

# Rejuvenation through Architecture

Meghna Srivastava

Architect, Anagram Architects, New Delhi, India

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**Abstract** - The phrase "Rejuvenation through Architecture" implies to those built spaces that have the ability to impart wellness to their users. In today's times of the metropolitan culture, where humans are living monotonous lives, rejuvenation from time to time becomes quite necessary. This dissertation mostly aims at showcasing how architecture, in its built and open forms can help towards imparting such effects of rejuvenation to its dwellers and users. The built form in which we reside or function is the major background for us. Thus, it has a major potential in imparting such positive vibes to its user. Being close to nature shall be an important aspect for such architecture. Thus, taking lessons from Organic Architecture shall be advisable. Also, assessing how elements of the built can impart such effects has been done which shall be useful for the study. Lessons from scripts and principles, like the Feng Shui principles or the Panchamahabhuta have been taken to study deeper how architecture could be generating positive energies.

## 1. INTRODUCTION

Maintaining a work-life balance is an issue prevalent and spreading much in today's metropolitan cities and towns. Humans today are thus thriving on two basic instincts- hard work and then recreation to de-stress themselves from their daily monotonous lives.

Architecture apparently has a major role in such rejuvenation that is needed indeed. The built form in which these activities take place is a crucial subject that must be dealt with, to generate soothing environs where one can let go of all black and grey thoughts of their daily lives.

*"The job of buildings is to improve human relations: architecture must ease them, not to make them worse."* - **Ralph Erskine**



**Figure 1.1** : Therme Vals in Switzerland by Peter Zumthor- an example of architecture for rejuvenation

## 2. AIM

The aim of this dissertation is to study how architecture in its built and open form can create a rejuvenating aura for its user.

## 3. OBJECTIVES

The objectives for the dissertation would help to achieve the aim of studying how architecture in its built and open form can create a rejuvenating aura for its user. These are enlisted below.

1. To **study the built-open relationship**, thereafter picking ideas and concepts that could contribute to this theme.
2. To study how built form **can interact with its users**, generating a positive energy in our case.

3. To gain understanding of the healing **elements provided by nature**, that generate such positive vibes to the user which could be incorporated into our built environs.

#### 4. METHODOLOGY

The design approach for my further thesis project shall be through **phenomenology**, following the theme of Rejuvenation through Architecture, where the focus shall be to promote through architecture, the concept of rejuvenation ("holistic wellness") among the human of today's metropolitan culture.

To design an environ that should impart a rejuvenating effect to its users is the focus of the study. It is thus, an experience intangible as stated above, but rather an abstract feel necessarily to be provided to humans of the metropolitan cities today.

#### 5. SCOPE AND LIMITATIONS

The scope of study for the dissertation project is inclusive of the various aspects of architecture study from which we could pick out elements and features that are related to our study of rejuvenation features in architecture practices. Hereby, we have our limitations framed as well.

The scope majorly includes the following studies to be done.

1. The relationship between the built environment and nature, and learning from **The Organic Architecture, Feng-Shui concepts** which both state that building form should blend with the surrounding nature, as well as respond to life forces available on site (topographical changes, wind movement, sun orientation) in order to deliver a beneficial energy into the built environment.  
Also studying the Vastu Purush Mandal and **Panchmahabhutha**, for learning about the generation of positive energies in our built environs, in the Indian context.
2. To study and list out the contributions of existing architects and their practices into this field. This would help us to figure out what are the various elements and features already used by these architects in their practice of creating such environs.
3. This study shall also include the study of books and text by architects aiming at this field in architecture, which would widen our knowledge further with respect to the study of rejuvenating effects of architecture.

The articles and books that shall be referred to are enlisted below.

- **Christopher Day**  
Places of the Soul: Architecture and Environment Design as healing Art  
Spirit and Place: Healing our Environment
  - **Carol Venolia**  
Healing Environments: Your Guide to Indoor Well-Being
  - **David Pearson**  
New Organic Architecture: The Breaking Wave
  - **Simona F. Manini**  
Feng Shui for Architecture
  - **Indraneel Dutta**  
Contemporary Design in Harmony with nature
  - **Shreekanth P S**  
Vastu Shastra in Indian Architecture
4. The primary analysis of elements of architecture which can be therapeutic in nature, to generate the environs of rejuvenation.  
This study shall be taking place in a manner where we are going to discuss the relation of the following with rejuvenation effects.
    - Light
    - Material
    - Colour
    - Sound

- The relation between human senses (sight, sound, smell, touch) and the built, focusing on environs that could please these senses.

However, these studies above stated shall be limited by concentrating only on the aspects related to the therapeutic and rejuvenating features. The project would not include an entire study of the Organic Architecture, but only those aspects of it which relate to the topic of study.

Similarly, while studying the Chinese architecture concept of Feng-Shui or the Vastu Purush in the Indian context, only the aspects of generation of positive energies would be focused on rather than studying the entire fields.

## 6. CASE STUDIES AND ANALYSIS

Analysis of the following projects has been done, that are aiming at the rejuvenation of their users.

### 6.1 Case Study 1

#### THERME VALS BY PETER ZUMTHOR

This project, belonging to the category of International style of Architecture, has been chosen to cover the contributions of architects around the world towards the rejuvenation of its users. The Architecture Review explains the Therme Vals as built over the only thermal springs in the Graubunden Canton in Switzerland, it is a hotel and spa in one which combines a **complete sensory experience** designed by **Peter Zumthor**.

*The idea was to create a form of cave or quarry like structure. Working with the natural surroundings the bath rooms lay below a grass roof structure half buried into the hillside. The Therme Vals is built from layer upon layer of locally quarried Valsler Quarzite slabs. [1]*



Figure 6.1.1/6.1.2/6.1.3 : The interior view; the outdoor pool; the exterior view

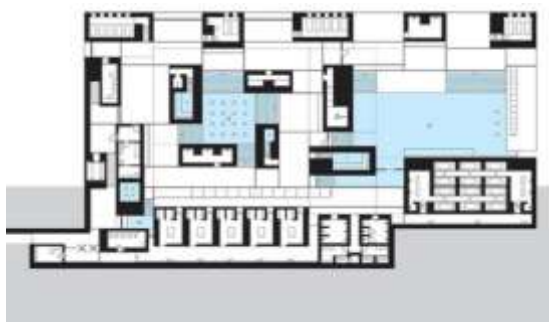


Figure 6.1.4 : Layout Plan

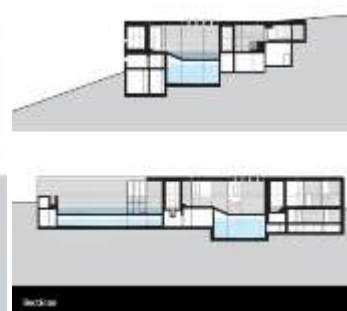


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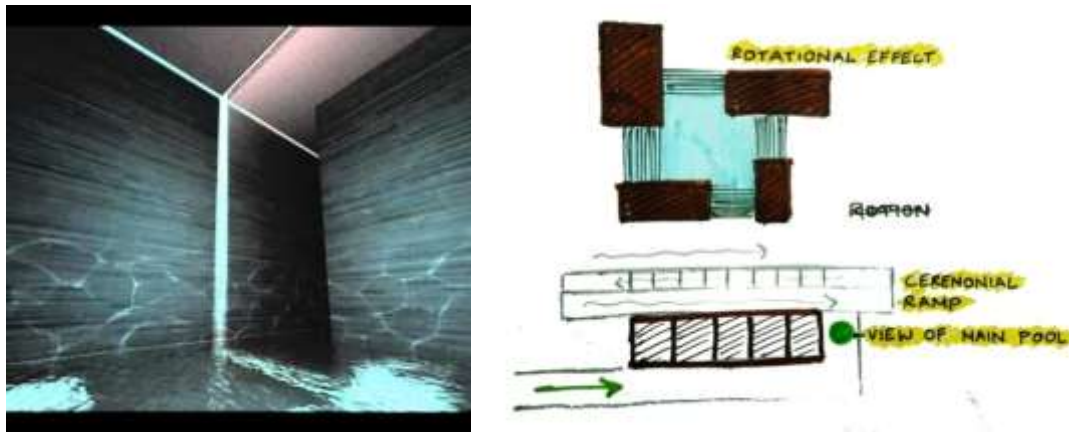


Figure 6.1.6/ 6.1.7 : Main pool light effects, Planning strategy

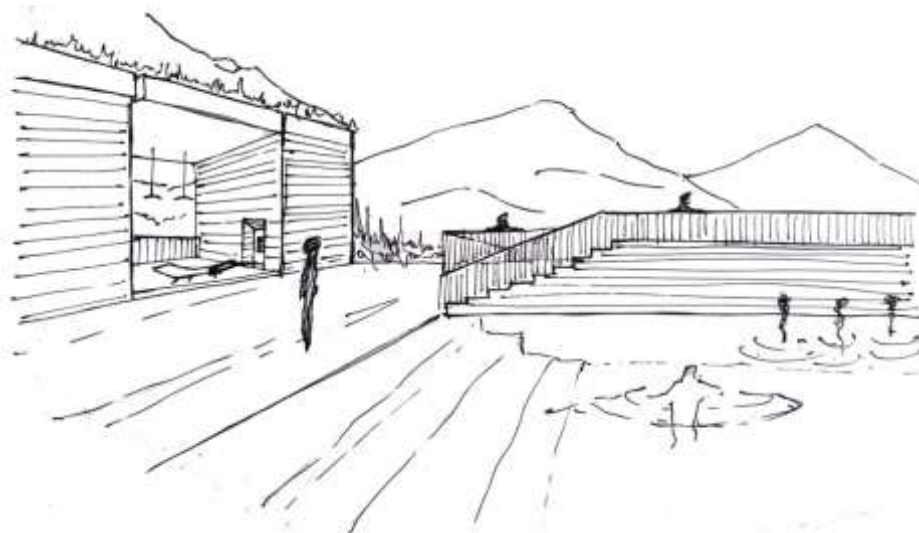


Figure 6.1.8 : Sketch of the exterior pool

## 6.2 Case Study 2

### Z58 (SHANGHAI) BY KENGO KUMA & ASSOCIATES

Quoted as an oasis of calm among the frenetic bustle of the city, this project is an office building which would guide us towards analyzing how even workspaces can be generating positive vibes and rejuvenate its users.

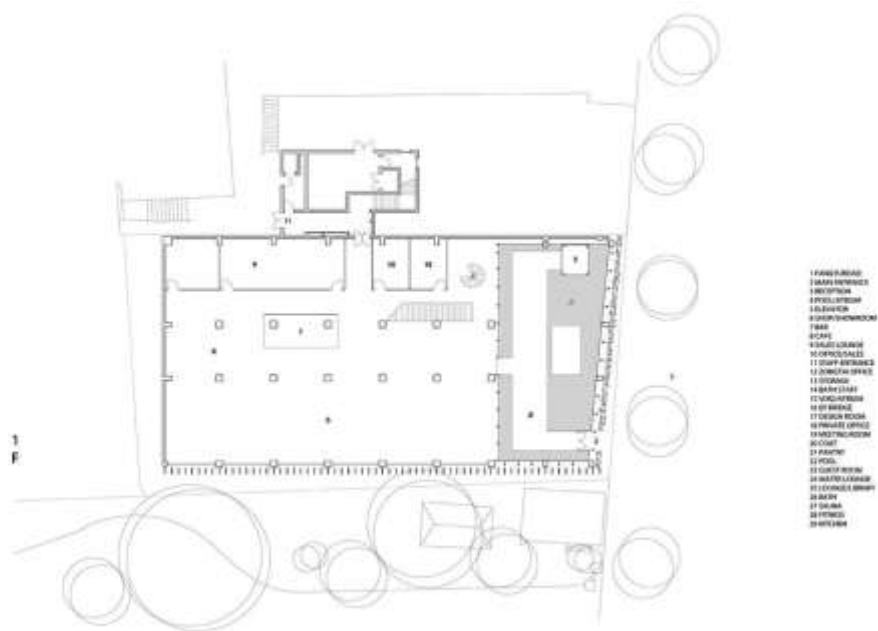
Z58, the headquarters of Zhongtai- a company specializing in lighting, was converted from a **former watch factory** in Shanghai. This four-storey construction is **an oasis of calm amid the frenetic bustle of city**. It is an interpretation of the *'traditional Chinese humanistic spirit with a living nature which is away from the city'*, Kuma adds.

The office building is located amid metropolitan culture, like any other office building but has been successful in creating its own environment, acting as the oasis of comfort in the desert around. The building has used layers of filters like the moat of water for the guestrooms, and at the entrance lobby; the living plant wall on the front facade; dense vegetation on one side and glass facades on the other side to take view of the garden of the adjoining property, a museum open to public. A cascading waterfall- described as 'Shanghai's Niagara Falls'- **flows through glass rods** that were arranged by hand, **adding an aural element to the soothing environment**.

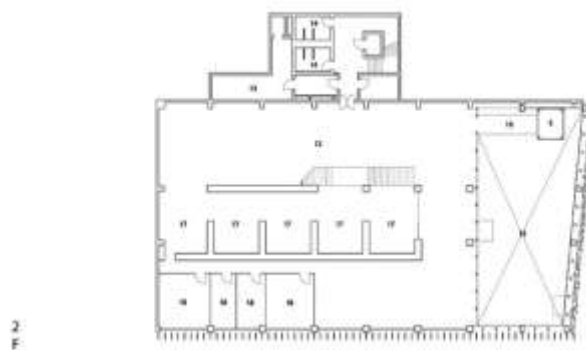
How well the architect has modified the existing warehouse into such a soothing experience is a lesson to be learnt.

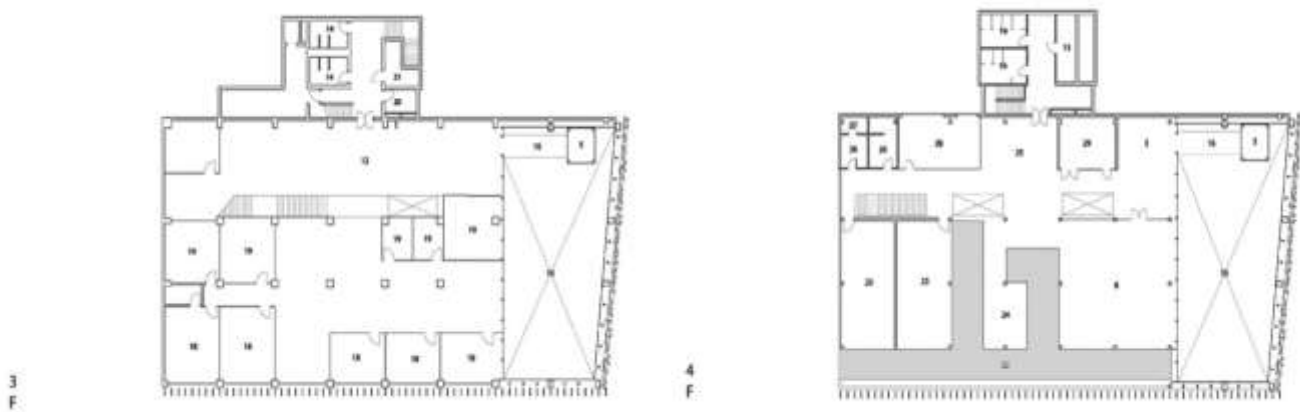


Figure 6.2.1 : Location of the building Figure 6.2.2/ 6.2.3 : Planters on the front facade



Plan s.1/500





Figures 6.2.4: Floor plans- ground, first, second, third

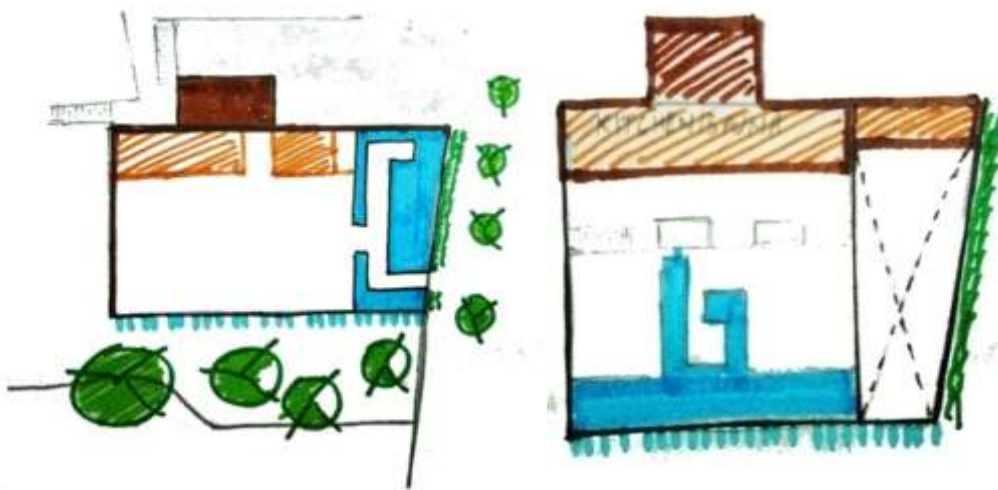


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Figure 6.2.6 : Planter joinery details



Figure 6.2.7: Entrance Lobby



Figure 6.2.8/6.2.9: Office rooms interiors

### 6.3 Case Study 3

#### HOUSE OF FIVE ELEMENTS BY MANSARAM ARCHITECTS

The very concept of this residential building was "learning from nature", which would help the study to learn the relationship of the built with nature according to principles of the Panmahabhutha, or the Five Elements of Nature.

Each space in itself is connected with nature in its own way. Analysing the drawings and photographic data, one can observe that unlike the Chinese and International styles, where the built seemed to have some "nature", the Indian concepts make nature their major emphasis. The built seems to be a part of nature, not nature a part of the built.

Spaces in the houses have the typical functions but are not divided accordingly. These functional spaces flow like a continuous entity that varies big or small, high or low, having significance at all levels of function.



Figure 6.3.1: Exterior view & the pond



Figure 6.3.2: Night view of the exterior



Figure 6.3.3: Ground Floor Plan



Figure 6.3.4: Study sketch of plan



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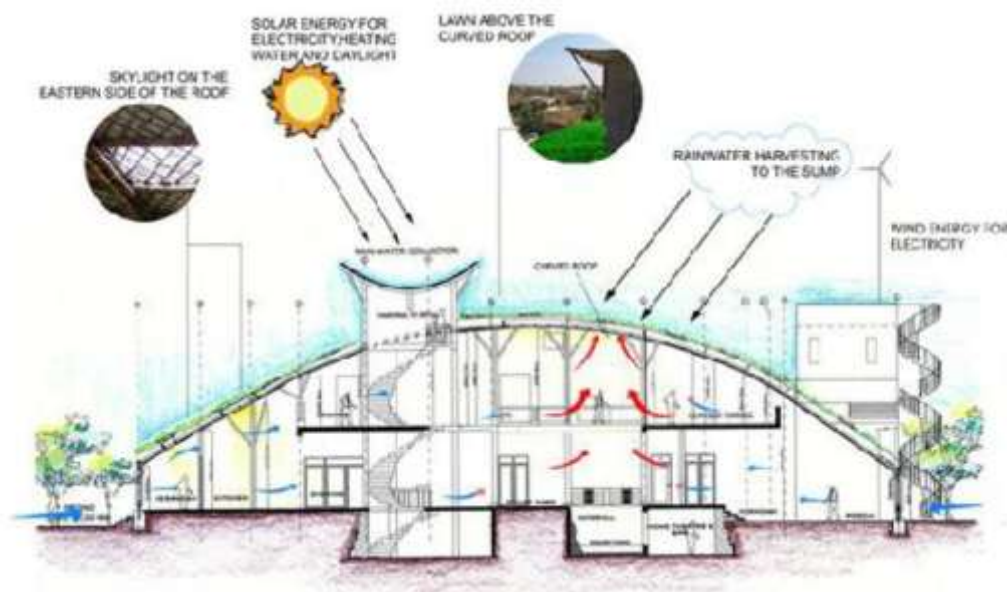


Figure 6.3.8: Longitudinal section through the residence

## 7. CHAPTERS OF STUDY

### 7.1 Chapter 1- Organic Architecture and its rejuvenating effects

For the sort of architecture, that might generate positive vibes by its very existence, being close to nature can be of great help. Also being very clear with the thought, that nature is a part of such practice and not the concept entirely.

The term coined by Frank L. Wright, organic architecture takes its ideas from nature. The very textures, materials and forms are derived from the natural realm on the earth. For instance, to peace out ourselves from our daily mundane lives, we look out for vacations in the woods or suburbs, that are closer to nature. The background to both these situations is variable, in the first case it's the man-made architecture around us, while in the second situation its nature. Organic architecture principles explain how we could incorporate those natural elements to camouflage our man-made world with the existing nature.

### 7.2 Chapter 2- Feng Shui concepts for rejuvenation through architecture

Feng Shui architecture aims at providing a beneficial energy to the built environment. Thus, taking lessons from this practice would help us to identify how built environs can be rejuvenating to its users. Harvard Choy, a Feng Shui architect, has explained that architecture which follows the Feng Shui concept must be identified with the *16 core principles of Feng Shui* stated by him. Some of them shall be discussed here.

- An integrated and holistic system

A built complex must be connected well and solving its purpose at both micro and macro levels. This implies that the circulation and connecting zones must also be given prime attention while designing the major usable spaces. It also implies that the individual spaces must always look as if complimenting each other, and not supplementing.

- Being Suitable and Appropriate to the Restriction and Limitation of the Site

A building must always look as if growing up from the site itself. It must always be contextual with its surroundings.

- Carry the Yin and Embrace the Yang

Yin and yang in the Feng Shui concept mean positive and negative. This principle can be deciphered as architecture that must respond appropriately to both the positive and negative aspects of a context. He further explains how the buildings should sit on the shadier side to the north, facing the warmer side to the south, so that it can take advantage of china being generally higher to the NW and lower to the SE, to protect the house from the cold wind coming from the higher direction.

- Observe the Form and Examine the Configuration

Observation and investigation of the landform to locate the correct site for the dwelling must be done. After locating the correct site, we must plan the spaces further in a synchronised manner, according to the usage of each space.

- Determine the Amount and the Standard

Choy explains that the area of a space must always be in proportion with the capacity of people it has to sustain. This must be fixed as a standard to survive positively, so that the resources available keep up with the population.

- Suitably Located in the Middle

Any built must always stand out as the main building in the centre and the auxiliary blocks surrounding the host. "Residing in the centre" does not mean that it is located dead in the middle but located at the most beneficial location co-ordinating activities from all the other blocks.

### 7.3 Chapter 3- How the following architectural aspects could respond to the user?

#### 1. Light

An essential element of nature, light has been scientifically proven as being a necessity for humans to lead a healthy life. Taking in natural light in direct or indirect ways, has become essential today. Thus, the built environment needs to use elements that bring in more light, also in the most apt quantity. Skylights, courtyards, and atriums are the elements in built that could increase the interaction of light with the user.

#### 2. Material

Material and texture go hand in hand. Texture causes an immense effect on the psychology of humans. The sense of feel, that is, touch, is influenced by the material finishes, be it smooth finishes or rough. However, the space and its function shall define the finish which is required.

Material also defines the tint of shades of a space. The amount of light absorbed and reflected is dependent on the material. Humans are more attached to spaces constructed with nature-related materials. Perhaps, nature-like finishes could also be created with machines in today's times.



Figures 7.3.1/ 7.3.2 : Material finish as an element; Light as an element

#### 3. Colour

Colour has the characteristic of affecting the emotional condition of humans. For instance,

**-Red:** brings warmth and excitement. It enhances blood circulation and pressure, and can be beneficial at the physical exercise places, but, it should be kept away from the calming and relaxation areas such as meditation rooms and study spaces.

**-Yellow:** brings happiness and mental creativity. It can help with issues related to depression, tension, mental and nervous exhaustion. Yellow can be beneficial at libraries and study areas.

**-Blue:** brings stillness, serenity and faith. It reduces blood pressure, heart beat and brainwaves. Blue can be used in calming environments such as meditation, but it isn't useful in social and communal areas.

**-White:** brings purity, positivity and innocence. It is believed that white has the power of enhancing the spiritual characteristics when added to any colour. White suggests coolness and cleanliness. [3]

#### 4. Aural/ sound effects

To create soothing environs, noises that are unnecessary must be omitted. Like the noises from outer roads surrounding a built, the honking and the traffic must be blocked. Silence shall be the first call, thus to design keeping in mind the scale of the built, and acoustic treatments shall be taken care of.

### 7.4 Chapter 4- Human senses and the built

Architecture and the built environment has major potential in infusing emotions into the minds of its users, be it positive or negative. Buildings have the power to interact with the senses (of sight, smell, sound and touch) and trigger them towards well-being and rejuvenation. For instance, using building elements and material finishes keeping in mind the effect they might have on the human brain would be a step toward such architecture style.

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### REFERENCES

1. Paul, S 2016; Architecture+Design, August 2016.
2. Abid, N 2015; Infusing wellness: Rejuvenation Centre, Unitech Institute of Technology Research Bank, accessed February 14, 2017.
3. Theory of Phenomenology : Analysing Substance, Application and Influence
4. Freeman M., Wang X. 2008, China\_Contemporary, 2008.
5. Choy H. ; The 15 Core Principles Of Feng Shui, European College of Feng Shui, accessed March 26, 2017. (<http://www.fengshui-college.org/articles/the-15-core-principles-of-feng-shui>)
6. Feng Shui Buildings, Feng Shui Institute, accessed March 26, 2017. ([http://www.feng-shui-institute.org/Feng\\_Shui/fengshuibuildings.html](http://www.feng-shui-institute.org/Feng_Shui/fengshuibuildings.html))
7. [https://fenix.tecnico.ulisboa.pt/downloadFile/3779571248810/Feng\\_Shui.pdf](https://fenix.tecnico.ulisboa.pt/downloadFile/3779571248810/Feng_Shui.pdf)
8. Weinman R. 2017, Peter Zumthor: Austere Buildings with an Existential Purpose, The Culture Trip, accessed March 26, 2017. (<https://theculturetrip.com/europe/germany/articles/peter-zumthor-austere-buildings-with-an-existential-purpose/>)
9. House of Five Elements- Mansaram Architects, Architecture Live, October 5, 2016, accessed March 3, 2017.
10. Ryan R. 2015, Thermal Baths in Vals by Peter Zumthor, Architectural Review, August 1, 2015, accessed March 26, 2017.
11. Polhena M. 2012, New Organic Architecture: Breaking the Wave (review), The Architect, July 2012, accessed March 29, 2017.

[1] Ryan R. 2015, Thermal Baths in Vals by Peter Zumthor, Architectural Review.

[2] House of Five Elements- Mansaram Architects, Architecture Live.

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An alumna of Faculty of Architecture, Dr. APJ Abdul Kalam Technical University (formerly known as Government College of Architecture, Lucknow), Meghna Srivastava is currently working and handling projects as an architect at Anagram Architects, New Delhi, making her contributions to the field of architecture.