



TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
DEPARTMENT OF ARCHITECTURE
PULCHOWK CAMPUS
PULCHOWK, LALITPUR

THESIS ON
VIPASSANA MEDITATION CENTRE
A JOURNEY TO WELL BEING

SUBMITTED BY:
AMAN MANANDHAR
074BAE204

SUBMITTED TO:
DEPARTMENT OF ARCHITECTURE

MAY, 2023

COPYRIGHT

The author has agreed that the library, Department of Architecture, Pulchowk Campus, Institute of Engineering may make this thesis freely available for inspection. Moreover, the author has agreed that permission for extensive copying of this thesis for scholarly purpose may be granted by the professor who supervised the work recorded herein or, in their absence, by the Head of the Department wherein the thesis was done. It is understood that the recognition will be given to the author of this report and to the Department of Architecture, Pulchowk Campus, and Institute of Engineering in any use of the material of this project report. Copying or publication or the other use of this thesis for financial gain without approval of the

Department of Architecture, Pulchowk Campus, Institute of Engineering and author's written permission is prohibited. Request for permission to copy or to make any other use of the material in this thesis in whole or in part should be addressed to:

Head of department
Department of Architecture
Pulchowk Campus, Institute of Engineering
Pulchowk, Lalitpur
Nepal

DECLARATION

I declare that this dissertation has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree. I state that this dissertation is the result of my own independent work/investigation, except where otherwise stated. I hereby give consent for my dissertation, if accepted, to be available for photocopying and understand that any reference to or quotation from my thesis will receive an acknowledgement.

AMAN MANANDHAR

April 13,
2023

Acknowledgement

I would like to express my sincere gratitude to the Department of architecture, Pulchowk campus for providing me the opportunity as well as necessary guidance and resources for my architectural thesis on Vipassana meditation centre. I would like to express my deepest gratitude to my thesis supervisor **Asso. Prof. Dr. Ashim Ratna Bajracharya** for his mentorship and guidance.

I would also like to thank the Vipassana centre and the art of living centre for providing me necessary guidance and suggestions to support Architectural thesis. I am thankful to have guided me and my seniors, colleagues and family for their support and motivation.

AMAN MANANDHAR

074BAE204

Abstract

Vipassana meditation is the quintessence of Buddha's teaching . It is a technique of self observation , an objective observation of the mind - body phenomena with a view to achieving purification of mind , which leads to total eradication of mental defilements and inculcates such wholesome qualities as loving - kindness , equanimity , sympathetic joy and compassion . The technique is simple , scientific , universal and available to all irrespective of caste , creed , nationality or beliefs .

For the practice of Vipassana meditation , a quiet and congenial environment is an important requirement . When Sayagyi U Ba Khin , the most distinguished world teacher of Vipassana , established the first Vipassana meditation centre in Yangon (Rangoon) in Myanmar (Burma) , he conceived a novel idea of building a hollow pagoda with cells inside for individual meditation .

Ten - day residential Vipassana courses are organized for new students . As a student becomes more established in the technique , more serious courses of Satipatthana are offered , as well as long duration courses of 20 , 30 and 45 days . In addition , Anapana courses are held for children of eight to fifteen years of age .

Vipassana centers provide an institutional framework and environment for the practice and training of Vipassana meditation .

Table of Contents

1. INTRODUCTION.....10

 1.1 *Background*..... 10

 1.2 *Project Justification*..... 11

 1.3 *Problem Statement* 12

 1.4 *Project Component*..... 12

 1.5 *Methodology*..... 13

 1.6 *Objectives*..... 14

2. LITERATURE REVIEW15

 2.1 *Vipassana*..... 15

 2.2 *Energy Points in our body*..... 23

 2.3 *Required Elements*..... 25

3. CASE STUDY30

 3.1 *Nepal Vipassana Center* 30

 3.2 *Dhamma kitti Vipassana Center* 44

 3.3 *Dhamma Korea Vipassana center*..... 49

 3.4 *Osho Tapoban*..... 52

 3.5 *Dhamma Ambika*..... 57

 3.6 *Dhamma Vikasa* 61

 3.7 *Dhamma Gaar Kot danda*..... 65

4. SITE ANALYSIS.....69

 4.1 *Location* 69

 4.2 *Site and its surroundings* 69

 4.3 *Natural physical feature* 70

 4.4 *SWOT Analysis*..... 71

5. PROGRAMME FORMULATION.....74

6. CONCEPT DEVELOPMENT79

 6.1 *Site and Zoning* 79

 6.2 *Philosophical concept*..... 82

 6.3 *Play of Emotions along with the built* 83

 6.4 *Relation and Connection* 83

 6.5 *Main Concept with 3D Development* 84

6.6	<i>Design Development</i>	84
6.7	<i>Individual Functions</i>	87
7.	SERVICES	91
8.	ARCHITECTURAL DRAWINGS	92
9.	REFERENCES	93

LIST OF FIGURES

Figure 2-1: Process of practicing Vipassana.....	15
Figure 2-2: The Five Precepts	17
Figure 2-3:Relation Between Body , Mind and Spirit.....	23
Figure 2-4:Chakras in our body	24
Figure 2-5: Chakras and their significances.....	24
Figure 2-6: Wooden Floors.....	25
Figure 2-7:Colour Palette.....	26
Figure 2-8:Ventilation	27
Figure 2-9:Orientation and geometry	27
Figure 2-10:Circular Plan	29
Figure 2-11:Pyramid Structure.....	29
Figure 3-1: Nepal Vipassana Center.....	30
Figure 3-2: Meditation Hall for long course	31
Figure 3-3: Meditation Hall for 10 days Course	32
Figure 3-4: Residential Quarter.....	33
Figure 3-5: Kitchen and Dining Hall.....	34
Figure 3-6:Residential Quarter.....	34
Figure 3-7: Mini Hall 1	34
Figure 3-8: Office Room.....	35
Figure 3-9:Residential Quarter.....	35
Figure 3-10:Landscaping	35
Figure 3-11: Master plan of whole site.....	36
Figure 3-12:Office	37
Figure 3-13:Parking.....	37
Figure 3-14: Main Dhamma Hall	38
Figure 3-15: Plan of Sunya Ghar.....	38
Figure 3-16: Mini Hall 1	39
Figure 3-17: Residential Quarter Plan	40
Figure 3-18: Male and Female Dining.....	40
Figure 3-19: Common Kitchen Plan.....	41
Figure 3-20: Landscaping	41
Figure 3-21:Generators used.....	42
Figure 3-22: Dhamma Kitti Vipassana Center.....	44
Figure 3-23: Residential Block 1.....	45
Figure 3-24:Residential Block 2	45
Figure 3-25: 3D of whole site	49
Figure 3-26: Main Hall	50
Figure 3-27: Meditation Space.....	51
Figure 3-28: Rajneesh meditation hall.....	52
Figure 3-29: Meditation hall	53
Figure 3-30:Osho Samadi	54
Figure 3-31:Sujata Kitchen	54
Figure 3-32: Quarters.....	55

Figure 3-33: Natural spring.....	56
Figure 3-34: Master plan.....	57
Figure 3-35: Plan of Dhamma Hall	58
Figure 3-36: 3D of Dhamma Hall	58
Figure 3-37: Kitchen Plan.....	59
Figure 3-38: Plan of Residences.....	60
Figure 3-39: 3D view of Site.....	61
Figure 3-40: Dhamma Hall	62
Figure 3-41: Residence Area.....	62
Figure 3-42: Master plan of Dhamma Vikasa.....	63
Figure 3-43: Master Plan of Dhamma gaar.....	65
Figure 3-44: Main meditation hall.....	66
Figure 3-45: Double wall for sound insulation	66
Figure 3-46: Mini hall.....	67
Figure 3-47: Kitchen.....	67
Figure 3-48: Male Dining	68
Figure 3-49: Male Quarter with attached Bathroom	68
Figure 4-1: Access route for proposed site (satellite image)	69
Figure 4-2: 2D of Site	70
Figure 4-3: North-South Section of the site	70
Figure 4-4: Section Y-Y	71
Figure 4-5: Site from road.....	72
Figure 4-6: Contour Land	72
Figure 4-7: Site photo	73
Figure 4-8: Road Condition	73
Figure 6-1: Site with entrance	79
Figure 6-2: Zoning.....	80
Figure 6-3: Sun and wind path.....	81
Figure 6-4: Zoning.....	82
Figure 6-5: Circle	82
Figure 6-6: Play of emotion	83
Figure 6-7: Main concept.....	84
Figure 6-8: Master plan.....	87

LIST OF TABLES

Table 2-1: Course time table.....	22
Table 3-1: Accommodation types	55
Table 5-1: Programme formulation.....	74

1. INTRODUCTION

Meditation is the means by which we experience the love, peace, and stillness that is within ourselves. It is the process of experiencing God's love for ourselves by taking our attention away from the world outside and focusing it within.

Meditation has been practiced since antiquity in numerous religious traditions and beliefs. Part of the path towards enlightenment and self-realization. Meditation centre is one of the well known processes of stress relieving therapies. It is popular among all the religion , country and people of all the age groups. It is one of the practices which have no boundaries to cast and racial discrimination. Many had suffered, and the remaining is very much susceptible and prone to severe maladies which in cases might be chronic and even life threatening.

The "Meditation Centre" is a non-denominational and interfaith space, where you can pray, meditate, or just relax in silence. It is an area which allows a person to walk to the conscience, where freedom is considered to be the state of mind. Different physical and mental exercises are carried out to cope with illness or to enhance overall health and well being to increase calmness and physical relaxation or to improve physiological balance.

1.1 Background

The concept of meditation is not totally new for us as it has been partly the religion right from the ancient Vedic culture; from the very moment people were able to understand a religious language. Meditation is understood generally as the concentration of mind. There is lots of technique of meditation. They are different in philosophy, the approach and the religion. But the overall objective of any technique of meditation is to live a moral life, full of love, compassion, goodwill and tolerance because every religion essentially preaches morality.

The technique of vipassana meditation was rediscovered 2500 years ago by Gautam Buddha, and is the essence of what he practiced and taught during his entire life. Overtime, the teaching spread to the neighboring countries of Nepal, India, Burma, Srilanka, Thailand and other where it has a same ennobling effect.

Initially, the technique was limited only the "Bhikku-Sangha" i.e the organization of monks and nuns, but the Venerable Ledi Sayadaw (1846-1923), the Burmese Bhikku teacher, broke the trend and started teaching households also.

Development in the fields of science and technology, in transportation, communication, agriculture and machine, has revolutionized human life at the material level. But, in actuality, this progress is only superficial; underneath, modern men and women only living in conditions of great mental and emotional stress, even in developed and fluent countries.

Is there a way out of these seemingly insolvable problems? The answer is unequivocally, yes. All over the world today, the winds of change are readily apparent. People everywhere are eager to find a method which can bring peace and harmony, restore confidence in the efficiency of wholesome human qualities, and erect an environment of freedom and security from all types of exploration- social, religion and economic. Vipassana can be such a method.

Vipassana center are not the monasteries for the monks and nuns, but they are most welcome to visit in or joint to course. They are basically, center for the householder where they can learn the technique of leading peaceful and harmonious life. Center of Vipassana meditation are not clubs designed for the enjoyment of their members, they are not temple in which to perform religious ceremonies. They are not place for socializing. They are not commune where member of sect can live in isolation from the outside world, according to the own peculiar rules.

1.2 Project Justification

Why meditation?????

Everybody seeks peace and harmony , because this is what we lack in our lives. To come out of agitation , irritation , disharmony. When we suffer from these miseries, we don't keep them to ourselves. Unhappiness permeates the atmosphere around someone who is miserable, and those who come in contact with such a person also become affected. Certainly this is not a skillful way to live. People are feeling as they are in family and society due to cutthroat competition , unnecessary desire and lack of love.

Social violence, war, drug addiction and many more social problems are increasing day by day.

Therefore there is a need of place that offers a multitude of possibilities for inner discovery and exploration, awareness and relaxation.

1.3 Problem Statement

Stress is one of the biggest health and safety challenges in Europe and second most reported work related health problem. In age of technology where people are constantly using electronic gadgets, their time spend with or on nature has been limited. The modern civilization has contributed not only new innovations but also physical trouble, mental, disturbance, tensions to people who are not in a way to life in its way. With rapid urbanization, cities are developing and getting denser. Open spaces are to its minimum or are limited in cities.

Hence , Strategic planning and design seems much required to create rejuvenating settings in the available spaces or to transform the environment of present public places into rejuvenating settings.

1.4 Project Component

The meditation center would accommodate a total no. of 170 meditators.

Division on the basis of level of gender

- Male meditators - 55
- Female meditators – 55

Division on the basis of level of meditation

- 10 days course - 110
- Long Course – 60

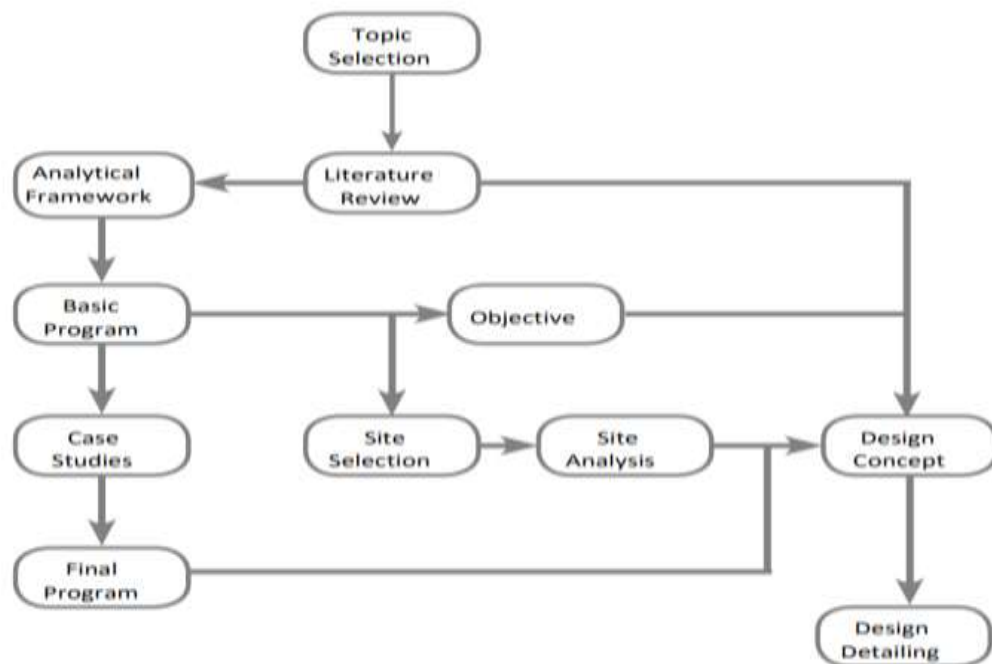
The required spaces are;

- Administration Block
- Main meditation hall
- Separate meditation halls for separate course

- Mini hall for different language courses
- Separate accommodation block for male and female
- Teacher’s quarters
- Sunya ghar (Isolation Cell)
- Discourse Hall
- Kitchen/ Dining
- Outdoor meditation spaces
- Dormitories for volunteers and meditators
- Parking

1.5 Methodology

The following outlined methodology will be followed for the thesis work.



1.6 Objectives

The objectives of the project are:

- To carryout research on better and essential factors for the meditation centre and develop the analytical framework for good meditation centre.
- To make people realizing the fact of life and bring back the lacking calmness in the people residing in the area.
- To make meditational practices more easier and effective and also incorporate sustainable approach to design meditation centre.
- To create a good architectural space for meditation, where there is favorable environment and needed facilities to teach, practice , to do the research on meditation and to draw the attention of normal people toward the meditation through architecture.

2. LITERATURE REVIEW

2.1 Vipassana

1. What Vipassana is:

- It is a technique that will eradicate suffering
- It is a method of mental purification which allows one to face life's tensions and problems in a calm, balanced way.
- It is an art of living that one can use to make positive contributions to society.

2. What Vipassana is not:

- It is not a rite or ritual based on blind faith.
- It is neither an intellectual nor a philosophical entertainment.
- It is not a rest cure, a holiday, or an opportunity for socializing.
- It is not an escape from the trials and tribulations of everyday life.

(McMahan 2008)



Figure 2-1: Process of practicing Vipassana

Source: Pininterest,2018

3. The Technique:

Vipassana, which means to see things as they really are, is one of India's most ancient techniques of meditation. It was rediscovered by Gatama Buddha more than 2500 years ago and was taught by him as a universal remedy for universal ills, i.e., an Art of Living. This non-sectarian technique aims for the total eradication of mental impurities and the

resultant highest happiness of full liberation. Healing, not merely the curing of diseases, but the essential healing of human suffering, is its purpose.

Vipassana is a way of self-transformation through self-observation. It focuses on the deep interconnection between mind and body which can be experienced directly by disciplined attention to the physical sensations that form the life of the body and that continuously interconnect and condition the life of the mind. It is this observation-based self-exploratory journey to the common root of mind and body that dissolves mental impurity resulting in a balanced mind full of love and compassion. The natural laws underlying one's thoughts, feelings, judgment and sensations become clear. Through direct experience, the nature of how one grows or regresses, how one produces suffering or frees oneself from suffering is understood. Life becomes characterized by increased awareness, non-delusion, self-control and peace. (Dhammadharo ,1982)

4. The Tradition:

Since the time of Buddha until the present day, Vipassana has been handed down by an unbroken chain of teachers. Although Indian by descent, the current teacher in this chain, Mr. S.N. Goenka, was born and raised in Burma (Myanmar). While living there he had the good fortune to learn Vipassana from his teacher, Sayagyi U Ba Khin who was at the time a high Government official. After receiving training from his teacher for fourteen years, Mr. Goenka settled in India and began teaching Vipassana in 1969. Since then he has taught tens of thousands of people of all races and all religions in both the East and West. In 1982 he began to appoint assistant teachers to help him meet the growing demand for Vipassana courses. (Dhammadharo ,1982)

5. The Courses:

To learn Vipassana meditation one needs to develop one's own experience during a residential ten day course. A description and timetable of a typical ten day course may be found in the Code of Discipline. After completing a course and reaping the unique benefits of learning this simple, logical technique step-by-step while experiencing its depth, one can then take the practice home into daily life.

Each student who attends a Vipassana course is given this gift by a previous student. There is no charge for either the teaching, or for room and board. All Vipassana courses worldwide are run on a strictly voluntary donation basis. (Dhammadhara ,1982)

6. Code of Discipline:

The foundation of the practice is sīla - moral conduct. Sīla provides a basis for the development of samādhi- concentration of mind; and purification of the mind achieved through paññā- the wisdom of insight. (Dhammadhara ,1982)

7. The Precepts:

All who attend a Vipassana course must conscientiously undertake the following five precepts for the duration of the course;



Figure 2-2: The Five Precepts

Source: Pininterest,2016

There are three additional precepts which old students (that is, those who have completed a course with S.N. Goenka or one of his assistant teachers) are expected to follow during the course:

- to abstain from eating after midday
- to abstain from sensual entertainment and bodily decorations;
- to abstain from using high or luxurious beds.

Old students will observe the sixth precept by having tea without milk or fruit juice at the 5 p.m. break, whereas new student may have tea with milk and some fruit. The teacher may excuse an old student from observing this precept for health reasons. The seventh and eighth precept will be observed by all. (Dhammadharo ,1982)

a. Acceptance of the Teacher and the Technique:

Students must declare themselves willing to comply fully and for the duration of the course with the teacher's guidance and instructions; that is, to observe the discipline and to meditate exactly as the teacher asks, without ignoring any part of the instructions, nor adding anything to them. This acceptance should be one of discrimination and understanding, not blind submission. Only with an attitude of trust can a student work diligently and thoroughly. Such confidence in the teacher and the technique is essential for success in meditation.

b. Other Techniques, Rites, and Forms of Worship:

During the course it is absolutely essential that all forms of prayer, worship, or religious ceremony fasting, burning incense, counting beads, reciting mantras, singing and dancing, etc.- be discontinued. All other meditation techniques and healing or spiritual practices should also be suspended. This is not to condemn any other technique or practice, but to give a fair trial to the technique of Vipassana in its purity.

Students are strongly advised that deliberately mixing other techniques of meditation with Vipassana will impede and even reverse their progress, Despite repeated warnings by the teacher, there have been cases in the past where students have intentionally mixed this technique with a ritual or another practice, and have done themselves a great disservice. Any doubts or confusion which may arise should always be clarified by meeting with the teacher.

c. Interviews with the Teacher:

The teacher is available to meet students privately between 12 Noon and 1:00 p.m. Questions may also be asked in public between 9:00 and 9:30 p.m. in the meditation

hall. The interview and question times are for clarifying the technique and for questions arising from the evening discourses.

d. Noble Silence:

All students must observe Noble Silence from the beginning of the course until the morning of the last full day. Noble Silence means silence of body, speech, and mind. Any form of communication with fellow student, whether by gestures, sign language, written notes, etc., is prohibited. Students may, however, speak with the teacher whenever necessary and they may approach the management with any problems related to food, accommodation, health, etc. But even these contacts should be kept to a minimum. Students should cultivate the feeling that they are working in isolation.

e. Separation of Men and Women:

Complete segregation of men and women is to be maintained. Couples, married or otherwise, should not contact each other in any way during the course. The same applies to friends, members of the same family, etc.

f. Physical Contact:

It is important that throughout the course there be no physical contact whatever between persons of the same or opposite sex.

g. Yoga and Physical Exercise:

Although physical yoga and other exercises are compatible with Vipassana, they should be suspended during the course because proper secluded facilities are not available at the course site. Jogging is also not permitted. Students may exercise during rest periods by walking in the designated areas.

h. Religious Objects, Rosaries, Crystals, Talismans, etc.:

No such items should be brought to the course site. If brought inadvertently they should be deposited with the management for the duration of the course.

i. Intoxicants and Drugs:

No drugs, alcohol, or other intoxicants should be brought to the site; this also applies to tranquilizers, sleeping pills, and all other sedatives. Those taking medicines or drugs on a doctor's prescription should notify the teacher.

j. Tobacco:

For the health and comfort of all students, smoking, chewing tobacco, and taking snutt are not permitted at the course.

k. Food:

It is not possible to satisfy the special food preferences and requirements of all the meditators. Students are therefore kindly requested to make do with the simple vegetarian meals provided. The course management endeavors to prepare a balanced, wholesome menu suitable for meditation. If any students have been prescribed a special diet because of ill-health, they should inform the management at the time of application. Fasting is not permitted.

l. Clothing

Dress should be simple, modest, and comfortable. Tight, transparent, revealing. Or otherwise striking clothing (such as shorts, short skirts, tights and leggings, sleeveless or skimpy tops) should not be worn. Sunbathing and partial nudity are not permitted. This is important in order to minimize distraction to others.

m. Laundry and Bathing

No washing machines or dryers are available, so students should bring sufficient clothing. Small items can be hand-washed. Bathing and laundry may be done only in the break periods and not during meditation hours.

n. Outside Contacts

Students must remain within the course boundaries throughout the course. They may leave only with the specific consent of the teacher. No outside communications is allowed before the course ends. This includes letters, phone calls and visitors. Cell phones, pagers, and other electronic devices must be deposited with the management until the course ends. In case of an emergency, a friend or relative may contact the management.

o. Music, Reading and Writing

The playing of musical instruments, radios, etc. is not permitted. No reading or writing materials should be brought to the course. Students should not distract themselves by taking notes. The restriction on reading and writing is to emphasize the strictly practical nature of this meditation,

p. Recording Devices and Cameras

These may not be used except with the express permission of the teacher.

q. Course Finances

According to the tradition of pure Vipassana, courses are run solely on a donation basis. Donations are accepted only from those who have completed at least one ten-day course with S.N. Goenka or one of his assisting teachers. Someone taking the course for the first time may give a donation on the last day of the course or any time thereafter .

In this way course are supported by those who have realized for themselves the benefits of the practice. Wishing to share these benefits with others, one gives a donation according to one's means and volition. Such donations are the only source of funding

for course in this tradition around the world. There is no wealthy foundation or individual sponsoring them. Neither the teachers nor the organizers receive any kind of payment for their service. Thus, the spread of Vipassana is carried out with purity of purpose, free from any commercialism. Whether a donation is large or small, it should be given with the wish to help others: "The course I have taken has been paid for through the generosity of past students; now let me give something towards the cost of a future course, so that others may also benefit by this technique.

r. The Course Timetable

The following timetable for the course has been designed to maintain the continuity of practice. For best results students are advised to follow it as closely as possible.

Table 2-1: Course time table

4:00 am	Morning wake-up bell
4:30-6:30 am	Meditate in the hall or in your room
6:30-8:00 am	Breakfast break
8:00-9:00 am	Group meditation in the hall
9:00-11:00 am	Meditate in the hall or in your room according to the teacher's instructions
11:00-12:00 noon	Lunch break
12 noon-1:00 pm	Rest and interviews with the teacher
1:00-2:30 pm	Meditate in the hall or in your room
2:30-3:30 pm	Group meditation in the hall
3:30-5:00 pm	Meditate in the hall or in your own room according to the teacher's instructions
5:00-6:00 pm	Tea break

6:00-7:00 pm	Group meditation in the hall
7:00-8:15 pm	Teacher's Discourse in the hall
8:15-9:00 pm	Group meditation in the hall
9:00-9:30 pm	Question time in the hall
9:30 pm	Retire to your own room--Lights out

2.2 Energy Points in our body

The spiritual body is organized into seven primary chakras, or energy points which connect out it with the physical body. If the body is peaceful in its environment, then so will the mind and spirit. The mind, body and spirit are the one.

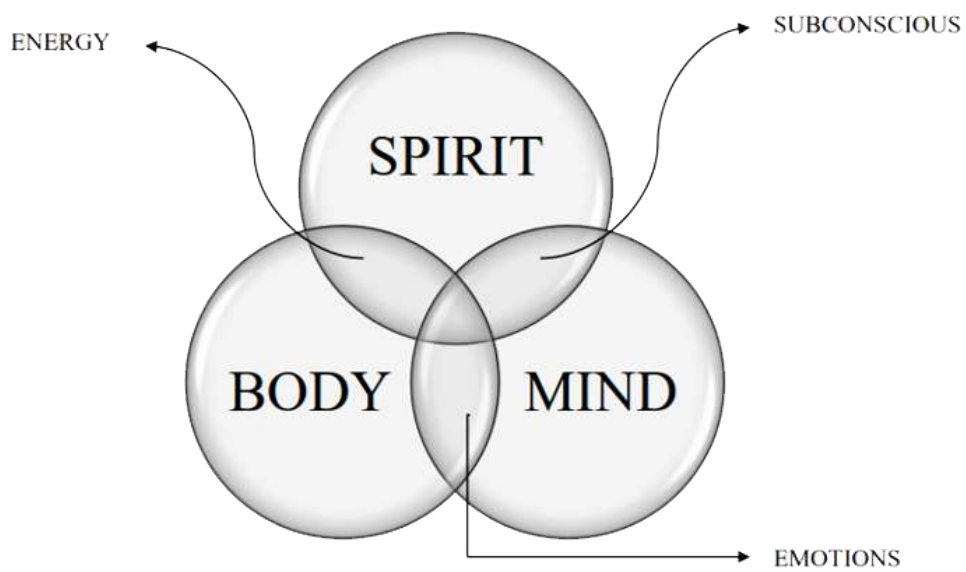


Figure 2-3:Relation Between Body , Mind and Spirit.

Source; Pinterest, 2018

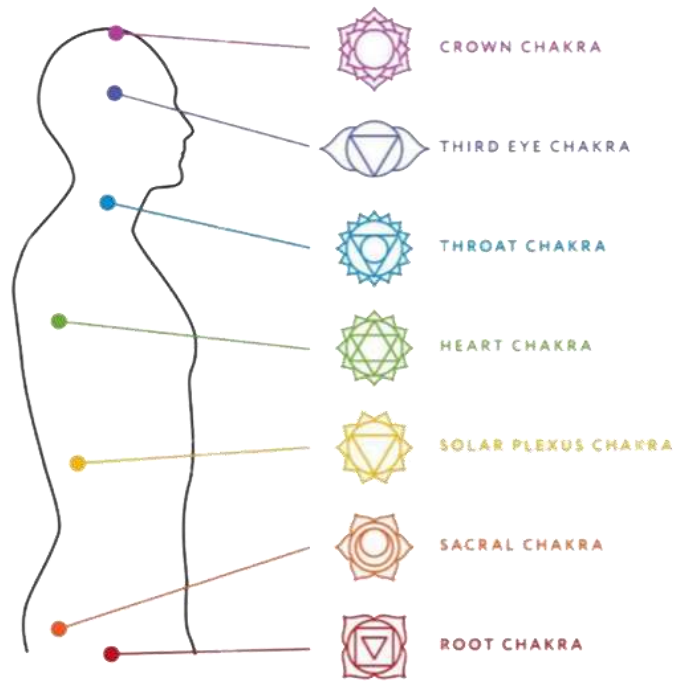


Figure 2-4: Chakras in our body

Source: 123RF, (2016)

ROOT CHAKRA (Muladhara)	SACRAL CHAKRA (Svadhishthana)	SOLAR PLEXUS CHAKRA (Manipura)	HEART CHAKRA (Anahata)	THROAT CHAKRA (Vishuddha)	THIRDEYE CHAKRA (Ajna)	CROWN CHAKRA (Sahasrara)
SEAT OF GROUNDING	PLACE OF SACRED CREATION	PLACE OF VITALITY	SEAT OF LOVE	SEAT OF WISDOM	SEAT OF INTUITION	CONNECTION TO UNIVERSE
Safe Nourishment Love Rooting	Fluidity Relaxation Fearlessness Peace	Confidence Will Joy	Balance Compassion	Creativity Resonance Truth	Conscious dreaming Inner knowing	
Fig 2.1.2: Exploration of chakras through form (source: Anur)						
Body System: Muscular-Skeletal and Excretory	Body System: Reproductive	Body System: Upper Abdomen – Digestive	Body System: Cardiovascular and Pulmonary	Body System: Throat – Vocal System	Body System: Middle of Forehead – Sensory System.	Body System: Nervous System
Color: Red	Color: Orange	Color: Yellow.	Colour: Green & Pink	Color: Blue.	Color: Violet.	Color: White.
Element : Earth	Element: Water	Element: Fire	Element: Love	Element: Air	Element: Earth	Element: Light
Stones: Iron, Basalt, Granite, Petrified Wood, Ruby.	Stones: Coral, Carnelian, Orange Amber, Calcite.	Stones : Yellow Amber, Citrine, Gold, Topaz, Yellow Jade, Gold Quartz, Pyrite.	Stones : Rose Quartz, Emerald, Jade, Green Malachite, Copper.	Stones : Aquamarine, Blue Calcite, Turquoise, Azurite.	Stones: Iolite, Amethyst, Sugilite, Charoite, Purple Fluorite, Tanzanite.	Stones : Clear Quartz Crystal, Diamond, Selenite, Alexandrite, Apophyllite.

Figure 2-5: Chakras and their significances

Source: ScienceABC, (2016)

2.3 Required Elements

- AESTHETICS AND MATERIALS

Franco (2016), explains about the use of wooden floors and warm materials for better meditation practices.



Figure 2-6: Wooden Floors

Source: palelaibuddhisttemple.org

- MAIN HALL

The main hall shall be a larger, central space free plan without much harder corners. Yoga mat stretched at an area of 1.7*60 meters and at least 50 cm between the mats. There should be raised floor level for teachers and instructors. (Source: yoga international-vaastu)

- LIGHTING

Less distracting ambient lights with less illumination and warm colored lights should be used. These lights provide sense of calmness and purity to the meditators.

- ACOUSTICS

Acoustics is an important aspect in meditation process. Meditation in an open landscapes helps to listen to sounds of nature, birds, sound of water and fresh air. Acoustics can be achieved through indoor gardens and courtyards, water bodies, streams, sound damping between walls, etc. (Patricia Carrington ,1977, Freedom in meditation)

- **COLORS**

Colors affect psychology of the people. It is preferred to use the earth color palette: soft colors combination. Balance between lighting, acoustics and main hall is a must.



Figure 2-7: Colour Palette

Source: Pinterest, 2018

- **VENTILATION**

The openings should be placed at alternate directions for the proper flow of air. Cross ventilation plays an important role in hot and humid climates. (Source: Spiritual Psychology by Akbar Husain 2006)

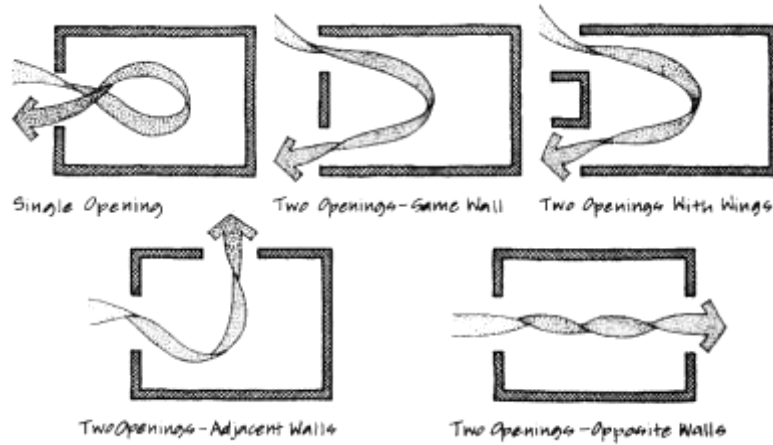


Figure 2-8: Ventilation

Source: makaan.com

- **ORIENTATION AND GEOMETRY**

Orientation and shapes define the importance and identity of a place. The orientation must be in such a way it attracts viewers’ attention and draws towards itself.

<p>SMELL</p> <p>Pleasant aromas- reduce blood pressure, slow respiration and lower pain- perception levels. Negative odors - stimulate anxiety, stress and fear. (Sunkara, 2014)</p>		<p>LIGHT</p> <p>Light - defining a space, dramatic lighting for creating sense of spirituality -Regulation of melatonin production, stress hormones (Shochat, et al., 2009)</p>	
<p>SOUND/ NOISE</p> <p>Natural sounds- calming effect, improves sleep and work quality. Music- relaxes the mind and stimulates the positive vibrations.</p>		<p>ENVIRONMENTAL COMPLEXITY</p> <p>Variation in environment -reduced depression levels, cognitive functioning of users, stimulate positive responses in the brain.</p>	
<p>TEMPERATURE</p> <p>Natural ventilation - regulates indoor temperature Climatologically sensitive design provokes healing.</p>		<p>FRESH AIR AND VENTILATION</p> <p>Fresh air is beneficial to the mental health. Natural air - improves indoor air quality, relieve stress (Schweitzer et al. 2004).</p>	

Figure 2-9: Orientation and geometry

Source: Mahalaxmi H.V, 2018

- **COLOR AND LIGHT**

Color affect our cellular structure, brain, nervous system, feeling and the body. Color is light and light nutrition for human body as it absorbs and draws the subtle energy within its cellular structure. Color and lighting play vital role in meditation. They both can act as an element of distraction as well as element of ease. Preferred colors include:

A. Blue

- a. Spirit of truth
- b. Inspiring, devotion, peace, inner knowledge and power.
- c. Pain reduction, calming mind and nerves

B. Yellow

- a. Spirit of wisdom and knowledge
- b. Judgement and understanding
- c. Activates motor nerves, stimulates the mind.

C. White

- a. Purity, discipline and joy
- b. Used for divine realization, humility and creative imagination

D. Violet

- a. Freedom, alchemy, justice and inspiration
- b. Good for mental, emotional disorders and emotional disturbances

- **FORM**

A. Circular

Vibrations are not believed to get stuck in the corners of the circular room. In a circular room there are multiple forces which act all towards one point of the room which is its center.

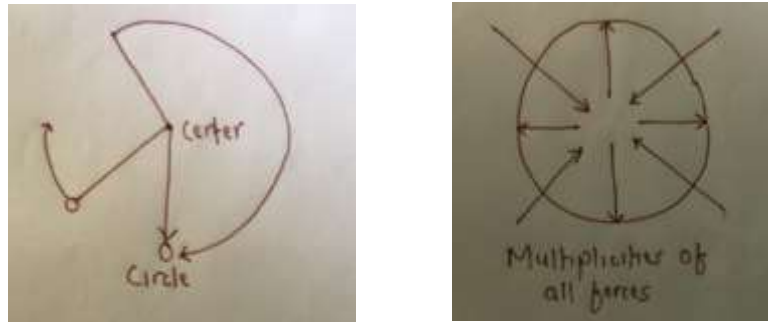


Figure 2-10: Circular Plan

B. Pyramid shape

Geometry of a pyramid attracts all the available cosmic and positive energy from its surroundings. Geometric amplifier which fastens the rate of meditation by three times. All the cosmic energy gets accumulated at a point which lies at one third of the height of pyramid.



Figure 2-11: Pyramid Structure

Source: deccanchronicle.com

- ENVIRONMENTAL COMPLEXITY AND HUMAN PSYCHOLOGY

Environmental complexity or the variation in the topography helps to increase the cognitive functions of brain, reduces depression and adds mental clarity to the person. so environmental complexity is to be incorporate in the design through the great response to the existing topography and landscapes.

3. CASE STUDY

3.1 Nepal Vipassana Center

- **Dhamma Shringa**, meaning Summit of Dhamma, was founded in April, 1981. Also known as the Nepal Vipassana Center.
- Located in the foothills of the Himalayas, overlooking the Kathmandu valley, about 12 km north of Kathmandu City.
- The Center's land covers nearly four acres. Various buildings serve for residences, ranging from dormitories to single rooms, two separate dining halls for men & women, and a few meditation halls.
- The center can comfortably accommodate about 250 people. A half-ring shaped building containing 84 meditation cells, is available for the old students.



Figure 3-1: Nepal Vipassana Center

Source: Dhamma.org

Reason for doing this Case study:

- It is the most successful meditation center and first one of the Nepal.
- To know overall planning concepts, room layouts, circulation.
- To understand the building response with nature and program
- To get the knowledge of how the architecture affects in the meditation

Introduction:

- Location: Muhanpokhari, Budhanilkantha, towards the north of Kathmandu
- Access: 2km from Budhanilkantha temple, 11km from Narayan Gopal chowk, Maharajgung
- Area: 39 ropanies
- Capacity: 250 meditators
- Surrounding: Military camp and Shivapuri national park to north, residence and resort to the south
- Topography: sloping down from north to south.



Figure 3-2: Meditation Hall for long course



Figure 3-3: Meditation Hall for 10 days Course

The Nepal Vipassana Center - Dharmashringa, is located in the foothills of the Himalayas, overlooking the Kathmandu valley, about 12 kilometer north of Kathmandu City. The Center's land covers nearly four acres and is bordered by a beautiful wildlife reserve. An abundant water supply nourishes the gardens, where flowers bloom throughout the year.

Various buildings serve for residences, ranging from dormitories to single rooms, two separate dining halls for men & women, and a few meditation halls. The center can comfortably accommodate about 250 people. Nepali-style vegetarian meals are served during courses.

History:

"Mani Harsha Jyoti and yadu Kumar Siddiqui once visited India and were influenced and attracted by the Vipassana meditation. After returning from there they built this centre initially with 3 ropani"

Age Group

- 8-12 years
- 12-18 years
- Above 18 yrs

Courses

- 3 days aana paana course
- 10 days short course (1-12 &14-25)
- Long course-15 days , 20 days, 30days, 45 days ,60 days

Components:

- Office
- Male and female teacher residence
- Parking
- Old teacher quarter
- Dhamma hall
- Kitchen
- Mini Halls
- Dining halls for long and short course
- Sunya Ghar
- Male accommodations
- Landscape
- Male teacher Residence
- Female accommodations



Figure 3-4: Residential Quarter



Figure 3-5: Kitchen and Dining Hall



Figure 3-6: Residential Quarter



Figure 3-7: Mini Hall 1



Figure 3-8: Office Room



Figure 3-9: Residential Quarter



Figure 3-10: Landscaping

Overall planning:

In overall planning of site segregation of male and female concept has played the main role. Meditation hall is centrally located Far from entry. The entry is located at the very front of the entrance which is easier for the visitors. Administration is near the entry. Geometric axis is absent but a functional axis is present. Organization of building doesnot disturb the movement pattern of old and new meditator. Trees as a natural landscaping element also used as a visual barrier. Movement is guided by the contour land. Planning is not done in architectural and in a mannered way. It is done in random process according to the need.

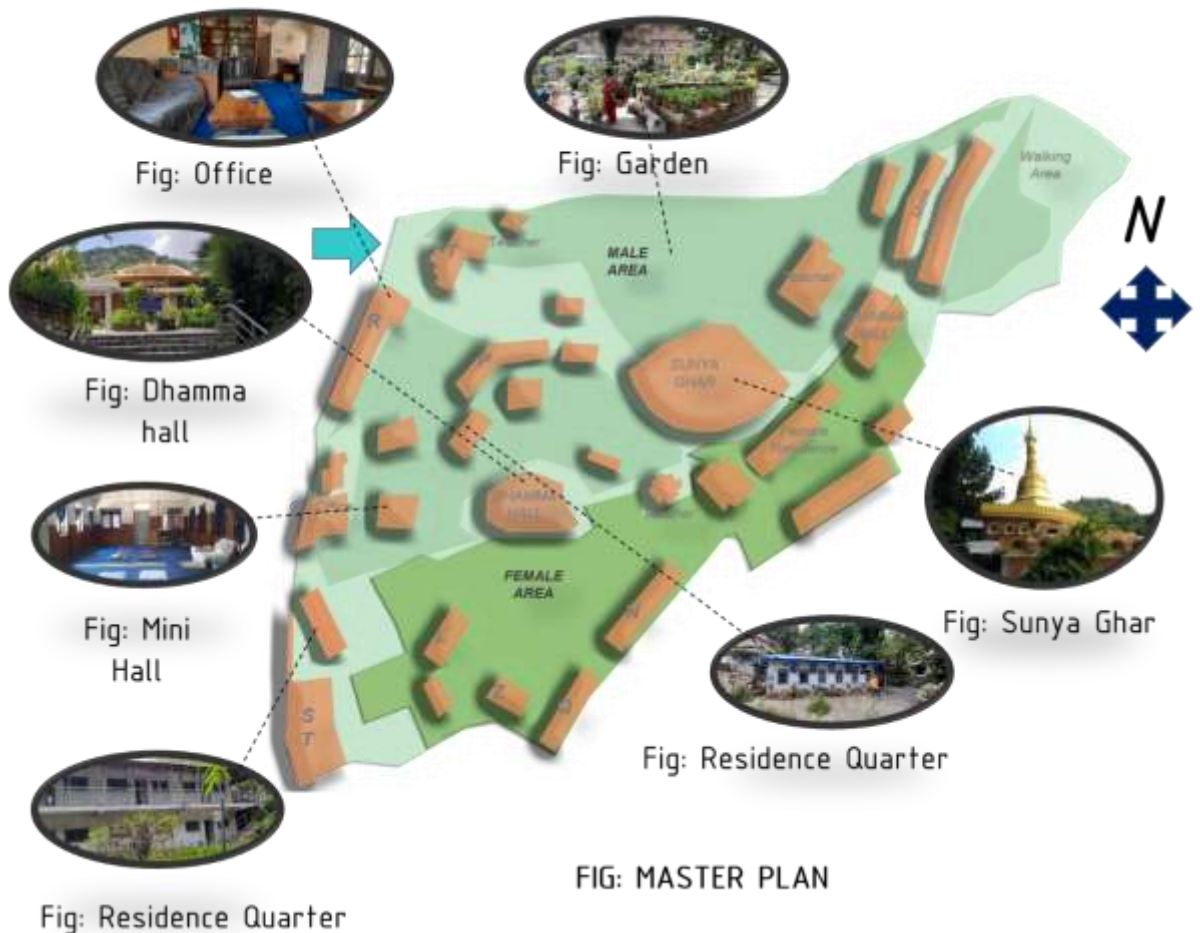


Figure 3-11: Master plan of whole site

Office and parking:

Since site planning is done in haphazardly and in a unmannered way, there is not specific place for parking. However small place for planning is separated for paring for 5 cars. Overall management is done by the volunteers and the workers and trustees. There is no any role of government other any NGO's and INGO's. It is run in donation basis which is given by the students who have completed the short course which is of 10 days.



Figure 3-12:Office



Figure 3-13:Parking

Dhamma Hall:

It is the main meditation hall which has the capacity of 250 students with the area of 5200 sqft. It is octagonal in shape which is equally divided into female and male area. It contains the ribbon windows and skylight for lighting inside the hall. Buffer area is created for sound insulation. White and grey is used for floor and curtains respectively. Radiated floor system heating system is installed with solar heating. No furniture except

sofa for guru is used. Separate entries for male student, female student, male teacher female teacher are provided. It contains technical room for control of sound. Steel is used for the overall support of ceiling.



Figure 3-14: Main Dhamma Hall

Sunya ghar:

A half-ring shaped building containing 84 meditation cells is available for the old students, as well as a separate complex for long and special courses, complete with accommodations and meditation facilities. It is built in pagoda form. Sunya ghar is also known as House of isolation.

It is a semi circular building arranged in a three different level. It contains &4 cells each measuring 4x8x8 ft. Vaults cover these cells .These cells are completely dark however, ventilation is provided through exhaust fan.

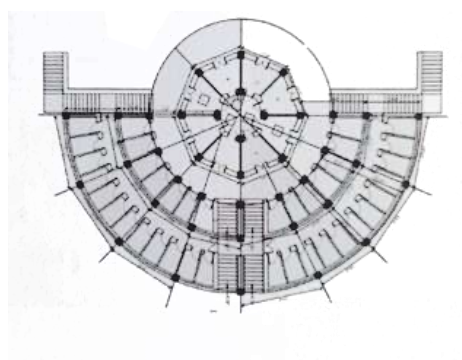


Figure 3-15: Plan of Sunya Ghar

Source: Dhamma.org

Mini Halls:

There are all together 7 mini halls with the capacity of 15-20 students. They are rectangular in plan with the area of 475 sq.ft.. Here meditation prawachan is given in newari language.



Figure 3-16: Mini Hall 1

Accommodations:

Separate accomodations are provided for female and short courses and long courses with the total capacity of 200 students, female and male teachers building.

Male accommodations:

5Blocks (V, W, PR, ST, R)- short course

Female accommodations:

4Blocks (LG, Q, N & Z)- short course

Long Course-3 Blocks with 3 Rooms

Washroom-3'x5

Bed Room-8'x9

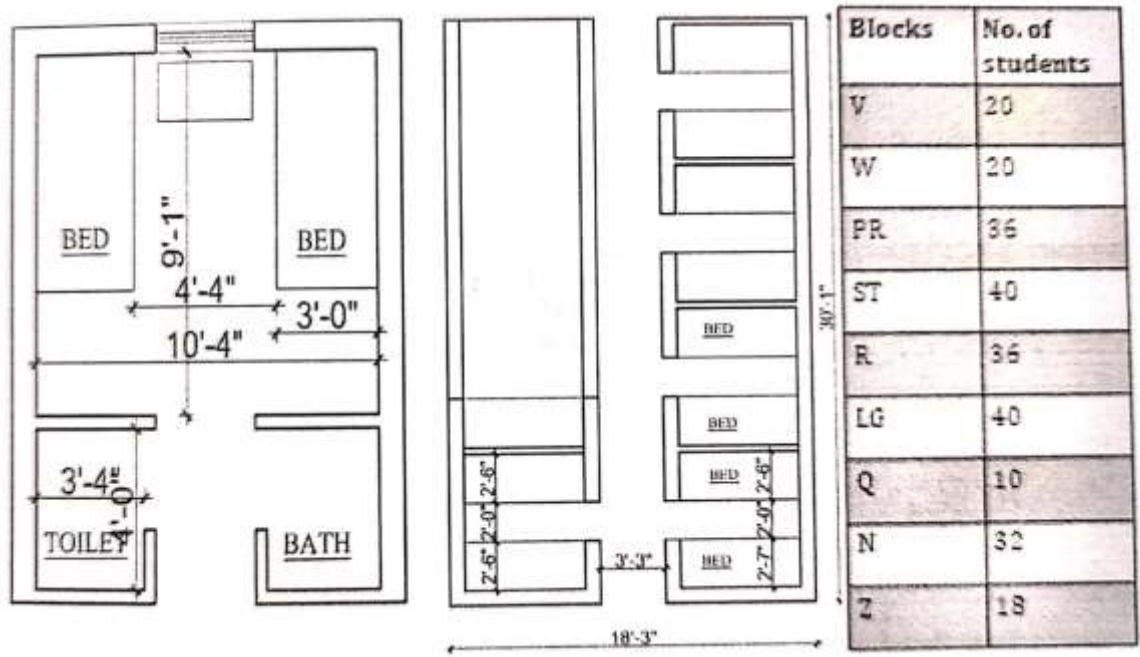


Figure 3-17: Residential Quarter Plan

Source: Dhamma.org

Kitchen and dining:

Single kitchen serves for both male and female dining. Kitchen has the total area of 624 sq.ft. Other stores are close to the kitchen like: fruit store, vegetable store, cylinder store, grainary store, etc. Kitchen building is 2 storied. Upper story contains dining for male short course. Separate hall is provided for female. Male dining has the area of 900 sq.ft. with the capacity of 50-60 and female dining has the area of 1200 sq. ft approx with the capacity of 100.

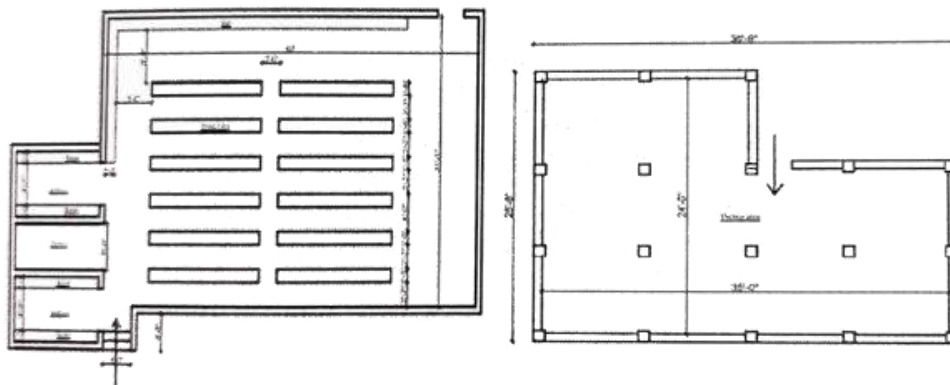


Figure 3-18: Male and Female Dining

Source: Dhamma.org

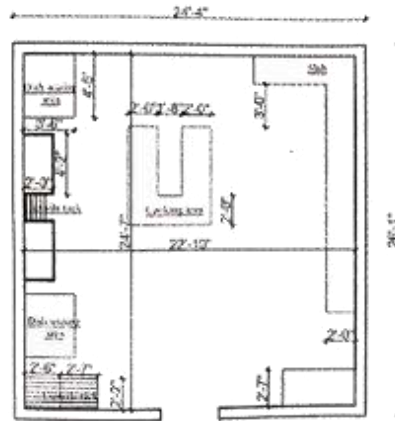


Figure 3-19: Common Kitchen Plan

Source:Dhamma.org

Landscape:

- It is 15% of built up area
- Plants are well used for circulatory guidance

Variety of native trees, plan and flower had enhanced the natural environment.

- Had followed the natural contour
- Contour designed by keeping steps



Figure 3-20: Landscaping

Architectural style:

- Sunya ghar is built in pagoda style
- No defined style due to phase wise construction
- All buildings follow different plan, form
- Contemporary building form
- Landscape is designed in curved manner following the natural contours
- Steps are provided to maintain the contour
-

Electricity:

From NEA and PV cells



Figure 3-21:Generators used

Water supply:

Water is supplied from Mukhan pokhari.

Demerits:

- Variety of building form
- Heavy building massing
- Building don't respond to the site
- Parking is not managed
- No vehicle access to the kitchen for loading and unloading of goods
- Water supply tanks

Inferences:

- Silent zone is required for meditation
- Nice landscaping, greenery, natural views plays major role in healing
- Male and female separation in every aspect (dining, accommodation, walkways) should be kept in mind while planning
- Natural contoured of the site should not be disturbed.

3.2 Dhamma kitti Vipassana Center

Reason for doing this Case study:

- To know more about the design components
- To know the planning of vipassana meditation centers
- To know the natural site setting required for the meditation centers
- To analyze the anthropometric data's used here.



Figure 3-22: Dhamma Kitti Vipassana Center

Introduction:

- Location: Devdhokha, Kirtipur, Kathmandu
- Area: 5 ropani
- Capacity: 40 meditators
- Surrounding: Kathmandu Model Hospital
- Topography: sloping down from east to west

The center is located in a settlement zone. If we see the meditation center from outside we will think that this might be some ones residence unless we see the board kept there. Iiit does not give the feeling of meditation center. It is not located in the silent zone.

Components:

- Office
- Male and female teacher residence
- Parking
- Dhamma hall
- Kitchen
- Dining halls
- Male accommodations
- Female accommodations



Figure 3-23: Residential Block 1



Figure 3-24: Residential Block 2

Planning:

No planning is done in the overall construction. Construction is done according the need of time. It is done is haphazard process. Segregation of male and female concept can only be seen in the overall process with the total site area of 5 ropani.

Office and parking:

- Office is located just at the front with the area of 280 sq.ft.(20'x14'), Contains lockers and sitting place for outside visitors.
- There is no planned planning.
- Small shed is provided for parking after the area of office with the capacity of 2 cars.
- Overall management is seen and controlled by teachers and Sangh Ratna Bajracharya.

Dhamma Hall:

- Hall has the capacity of 40 students for meditation
- Area 600 sq.ft.(30'x20')
- Hall does not contains any architectural form
- Separate entry for male and female students and common entry for male and female teacher.

Accommodations:

- Separate male and female accommodations
- Total capacity of 27male and 20 female students
- Building don't respond to the site
- Different building forms

Female

- ✓ Dormitory have area of 550 sq.ft.(50'x11) with the capacity of 10 female
- ✓ Other one building accommodates remaining 10

Male

- ✓ Male accommodation is provided in two buildings
- ✓ Old one which is 2 stories
- ✓ Ground floor contains 2 rooms with the capacity of 4 males in each 1st floor 3 single bed rooms of size 8'x10' with attached toilet of size 10'x4' and 3 rooms of 2 bed of size 10'x10'.
- New one which is 1 story
- ✓ Upper floor contains 3 rooms of size 11'x24' with the capacity of 4 each and 11'x36'x with the capacity of 6 students
- ✓ Ground floor contains toilet and bathroom of size 5'x5'

Kitchen and Dining:

- Kitchen seems as if it is a kitchen of residential house of size 20'x14'
- Dining of male and female both are of size 20'x14' with the capacity of 10 students
- Washing area of dining is of size 4'x14'

Landscape:

- Unmanaged and unplanned landscaping
- Landscape is 5 % of the total built up area
- Planting is done without any planning
- No any beautiful trees and flowers are planted
- However contour of the site is somehow managed and the building are constructed according to the contour.

Demerits:

- Unmanaged and unplanned center

- Located in a noisy area
- Building do not respond to the site
- Different types of building forms
- Modern buildings with heavy massing
- No parking facility
- Very congested site

Inference:

- Male and female separation in every design components.

3.3 Dhamma Korea Vipassana center

Reason for doing this Case study:

To study the layout of meditation hall and its connection with other spaces

- Location: Korea
- Topography: Flat land



Figure 3-25: 3D of whole site

Source: korea.dhamma.org

Location:

Dhamma Korea Vipassana center is located in small village about 30 KM east of Jeonju city, which is a famous tourist city with its beautiful traditional Hanok homes.

The distance from Dhamma Korea Vipassana center to various major locations is;

- Seoul 250 km
- Busan 226 km
- Daejeon 110 km
- Jinan 9 km

Architectural Analysis:

Since the site is located in the small village of korea, So the materials and the form is according to the site and area. So , meditation hall consists the inclined roof i.e. pyramid roof with rectangular base.

Residential blocks are simple rectangular with inclined roof. Sunya ghar is built in pagoda style.

Meditation hall:

Hall is designed for 84 students with the total area of 182.68m². It contains separate entry for male and female as the main concern in the vipassana meditation is that male and female should be kept apart and separate with the area of 19.82m² circulation space at the entry. Hall contains:

- Mini Hall
- Cells
- Store
- Interview room
- Technical room



Figure 3-26: Main Hall

Source: earlsexpress.com

Data's of Hall

- Dhamma Hall-104 students, 182.68m²-1.75m²/students
- Cells-18 each for male and female,55.23m² each,-3m² for each cell

- Interview room-12.69m²
- Storage-4.51m²
- Mini hall-14 students, 32.4m²
- Technical room-12.69m²



Figure 3-27: Meditation Space

Source: korea.dhamma.org

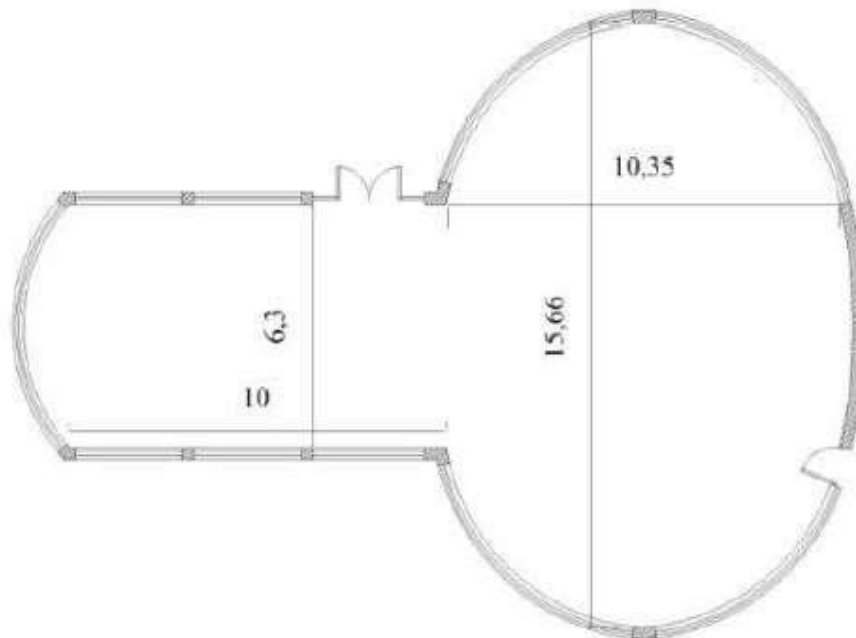
Inference

Main Dhamma hall should be in center or should be designed in such a way that the main hall should have linkage with all the spaces. All the spaces should have direct connection with the Dhamma hall. Spaces are cells, storage, technical room, Interview room etc. The most important place in a Vipassana center is the Dhamma hall. Students learn the technique of Vipassana in the Dhamma hall and spend most of their time there in serious meditation. So to create a comfortable and pleasant space, with least disturbances from outside the Meditation hall is to be made of good quality materials and with proper insulation so that it will be quite and not too cold nor too hot a place to be in. Followers of the Buddha found quiet spaces in which to deeply practice the gift of Dhamma—such as in natural caves or in small huts that were especially built for them. Since ancient times meditation centers have provided cells for students to practice their meditation in quiet seclusion. Sayagyi U Ba Khin realized the significance of cells, within which students could deepen their practice. He saw cells as an essential part of a center, allowing students to practice what they learned in seclusion and for deepening their meditation.

3.4 Osho Tapoban

Layout

- Meditation hall is centrally located. Far from entry.
- Administration is near the entry.
- Geometric axis is absent guided by contour.
- Buildings are placed in different level according to contour.
- Meditator and visitors used the same path which can be disturbed.
- Movement is guided by the contour of land.



RAJNEESH MEDITATION HALL

Figure 3-28: Rajneesh meditation hall

Source; Osho tapoban, 2020

Planning

- Multiple blocks with buffering by landscaping
- Approach from main road and is limited to the front office area.
- Contour blending with Nagarjun forest.

- Meditation hall and Samadhi is of prominence.

Meditation hall

- Centrally located
- Total area : 2146.73sq.ft
- Form: based on shivalinga plan
- Meditation hall shouldn't have sharp corners thus the space is appropriate
- Central roof point of elliptical part is believed to channel the cosmic energy
- Large windows on all sides
- Acoustic property: parqueting floor and wall
- Color: external wall yellow & internal wall white



Figure 3-29: Meditation hall

Osho Samadhi

- Made up of Granite and white marble.
- Surrounded by spring water.



Figure 3-30: Osho Samadi

Sujata Kitchen

- Indoor dining capacity of 48 and additional is outdoor dining.
- Beautiful Plat form is created for outdoor dining.



Figure 3-31: Sujata Kitchen

Accommodation

- **Type 1**: 4 single storied, mud and timber construction [3x3.5x2.3m]
- **Type 2**: Rec. double storied dormitory [4x6.7m, upto 10-15 people, Single Storey for 7-8 people]
- **Type 3**: Hut with attached toilet [3x7m]
- **Type 4**: 2 single storied duplex room, with 2 beds, living area, pantry and toilet

- **Type 5:** quarter for main guru, double storied, also utilized for official meeting.



Figure 3-32: Quarters

Table 3-1: Accommodation types

Type	Size (Sq. m)	Description
1	3*3.5	Single storied mud and timber structure
2	4*6.7	Can accommodate 10-15 people in two stories building and 7-8 people in single stories
3	3*7	Example of hut
4	5*9	Named as Buddha complex. Accommodation for teachers and volunteers.

Landscaping

- Steep contour towards west.
- Rock garden.
- High importance to flowering Plants.
- Fish pond.
- Natural river and spring



Figure 3-33: Natural spring

Source: osho tapoban ,2020

Inferences

- Meditation hall & osho Samadhi is the most focused area.
- Meditation hall in Shiva linga form with pinnacle on top.
- Yellow and white are the prominent color
- Acoustic: proper distance from noisy area, parqueting in floor & wall,
- Buffering by vegetation, Segregation of silent &noisy zone.
- Sculpture and flowering plant have high preference. Architecture blending with the contour.
- Landscape of site blending with other surrounding forest of Nagarjun.

3.5 Dhamma Ambika

Reason for doing this Case study:

- To get the idea of overall architectural planning, design components, landscaping.

Introduction

Location: Dhamma Ambika, National Highway no.8 (Mumbai to Ahmedabad), Navsari, South Gujarat, India

Dhamma Ambika Stands For Providing Pure Dhamma Vipassana Meditation For Ultra Purification Of Entire Mind To Human Kind On Behalf Of V.R.I. Under The Tradition Of Sayaji U Ba Khin As Taught By Ven. S.N. GOENKA.



Figure 3-34: Master plan

Source: ambika.dhamma.org

Components:

- 86 Residence for male/female students
- A.C. Dhamma hall
- Cells (Pagoda/ Chaitya)

- Kitchen and dining hall
- Male and Female Teacher's residence
- Landscaping and greenery

Architectural Analysis:

The architectural planning could be easily seen in the master plan of the site. How the curvilinear shapes are used to enhance the overall site beauty. Dhamma Hall has circular planning, Sunyaghar is built in pagoda style, and residences of male and female are arranged like the petals of the flower. Though their plan is rectangular they are arranged in the curvilinear pattern forming the petals of flower. Pathways are also designed in curved form to suit with the buildings form and planning. Greenery and landscape are also well designed. Huge area is provided for landscaping and greenery.

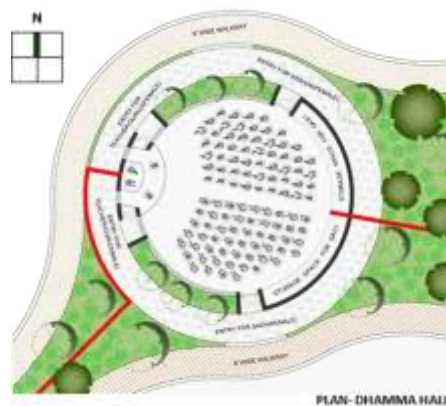


Figure 3-35: Plan of Dhamma Hall

Source: ambika.dhamma.org



Figure 3-36: 3D of Dhamma Hall

Source: ambika.dhamma.org

In the planning of Dhamma hall we can see how the hall is designed in circular form. Interiors are also designed in curve. Landscaping looks like as if they are the part of planning. Planning and landscaping looks like one built form and a single project.

In the planning of kitchen/Dining the same building serves as the kitchen and dining for male and female. Kitchen is common for both. Dining areas and their entries are separated by the partition wall for th segregation of male and female. Circular form with rectangular plan inside. By doing this due to the circular form it looks unity with other forms and with the rectangular planning creation of negative spaces has been eliminated. The spaces which are created by making rectangular planning in circular form has been decorated and made utilized by doing landscaping and planting. Balconies are also provided for each room.



Figure 3-37: Kitchen Plan

Source: ambika.dhamma.org

Residences are planned with double bedded rooms with attached toilets with the voids. Residences for teachers have curved forms and the planning are also done in that curve form.

Different curved forms and their integration with site really looks pleasing.



Figure 3-38: Plan of Residences

Source: ambika.dhamma.org

Inference:

- How the planning can be done in a curvilinear form. How a single kitchen for two dining can be designed.
- How planning and landscaping could be done so that they act as a unified part.
- Talking about the zoning then first administration part comes with front parking
- After that kitchen/dining comes
- After that residential blocks and dhamma hall
- At the further most that is at the most silence zone the sunya ghar comes.

3.6 Dhamma Vikasa

Reason for doing this Case study:

This case study covers my every design components designed architecturally in a huge area with the site conditions similar to that of mine.

Introduction

Location: Southern Taiwan - Liouguei District, Kaohsiung City

After S. N. Goenka brought Vipassana Meditation to Taiwan in 1995, strong demand for courses never abated, so much so that the capacity of Dhammodaya in Taichung, the first Vipassana center in Taiwan established in 1998, was sorely strained. In order to make Vipassana courses more available to people, starting from 2005, regular non-center courses were given at Fa-Yin Abode, located in Liouguei, Kaohsiung. At first these were small courses for old students only. In 2008, the second Vipassana center in Taiwan was formally established here, and it was given the name Dhamma Vikasa by Goenkaji, meaning "Progress in Dhamma."



Figure 3-39: 3D view of Site

Source: Pininterest,2020

Components:

- Parking lot
- Office
- Female server residence
- Male server residence
- Kitchen
- Male and Female dining
- Main meditation hall
- Meditation hall
- Male and Female AT residence
- Male and Female student residence
- Cell



Figure 3-40: Dhamma Hall

Source: Dhamma.org



Figure 3-41: Residence Area

Source: Dhamma.org

Planning:



Figure 3-42: Master plan of Dhamma Vikasa

Source: Dhamma.org

- 1-Parking lot
- 2-Office
- 3-Female dining
- 4-Female server residence
- 5-Kitchen
- 6-Male server residence
- 7-Male dining
- 9-Main meditation hall
- 10-Female server

11-Female AT

12-Female student

13-Meditation hall

14-Male AT residence

15-Male student-short course

16-Male student long course

17-Cell

18-Female std.

In overall planning of the site we can see that in the front at the entry the parking lot lies. Just mar the parking there is office. Just side of the office there is kitchen and dining lock. This shows that dining and kitchen also lies in the semi public zone. After that semi private zone in which the meditation hall and residences of the students and teachers lies.

Inference:

- How zoning is done.
- How the public, semi public and private zones are planned and separated.
- How parking and landscaping is done.

3.7 Dhamma Gaar Kot danda

Reason for doing this Case study:.

- To know overall planning concepts, room layouts, circulation.
- To study the layout of meditation hall and its connection with other spaces
- To understand the building response with nature and program

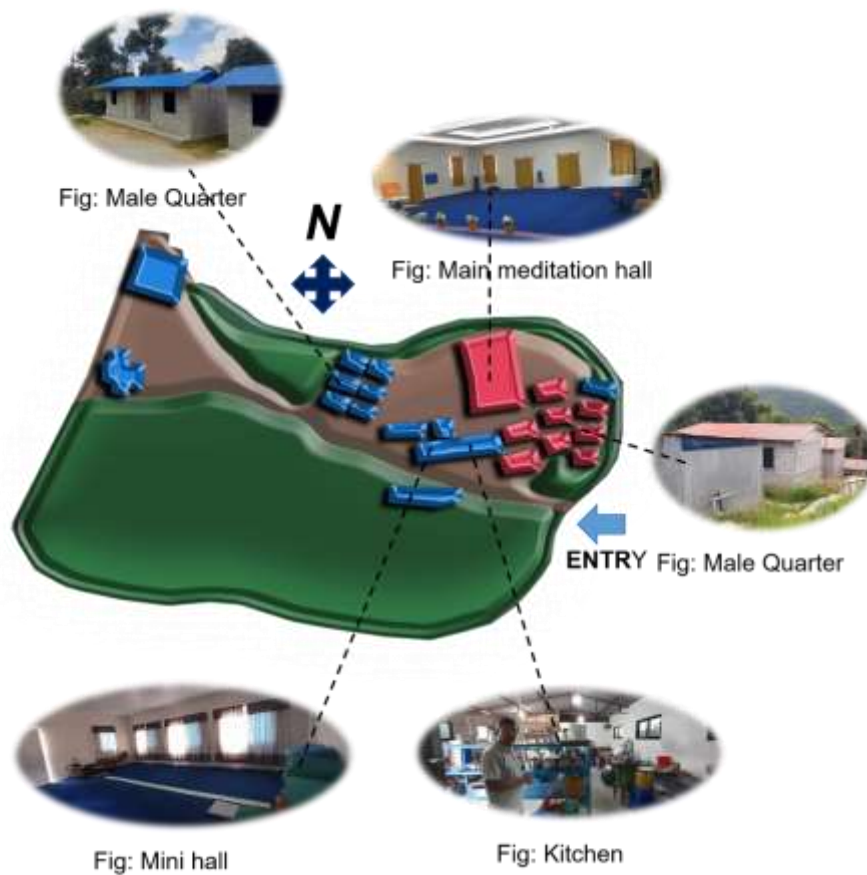


Figure 3-43: Master Plan of Dhamma gaar

Introduction

Location : Kot danda, Lalitpur.

This meditation center occupies 22 ropanis of land with 100 capacity of meditators. It was established in 2075 B.S.

Dhamma Hall:

- Main hall ,capacity of 100 students with the area of 40' x 60'.
- Natural ventilation.
- Storage room (7' x 10')
- Separation of Male and Female meditators



Figure 3-44: Main meditation hall



Figure 3-45: Double wall for sound insulation

Mini Hall:

- 1 mini halls with the capacity of 15-20 students.
- Rectangular in plan with the area of 20'x30'.



Figure 3-46: Mini hall

Kitchen and dining:

- Kitchen has the total area of 24'x20'. (Servicing 7'x10')
- Dining space has the area of 10'x24' same for both.



Figure 3-47: Kitchen



Figure 3-48: Male Dining

Accommodations:

- Male capacity :--12
- Female capacity:--12
- Room size– 7’x10’
- Attached Bathroom –4’x6’



Figure 3-49: Male Quarter with attached Bathroom

Demerits:

- Parking is not managed
- No vehicle access to the kitchen for loading and unloading of goods.
- Lack of office

4. SITE ANALYSIS

4.1 Location

The proposed site for the Vipassana meditation center is of 33 ropani in area and lies in Jwaladevi area , Kirtipur, Kathmandu, province no .3,Nepal. Factors that has been considered for site selections are distance from core city area, temperature, humidity, fresh air, proper shades, proper exposed ground and open spaces, water body and terrains.

Situated at a distance of 4.2 km south west to Kirtipur Valley as shown below.



Figure 4-1: Access route for proposed site (satellite image)

Source; google earth, 2020

4.2 Site and its surroundings

Presenting the immediate surroundings of the site, there is no any projects, zoning and any other conditions that may have impact on this project. Proposed site is perfectly segregated from the residential zone and surrounded by the jungle from North and access road from the south east of the site.



Figure 4-2: 2D of Site

Source: Google earth, 2020

4.3 Natural physical feature

The natural physical features of the site includes contours, drainage patterns, soil type and its bearing capacity, tress, rocks peaks valleys, pools and ponds. Moreover the proposed site includes the contour . Drainage pattern of the proposed site is natural; i.e; gravity flow of the drainage, rainwaters are absorbed by the trees and remaining flows and mixed up to the pond. Soil type of the proposed site is a free from black cotton soil with more bearing capacity. Proposed site is surrounded by trees.

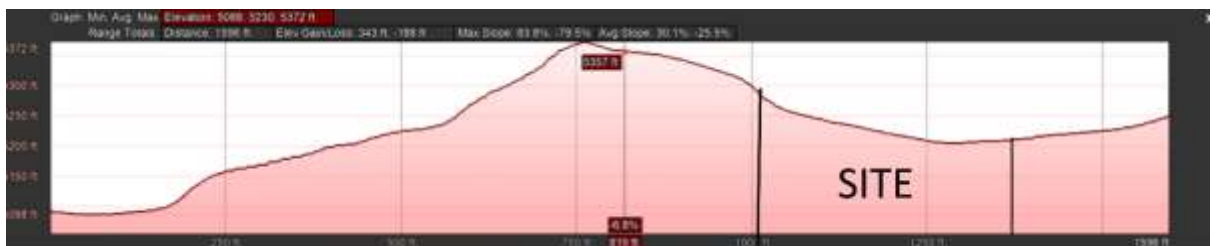


Figure 4-3: North-South Section of the site

Source: Google earth, 2020

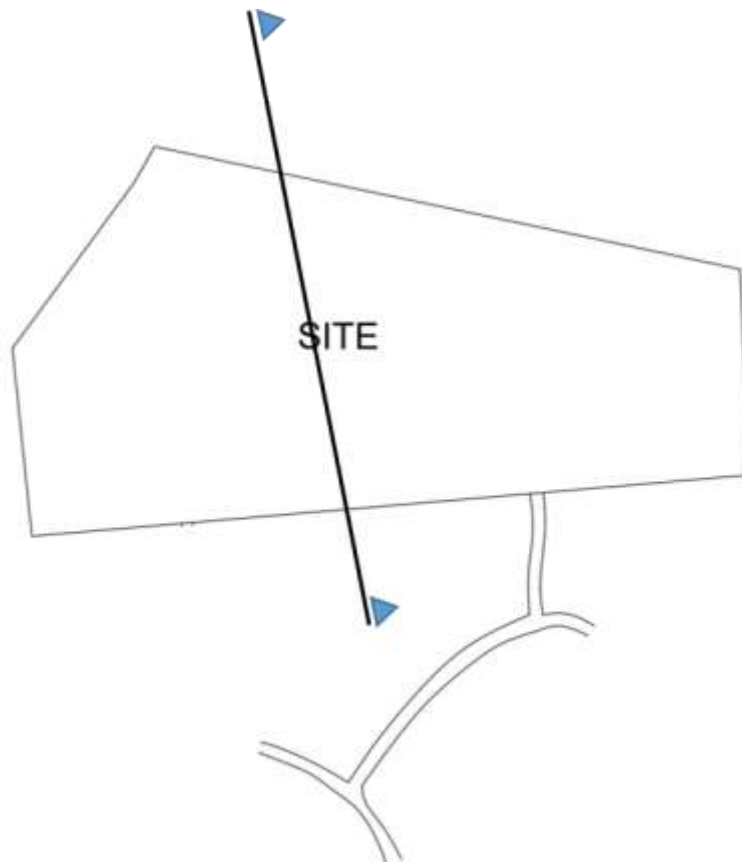


Figure 4-4: Section Y-Y

Source: Google earth, 2020

4.4 SWOT Analysis

STRENGTH

- N-S slope
- easy access (5m road)
- Buffer zone of the residential buildings and agricultural land
- Peaceful environment



Figure 4-5: Site from road

WEAKNESS

- Contour land
- Possibility of landslide at the South direction



Figure 4-6: Contour Land

OPPORTUNITY

- Optimization of cut/ fill of the natural terrain. Try to take best advantage of the natural slope in favor of the function of the building mass.

THREAT

- Possibility of landslide
- Accessibility to infrastructural factors



Figure 4-7: Site photo

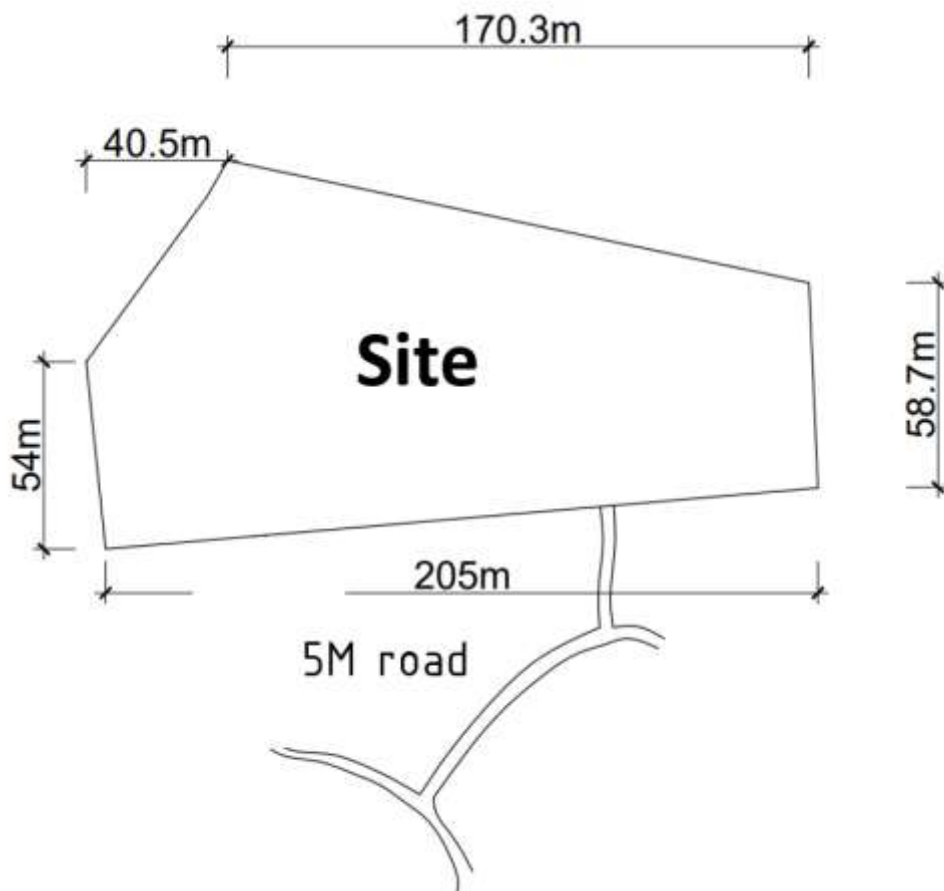


Figure 4-8: Road Condition

5. PROGRAMME FORMULATION

Table 5-1: Programme formulation

MEDITATION HALL FOR 110 PEOPLE

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Students sitting area	110		165	1.5 sq.m per person
2.	Teacher sitting area	2		3	1.5 sq.m per person
3.	Lobby			60	
4.	Store		2	15 each	
5.	Interview room		1	15	12.69
6.	Technical room		1	15	12.69
	Total area			288	
	30% circulation area			84.6	
	Grand total area			374.4	

MINI HALL FOR 50 PEOPLE -2 HALLS

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA (M2)	REMARKS
1.	Students sitting area	50		75	1.5 sq.m per person
2.	Teacher sitting area	4		6	1.5 sq.m per person
3.	Lobby			20	
4.	Store		2	9 each	
	Total area			116	
	30% circulation area			34.8	
	Total area for 1 hall			150.8	
	Total area for 4 halls			603.2	

SUNYA GHAR

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Cell	60	1 cell for each	232	1.5 sq.m per person
2.	Lobby			30	
	Total area			262	
	30% circulation area			78.6	
	Grand Total			340.6	

MALE DORMITORIES -85 STUDENTS

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Double bed dormitories	36	18	360	20 sq.m per room with attached bathroom
2.	4 bed dormitories	28	7	159.6	22.8 sq.m per person
3.	Single bed dormitories	3	3	36	12 sq.m per room with attached washroom
4.	12 bed dormitories	12	1	83.74	83.74 sq.m per person
5.	6 bed dormitories	6	1	52.93	52.93 sq.m per person
6.	Lobby			110.4	
	Total area			802	
	30% circulation area			240.6	
	Grand Total			1042.6	

FEMALE DORMITORIES -85 STUDENTS

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Double bed dormitories	36	18	360	20 sq.m per room with attached bathroom
2.	4 bed dormitories	28	7	159.6	22.8 sq.m per person
3.	Single bed dormitories	3	3	36	12 sq.m per room with attached washroom
4.	12 bed dormitories	12	1	83.74	83.74 sq.m per person
5.	6 bed dormitories	6	1	52.93	52.93 sq.m per person
6.	Lobby			110.4	
	Total area			802	
	30% circulation area			240.6	

	Grand Total			1042.6	
--	--------------------	--	--	---------------	--

MALE STAFF ACCOMODATION

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Double bed rooms	10	5	68.8	6.9 sq.m per person
2.	Washroom	10	3	11.7	3.9 sq.m per person
3.	Lobby			20	
	Total area			100.5	
	15% circulation area			16.57	
	Grand Total			116.57	

FEMALE STAFF ACCOMODATION

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Double bed rooms	10	5	68.8	6.9 sq.m per person
2.	Washroom	10	3	11.7	3.9 sq.m per person
3.	Lobby			20	
	Total area			100.5	
	15% circulation area			16.57	
	Grand Total			116.57	

ADMINISTRATIVE BLOCK

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Lobby			20	
2.	Information/ Registration area	1	1	15	For visitors
3.	Waiting area	1	1	20	
4.	Account section	1	1	15	Private space
5.	Manager's office	1	1	15	Private space
6.	Valuable things deposit room		1	15	Contains lockers
7.	Toilet for staff	20	2	3	1.5 sq.m per person

8.	Meeting room for staff	20	1	25	
9.	Staff room	2	1	15	Private space
10.	Store		1	15	
	Total area			158	
	30% circulation area			47.4	
	Grand Total			205.4	

KITCHEN/DINING FOR 110 PEOPLE

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
1.	Lobby for kitchen			20	
2.	Kitchen cooking, cutting , washing area		1	52	30% of dining
3.	Dry store		1	30	
4.	Cold store		1	30	
5.	Store		1	25	
6.	Male toilet for staffs	5	2	3	1.5 sq.m per person
7.	Female toilet for staffs	5	2	3	1.5 sq.m per person
8.	Male dining	100	1	175	1.5 sq.m per person with service and washing area
9.	Female dining	100	1	175	1.5 sq.m per person with service and washing area
10.	Lobby for dining			30	
11.	Male toilet	100	4	14.1	1.5 sq.m per person with hand washing area
12.	Female toilet	100	4	14.1	1.5 sq.m per person with hand washing area
	Total area			571.2	
	30% circulation area			171.36	
	Grand Total			742.56	

SERVICE AREA

S.N	PARTICULARS	NO. OF PEOPLE	UNIT	TOTAL AREA(M2)	REMARKS
-----	-------------	---------------	------	----------------	---------

1.	Outdoor washrooms	10	10	15	1.5 sq.m per person
2.	Guard house , Generator , Electrical , Pump		1	120	
3.	Water reservoir		1	230	
4.	Sewage treatment		1		
	Total area			365	

CONCLUSION

S.N	DESCRIPTION	
1.	Total site area selected	17146 sq.m (33 ropani 11 aana)
2.	Total built up area	6820 sq.m
3.	Parking area	1523 sq.m
4.	Open space/ Green area	5828 sq.m

6. CONCEPT DEVELOPMENT

6.1 Site and Zoning

The Zoning is done according to the entrance. As , Public zone includes;

- Administration
- Kitchen
- Guard house

Semi-public zone includes;

- Dormitories
- Mini hall
- Other blocks

Also , private zone includes;

- Cell
- Meditation hall

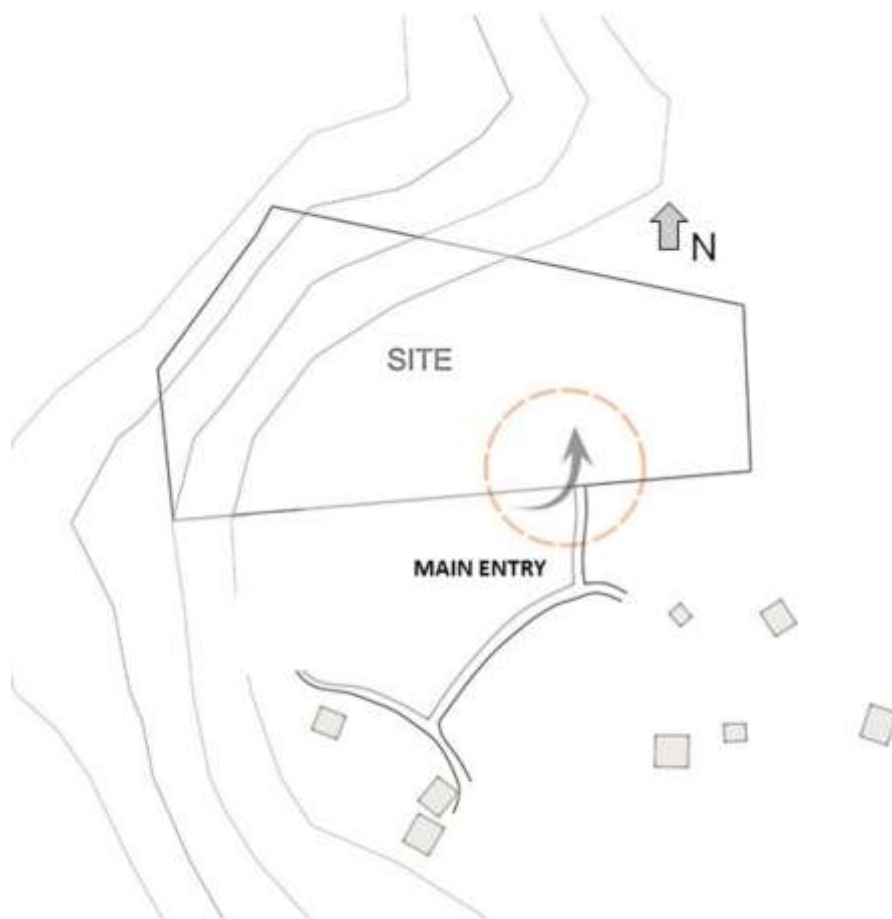


Figure 6-1: Site with entrance

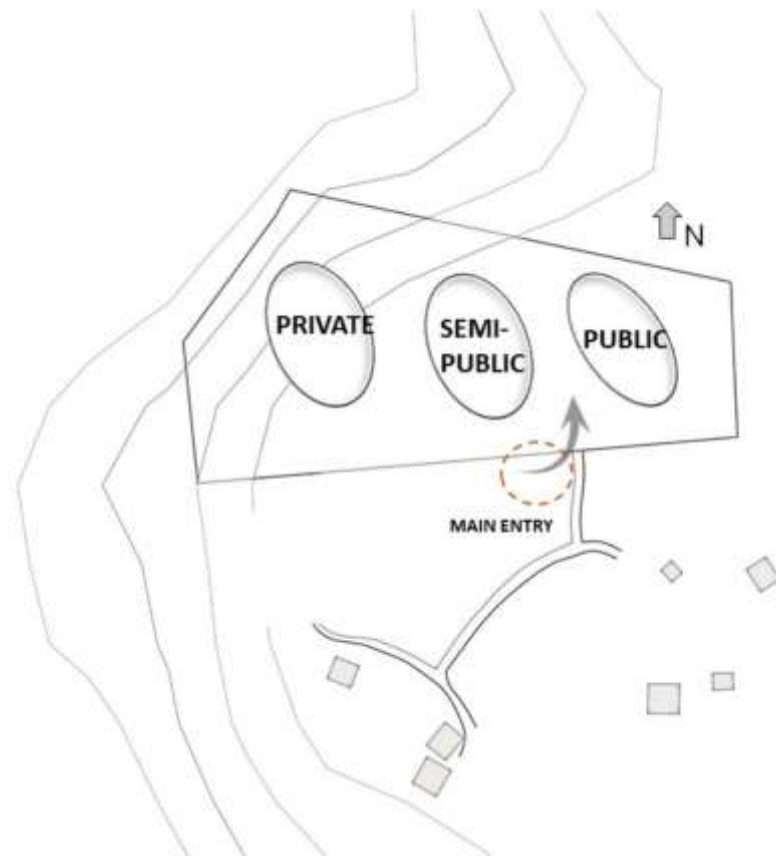


Figure 6-2: Zoning

- **Meditation Hall:** The meditation hall is the most important zone in a Vipassana meditation center. It should be designed to provide a calm and peaceful atmosphere that supports the practice of meditation. The hall is spacious enough to accommodate a large number of meditators and have minimal distractions such as noise or light. It also have adequate ventilation and temperature control.
- **Residential Zone:** The residential zone includes dormitories or rooms where meditators can stay during the course. These are designed to provide a comfortable and peaceful environment that is conducive to meditation. It is important to ensure that the residential zone is separated from the meditation hall to avoid any disturbance to the meditators.
- **Dining Zone:** The dining zone is designed to accommodate all the meditators during meal times. It should be spacious and comfortable, with proper ventilation and lighting. It is important to ensure that the dining zone is not too close to the meditation hall to avoid any disturbance to the meditators and is designed accordingly.
- **Administration Zone:** The administration zone includes offices and reception areas where administrative tasks are carried out. It is kept separate from the meditation hall and the residential zone to avoid any disturbance to the meditators.

- **Recreational Zone:** The recreational zone includes gardens, walking paths, or other outdoor areas where meditators can relax during breaks. It is designed to provide a peaceful and natural environment that is conducive to relaxation.

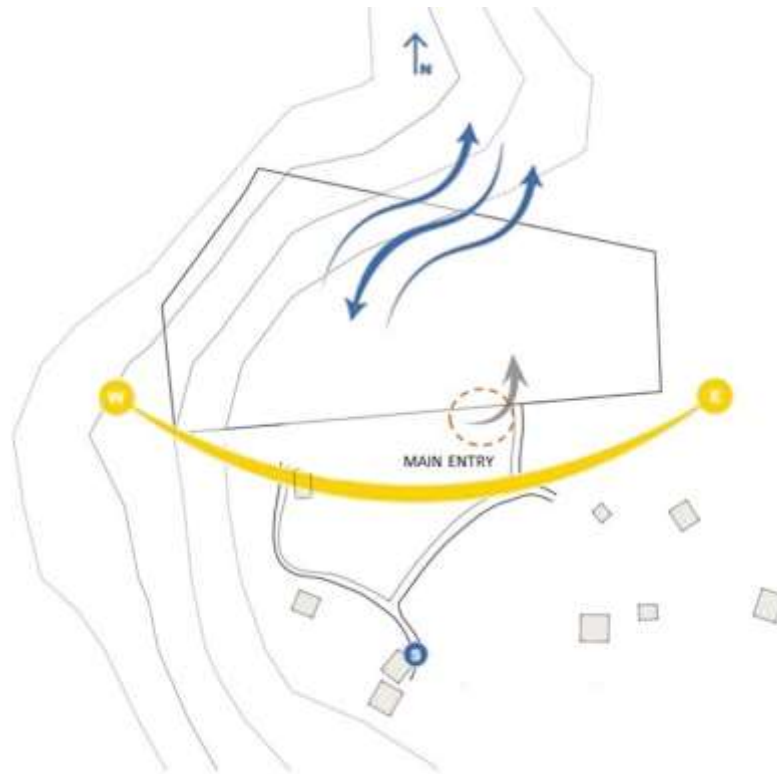


Figure 6-3: Sun and wind path

Consideration of the sun and wind path in the design of a meditation center can help create a calming and harmonious environment for meditation, through the use of natural light, ventilation, and materials that regulate temperature and humidity.

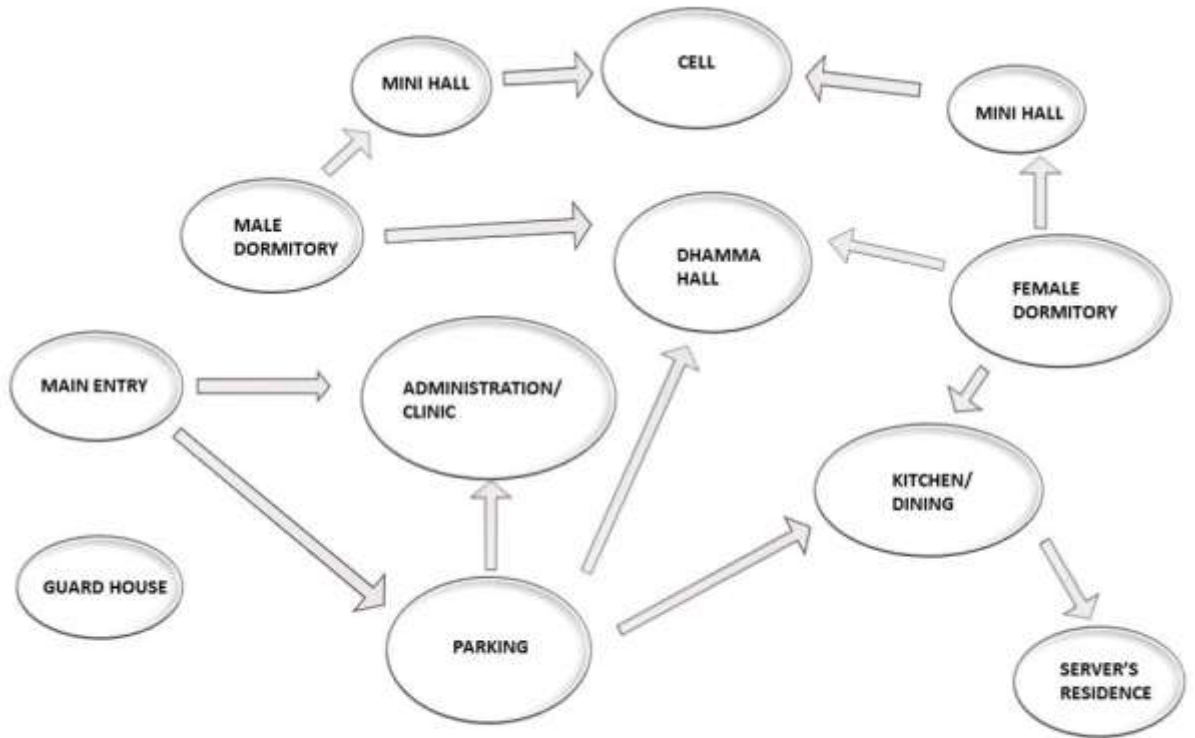


Figure 6-4:Zoning

6.2 Philosophical concept

Centre of circle is the point of concentration. As concentration is the main theme of vipassana. Also ; Circle symbolizes the cycle of life a circle is used to represent the cycle of life. This is because a circle has no beginning or end, and represents the idea that life is a continuous cycle that repeats itself.

Overall, the use of a circle to represent the cycle of life is a powerful symbol that can help people connect with the idea that life is a continuous process that is constantly evolving and changing.

Circular plan of meditation hall is another element of my design.



Figure 6-5:Circle

6.3 Play of Emotions along with the built

The visibility of pagoda complex or sunya ghar from the entrance creates excitement to the viewers which can play emotions along with the built.

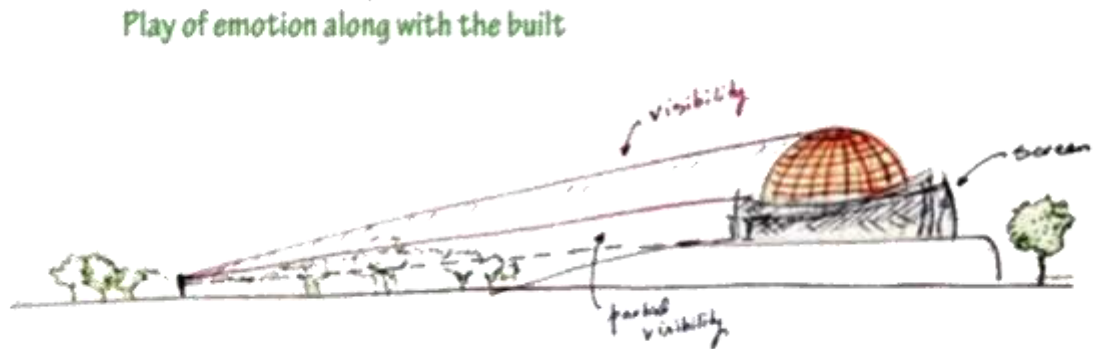
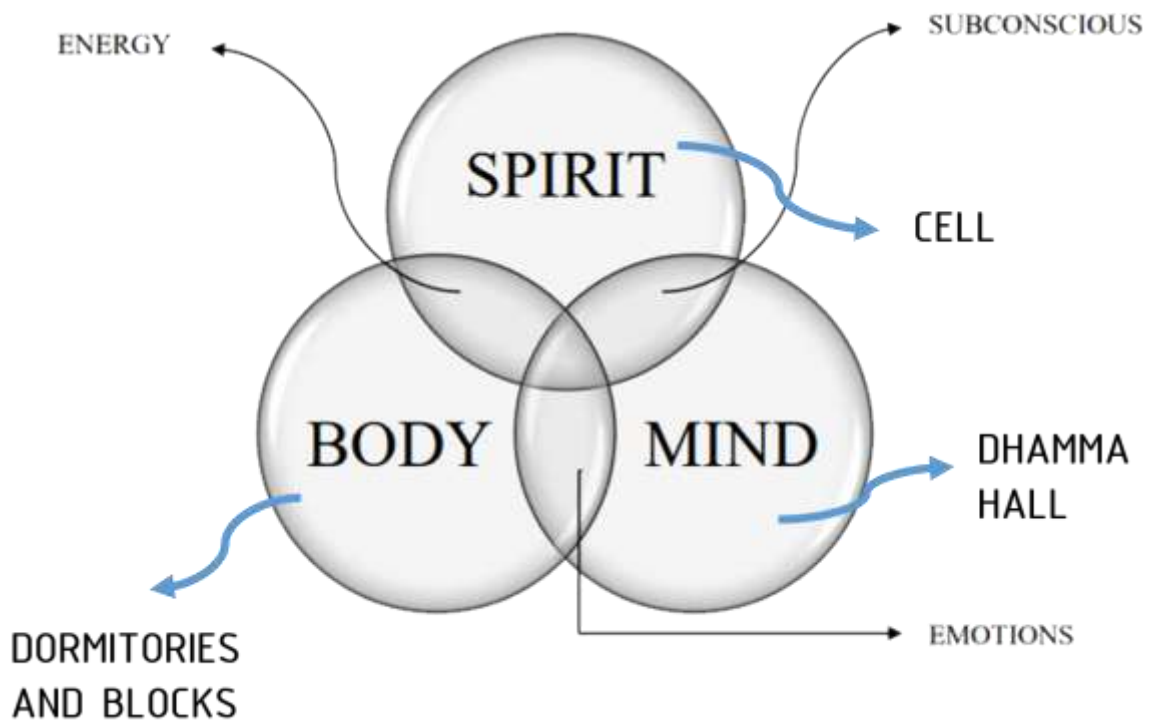


Figure 6-6: Play of emotion

6.4 Relation and Connection

- Mind- In Dhamma hall, Meditation is done to relax mind which represents the mind.
- Spirit- For more Spiritual achievement, they practice in more silent space called Cell which represents the spirit.
- Body- Dormitories and blocks acts like a body to support other factor.



6.5 Main Concept with 3D Development

At first, Circle is taken as a concept as it represents the cycle of life. Also, centre of circle is the point of concentration. As, concentration is the main theme of vipassana.

In terms of energy radiating from a circle in a spiral shape, waves of energy, such as sound waves or electromagnetic waves, can propagate outward from a source in a spiral pattern.

The spiral is also a symbol that has been used across cultures and throughout history to represent various aspects of the human experience, such as growth, transformation, and evolution. And also it represents our whole universe.

From a simple circle, a spiral shape emerges, which becomes a delectable treat for the eyes in the final product.

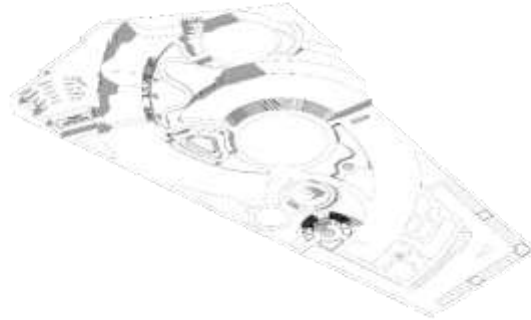


Figure 6-7: Main concept

6.6 Design Development

- **Cutting and filling of contour**

Both cutting and filling of contour are done with care to ensure that the final site is functional, stable, and aesthetically pleasing.

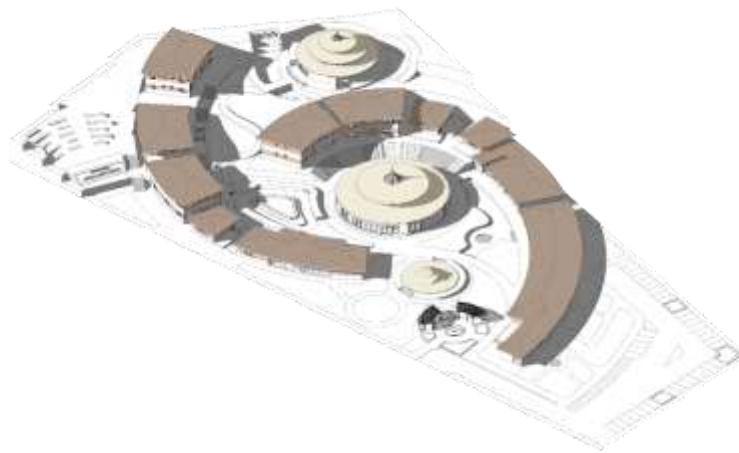


- **Developing forms spirally**

Spiral forms in architecture can represent growth, evolution, and transformation, allowing for a harmonious integration between the built environment and its natural surroundings.

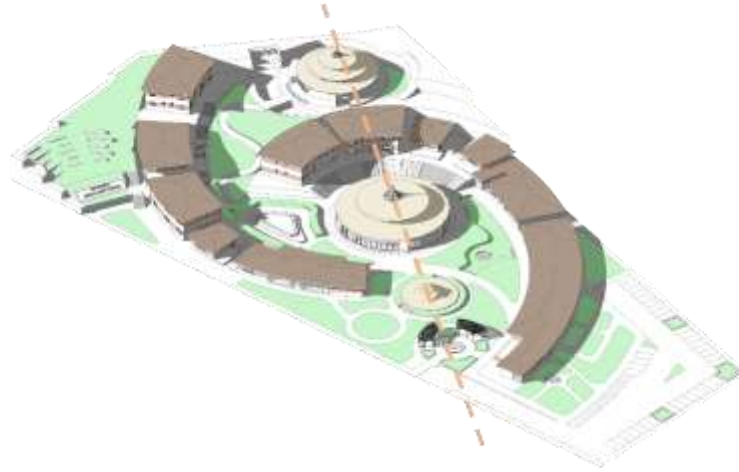
As, main meditation hall with circular plan is in the center of design with dormitories and cells going spirally with the form.

Also, the height of buildings are influenced by the contours of the surrounding terrain which increases with the height of contour.



- **Making meditation hall, cell and pavilion in a visual axis.**

The visual axis, also known as the "vista" or "view corridor," is an important design element in architecture that can be used to create a sense of direction and focus within a space. In the context of a main plaza, the visual axis is often used to draw the eye towards a prominent architectural feature or landmark, such as a building, statue, or fountain.



- **Adding landscape based on sensory garden concept**

A sensory garden is a specially designed garden that is created to stimulate and engage the five senses: sight, smell, touch, taste, and hearing. The goal of a sensory garden is to provide a therapeutic and refreshment experience for people of all ages and abilities, including those with disabilities, dementia, or sensory processing disorders.



Here are some representation of each sense in a sensory garden:

1. **Sight:** Cell, main hall and the pavilion are in a visual axis. Use a variety of colors and textures in your plant selection. Plant flowers and foliage with contrasting colors, shapes, and sizes. Add garden ornaments, such as a birdbath or a statue, to create visual interest.
2. **Smell:** Incorporate fragrant plants like lavender, jasmine, and herbs like mint and rosemary, which release a strong scent when touched or brushed. Consider

planting scented flowers like roses, honeysuckle, or lilacs, which can add a delightful aroma to the garden.

3. **Taste:** Plant edible plants like fruits, vegetables, and herbs such as strawberries, cherry tomatoes, lettuce, basil, and parsley. Create a designated herb garden section with labeled plants so visitors can identify the different herbs and learn how they can be used in cooking. Designing a vegetable garden also represents taste.
4. **Touch:** Incorporate a variety of textures into the garden design, including smooth stones, rough bark, and soft leaves. Consider adding water features like a small pond, a fountain, or a stream where visitors can dip their hands and feel the coolness of the water.
5. **Hearing:** Add wind chimes or musical instruments, such as a xylophone, to create a pleasant sound. Plant rustling grasses, bamboo, or trees like aspens, which produce a soothing sound when the wind blows. We could also incorporate bird feeders or a birdhouse to attract birds, whose chirping and singing can provide a relaxing background noise. Sound of water flowing is taken as sense of hearing.

6.7 Individual Functions

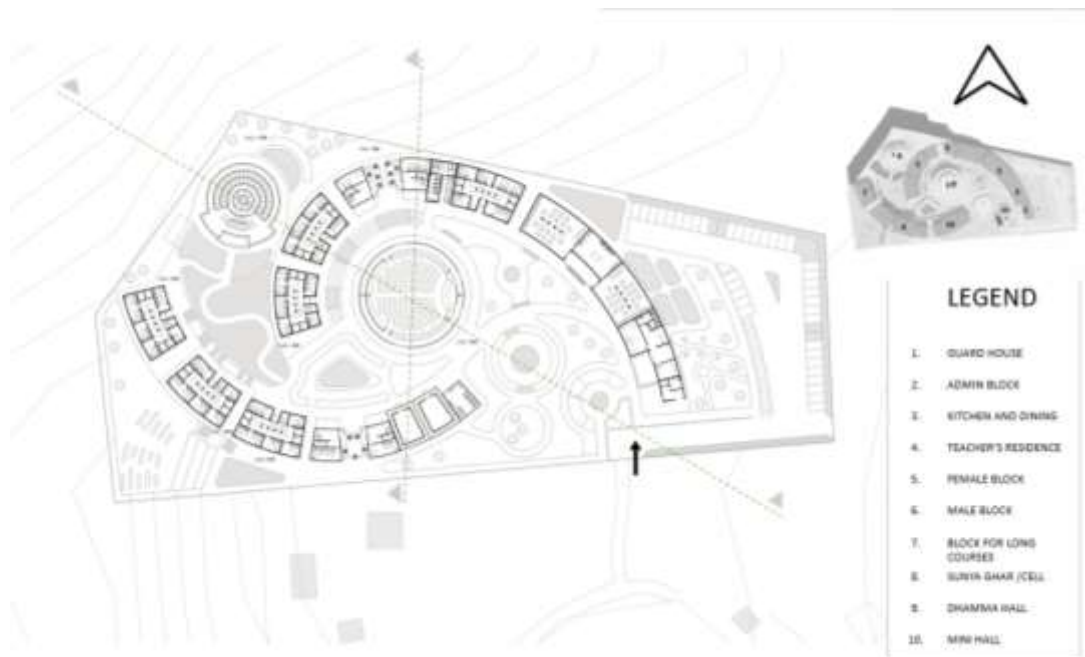


Figure 6-8: Master plan

- **Entry**

The main entry is located at the south east of the site. Separate entrance is given for the pedestrian and for the vehicles with separate exit. The entrance leads to the plaza.

- **Meditation plaza**

A transition space between the outside world and the meditation center can help visitors leave behind the stresses of the outside world and prepare for the practice of meditation. This space can be designed to promote a sense of calmness and provide a buffer from external distractions.

It helps to create a sense of arrival and anticipation for visitors.

- **Admin Block**

An admin block in a meditation center typically refers to the administrative or office building where the administrative functions of the center are carried out. This could include the management of the center's finances, scheduling of classes and events, and coordination of volunteers and staff.

This admin block includes locker room, meeting room, store , reception, account section etc. Also ,the access is provided to the landscape nearby parking area.

However, it's important to note that the primary focus of a meditation center is not the admin block, but rather the practice of meditation and other contemplative practices. While the admin block is important for the smooth functioning of the center, it should not overshadow the center's core mission and values.

- **Kitchen and dining**

In most Vipassana meditation centers, the kitchen and dining areas are designed to support the practice of mindfulness and the principles of Vipassana meditation.

In terms of design, the kitchen and dining areas in Vipassana meditation centers are often simple and functional, with an emphasis on creating a calm and peaceful atmosphere.

Both male and female dining has one common kitchen.

The kitchen is typically designed to be efficient and easy to clean, with ample counter space and storage for utensils, cookware, and ingredients. It also has a garden or greenhouse where they can grow their own vegetables and herbs.

The dining area is often designed to be spacious and uncluttered, with natural lighting and calming colors. The seating arrangements are arranged to provide a sense of community while still allowing for individual space and privacy.

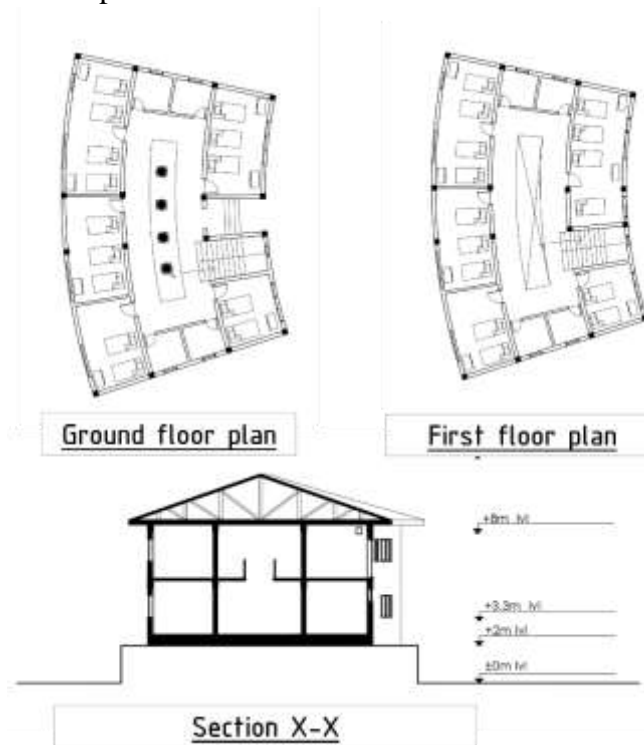
- **Teacher’s Residence**

The residences is located in a separate building. They are often designed to be quiet and secluded, with minimal distractions and a focus on creating a peaceful and calming atmosphere.

There is a small meditation or yoga space within the residence, allowing teachers to continue their own meditation practice outside of teaching sessions.

- **Dormitories**

The dormitories are generally designed to be spacious and airy, with natural lighting and ventilation. They are housed in a separate building rather within the main meditation center complex.

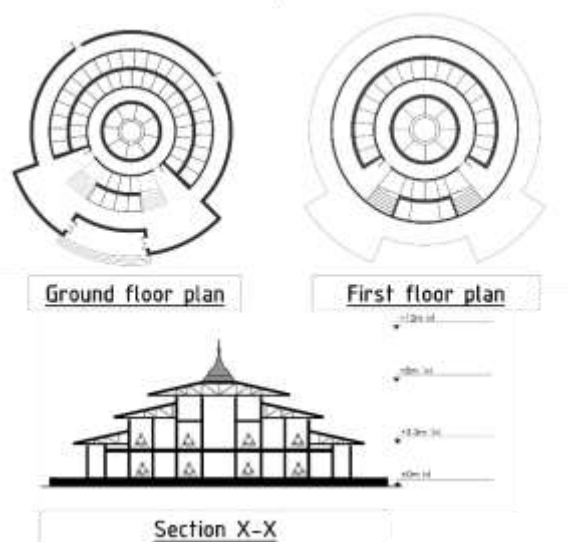


The dormitories consist of shared rooms with multiple beds, and participants are usually assigned a bed upon arrival. The bedding is typically simple, with a mattress, pillow, and blanket provided. In some cases, participants may be required to bring their own bedding.

The design of the dormitories include shared bathroom facilities, with toilets, showers, and sinks provided. These facilities are typically designed to be functional and easy to clean.

- **Sunya Ghar/ Cell**

Sunya Ghar, also known as the "cell" in Vipassana meditation centers, is a small, enclosed space designed to provide a quiet and secluded environment for advanced Vipassana meditators to deepen their practice. It consists space for 60 meditators.

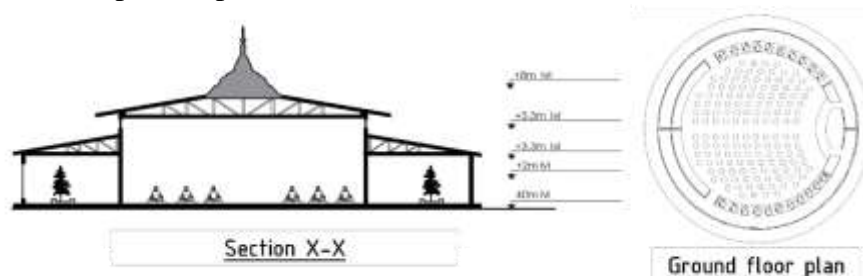


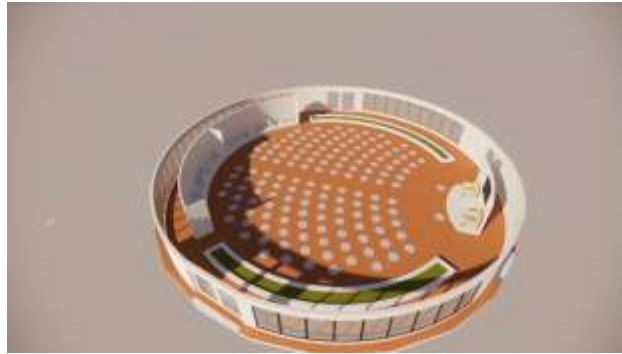
The design of the Sunya Ghar is simple and minimalist, with a small room that contains a mattress or cushion for sitting, a small table or shelf for personal belongings, and a dim light source. The walls are plain or decorated with simple artwork or symbols that are relevant to Vipassana meditation.

The purpose of the Sunya Ghar is to provide a space for advanced meditators to practice in complete solitude and silence, without any distractions or interruptions. Participants may spend extended periods of time in the cell, ranging from a few days to several weeks or months, depending on their level of experience and the guidance of their meditation teacher.

- **Dhamma hall/ Main hall**

The Dhamma Hall is a central space in Vipassana meditation centers where participants come together to practice meditation, attend discourses, and engage in group activities. It is designed to provide a peaceful and conducive environment for meditation and spiritual practice.





The Dhamma Hall consists a large, open space with a high ceiling and plenty of natural light. The hall is constructed with natural materials such as wood, brick to create a warm and inviting atmosphere.

The seating in the Dhamma Hall is often arranged in rows, with cushions or chairs provided for participants. The space is designed to accommodate a large number of people while still maintaining a sense of intimacy and calm.

- **Mini Hall**

The mini hall is often used for smaller group activities, such as discussions, question-and-answer sessions, or group meditation sessions. It may also be used for individual meditation practice for those who prefer a more secluded and private environment. This hall consists of 40 to 50 meditators at a time.

7. SERVICES

Source :

Apart from Nepal Water supply corporation, Rainwater and the water from the nearby stream is the main source of drinking water for the whole project.

Location:

The main water reservoir for storing the water is located at the highest elevation which is the sunyaghar area of the site such that the required pressure may be obtained and water can be distributed to each block by gravity flow method.

Water requirement calculation

- Total quantity of water required for $(110+60+20=)$ 190 people = 9400 lpcd
- Firefighting = 20% of 9400 lpcd = 1880 lpcd
- Total demand = 35020 + 7004 = 11280 lpcd
- Peak demand = $11280 \times \text{factor of safety} = 11280 \times 3 = 33840 \text{ lpcd} = 33.84 \text{ m}^3 / \text{day}$
- Volume of tank = 35 m³

Here, volume = area x depth, Taking depth (d) = 2.6m and L=2B

Area = $35 / 2.6 = 13.46 \text{ m}^2$

Length (L) = 5.1m and Width (W) = 2.54m

So, the Dimension of water tank will be=5.1m x 2.54m x 2.6m

Septic Tank

- No. of users = 190
- Total water consumption (V1) = 9400 lpcd = 9.40 m³
- Space for sludge (V2) = 0.0425 x 190 = 8.075 m³
- Space for detention for 3-4 years (V3) = 0.0825 x 190 = 15.675 m³
- Total volume of septic tank required (V) = 33.15 m³
- Considering depth (d) = 2.25m and L=2B
- Area = 33.15/ 2.25 = 14.73m²
- Length (L) = 5.42m and Width (W) = 2.71m

Dimension of septic tank = 5.42m x 2.71m x 2.25m

8. ARCHITECTURAL DRAWINGS

Take a look at the attached.

9. REFERENCES

- Glickman, Marshall (2002) *Beyond the Breath: Extraordinary Mindfulness Through Whole-Body Vipassana*. [ISBN 1-58290-043-4](#)
- Goenka, S.N *Meditation Now: Inner Peace through Inner Wisdom*, [ISBN 1-928706-23-1](#), [978-1-928706-23-6](#)
- Hart, William. *Art of Living, Vipassana Meditation*, [ISBN 0-06-063724-2](#), [ISBN 978-0-06-063724-8](#)
- Cooper, David. A. *The Art of Meditation: A Complete Guide*. [ISBN 81-7992-164-6](#)
- Sands, L. M. (April 12, 2022). "Definition-Meditation Center." from <https://www.wisegeek.com/what-is-a-meditation-center.htm>.
- Wikipedia (2022). "Meditation." from <https://en.wikipedia.org/wiki/Meditation>