluated for principles, elements were recorded, reviews were written, and conclusions were made,

based on the conventional type of qualitative content analysis method. The results found that the Pilates technique had beneficial impacts on the well-being of participants on their physical and psychological well-being (Öztürk, 2019).

The research focuses on participants' perception of their selves, managing negative thinking and dealing with anxiety, increasing focus and attention, working performance, everyday activities, and pleasure with social and personal interactions. The research suggests that while plates practice may be viewed as contributing to wide variety and power of physical benefits, it is also a practice whereby more psychological impacts are produced by action-oriented consequences alongside cognitive and relational ones. Mind-body interventions involve exercises aimed at using the mind to control bodily activity and enhance health (Öztürk, 2019).

The second research is “Fundamentals Of Cancer Treatment Service Design- Considering The Healing Environment Concept: A Guideline Proposal For Turkey” by İlkay Cankurtaran includes conceptual guidelines for providing disease programs that are well-matched with both the idea of the healing environment and the patient requests. The study focuses on the definition of the healing atmosphere. It examines the laws for cancer treatment facility design in some chosen countries, and all data were extracted and compared with the patient requirements and priorities in the health care system in Turkey (Cankurtaran, 2020).

It mentions that people are disinterested in their environment because of the significance of their illness. The study furthermore examines the healing environment concept and aims to reveal the appropriate design principles. Such principles should help evaluate the cancer treatment services regulations in Australia, Canada, the

United Kingdom, the United States, and Turkey. They also should create a set of requirements for the definition of the healing atmosphere (Cankurtaran, 2020).

While an essential part of the research has addressed the healing atmosphere as substantial feedback for healthcare design, architectural space is not examined in regard to its spiritual effects. The suggestion that a large proportion of users of health services are deeply involved in and strongly influenced by the architectural atmosphere. It comes to be interpreted as design principles and criteria concerning fundamental values of settlement, internal functional relationships, medical necessities, patient and visitor experience, healthy work environments, interior design, social communication, privacy, security, as well as landscape design and outdoor interaction (Cankurtaran, 2020).

Conceptual plans, diagrams, and schematic diagrams were used to clarify the conclusions, both of which concentrate on regulations and laws governing the formulation of health facilities. A large number of experiments were performed using experimental-control sample practices on these topics (cancer, healing environment). There are several uniquely detailed research on the impact of natural light, accessibility to viewpoints, landscape design, or lighting on health care consumers. Yet, just a small range of research centered on the oncology environment and the hospital's psychosocial effects on patients with cancer. The implementation of the conclusions from this work to the design process is still ambiguous (Cankurtaran, 2020).

The third one which is "An Analysis Of Living Environments Of The Elderly And A Project For Assisted Living In Ankara" by İrem Erbaş, uses universal design and examines the interaction between the environment and aging, and propose

improvements of the living environment which are to lead to the growth of the quality of life of the person. First, the initial design was expected to build a homelike atmosphere for the elderly and exploring the connection between person and environment with regard to universal design and quality of life. In this, accessibility, protection, well-being, flexibility, and freedom are the underlying concerns of universal design and a higher level of life being offered (Erbaş, 2006).

The aim is to identify some suitable styles for elderly accommodation, relevant for the long term care forms, and study these through cases from Turkey and other countries. The latest building strategies for the elderly were analyzed in terms of architectural techniques addressing the relationship between aging and the atmosphere. Finally, an architectural project is proposed, presenting a comfortable environment for the elderly by choosing the concept of “assisted living” as a new category for elderly housing. Here, through universal design principles, it is explored how to minimize physical and social gaps. Some essential design criteria are emphasized to support building conditions that address the needs of individuals with physical disabilities in terms of visual, vision, hearing, and flexibility (Erbaş, 2006).

Analyzing the examples clarifies the project by examining their styles, systems, space organizations, size, architectural languages, uses of materials, etc. Such features are classified as presenting users with simple positioning, vision, and readability. An easy and clear spatial organization of interiors and exteriors is proposed to promote a circulation that is easy for user navigation and way-finding. The units are arranged around one side of a corridor in linear order. Appropriate brightness, acoustics, thermal stability, sustainability are other requirements that must be measured during the project’s design and development stage. Color and texture will also be recognized as

essential features in the finishing and detailing processes to provide excellent vision and alignment inside the space (Erbaş, 2006).

This brief survey indicates that studies of similar orientation may not offer design findings in the manner which this current study seeks to achieve. For this present study on meditation interiors, more general frameworks such as sustainability, universal design, and concerns with safety and security, maintenance, fresh air, and ventilation are not taken up. All of these are considered to be requirements that are inevitable and necessary for any interior space. Instead, it is the specific, unique, and explicitly spatial effects and principles that are aimed at as design frameworks relevant for healing, well-being, and spirituality.

By looking at historical monuments and buildings, one can see how spirituality has impacted the well-being of societies in the passage of time. For example, by considering the Asclepius temple built in the early 4th-century BC, Epidaurus in ancient Greece, and the monastic hospitals in the Middle Ages, it is shown that human beings have been aware of the positive impact of physical spaces or architecture. Therefore, they have tried to make use of the medical or healing properties of the environment by constructing magnificent buildings or palaces.

We can also see the reflection of spirituality in various works of arts or literature by different philosophers, artists, and scientists and how the concept has always been a challenging issue in human being lives. An excellent example can be the works of an anthropologist, Rudolf Steiner, and how he founded Anthroposophy as the science of spirit. Also, Roy Wilkinson, another influential scholar, defined anthropology “as a body of knowledge concerning the spiritual in man and the universe” by positioning

human beings in a relationship to their environment through explaining the co-evolution of the world and human beings. The scholar explained the fundamental aspects of spirituality and how it developed and evolved in different fields or areas of studies (Schweitzer, 2004).

Thus, the relationship between spirituality and qualities of space has been a complicated issue, and various aspects of place can affect spirituality in different forms or manners. Steele (1981) distinguished between a place spirit or personality and a sense of place. He said that a place is not just an object but rather a crucial aspect of a whole experience that we may undergo through various events and our multiple senses such as sight, hearing, smell, taste, and touch. Thus, as Stepanova (2017) argued, a place experience is a complete sensual understanding or feeling. On this subject, Shamai (1991) noted there is always an interaction between a place and the individual residing or experiencing the place. Hence, environment or physical spaces impact the person emotionally and spiritually, and as such, the person forms an emotional bond between oneself and the surrounding environment (Najafi, 2011).

Furthermore, Pallasmaa (1996) viewed architecture as the home of spirits or dwelling space of metaphysics and building as a body. In this regard, the scholar observes the architectural experience as experiencing a state or a feeling rather than an object and authentic architectural experiences as approaching a building and feeling it at the same time not just a formal evaluation of the facade. He further states that such experiences involve more than the objective view of the visual designs of the various parts of a building, such as the doors, the fireplace, or the windows. Rather the distinctive feelings or emotions brought about by different activities such as cooking, eating, socializing, reading, storing, sleeping, etc. in the physical space of the building.

Thus, understanding the architecture is a multi-sensory or sensual experience that the individual feels the place by all his sensory organs such as eyes, ears, nose, skin, tongue, and whole body. In this respect, Merleau-Ponty (1964) referred to the simultaneous interaction between sensual interaction and experience. He believed that perception is a combination of all senses and that he perceived a physical space with his whole body, by perceiving the structure of the place, its unique design, and its specific language. The scholar further stated that eyes give us control and that when we do not want to look at something, we try to avoid it by closing our eyes. Moreover, he continued, avoiding a sound or odor is a complicated issue, and that sense of touch connects us to the world, and all these senses give meaning to our lives in different ways (Pallasmaa, 2014).

Therefore, architecture is the art of uniting ourselves with the surrounding world and that our various senses mediate between the two. Architectural space is more than just viewing it as an object but rather goes beyond shapes and patterns. Such spaces usually generate an intense feeling of emotions for the person as the individual harmoniously interacts with the architecture and as they come to perceive themselves and the surrounding space. Although our thoughts, views, beliefs, and perceptions are essential in our healing space (Campelo, Aitken, Thyne, & Gnoth, 2014), the characteristics of the places where we experience influence how we formulate those feelings or emotions.

Consequently, the characteristics and features of any physical space mediate the formation of various emotions and feelings. Such meditation is considered an individual state of mind and can help the mind to evaluate and assess a particular architectural space consciously. It also impacts our inner mood and gives us a

satisfying feeling which can influence our level of patience, generosity, and forgiveness.

The mediation also affects one's sense of well-being through their emanated spiritual feelings, religious beliefs, and hence physical healing. It should be stated here that a number of unique features such as a burning candle in a room, bell ringing in a space, the sound echoing or the language of a place all in all help an individual concentrate and experience a special feeling in certain areas (Mind space meditation park, 2018). However, there would also be the special qualities that a place for meditation may offer to stimulate and support the process and the state of mind. Deriving and clarifying such unique conditions of space with respect to the experience of well-being and spirituality is the major focus of this current study.

1.2 Problem Statement

While there are ample research and literature concerning the potential of space to support recovery from illness and health in general, the more complex issues of well-being and spirituality are rarely addressed directly. There is a lack of comprehensive studies and analyses on the healing and spiritual quality of interior space, especially in meditation and recreational spaces, which have the capability to arouse spirituality and well-being and affect humans in a healing manner. Especially when pressure, concern, physical, and mental stress are the well-known reasons for numerous illnesses (Nejati, 2012), this requires a holistic understanding of human life. It also requires a more detailed exploration of how the quality of interior space may affect spirituality and people's well-being to manage everyday life and how interior architecture might enhance well-being and spirituality?

1.3 Aim and Objectives of the Study

The main aim of this study is to identify and extend understanding of the qualities that underlie the healing possibility of interior architecture - i.e., explore the positive impacts of interior effects on mental health and emotional well-being. It will analyze spatial effects, with a particular aspiration, to indicate and explain the significance of interior space qualities concerning the understanding of well-being and spirituality. The special focus of this study emphasizes the context and meditation space's models, recreation, and sacred experience. It aims to derive concrete frameworks for design by way of surveying relevant theoretical sources and studying a series of historical and contemporary cases. Thereby it will seek to highlight the healing potential of interior architecture.

It aims to accumulate a broad overview of design elements and features of space and form a general structure for analysis in terms of interior space quality. It also aims to bring together space/place and its perception and experience for understanding the healing and well-being qualities of the environment. It will focus on meditation interiors, and therefore bring attention to the sense of place, privacy, personalization, and unique sensory dimensions of spatial quality, through a series of chosen historical and contemporary examples. Hence in grounding a connection between interior architecture environment and healing and spirituality, this study utilizes the philosophy and practice in meditation areas.

The overall objectives of this study involve discussing the relationship between interior space and its qualities and well-being, which is not only consequential; it is reciprocal. On the one hand, the place has been displayed to have a robust

psychological and physiological impact; on the other hand, feelings and human experience play a considerable role in what individuals perceive to be efficient design. Also, this thesis aims to bring well-being and spirituality foreground, including intangible relation with physical space into the discussion, and generate a series of frameworks as to such qualities to serve designers. Hence, while the focus is on meditation interiors where these qualities are desired, such qualities do have a broader implementation in places like spas, elderly homes, schools, and other public and private organizations.

1.4 Research Questions

The main research questions of this study are:

- Which features, elements or effects of interior space, may be most effective in experience with respect to well-being and spirituality?
- What may be the tangible features or qualities of interior architecture or space for healing and well-being?

1.5 Methodology

This study is qualitative. In order to extend understanding of the qualities that underlie the healing potential of interior architecture or space, it surveys relevant theoretical sources for clues on the concept of well-being and spirituality in correlation with the experience of space/place. It aims to identify particular features, elements, and qualities as the basis for the analytical study of the positive impacts of interior space on human well-being. Following these, it focuses on the framework for meditation, recreation, and spiritual experience. The case studies will build up a concise historical overview of meditation or religious interior spaces and will progress in the spatial investigation of related contemporary constructions, chosen from selected practice

examples. Accordingly, it will gain a set of qualities/ criteria/ principles to their potential about well-being, which might serve as concrete frameworks for design.

1.6 Limitation and Scope of the study

While oriented towards identifying the influences of interior space on well-being and spirituality, this study focuses on meditation spaces (case studies). It does not address the full scope and possibilities that architectural space may present for the experience. It is research that suggests the importance of an initial comprehensive overview of issues. It will discuss the value of the quality of space, especially in meditation areas, focusing on the healing capability of space on people's health.

Also, these cases are a selection of honored practice examples, and therefore do not present a full-scale analysis of meditation and creational spaces in spiritual and well-being manner. Hence the reliability of the results (discussions, list of qualities, etc.) is limited both concerning the theoretical framework and the selection of case studies. Examples are chosen from eastern and western developed countries. Hence, while the criteria or qualities derived may not present a full and exhaustive list and would need further research, they are nevertheless valuable as frameworks. They could be functional to a wider choice of buildings like spas, elderly homes, and other public interiors.

1.7 Structure of the Thesis

This study is separated into six chapters. The first chapter introduces the context of the study and deliberates the general idea about well-being, healing, spirituality, and their relationships according to philosopher thoughts. It explains the problem and aims that will be clarified in the study, together with the methods that will be used. Chapter two is the foremost chapter of the theoretical framework of the thesis. It includes different

parts concentrating on an interior space quality, perception, and experiences, as well as a theoretical argument on understanding the healing/well-being environment with some examples, were chosen—moreover, discussion about the concept of spirituality and space with some cases.

Chapter three contains interior design elements, space, and form analysis. It is an outline of the enclosure (the sensory environment, environmental complexity) and openings, proportion, and scale, interior elements, furniture/ furnishing, articulation, materials, style, lighting, color, texture, pattern, etc. Chapter four is about concrete case studies of meditation spaces both from selected traditional and awarded contemporary examples, along with selected case analysis.

Chapter five will discuss instances focusing on interior architectural context and function, as well as the visual and spatial effects of spaces on people's well-being and healing. It will include the main finding of this study, discussion on the quality of space. Chapter six is the final chapter of the study, with recommendations for later studies and provides the conclusion of the study.

Chapter 2

INTERIOR SPACE QUALITIES: THEORIES ON SPACE CONSTITUTION AND PERCEPTION IN CORRELATION WITH SPIRITUALITY

This current study intentions to provide frameworks for design, focusing mainly on those interior space qualities which concern aspects of well-being and spirituality. It holds that such elements are frequently blending within the complex and diverse objectives of design, and hence the spatial qualities for well-being and spirituality may not be as clearly defined. Therefore, taking well-being and spirituality foreground and identifying spatial features on which they would depend is an increasingly important point for research. With respect to design, such an intention would allow thinking of design in terms of ‘philosophical and spiritual art’ (Buchanan, 2001).

Human well-being at the physical level is extensive research, and many parameters have been identified in correlation. However, its spiritual and experiential sides and its dependencies on spatial features have not been as extensively or conclusively researched. Therefore, this study purposes to explore and bring together knowledge on such elements of space, which are difficult to achieve, are not measurable but need to be derived through complex effects and spatial features. It thereby seeks to help identify specific criteria and frameworks for the design of meditation spaces.

The psychological mindset of a human being is influenced through various facets of design and interior architecture, and correlations with the surrounding environment are involved. First, the interior environment and its design affect a person emotionally and spiritually psychology, and such effects are more individual. Second, there is a perception that is influenced by factors such as culture, physical condition, gender, level of education, economic status, and aspiration. These factors have an effect on humans from outside, which they are not in people's hands. People cannot choose their gender, for instance (Hamdy, 2017).

Therefore, providing built environments that sustain the occupants' psychological well-being becomes one of the essential roles of architecture and interior architecture. This role is made even more critical because, in modern society, more than 70% of a person's lifespan is spent indoors (Kim, 1998). Hence one of the vital points of the architectural design side is the background and capability of the designer to create a comprehensive vision concerning the psychological intervention of all parameters involved in his design and to identify the considerations that must be taken into account (Kim, 1998).

Architectural space and interior architecture and design can help bring balance to people's lives and their well-being. While as to architecture, it is acknowledged that well-designed buildings create better living environments which support the inhabitants' psychological well-being, especially for interior architecture, such concerns have not been raised explicitly. This study will help to understand why it should be given more attention.

2.1 The Concept of Space in Philosophy

Many philosophies concerning 'space' and its interpretation with respect to human experience have been suggested so far. Despite a general understanding of the word, there appears to be no complete agreement in academic debates about defining space. The ancient meaning of space was interrelated to Egyptian and Indian cultures that the term had a union of the form (Jammer, 2013). Besides, space was also viewed as a systemic phenomenon, which was a kind of imaginary arising from the imagination of humans. The origins of Euclidean principles started to reemerge in the Late Middle Ages and the Renaissance (Norberg-Schulz, 1971).

Heidegger (1962) believed that humans are spatially-situated beings who influence their surrounding world with the activities that they perform and get engaged in. Thus, Heidegger designed and created non-themed space as the space that has always been there, not a space that is conventionally known, which encompasses the spatiality of the environment preceding the theoretical world. The spatiality of the environment is a design that is not based on any pre-themed space, which is usually known for its special characteristics unknown to the thematic space (Heidegger, 1962).

Heidegger defines a building as works completed by humans' hands and their arrangements. Therefore, the arrangement of intimacy is an essential aspect of every design that manifests itself in various forms by taking all the actors and elements into account. These manifestations are usually seen as the design language that considers the effect or influence of arrangements of objects, the impact of conditions on various events, and human contact. In this regard, Heidegger points to the condition of plurality as of significant divinities in which form and space are combined with the

importance of different events, and humans are part of that combination which influences the surrounding world (Heidegger, 1962).

Many other philosophical views on the 'art' aspects of architectural space and design, do point to the emotional and aesthetic power of space and the pleasurable experience of attraction, satisfaction, and happiness. Nothing is lacking; nothing should be included. All is fine as it is: the structure, space, the time, the environment, the human beings, and the individual. When John Dewey states it in articulating the phenomenology of beauty, the perception is a summary of the reality in accordance with Martin Heidegger. The latter claims that in these situations, the perception "appears" as the perception of awareness (Dewey, 1934). This perspective may refer to practitioners of embodied theory who take the view that meaning itself derives from the relationship between the world, the body, and the mind (Wilson & Golonka, 2013).

2.2 The Concepts of Space and Place in Theory

Aiming to understand the features which define space and its qualities as a concrete manifestation of the concept of space and place, this study focuses on the spiritual effects of space and place on human well-being. It, therefore, surveys and seeks to acknowledge the ideas on the sense of place and the concept of space, place, and spirituality about human well-being. In the architecture field, 'Space' is the crucial notion, and on this topic, it is proposed different definitions and conceptions. These concerns the issues of nature, aims, and features whereby architectural space, and design, attains its power to affect perception. Architecture can be said to be a spatial artwork which is expressing itself through space. Therefore, the most specific features of space are the nominal and visual dimensions of architecture (Ramadier, 2004).

Accordingly, architecture begins to be created while space commences being enclosed and becomes prearranged by features. Francis Ching claims that the significant elements can be defined as the linear, planar, and volumetric elements. Therefore, in most architectural works definitions, there are two aspects of shapes and spaces that help to establish differences: “These differences in a sense reflect the degree of significance of these types and spaces and the functional, formal and symbolic roles they play in their organization” (Ching, 2014, p 358). Norberg-Schulz also identified the notion of a place as a result of space. He also pointed out the vital role of architecture in providing space with physical attributes that promote users’ accommodation and their mental and physical well-being (Norberg-Schulz, 1985).

Moreover, in “Genius Loci” (The Spirit of Place), Norberg-Schulz argues that an individual’s identity emanates from the ‘Identity of Place,’ which is seen as a geographical entity influencing one’s identity. An individual’s identity is how one positions oneself with respect to others within a specific sociocultural setting. Thus, a geographical place, according to Norberg-Schulz, generates a meaningful existence in the mind of an individual, which influences their identity and who they are. According to the theory of place, the individual can experience a meaningful emotion as he or she visits one’s home and finds himself surrounded by his hometown’s architectural spaces. Architecture should, therefore, not only mention the meanings but should pay close attention to the setting’s physical attributes (Sime, 1986).

Architectural authenticity is defined as how the building is constructed in layers and how it addresses all the human senses. Constantly, humans are in contact with the environment, and it is impossible to envisage a self without taking the spatial and situational existence into account (Pallasmaa, 2008).

One of the significant problems in the development of physical space is an individual's presence internal to space. Human is living, thinking, and trying to create architectural space. The relationship between individuals and the architecture is extremely complicated than other art. It can be said that both literally as lived and privately, people experience architectural space. Unlike art, architecture has hidden the time continuity, and experience occurs through human movement within the room. Thus, architecture can be lived and traversed in its physical sense, moreover, for the experience of a place, observer necessities to go to space for perceiving it from diverse directions (Giedion, 1967).

Hence, it is understood that distinguishing space and place from an unoccupied volume is through all the relevant elements inside of the space or place. On the other hand, only human awareness can attain and recognize the quality of space and place. Therefore, what changes the architectural space to a real environment from a pure volume is the human being's existence, their perception and understanding, individual experience, and culture.

2.3 Theories on Perception and Experience: Space and its Features/ Effects

2.3.1 Human Body and Perception

Martin Heidegger has been one of the explorers, which stresses the crucial existential connection between body perception and the place. He figured to the behavior of building the union and the feeling of human: When we talk about people and space, it sounds as individuals there were standing on one side, space on the other. So far, space is not something that faces human beings. It is not an external object nor an internal experience (Heidegger, 1971).

Hume (1978) classified human-being awareness in two forms, sensation derived from man's feelings desires, and ideas extracted from those perceptions in mind. He distinguished impressions into sensational experiences containing feelings from individual senses result like discomfort, pleasure, as well as reflective impressions such as desires and aspirations, which produce in response to opinions (Hume, 1978).

As already stated, people have a deep connection to space that stems from a need to perceive space and establish (cultural) relationships. Individuals are actively seeking to establish a connection with objects and with others. Also, they seek to integrate and adjust physiologically with surrounding objects. As all individual activities are carried out inside space, it would seem that space is not just an area for contact among humans and with the world surrounding them. This is also an essential aspect of interaction and engagement, which supports to create people's individual character along with space identity. Spatial identification is part of the architecture of individual identity and is the product of his common view of the physical environment (Gupta & Ferguson, 1992).

Even though the perception of architecture being an all-embracing person's knowledge and is treated as the framework of an object, therefore the interaction between humans and his surroundings is immediate. It is built and focused on unique qualities and characteristics held by space that perceiver, and would have a tremendous impact on the identification of architectural space. Moreover, people are creating and sustaining an ongoing collaborative interaction with place: they change space, and they are changing space. They walk and work inside spaces via this activity, give meaning to a place, turn various elements of space into meaningful directions or indeed seek to develop a meaningful indicator of space (Alexander, 1991).

Harold Proshansky (1983) stressed the value of a healthy correlation between human identification and exterior ambient features. He described 'place-identity' as the relationship between humans and place under the perception of the 'self' definition. In Proshansky's term, place-identity is a "potpourri" of thoughts, perceptions, impressions, theories, and associated emotions about particular physical situations, as well as configuration types (Proshansky, Fabian & Kaminoff, 1983).

Space would be relevant and recognizable for people in this way since they can find both' space and self as separate beginnings that connect with each other. There have been perceptions of place outside the physical dimensions of construction that are created from the combination of complex functions and basic physical structures, an experience that stays in mind. Nowadays, this relationship between the human body, atmosphere, and perception is often absent from the architectural and interior architectural spaces (Zumthor, 1999).

According to Zumthor, the artistic intent of architecture is rooted in the view of the designer: "The designer should look for practical constructions and forms for edges and joints, for locations where coatings converge, and different materials align. These systemic details describe the links throughout the higher proportion of the building" (Zumthor, 1999, P16).

Architects, interior architects, and designers ought to notice the quality of the spaces and atmosphere. The place is a factor where the relationship of people to physical environments, different events, and perceptions shapes a dimension. The characteristics of individuals and place interactions might be explained by 'Place Attachment' and 'Sense of Place' perceptions.

2.3.2 The ‘Sense of Place’

The problems of ‘placelessness,’ according to Relph (1976), are linked to developments brought about by modernity and globalization. Such problems can only be overcome by understanding human comprehension. Since the concept of sense of place is ambiguous, it is challenging to define its meaning. Some expressions, such as ‘place attachment,’ are typically designating the sense of place. Hence, place attachment defines bonding between people and places and their interdependence, mediated with the qualities and personalities of the surroundings and individuals (Relph, 1976).

Thus, placelessness, and the problem of place-making, can be solved and healed by the proper quality of space, place attachment, sense of place and other theories that they are trying to remedy and heal. Relph discussed in this regard designers who ignore the meanings that places carry in people’s minds, and try to destroy real places and make new ones instead (Gustafson, 2001).

In this regard, Shamai (1991) argued that how we sense a place is much greater than how we personally experience the world. That is, the constant contact between humans and a certain environment constructs identities and meanings that create in us a sense of the place. Shamai (1991) further identified three stages for a sense of place, namely the physical place itself, emotional or sentimental attachment to the place, and finally, and most importantly, loyalty to a place. The scholar also argues that to experience or to lead a better life, an individual has to have an emotional or spiritual attachment to the place where they belong.

The author also classifies the sense of a place into six stages, which will be explained here. The first stage is the knowledge of a place where the person is living, that is, the familiarity with the place and its symbols; however, at this stage, the person has not established a sense of emotionality with the place or its symbols. Thus, the person may not feel integrated with the place. The second stage is a sense of place affinity. In this stage, the individual is known as the place and its symbols and has established a sense of emotional connection to the place. Thus, the symbols are valued with a sense of emotion and attachment (Shamai,1991).

The third stage is emotional attachment or connection to the place, and the place has a meaningful significance to the individual by a unique sense of identity or value that it creates in the mind of the individual. The fourth stage is to do with identifying with the place. In this stage, the individual identifies oneself with the place by recognizing the goals and objectives of the place and, as such, established a sense of deep attachment and connection to the place. The next stage is to do with the involvement of the individual in the place; that is, the individual is actively engaged in a position in that place. The individual wants to invest their money, time, and talents in the respective place. One distinguishing feature of this stage to the other previously mentioned stages is that in this stage, the individual's real manners are engaged. In contrast, in the previous stages, the person's attitude was the ruling factor. The last stage is a sacrifice for a place, which is the highest stage of attachment to a place. In this stage, the person is deeply attached to a place, and they are ready to contribute financially, emotionally, socially, culturally, and individually to the place (Shamai,1991).

This is so especially at a time when reality and the virtual have begun to combine, and technology has reached the stage where human five senses are easily deceived. Norberg-Schulz presented his masterpiece as a successor to his experiments in architectural philosophy, which was Genius Loci (sense of place/ spirit of place) the dramatically different path in comparison to his previous ones. (Norberg-Schulz, 1979).

Steele (1981) claimed that the sense of place is dependent on the nature or personality of a place. A location is not simply an entity, but a part of a greater whole that is experienced through the experience of significant events. He claimed that it provides the feeling of security and enjoyment and induces the connection to place. Also, he clarified that the sense of place is not only a set of experiences but also attached to person creations. Therefore, the sense of place is generated after cognition as an emotional connection between people and places. As a consequence, different people and their perceptions, motives, histories affect the sense of place.

The sense of place is related to a person's particular experience in a given environment. It's a way that someone thinks about a place in general. A sense of place is an important factor in the protection of environmental quality. Hence, a person-place relationship is established about messages that communicate with each other and place within a specific locality (Najafi & Shariff, 2011). In parallel, Lynch (1998) also indicated the sense of place makes a good person-place relationship. He concluded that a place must be familiar and must have an identity to establish a sense of place that contributes to the attachment to the place.

Understanding place attachment, which takes into account the physical setting, will give some insight into what matters to people about the place. Consequently, as Stedman clarified, place attachment is an evaluative aspect of the place; it explains how much place means for people. Place attachment plays a positive role both in human lives and in the places they care for (Stedman, 2008).

Hence, the physical characteristics of place contribute to making sense of place by establishing meanings, perceptions, and also preservation their purpose. The key features are the place articulateness and the individual's satisfaction with environmental characteristics. By knowing meanings, concepts, symbols, and identity are developed to establish mental and emotional contacts with the place. Stedman believed, because of the ambiguous meaning and interpretation of the sense of place, which is hard to explain, he accepted place attachment as a measurement for the control of sense of place (Steadman, 2003).

2.3.3 Phenomenological Perspectives of Space and Place

Phenomenology is viewed as our experiences of the real-world phenomena and is contrasted with abstract and mental images that we construct in our minds (Husserl, 1983). This concept is used in literature to analyze the relationship that an individual establishes with a place. Manzo (2003) believed that phenomenology in architecture could offer a rich theoretical ground for conducting research. The advocates of this method employ a number of concepts to explain the sense of place. One of the concepts is Topophilia (the love of the place), which accounts for the characteristics and heart of the place. In this regard, initially, Tuan (1974) used the term to explain the relationships between individuals and the existing physical environments, as a powerful and unique personal relationship (Tuan, 1974).

Separating humans from space is not a feasible phenomenon as humans construct their lived experiences through interaction and contact with the surrounding environment. Thus, space is not a static phenomenon but rather a dynamic one that can create a sense of happiness, depression, or sorrow in the individual, make an individual powerful or vulnerable, establish a sense of integrity and provide protection for the person. Thus, the relationship between the individual and space can be both pleasing and unpleasing (Pallasmaa, 2013).

Memory and imagination have been synonymously used as human experiences (Pallasmaa, 2011). In this regard, Pallasmaa (2011) perceived a multi-sensory architectural experience in which an individual uses all their senses to measure the quality and the scale of a space. In his art of shaping buildings, the author talks about how all senses are involved; that is, through our visual sense, he believes that we can take the most important things into account. In this regard, he views a sense of sight as our dominant sense as through the sense we categorize and view our surrounding environment.

However, he believes that seeing the world only through our visual sense can make us a distant observer. But experiencing the world mainly through our eyes leaves us a distant observer. Further, he notes that a building is not just a physical object. Still, rather it conveys several meanings such as unity, significance, relationships, facilitation, and prohibitions as well as integrity. Thus, a building should be experienced rather than only seen (Pallasmaa, 2011). Pallasmaa (2008) recounts his experiences of a city in which how his body faces the city; his legs measure the length; his look views the place as he goes through the doors touching the handles of the doors in buildings experiencing through his various senses. Thus, the city and his body

complement one another as he writes, “I dwell in the city, and the city dwells in me” (Pallasmaa, 2008, p.40).

As pointed out by Pallasmaa (2012), architecture benefits from all human senses and experiences such as sensory perceptions, thoughts, and intellectual development to create higher quality and ‘life-enhancing’ structures by combining our self-image with the world that we experience around us. In this regard, Shamai (1991) states that we feel the architectural structures through our multiple senses and perceive or see the space through a sensual understanding in general. Thus, the quality and scale of any architecture is a multi-sensory experience that should be felt by all our senses through our eyes, ears, nose, skin, tongue, skeleton, and muscles. The strength of an architectural structure comes through the experienced senses, that is, how the self-views and perceives the world (Pallasmaa, 2008).

Authentic architectural experiences, therefore, involves how an individual approaches a building rather than how they evaluate the facade, how one enters the place rather than how the doors are designed, how one looks out of a window and sees the world rather than how the windows are built and, how you feel the weather/warmth not how the fireplace is designed. As a result, architectural space should be experienced through living not just through seeing them as physical property; that is, living space always goes beyond shapes and scales (Pallasmaa, 2008). According to Pallasmaa (2008), architecture should bring uniqueness, reform, relaxation through the way we experience it temporally and spatially. In this regard, architecture is considered the art of healing through the senses that we, as humans, experience it in the world.

Further, Pallasmaa (2015) comes up with the aforementioned conclusion that architecture makes us reflect deeply about ourselves, not about the physical building structure, that is, it makes us realize our selves by silently pondering over the sacredness and transcendentalism of the realm of architecture. Moreover, some other scholars have underlined the significance of sensory experiences in perceiving and understanding the world and creating mental images in the mind of the individuals.

In this regard, Holl, Pallasmaa, and Gomez (2006) viewed architecture as a unique work of art that captures the individual's sensory perceptions more deeply than any other type of art. They argued that architecture associates the experience with details and the building materials with space by combining foreground, middle ground, and distant views (Holl, Pallasmaa & Gomez, 2006).

Merleau-Ponty (1964) stresses this simultaneity of experience and sensory interaction as follows his perception is not a sum of visual, tactile, and audible givens, he perceives totally with his whole being and says he grasps a unique structure of the thing, a unique way of being, which speaks to all his senses at once. Allen Gussow likewise asserted in this manner that experience is a factor that can transform any atmosphere into a destination (Manzo, 2003). Later, Manzo clarified the most important factor in perception is place experience in the phenomenology of place (Manzo, 2003).

Phenomenological theory often states that, through the sense of their invisible elements, man does not view the actual structure as two-dimension, but the phenomena are viewed as three-dimensions. In other terms, the items are defined via their color, form, scale, and also through their weightiness, material, items relationships around

them, and so on. Hence, understanding of the physical world contributes to the creation of a three-dimensional visual picture (Lehar, 2003).

Furthermore, the sense of place can be described as an emotional connection between people and places. Place connected to physical attributes, behaviors, and meanings contributes to making sense of place. A setting's attributes and characteristics are referred to as physical elements; Such characteristics not only describe a position but could also lead to the development of meanings. Every place is designed to support a specific action, so the operation may refer to the actions that the place offered. Nevertheless, interpretations may refer to perceptual and psychological aspects of people's understanding of environmental experience. The perceived sense of place is affected by the experiences of people, histories, perceptions, temperament, expertise, community, attitude, motives, values, age, and gender.

Therefore, the sense of place is the product of the relationship between human beings and space. While long-term familiarity with the place may influence the sense of place, the definition may be reinforced by physical attributes that promote appropriate activities and establish identity. According to above, all of the architectural and interior architectural experiences are multi-sensory, which are very crucial for providing any space frameworks, especially for meditation areas. Qualities of space, scale, size, organizations of space measure with all human senses are not just the interaction of given visual and tactile; it is a unique association of the thing, which speaks to all human senses. Hence, designing environment of meditation space must support the full experience of all senses, the volumes, articulation, pattern, textures, light, and colors of the space, even the sound and smells of the space have to be considered in support of the special practices and feelings essential for meditation.

2.4 Understanding Healing, Well-Being and Spirituality in Correlation with Qualities of the Environment

2.4.1 Healing and Well-being

The concepts of healing and well-being are most explored given the spatial contexts of hospital environments and workplaces, where they are considered important factors in the performance people, be it recovery from illness or productivity at work. Hence especially regarding their spatial formulation in more general terms, healing, well-being, and spirituality need further exploration. They could provide insight as to the special features and properties that places for meditation should offer to support the principal practices, which are essentially spiritual. Well-being has a long history linked with spirituality. Since the Asklepios temples, through to the Middle Ages monastic hospitals, to the Nightingale nurse's spiritual calling, health and spirituality have been strongly related (Lyons, Petrucelli, 1987; Nightingale, 1893; O'Brien, 2003).

Spiritual practices were also performed as a quest and pilgrimage. For instance, pilgrims traveled all over Scotland during the medieval period to blessed places like cathedrals, stupas, and other locations. Several places were especially linked to healing. This recovery or well-being journeys arose not just from the need to obtain salvation, but also from the belief that the divine stimulation offered at such locations will help to recover (Hall, 2005).

People perceive the quality and sense of their lives as their place in the world, and their perceptions of sickness and healing rely on the spatially of spiritual and emotional encounters (Morrison, Tay, and Diener, 2011). While people are using to deal with the health issue or to perceive it, dealing with spirituality may influence the person in

understanding the anxiety and stress they face spiritual well-being. It is significantly associated with reduced pressure, and heart disease risk indicators are weak (Holt-Lunsted, Steffen, Sandberg, 2011).

Smith agreed that historically, well-being and interior architecture had been connected through the development of hospitals, doctor's surgeries, and other associated health care and disease treatment facilities. The latest developments in interior design have expanded the spectrum beyond the medical paradigm of treating the elderly, the aged, and the disabled in their daily environments for the well-being of all people (Smith, 2011). Hence, the other places such as meditation areas can heal human-being with having appropriate qualities.

“Healing is a holistic, transformative process of repair and recovery in mind, body, and spirit resulting in positive change, finding meaning, and movement towards self-realization of wholeness, regardless of the presence or absence of disease” (Firth, Smith, Sakallaris, Bellanti, Crawford & Avant, 2015, p. 12). Healing spaces are places where the aim is offering the means for prevention and change, together with the treatment potential. Eminent spiritual healing places, seek to provide health-giving through spiritual embodied acts, relaxation, and opportunity for peace and quietness.

A designed space will also be viewed from various levels of design: architecture, interior architecture, and architectural artifacts. Overall, the design is to create a ‘whole’ that is recognizable and easy to control, but also that should be inspirational, significant, and encouraging from the perspective of the people inhabiting the place. Becoming satisfied in a place is not just a result of the building’s architectural structure (i.e., bricks, facade), nor is it a function of satisfying a set of objective requirements

needed. Alternatively, being happier in an atmosphere is connected to what people who live in the area can do for it and in it (Vernon, 2008).

Some scholars have emphasized the important role of interior design. In this regard, Abercrombie (1990) argued that interior design has a much greater impact on an individual than the exterior design or the facade, which the author relates to the fact that we are usually surrounded by the interiors, not to the greater amount of time spent indoors. That is, we live inside the architectural design with interiors, and we do not just go past them on the street. When we enter a place, we cannot help seeing the interiors; that is, we do not see a building unless we enter the building (Abercrombie,1990).

There are amount of theories which discourse the influence of space on human well-being, which will be discussed in the current study. According to the World Health Organization (WHO), health is defined not just as being free of diseases but being physically, mentally, and socially well. It means living in a healthy and non-threatening environment, for a healthy lifestyle, and having equal social contact (Evans & McCoy 1998). Thus, interior design, as Kopec (2006) argues, can meet the health needs of a community by providing objective conditions of the space and the subjective experiences for the individuals which have come to be known as objective and subjective well-being (Kopec, 2006).

Objective well-being (OWB) is characterized as achieving the external goals of a higher quality of life, which can be evaluated objectively (Constanza et al., 2007). In this method, a number of objective criteria related to various issues, such as health and economic statuses, are identified (Alexander, Ishikawa, & Silverstein, 1977).

Efforts are made to identify the best objective criteria of quality of life and architectural environments within the interior design. Thus, interior architecture is an important aspect of our surrounding environment and a space for conscious activities that are influenced by design (Fleming, Honor, & Pevsner, 1999).

Subjective well-being (SWB), is concerned with the self-reported evaluations of individuals' lives. Thus, such an evaluation usually involves cognitive and affective factors as individuals experience and encounter various positive and negative feelings and emotions while participating in different activities (Diener, 2000). Moreover, SWB also encompasses psychological factors such as personal development and self-acceptance (Ryff, 1989). As a result, subjective factors such as positive feelings and emotions, stimulating behaviors, constructive and meaningful relationships, and values in all contribute to human well-being and prosperity, hence higher SWB (Huppert & So, 2013; Seligman, 2011).

Taking the SWB into account, Desmet and Pohlmeier (2013) came up with the Positive Design Concept (Figure 1) by taking into account its various dimensions, such as design modes, study, and design purpose. This concept was intended to evaluate the influence of design on individuals' and communities' subjective well-being.

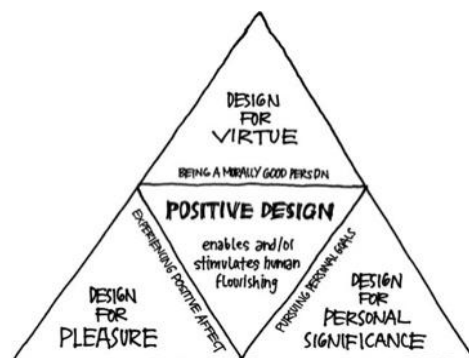


Figure 1: The Positive Design Framework, (Desmet & Pohlmeier, 2013, p.7)

The Positive Design concept uses three elements of SWB: a design for happiness (which is intended to increase the individuals' satisfactory experiences and minimize their unhappiness), design for personal significance (which seeks to help the individuals to reach their goals) and design for virtue (which addresses the individual's moral being) (Figure 1). These concepts will be explained in more detail; Design for happiness: as the name suggests, this component of the design is concerned with positive emotions and feelings that individuals experience temporarily while seizing the day. In this regard, Pohlmeier (2012) viewed design as a special source of pleasure as it stimulates one's sensory experiences and hence enhancing an individual's well-being. Design for personal significance: This dimension of design addresses the sense of significance that an individual draws from a certain type of design and thus leading to their joy and happiness. Brunstein (1993) found that pursuing essential individual goals will lead to higher SWB in the people. Design for virtue: This aspect of the design is related to the joy, pleasure, and positive emotions that an individual experiences out of morally acceptable and admirable behaviors (Figure 1).

Peterson and Seligman (2004) identified six factors that are valued in various cultures: knowledge and wisdom, determination, love and humanity, justice, temperance, spirituality, and wholeness. The author gave a confession chamber in a church as a prime example of design for virtue. This type of design offers the users an enclosed space where the individuals (confessor and priest) can have increased privacy via acoustic isolation, dimmed illumination, and a semi-divider, which stimulates a sense of contemplation, tranquility, and integrity (Seligman, 2011).

As figure one illustrates, the center of the structure is where the three components, as mentioned earlier of design, come together. It is where the design stimulates human

happiness through enjoyment, personal meaning, and virtues. It should be stated here that what we can get from a Constructive Design strategy is not usually very different from current models. When it comes to interior architecture, certain features bring the three aforementioned aspects of design (design for happiness, personal significance, and virtue) together. Thus, Positive Design should have certain distinguishing elements to enhance the SWB of the individuals (Desmet & Pohlmeier, 2013).

2.4.2 The Concept of Spirituality and Well-being

The concept of spirituality denotes the searching for meaning and significance in life beyond pure existence, which interacts with thoughts regarding happiness and the importance of living. The sense forms spiritual well-being's elements, and it is superior, philosophical, and more mysterious. His focus on well-being often promotes body incorporation, inclusion, body, mind, and spirit, which are attached (Vernon, 2008).

The term 'spiritual' is frequently used as a synonym to 'religious.' Definitions of spiritual and religious beliefs include remorse, the need for reconciliation with God, the promise of eternal life, and the importance of suffering as an example of God's plan for man (Barbosa, 2013). The term spiritual is also a synonym for 'existential' when addressing spiritual problems in the context of existential issues (Greenstreet, 1999), (Tanyi, 2002).

Spirituality has various definitions for different individuals as well as for religious and secular identities. Furthermore, an area that has meaning, which is sacred for one individual, will not automatically have meaning for another. Throughout Tanyi's philosophical study, spirituality is seen as broader than religion and includes the search for meaning throughout life for human beings. In the concept that emerges,

“spirituality is a personal quest in life for meaning and purpose that may or may not be connected with religion” (Tanyi, 2002) (Rudolfsson, 2014).

Spiritual experience is not essentially religious, nor is it constantly built on belief; it is viewed as moving through ground and body. Spirituality was defined as the integration of body, mind, and spirit into a harmonious entire. The detailed view arose as part of a larger image and an appreciation of something larger than oneself, or wonder while walking in nature (Daaleman, Kuckelman Cobb & Frey, 2011).

In Buddhist and Taoist philosophy, with both metaphysical and aesthetic meanings, spirituality offers a special and useful tool with spatial links. The outcome is a new paradigm that points to design approaches that would recognize elements of humanity, sensuality, and sustainability and then proceed in examining how to construct a more positive, mindful, and profound spiritual experience. Identifying spiritual dimensions of the places includes pointing out the spirituality understandings. The perspective of spirituality, especially Buddhist and Taoist thought, provides a distinctive viewpoint, from which very little has been published yet (Birch & Sinclair, 2013).

In the current architectural design, a number of issues have to be taken into account, namely: climate-change, geopolitical factors such as war and overpopulation, human relocation and refugee crisis for redesigning and reconstructing new spaces. In this regard, designers and architects are advised to design spaces that can stimulate more profound and poetic senses and promote spirituality and tranquility. That is, by creating a design that incorporates peak experience features, the designers and architects can promote a spirituality that can last for generations to come. Architects and interior architects create spaces that bring a sense of attachment, poetry, aesthetics,

and transcendentalism to the world that we live. Although the mentioned themes are all related to the subjective dimensions of our life, they are as important as objective and quantitative dimensions such as form, space, and order. According to Birch and Sinclair (2013), for creating productive spaces, architects should combine organized and measurable design components with less measurable and qualitative aspects (Birch & Sinclair, 2013).

Generally, the main purpose of architecture is to create spaces which can promote tranquility, stability, and aesthetics for human beings. In this regard, a building structure not only is valued based on its architectural features but also establishes a deep relationship with the individual's metaphysical realm and other psychological factors. Thus, apart from the protection and safety that architectural spaces provide for individuals, they also relate the external world to human beings' experiences by stimulating our sensory senses and hence integrating different perceptions of the surrounding world.

Sartre (2000) emphasized "spiritual aspects and the meaning of consciousness" as the essential functions of any architectural projects, as their (p. 9). In other words, the underlying purpose of any architectural structure is not the abstract thinking that it affords but rather the resulting sense of self-consciousness and the experiences that it creates in our mind of the surrounding world (Bhatt, 2013); that is, architecture promotes and enhances emotional responses in the individual and Vitruvius terms, "is the element of happiness" (Pollio, 1914, p. 53).

Architectural spaces, as mentioned earlier, stimulate our sensory experiences as we come to see and perceive the color, texture, light, and the sounds in that environment.

That is, as an individual walks into an architectural space, they form an overall perceptual experience of the place and the surrounding qualities (Bille & Sorensen, 2016). This concept is rooted in the individual's connection to their surrounding environments (sustainability), to their cultural/historical experiences (humanity) as well as their intimate self (sensuality). Thus, by incorporating these aspects, architecture, planning, and design can create intimate connections in individuals. Thus, architectural structures are usually evaluated based on how they contribute to the well-being of human beings through combining the physical environment with the ideas of humanity, sensuality, and sustainability as well as spirituality. Underneath Figure displays a graphic reflection of the framework (Figure 2).



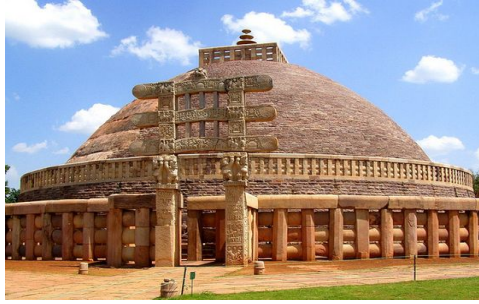
Figure 2: Spirituality in the Physical Environment (Bille & Sorensen, 2016)

Humanity (narrative and authenticity): human beings live in architectural spaces, and these spaces usually have a symbolic and social role in their lives. Every structure has a historical root and speaks a different language that makes us connected to its physical environment and the history that it belongs to. Hence, when a building interacts with its users by creating a mental image or experience through its historical and cultural features, the physical structure is said to convey a sense of humanity. If a building can

incorporate features of the peak experiences based on Maslow's framework and can create a mystical awareness of humanity, then one can say that it has been able to evoke a sense of wonder in the individual as well as a sense of completeness, honesty, and spirituality (Figure 2).

A sacred place becomes sacred through its historical root and is related closely with the place's sense of authenticity. Truth is also another important factor in design, as Grudin (2010) notes that since design creates a strong sense by interacting with the environment, they express the truth about the world and the world about us. This statement shows how our environment and our relationships are interrelated and how they mutually impact one another. Thus, the truth communicated to us through our immediate environment is usually connected with our place, profession, and behavior, and as such, impacts who we are, our sense of spirituality and existence (Grudin, 2010).

In fact, sustainable architecture is the one that reveals the truth about our environment, making us aware and conscious of our influence on our surrounding world. If materials used to build an architectural space are of weathered material (materials that can last for a long time), then that architecture contributes a lot in terms of history and value to the place where it was erected for the first time. A prime example can be a Buddhist temple, which is a significant structure that can tell a lot about the structure of a society, its culture, and history to its specific members (Figures 3).



Figures 3: The Sanchi Buddhist Temple, 3rd Century BC, Shelton, 2019 (URL 20)

All of these links up with the notion of sensuality, which is in the phenomenological perspective, is also dominant. In his book on the Eyes of the skin, Pallasmaa (2005) argues that our various senses and abilities such as hearing, smelling, touching, tasting, and speaking are historically and anthropologically situated. In this regard, he talks about the hegemony of the eyes that is how human and his environment interacts with one another. Additionally, Chichester underlines the role of senses and their everlasting effect on the spiritual practice in different societies (Wenger, 2009).

Thus, this once more shows how resorting to multiple senses invokes spirituality, which can be seen in Maslow's concept of the fully operational individual who uses all the available resources in the environment to reach its utmost potential, hence self-actualization. In this regard, Maslow (1966) claimed that when all the sources are employed, the strong and the smart will become stronger, smarter, more observant, brighter, and hence more respectful. According to Maslow (1961), an architecture space usually creates a 'here-now' mentality, free of past and future, mostly inexperienced through its sensual design. An excellent example in this regard can be the notion of conscience in Buddhism (Maslow, 1961).

Watts (1989) mentioned that a design promoting deeper and stronger sensual experience could raise the individual's consciousness over the surrounding

environment and, as such, enlighten them. Furthermore, Watts (1989) reiterated that the connection between senses, the surrounding world, and the spirituality could be strengthened as the individual comes to experience both physical objects whose existence the consciousness perceives and the spirituality or arrangement of senses (Watts, 1989).

Thus, architect Zumthor (2010) stated that architecture should not only benefit from all the senses by using different materials, textures and light but also should present itself in an authentic and meaningful way to its viewers (Figure 4).



Figure 4: Senses and Materials (Birch, 2006)

Zumthor (2010) further argued that meaning that materials convey to the viewers go beyond their compositional principles and objectivity, that is, senses such as smell, and acoustic features are just like components of the language that individuals should use. The author goes on to say that sense comes in after all the materials are put in one structure, and the structures are completed (Figure 4).

Another model for establishing and incorporation of harmony and natural equilibrium might be achieved through biophilia and biomimicry. It offers an authentic way to contribute to the perceptions for being connected, united, structured, which is

representative of peak experience. Biomimicry provides a great duct through which anyone can sense unification with the environment and pass to an actualization-transcendent, ego-less perspective (Figure 5).



Figure 5: Sagrada Familia Columns Designed Like the Tree (Bille & Sorensen, 2016)

The environment can create a sense of connection, unity, and structure through the perceptions that they create in the individuals and acting as an authentic representation or natural equilibrium and harmony. Biomimicry offers us a unique path through which individuals can unite with the environment and reach a sense of transcendentalism and hence self-actualization (Figure 5). Integration with the environment is a manifestation of the emotions of peak experience, and Tao's interpretation functions as the individuals unite with their surrounding environment. Biophilia, on the other hand, refers to the association and connection with nature (Kellert & Wilson, 1993). Spirituality can impact performance in a positive and significant way, especially for patients with health issues; it can also precipitate the process of recovery and offering a window to see the world differently (Walton, 1999).

Thus, architecture is seen as a structure that constructs the material world and space that creates an emotional life for human beings. As a result, architecture, through its poetic features, conveys and creates emotions, feelings, and memories for human

beings as individuals come to perceive and contact the spatial place compassionately. This study also intends to indicate that how architectural spaces reach their maximum effect by combining human life and self-awareness.

2.4.3 Spiritual Practices: Religious Ritual and Meditation

While human culture rapidly grew, the desire for a sense of existence transformed into several spiritual rituals, such as meditation. The very first documented evidence of meditation presents in Hindu literature around 5,000 years ago, and there is plenty of evidence in many other holy books, like Christianity, Judaism, and Taoism, which characterize meditation as a structured activity with specified aims. Nevertheless, meditation has played a role in the lives of many people at a much earlier point in the spiritual and sociological history (Clarke, 2017).

According to Dodd (2018), those individuals with strong feelings are known to have greater control over their emotions and attitudes due to dealing with each difficulty, contributing to a more successful and satisfying life. The more successful ones feel happier and optimistic. Research by Dr. Ellisa Edel on meditation and its anxiety releasing effects, from an article in the Huffington Post, claims mental well-being, is made of self-acceptance, self-confidence, self-determination, personal growth, and encouraging relationships.

A type of meditation described as ‘Meditation of mindfulness,’ which is especially effective at alleviating anxiety, depression, and enhancing the well-being. Mindfulness means the desire to stay in the current moment, with no interruption with health benefits (URL 3). It is a common method of meditation in southeast Asia, deriving from an early version of Buddhist wisdom 2,500 years ago. Furthermore, meditation has spiritual advantages, such as: To cultivate insight and remove fatigue and stress

from the human mind, achieving a profound awareness and appreciation of oneself, increasing self-confidence, learning to tolerate, which cause to superior satisfaction (Dodd, 2018).

The clear element that leads to this almost effortless experience of ‘choiceless perception’ is a feeling of separation amongst the self and the observed. It is a perception that detaches the subject and object. Without a knower, there is knowing, without an audience, seeing; thinking without a thinker, something such an impersonal phenomenon that simply occurs in consciousness’ (Kabat-Zinn 2005).

A key feature in many meditation techniques is the development of a ‘free mental approach,’ described as a ‘relaxed focus of attention,’ therefore, those ideas, memories, experiences, and feelings will appear and flow freely without consciously manipulating or seeking them (Ospina, Bond, Karkhaneh, Tjosvold, Vandermeer, Liang, et al., 2007). For all of these, the place for meditation must be quiet, free of noise and clutter, uplift and stimulate mood and concentration, and enhance the quality of the meditation performance.

2.5 Interior Space as Experiential Source: Deriving Theoretical Findings

From Philosophy:

- Architectural space is a source for experience – a crucial component in human existence support the dwelling experience, belonging, meaning.
- Space has emotional and aesthetic power and can offer the pleasurable experience of attraction, satisfaction, and happiness.

- Architectural space – i.e., design can make visible/perceivable the sense of connection with the fourfold – mortals, divinities.

From Theories on Perception and Experience:

- Perception is rooted in sensory experience.
- Self and identity are linked with spatial identity.
- The design should seek to make perceivable the relationship between the human body and the atmosphere of a place.

From the Sense of Place:

- Bonding between people and places and their interdependence is mediated via the qualities and the characteristics of the settings.
- Distinctive personality, identity, must be legible.
- Cognitive and affective relationship.
- Sense of place – depends on the recognition of physical features, attributes, and characteristics.
- Belonging – emotional connection – feelings, values – security and enjoyment, imagination, mystery, and vitality.
- Attachment – the place is a significant and meaningful, unique identity and character of space.
- Contributing to the sense of place: proportion, scale, variety, ornamentation, color and texture, smell, sound, temperature, and visual quality.

From a Discourse on Space/Place:

- Design as the art of forming space, which is crucial for both architectural meaning and appreciation.
- Physical attributes do promote accommodation, mental, and physical well-being.
- Space is lived and traversed.

From Phenomenology:

- Architectural experience is a multi-sensory experience in the quality of material, space and scale are measured with eyes, ears, nose, skin, language, skeleton, and muscles.
- Architectural experiences have a verb form – the act of entering, moving, is situated.
- ‘Life-enhancing’ architecture has to tackle all the senses at once and combine self-image with world experience.
- The environment is an important ontological framework necessary for the life and well-being of human psychology.
- Space quality, matter, and scale are measured equally by the eye, ear, nose, skin, tongue, skeleton, and muscles.
- Architecture strengthens the existential experience, one’s sense of being in the world, which is essentially a strengthened experience of self.
- Architecture connects the experience to detail and material to place by uniting foreground, middle ground, and distant views.
- Special architecture can lead to silence and the transcendental realm, the domain of the sacred.

From the Concept of Spirituality and Well Being:

- Spirituality – broader than religion.
- Transformative process.
- The self-realization of wholeness.
- Conscious activities that can be stimulated by design.
- How to construct a more positive, mindful, and profound spiritual experience.
- Spirituality requires physical, emotional, and spiritual commitment.
- Design to support the sense of spiritual intent.
- Spiritual experience can also include moments of enhanced well-being consciousness caused through a variety of physical and non-physical acts, from meditation to religion.
- The notion of spiritual therapeutic places - seek to provide healing through spiritual embodied acts, relaxation, and opportunity for peace and quietness.
- A ‘whole’ that is recognizable and easy to control, but also that should be inspirational, significant, and encouraging.
- Atmosphere.
- Stability, peacefulness, and aesthetic qualities.
- Authenticity.
- Methods:
 - The ‘positive design’ concept - the design could work as a particular source of pleasure or encourage sensory experience with various roles in well-being.
 - A framework for spirituality in the physical environment.

- Models:
 - The confession chamber in a church - enclosed environment, increased privacy via acoustic isolation, dimmed illumination, and a semi-divider between confessor and priest encourages a period of contemplation, tranquility, and integrity.
 - Bio-philia and biomimicry - establishing and incorporation of harmony and natural equilibrium.

From Spiritual Practices:

- Enhance the sense and stay in the current moment, with no interruption – can help achieve health benefits.
- Quiet place, free of noise and clutter.
- Support concentration, enhance the quality of meditation performance.

Chapter 3

INTERIOR SPACE CONSTITUTION AND THE FORMATION OF EFFECTS: IDENTIFYING DESIGN TOOLS FOR SPIRITUALITY AND MEDITATION PRACTICES

The literature research above conjoins diverse theoretical contexts relevant to the study of qualities of mediation spaces. It allows identifying important frameworks concerning the cognitive and affective potential of interior architectural space in general, as well as with respect to healing, well-being, and spirituality, and thereby – meditation. Among these findings, there are some methods for structuring design considerations (positive design, a framework for spirituality), and models (confession chamber, bio-philial) referring to more concrete spatial characteristics of physical features. In regard to design considerations, the findings from this theoretical part of the research do suggest desired effects and conditions, propose such that are effective in healing environments, and spiritual aspects as design considerations, or highlight experiential content. However, in nature, these frameworks are rather broadly defined and general.

Hence in this chapter, the research will seek to identify at least the design possibilities as to the physical constitution of desired effects, along with certain principles that govern the correlation of elements—considering that interior architecture works with

few quite definable elements, their spatial associations, and articulation in material, color, texture to formulate its complex effects, in this chapter. The research will survey three further areas for specifying the design frameworks: places for religious ritual – i.e., analogous spaces with similarities with meditation as a spiritual practice, theoretical sources on elements and principles for space formation, and study and analysis of honored selected practice examples in the fourth chapter.

The research will attempt to offer more concrete dimensions for the design of desired effects based on the more analytical approaches such as provided in the work of Ching (“Architecture: Form, space, and order” etc.) and Norberg-Schulz, (“Existence, Space and Architecture” etc.). In this explored will be the principal space-defining elements such as enclosure and openings, as well as other elements like furniture and furnishing, lighting systems with a distinct physical presence in their form, composition, and organization. Conjointly these contribute to the establishment of spatial identity and atmosphere. The further definition can be obtained as to the design means to achieve critical qualities such as strong spatial identity, authenticity – distinctiveness, legibility, wholeness, firmness, and stability, inner focus and concentration, unique atmosphere, calmness, and silence.

3.1 Design Elements and Principles in Theory

3.1.1 Enclosure and Openings

The perception of protection and well-being is related to barriers established by the architectural elements, including floor, walls, and ceiling, which identify the boundary and distinguish a building’s internal space from the external area. The enclosed structure is made up of walls, floors, ceilings, correlated to specify the spatial form. This definition includes the openings as an essential aspect of spatial description.

Along with solid surfaces, openings – such as windows and doors describe the internal place as architectural elements enhance the perception of spatial forms and connections, as well as help distinguish the spatial elements.

They typically interact in order to build three-dimensional volumes by specific architectural frameworks. Such elements are more than just instruments to display the boundaries of space. Their size, form, surface characteristics, including all the openings they make, produce the unique features and quality of the place – at base of the formulation of spatial identity. Openings change the sense of enclosure created by external walls whenever they continue to get broader in dimension and scale. The spatial qualities of form, proportion, scale, texture, light, and sound eventually depend on the properties of the enclosure of space. Evaluation in the perception of these characteristics is a reaction to the impacts of the observed materials and influenced by culture, former perceptions, and personal interest or tendency (Ching, 1987).

Moreover, nature viewing could be the concept of the positive distraction of external architectural elements. A working definition of ‘positive distractions’ is “environmental, social conditions marked by a capacity to improve mood and effectively promote restoration from stress” (p75-77). Ulrich makes a significant contribution to the views of nature, but associates’ humor or happiness, love, or laughing human faces, music, and animals with him as others (Ulrich & Gilpin, 2003; Ulrich, 1999). He also noticed that viewing of nature would decrease discomfort and pain, and also having a rehabilitative impact. For instance, it causes enhancing of behavior, reduced blood pressure, and decreased heart rates. He argues a developmental idea that naturally leads people to find therapeutic scenes of nature.

Anxiety will alleviate by creating indoor and outdoor landscapes, views of nature through windows and artwork depicting nature images (Ulrich & Gilpin, 2003).

Disconnect with technology: technology and devices are fantastic for simplifying human lives, and this super connection will make them lose their peacefulness. It is suggested to have limited technical settings and also having them focused in particular locations (FINSAs, 2020). Aesthetics has a significant part to play with design and interior design in the emotional satisfaction of individuals and the environment. This is directly related to human and spiritual satisfaction. The success of interior architectures in achieving the design of a room relies on how well they understand the human capacity to attraction and psychological experience (Pallasmaa, 2014). The basic theory of aesthetics can be described momentarily by suggesting that individuals ought to find a kind of cohesive diversity to appreciate the observation of anything (Smith, 2003).

3.1.2 Form and Volume

The formation, texture, building materials, lighting, and shading, as well as coloring, affect the spirituality of a certain architectural space. Thus, designers have always been cognizant of the fact and have benefitted from the impact of the features in both the inner and outer parts of the buildings (Edmund, 1974; Ching, 2014). The form is a descriptive word with several significances that might apply to an exterior presence. In architecture and design, the word describes the formal structural framework of the design— similar to the way elements and sections of a sculpture are organized and structured, made a unified picture (Ching, 2014).

The forms of the floor, all, and ceiling planes that enclose the room, door, and window openings inside a spatial enclosure are involved in interior space as identifying spatial

structure. Space continuously embraces human beings. We move into the volume of space, see forms, hear sounds, feel winds, smell the flower aromas. It is a material ingredient, like stone or wood. The gas is essentially formless. Their basic structure, proportions, and size, the intensity of their light, all attributes rely on human understanding of the spatial limits established by form elements (Ching, 2014).

According to Ching, 2014 connections of elements and their effects on the form indicate the design intents, as well as the concept which provides the entire cohesion. Form frequently involves a sense of three-dimensional volume; shape primarily relates to the basic feature of form that determines its presence - the alignment or relative arrangement of lines that define a figure or form - geometry—the distinctive outlining or surface structure of a specified form (Figure 6).

“...cubes, spheres, cylinders, or pyramids are the great primary forms that light reveals to advantage; the image of these is distinct and tangible within us and without ambiguity. It is for this reason that these are the most beautiful forms” (Corbusier, 2013) (Figure 6).

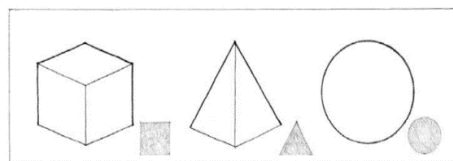


Figure 6: Shape (Ching, 2014)

The area of visibility and the interpretation of form are interconnected. In different sizes of design well-defined, enclosed space fields can be seen, by a large public square to a courtyard or atrium area, to a singular hall or room inside apartments (Figure 7).

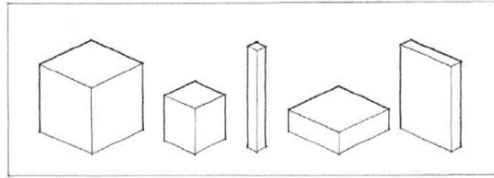


Figure 7: Form (Ching, 2014)

Sacred or religious places traditionally used elements as barriers for an enclosure and separate the building from the outside environment, by barriers, walls, or fencing (Ching, 2014), (Figure 8).

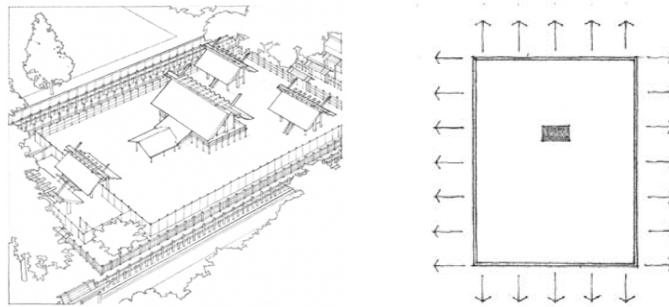


Figure 8: The Sacred Enclosure, Ise Shrine, Mie Prefecture, Japan, 690 A.D. p.156 (Ching, 2014)

The spatial qualities of form, proportion, size, illumination, sound, and articulation through color, texture, and pattern depend on the characteristics of the space enclosure (Ching, 2014) (Figure 8).

3.1.3 Organization and Composition

Correlation of space-defining elements and their spatial cohesion in design is based on the geometry which orders their relative positions and influences the perception of spatial identity. Ching identifies the principal spatial organization types as a central, linear, radial, cluster, and grid organizations (Ching, 1971).

These depend on the geometrical definition by points, lines, planes, and volumes that make up the place - addressing the definitions of two-dimensional structure and three-dimensional volume. Then, the synthetic spatial relations of the spaces described to vertical and horizontal limitations. Those are; space within space, interlocking spaces, adjacent spaces, and spaces connected to a different space (Figure 9).



Figure 9: Spatial Organization, 1996, p.179 (Ching, 2014)

According to Ching, Centralized Organization is a dominant central area clustered together by a variety of secondary spaces. It enables spatial hierarchy to be formed and a space to be represented as the main center (Figure 10).

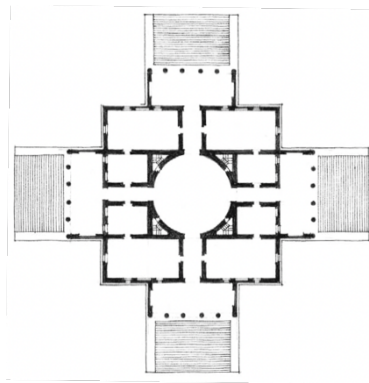


Figure 10: Centralized Organization (Ching, 2014)

Grid Organizations are structured grid spaces or any other three-dimensional structures (Figure 11). Similarly, the category of spatial organization forms by Norberg-Schulz is a central, linear, radial, cluster, and grid. According to Norberg-Schulz, in most urban spatial organizations, proximity, centralization, and closure

typically occur. These qualities correlate to the cluster, lines, and enclosure principle, respectively (Norberg-Schulz, 1971).

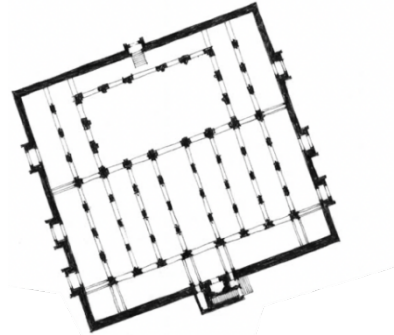


Figure 11: Mosque of Tinmal, Morocco, 1153–54 p.232 (Ching, 2014)

Norberg-Schulz (1979) quoted from Heidegger that mortals can live as long as they can save the world by re-appropriating the features of the surrounding environment into the man-made architecture. The scholar further identified four different levels of the surrounding world or existential space as geography and landscape, urban level, the house, and the thing. Gestalt psychology has a great influence on how Norberg-Schulz (1979) viewed perception and the socialization of perception in the process of “schematization” which is defined as how perception constructs our understanding of the surrounding world and how we live in. Influenced by such a view, the scholar proposed a theoretical framework that accounts for all the semiotic aspects (Norberg-Schulz, 1971).

The theory is grounded mainly on Morris’s model of semiotics and argues for an architectural totality that takes into account all aspects of architectures, the technical structure, spatial setting, context, scale, and ornament. The scholar further reviewed the works of the Gestalt philosopher Otto Friedrich Bollnow, on how human beings exploit the existential space in their use and creation of architectural spaces. According

to the theory, the central point of perceived space is somewhere between an individual's eyes (Bollnow, 1963).

Norberg-Schulz (1979) shows his allegiance to Heidegger better in his book on "Existence, Space, and Architecture," by combining architectural meaning and being or point and place leading to his theory of "existential space." To validate his theory, the scholar revisits and reviews numerous historical examples by comparing different monuments, houses, towns, and how the various dimensions of existential space generate positive and wholistic space (Norberg-Schulz, 1979).

3.1.4 Size and Proportion

Altering the composition, volume, and scale of the elements of interior architecture may have a specific impact on people's experience, and increasing connection has various influences. When scale corresponds to the size of something similar to a comparable level or something else's dimension, proportion refers to the appropriate or cohesive relationship between one component and another or the entire (Ching, 2014) (Figure 12).

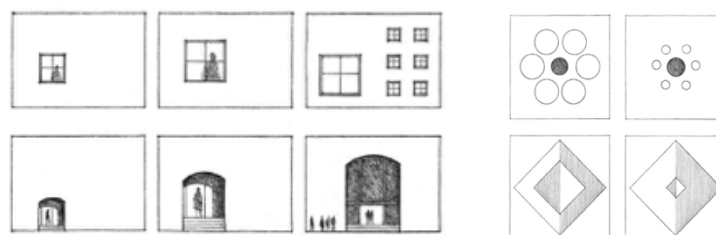


Figure 12: Visual Scale, Human Scale, Size and Proportion, P.331-333 (Ching, 2014)

Savinar examined the impact of Place dimensions such as space width, space volume, and height of the ceiling on a person's perception of the appropriateness of a place

scale. Here she observed that the need for a high ceiling increased if the width and depth of the space were viewed as low (Savinar, 1975).

The purpose of all proportion theories is to establish a sense of balance and unity between the components in a visual structure. Although the physical dimensions of width, length, and depth define the measurements and proportions of a form, the scale is defined as its sense by its scale compared to other objects. Changing the size of such items in design will affect perception, build unpredictable circumstances and complexity, and confusing emotions, amazed. Space size impacts atmosphere; E.g., rectangular spaces are perceived as greater than equivalent square-one square spaces (Sadella & Oxley, 1984).

Significant changes in ceiling height affect spatial perception rather than equivalent rises in space width or volume. High ceilings express feelings of spaciousness when low ceilings add comfort and coziness (Ching, 2014; Hall, 1969). The proportioning method provides a clear collection of visual connections among the sections of a structure, and the sections and the entire structure. While the observer does not notice such connections instantly, maybe perceived visual structure they establish, acknowledged, or perhaps remembered via a sequence of repeated experiences (Ching, 2014).

For having an aesthetic explanation for proportions, the proportioning structures are far beyond the practical and technological factors of architectural form and volume. They will provide a sense of order in a series of spaces and enhance the consistency of them. They could create connections between a building's exterior and internal components.

Proportional Theories:

- *Golden Sections* (Figure 13).

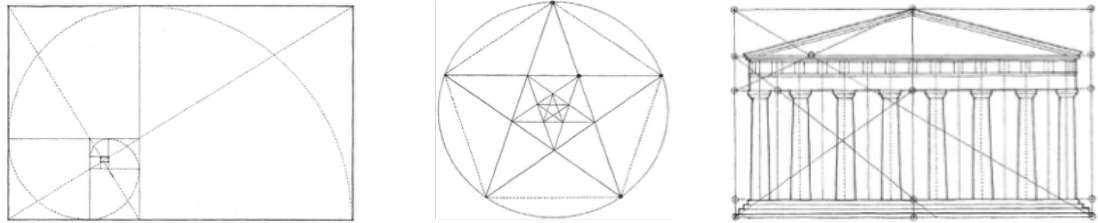


Figure 13: Golden Sections, P.303 (Ching, 2014)

- *Classical Orders* (Figure 14).

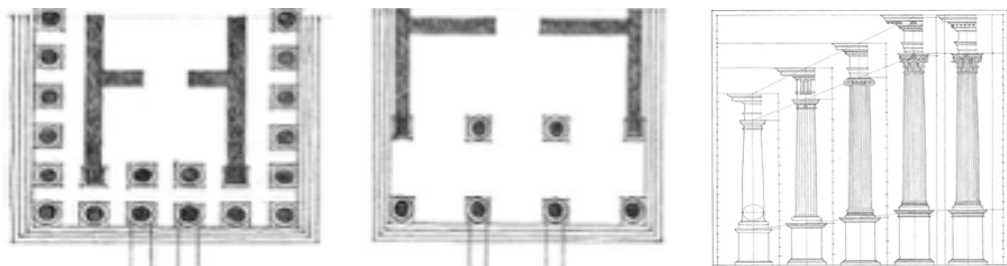


Figure 14: Classical Orders, P.309-312 (Ching, 2014)

- *Renaissance Theories* (Figure 15).

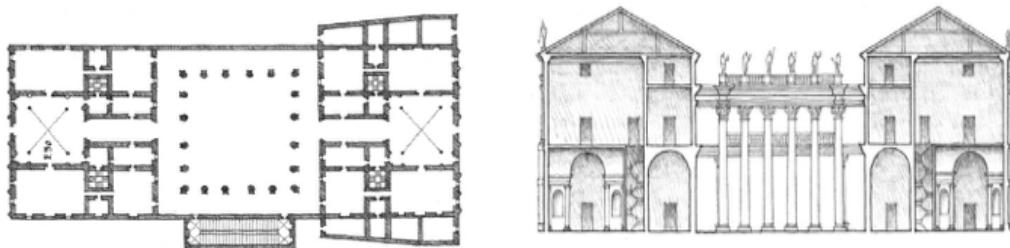


Figure 15: Renaissance Theories, Palazzo Iseppo Porto, Vicenza, Italy, 1552, Andrea Palladio, P.303 (Ching, 2014)

- *Modular* (Figure 16).

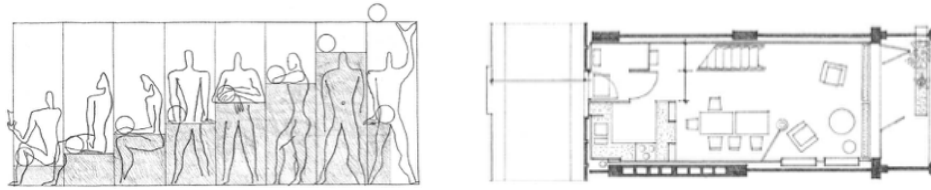


Figure 16: Modular, Plans and Section of Typical Apartment Unit, Unité d'Habitation, Marseilles, 1946–52, Le Corbusier, P.303 (Ching, 2014)

- *Ken* (Figure 17).

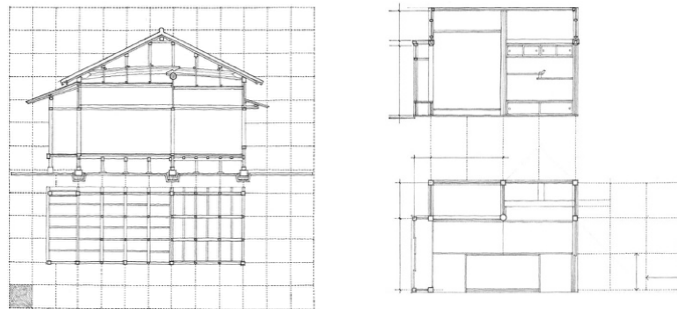


Figure 17: Ken, Traditional Japanese House, Elevation & Plan, P.303 (Ching, 2014)

- *Anthropometry* (Figure 18).

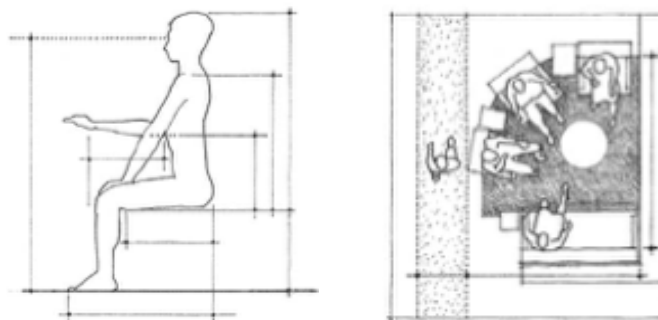


Figure 18: Anthropometry, P.303 (Ching, 2014)

3.1.5 Furniture and Furnishing

form, design, color, texture, and scale. Furnishings placement could build a sense of enclosure, define spatial motion, represent a space-defining boundary, and express visible or invisible obstacles (Ching, 1987). For example, arm rested chairs to produce a feeling of personal space and separation (Carpman & Grant, 1993). Thus, space can be categorized into two groups of positive and negative space. Positive space is concerned with objects, whereas negative space is to do with the open/empty space. In every design, positive and negative space need to be symmetrically balanced so that space does not generate overcrowding or sparseness. Such a balance is usually determined by the needs of the individuals in a certain environment and is created to serve the required functions. Circulation tracks are examples of negative space, while furniture and objects in a spatial space are examples of positive space. Thus, the scale of objects can affect how space is viewed by the individual, creating both a desired or unpleasant outcome. For example, a tall object such as a bookcase can create an image of grandeur or height in the eye of the viewers (Carpman & Grant, 1993).

3.1.6 Light and Lighting Systems and Fixtures

“Architecture is the masterly, correct, and magnificent play of masses brought together in light. Our eyes are made to see forms in light; light and shade reveal these forms...” (Velarde, 1929, p. 201).



Figure 19: Notre Dame Du Haut, Ronchamp, Le Corbusier, Photo: Paul Kozlowski (Velarde, 1929)

Light may be natural or artificial. Natural illumination (sunlight) requires a lot of controlled, ultraviolet frequency distribution (Figure 19). Artificial illumination is classified as general or ambient, task light, and accent. The lighting style of an environment directly affects a person's awareness of spatial context and meaning, impacting the physical experience, emotional, behavioral, and spiritual aspects of space on the human (Kurtich & Eakin, 1993). Light influences the perceptions of form, color, texture, and enclosure of space (Ching, 1996).

The sun is the plentiful natural light source. Light brings architectural shapes, forms, and spaces into perception. While the sparkling power of the sun is transmitted by clouds, fog, rain, and snow, it converts the changing colors and atmosphere to the reflection of forms and illuminates (Figure 20).



Figure 20: Interior lighting of San Giovanni Battista Church, Mogno, photo: Anat Geva (Tabb & Barrie, 2015)

The reflective sun's energy shines on the structures inside the building by entering through windows in a wall plane, or by skylights in the above roofline, enlivening their colors and exposing their materials. The sun recreates the place's atmosphere through the moving patterns of light and shadow that produces and articulates the shapes inside it.

The sun's luminous energy will interpret the form of space through its strength and diffusion in the atmosphere. Sunlight's color and brightness may produce a cheerful environment inside the space, or a more diffuse illumination may give a positive mood to it. Although the light's strength and orientation are pretty constant, it is the visual effect on a building's textures, forms, and space may be based on the scale, position, and direction of windows and skylights inside the enclosure (Ching, 2014).

The height of a window or skylight determines how much light space gets throughout the day. Moreover, the scale of the wall opening or roofline is often determined through considerations apart from sunlight, including materials, walls, or roof plane construction. The required degree of space enclosure is visibility conditions, visual protection, and ventilation, and also, the impact of openings on outside building form. Therefore, the position and direction of a window or skylight will be far more critical when deciding the amount of daylight space gets than its height (Ching, 2014).

In other parts of the day, an opening could be directed to obtain direct sunlight. Possible negative impacts of direct sunshine, like glare and unnecessary heat gain, may be managed through shading systems installed in the shape of an opening or made by layers of surrounding trees or neighboring structures. Moreover, an opening could be directed away from the intense daylight then obtain the dim, atmospheric light from the overhead sky vault. It is a valuable source of sunshine because it stays relatively steady, including on gloomy days, and may help control the rigidity of natural light and regulate the level of lighting in the place (Ching, 2014).

The placement of an opening impacts the way external light approaches to space and illuminates the forms and surfaces. So, if wholly placed inside a wall layer, an opening

on a dark area may display as a shining light. Where an opening is placed at the edge or corner of a wall, the natural light coming through it can wash the wall surface and perpendicular opening to it. Its illuminating surface itself becomes a source of light, which causing to increases the amount of light inside the room (Figure 21).

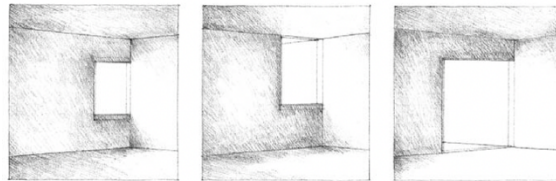


Figure 21: Placement of an Opening, P.177 (Ching, 2014)

Variables factors affect the efficiency of the light within a building. The design and articulation of an opening are expressed on the space shapes and surfaces with a shadow pattern created by natural light. In addition, the color and texture of these types and substances influence their brightness and the amount of general light inside the room (Figure 22).

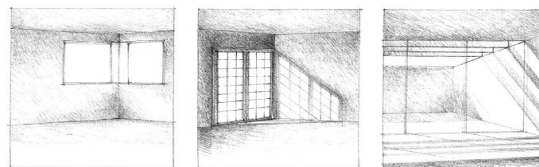


Figure 22: Design and Articulation of an Opening, P.177 (Ching, 2014)

The other feature of space to be remembered when creating openings inside a building's enclosure its emphasis and direction. Although a place has an inner emphasis, some have an external orientation provided by an outside view or surrounding area by openings and skylights windows. The scale and placement of these openings decide the quality of view and level of visual anonymity for an interior place (Figures 23 & 24).

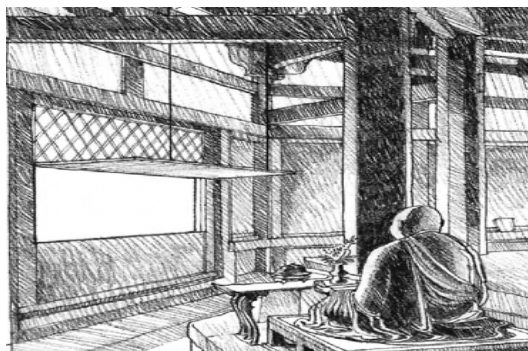


Figure 23: Exterior Focus, the Interior of Horyu-Ji Temple, Nara, Japan, 607 A.D., P.180 (Ching, 2014)

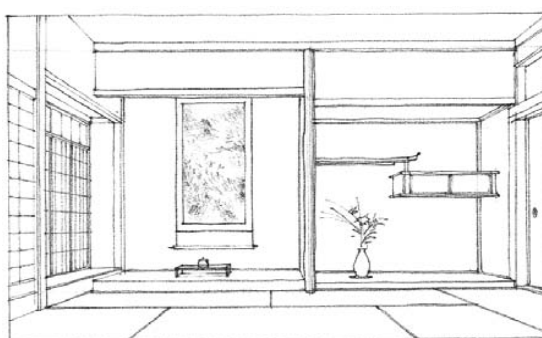


Figure 24: An Internal Focus: Tokonoma, the Spiritual Center of a Traditional Japanese House, P.180 (Ching, 2014)

Studies have mentioned different types of lighting on the location's cognitive functioning, mentality, and aesthetics but have defined any noticeable changes between warm white, cool white, and full-spectrum artificial light (Boray, Gifford & Rosenblood, 1989). In most of the meditation activities, direct relation to the sunlight is important. Because of that, natural lighting will still be preferred, so it is important to implement systems to control their strength, enabling the space to be entirely darkened if appropriate.

Daylight should not drop straight on humans, so it should prevent sunlight. Thus doors, openings, floor-level windows, fuzzy displays, and courtyard around the main space have been utilized by natural light. Whenever nightly activities are performed, the choice of artificial lighting must be warm and adjustable. The proper illumination may

have a major positive spatial effect (Echevarri & Burckhardt, 2016). Candles, as artificial lighting, provide a specific aura along with including other advantages and help bring quietness into a meditation area. The meditation's candle name, Trataaka, that flame of that is the focus of meditation. Human beings, naturally drawn to fire, and there are hypnotic attributes of the flame (Echevarri & Burckhardt, 2016).

3.1.7 Articulation / Surface Treatment

Articulation means the way of defining the shape and volume of a form's surfaces emerge. An articulated process precisely shows the exact meaning of elements and their interactions with one another and the entire. Similarly, the joints between the parts are enhanced by an articulated group of forms to present their uniqueness visually. A form may be articulated via: first, trying to differentiate adjacent planes with a shift of content, color, texture, or pattern. Second, creating corners as distinctive linear elements is independent of the surrounding planes. Third, eliminating corners to distinguish adjacent planes visually. Forth, lighting the form to establish vast differences in tonal value between edges and corners (Figure 25).

The corners of a form should be flattened and smoothed, as opposed to the focus on joints and joinery, highlighting the unity of the surfaces. The material, color, texture, or pattern may be moved over a corner to the neighboring surfaces to understate the identity of the surface planes and then emphasize the volume of a form (Ching, 2014) (Figure 25).

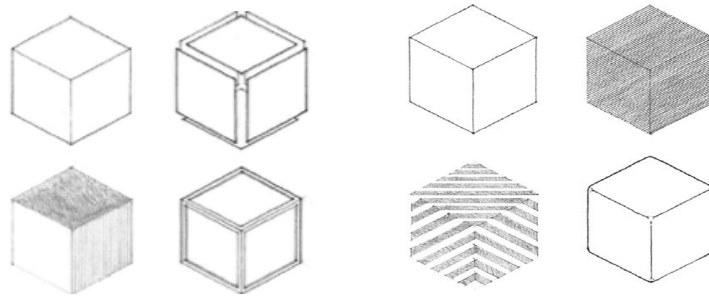


Figure 25: Articulation / Surface Treatment, P.83 (Ching, 2014)

surface pattern and texture create a tool that could influence the understanding of space directly by humans. People’s understanding of a plane’s form, size, volume, proportion, and visual weight is informed by both its surface properties and visual meaning (Figure 26).

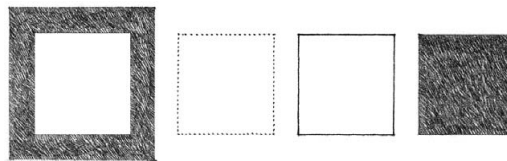


Figure 26: Visual Meaning, p.83 (Ching, 2014)

A clear difference between surface color and the surrounding field may explain its form, thus changing tonal value could rise or reduce its visual volume (Figure 27).



Figure 27: Volume, p.83 (Ching, 2014)

A frontal view shows the complete shape of a plane; it is blurred by oblique views (Figure 28).

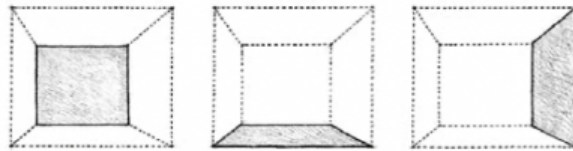


Figure 28: Different Shape of a Plane, p.88 (Ching, 2014)

Known-size objects inside a plane's visual sense will improve our understanding of its size and scale (Figure 29).

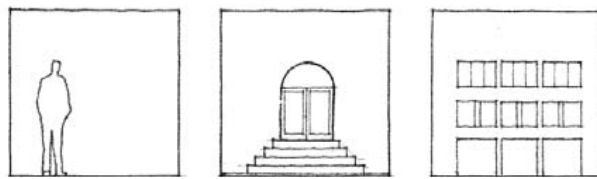


Figure 29: Size & Scale, p.88 (Ching, 2014)

Color and texture both influence a plane's visual weight and volume, and the amount to the light and sound is absorbed or mirrored (Figure 30).

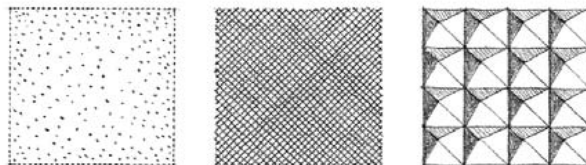


Figure 30: Color & Texture, p.88 (Ching, 2014)

Spatial or oversized visual patterns may misrepresent the form or overstate a plane's proportions (Figure 31).

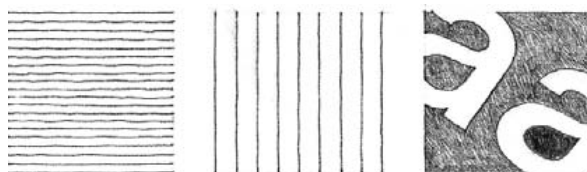


Figure 31: Visual patterns, p.88 (Ching, 2014)

Throughout the context of the shape, size, and proportion, the articulation and the implementation of the surface, more practical design principles can be regarded for general techniques, which can be regarded as the key instruments of interior architecture.

Based on the human experience of feeling and observing specific objects, surface sensibility has its effect on the mind. With the maximum effect of spatial factors associated with cognitive mood to achieve feelings and emotions, the perception of material, color, light, even sound, and the smell is classified. Design aesthetics investigators looked at the impact of construction design and surface treatment for the understanding of design quality. By using the surface treatment, design may create other moods, including relaxation, movement, comfort, and pleasantness (Amira & Abramowitz, 1979; Kerr, & Dell, 1976).

3.1.7.1 Materials

The use of the materials for defining and communicating the architectural space is crucial to the way humans interpret architecture (Pallasmaa, 2005; Rasmussen, 1966). By links to the architectural body as the physical framework of architecture, Zumthor explains how the material involvement of architecture influences him sensually and how he recognizes the mixture of various materials as one of the fantastic mysteries of architecture (Böhme, Gernot, 2013).

Natural materials, including wood, ceramics, concrete, and steel, express an authenticity that cannot be accomplished with today's machine-made products. Curtains and upholsteries, which previously stimulated a comfortable and warm environment, are already removed by interior roller shades and foam-coated furnishings, which often permeate an even more administrative and clinical ambiance.

While this decreased usage of interior fabrics will receive financial profits from increased cleaning and repair performance, it is at the same time in contrast with overall healing architectural ideals. This calls into question the visions of healing architecture and, in for promoting the future development of interior design, the understanding of the architectural capacity of materials must theoretically at least be improved (Dansk Standard, 2011).

Actual materials: natural fabrics, plants, and non-added materials such as timber, clay, and stone help enhance the identity and authenticity of the interior of place to be unique. The use of warm materials and soft colors may help audiences attain some immediate focus. As activities are done in direct connection with the ground, floors are typically paved with very ‘soft’ timber or materials and are mild to the touch. Comfortable and simple spaces must be enabling the person to quit their hectic lives and interact with the body and a peaceful emotional room (Accedid, 2020).

3.1.7.2 Color, Texture, and Pattern

According to Ching, color has been identified as being the most influential in fostering human adaptation to the world and enhancing spatial form. Color contains three interrelated dimensions: hue, value, and intensity. Hue is the attribute from humans differentiates various colors such as red, green, blue. Value explains the amount of lightness or illumination of a hue like baby blue, navy blue, and intensity includes the level of color saturation, such as fire truck red, maroon (Ching, 1996).

Ward (1995) said the color spectrum was evaluated due to physiological reactions to specific colors. Some colors, like blue and violet, decrease blood pressure, and body temperature, while some, including red and orange, typically cause these physiological

effects to increase (Ward, 1995). Researchers consider green-yellow, blue-green, and green are the most arousing colors, and violet-blue and yellow-red to be the least exciting (Valdez & Mehrabian, 1994). Additionally, Levy said, blue-violet led to feelings of depression and tiredness while cool green led to feelings of frustration and uncertainty (Levy, 1984).

Color can alter a place's perception scale and temperature, create connections, increase introversion or extroversion, produce rage or relaxing mood, and affect physiological reactions (Korzh & Safuanova, 1993; Venolia, 1988). While warm hues and higher intensities, for example, offer visual awareness and excitement, cool hues and lowered intensities reflect profundity and comfort. Strong, cold colors tend to compress out area, while bright, warm colors appear to enlarge and maximize a room's scale (Ching, 1987).

Colors and hues have not competed with each other and operate for directing attention to a focal point in the space. The colors should be pleasant and calming while entering the room. It should be avoided using rough and contrast colors drastically. The paint range will take priority over earthy colors such as ochre and soothing colors (Finsa, 2020). Color is a light phenomenon of and visual experience which can be defined in terms of the interpretation of hue, saturation, and tonal value by a person. Color is the feature that separates one type more distinctly of its context. The visual strength of a form is also affected (Figure 32).

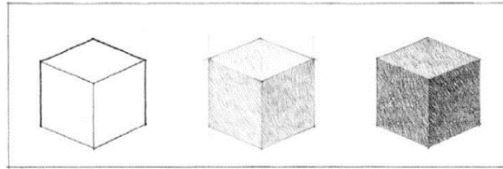


Figure 32: Color, p.90 (Ching, 2014)

The texture is the visible and particularly tangible quality which the scale, form, organization, and compositions of the pieces offer to a surface. Texture often defines to what degree of light source influences or absorbs the surfaces of a form (Ching, 2014, P.34) (Figure 33).

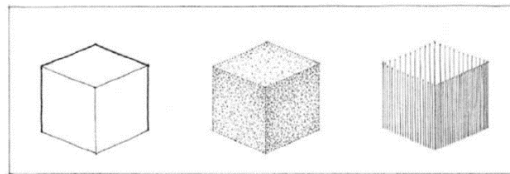


Figure 33: Texture, p.90 (Ching, 2014)

Visual color therapy is often used to manage pressure/discomfort, tiredness/sleeping problems, headaches, and depression. The usage of color in healthcare conditions goes back to Ancient Egypt and the Heliopolis temple, where patients cared in spaces built to isolate the beams of the sun into various spectrum colors. Rituals created for healing purposes to the Hanging Gardens of Babylon based on access to the soothing colors of the propagated plants and flowers there (Schweitzer, Gilpin, & Frampton, 2004).

Newton's studies were introducing analytical opinions about the healing power of color, physicians utilizing color to treat anything, including malaria, to mental health problems. This emphasis was reinforced by the publication in the late 1800s of Babbitt's dissertation on chromotherapy, which suggested color therapies for a large variety of diseases. After that, in the early 1900s, some wide-ranging investigation on

colored light therapy was done by Ghadiali (Schweitzer, Gilpin, & Frampton, 2004). He researched the effects of color on the disease by creating and delivering “Spectro-Crome” lamps, to healing different long-lasting illnesses such as diabetes and tuberculosis. Ocular color therapy believed to enhance brain function, maximize brain strength and expand neuronal networks and boost mental ability, along with spiritual, emotional, and physical well-being and health (Schweitzer, Gilpin, & Frampton, 2004).

As the senses of sight and touch experience the texture, two textured measurements can be used to define the surface qualities available in a space, such as floors, walls, ceilings, and furniture. Tactile textures, including hard and soft to the touch surfaces, which are perceived by touch; however, visual textures like upholstery patterns, are perceived by the eyes and can be deceptive or real. Persons’ physical responses to surfaces are grounded on earlier experiences they had with similar materials (Ching, 1987).

Amira and Abramowitz indicate that visual and tangible patterns of a place’s impressions influence individuals’ feelings as warm and relaxed or rough and cold. Texture may express a sense of comfort and depth to the place. Kerr and Dell also indicate that the texture of materials on the ground, wall, and ceiling influences the acoustic and brightness qualities of the surroundings. For example, counselors would say using some smooth, textured materials to reduce sound and improve the sense of privacy for patients, for instance, they should not use a material to cause echoes in the room like bare painted concrete. Instead, they can use flat or satin paint to moderate the environment by reducing glare and illumination. Sensitivity to texture

differentiation has its effect on the mind-dependent on our experience of feeling similar surfaces (Amira & Abramowitz, 1979; Kerr & Dell, 1976).

3.1.8 Sound and Smell

The floor, wall, and ceiling surfaces serve acoustic functions that can influence the perceived spatial inequalities of people. Medium, absorbent surfaces, including rugs, fabric, curtains, textile wall tapestries, acoustical panels, and tiles, decrease the noise of sounds and distract attention away. Hard, non-porous materials like cement, glass, concrete on the other side, reverse vibrations and draw attention to space scale (Ching, 1996).

The effect of sound on the mind is, firstly, it has been shown to hinder activities involving listening. It has been seen to a lesser degree to hinder activities requiring internal dialogue. Second, it has been found to enhance the efficiency of activities that do not involve often listening, possibly because the sound may stimulate biological excitement and can even obscure unexpected noises. Thirdly, the sound has often been known to distract from work success, particularly where certain noises are correlated with different meanings; such as a scream of a child is identified with a danger of harm to the well-being of the baby. Indeed, sudden or unwanted noise perception may be the main aspect of its perceived discomfort and negative effects (Kryter, 1985).

The experience of sounds is affected by the treatment of surfaces in the place, which may be reflecting or sound absorbent (Seamon, 2012). On the one hand, So much sound might be harmful to human health, leading to diminished focus, fatigue, hearing impairment, elevated movement, raised blood pressure, anxiety, and stress. Higher general rates of sound can interrupt speech, reading, or deep thinking. Unexpected

noises cause spectacular reactions, which may result in permanently tensed bodies with extended contact (Venolia, 1988).

On the other hand, so much quiet and tranquility can be challenging to continuous. The most successful equilibrium is reached not only by solving sound issues but also by implementing enjoyable sound into the atmosphere that may obscure or hide less favorable noises (Venolia, 1988). There are some indications that a range of environments and ‘multisensory retreats’ are necessary for emotional and cognitive processing and might influence the functioning of the body’s immune system (Parsons, 1991). Certain sound forms involve white noise (diffused sound that hides certain noises), device noise which creates sound bursts at some levels, impulse noise that generates noises with a few levels at a large frequency, and speech that creates differing frequencies throughout the center of the listening spectrum (Seamon, 2012).

Musical sound, rated as lovely or relaxing by medical staff, has been found to have beneficial consequences. While the music was believed to have a therapeutic effect, many of the analyzed research suggested that musical treatments promoted healing, whether clinical reaction, person self-report, or psychological evaluation is used to determine well-being (Ragneskog & Kihlgren, 1997).

Furthermore, it is believed that pleasant aromas/ smells will improve blood pressure, slower breathing rate, and low rates of pain sensitivity. Some literature interpreted scent as slightly to highly minimized patient distress throughout neuroimaging (Redd, Manne, Peters, Jacobsen, & Schmidt, 1994).

However, negative smells/ odors are enhanced, discomfort, depression, and pressure. The atmosphere embraces elements like plants, atmospheric scents, and natural bad smells that activate the sense of olfactory. Access to particular odors influences different psychological mechanisms such as mood, awareness, interpretation of the object, and well-being (Martin, 1994).

Recent studies show that bad smells can cause sad memory recall for people, meanwhile good smells can activate happier memories for users. Interior designers must take into account that the negative impact of odors on meditation places, might affect meditation activity. Irritating smells can have a deeply embedded, and possibly unintentional effect on the perception of individuals. A sound device might be played as calming sound effects or play natural sounds such as dolphins, birds, water, or night (Gonzalez, 2019).

The main aim of meditation is to foster body, mind, and spirit health and well-being. Essential oil or aromatherapy uses organic plant products to facilitate the same advantages. The essential oils capable of reducing stress and tension involving Lavender / Jasmine / Lemon / Bergamot/ Ylang / Clary Sage. Aromatherapy tends to create the mood of the space for meditation, which can help people enter more profound and many calming meditative phases.

3.1.9 Style, Correlations and Effects

Theories and models that guide design approach for well-being, specifically in health care settings, include the importance of elements. Below are some of the best-recognized descriptions of styles which have already influenced patients and the architecture of health centers over the past few decades.

Feng Shui is the study of the natural environment by Ancient Chinese. Professionals utilize this style simply interpreted as “wind and water” to assess the most favorable location for all persons and objects in a specific area. It also facilitates the development of an atmosphere, which is an appropriately efficient and harmonious environment, and promoting individuals in that atmosphere. Technology frameworks are typically focused on basic environmental factors and entities within the atmosphere, as well as solar system trends (Celiker, 2013).

All buildings are considered to have special characteristics of energy, and attention is paid to the physical relationship between the natural condition and attractive arenas. Feng Shui experts using a specific instrument which described as a Lo-pan to evaluate a place’s energy qualities and the resulting impacts on the inhabitants of the place. Analyses are decided based on fundamental assumptions, and then medications should be given if appropriate to adjust the energy; hence, it has a beneficial impact. The entrances to the building, the departments, the patient rooms, and the treatment areas are extremely important.

Trying to promote positive Chi or energy flowing in such places is considered to have a considerable influence on people’s well-being and satisfaction. It is stated that the usage of Feng Shui rules in the setting of these areas and the design and organization of furnishing influences this energy transfer (Celiker, 2013).

It has some common recommendations including, make direct views of entries, which visitors and staff will not have their back to the openings. Consider removing clients or staff on the straight connection of a door to maintain the privacy, and prevent unnecessary the sense of being watched all times. It is noted that being in

the exactly front of the openings puts people directly into the rush of Chi, leading to negative health. Using warmer lighting in comparison to glare fluorescent lighting, excessively bright light is thought to make individuals angry and cause headaches (Schweitzer, Gilpin & Frampton, 2004).

Sacred Geometry, work on this subject is little. However, religions that focus on sacred geometry are widely spread around the world, such as the Sthapatya Ved construction orientation. The orientation is selected based on the user's interaction with the world to promotes the owner's well-being, happiness, and spiritual development. Once a building is constructed with this awareness, a divine template (mandala) is formed, and the eternal spirit (Purusa) is embodied in it by putting a structure (Vastu) over it while keeping in touch with the universe. Whenever the building is in excellent condition, it is designed to be in Purusa's likeness. Religions include ceremonies and rituals relating, and religious structures are also guided in those particular directions, such as an orientation toward the east and Mecca, which is prominent in Islam. In most western countries' belief structures, four directions have particular meanings that influence well-being and health and consequently evaluate the spatial orientation of the physical universe (Schweitzer, Gilpin & Frampton, 2004).

The issues of strong spatial identity, authenticity, and spiritual atmosphere appropriate for the practice of meditation depends on the coordination between all elements defining the space. Through the coordination of design elements and their correlations and effects achieved by the tools of articulation are crucial meditation interiors as means supporting appropriate concentration, mood, healing, and spirituality. According to the explanations of interior space elements, they are modifying the form, proportion, scale, and size also articulation relations of some elements in just a

position, and the rest can mislead the awareness of the user. Each correlation has different effects. For example, changing the scale of elements and making them bigger or smaller to make an extraordinary setting and destruction of insight.

The emphasis should be on defining the discovery of spatial properties for health and spirituality about all aspects of mediation architecture. What types of spatial qualities or circumstances of interpretation can foster people's well-being and influence the mood and experience of interior architecture, especially in terms of knowing the role and effect of healing spirituality on human-beings? As declared, the core aim of the design is to organize features, objects, and produce some relationships among them to reach a cohesive project.

Many key design features are identified and studied, to define their principles and the interaction between them. They may affect the whole structure, particularly in meditation and religious environments (Valins, 1993). Any of these elements produces a particular emotion that affects people's perception. Altering an aspect in interior design may have various consequences on user perception with specific influences.

Gernot Böhme German philosopher defines atmospheres as a modern aesthetic term that belongs to the physical experience of place. The atmosphere is between the subject and the element. Hence, environmental aesthetics could seek to settle between the aesthetics of experience and material aesthetics (Zumthor, 2006). Böhme reflects the nature of the environment, which is floating among humans as feeling bodies and the surrounding space's physical bodies. Experiencing an environment involves perceiving the atmosphere via all human senses and becoming consciously aware of the sensation in that specific place. This sensitive perception of place is connected to

the personal context, which is aimed mood, but the place still can identify most belonging to it, which is not part of perception (Böhme, 1998).

It is commonly agreed as popular awareness that a place's atmosphere has an impact on individuals using it. A "positive toned mood" influences inhabitants to behave in a place, and the healing results (Shepley & McDougal, 1998).

3.2 Deriving Design Findings: Design Elements and Principles in Theory

From Design Elements and Principles in Theory:

- Enclosure and openings:
 - Show the formal structural framework of the design.
 - Reveal design intent.
 - The alignment or relative arrangement of lines that define a figure or form – geometry – at base of cohesion.
 - Viewing nature as a positive distraction.
- The power to strong spatial identity:
 - The primary forms - cubes, spheres, cylinders, or pyramids - offer an image that is distinct and tangible without ambiguity.
- The principal spatial organization types: central, linear, radial, cluster, and grid organizations.
- This helps establish a strong sense of place – existential space – holistic space.
- Size of space – effects on spatial perception – spaciousness, coziness.
- Proportion – supporting sense of order – emphasis on proportional relations among elements.

- Proportion theories – coordinate correlations of elements – to establish balance and unity.
- Proportional theories:
 - The Golden section.
 - The classical orders.
 - Renaissance theories.
 - Modular.
 - Ken.
 - Anthropometry.
- Light – natural light – varying – effects on mood and atmosphere of space.
- It brings architectural space and its features into perception.
- Openings – windows, skylights.
- Light and shadow – exposing shapes, articulation of forms, materials, colors, textures.
- The placement of openings – essential for the perception of features of the design.
- Openings create direction – oriented to outside – view, or only for light.
- Sunlight is essential for many meditation practices.
- View – as a focusing device, positive distraction concept.
- Artificial lighting, candle lights – as creators of specific atmosphere, mood, and aura, even concentration effects for meditation.
- Tools and means of articulation – visual weight of spatial elements:
 - Light, materials, color texture pattern.
- Form and surfaces:
 - Emphasis on corners of space.

- Distinguishing the enclosure planes.
- Materials:
 - Natural materials – such as wood, stone, ceramics, concrete – give a sense of authenticity.
 - Warm and cold materials.
 - Soft and hard.
- Color – hue, value, intensity.
- Effects on the perception of space.
- Effects on atmosphere, mood.
- Accents in space.
- Psychological effects:
 - Soothing and arousing colors.
 - Visual color therapy.
- Texture.
- Influence acoustics, perception of light, perception of space:
 - Tactile textures - hard and soft, smooth, and rough - perceived by touch.
 - Visual textures like upholstery patterns are perceived by the eyes.
- Sound and smell:
 - Vibration absorbent or reflective surfaces.
 - Tranquility and calmness - necessary for focusing, concentration, emotional and cognitive processing, and relaxation.
 - Pleasant aromas.
- Styles and design systems:
 - Feng Shui:
 - Harmonious environment.

- The importance of entrance.
- Direct views of the entry.
- Energy flowing.
- Disconnect with technology.
- Sacred geometry:
 - Cohesive design.
 - Importance of orientation.
 - Particular meanings of directions.
 - Promotes the owner's well-being, happiness, and spiritual development.

Chapter 4

CASE STUDIES: REFINING THE FRAMEWORK FOR MEDITATION SPACES FROM SELECTED TRADITIONAL AND AWARDED CONTEMPORARY EXAMPLES

This chapter will survey two areas for specifying the design findings and frameworks: places for religious ritual – i.e., analogous spaces with similarities with meditation as a spiritual practice then, study and analysis of selected awarded meditation spaces from practice examples.

4.1 Spaces for Religious Ritual

There are essential aspects that link meditation and religious experience, as there are also similarities between meditation practices and religious rituals. Significant clues about the qualities of meditation spaces can be derived from religious interiors. However, in surveying spaces for religious ritual, the focus would be on early examples. It can be assumed that early examples are more uncomplicated and hence pure and that therefore they would reflect more clearly some essential principles guiding the spatial solution for the religious ritual in contrast to later elaborate, sophisticated, and ornamented examples.

A brief overview of Buddhist, Christian, and Muslim ritual spaces would allow identifying some essential shared principles and qualities, from where respectively

parallels to meditation spaces can be drawn. Sacred architecture is concerned with the design and construction of places of worship and religious practice, such as churches, mosques, synagogues, stupas, and temples. Sacred structures often evolved over centuries and were the most significant buildings in the world, prior to the modern skyscraper. With the rise of Abrahamic monotheisms (mainly Christianity and Islam), religious buildings increasingly became centers of worship, prayer, and meditation. Sacred geometry, iconography, and using sophisticated semiotics such as signs, symbols, and religious motifs are widespread to sacred architecture (Droog & Vries, 2009).

4.1.1 Early Temples Architecture and Spatial Features

A temple is a holy place to worship. It includes a Buddha statue or portrait along with the place where Buddhists conduct ritual action. While during festivals, temples draw many worshipers, they are nonetheless quiet locations. Sometimes they are found as areas for peaceful meditation, with forms of prayer and worship performed in front of an altar. Buddhist temples are typically part of a complex, where irrespective of its scale, the temple, and situated in an enclosed environment. Buddhist temples exist in different types and scales. Temples maybe have some floors and are sometimes provided by ornately designed and artfully painted walls and panels with steeply sloped roofs. The central shrines also include a sculpture of the Buddha, containers of holy books, altars with candles lighting, incense burning. Five elements are symbolized in Buddhist temples: 1) Fire, 2) Air, 3) Earth, 4) Water are symbolized by the square base, and 5) Wisdom is symbolized by the temple peak. Buddhist temples usually include several sculptures of the Buddha. According to Chinese Feng Shui, most Buddhist temples are oriented to the south or east, while north and west are considered unfavorable. The path to the temple is essential (URL 20).

Buddhist temples usually have outer gates and inner gates shielded from evil forces by sculptures or drawings of some creatures, powerful gods, or soldiers in protection (Figure 34).

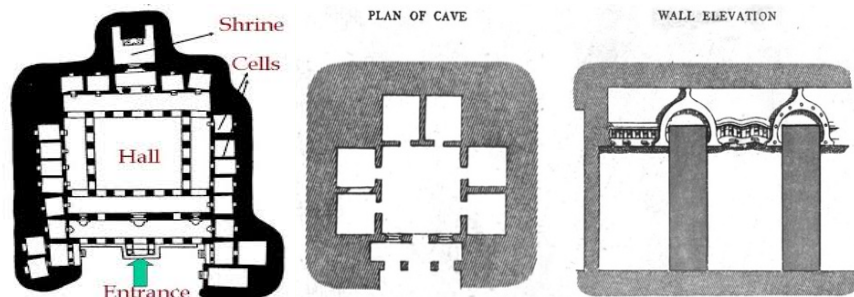


Figure 34: The Early Temple's Plan (URL 20)

The entrance is through the left door, exit through the right. Traditionally the main hall is situated in the core of the temple. Buddha pictures, altars, and space for monks and worshipers are located there. Often the main hall is attached to a lecture hall, where the monks meet to read and discuss. Some extra structures include the sutra depositor, a library, or location where the Buddhist text is kept, where monks stay, work, and eating places (Figures 35).



Figures 35: Main Chaityagraha Cave, with Stupa – Photo Dharma, from Sadao, Thailand (URL 20).

As evident from these documents and corresponding images, the specificity of the spaces for ritual practice shows an emphasis on differentiating the space from outside,

as well as on the passage towards the main space signified by two gateways. The enclosure is with thick walls, surrounded by other smaller spaces. These altogether produce a sense of detachment from outside. The square plan is basically of a clearly defined influential figure – spatial identity (Figures 35).



Figure 36: Ancient Indian Temples Interior (URL 20)

It asserts a center within and offers a focus on important interior elements, such as the statue or image of the deity. The space for ritual is the core and dominant. It is to stimulate concentration, which is perfect and regular form, strict order, which is axial and symmetrical to the main approach. Strong spatial identity and calm atmosphere despite ornamentation appear as significant features of the place (URL 20) (Figure 36).

4.1.2 Early Church Architecture and Spatial Features

The word early Christian belongs to the architecture (3rd-7th century) relating to Christianity. Later it is known that Christianity gains official recognition from the Roman Empire. Christians are beginning to create religious systems adapted from the Roman concept. Christianity demanded spectacular environments and rituals for the representation of new significance, so it incorporated Roman architectural materials like a basilica, house atrium, baths, tombs and cemeteries, paintings, and mosaics (URL 11). Basilicas, as examples of Roman architectural styles, are modified to create the origin of early Christian worship.

Hence these include architectural features such as arches, clerestory windows, and entablature courtyards characteristic to Roman architecture. Early Christian buildings are constructed of stone and mortar, where concrete is used less. The interior walls are richly adorned with mosaics portraying holy events or the Roman emperor's motifs and pictures (URL 11) (Figure 37).

Early Christian architecture implements the axial plan of a basilica, centralized on an altar. There are wide interior areas – the central aisle - that can handle worshipers and ceremonies. For having more rooms, they make a cross design that is functional and symbolic of spirituality (Figure 37).

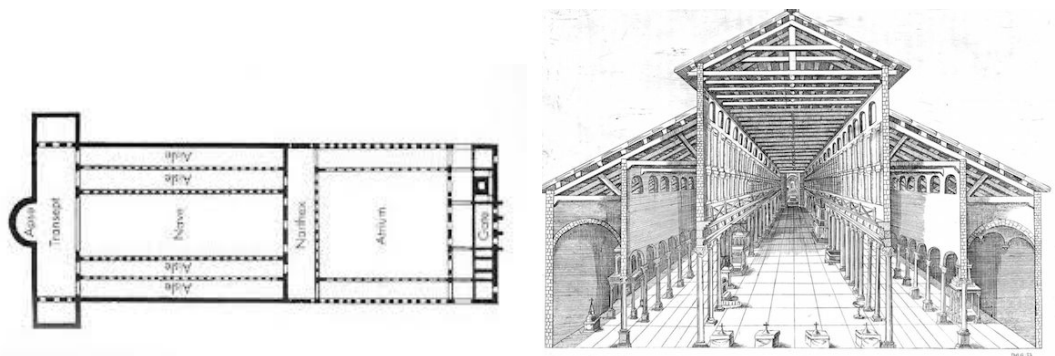


Figure 37: Old St. Peter's Basilica, Rome, (330 CE), Early Christian Architecture, Giovanni Ciampini, 1693, P. 33, Photo by Lena Ha (URL 11)

Although based on a different shape of the longitudinal plan, again, we see a space with a strong spatial identity. Clear order in an axial and symmetrical layout, with main space, focused on the apsis, introvert, an emphasis on the passage towards a different realm, controlled access of light, calm and serious atmosphere, including arches, clerestory windows, open spaces, and courtyards (Figure 38).



Figure 38: Durham Cathedral. England, 1087-1133. photo by Nicole Ritz (URL 11)

4.1.3 Early Mosque Architecture and Spatial Features

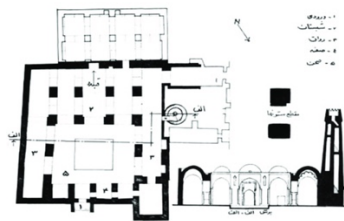
The mosque is the core of Islamic society. Also, it is a sacred center where there are also burial services, speeches, and non-obligatory services. It is also an area for relaxation and tranquility. Such financial, political, and legal roles remain from a traditional to contemporary mosque interior architecture (Kaya, 2019).

The earliest mosques were often simply the allocation of open space with an open courtyard in the town center, where Muslims could gather and pray. The only consistent defining spatial characteristic of these early mosques was their orientation toward Mecca, the site of the ancient mosque, called Masjid al-Haram, at the center of which stands the holy Kaaba established in 622 BC. These hypostyle mosques are well-known for their forest-like arcades and columns frequently arranged in a square plan (M.G., 2019) (Figure 39).



Figure 39: Courtyard and Minaret, Great Mosque of Kairouan, Tunisia, c. 836-75, Photo by Watson, CC BY-SA 2.0 (URL 24)

A higher number of square plan units used in a layout design correspond to larger prayer halls. The main prayer halls became larger, creating a more-spacious, column-free enclosure accommodating hundreds of worshippers in a unified spatial gesture (Mustafa & Hassan, 2013). According to Alamiri, 2017, In the Kairouan Mosque in Tunis (670 BC), there are many doorways linked to the open courtyard to the covered prayer hall nearest the qibla wall (Figure 39). The mosque designs have denied it public attention by simplicity and lack of ornamentation. The earliest plans of the mosques consisted of a central courtyard towards Kiblah (URL 18) (Figures 40 & 41).



Figures 40: Plan and Section of Fahraj Friday Mosque (URL 18)



Figures 41: Court Yard View of Fahraj Friday Mosque (URL 18)

The symmetry, central, and axial plan dynamically creates a visual perception as the person experiences express various spaces. The interior space of the mosque has an enigmatic and mysterious ambiance with proper natural and artificial lighting, which makes the building unique. These all create a feeling of separation from the outside world. These spatial characters plus a silent, peaceful atmosphere and acoustics by using the floor covering by carpets act as main features of the place (Parapari, 2015).

These spaces for religious ritual examples offer some few but essential principles that govern the formation, which is in nature, integrally linked with other spiritual practices meditation. Hence, they allow deriving some essential principles concerning the spatial constitution and desired effects. The order established is clear and dominant. While the order may be based on predominantly central, axial, or grid-like organization, with different spatial forms resulting, in all cases, the main space is dominant. It always has an axis of symmetry, which enhances the formal nature of space and ritual. The hierarchy of composition allows for an introverted dominant spatial core with a special focus inside. With their strong and clear order and composition of elements, filtered light, introverted organization, and controlled decorated approaches, gates, and thresholds, these places allow for detachment, and concentration, as well as for intimate, yet also formalized connection with some other larger entity.

4.2 Deriving Design Frameworks: Features and Principles of Places for Religious Ritual

- The use of sacred geometry, iconography, and sophisticated semiotics such as signs, symbols, and religious motifs.

- Emphasis on defining and differentiating the space – importance on the enclosure, controlled openings, sense of detachment from outside.
- Double threshold.
- Space frequently introvert, focused on some important interior points.
- Space to support and stimulate concentration.
- Spatial identity/form – regular – square, rectilinear, circular.
- The square base is symbolizing the four elements.
- Hierarchical with one main dominant space – core – and subspaces attached.
- Strong and clear order, coordination between all elements – central, axial, grid.
- Symmetry.
- Organization and composition of elements – axial or central, or grid.
- Clarity, simplicity, purity.
- Use of light is crucial – diffused light, frequently filtered / dim, mystical – openings are for light, not view.
- Materials and color.
- Authentic atmosphere.
- Attitudes to ornament – may vary, some plain, some ornamented like art masterpieces.
- Symbolic meanings of space and ornament.

4.3 Case Studies

This part of chapter four aims to study selected practice examples to specify the frameworks derived from more or less general theoretical and architectural sources. The methodology of case studies shown in this chapter has an analytical framework and is based on the qualitative theory that underlies the healing potential of interior architecture. The study aims to recognize specific features, elements, and qualities as

the source for the analytical study of the positive effects of interior architecture on mental health and emotional well-being. Thus, it focuses on the design approaches and spaces' models for meditation, recreation, and religious experience.

Initially, information is based on the selected honored practice examples of contemporary meditation interiors selected among the well-known projects of the last decade. Then, five cases are analyzed and discussed according to the frameworks derived so far, from the more or less general, theoretical, and architectural sources, and brief analysis of traditional principles for ritual practices of meditation or religious interior spaces. It is to explore concrete design solutions in view of strong spatial identity, and the unique atmosphere supportive of and stimulating the mindful and spiritual meditation activities that are to occur. From these, it expects not only to see and test whether the qualities are relevant and acknowledged in design.

Furthermore, the case studies will be used to discuss the circumstances supporting well-being and spirituality following the principle outline of spatial definition. It includes the architectural structures and elements such as enclosure and openings, form and volume, organization and composition, size and proportion, furniture and furnishing, lighting, articulation, surface treatment, material, color, texture, sound, acoustics, smell, style, and evaluation. It will also seek to refine understanding as to possible spatial solutions for well-being and spirituality in the context of spaces, specially designed meditation, and as to how such qualities may be achieved through design.

The selected practice examples presented here are chosen based on research for outstanding design achievements in the last ten years. The focus was on places for

meditation/yoga, as well as meditation/sacred architecture, and the search was conducted among awarded projects following competitions, journal publications, and designs of prominent architectural firms in the area. For the respective projects, the specific data, images, and drawings are taken from the official websites of their designers, and articles taken from e-journals. Within this viewpoint, five meditation and sacred spaces are selected:

1. Windhover Meditation Center at Stanford University, USA, 2014
2. Waterside Buddhist Meditation Center Memorial, China, 2017
3. Vajrasana Buddhist Retreat Center, England, 2016
4. Meditation Hall Meditation Center, China, 2018
5. GMAA's Meditation Pavilion and Garden, Switzerland, 2013.

The cases are presented starting with the awards and honors, and the general project data that includes the project objective stating the type of meditation/ sacred, rehabilitation center, the year of construction's finishing, the country, and the designers, architects, and engineers. The next step is the spatial analysis according to the formation of a strong spatial identity and unique spiritual atmosphere and finally giving a brief evaluation as to the physical constitution of spiritual qualities (URL 12).

4.3.1 Windhover Meditation Center at Stanford University with Rammed-Earth Walls

The project for a spiritual retreat at Stanford University received the AIA (The American Institute of Architects) Honor Awards for 2016 and was selected as a winner project among the 18 recipients of prestigious design awards presented by the American Institute of Architects. The AIA announced the winners of this award as the profession's uppermost credit of works that represent excellence in architecture, interior architecture. Jenna McKnight/15 January 2016 (URL 12).

Project Data:

Architects/ Design Company: Aidlin Darling Design

Area: 370 Sqm

Year: 2014

Location: California's Stanford University, USA

General Contractor: SC Builders, Inc.

Client & Owner: Stanford University

Lighting: Auerbach Glasow French, Architectural Lighting Design and Consulting

Acoustical: Charles M. Salter Associates, Inc.

Landscape: Andrea Cochran Landscape Architecture

Photographs: Matthew Millman Photography.

General Description

The building is located at the heart of the university's campus, close to a former parking space near an oak forest. It intends to serve as a spiritual meditation area for students, faculty, and staff. The design aims to promote personal well-being and facilitate meditation in an environment with robust natural features, introducing an artful architectural identity, with an art gallery, courtyard, and pool as supporting features. The approach is emphasized by a long hallway to the building's entry through a private garden. It sheltered from its surroundings with a line of long bamboos, assist users in putting out the outside world's issues before entering (URL 12).

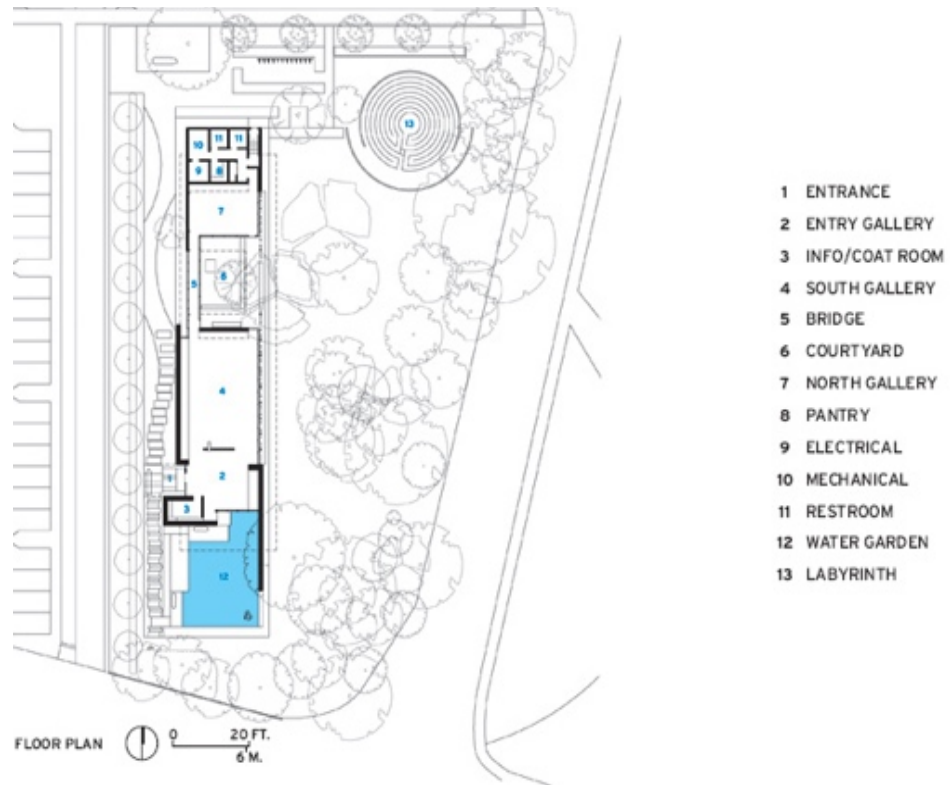


Figure 42: Ground Floor Plan (URL 17)



Figure 43: Entrance (URL 17)



Figure 44: Main Meditation Space (URL 17)



Figure 45: Meditation Gallery (URL 17)



Figure 46: Courtyard with Landscape (URL 17)



Figure 47: Courtyard/Water-garden (URL 17)

Spatial Analysis

Enclosure and Openings

The space of this spiritual meditation structure is defined by vertical cedar bars and thick earth walls, which are made of the soil excavated from the site during construction. The heavyweight of the earthen wall is in contradiction with vast spans of glass and the shades made of tinny cedar strips. The enclosure is indicated by these walls that form straight, singular planar elements that are placed at a distance from

each other—hence providing a semi-defined main space with spatial connections to its adjacent areas (URL 17) (Figure 47).

Form and Organization

The overall organization of the spatial form is linear and axial, and the main space is rectilinear and longitudinal (Figure 42). In contrast to the sacred spaces for a religious ritual, the primary approach and circulation are in the axis of symmetry and towards the focal point. Here, approach and circulation are given from the two sides at the edges of the space. It leaves the central space middle free of distribution. Along the longitudinal axis, the main area is linked with the courtyard, again similar to early sacred spaces (Figure 42). On its east side, the main space borders and focuses on a reflecting pool. Throughout these different galleries and locations, a variety of indoor and outdoor meditation places is provided (Figures 46 & 47).

While there is well-defined order for the elements of space, this is not a symmetrical order but rather an order of balance. It renders the space less formal, but also regular and reliable in identity. Building's interior displays a series of galleries, which are meditation places (Figure 45). The presence of the water pool in the courtyard, similar to traditional religious sites, is effective in regulating the atmosphere temperature of the inner areas. A glass-enclosed path on one side surrounds it. The courtyard contains a sparkling, cube-shaped fountain that is meant to help enhance the center's tranquil environment.

Size and Proportion

There is a sense of balance and unity between the elements that form and organize the spaces. The physical dimensions of width, length, and depth define the measurements and proportions of a form of the structure in space is perceived larger and spacious. Both the ceiling height and the visual links to the courtyard and pool affect the spatial perception and give a sense of spaciousness. The scale is defined by more abundant elements such as benches, which are few and well-placed (Figures 46 & 47). Altogether, scale and proportion express feelings of spaciousness and sense of balance and unity between the components in a visual structure.

Furniture and Furnishing

Benches and cushions are deliberately placed to allow visitors to quietly view both the paintings and the adjacent landscape simultaneously with a sense of enclosure and attachment (Figure 45).

Light and Lighting Systems and Fixtures

Skylights wash large paintings of the gallery by the late famous American artist Nathan Oliveira's each 4.5 to 9 meters in length paintings with natural light, providing the only light needed within the space throughout the day. While those paintings are illuminated, other areas of the center are kept purposely dark, directing visitors' attentiveness to the artwork and the green area and give them peaceful feeling. Throughout the building, visitors have views of the outside and enhancing the spatial form of the building (Figure 45).

Articulation and Surface Treatment

The materials employed work through an opposition, which is created by the thick-rammed earth walls and dark wooden surfaces, contrasted with the lightness of the fully glazed east wall, which opens the view to the oak glade beyond.

The interior material contains dark-stained oak flooring and slatted wooden ceilings. The use of natural fabrics, plants, and non-added materials such as timber, clay, and stone help enhance the identity and authenticity of the interior of place to be unique. The predominant character comes through the use of natural material and earthen colors. These together form a harmonious environment (Figures 43 & 45).

Sound and Smell

The multi-sensory experience is supported by using water, in combination with the landscape, acts throughout as an aid for meditation. In the main gallery and the courtyard, fountains provide ambient sound, while the pool to the south reflects the surrounding trees — pleasant aromas of outside pool mixing with soil (Figures 45 & 47).

Style

Space is characterized by pure design elements, simplicity, and lack of ornamentation. The use of natural colors change a place's perception scale and temperature, create connections, increase introversion or extroversion, which cause a calm sense and peace of mind of visitors. The interior of the place has an emphasis on the passage to a different area; its controlled access to light, calm and peaceful atmosphere, including its positive energy flow through the large windows and views to open spaces and courtyards (Figure 45). It also facilitates the development of an atmosphere, which is

an appropriately efficient and harmonious environment, and stimulating individuals in this atmosphere. Also, there are elements such as the fountain in the courtyard, pool, bamboo path, and the arousing color of pictures in the hall, which work as the concept of positive distraction (Figures 46 & 47).

Evaluation

This meditation space is entirely in keeping with the fundamental qualities associated with meditation, well-being, and spirituality. It has a robust spatial identity and atmosphere and has emotional and aesthetic power and suggests a pleasurable experience of attraction, satisfaction, and happiness according to all the above analysis of its design elements. With these ambient facets are designed for solitude and create a truly warm atmosphere inside meditation space. It is a design that makes perceivable the relationship between the human body and atmosphere of a place, total togetherness of architecture, the body, and the mind.

Space offers a variety of possibilities for perception and experience. It provides a firm definition of place, as it is created out in the open, surrounded by nature, and distanced from the other neighboring buildings. It is located within the natural landscape to its given locality; it demonstrates how an aura, character, feeling, tone, and quality can be carefully designed in the back of the woods. The sense of place is increased via the physical features, attributes, and characteristics of the building. It helps to make an emotional connection and belonging, feelings, values, security, and enjoyment, supporting imagination, and vitality by the interior and atmosphere of the building. The atmosphere gives a sense of attachment.

The multi-sensory experience is stimulated by this space, where art, landscape, and architecture come together to fill and refresh the spirit—combining the characteristics of a spiritual sanctuary, an art gallery, and a meditative garden. It is an alive building by its form, plant, and water. Senses are also supported by the quality of materials used, texture and color, sound, and which are measured with eyes, ears, nose, skin, and skeleton. Spirituality and well-being can be considered to receive a positive impact. It offers an opportunity for healing through spiritual embodied acts, relaxation, and opportunity for peacetime and quietness. It is a spiritual place model because these are different qualities that provide and leading to the feeling of improving the sensitivity, staying in the current moment, with no interruption. It is a quiet place, free of noise and clutter, which can help to achieve concentration, space which converts to a spiritual therapeutic place.

4.3.2 Waterside Buddhist Meditation Center Memorial

The project for a Buddhist Meditation Center Memorial has manifold awards issued in following years: 2015 Interior Design's Best of Year Awards; 2015 CIDA China Interior Design Award - Residential Award; Asia Pacific Interior Design Awards 2015 - Gold Award of Leisure & Entertainment Space, Food Space Gold Award, and Living Space Silver Award; 2015 Contract magazine The 37th Annual Interior Awards - Restaurant Category and Exhibition Category; 2015 Taiwan Interior Design Award - Commercial Space Gold Award, The TID Award of Residential Space, The TID Award of Public Space. Then, 2016 American Architecture Prize - Architecture Renovation Silver Award; 2016 The 12th Annual Hospitality Design Awards; 2016 A+ Awards by Architizer; 2016 LEAF Awards. In 2017 continued with Wood Design & Building Awards; 2017 The 8th IIDA Global Excellence Awards; then in 2017,

2018 Building of the Year by Arch daily; 2018 FA Emerging Architect Award—Winner; and finally, at 2019 Architizer A+Awards—Jury (URL 26).

Project Data:

Architects/ Design Company: ARCH STUDIO— Han Wen-Qiang Design Team

Building Area: 169 Sqm / Land Area: About 500 Sqm

Year: 2015- 2017

Location: Tangshan, Hebei, China

Architecture Team: Han Wenqiang, Jiang Zhao, Li Xiaoming

Structural Design: Fuhua Zhang

Photographer: Ning Wang, Weiqi Jin.

General Description

The space of the Buddhist Meditation Center Memorial is made with the influence of perception where trees, water, Buddha, and human coexist. The building is placed in the forest beside the river. Laterally with the river, there is a hill behind that is a great area of open ground and herbal greenhouses. The design is launched with the idea of connecting the building and nature. It is using the method of earthing for hiding the structure below the earth's hill while presenting the delightful spirit of nature with elegant interior space—the design uses the views to give nature without manipulation that is pure and unadulterated. Zen and meditation emphasize nature, and contact and pleasure from it should be a part. It is also the objective of the design for this space—the use of space, structure, and material to simulate human perception. Thus, helping humans and building to find the magic of nature even in an ordinary rural landscape and to live with nature (URL 26) (Figures 48 & 49).

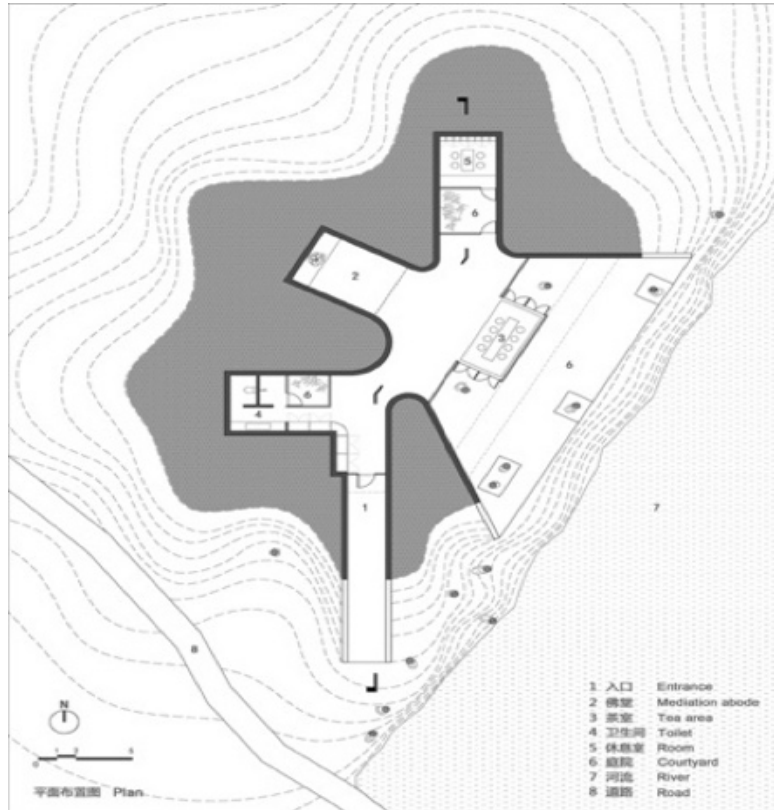


Figure 48: Ground Floor Plan (URL 21)



Figures 49: Entrance (URL 21)



Figure 50: Meditation Hall (URL 21)



Figure 51: Meditation Hall (URL 21)



Figure 52: Meditation Hall (URL 26)



Figure 53: Courtyard View (URL 26)



Figure 54: Courtyard View (URL 21)

Spatial Analysis

Enclosure and Openings

The building is located nearby trees and natural landscapes. People must walk into the building through a narrow pathway under two trees that placed to the building entrance. The entry to space is emphasized by a long passage leading to the main hall (Figure 49). Nature is emphasized still more in the interior as the main hall is separated from other parts of the building via a bamboo courtyard with curved walls form, which is a welcoming spatial organization (Figure 49). However, the meditation space with the Buddha statue has a rising ceiling and a clerestory window, receiving light from above. Some of the spaces, such as the tea room open entirely to the courtyard, make an enjoyable time of tea tasting and nature-viewing (Figure 50).

Form and Organization

The general organization of the spatial form looks like branches spreading beneath the existing forest. The enclosure is continuous, and forms in plan five cubical volumes, which branch out, located at a distance from each other, and each of them has a specific function. There is a radial organization with these five different spaces. This organization allows the main central space free of circulation (Figure 48). These five spaces into which the main hall branches out, characterize five areas with different functions: entrance, Buddhist meditation room, tea room, sitting area, and bathroom, that give a chance to users for having easy passage among them. It is asymmetrical order, but somewhat there is a harmony and balance. In the early Buddhist temple, the main hall is located in the core of the temple, and Buddha Statue was close there, same as here, which has approximately the same order with different plan organization (Figure 48).

Size and Proportion

The building's scale and proportion of volumetric shape of spaces - the physical width length and depth dimensions are enlarged by placing the openings with optical links to the courtyard, and natural views. This relationship defines the spaciousness of the spaces by removing one of the walls. Also, hall and Buddha meditation spaces are perceived simultaneously because of the semi-transparent screen, which also adds mystery. There is a sense of unity and balance, as the different spaces are of similar shape and size. However, these are arranged visually in such a way as to give a feeling of largeness, especially from the point where all spaces are perceived simultaneously. (Figures 50 & 51).

Furniture and Furnishing

All selected materials are natural, in harmony, and similar in color, which makes a peaceful and calm environment (Figures 50 & 52).

Light and Lighting Systems and Fixtures

The entrance lighting, which is artificial, hidden, and placed next to the passage walls, makes the entrancing atmosphere warmer and inviting (Figure 49). The memorial shrine is placed in front of the wall, where the trees light and shadow get through the skylight and flow gently into the interior space. It happens along the curved wall for overemphasizing and more sparkling the view of Buddha statue (Figure 50).

Articulation and Surface Treatment

The whole building is covered with soil and becomes an extension of the land, similar to other hill's buildings, which may apply under the ground. Integral concrete is used in walls and the roof of the building. The concrete formwork is used with pinewood

strips of 3cm thickness; in this way, natural wood grain and vertical linear texture are impressed on the interior surface, creating a soft and warm feeling to the cold concrete materials (Figure 50). Smooth terrazzo is used for the interior flooring, where there is a tinny stone grain on the surface, and it draws the outside natural landscape into the interior space. Cement filling with white pebbles is implemented in outdoor flooring, which creates a metamorphosis in the sense of touch between indoor and outdoor grounds, to mirroring the natural texture of the materials, all doors, and windows made of solid wood (Figure 51).

Sound and Smell

The building is located in the forest by the riverside sound, which creates a multi-sensory experience—the water sounds of the river, combining with forest soil and the plant's smell, make multi-sensory perception (Figures 48 & 53).

Style

There is a nature viewing atmosphere; the tea room opens entirely to the courtyard full of the tree each side of the tea room, creating fun of tea tasting atmosphere—the interior space categorized as minimalist style and absence of many complex decorative elements. Instead, using natural and neutral colors, make relations, raise inwardness, and self-confidence of users, which leads them to a peaceful sense and tranquility (Figure 51).

Evaluation

This memorial meditation space has visual power and proposes an enjoyable experience of attraction, fulfillment, and pleasure associated with well-being and spirituality according to all over-analyzing of its design features. The goal of this building is to use the space, construction, and materials to motivate human perception and find the attraction of nature. This place is designed for mediation, Zen, and thinking, as well as a place satisfying the needs of daily life. The building design suggests a variety of possibilities of perception and experience. It offers a firm definition of place, as it is created under the hill, surrounded by nature, and separated from the other neighboring buildings.

There is not much similarity in the plan to the early sacred spaces, which they were simpler and mostly with a square plan. It is an alive building by its form, plant, material, and water. There is a sense of place creates by sensitive relationships and attachments, feelings, satisfactions, imaginations, and mystery of the interior and atmosphere of the building. Also, a multi-sensory experience which is produces by material, space scale, color, lighting accompanying all human senses.

It is a space where landscape and architecture composed to fill and recover the spirit— combining the characteristics of a spiritual sanctuary and a meditative garden. Spirituality and well-being have a positive impact on human psychology. This meditation space can lead people to peace, harmony, and an inspirational feeling. There is a feeling of refining the understanding deeply, with staying at the building without distractions. This calm and peaceful place helps people to meditate to reach spiritual well-being.

4.3.3 Vajrasana Buddhist Retreat Center

This project is for a spiritual retreat located at Suffolk, England. In 2013 the project by Walters & Cohen won a competition released by the London Buddhist Centre (LBC) to remodel Vajrasana Buddhist Retreat Centre in Suffolk. The LBC proposed to raise capacity from 34 to 60 persons; hence, a new shrine room was built with more availability, plus, two additional courtyards which, mostly the focus of this analysis on that remodeling part. Moreover, the project won the Riba East, Building of the Year award 2017, Sustainability Award sponsored by Geberit and AJ Architecture Award, a Riba National Award, an Honor Award at the Faith & Form/IFRAA again in 2017. It won a Civic Trust Award and was nominated for its Selwyn Goldsmith Award for Universal Design in 2018 (URL 6).

Project Data:

Architects: Walters & Cohen Architects

Building Area: 1210 Sqm/ Land Area: 1355 Sqm

Year: completion May 2016.

Location: Vajrasana Buddhist Retreat Centre, Suffolk, England

Constructors: Vmzinc, Egernsund Tegl, Junckers, Nr Taylor Bricks, Martin Childs

Client: London Buddhist Centre

Project Management: Holloway Squire Partnership

Contractor Company Name: Seh French Limited

Landscape Architects: Bradley-Hole Schoenaich Landscape

Photographs: Dennis Gilbert, Will Scott.

General Description

This attractive building for meditation is located in the heart of the Suffolk countryside. While the different buildings are mainly internal-facing round courtyards, the complex attaches to the landscape outside with views. The shared rooms and bedroom tracts are organized similar to a monastic settlement, which is an ideal setting for a Buddhist Meditation Center. It is very thoughtful linking interior spaces to the outdoors, for having harmonious in the whole design. The design focused mainly on remodeling the private part and includes the main meditation area and two courtyards opposite of each other (URL 22) (Figure 55).

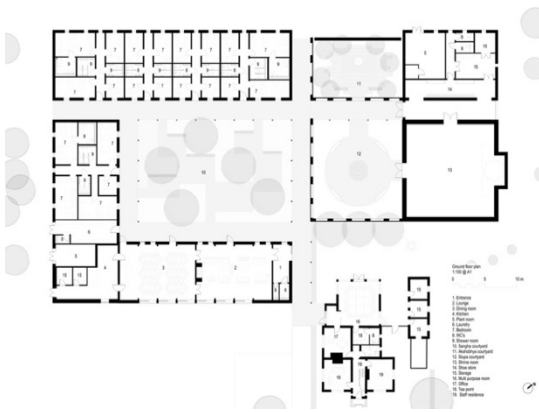


Figure 55: Ground Floor Plan (URL 6)

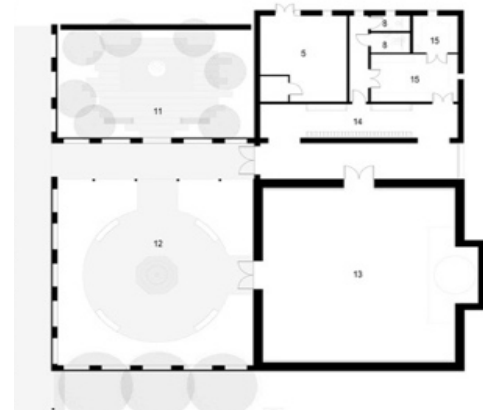


Figure 56: Ground floor Plan Remodeled Part (URL 6)



Figure 57: Site View of Vajrasana (URL 6)



Figure 58: Main Meditation Hall (URL 22)



Figure 59: Pathway (URL 6)



Figure 60: Akshobya Courtyard (URL 6)



Figure 61: Stupa/ Temple Peak (URL 6)



Figure 62: Bedroom (URL 22)



Figure 63: Shared / Public Area (URL 22)

Spatial Analysis

Enclosure and Openings

The building is located in the middle of the countryside, surrounded by trees, which is a perfect place for a meditation center. The entrance to the building is passing from sheltered walkway guiding to the main hall. This is detached from the quieter and more private and redesigned parts with a walkway that cuts from side to side the building joining the entrance to the wider outside landscape (Figure 55). In order to reach the significant remodeled part, which is the meditation area, people should pass through two private courtyards. These calmer courtyards hold the shrine room or Stupa, which is enclosed with dark lattice brickwork that is accurately implemented and enables light to play above and within the walls. Honest but not rigid, it has a feeling of serenity, without imposing its spirituality on the viewer. The sanctuary, meditation room is the one space that feels enclosed, without distractions from the surrounding landscape (Figure 56).

Through simple, calming colors and rustic elements of materials, gathering pictures of typical farm buildings with modern architecture, the place has an immediate sense of tranquility about it, from the narrow, sheltered pathways to the cautiously enclosed views of the neighboring landscape (Figure 59). The project has purity, comfort, peacefulness, and a sensation of enclosure without losing the sense of openness and attachment to the broader landscape.

Form and Organization

This project's architects were inspired by ancient and contemporary temple plans. That's why the building has a square plan similar to the early Buddhist temple (Figures 55 & 56); it also shows Wisdom, which is symbolized by the temple peak statue, like

the early Buddhist temple (Figure 61). The main hall is located in the central part of the temple. It has sacred geometry; hence there are widespread signs, symbols, and religious motifs that are well-known to sacred architecture. The general organization of the spatial form is axial and linear to the temple place (Figure 58).

There is a clear order for the elements of space, this is not a symmetrical order, but there are unity, balance, and harmony. The Three Ornaments, the symbols at the heart of Buddhism memorial, are articulated spatially linking the spaces via these three courtyards. It seems moving from a more public and informal activity to the calming procedure by entering a more private and meditation area. There are two small courtyards and a double-height sanctuary room (Figure 55). Vajrasana's social heart is the Sangha (community) courtyard (Figure 60). One floor, burnt timber buildings are covering around it to provide public living and dining rooms and bedroom shells.

Size and Proportion

The design's concept was creating a tranquil, attractive center for expanding the well-being and spirituality of people. It is accomplished with the size and quality of the new buildings. The spatial scales of width, length, and depth clarify the dimensions and proportions of a form of the building to perceived larger and more effective (Figure 55). The inclined ceiling height and the optical contacts to the courtyard pool, touch the spatial perception, and make sense of spaciousness and openness (Figures 57 & 63).

Furniture and Furnishing

Rooms are casually furnished, with white, painted concrete block walls. The furniture of bedrooms is contained plywood ceilings and simple timber bed frames (Figure 62).

Light and Lighting Systems and Fixtures

The Stupa, which made of Portuguese limestone, a significant symbol of Buddhism, has a sculptural quality that responds to changing light during the day. There is a large double-height space with an influential sense of spirituality taken by the extension of the dark brick into space. Out of the meditation room, sun rays are flowing throughout the high-level holes in the brickwork, with rarer distractions, making it more straightforward to focus people more on their meditation (Figure 58).

Articulation and Surface Treatment

There is a pleasing sense of tranquil use in building spaces, which carefully shaped by suitable materials. There is the positive energy of specific pathways that embrace the Sangha courtyard. Visitors have a glimpse of the serene courtyards through punctured brick cladding walls, which divided the more public from the more private, ritual part. Long, pitched-roof shelters, covered by the dark burnt timber, surrounded via shared courtyard landscaped, which guides people to the sacred shrine zone, where meditation activity occurs (Figure 59).

The interior of the living room and dining spaces are organized along one side of the courtyard, with bedrooms on the other two sides (Figure 63). The bedrooms are equipped with modest timber bed frames and plywood ceilings; the inclined roofs make sense of spacious and brightness. It creates feeling different and unique

with the extra height of the inclined ceiling. Uncovered pitched roofs develop a sense of space, with skylights excesses inside (Figure 62).

Project architects produced bedroom pods and shared living, dining areas, organized meditation area, and linked (Akshobya and Sangha) courtyards, with Victorian tiles and uncovered parquet flooring in the original farmhouse. Also, simple materials such as plywood and dyed blockwork, which are similar to modest materials of early temples, make a balance between simplicity and worship for the spiritual characteristics of the center (Figures 60 & 61).

Sound and Smell

Having a water pool at courtyards mixing with the landscape, provide ambient sound, reflects the surrounding trees; moreover, pleasant aromas of outside pool mixing with soil and plants provide a multi-sensory experience for meditation activity (Figure 60).

Style

It is a harmonious place, energy fluidity inside and outside. It has a view of nature, which can be a positive distraction for meditation (Figure 57). Space has a clear design without many intricate ornamentations. It includes two parts, the shared and more public part and the private one; there is a disconnection between these parts with a pathway, which gives the sense of openness and connection to the more meaningful landscape (Figure 59). Also, it has a skillful approach to positive energy and light flow from the large windows while preventing unwanted sunlight (Figure 63). All of these combine into a peaceful and tranquil atmosphere.

Evaluation

The retreat and meditation space has a unique spatial identity, has aesthetic and emotional power, which cause to experience satisfaction, purity, comfort, peace, and happiness. Tranquility and peace are expecting to be exposed at a Buddhist retreat in the core of the countryside. It is considered in an organization of courtyards and rooms with an experienced, powerfully set of materials. The living room covered in timber benches around a stunningly landscaped yard using for education, meditation, and relaxation. It also brings people together in a peaceful way, which allows the building potential similar to a haven for meditation. Architect's team said: "In our order, we have a strong emphasis on spiritual friendship, common practice, and shared living. Right from the beginning, the whole notion of the courtyard started to emerge" (URL 6).

Spirituality and well-being might be reflected in obtaining a positive influence. Simple and local material make a balance between architecture and admiration of the spiritual spaces. A combination with the landscape is vital to the aesthetic and sense of tranquility and meditation. This building guide human to the emotion of refining the feeling, staying in the present moment, with no disturbance, a silent place, without noise and mess, also can support to reach concentration; it will be well-being and spiritual space.

4.3.4 Meditation Hall/ HIL Architecture

The Arch daily, which is an e. magazine, trusts readers to choose the project - according to their attraction, intelligence, creativity, or facility to the society - represents the best architecture of the year. Therefore, the winner of 2020 by Arch daily magazine was the Meditation Hall designed by HIL Architects for a meditational activity presented by Twinmotion (URL 1).

Project Data:

Architects: HIL Architects

Area: 600 Sqm

Year: 2018

Location: Huanghua, Cangzhou, Hebei, China

Main Architects: Dao Yu, Bo Cheng, Bo Li

Project manager: Lizhou Ye

Collaborators: Ran Li, Zhangjun Li

Photographs: Courtesy of HIL Architects.

General Description

The building is located in a residential area nearby to a natural wetland in suburban Cangzhou. The design identity is changed, transforming a series of shops into a Zen meditation place, yoga, and extra correlated activities. For producing a tranquil retreat draws visitors' minds away from the road and busy trading street neighboring by natural wetland and using ideas inspired by them. These asymmetric spatial circumstances make the architectural motive in the project fascinated. "The architectural strategy here was to diffuse the volume, divide spaces into continuous but circuitous public spaces without retrieving the original structure," clarified the design team (URL 1).

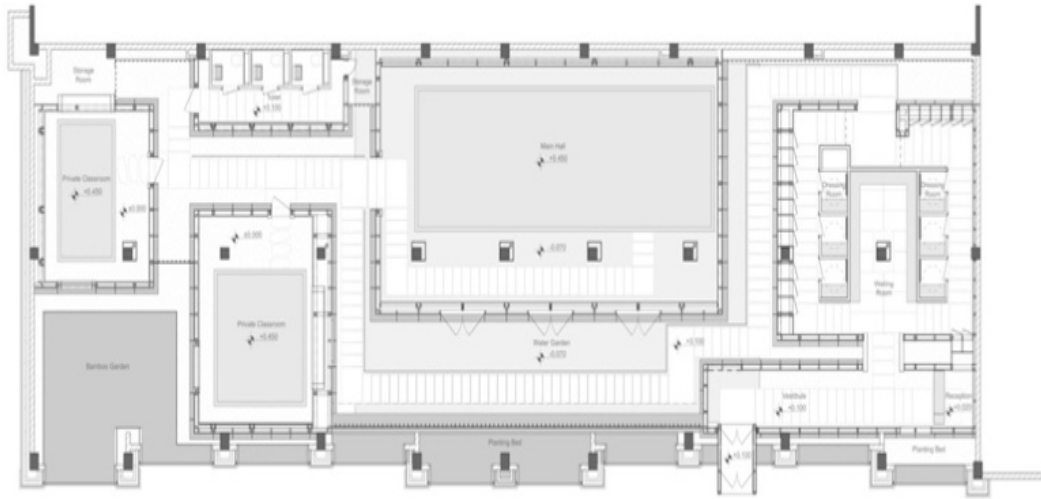


Figure 64: Ground Floor Plan (URL 1)



Figure 65: Facade (URL 1)



Figure 66: A Tunnel-Like Entrance (URL 25)

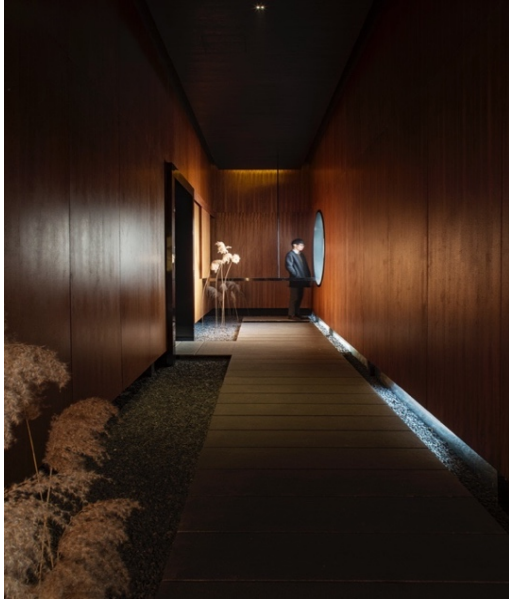


Figure 67: Reception (URL 25)



Figure 68: Corridor (URL 25)

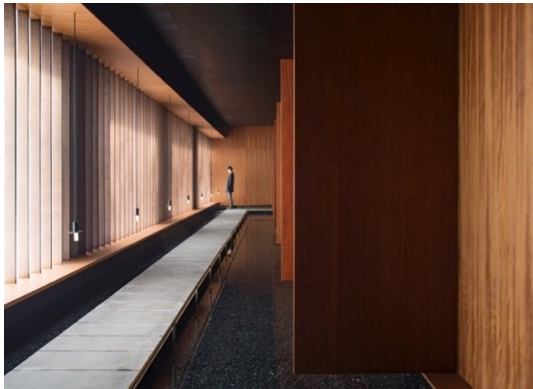


Figure 69: The Tunnel-Like the Water Yard (URL 1)

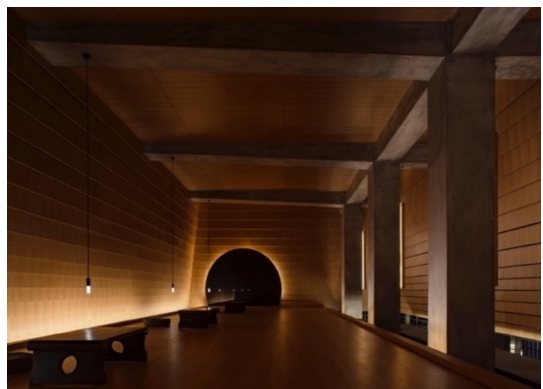


Figure 70: Main Hall (URL 1)

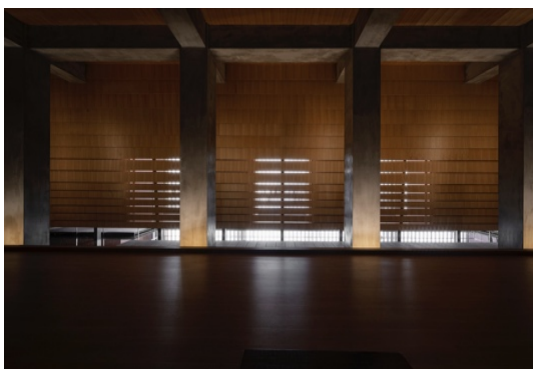


Figure 71: Main Hall Openings (URL 25)

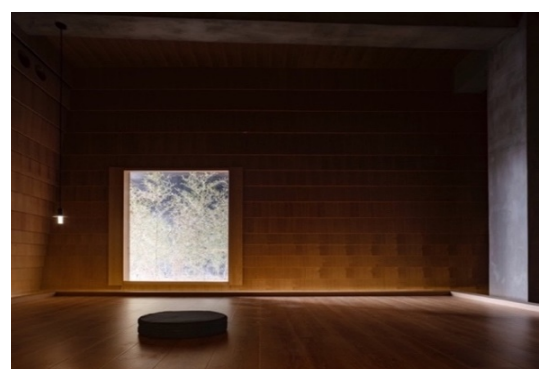


Figure 72: Private Meditation (URL 25)

Spatial Analysis

Enclosure and Openings

The building located at the suburb, besides natural wetland, which building architects and designers inspired from that, brings the plants and water to the inner side for creating “build an inward world” (Figure 65). People should pass from the tunnel-like entrance and hallway to get through reception at the corner of the hallway next to the circular opening (Figure 69). Moreover, there is a waiting room enclosed with huge columns and beams and surrounded by cantilever sitting elements. Furthermore, passing from the corridor that surrounding walls have been paneled in warm color wood; then, tunnel-like water yard leading people to the main hall. In the main hall for a group class, the four groups of columns and beams resemble the spatial character of an early temple. A double-layered cavity structure encloses the main hall and private classrooms as doors that can be pulled back to expose the walls of the hall and classes, which made up with layers of timber fins. Its inclined inner facade made of hanging louvers wrap with the cantilevering beams and columns, which like a vessel raised by the column and beam (Figures 70 & 71).

The meditation area was constructed in a line of six abandoned market units that have directly overlook expansive wetlands. Although the interior had been divided by a series of massive concrete columns, the concept is “build an inward world” within the site’s existing structural framework (Figure 69). Each meditation area is described by its diverse spatial interactions between the structure and the enclosure. The other parts of the building embrace the rest of the classrooms, which will be used for activities like yoga, tea ceremonies, or Ikebana (the Japanese arrangement of flower art). Some of the western spaces of the building are interrupted by large glazed openings that have a bamboo garden view (Figures 70 & 72).

Form and Organization

The linear organization columns and beams sharply defined the original space of the single-story shops by the central axis (Figure 64). A set of spatial elements, including different activities, determined the layout of the individual areas. Those are distributed inside the spatial construction, making the continued but indirect public space, which called the passages and the water hallway. The columns define a long corridor that runs around the building's main timber-clad meditation hall (Figure 69). The walkways flooring is Murky-green slate tiles, which form a fantastical indoor 'wetland' hallway. Then, it goes together with a shallow water pool, with a raised corridor platform that running parallel to the main meditation hall, envisioned as a visual symbol of the swampy site landscape (Figure 69). Also, creating a circular shared hallway that twists around rooms for private classes, bathrooms, and changing rooms (Figure 64).

Size and Proportion

The original load-bearing structures are not apparent in this shared area, along with the hidden internal corners of the building and the diffusive lighting, persuade person perception which the place appears flowing without ends, feeling of outside experience (Figures 66 & 68). Although in the interior spaces such as the entrance area (Figure 65), the waiting room and changing rooms, the main hall, private classrooms, and the restroom, all chambers are characterized by its size, spatial quality and proportion clearly. Ceilings height and wide-ranging rooms create a tranquil center, similar feeling of shrine instead of practical meditation and yoga destination. Local people distinguish the functions of the center as a protecting shelter and escape from the suburban chaos outside (Figure 70).

Furniture and Furnishing

There is a hanging wooden flat reception desk which looks very modern and elegant, located at the corner of the corridor (Figure 67). There is raised platform flooring, which is like a bridge passage located in a tunnel-like water yard hall, and it is built over the shallow water pool (Figure 69). Furthermore, there is wooden cantilever sitting elements around the waiting room. Moreover, there are several wooden tables and sitting elements in the main hall and classes with some cushions to make them soft and more comfortable (Figures 70 & 72).

Light and Lighting Systems and Fixtures

There are plenty of windows on the front elevation of the building, which has been covered with thin steel lamellas, it is let coming through to the interiors just a small amount of daylight, so produce a dark, meditative atmosphere. Additionally, provide further shadowing by long wild fronds (flat leaves of plants), which grows on the external façade (Figures 65 & 71). Natural lighting spreads slightly within vertical wooden louvers along with the water pool as well, tranquil growth from the bright, noisy street outside.

The lighting condition becomes slowly dimmer, then lightened up again. Artificial lighting adding to that as some diffusing for people move innate through the passage hall, lead people to a more calm and meditative experience (Figures 68 & 69).

Articulation and Surface Treatment

Sloping interior cladding made of suspended timber louvers maintains the vessel-like qualities of the outstanding cantilevered beams and columns (Figure 71). The material of walkways flooring is Murky-green slate tiles, which makes the indoor

like wetland hallway (Figure 69). The slim steel lamellas window-frames changed the doors and windows look and integrating air conditioners. Moreover, the planting layer added to the design (Figure 66).

The main meditation room wall covering is timber panels which open outwardly to the hallway, letting the light water to mirror to the room and generate an indoor-outdoor perception. Double-layered cavity structures were surrounded by the main shared hall and private classrooms. Furthermore, four massive columns upsurge from the water and provide an illusionary supporting form of the construction (Figure 71 & 72).

Sound and Smell

In the building, using water and plant mixing with wooden material gives a multi-sensory feeling which assisting the meditation activity. While people walking through water passage hall and corridors, they feel calm and fresh the same as walking outside along with the river with its sound and smell that combining with nearby plants (Figures 68 & 69).

Style

Four of massive columns mounting from the water and the vessel existence lifted together to create a similarity with the entire meditation hall as a protective shelter for the site on the wetland, creating an imaginative style of the swamp in meditation space (Figures 70 & 71). The part of the individual rooms designing to resemble the inner-outer intention of the spatial design. The space considered fresh design, illusionary but honest. The use of natural material, texture, and colors create a warm and welcoming

space. In the main hall, public classes, the four groups of columns and beams look like the spatial atmosphere of a temple enclosure (Figure 70).

Evaluation

This meditation hall has linking features to well-being and spirituality. Using nature and bringing it from outside to the inside of the building is very creative and smart. It has an illusionary atmosphere by having twisting corridors, hallways like a tunnel, flowing water along with floor, and has emotional aesthetic influence, enjoyable experience of magnetism, peace, happiness according to analysis. The design aim is rising self-absorption and improving the attachment between the human body and the environment.

The multi-sensory experiences occur there, by physical features, appearances of the structure, and stimulated a sense of place, while architecture, passages, water, plants, natural and artificial lighting, even natural material, texture, and colors derived from affecting the human soul. It suggests a chance for healing within spiritual symbolized acts, relaxation, and opportunity for peace and silence. On the whole, there is positive energy and feeling attachment atmosphere in this building, leading to improve human well-being and spirituality.

4.3.5 GMAA's Meditation Pavilion and Garden

The Meditation Pavilion and Garden was the winner in the Architizer A+A Award 2016, designed by GM Architects Associés. The Meditation Pavilion and Garden also was the winner in the Private house category at the A+Awards 2016. Organizing by Architizer, the awards promote and celebrate the year's best projects and products. Their mission is the gratitude of meaningful architecture to nurture in the world, and the winner has the potential for a positive effect on ordinary life (URL 8).

Project Data:

Architects: GMAA

Area: 120 Sqm

Year: 2013

Location: Geneva, Switzerland

Manufacturers: Agabekov LED, Bega, Michael Anastassiades, JPF Ducret Fernwood

System, Moon River stone, SSQ

Photographs: A.Korour.

General Description

This Meditation Pavilion placed in the middle of the park, near Geneva, Switzerland, and combines with the universal concept for developing the composition with its potentials. The pavilion goal is designed within the specific relation of the wooden cantilevered platform, which is floating over the grass part and crossing the water surface smoothly, accurately making an organization aligned with the basic Christian Cross directions (Figure 73). Artificial mist envelops this wooden building (Figure 80). The access is accentuated by a long walkway to the building's entrance through a public garden by a line of tall trees, green areas and a small lake, lets individual to have a tranquil feeling before entering. Short-lived planting all around the building was picked to have colorful and different plants in each changing of the seasons (URL 8) (Figures 74 & 75).

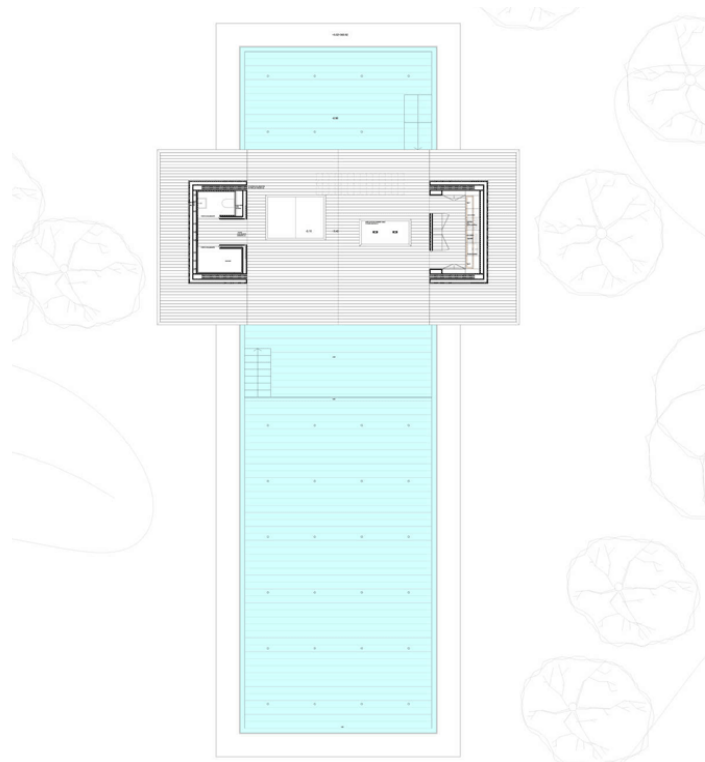


Figure 73: Ground Floor Plan (URL 8)



Figure 74: Walkway through Building (URL 8)

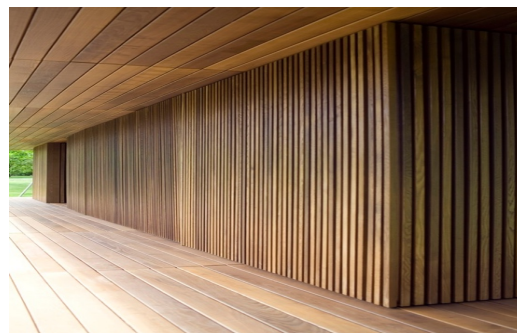


Figure 75: Entrance (URL 8)



Figure 76: Front View with Garden View (URL 8)

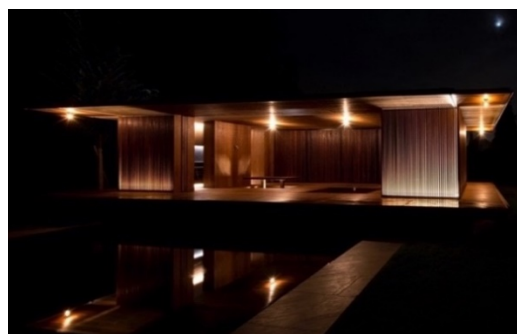


Figure 77: Front View (URL 8)



Figure 78: Meditation Hall (URL 8)



Figure 79: Meditation Hall (URL 8)



Figure 80: Meditation Hall Backside (URL 8)



Figure 81: Interior of the Kitchen (URL 8)

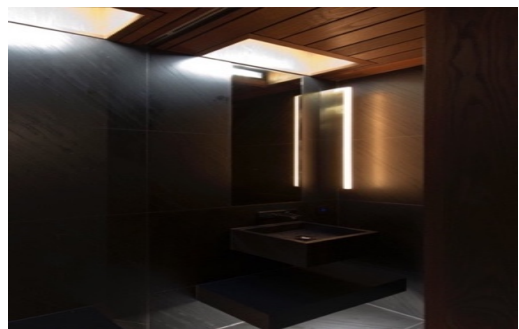


Figure 82: Interior of Bathroom (URL 8)

Spatial Analysis

Enclosure and Openings

The building is surrounded by two perpendicular volumes within a central crossing space (Figure 73). This enclosed volume has a particular function from all sides of this

building, such as east-facing kitchen and storage, change rooms, and a bathroom on the west side. Also, it enclosed by partitions at longer sideways of the steel-framed pavilion. However, skylights allow having more daylight from overhead; thus, partitions could slide back to open the central part of the sheltered space to the water (Figure 76).

Form and organization

The plan is like earlier Christian architecture, which similarly designed the axial and linear plan of a basilica, centralized, and rectangular cross shape. By the longitudinal axis and spatial organization, the central area is linked with the open space, which is pool and nature viewing again similar to early sacred spaces. The central void includes two minor maintenances on the floor in an asymmetric position and can be closed via sliding elements from inner walls (Figure 73).

There is well-defined order from east to west; the building organizes a cross form and with a north-south rectangular pool, which connects the water from side to side. This building is seen as a space with a robust spatial identity, such as a clear order in an axial, symmetrical arrangement (Figure 73). Plus, with the main area, focused on the water, clarity, simplicity, purity, controlling access of light and thoughtful atmosphere, including open spaces (Figure 78).

Size and Proportion

There is a proportion forming a sense of balance and unity between the components in a visual structure in this pavilion. The visible views associate with garden and pool influence spatial perception and give a sense of spaciousness, openness. The size is expressed by elements such as a table, which is limited and well-placed (Figure 78).

Furniture and Furnishing

There are multi-functional elements of design. One is subtracted at the center of the building as a sitting element for meditation activity. The other space is close, can come up, and it would be used as a table (Figure 79). Furthermore, the kitchen and bathroom are furnished by dark woods with dark colors tone (Figures 81 & 82).

Light and Lighting Systems and Fixtures

Natural and artificial lighting design for having a warm and welcoming atmosphere was significant to this project. In utmost the meditation actions, direct relation to the sunlight is essential. That's why natural lighting will be favored, so applying systems to control their strength needed and allowing the space to be entirely darkened. Therefore, in each volume side, skylight openings allowed daylight to come in (Figure 79). In contrast, suspended spotlights and indirect lighting expand the rhythm of wooden covering and the ceiling's edges, moreover, for the unwanted amount of sunlight sliding partitions embedded (Figure 80). At night, suspended illuminations brightened the deck and highlighted the shadows, shaped by the slatted cladding. A misting system is combined with the eaves to magnify the calming and mysterious atmosphere of the space (Figure 77).

Articulation and Surface Treatment

The structure is made of stainless steel surrounded with thermo-coated solid ash wood in walls, floors, and ceilings. Vertical ash wood bars surrounded the simple symmetrical organization (Figure 80). The mound nearby the pavilion and the pool create a flowing grassy griddle, varying colors, and arrangements with the seasons. For example, when it changes to green-yellow, blue-green, and only green, they are the most arousing colors of orange and red that are warm and fresh colors. Also,

hiding the pavilion from views amongst the hills permitting people to have merely partial or indirect perceptions (Figure 76).

Sound and Smell

There are multi-sensory experiences of combing landscape and water of pool and lake, the sound and pleasant smell of soil, water, and greenery. The sound of tree leaves and birds around the building is heard through the semi-open space (Figures 76 & 78).

Style

This building has well-defined order according to the orientations, similar to early Christian and mosques structures. Environments have a modern aesthetic expression that belongs to the physical experience of place. It is minimal, simple, with no ornamentation (Figure 73). The design has control access to natural lighting along with peaceful feeling and flowing positive energy inside and outside. By its location, which is in the middle of the lake, brings tranquil and spirituality inside the building (Figure 76).

Evaluation

The poetic connection between the pavilion and the water surface is emphasized within an effort on the landscape, which bounds the building's position in the garden spreads around it. By the design location, it is an emphasis on viewing nature like water and garden with temporary, seasonal changeable colors, which cause visual color therapy. Therefore, this harmonious environment has the potential for healing by the power of color. It is like an existing building through its form, location, and view.

Senses are stimulated by the quality of materials used, texture, and color, which are measured with all senses deeply. This meaningful architecture has a positive impact on everyday life through its powerful spatial identity and design elements. There is a beautiful experience of having a calm, noiseless, and peaceful place surrounding by water and greens. It is a spiritual place because it is a simple but powerful space beside it is silent, peaceful, with no distractions, that led people to complete concentration on their meditation. Thus, building design and atmosphere makes a positive feeling which led human to well-being and spirituality.

Chapter 5

A FRAMEWORK FOR DESIGN THINKING: CONCERNS, QUALITIES AND PRINCIPLES IN MEDITATION SPACES

5.1 List of Findings: Design Concerns, Desired Qualities, Principles and Approaches for Meditation Spaces

*Chapter 2 - Interior Space Qualities: Theories on Space Constitution and
Perception in Correlation with Spirituality*

From a Discourse on Space and Experience in Philosophy:

- Architectural space is a source for experience – a crucial component in human existence support the dwelling experience, belonging, and meaning.
- Space has emotional and aesthetic power and can offer the pleasurable experience of attraction, satisfaction, and happiness.
- Architectural space – i.e., design can make visible/perceivable the sense of connection with the fourfold – earth, sky, mortals, divinities.

From Architectural Theories on Perception and Experience:

- Perception is rooted in sensory experience.
- Self and identity are linked with spatial identity.

- The design should seek to make perceivable the relationship between the human body and the atmosphere of a place.

From Theories on a Sense of Space/Place:

- Bonding between people and places and their interrelationship is mediated by the abilities and characters of the surroundings – space.
- Distinctive personality, the identity of space/place, must be made legible.
- The relationship with space/place is both cognitive and affective.
- The sense of place depends on the recognition of physical features, attributes, and characteristics.
- The sense of belonging is also an emotional connection – involves feelings and values – such as security and enjoyment, imagination, mystery, vitality.
- The sense of attachment builds up, on features of the place – it needs to be significant, and meaningful, and have unique identity and character of space.
- Contributing to the sense of place: size, scale, proportion, variety, ornamentation, color and texture, smell, sound, temperature, and visual quality.

From a Discourse on Space/Place:

- Design can be perceived as the skill of designing space, and it is crucial for both architectural meaning and gratitude.
- Physical attributes do promote feelings of accommodation, mental, and physical well-being.
- Space is lived and traversed.

From Phenomenology:

- Experience of architecture is a multi-sensory in which the quality of material, space, and scale are measured through eyes, ears, nose, skin, language, and all other parts of the body.
- Architectural experiences have a verb form – the act of entering, moving, is situated.
- ‘life-enhancing’ architecture has to tackle all the senses at once and combine self-image with world experience.
- The environment is an essential ontological framework necessary for the life and well-being of human psychology.
- Space quality, matter, and scale are measured equally by the eye, ear, nose, skin, tongue, skeleton, and muscles.
- Architecture strengthens the existential experience, the sense of ‘being in the world,’ which is essentially a reinforced experience of self.
- Architecture connects the experience to element and material – i.e., attaching to space by uniting foreground, middle ground, and distant views.
- Extraordinary architecture can lead to silence and the transcendental realm, the domain of the sacred.

From Research on the Concept of Spirituality and Well Being:

- Spirituality is a concept broader than religion.
- It involves transformative processes.
- Self-realization of wholeness.
- Conscious activities that can be stimulated by design.

- Design issues concern on how to construct a more positive, mindful, and profound spiritual experience.
- Design to support a sense of spiritual intent
- Spirituality requires physical, emotional, and spiritual commitment.
- Spiritual experience can also include moments of enhanced well-being consciousness caused by a diversity of physical and non-physical acts, from meditation to religion.
- The notion of spiritual therapeutic places - seek to provide healing through spiritual embodied acts, relaxation, and opportunity for peace and quietness.
- Space for spiritual experience should offer a ‘whole’ that is recognizable and easy to control, but also that should be inspirational, significant, and encouraging.
- Unique atmosphere based on a sense of stability, peacefulness, and aesthetic qualities.
- Authenticity – uniqueness, distinctness.
- Design methods:
 - The concept of ‘positive design’- the design could work as a particular source of pleasure or encourage sensory experience with various roles in well-being.
 - ‘Framework for spirituality’ in the physical environment.
- Spatial models:
 - The confession chamber in a church - enclosed environment, increased privacy via acoustic isolation, dimmed illumination, and a semi-divider between confessor and priest encourages a period of contemplation, tranquility, and integrity.

- Bio-philia and biomimicry - establishing and incorporation of harmony and natural equilibrium.

From Research on ‘Spiritual Practices’:

- Enhance the sense and stay in the current moment, with no interruption – can help achieve health benefits.
- Quiet place, free of noise and clutter.
- To support concentration, enhance the quality of meditation performance.

Chapter 3- Interior Space Constitution and the Formation of Effects: Identifying Design Tools for Spirituality and Meditation Practices

From Theory of Design Elements and Principles:

- Enclosure and openings:
 - Show the formal structural framework of the design.
 - Reveal the design intention, principles.
 - The alignment or relative arrangement of lines that define a figure or form – the geometry employed is at base of cohesion – unity.
- Strong spatial identity:
 - The primary forms - cubes, spheres, cylinders, or pyramids - offer an image that is distinct and tangible without ambiguity.
- The principal spatial organization types: central, linear, radial, cluster, and grid organizations.
- This helps establish a strong sense of place – existential space – holistic space.
- Size of space – effects on spatial perception – spaciousness, or coziness.

- Proportion – supporting sense of order – emphasis on proportional relations among elements.
- Proportion theories – coordinate correlations of elements – to establish balance and unity.
- Proportional theories:
 - The golden section.
 - The classical orders.
 - Renaissance theories.
 - Modular.
 - Ken.
 - Anthropometry.
- Light as central to the creation of an atmosphere.
- It brings architectural space and its features into perception.
- Light and shadow – exposing shapes, articulation of forms, materials, colors, textures.
- Natural light – varying – effects on mood and atmosphere of space.
- Selection of design options for openings – windows, skylights – produce different effects.
- The placement of openings is essential for the perception of the features of the design.
- Openings also create direction – when oriented to outside frame views, when placed above visual lines – offer indirect light.
- Sunlight is vital for many meditation practices.
- Views can be used as a focusing device, a positive distraction concept.

- Artificial lighting, candle lights – as creators of specific atmosphere, mood, and aura, even concentration effects for meditation.
- Design tools and means of articulation – the visual weight of spatial elements:
 - Light, materials, color texture pattern.
- Form and surfaces:
 - Legibility of spatial form - emphasis on corners of space.
 - Distinguishing the enclosure planes.
- Materials:
 - Natural materials – such as wood, stone, ceramics, concrete – give a sense of authenticity.
 - Warm and cold materials.
 - Soft and hard materials.
- Color – characterized by hue, value, intensity.
- Creates effects on the perception of space.
- Effects on atmosphere, mood.
- Accents in space.
- Psychological effects of color:
 - Soothing and arousing colors.
 - Visual color therapy.
- Texture – influences the perception of space, perception of light, acoustics:
 - Tactile textures - hard and soft, smooth, and rough - perceived by touch.
 - Visual textures- like upholstery patterns are perceived by the eyes.
- Sound and smell:
 - Vibration absorbent or reflective surfaces.

- Tranquility and calmness - necessary for focusing, concentration, emotional and cognitive processing, and relaxation.
- Styles and design systems:
 - Feng Shui.
 - Sacred geometry.

Chapter 4 - Case Studies: Refining the Framework for Meditation Spaces from Selected Traditional and Awarded Contemporary Examples

From ‘Places for Religious Ritual’- Traditional Design Approaches:

- The use of sacred geometry, iconography, and sophisticated semiotics such as signs, symbols, and religious motifs.
- Emphasis on defining and differentiating the space from an outside – build up the sense of detachment from outside – importance on the enclosure, controlled openings.
- Approach and entry through a double threshold – doors.
- Space is frequently introvert, focused on some crucial interior-point – such as a sacred altar.
- Space to support and stimulate concentration.
- Spatial identity – builds up, on form / volumetric definition – clear, pure geometry and regularity – square, rectilinear, circular.
- The square base is symbolizing the four elements.
- Spatial hierarchy, one main dominant space, core with other subspaces attached.
- Strong and clear, symmetrical order, coordination between all elements.

- Organization and composition of elements – axial or central, or grid.
- Clarity, simplicity, purity.
- Use of light is crucial – diffused light, frequently filtered / dim, mystical.
- Openings are for light, not view.
- Materials and color and texture.
- Authentic atmosphere.
- Attitudes to ornament – may vary, some pure, some ornamented.
- Symbolic meanings of space and ornament.

From Windhover Meditation Center at Stanford University:

- This design is combining art, landscape elements, and meditation.
- The longitudinal organization, emphasis on procession, visual perspectives, as well as a variety of choices for meditation.
- Emphasis on path.
- Order of balance, regular, but also less formal arrangement of elements and spaces.
- Emphasis on continuity of space - semi-defined enclosure.
- Thick earthen separate planes are forming space partially but also making links with adjacent spaces – open corners.
- An axial arrangement of elements, but based on balance rather than symmetry.
- Large glazed openings and framed views – landscaped courtyard, pool.
- Spaciousness.
- Local materials.
- Minimalist, pure, yet also multi-sensory - rich on earthen colors and textures, including art gallery and landscape.

From Waterside Buddhist Meditation Center Memorial:

- The design approach is eco-friendly - aims to integrate the building into the landscape.
- The building is underground, yet spaces with a strong identity.
- Strong sense of enclosure and being secluded – different spaces detached and separate from each other.
- Tunnel-like spaces oriented to selected views.
- Marked entrance and long passage downwards towards the main hall.
- The main hall offers a sense of spaciousness as it links and opens views to all spaces.
- Radial organization of a variety of spaces and functions, intersecting axial composition.
- Buddha as the focus of meditation – indirect light from clerestory openings.
- Views of nature as the focus of meditation.
- Materials – heavy concrete walls and ceiling, strong enclosure, contrast with large openings.
- The rich texture of finishing surfaces.

From Vajrasana Buddhist Retreat Center:

- Design based on traditional courtyard schemes.
- Overall organization regular, clear - grid organization system forming around courtyards.
- Emphasis on procession and links to landscape following series of landscaped open patios and semi-open passages.
- Large complex with diverse parts and sections.

- Form of the main meditation hall follows sacred geometry.
- Diffused light from clerestory windows.
- Design linking local traditions with Buddhist approaches to materials.

From Meditation Hall, Meditation Center:

- Design based on the reuse of the existing structure.
- Special and exposed relations between structure (preexisting) and enclosure (remodeled).
- Spatial identity based on juxtaposing straight continuous surfaces and rhythm of massive columns.
- The connection with environment – design provides many uses of the character of surrounds, taking in the landscape such as wetland vegetation, water pools.
- Variety of meditation possibilities, choices of rooms with different sizes and purposes.
- Stationary areas, as well as hallways and paths for meditation in passage/movement, offering different features and qualities.
- The main circulation path is changing direction – different views and perspectives on the interior.
- Spaces are introverted.
- Filtering natural light.
- Light and shadow designed - play a role in the creation of the atmosphere.
- Hidden artificial lighting, bringing out the texture.
- Views are framed.

- The richness of textures of surfaces and elements (louvers), variety in choice of materials, and earthen colors.

From GMAA’S Meditation Pavilion and Garden:

- Design achieving a strong spatial identity based on a clear, simple principle of axial symmetrical organization.
- Building/structure and water pool based on simple geometry, forming a cross – symbolic meaning.
- Meditation area located at the center, suspended over the pool.
- Few furniture.
- Massive wood surfaces.
- Temple-like appearance.

5.2 Discussion

This proposed list of frameworks is structured according to the different contexts and issues that have been the focus of research in this thesis, which are relevant to the study of spatial qualities and features of meditation interiors. They follow an order from general towards more concrete, as the respective contexts converge towards real spaces and specific design tools. Hence in the first part, derived are the general potentials, influences, and features of space with respect to experience, as indicated in philosophy and theoretical discourses on space/ place, phenomenology, and perception.

The research of the concepts of well-being and spirituality, which have more direct links with meditation, brings out more specific features and desired qualities, such as strong spatial identity, unique atmosphere, silence, tranquility, mystery. The study of theory on space formation and effects, structured around enclosure, form,

organization, and articulation, brings together the principal design tools towards a strong spatial identity and atmosphere. More concrete design tools and principles are derived from an analysis of spaces for religious ritual – which highlight shared features and qualities achieved in traditional approaches for spirituality.

The case studies of contemporary design of spaces for meditation, on the other hand, demonstrate how such principles or qualities may be interpreted in current design approaches and contemporary materials and circumstances.

What these derived features and properties appear to show is that while there are manifold ways of achieving a strong spatial identity and atmosphere, there are also a number of shared principles. On the one hand, traditional ritual buildings mostly have pure geometry, based on mainly central, axial, or grid-like organization, with different spatial forms resulting. The main space is dominant and always has an axis of symmetry, which enhances the formal nature of space and ritual.

They are clearly defined, have a strong spatial identity, clarity, and simplicity. They also have a symbolic expression, such as the square plan symbolizing the four elements, or the whole building achieving the meaning of orientation (east-west, mecca). With their strong and clear order and composition of elements, introverted organization, and controlled decorated approaches, gates, and thresholds, these places allow for and emphasize detachment and concentration.

While the early buildings for religious ritual may have different shapes in plan and volume, such as the Buddhist square, the basilica or cross, they do share the principle of emphasis and focus on critical interior elements, such as the statue of Buddha, or

image of the deity, or altar. The space for the ritual is in the core and dominant. There are broad interior areas with the central worshipers and ceremonies areas. They also share their introvert character and the importance of considerable access and threshold.

The path or walkway towards the core is very fundamental in the early religious spaces, as an emphasis on the passage towards a different realm. Another shared feature is the use and control of light. Rather than for views, openings are mostly used for diffused lighting from clerestory windows, which gives more mysterious effects, and enigmatic ambiance. The open spaces and courtyards are part of the designed transition towards the sacred interior.

The courtyards, too, are focused on the inside and frequently also are secret, closed, private, and mysterious places. The attitude to detail and ornament of the spaces for religious rituals also vary. Some of the traditional ritual buildings are very pure, but some are extremely ornamented. However, they appear to share a careful selection of materials that enrich the experience, such as local materials, stone, and timber. As a means of interior articulation, there are also highly decorative mosaics, carving, and other crafts.

The designs of contemporary examples of spaces for meditation, on the other hand, demonstrate a more liberal interpretation of spirituality and well-being. Except for one which is based on traditional plan schemes and sacred geometry, the other organization and spatial arrangement show less restricted attitudes to shape and form. There is an axial arrangement of elements which is usually based on balance rather than symmetry. While symmetry is frequently used for the core spaces, the overall circulation and approach towards are resolved in less formal, more complex, and interesting ways.

The design of places for meditation is more open to outside views, nature, designed landscapes, courtyards, water elements, along with interior focal points. It employs interior and exterior paths and walkways, which change directions, offer different views, and perspectives on the interior and the exterior. They also have remarkable entrances and long passages downwards towards the main hall, while usually the passage towards the central space signified by two gateways. The main meditation hall is frequently solved in such a way as to offer both an introverted space and a sense of spaciousness as it links and opens measured views to other spaces and outside.

Most of the openings in the meditation areas are used for watching and enjoying the beautiful outside nature views, landscapes, water pool, or lake, which is a significant aim in contemporary meditation spaces. In most of the current meditation activities and practices, direct relation to the sunlight is essential. Because of that, natural lighting, along with the view, is preferred. Hence it is essential to implement systems to control lighting strength and enable the space to be entirely darkened if needed.

Both light and shadow are used as tools of design by filtering natural or artificial light, which plays a vital role in creating the environment of meditation building. Although, in contrast to the changing illumination of daylight, artificial lighting is constant, it is also used to enhance the visual effect on a building's textures, forms, and space. However, both openings and artificial lighting are used to illuminate interior surfaces, which become a source of light, increasing the amount of light inside the room, and exposing the richness of textures of surfaces and elements.

Contemporary design approaches employ a variety in choice of materials, rich in the texture of finishing surfaces and deep, frequently earthen colors, and multi-sensory

experiences in visual or tactile qualities, sound, and smell, both interior and exterior elements. Furthermore, meditation places use an item of limited furniture and pure minimal style for having fewer distractions. The meditation spaces are created to give a feeling of concentration, pleasure, tranquility, and peace for the visitors by their organization and visual perspectives, which could be located in interior areas or exteriors, in the gallery or the courtyard, on the floor or sitting elements.

Along with still using sacred geometry or symbolic spatial compositions, contemporary design approaches to meditation also link up with more significant movements in design. One of the ways in integrating with the environment is a design which provides many uses of the character of surroundings, taking in the landscape such as wetland vegetation, water pools as well as the courtyards.

However, the notion of spirituality and meaning in experience become also connected with ecological concerns - such as by literally integrating the building underground the landscape, or with approaches to sustainability and reuse – where spatial identity builds on the coherence of old and new. Another shared tendency is the inclusion of other functions – such as tea ceremony, or art gallery, which enrich fulfillment, satisfaction, and complement the spiritual experience.

These cases show a variety of design approaches, all of them help individuals to detach from the outside world and achieve transcendent qualities in both traditional and contemporary ritual/meditation buildings. They offer experiences, such as strong spatial identity, authenticity, distinctiveness, legibility, wholeness, firmness, stability, inner focus and concentration, unique atmosphere, calmness, silence, tranquility, serenity, mystery, introverted-ness, and spirituality.

Chapter 6

FINDINGS AND CONCLUSION

This current study aims to help identify specific criteria and provide frameworks for the meditation spaces design, recognizing specific features, elements, and qualities as the source for the analytical study of the positive effects of interior architecture on mental health and emotional well-being and spirituality. Thus, it focuses on the design approaches and ideal meditation, recreation, and religious spaces experience. Therefore, it is aimed to distinguish and enhance the awareness of the values influencing the potential of interior architecture for well-being. It explores spatial effects and also, spiritual influences and brings together knowledge on such effects/qualities of space. They are challenging to achieve and identify, are not measurable, but need to be derived through complex effects and spatial features.

Moreover, it involves communicating the reciprocal relationship between the interior space, its characteristics, and well-being. Accordingly, in general, such qualities have more extensive performance in other places, for example, elderly homes, hospitals, schools, spas, and further public and private institutions. However, such qualities have been studied for such environments extensively, few studies have focused on spatial identity and atmosphere, as well as the principles of design that may underlie these.

There is a lack of exhaustive studies and research into the healing and spiritual quality of the interior space, especially in meditation and recreational areas. Also, it needs a

more profound investigation of how spirituality and well-being can be affected by the quality of the interior space to manage everyday people's lives and how interior architecture can improve well-being and spirituality. Also, it does not discuss the complete choice and opportunities for the experience that architectural space could provide. The concentration is on the healing power of interior architecture and its effects on mental health and psychological well-being in meditation areas. It is a qualitative study to increase understanding of the qualities that underlie the healing potential of interior architecture or space. It studies relevant theoretical sources for clues on the concept of well-being and spirituality in correlation with the experience of space/place.

The main research questions of this study are, which features, elements, or effects of interior space, may be most effective in experience for well-being and spirituality? And, what may be the tangible/ physical features or qualities of interior architecture or space for healing and well-being?

Human well-being is comprehensive physical-level study, experiential and spiritual aspects which have not been so deeply researched into their influences on spatial characteristics. The interior environment and its design impact a person emotionally and spiritually, which are more individual. Architectural space and interior architecture and design can support bring balance to people's lives and their well-being. While perception is affected by factors such as culture, physical situation, gender, level of education, economic status, and aspiration, experience, and perception are also dependent on interior space qualities and effects.

The list of findings and frameworks proposed in this study is based on research that involves general sources – philosophy, theory, the concepts of well-being, and spirituality. Then engages with contexts that are more design-oriented – traditional spaces for meditation and religious practice, theories of architecture elements, honored selected practice examples, in search to define principles for strong spatial identity and the special atmosphere that are appropriate for places of meditation.

The current study explores many theories about ‘space’ and its interpretation concerning the human experience. Contrary to the common understanding of the term, in academic debates about defining space, there seems to be no absolute consensus. Also, the correlation between body and mind is considered by philosophers and thinkers. Many philosophers, especially Heidegger, defines construction as completed works by the hands and arrangements of humans. Hence, This study emphasizes the spiritual effects of space and place on human well-being. ‘Place’ is an essential notion in architecture; on this topic, many architects and theorists from diverse eras proposed different definitions and conceptions. In the book “Genius Loci” (The sense/spirit of place), Norberg-Schulz argues that an individual’s personality originates from the ‘Identity of Place’ which is seen as a geographical entity influencing one’s identity.

Therefore, this study expresses theories on perception and experience, space, and its features and effects. First is the effect on the human body and perception, which Martin Heidegger has been one of the pioneers which stress the crucial existential connection between the perception of the human body and the physical place. He figured to the unity of the behavior of building and the feeling of human: When we talk about people and space, it sounds as individuals there were standing on one side, space on the other.

To this point, space is not something that faces human beings. It is not an external object nor an internal experience. Second, the 'Sense of Place' begins with the 'placelessness' problems. It overcomes by learning all about the broad range of place capabilities and people's interactions. Until the concept of 'sense of place is ambiguous,' defining the meaning is challenging. Some words, such as 'place attachment,' describe connectivity and interdependence between individuals and places, guided with the characteristics and features of the environments and the individual. Shamai explored in this regard that the way we sense a place is much greater than the way we experience the world personally.

Additionally, he classifies the sense of a place into six steps. Besides, Steele contended which the sense of place depends on a place's nature or personality. A sense of place is, therefore, not just an attachment's set for a location, but it is a perceptive arrangement whereby a person connects him/herself to the concepts and significance of a place. Consequently, after cognition, the sense of place is formed as a passionate link between persons and places. Stedman, as well, asserted that since the meaning of sense of place is ambiguous, he approved place attachment as an accurate measurement for the sense of place analysis. Third, is the perspective of space and place, which is phenomenology. Manzo claimed that architectural phenomenology would provide a valuable theoretical field for conducting research. Detaching humans from space is not a possible phenomenon as humans build their lived experiences by interacting with the environment around them.

Space is thus a dynamic phenomenon which could create a sense of happiness, depression, or sorrow in the individual, make an individual powerful or vulnerable, establish a sense of integrity, and provide protection for the person. Thus, individual

and space relationships can be both pleasurable and unpleasant. Authentic architectural experiences include the way an individual approaches a building rather than how they evaluate the facade, the way one enters the place rather than how the doors are designed. As a result, Pallasmaa said, architectural space should be experienced through living, not just through seeing them as physical property. Therefore, the sense of place describes as an emotional connection between people and places. Place connected to physical characteristics, manners, and meanings provides to making sense of place.

According to above, all of the architectural and interior architectural experiences are multi-sensory, which are very fundamental for providing any space frameworks, especially for meditation areas. Qualities of space, scale, size, organizations of space measure with all human senses are not just the interface of given visual and tactile; it is an exceptional relationship of the object, which speaks to all human senses. Hence, the meditation space designing environment must support the full experience of all senses, the volumes, articulation, pattern, textures, light, and colors of the space, even the sound and smells of the space.

There are a variety of theories in this study that discuss space's effect on human well-being. Rendering to the World Health Organization (WHO), health is characterized not only as being disease-free but as physically, mentally, and socially well. It is living in a safe and non-hazardous environment, willing to fulfill the demands of a healthy lifestyle and providing excellent social interaction. It describes Objective (OWB) and Subjective (SWB) well-being. There is a positive design concept, according to Desmet and Pohlmeier, which uses three elements of SWB.

A design for happiness that helps to maximize the fulfilling experiences of the individuals and decrease their unhappiness, design for personal significance (that strives to help people achieve their goals), and design for virtue (which focuses the moral being of the individual). Thereby, architectural structures are generally evaluated in terms of how they make a contribution to human well-being by integrating the physical environment with the ideas of humanity, sensuality, sustainability as well as spirituality. Then, this study endures with spiritual practices, religious ritual, and meditation. Nonetheless, there is the latest study information that has methodically explored the achievable relation between well-being and meditation. The main aspect of many mediation methods is the creation of a 'free mental attitude,' defined as a 'relaxed focus of attention,' so that concepts, memories, perceptions, and emotions can emerge and circulate naturally without purposefully controlling or finding them.

Moreover, as design concerns relevant to healing, well-being, and spirituality, it is the specific, unique, and explicitly spatial effects and principles that the current thesis selects to explore. Amongst these findings, there are some approaches for structuring design considerations (positive design, a framework for spirituality), and models (confession chamber, biophilia) mentioning to more concrete spatial characteristics of physical features. In respect to design considerations, the frameworks from this theoretical part of the research recommend desired effects and circumstances, suggest which are effective in healing environments, and spiritual aspects as design considerations, or highlight experimental content. However, these frameworks are rather broadly defined and general nature.

The research investigates three further areas for specifying the design frameworks: places for religious ritual, related spaces with similarities with meditation as a spiritual

practice, theoretical sources on elements and principles for space creation, and study and analysis of selected practice examples. The research offers more concrete scopes for the design of anticipated effects based on the more analytical approaches, such as providing in the work of Ching and Norberg-Schulz. There is the space-defining principal of elements such as enclosure and openings, as well as other elements like furniture and furnishing, lighting systems with a distinct physical presence in their form, composition, and organization. Then, they linked these influences to the establishment of spatial identity and atmosphere. The other definition reaches critical potentials such as strong spatial character, distinctiveness, legibility, wholeness, firmness, authenticity, and stability, internal focus and concentration, unique atmosphere, calmness, and peace. It seems that early examples are pure and straight forward, which they reflect more clearly on some essential principles guiding the spatial solution for the religious ritual in contradiction of later complicated, sophisticated, and ornamented examples.

A brief overview of Buddhist, Christian, and Muslim ritual spaces architecture and spatial features, allows identifying some essential mutual principles and qualities, from where respectively matches to meditation spaces to be drawn. These examples propose some limited but crucial principles that manage the creation of spaces for religious ritual, fundamentally connected with other spiritual practices meditation. Thus, they allow gaining some fundamental principles regarding the spatial constitution and desired effects. While the order mostly based on central, axial, or grid-like organization, with different spatial forms resulting, in all cases, the central space is dominant. It always has a symmetry axis, which enhances the formal nature of space and ritual. The hierarchy of composition consents of an introverted dominant spatial core with a special focus inside. With their strong and clear order and composition of

elements, filtered light, introverted organization, and precise decorated approaches, gates, and thresholds, these places allow for detachment, and meditation, also formalized correlation with some other larger entity.

Therefore, this study analyzed selected practice examples to specify the frameworks derived from the relatively comprehensive theoretical and architectural sources. Case studies, which are awarded selected practice examples of contemporary meditation interiors chosen among the well-known projects of the last decade. They are analyzed and discussed according to the frameworks derived from the theoretical and architectural data and brief analysis of traditional principles for ritual practices of meditation or religious interior spaces. It surveys concrete design solutions given a strong spatial identity, and the unique spiritual atmosphere supportive and stimulating the mindful and spiritual meditation activities that are to occur. Lastly, providing a brief evaluation of the physical constitution of spiritual qualities.

Five selected meditation, sacred spaces are 1. The Windhover Meditation Center at Stanford University, USA, 2014, 2. The Waterside Buddhist Meditation Center Memorial, China, 2017, 3. The Vajrasana Buddhist Retreat Center, England, 2016. 4. The Meditation Hall, Meditation Center, China, 2018, 5. The GMAA's Meditation Pavilion and Garden, Switzerland, 2013.

Finally, the proposed list of frameworks contains a structure according to the diverse contexts, and issues have been focused on research in this thesis at the end of each chapter. It is related to the study of spatial qualities and features of meditation interiors. They follow an order from general to more specific, as the respective frameworks converge towards physical spaces and particular design tools. Therefore, in the first

segment, resulting are the general capacities, influences, and qualities of space regarding experience, as specified in philosophy and theoretical dissertations on space, phenomenology, and perception. The research of the concepts of well-being and spirituality, which have more direct links with meditation, brings out more specific features and desired qualities, such as strong spatial identity, unique atmosphere, silence, tranquility, mystery.

This study highlights many qualities, criteria, principles, and concerns as a framework for design thinking, but they are not finished yet. There is still more work to be done to identify what may be some clear spiritual meaning in interior spaces, which ought to be more developed by further studies. Also, this research has a few case studies analyses, and in this regard, too, there should be more in future investigations. They can have more case studies with additional detailed analysis for reaching more precious findings of well-being and spirituality and achieve more significant results in specifying design frameworks for these.

This is a pilot study; it hence offers a beginning – an initial list of concerns, qualities, principles, design approaches – as frameworks. Further research is needed to specify the definition of spirituality in interior space, as well as on the design means by which it may be achieved. Other case studies are likely to offer more diverse design approaches. However, some prevailing principles shared among these may also be more readily identified.

REFERENCES

- Abercrombie, E. D., Bonatz, A. E., & Zigmond, M. J. (1990). Effects of-DOPA on extracellular dopamine in the striatum of normal and 6-hydroxydopamine-treated rats. *Brain Research*, 525(1), 36-44.
- Aldridge, D. (2003). *The therapeutic effects of music*. Edinburgh: Churchill Livingstone: Jonas W, Crawford C, eds. Healing Intentions and Energy Medicine.
- Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl, D., & Angel, S. (1977). *A pattern language. Towns – Buildings – Construction*. New York: Oxford University Press.
- Alexander, C., Rainforth, M., & Gelderloos, P. (1991). Transcendental meditation, self-actualization, and psychological health: A conceptual overview and statistical meta-analysis. *Journal of Social Behavior and Personality*, 6, 189–249.
- Amira, S., & Abramowitz, S. (1979). Therapeutic attraction as a function of therapist attire and office furnishings. *Journal of Consulting and Clinical Psychology*, 47, 198–200.
- Aripin, S. (2006). Healing architecture: A study on the physical aspects of the healing environment in hospital design. *In 40th Annual Conference of the Architectural Science Association (ANZAScA)*, (pp. 22-25). Australia: Adelaide.

- Ayalp, N. (2012). Cultural Identity and Place Identity in House Environment: Traditional Turkish House Interiors. *Recent Researches in Chemistry, Biology, Environment and Culture*, (pp. 64-69).
- Barker, J. F. (1979). Designing for a Sense of Place in Mississippi Small Towns. In P. W. Prenshaw & J. O. McKee (Eds.). *Sense of Place*, (pp.162-178).
- Batchelor, S. (1997). *Buddhism without beliefs: A contemporary guide to awakening*. New York: Riverhead Books, (pp. 109-117).
- Be´dard, M., Felteau, M., Mazmanian, D., & Fedyk, K. (2003). Pilot evaluation of a mindfulness-based intervention to improve quality of life among individuals who sustained traumatic brain injuries. *Disability and Rehabilitation*, 25, 722-723.
- Beauchemin, K., & Hays, P. (1996). Sunny hospital rooms expedite recovery from severe and refractory depressions. *Journal of Affective Dis*, 40, 49–51.
- Beekman, R., Rocchini, A., Dick, M., & Crowley, D. (1984). Vasodilator therapy in children: acute and chronic effects in children with left ventricular dysfunction or mitral regurgitation. *Pediatrics*, 73(1), 43-51.
- Bhatt, S., Gething, P., Brady, O., Messina, J., Farlow, A., Moyes, C., & Myers, M. (2013). The global distribution and burden of dengue. *Nature*, 496(7446), 504-507.

- Birch, R., & Sinclair, B. (2013). Spirituality in place: Building connections between architecture, design, and spiritual experience. *In the ARCC Conference Repository*, (pp.23-28).
- Blehar, M., & Rosenthal, N. (1989). Seasonal affective disorders and phototherapy: report of a National Institute of Mental Health-sponsored workshop. *Archives of general psychiatry*, 46(5), 469-474.
- Boenink, A., Bouhuys, A., & Beersma, D. (1997). Prediction of acute and late responses to light therapy from a vocal (pitch) and self-rated activation in seasonal affective disorder. *Journal of Affective Disorders*, 42, 117–126.
- Bohme & Gernot. (1998). “*Atmosphere as an Aesthetic Concept*.”. (J. B. edited by G. Confurius, Ed.) In Daidalos “Constructing Atmospheres”, (pp.87-93).
- Boivin, D. (2000). Influence of sleep-wake and circadian rhythm disturbances in psychiatric disorders. *Journal of Psychiatry Neurosci* , 25, 446–458.
- Boray, P., Gifford, R. & Rosenblood, L. (1989). Effects of warm white, cool white, and full-spectrum fluorescent lighting on simple cognitive performance, mood, and ratings of others. *Journal of Environmental Psychology*, 9, 297–307.
- Borhan, N. (2017). *Intrinsic religiosity and spiritual wellbeing as moderators of the relationship between wisdom and psychological wellbeing in the elderly*. Middle East Technical University, Ankara, (243-244).

- Boschi, N., & Pagliughi, L. (2002). Quality of life: Meditations on people and architecture. *In Proceedings of Indoor Air*, 26(3), 64–71.
- Botond, B. (1989). Articulated a similar position in his essay, Toward an Architecture of Critical Inquiry. *Journal of Architectural Education*, 43(1), 13–34.
- Botton, A. d. (2006). *Reviews: The Architecture of Happiness*. (E. D. F. Naegele, Ed.), New York: Pantheon, 28(5), 34-38.
- Broekmann, N., & Moller, A. (1973). Preferred seating position and distance in various situations. *Journal of Counseling Psychology*. 14(2), 27-35.
- Brown, K., & Ryan, R. (2003). The benefits of being present: Mindfulness and its role in psychological well- being. *Journal of Personality and Social Psychology*, 84, 822–848.
- Brunstein, J. (1993). “Personal Goals and Subjective Well-Being: A Longitudinal Study”. *Journal of Personality and Social Psychology*, 65(5), 1061-1070.
- Buchanan, R. (2001). Children of the moving present: the ecology of culture and the search for causes in design. *Design issues*, 17(1), 67-84.
- Campelo, A., Aitken, R., Thyne, M., & Gnoth, J. (2014). Sense of place: The importance of destination branding. *Journal of Travel Research*, 53(2), 154-166.

- Cankurtaran, İ. (2020). *Fundamentals Of Cancer Treatment Service Design- Considering The Healing Environment Concept: A Guideline Proposal For Turkey*. Middle East Technical University. Ankara: Doctoral Dissertation.
- Carlson, L., Speca, M., Patel, K., & Goodey, E. (2003). Mindfulness-based stress reduction in relation to the quality of life, mood, stress, and immune parameters in breast and prostate cancer outpatients. *Psychosomatic Medicine*, 65, 571–581.
- Carpman, J., & Grant, M. (1993). *Design that cares: Planning health facilities for patients and visitors*. (2. Ed.) Chicago: American Hospital Publishing. 63(4), 58-64.
- Celiker, A. (2013). *Philosophical Questioning of Architecture with an Emphasis on Feng Shui*. Interior Architecture. Eastern Mediterranean University (EMU).
- Cheung, K. (1997). *Design guide for interiors*. Omaha: US Army Corps of engineers, (pp.105-114).
- Ching, F. D. (2014). *Architecture: Form, space, and order*. (3. Ed.) John Wiley & Sons, (pp. 35-230).
- Ching, F. D., & Corky, B. (1987). *Interior Design Illustrated*. Terjemahan Suastiwi, FSRD Institut Seni Indonesia, Yogyakarta, (pp. 179-213).

- Constanza, R., Fisher, B., Ali, S., Beer, C., & Bond, L. (2007). "Quality of life: an approach integrating opportunities, human needs, and subjective wellbeing". *Ecological Economics*, 61(2-3), 267-276.
- Corbusier, L. (2013). *Towards a new architecture*. Courier Corporation. London, J. Rodker, (pp.173-198).
- Cunha, E., Rego, M., & D'oliveira, T. (2006). Organizational spiritualities. *An ideology-based typology*, 9(5), 3-26.
- Daaleman, T., Kuckelman, C., & Frey, B. (2001). Spirituality and well- being: an exploratory study of the patient perspective. *Soc Sci Med*, 53, 1503-11.
- Desmet, P., & Pohlmeier, A. (2013). "Positive Design: an introduction to design for subjective wellbeing". *International Journal of Design*, 7(3), 5-19.
- Deuraseh, N. (2003). Towards a healthy environment according to Islamic law. *The International Medical Journal*, 2(2), 1-30.
- Dewey, J. (1934). *Art as Experience*. New York: Wideview/Perigee Book, (pp. 55-68).
- Diener, E. (2000). "Subjective wellbeing: The science of happiness and a proposal for a national index". *American Psychologist*, 55, 56–67.

- DiMattia, D. J. (1976). Spatial environments and verbal conditioning in a quasi-counseling interview. *Journal of Counseling Psychology, 23*, 414–421.
- Edwards, C. (2011). *Interior Design. A critical introduction*. Oxford: Berg Publishers, (pp.78-93).
- Emavardhana, T., & Tori, C. (1997). Changes in self-concept, ego defense mechanisms, and religiosity following seven-day Vipassana meditation retreats. *Journal for the Scientific Study of Religion, 36*, 194–206.
- Erbaş, İ. (2006). *An Analysis of Living Environments of the Elderly and a Project for Assisted living in Ankara*.
- Evans, G., & McCoy, J. (1998). ‘When buildings don’t work: the role of architecture in human health’. *Journal of Environmental Psychology, 8*(1), 85 - 94.
- Firth, K., Smith, k., Sakallaris, B., Bellanti, D., Crawford, C., & Avant, K. (2015). Healing, a Concept Analysis. *Global Advances In Health And Medicine, 4*, (pp.44–50).
- Fisk, W. (2000). Review of Health and Productivity Gains from Better IEQ”. In *Proceedings of Healthy Buildings 2000. 4*, (pp.23-31).
- Fleming, J., Honour, H., & Pevsner, N. (1999). *Dictionary of architecture & landscape architecture*. London: Penguin referencen (pp. 43-45).

- Flynn, J. E. (1992). *Architectural interior systems: Lighting, acoustics, and air conditioning*. New York: Van Nostrand Reinhold (pp. 116-129).
- Frank, C., Woo, S., Amiel, D., Harwood, F., Gomez, M., & Akeson, w. (1983). Medial collateral ligament healing: a multidisciplinary assessment in rabbits. *The American journal of sports medicine*, 11(6), 379-389.
- Gass, C. S. (1984). Therapeutic influence as a function of therapist attire and the seating arrangement in an initial interview. *Journal of Clinical Psychology*, 40, (pp. 52–57).
- Gesler, W. (1992). “Therapeutic Landscapes: Medical Issues in Light of the new Cultural Geography.”. *Social Science and Medicine*, 3, (pp. 735–746).
- Giedion, S. (1967). *Space, time, and architecture: the growth of a new tradition* (p. 86).
- Goldhagen, S., Williams, S. G, & Kahn, L. (2001). Louis Kahn’s situated modernism. *Yale University Press*. 32(3), 174-186.
- Goldstein, J. (2003). *Insight meditation: The practice of freedom*. Boston and London: Shambhala (pp. 132-148).
- Goldstein, J. (2003). *One Dharma: The emerging Western Buddhism*. San Francisco: Harper (PP. 57-62).

- Greenstreet, W. (1999). Teaching spirituality in nursing: a literature review. *Nurse Educ Today*, 19, 649-658.
- Grudin, R. (2010). *Design and Truth*. New Haven: CT: Yale University Press 27, 467-475.
- Gustafson, P. (2001). Meanings of place: Everyday experience and theoretical conceptualizations. *Journal of Environmental Psychology*, 21, 5-16.
- Ha, P., & Wollan, G. (2010). Heidegger's Concept of the Spatiality of Dasein -The philosophical discourse on the localization in the global age. *Norwegian Journal of Geography*, 54(2000).
- Haase, R., & DiMattia, D. (1970). Proxemic behavior: Counselor, administrator, and client preference for seating arrangement in dyadic interaction. *Journal of Counseling Psychology*, 17, 319–325.
- Hall, E. (1969). *The hidden dimension*. New York: Anchor Books (PP. 153-167).
- Hall, M. (2005). "Of Holy Men and Heroes: The Cult of Saints in Medieval Perthshire." *The Innes Review*, 56 (Spring), 61–68.
- Hamdy Mahmoud, H. T. (2017). Interior architectural elements that affect human psychology and behavior. 1 (1), 19-23.

- Handzo, G., & Wilson, J. (2003). *Spirituality, Designing and Practicing Patient-Centered Care*. San Francisco: Jossey-Bass (PP. 203-211).
- Hastings, A., Fadiman, J., & Gordon, J. (1980). *Health for the whole person*. Boulder, CO: Westview Press (PP. 87-95).
- Heerwagen, J. H. (1990). Affective functioning, “light hunger,” and room brightness preferences. *Environment and Behavior*, 22, 608–635.
- Heidegger, M. (1962). *Being and Time*, Ed, Gaylel, L. Ormiston (PP. 213-219).
- Heschong, L. (1979). Thermal delight in architecture. *Cambridge*, 67, 328–353.
- Holen, A., & Hugdahl, K. (2010). Meditation-specific prefrontal cortical activation during a meditation: an fMRI study. *Perceptual and motor skills*, 111(1), 291-306.
- Holt-Lunsted, J., Steffen, R., Sandberg, & Jensen, B. (2011). Understanding the connection between spiritual wellbeing and physical health: an examination of ambulatory blood pressure, inflammation, blood lipids and fasting glucose. *Journal of Behavior Medicine*, 34, 477-84.
- Hume, D. (1978). *A treatise of human nature*. London: John Noon (pp. 87-99).

- Huppert, F., & So, T. (2013). "Flourishing Across Europe: Application of a New Conceptual Framework for Defining Wellbeing". *Social Indicator Research*, 110, 837–861.
- Husserl, E. (1983). Ideas pertaining to a pure phenomenology and to phenomenological philosophy (F. Kersten, Trans).
- Ivanovski, B., & Malhi, G. (2007). The psychological and neurophysiological concomitants of mindfulness forms of meditation. *Act a Neuropsychiatric and neurophysiological concomitants of mindfulness form of meditation*, 19, 76–91.
- Jammer, M. (2013). Concepts of space: the history of theories of space in physics. *Courier Corporation*, 3,(pp. 43-52).
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry*, 4, 33–47.
- Kabat-Zinn, J. (2005). *Coming to our senses: Healing ourselves and our world through mindfulness*. New York: Hyperion, (pp. 136-153).
- Kabat-Zinn, J., Wheeler, E., Light, T., Skillings, A., & Cropley, T. (1998). Influence of mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing

photography(UVB) and photochemotherapy(PUVA). *Psychromatic Medicine*, 60, 625-632.

Kellert, Stephen, & Wilson. (1993). *The Biophilia Hypothesis*. Washington, DC: Island Press (PP. 33-42).

Kerr, B., & Dell, D. (1976). Perceived interviewer expertness and attractiveness: Effects of interviewer behavior and attire and interview setting. *Journal of Counseling Psychology*, 23, 553–556.

Kerr, B., & Dell, D. (1976). Perceived interviewer expertness and attractiveness: Effects of interviewer behavior and attire and interview setting. *Journal of Counseling Psychology*, 23, 553–556.

Kim, J. (1998). Sustainable Architecture Module. *National Pollution Prevention Center for Higher Education*, 26, 71-76.

Kopec, D. (2006). *Environmental psychology for design*. New York: Fairchild Publications (PP. 98-123).

Korz, N., & Safuanova, O. (1993). The dynamics of a perceptual image and individual personal characteristics of the reflection of a colored environment. *Journal of Russian and East European Psychology*, 31, 22–36.

Kryter, K. D. (1985). *The effects of noise on man* . (2., Ed.) Orlando, FL: Academic Press (PP. 63-74).

- Kurtich, J., & Eakin, G. (1993). *Interior architecture*. New York: Van Nostrand Reinhold (115- 143).
- Kwallek, N., Lewis, C. M., & Lin-Hsiao, J. W. (1996). Effects of nine monochromatic office interior colors on clerical tasks and worker mood. *Color Research and Application, 21*, 448–458.
- Kwallek, N., Woodson, H., Lewis, C., & Sales, C. (1997). Impact of three interior color schemes on worker mood and performance relative to individual environmental sensitivity. *Color Research and Application, 22*, 121–132.
- Lehar, S. M. (2003). The world in your head: A gestalt view of the mechanism of conscious experience (PP.183-206).
- Levin, J. (2003). Spiritual determinants of health and healing; an epidemiological perspective on salutogenic mechanisms. *Alternative therapies and Medicine, 9*(6), 48-57.
- Levy, B. I. (1984). Research into the psychological meaning of color. *American Journal of Art Therapy, 23*, 58–62.
- Lohr, V., & Pearson-Mims, C. (1996). Impact of interior plants on human stress and productivity. *J Environ Horticulture, 14*, 97–100.
- Lohr, V., & Pearson-Mims, C. (2000). Physical discomfort may be reduced in the presence of interior plants. *Horticulture Technol, 10*, 53–58.

- Lundeenn, E., & Schuldt, W. (1989). Effects of therapist's self-disclosure and a physical barrier on subjects' perceptions of the therapist: An analog study. *Psychological Reports, 64*, 715–720.
- Lutz, A., Greischar, L., Rawlings, N., & Ricard, M. (2004). Long-term meditators self-induce high-amplitude gamma synchrony during mental practice. *Proceedings of the National Academy of Science, 101*, 16369–16373.
- Lyons, A., & Petrucelli, R. (1987). *Medicine, An Illustrated History*. New York: Harry N. Abrams (PP.72-86).
- Lyubomirsky, S. (2007). *The show of happiness: A new approach to getting the life you want*. New York: NY: Penguin Books (PP. 205-217).
- Manzo, L. C. (2003). Beyond house and haven: Toward a revisioning of emotional relationships with places. *Journal of Environmental Psychology, 23*, 167-182.
- Marques, J. (2005). HR's crucial role in the establishment of spirituality in the workplace. *The Journal of American Academy of Business, 7*(2), 27-31.
- Maslow, A. (1994). *Religions, values, and peak experiences*. New York: Penguin (PP. 114-126)
- Maslow, A. H. (1943). "A Theory of Human Motivation." *Psychological Review*, no. 50 (4):370-96. 1961. "Peak Experiences as Acute Identity Experiences." *American Journal of Psychoanalysis, 21*(2), 254-262.

- McAndrew, F. T. (1992). *Environmental Psychology. Architects and planners should consider emotional as well as practical attributes of places according to environmental psychologists*. California: Brooks/Cole Publishing Company (PP. 48-53).
- Merleau-Ponty, M. (1964). *The primacy of perception: And other essays on phenomenological psychology, the philosophy of art, history, and politics*. Northwestern University Press, 12(6), 83-95.
- Merleau-Ponty, M. (1964). The primacy of perception: And other essays on phenomenological psychology, the philosophy of art, history, and politics. *Mind space meditation park* (PP. 216-223).
- Monsefi Parapari, D. (2015). *Adaptation to climate change and thermal comfort (Doctoral dissertation)*, (PP. 65-73).
- Moore, C., & Yudell, R. (1977). *Body, Memory, and Architecture*, (PP. 156-170).
- Morinis, A. (1992). *Introduction in Sacred Journeys*. (A. Morinis, Ed.) Westport: Connecticut (PP. 32-36).
- Morrison, M., Louis, T., & Diener, E. (2011). "Subjective Wellbeing and National Satisfaction: Findings from a Worldwide Survey". *Psychological Science*, 22(2), 166–171.

- Mustafa, F., & Hassan, A. (2013). Mosque layout design: An analytical study of mosque layouts in the early Ottoman period. *Frontiers of Architectural Research*, 2(4), 445-456.
- Najafi, M. (2011). The concept of place and sense of place in architectural studies. *International Journal of Human and Social Sciences*, 6(3) 28-34.
- Najafi, M., & Shariff, M. K. (2011). The concept of place and sense of place in architectural studies. *International Journal of Human and Social Sciences*, 6(3), 187-193.
- Narayanasamy, A. (1999). A review of spirituality as applied to nursing. *International Journal of Nursing Studies*, 36(2), 117-125.
- Nejati, A. (2012). Spirituality, Health, and Architecture: with respect to Stress. 28(6), 45-49.
- Nicholson-Smith, D. (1991). The production of space. 85(3) 31-35.
- Nidich, S., Ryncarz, R., Abrams, A., Orme-Johnson, D., & Wallace, R. (1983). Kohlbergian cosmic perspective response, EEG coherence, and the TM and TM-Sidhi program. *Journal of Moral Education*, 12, 166–173.
- Nightingale, F. (1893). *Sick nursing and health nursing. Summary*. Chicago: The International Congress of Charities, Correction, and Philanthropy (PP. 125-138).

- Norberg-Schulz, C. (1985). *The concept of dwelling: on the way to figurative architecture*. New York: Rizzoli (PP. 63-87).
- Norberg-Schulz, C. (2013). The phenomenon of place. *The urban design reader*, 292-304.
- Norberg-Schulz, C. (2019). Genius Loci: Towards a Phenomenology of Architecture. *Historic Cities: Issues in Urban Conservation*, 8(31) 137-145.
- Norberg-Schulz, C. N. (1971). *Existence, space & architecture*. Studio Vista (PP. 63-82).
- O'Brien, M. (2003). *Spirituality in Nursing*. Sudbury: Jones and Bartlett (52- 64).
- Olgyay, V. (1963). Design with climate. *Princeton* (PP. 38-51).
- Orians, G., & Heerwagen, J. (1992). Evolved responses to landscapes. In: Barkow J, Cosmides L, Tooby J, eds. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, (PP. 98–121).
- Ospina, M., Bond, K., Karkhaneh, M., & Tjosvold, L. (2007). Meditation practices for health: state of the research. In *Evidence Report/Technology Assessment*, 155, 1-263.

Ozturk, F. (2019). *Pilates Method As A Kind Of Mind-Body Practice: Women Practitioners' opinions On Their Physical And Psychological Wellbeing*. Middle East Technical University, Ankara.

Palladio, A. (1570). *The Four Books of Architecture*. Translated by Ware I. 1738. (1. Edition, Ed.) New York: Dover Publications (PP. 87-115).

Pallasmaa, J. (1965). The geometry of feeling: A look at the phenomenology of architecture. *Theorizing a new agenda for architecture: An anthology of architectural theory*, 448-453.

Pallasmaa, J. (2008). *The Eyes Of The Skin* (PP. 47-59).

Pallasmaa, J. (2011). *The embodied image: Imagination and imagery in architecture* (PP. 62-79).

Pallasmaa, J. (2012). The eyes of the skin. *Architecture and the senses* (PP.12-31).

Pallasmaa, J. (2013). Mental and existential ecology. *In Rethinking Aesthetics* (pp. 214-230).

Pallasmaa, J. (2014). Space, Place, and Atmosphere: Peripheral Perception in Existential Experience. *Architectural Atmospheres*, 4, 230-245.

- Pallasmaa, J. (2015). Light, Silence, and Spirituality in Architecture and Art, in Julio Bermudez (ed.), *Transcending Architecture. Contemporary Views on Sacred Space* (PP. 163-169).
- Pappas, G. S. (1987). Berkeley and immediate perception. *Essays on the philosophy of George Berkeley*, 195-213.
- Parsons, R. (1991). The potential influences of environmental perception on human health. *Journal of Environ Psychol*, 11, 1–23.
- Pohlmeyer, A. (2012). “Design for Happiness”. *Interfaces*, 92, 8-11.
- Pressly, P., & Heesacker, M. (2001). The physical environment and counseling: A review of theory and research. *Journal of Counseling & Development*, 79(2), 148-160.
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of environmental psychology*. 3(1), 22-27.
- Ragneskog, H., & Kihlgren, M. (1997). Music and other strategies to improve the care of agitated patients with dementia: Interviews with experienced staff. Scandinavian. *Journal of Caring Sciences*, 11, 176–182.

- Rapoport, A. (1990). *The meaning of the built environment: a nonverbal communication approach*. Tucson: The University of Arizona Press (PP. 38-45).
- Redd, W., Manne, S., Peters, B., Jacobsen, P., & Schmidt, H. (1994). Fragrance administration to reduce anxiety during MR imaging. *J Magn Reson Imag*, *4*, 623–626.
- Remland, M., Jones, T., & Brinkman, H. (1995). Interpersonal distance, body orientation, and touch: Effects of culture, gender, and age. *Journal of Social Psychology*, *135*, 281–297.
- Rosenberg, L. (1999). *Breath by breath: The liberating practice of insight meditation*. Boston: Shambhala (PP. 63-77).
- Rosenthal, N., Sack, D., Gillin, J., & Lewy, A. (1984). Seasonal affective disorder: A description of the syndrome and preliminary findings with light therapy. *Archives of General Psychiatry*, *41*, 72–80.
- Rudolfsson, G., Berggren, I., & da Silvia, A. (2014). Experiences of spirituality and spiritual values in the context of nursing—An integrative review. *The open nursing journal*, *8*, (64), 39-46.
- Ryff, C. (1989). “Happiness is everything, or is it? Explorations on the meaning of psychological wellbeing”. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081.

- Sadella, E., & Oxley, D. (1984). The perception of room size: The rectangularity illusion. *Environment and Behavior*, 16, 394–405.
- Sartre, J. P., & Aronson, R. (2000). Sartre on the American Working Class: Seven Articles in Combat from 6 to 30 June, 1945. *Sartre Studies International*, 6(1), 22.
- Savinar, J. (1975). The effect of ceiling height on personal space. *Man-Environment Systems*, 5, 321–324.
- Schuff, N., Marmar, C., Weiss, D., & Neylan, T. (1997). Reduced hippocampal volume and N-acetyl aspartate in posttraumatic stress disorder. *Annals of the New York Academy of Sciences*, 821(1), 516-520.
- Schweitzer. (2004). Healing spaces: elements of environmental design that make an impact on health 10(Supplement 1), S-71. *Journal of Alternative & Complementary Medicine*, 10(1), 71.
- Schweitzer, M. G. (2004). Healing spaces: elements of environmental design that make an impact on health 10(Supplement 1), S-71. *Journal of Alternative & Complementary Medicine*, 10(1), 71.
- Shamai, S. (1991). *Sense of Place: an Empirical Measurement* (Vol. 22). (Geof, Ed.) Geofmm (PP. 84-137).

- Shapiro, S., Walsh, R., & Britton, W. (2003). An analysis of recent meditation research and suggestions for future directions. *Journal for Meditation and Meditation Research, 3*, 69–90.
- Seamon, D. (2012). Place, place identity, and phenomenology: A triadic interpretation based on JG Bennett's systematics. *The role of place identity in the perception, understanding, and design of built environments, 2012*, 3-21.
- Shochat, T., Martin, J., Marler, M., & Ancoli-Israel, S. (2000). Illumination levels in nursing home patients: Effects on sleep and activity rhythms. *Journal of Sleep Res, 9*, 373–379.
- Sime, J. D. (1986). Creating places or designing spaces? *Journal of Environmental Psychology, 6*, 49-63.
- Sinclair, B. R. (2011). Contemplating the Spiritual Ethos within a Holistic Framework for Design + Planning. *12th Symposium on Sustainable Development: Theories, Strategies, and Global Governance Systems*. Germany (P. 31).
- Smith, D., Metcalfe, P., & Lommerse, M. (2012). "Interior architecture as an agent for wellbeing". *Journal of the HEIA, 19(3)*, 2-9.
- Smith, P. F. (2003). The dynamics of delight: Architecture and aesthetics. *Psychology Press* (PP. 62-95).

- Smith, W., Compton, W., & West, W. (1995). Meditation as an adjunct to a happiness enhancement program. *Journal of Clinical Psychology, 51*, 269–273.
- Sommer, R. (1969). *Personal space: The behavioral basis of design*. Englewood Cliffs: NJ: Prentice-Hall (PP. 178-182).
- Standley, J. (1986). Music research in medical/dental treatment: Meta-analysis and clinical applications. *Journal of Music Therapy, 23*, 56–122.
- Steadman, C. R. (2003). Is it really just a social construction: The contribution of the physical environment to sense of place. *Society and Natural Resources, 16*, 671-685.
- Stedman, R. C. (2008). What do we mean by place meanings? Implications of place meanings for managers 98 and practitioners. In L. E. Kruger, T. E. Hall & M. C. Stiefel (Eds.). *Understanding concepts of place in recreational research and management* , 744, 61-82.
- Steele, F. (1981). *The sense of place*. CBI Publishing Company, Inc (PP. 68-94).
- Steffy, G. (1990). *Architectural lighting design*. New York: Van Nostrand Reinhold (PP. 149-164).
- Stepanova, A. (2017). Analysis of rehabilitation centers and the concept of a meta-project for a center for the blind (PP. 49-67).

- Stokols, D. (1990). Instrumental and Spiritual Views of People-Environment Relations. *American Psychologist*, 45(5), 641-646.
- Stokols, D., & Shumaker, S. (1981). *People in places: A transactional view of settings. Cognition social behavior and the environment*. I. H. (Ed.), Lawrence Erlbaum Assoc (PP. 121-127).
- Stolwijk, J. (1990). Shelter and indoor air. *Environ Health Prospect*, 86, 271–274.
- Stone, G., & Morden, C. (1976). Effect of distance on verbal productivity. *Journal of Counseling Psychology*, 23, 486–488.
- Stone, N., & Irvine, J. (1994). Direct or indirect window access, task type, and performance. *Journal of Environmental Psychology*, 14(1), 57-63.
- Storck, M., Csordas, T., & Straus, M. (2000). “Depressive Illness and Navajo Healing.”. *Medical Anthropology Quarterly*, 14(4), 571–597.
- Tabb, P. J., Barrie, T., & Bermudez, J. (Eds.). (2015). *Architecture, Culture, and Spirituality*. Ashgate Publishing, Ltd (PP. 68-70).
- Tanyi, R. (2002). Towards clarification of the meaning of spirituality. *J Adv Nurs*, 39, 500-509.

- Tanyi, R., Werner, J., Recine, A., & Sperstad, R. (2006). Perceptions of incorporating spirituality into their care: A phenomenological study of female patients on hemodialysis. *Nephrology Nursing Journal*, 33(5), 532.
- Terman, M., Lewy, A., Dijk, D., Boulo, Z., & Eastman, C. (1995). Light treatment for sleep disorders: Consensus report. IV—Sleep phase and duration disturbances. *Journal of Biol Rhythms*, 10, 135–147.
- Tloczynski, J., & Tantriella, M. (1998). A comparison of the effects of Zen breath meditation or relaxation on college adjustment. *Psychologia: An International Journal of Psychology in the Orient*, 41, 32–43.
- Townsend, M., Kladder, V., Ayele, H., & Mulligan, T. (2002). Systematic review of clinical trials examining the effects of religion on health. *Southern Med Journal*, 95, 1424–1429.
- Tuan, Y. F. (1974). *Topophilia: A study of environmental perception, attitudes, and values*. Englewood Cliffs, NJ: Prentice-Hall (PP. 96-125).
- Tuan, Y. F. (1975). Place: An existential perspective. *The Geographical Review*, 65, 15-65.
- Tye, M. (2004). *Combining various sensory perceptions associated with different environmental factors generates the idea of space*. Edelman, G. 1VI, 16(24).

- Ulrich, R. (1991). Effects of health facility interior design on wellness: Theory and recent scientific research. *J Health Care Des*, 3, 97–109.
- Ulrich, R. (1999). *Effects of gardens on health outcomes: Theory and research*. In: Marcus CC, Barnes M, eds. *Healing Gardens: Therapeutic Benefits and Design Recommendations*. New York: John Wiley & Sons (PP. 59-72).
- Ulrich, R., & Gilpin, L. (2003). *Healing arts—nutrition for the soul*. In: Charmel PM, Frampton SB, Gilpin L, eds. *Putting Patients First—Designing and Practicing Patient-Centered Care*. San Francisco: Jossey-Bass (PP. 135-147).
- Valdez, P., & Mehrabian, A. (1994). Effects of color on emotions. *Journal of Experimental Psychology*, 123, 394–409.
- Velarde, F. X. (1929). *Le Corbusier. Towards a New Architecture*, The Town Planning Review, 13(2), 37.
- Venolia, C. (1988). *Healing environments*. Berkeley, CA: Celestial Arts (PP. 68-75).
- Vernon, M. (2008). *Wellbeing*. Stocksfield: New York, Acumen (PP. 48-69).
- Wakamura, T., & Hiromi, T. (2001). Influence of bright light during day- time on sleep parameters in hospitalized elderly patients. *Journal of Physiol Anthropol*, 20, 345–351.

- Walton, J. (1999). Spirituality of patients recovering from an acute myocardial infarction: a grounded theory study. *Journal of Holist Nurs*, 17, 34-72.
- Wang, S., Kulkarni, L., Dolev, J., & Kain, Z. (2002). Music and preoperative anxiety: A randomized, controlled study. *Anesthesiology Analog*, 94, 1489–1494.
- Ward, G. (1995). Colors and employee stress reduction. *Supervision*, 56, 3–5.
- Watts, A. (1989). *The Way of Zen*. New York: NY: Vintage Books (PP. 173-184).
- Widgery, R., & Stackpole, C. (1972). Desk position, interviewee anxiety, and interviewer credibility: An example of cognitive balance in a dyad. *Journal of Counseling Psychology*, 19, 173–177.
- Williams, A. (2010). “Spiritual Therapeutic Landscapes and Healing: A Case Study of St. Anne de Beaupré, Quebec, Canada.”. *Social Science and Medicine*, 70, 1633–1640.
- Williams, A. (2010). Spiritual Therapeutic Landscapes and Healing: A Case Study of St. Anne de Beaupré, Quebec, Canada. *Social Science and Medicine*, 70, 1633–1640.
- Wilson, A., & Golonka, S. (2013). Embodied cognition is not what you think it is. *Front Psychol*, 32(4), 46-52.
- Yuen, E. (2011). Spirituality and the clinical encounter. *Int J Hum Car*, 15, 42-6.

Zamarra, J., Schneider, R., Besseghini, I., Robinson, D., & Salerno, J. (1996). The usefulness of the transcendental meditation program in the treatment of patients with coronary artery disease. *American Journal of Cardiology*, 77, 867–870.

Zumthor, P. (2006). *Atmospheres: Architectural Environments - Surroundings Objects*. Basel: Birkhäuser (PP. 49-54).

Zumthor, P. (2010). *Thinking of Architecture*. Basel, Switzerland: Birkhauser (PP.78-94).

URL 1: Archdaily. (2019, February 28). *Meditation Hall / HIL Architects*. Retrieved from Archdaily: <https://www.archdaily.com/912262/meditation-hall-hil-architects> Meditation Hall / HIL Architects

URL 2: Architects, H. A. (2019, April 10). *Meditation Hall In Huanghua, China*. Retrieved from Yellwtrace: <https://www.yellowtrace.com.au/meditation-hall-china-hil-architects-wellness-interior-design/>

URL 3: Bergland, C. (2015, April 22). *10 Ways Mindfulness and Meditation Promote Well-Being*. Retrieved from Psychology Today: <https://www.psychologytoday.com/us/blog/the-athletes-way/201504/10-ways-mindfulness-and-meditation-promote-well-being>

- URL 4: Byfinsa. (2020, May 04). *Conscious Spaces: Mindfulness in interior design*. Retrieved from Connections by finsa: <https://www.connectionsbyfinsa.com/mindfulness-interior-design/?lang=en>
- URL 5: Clarke, C. L. (2019). *Designing a Meditation Room*. Retrieved from The Guided Meditation Site: <https://www.the-guided-meditation-site.com/designing-a-meditation-room.html>
- URL 6: Cohen, W. &. (2017, May 21). *Architects Vajrasana Buddhist Retreat Centre Religious Community in Walsham le Willows, Suffolk, South East England*. Retrieved from e-architect: <https://www.e-architect.co.uk/england/vajrasana-buddhist-retreat-centre-suf>
- URL 7: Cross, J. E. (2001, March 12). *What is sense of place?* Colorado: State University. Libraries. Retrieved from What is Sense of Place, Research on Place & Space
- URL 8: Dan, H. (2016, September 19). *GMAA's Meditation Pavilion and Garden creates contemplative atmosphere at Swiss home*. Retrieved from Dezeen: <https://www.dezeen.com/2016/09/19/gm-architectes-associies-meditation-pavilion-garden-architizer-2016-a-awards-gen>
- URL 9: Dodd, O. (2019). *Meditation and your Emotional Well Being*. Retrieved from The guided meditation site: <https://www.the-guided-meditation-site.com/meditation-and-your-emotional-well-being.html>)

- URL 10: Droog, S., & Vries, P. d. (2009, October 25). *Research thesis “emotion in architecture; the experience of the user”*. Retrieved from issuu.com:
https://issuu.com/pauldevries/docs/20090202_emotioninarchitecture_big
Emotion in Architecture
- URL 11: Farber, A. (2013). *Early Christian art and architecture after Constantine*. Retrieved from Khanacademy:
<https://www.khanacademy.org/humanities/medieval-world/early-christian-art/beginners-guide-early-christian-art/a/early-christian-art-and-architecture-after-constantine>
- URL 12: Franco, J. T. (2016). *The Key Architectural Elements Required to Design Yoga and Meditation Spaces*. Retrieved from archdaily:
<https://www.archdaily.com/797259/the-key-architectural-elements-required-to-design-yoga-and-meditation-spaces#>
- URL 13: Golenda, G. (2017, April 2). *Architecture, Body, and Mind: Meditation Spaces in the Out-And-Open*. Retrieved from Architizer:
<https://architizer.com/blog/inspiration/collections/meditation-pavilions/>
- URL 14: Kaya, D. (2019 , August 14). *Everything You Need to Know about Mosque Interior Design*. Retrieved from Comelite Architecture, Structure and Interior Design: <https://comelite-arch.com/blog/mosque-interior-design/>
- URL 15: Kaya, D. (2019, August 14). *Architecture Interior Design Everything You Need to Know about Mosque Interior Design*. Retrieved from Comelite

Architecture, Structure and Interior Design: <https://comelite-arch.com/blog/mosque-interior-design/>

URL 16: Levy, N. (2019, May 08). *Hilarchitects completes contemplative meditation hall in eastern China*. Retrieved from Dezeen: <https://www.dezeen.com/2019/05/08/hall-meditation-spaces-interiors-hilarchitects-china/>

URL 17: McKnight, J. (2016, May 23). *Aidlin Darling creates a meditation centre at Stanford University with rammed-earth walls*. Retrieved from Dezeen: <https://www.dezeen.com/2016/05/23/aidlin-darling-design-windhover-spiritual-meditation-centre-stanford-university-californi>

URL 18: MG, A. (2019, June 24). *Stepping into the Fahraj mosque, one of the oldest Islamic structures in Iran*. Retrieved from tehrantimes: <https://www.tehrantimes.com/news/437350/Stepping-into-Fahraj-mosque-one-of-the-oldest-Islamic-structures>

URL 19: MLS, S. (2020, May 24). *Creating a Space for Meditation: Considerations for all Senses*. Retrieved from thebrecklife: <https://www.thebrecklife.com/creating-home-meditation-space.php>

URL 20: N.A. (2019, March). *Buddhist Temples and Buildings*. Retrieved from Facts and Details: <http://factsanddetails.com/world/cat55/sub355/item1325.html>

- URL 21: Peinado, I. (2017, June 15). *Archstudio Designs Buddhist Shrine Into A Small Mound In Hebei*. Retrieved from Metalocus: <https://www.metalocus.es/en/news/archstudio-designs-buddhist-shrine-a-small-mound-hebei>
- URL 22: St Hill, C. (2016, October 17). *Vajrasana Buddhist Retreat Centre By Walters & Cohen Architects*. Retrieved from Desigcurial: <http://www.designcurial.com/news/vajrasana-buddhist-retreat-centre-by-walters-cohen-architects-5032036>
- URL 23: Tchiki, D. (2019, January 02). *What Is Well-Being? Definition, Types, and Well-Being Skills*. Retrieved from Psychology Today: <https://www.psychologytoday.com/us/blog/click-here-appiness/201901/what-is-well-being-definition-types-and-well-being-skills>
- URL 24: Weisbin, K. (2015). *Common types of mosque architecture*. Retrieved from Khanacademy: <https://www.khanacademy.org/humanities/art-slam/beginners-guide-islamic-world-art/beginners-guide-islamic-art/a/common-types-of-mosque-architecture>
- URL 25: Yellowtrace, T. (2019, April 10). *Meditation Hall In Huanghua, China By Hil Architects*. Retrieved from Yellowtrace <https://www.yellowtrace.com.au/meditation-hall-china-hil-architects-wellness-interior-design/>

URL 26: Zeitoun, L. (2017, May 09). *Archstudio Embeds Buddhist Shrine Within The Riparian Landscape Of Hebei, China*. Retrieved from Designboom: <https://www.designboom.com/architecture/archstudio-waterside-buddhist-shrine-china-05-09-2017/>