

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

A THESIS REPORT

*Submitted in partial fulfillment of the
Requirements for the award of the degree
Of*

BACHELORS OF ARCHITECTURE

By

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**GALGOTIAS
UNIVERSITY**

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CANDIDATE DECLARATION

I hereby certify that the work that is being presented in this dissertation, entitled “**HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER**” in partial fulfillment of the requirements for the award of the Bachelors of Architecture submitted to the School of Architecture of the Galgotias University Greater Noida, India, is an authentic record of my work carried out during the period December 2018 to July 2019, under the guidance of prof. Bushra Fatima, Associate Professor of School of Architecture, Galgotias University, Greater Noida.

The matter embodied in this has not been submitted for the award of any other degree.

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This is to certify that the above mentioned statement made by the candidate is correct to the best of my knowledge.

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CHAPTER 1: INTRODUCTION

1.1PROJECT BRIEF

Every human irrespective of any religion and faith would like to be returned to nature according to what he believes in. There are saying to **ONE GOD: DIFERENT NAMES** but people have their own versions of acceptance to this theory. There are so many wars in the name of God, to cater this problem people try to bring people the theory of **ONE GOD**.A very controversial topic to talk about, but rather an important one.

To solve this problem and to bring humane solutions, there are architectural solution which are proposed in recent decades. Such solutions are multi-faith *meditation center* where people pray to their respective god in harmony with the person of another faith. Thus if a living can portrait such an example so can the dead. So that's where the idea of a **multi-faith deceased center** comes in the picture.

India as a country has diversity in religion and has same importance in the eyes of law. Recently there have been many riots and controversies regarding different religion. Thus let the dead display an act of peace.

Cremation is process of burning the deceased which are in accordance to the some religion but whereas other have their own way and rituals for the dead's. Some believe in burial and graveyards, but eventually the idea is to return to **MOTHER NATURE**. The crematorium, as a building type, is largely an issue in urban areas where the cost of land and its availability provide particular difficulties for traditional burial. But however hold a very definite and integral part in an individual's life. But availability of land in terms are burial is becoming a problem. There shouldn't be comprises in the believes and religion nor the shortages of resources could be ignored.

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1.2 SITE INTRODUCTION

SITE:

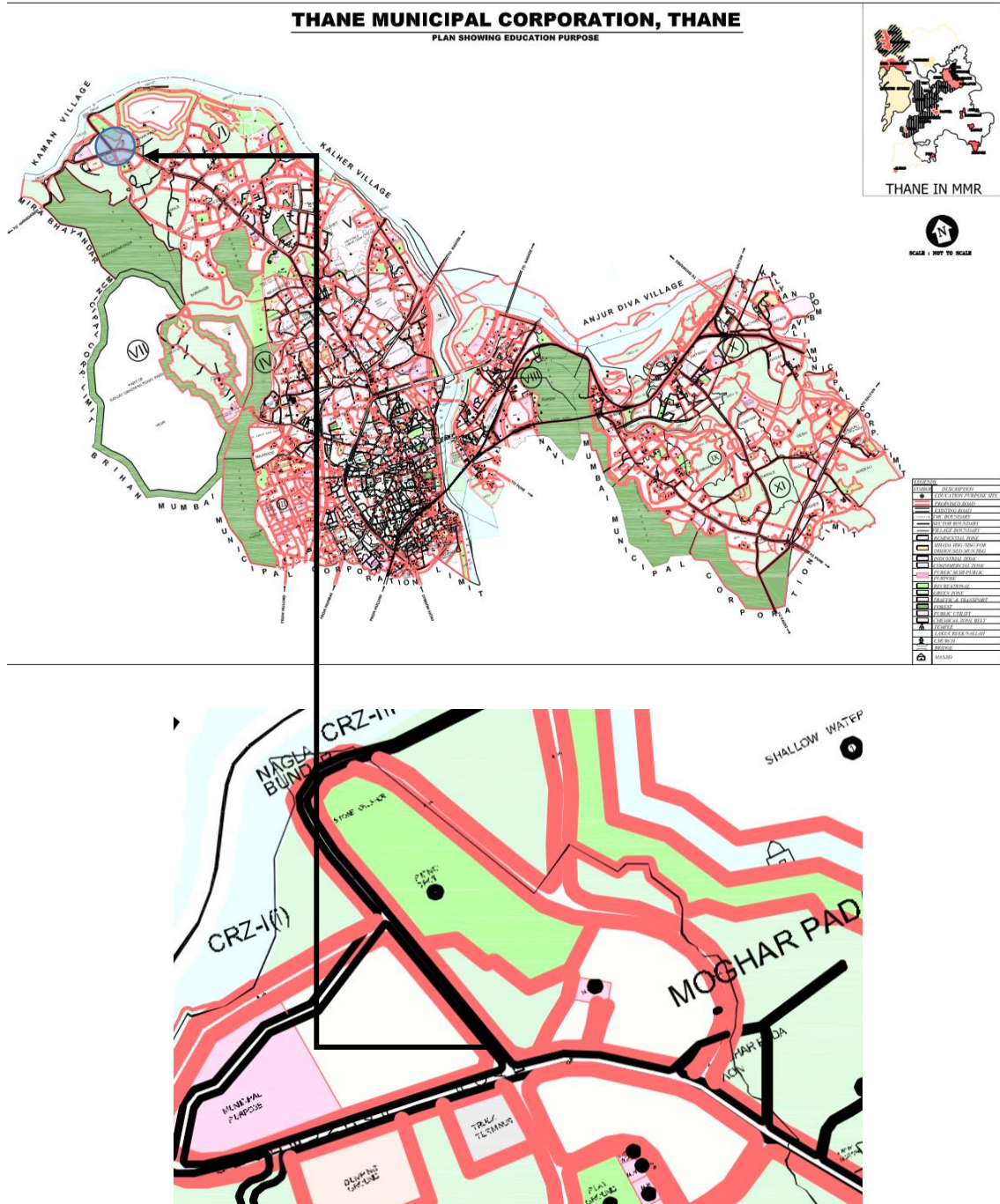


Figure 1-Master Plan of Thane (<https://thanecity.gov.in/uploadpdf/ThaneMap.pdf>)

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LOCATION: The Tmc has identified the land parcel of over 63,000 sq. meters in sector 6 in Bhayenderpada area along the Ghodbunder road, opp. Lodha splendora, Thane,Maharashtra.



Figure 2: Site Description ([google earth pro](#))



The entire plot of the land was originally reserved as a green zone would be de-reserved for a multi-faith crematorium.

To meet the increasing demand of thanekars for more burial grounds TMC is set to give shape to a multi-faith crematorium. A design for 37000sq m of land. Different structures required to fulfill the requirement of the faith would be given as well including the parking.

“This will be a state –of-the-art crematorium”-Thane municipal commissioner.

1.3 ARTICLE

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Home / News / National News

Thane's Multiple Faiths To Build A Crematorium On Common Ground

Jan 06, 2018, 09:17 IST | Gaurav Sarkar

TMC prepares a design for 37,000-sqm crematorium that will come up on a plot at Bhayander Pada




Flat 30% Of

Bhayander Pada ground where Thane Municipal Corporation will set up the crematorium. Pic:Anamika Marwade

To meet the increasing demand of Thanekars for more burial grounds, Thane Municipal Corporation (TMC) is set to give shape to a multi-faith crematorium. It has drafted a design for the 37,000-sqm crematorium, to come up on a ground at Bhayander Pada, and allotted space to different communities.

Sources in TMC said the crematorium would include a buffer zone of 10,000 sqm - Smriti Udyan - encompassing the ground. As per the design, the ground would be divided in the following manner: Hindu Shmashan Bhoomi (8,000 sqm), Christian cremation ground (3,000 sqm), Bohri Muslim cremation ground (3,000 sqm), Jew cremation ground (2,000 sqm) and Lingayat cremation ground (2,000 sqm). Apart from this, there is also provision for a parking area of 3,000 sqm.

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Figure 3-Site Article

(<https://www.mid-day.com/articles/thane-multiple-faiths-to-build-a-crematorium-on-common-ground/18899187>)



ⓘ ×

"We have taken into account the population of all communities and the mortality rate, and allotted space accordingly," said an executive engineer of TMC. "Ideally, there should be a green belt around the burial ground, which acts as a buffer zone. However, this crematorium has been planned on the outskirts. Even the provisions made for it are more than those required for the current mortality rate. This should help the communities for the next 30 years."

The engineer added that 24,000 sqm was currently undergoing land acquisition, and the process was expected to be completed within the next two months, after which landscaping work would start. "It will be fully functional this year. Negotiations are on for the remaining 13,000 sqm," he said. Sanjeev Jaiswal, Thane municipal commissioner, said, "This will be a state-of-the-art crematorium. If everything goes as per plan, work on the ground will start by March-end."



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Figure 4-Site Article (<https://www.mid-day/articles/thane-multiple-faiths-to-build-a-crematorium-on-common-ground/18899187>)

1.4 SPATIAL PROBLEM

Even though verticality has been applied to most building typology since it could help to solve the spatial and economic problem, vertical burial places might cause controversy.

Although verticality has been applied to most building typologies since it could help to solve the **spatial** and **economic** problem, vertical cemetery might still cause controversy.

The building are totally out of use-These vertical burial are usually out of use because they are far from the city and is **not convenient to access**.

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Verticality introduced to such project will bring back such typologies back to urban district. While urban cemetery makes it possible to **mix city function** and **encourage daily visits** to the burial, which benefits people's attitude towards life and death.

1.6 AIM

- The main aim of the 63000 sq. plot is to provide a multi-faith burial complex which would incorporate mammoth size crematorium for different religion, memorial centers, burial landscape areas, chapels, and vertical burial towers.
- To create a state- of-the-art-crematorium.
- To give an architectural solution of peace and unity

1.7 OBJECTIVE

Social

- To bring all people from different faith at one place to showcase death in peace and unity (vision of a diverse nation)
- Maintaining the green zone of the land
- To give an area for deceased

Economic

- To create a part of the place open to tourist to experience different religious processes and architecture style in one.
- Employment to nearby urban village which are now facing threat of evacuation due to new urban development in surrounding area.

Environment

- The site is every evident potential of green and the surround factors affecting it.
- The green is maintained and will be made fertile further
- The forest nearby will help in consuming the fumes and toxic due to cremation.

1.8 METHODOLOGY

Though the topic and project itself is controversial but the design aspect will encounter it.

- The activities and function of a crematorium must provide for three groups:
 - (a) The mourning
 - (b) The deceased
 - (c) The workers
- The project will be carried out in terms of emotion and stages of grief for inventory of project spaces and experiences.
- To encounter any kind of riots the zoning will also in a segregation but not irrespective to each other
- Since the context of the site are lakes and water bodies incorporating this with the architecture to highlight and focus the element as a whole.
- Keeping the funeral rituals intact only common spaces such as memorial center and meditation centers will be accessible to all.
- Celebrating the unseen: death, cremation, equality, community, human history, home place, views, focus, fire, water, earth.
- This all will add value to the project.

1.9 CASE STUDIES

- Moksha Tower,Mumbai
- Crematorium at ashwinighat, surat
- Diamond hill crematorium, Hong Kong
- Igualada Cemetery, Barcelona, Spain
- Islamic Cemetery, Altach, Austria

1.10 SCOPE

The project will satisfy the requirement of land required for burials and funerals. Instead of giving chunks of land to different communities, all will be brought to one place. The project will also cater the land shortage by introduction of new structures. An architectural display of unity to the nation and beyond.

CHAPTER 2: DATA COLLECTION

2.1 INTRODUCTION

The research component of the thesis consist of three core issues:

The primary issue is to study the process of ecological burial and resomation and understand the problem caused by traditional methods such as cremation and burial on the ecological of the land.

The study of the traditional death rituals of Hinduism, Islam and Christianity also form a part of the research.

The secondary issue was to bring the value of and in a urban context.

The tertiary issue investigates whether he already existing cemeteries can be turned into a wildlife reserve areas.

Others research that also were taken included the study of columbarium, and the concept of green burial.

2.2 ECOLOGICAL BURIAL AND RESOMATION METHOD

2.2.1 ECOLOGICAL BURIAL - CYROMATION

Cromation is the term for a corpse treatment which involves freeze drying. The conceptual idea is to combine biological knowledge with a dignified and ethically correct way of being remembered by ones next of kin.

The primary principles are preservation after death in organic form and shallow burial in living soil that quickly converts us to compost. The fact that this way of thinking is contrary to many customs yet we should try to adopt a more natural approach to our life and our death. Today's burial traditions conceal reality from people and do not allow them to feel secure in the fact that death is essential to new life.



Figure 5- The body would finally be returned to nature

https://www.thedickinsonpress.com/sites/default/files/styles/16x9_620/public/1pTM1VwdxwH8eTfBVkru8Z6o_fHZ6l_d.jpg?itok=8xLJR70C

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Deeper insights in ecology provide greater understanding of and respect for life on earth. With the knowledge of what happens to the body after death, it is hoped that people will find greater security in their physical fate. This, in turn, can give our minds greater freedom to ponder the spiritual issues that we all carry within ourselves.

2.2.2 ECOLOGICAL BURIAL –CRYOMATION-THE PROCESS

It is based on a new combination of tried-and-tested techniques that prepare the corpse for a natural process of decomposition.

The procedure is justifiable in terms of ethical, moral, environmental and technical considerations, and does not subject the body to violent or destructive handling.

STEP 1: An important part of the process is to remove that which is least important; the water that makes up 70 percent of a normal- sized body. Technically speaking, this is done using an entirely closed individual process in which the corpse is freeze-dried in liquid nitrogen.



Figure 6-Step 1

<https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

STEP 2: Within a week and a half after Death, the corpse is frozen to minus 18 degrees Celsius and then submerged in liquid nitrogen. After the liquid nitrogen is introduced to the coffin, the body in the con is allowed to rest until the core reaches the required temperature.



Figure 7-Step 2

<https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

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STEP 3: This makes the body very brittle, and vibration of specific amplitude transforms it into an organic powder that is then introduced into a vacuum chamber where the water is evaporated away.



Figure 8-Step 3

<https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

STEP 4: The now dry powder passes through a sensing field which allows any Non-organic material to be rejected. In a similar way, the powder can be disinfected if required.



Figure 9-Step 4

<https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

STEP 5: The remains are now ready to be laid in a coffin made of corn starch. There is no hurry with the burial itself. The organic powder, which is hygienic and odorless, does not decompose when kept dry.



Figure 10-Step 5

<https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

The burial takes place in a shallow grave in living soil that turns the coffin and its contents into compost in about 6-12 months' time. In conjunction with the burial and in accordance with the wishes of the deceased or next of kin, a bush or tree can be planted above the coffin.

The compost formed can then be taken up by the plant, which can instill greater insight in and respect for the ecological cycle, of which every living thing is a part. The plant stands as a symbol of the person, and we understand where the body went.

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2.2.3 RESOMATION

Resomation, also known as Water Resolution, Cycled Burial or Aquamation, and or in technical alkali hydrolysis, is a way to dissolve the body in a basic solution. It produces four times less CO₂ and that it is eight times more energy efficient than traditional cremation.

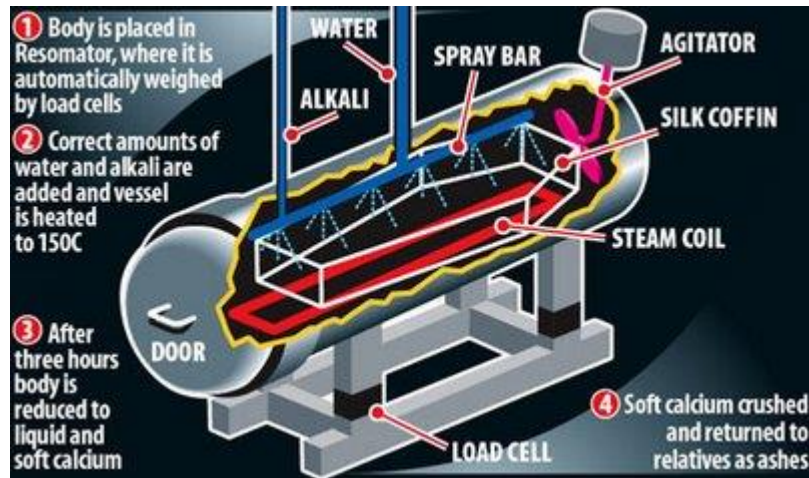


Figure 11-Method of Resomation

<http://geog.ucsb.edu/img/news/2011/ecofuneral.jpg>

The Resomation process starts by the separation of the body and the coffin. The body is wrapped in a biodegradable bag (tissues made of protein, being silk, wool or leather) and in a reusable metal bucket.

It is then put in the resomator. Inside the resomator, load blocks determine the weight, after which the exactly needed amounts of water and lye are added. The inside of the resomator is heated up to about 150 to 185 °C by means of a gas heated steam.

A circulation pump takes care of continuous pumping. This takes place for about 2 to 3 hours. Next, cold water is run through the coil in order to cool down the liquid. The solution that is drained contains salts, sugars, peptides and amino acids. The remains are then dried and separated. The bones have become so fragile that they are easily crushed to a white powder in a processor.

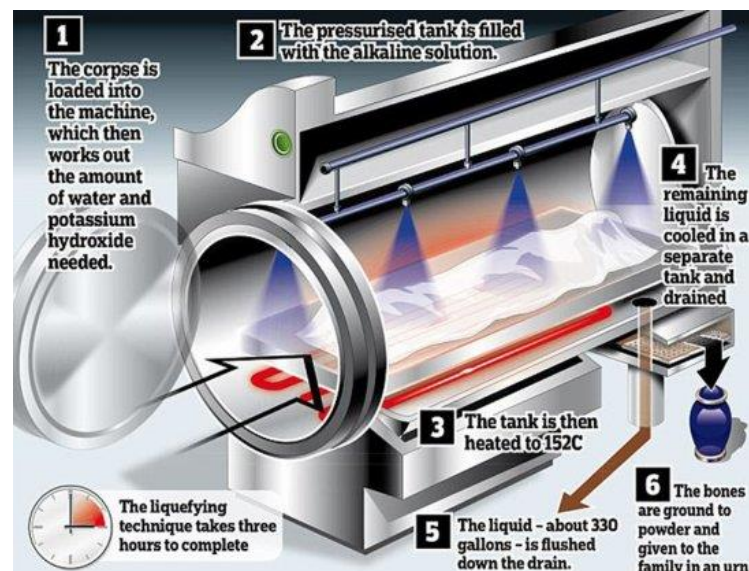


Figure 12-Process of resomation

https://i2.wp.com/metro.co.uk/wp-content/uploads/2017/12/pri_63482299.jpg?quality=90&strip=all&zoom=1&resize=540%2C415&ssl=1

2.3 WHY NOT CREMATION AND BURIAL?

2.3.1 WHY NOT CREMATION

Cremation has progressed from, coke fired through to gas and electric cremators over a period of 100 years. Almost all cremators use gas. The use of gas, a finite reserve, and the creation of air pollution, are adverse criticisms of this process. Cremation does release toxins into the environment which makes many skeptical as to whether or not cremation can be considered environmentally safe. Formaldehyde, hydrogen chloride, dioxins and other toxic chemicals are released into the air during the process of cremation and the overall process adds to the greenhouse gas emissions problem.

2.3.2 WHY NOT BURIAL

Burial is sometimes suggested as a more environmentally acceptable alternative to cremation, as no air pollution is created. Such comments ignore the impact of herbicides and petrol mowers routinely used in cemeteries, often over long periods of time. In addition, the effects of interring chipboard and plastic coffins are unknown. Finally, the pollutant effects of burial on water supplies is generally unresearched. The benefits of the new woodland burial schemes (green burials as discussed later) appear to overcome many of these problems, particularly where they are associated with the use of bio-degradable coffins and a reduction in embalming.

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2.4 TRADITIONAL RITUALS AND BELIEFS OF VARIOUS RELIGION

2.4.1 DEATH RITUALS FOR HINDUSIM

Hinduism, which is more a way of life than religion, upholds Death as real and natural as life. In Hindu philosophy, death of any life form is a cause of celebration as it is an event that helps the soul to reunite with the divine cosmic cycle. The human life, it is believed, is the most refined form of existence for the soul. Hence, death of a human being leads to Moksha of the soul, liberating it from the cycling process of birth and rebirth.



Figure 13-Ohm

https://szamanskibeben.pl/1556-large_default/sticker-ohm-symbol.jpg

AS DEATH APPROACHES

When death is imminent, kindred are notified. The person is placed in his room or in the entryway of the house, with the head facing east. A lamp is lit near his head and he is urged to concentrate on his mantra. Kindred keep vigil until the great departure, singing hymns, praying and reading scripture.

THE MOMENT OF DEATH

Family member chants the mantra. If none is known, "Aum Nama Sivaya" is intoned. Holy ash or sandal paste is applied to the forehead of the deceased, Vedic verses are chanted and a few drops of milk, Ganga or other holy water are trickled into the mouth. After death, the body is laid in the home's entryway, with the head facing south, on a cot or the ground-reflecting a return to the lap of Mother Earth. The lamp is kept lit near the head and incense burned. A cloth is tied under the chin and over the top of the head, the thumbs are tied together, as are the big toes. Religious pictures are turned to the wall, and in some traditions mirrors are covered. Relatives are beckoned to bid farewell and sing sacred songs at the side of the body.



Figure 14-Body ready for wood based cremation

https://cdn.shopify.com/s/files/1/0613/9029/files/Hindu_cremation_preparation_grande.jpg?791

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THE HOMA FIRE RITUAL

If available, a special funeral priest is called. In a shelter built by the family, a fire ritual (homa) is performed to bless nine brass kumbhas (water pots) and one clay pot. The "chief mourner" leads the rites; he is the eldest son in the case of the father's death and the youngest son in the case of the mother's. In the traditions, the eldest son serves for both, or the wife, son-in-law or nearest male.

PREPARING THE BODY

chief mourner now performs arti, passing an oil lamp over the remains, .an offering flowers. The male relatives carry the body, remove the clothes drape it with a white cloth. Each applies sesame oil to the head, and the body is bathed with water from the nine kumbhas, dressed, placed in a coffin and carried to the homa shelter. The body is then ritually cleansed to symbolically pacify the remaining desires of the personality, which are said to main even after the body dies. The young children, holding small lighted sticks, encircle the body, singing hymn. The women then walk around the body and offer puffed rice into the mouth to nourish the deceased for the journey ahead. The coffin is then closed. The ritual homa fire can be made at home or kindled at the crematorium



Figure 15-Body Preparation

<https://sites.google.com/site/drewtollefson/pashupatinathcremation-large-crop-0-0-0.83-1.jpg>

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CREMATION

Only men go to the cremation site, led by the chief mourner. Two pots are carried: the clay kumbha and another containing burning embers from the homa. The body is carried three times counterclockwise around the pyre, then placed upon it. All circumambulating, and some arati, in the rites is counterclockwise. The men offer puffed rice, cover the body with wood and offer incense and ghee. With the clay pot on his left shoulder, the chief mourner circles the pyre while holding a fire brand behind his back. At each turn around the pyre, a relative knocks a hole in the pot with a knife, letting water out, signifying life's leaving its vessel. At the end of three turns, the chief mourner drops the pot. Then, without turning to face the body, he lights the pyre and leaves the cremation grounds; the others follow. At a gas-fueled crematorium, sacred wood and ghee are placed inside the coffin with the body. Where permitted, the body is carried around the chamber, and a small fire is lit in the coffin before it is consigned to the flames. The cremation switch then is engaged by the chief mourner



Figure 16-Cremation

https://szamanskibeben.pl556-large_default/

RETURN HOME; RITUAL IMPURITY

Returning home, all bathe and share in cleaning the house.

A lamp and water pot are set where the body lay in state: the water is changed daily, and pictures remain turned to the wall. The shrine room is closed, with white cloth draping all icons.

Family and close relatives do not visit others' homes, though neighbors and relatives bring daily meals to relieve the burdens during mourning. They also do not attend festivals and temples, visit swamis, nor take part in marriage



Figure 17-Process of Cremation

https://veganfrequentflyer.files.wordpress.com/2013/12/img_3689.jpg

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arrangements. (Some observe this period up to one year) For the death of friends, teachers or students, observances are optional. While mourning is never suppressed or denied, scriptures admonish against excessive lamentation and encourage joyous release. The departed soul is acutely conscious of emotional forces directed At Him. Prolonged grieving can hold him in earthly consciousness, inhibiting full transition to the heaven worlds. In Hindu Bali, it is shameful to cry for the dead.

BONE GATHERING CEREMONY

About 12 hours after cremation, family men return to collect the remains. Water is sprinkled on the ash; the remains are collected on a large tray. At crematoriums the family can arrange to personally gather the remains: ashes and small pieces of white bone called “flowers” In crematoriums these are ground to dust, and arrangements must be made to preserve them. Ashes are carried or sent to India for deposition in the Ganges or placed them in an auspicious river or the ocean, along with garlands and flowers.



Figure 18-After cremation ritual

https://i.imgur.com/data/H/O/MY-1164070/importance-20of-20shraadh_10665359_250x250.JPG

MEMORIALS

The death ritual does not end with the elimination of the body. There is still the safety of the soul to look after. To ensure the passage during its voyage to the other world.

FIRST MEMORIAL

On the 3rd, 5th, 7th or 9th day, relatives gather for a meal of the deceased's favorite foods. A portion is offered before his photo and later ceremonially left at an abandoned place, along with some lit camphor. Customs for this period are varied. Some offer pinda (rice balls) daily for nine days. Others combine all these offerings with the following sapindikarana rituals for a few days or one day of ceremonies.

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31ST-DAY MEMORIAL

On the 31st day, a memorial service is held; in some traditions it is a repetition of the funeral rites. At home, all thoroughly clean the house. A priest purifies the home, and performs the sapindikarana, making one large pinda (rice balls, representing the deceased) and three small, representing the father, grandfather and great-grandfather. The large ball is cut in three pieces and joined with the small pindas to ritually unite the soul with the ancestors in the next world. The pindas are fed to the crows, to a cow or thrown in a river for the fish. Some perform this rite on the 11th day after cremation. Others perform it twice: on the 31st day or (11th, 15th, etc.) and after one year. Once the first sapin dikarana is completed, the ritual impurity ends.

ONE-YEAR MEMORIAL

At the yearly anniversary of the death (according to the moon calendar), a priest conducts the shraddha rites in the home Offers pinda to the ancestors. This ceremony is done yearly as long as the sons of the deceased are alive (or for a specified period). It is now common in India to observe shraddha for ancestors just prior to the yearly Navaratri festival. This time is also appropriate for cases where the day of death is unknown.

2.4.2 DEATH RITUALS FOR ISLAM

AT THE TIME OF DEATH

Immediately after the death has occurred and it has been verified, his/her eyes are closed; the mouth and jaws are tied gently with broad bands or pieces of cloth so that they do not remain wide open; the legs should also be tied in the same way. The body should be covered, and must always remain covered, preferably with a white sheet of cloth.

The bereaved family and friends are to be comforted; all attempts are made to share the grief and help them face their loss with patience and surrender to Allah's will.

Funeral arrangements must be made without delay; relatives and friends are to be notified. The body must not be kept waiting unnecessarily.

Immediate family and friends are to prepare food for the bereaved family for three days.

PREPARING THE BODY

BATHING THE DECEASED

The corpse is washed the purpose is to physically cleanse the corpse. Ideally, this occurs as soon as possible, within hours of the actual death.

The orthodox practice is that the body is washed while a cloth is put on top of it. The water is then poured over the body with the cloth on the body. The genitals should be covered at all times.

The 'washers' are commonly the same gender as the deceased and immediate family members.

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ENSHROUDING THE DECEASED

The corpse is typically wrapped in a simple plain cloth (the kafan). This is done to respect the dignity and privacy of the deceased. The specifics of this ritual, including the material, style, and color of the cloth, may vary across regions.

However the shroud should be simple and modest. It is for this reason that Muslims have generally preferred to use white cotton cloth to serve as the shroud. Some perfume may be applied to the cloth as well

The deceased may be kept in this state for several hours, allowing well-wishers to pass on their respects and condolences.



Figure 19-Covering the dead

<https://www.islam21c.com/wp-content/uploads/muslim-shroud-620x300.jpg>

FUNERAL PRAYER

The Muslims of the community gather to offer their collective prayers for the forgiveness of the dead. This prayer has been generally termed as the Salat al-Janazah (Janazah prayer).



Figure 20-Janazah prayer

<http://www.funerals-and-flowers.com/images/islamic-funerals2.jpg>

BURIAL

The deceased is then taken for burial (al-Dafin). The grave should be aligned perpendicular to the Qibla (i.e. Mecca).The body is placed in the grave without a casket, laying on its right side, and facing the Qibla. Grave markers should be raised only up to a maximum of 12 inches (30 cm) above the around. Thus Grave markers are simple, because outwardly lavish displays are discouraged



Figure 21-Burial

<https://bloximages.chicago2.vip.townnews.com/>

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in Islam. The body is laid such that it is facing the direction of the Qibla. The orthodoxy expects those present to symbolically pour three handfuls of soil into the grave while reciting a Quranic verse in Arabic meaning "We created you from it, and return you into it, and from it we will raise you a second time'. More prayers are then said, asking for forgiveness of the deceased, and reminding the dead of their profession of faith.

MOURNING

According to orthodoxy, loved ones and relatives are to observe a 3-day mourning period. Islamic mourning is observed by increased devotion, receiving visitors and condolences, and avoiding decorative clothing and jewelry.



Figure 22-mourning time

https://gdb.voanews.com/7E84583A-39DA-4142-A433-B05033634122_cx0_cy11_cw0_w408_r1_s.jpg

https://gdb.voanews.com/7E84583A-39DA-4142-A433-B05033634122_cx0_cy11_cw0_w408_r1_s.jpg

2.4.3 CHRISTIAN DEATH RITUALS

CONVEYANCE OF THE BODY TO THE CHURCH

The first stage involves the parish priest and other clergy going to the house of the deceased. One cleric carries the cross and another carries a vessel of holy water. Before the coffin is removed from the house it is sprinkled with the holy water. The priest, with his assistants, says the psalm *De profundis* with the antiphon *Si iniquitates* .



Figure 23-mourning time

<https://5.imimg.com/data5/OO/ER/GLADMIN-55278872/christian-funeral-500x500.jpg>

Then the procession sets out for the church. The cross-bearer goes first, followed by members of the clergy carrying lighted candles. The priest walks immediately before the coffin, and the friends of the deceased and others walk behind it. As they leave the house, the priest intones the antiphon *Exsultabunt Domino*, and then the psalm *Miserere* is recited or chanted in alternate verses by the cantors and clergy. On reaching the church the antiphon *Exsultabuntis* is repeated. As the body is placed in the middle of the church, the responsorial *Subvenite* is recited.

Historical precedence provides that if the corpse is a layman, the feet are to be turned towards the altar. If the corpse is a priest, then the position is reversed, the head being towards the altar.

A rule also exists that both before the altar and in the grave, the feet of all Christians should be pointed to the East.



Figure 24-Coffin brought to the chapel

<https://i.guim.co.uk/img/media/>

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CEREMONY IN THE CHURCH



Figure 25-Mass in the chapel

<https://www.gatheredhere.com.au/wp-content/uploads/2017/09/Christian-Funeral-Service.jpg>

The second stage is a cycle of prayers, the funeral Mass absolution. Candles are lit around the coffin, and they are allowed to burn throughout this stage.

PRAYERS

The prayers offered are the Office of the Dead. Throughout the prayers, certain omissions are made. For example, each psalm ends with Requiem aeternam instead of the Gloria Patri .

MASS FOR THE DEAD

.As in the case of the Office, the Mass for the Dead (Missa de .Requie) is chiefly distinguished from ordinary Masses by .certain omissions. Some of these may be due to the fact that this Mass was formerly regarded as supplementary to the Mass of the day. In other cases it preserves the tradition of a more primitive age.

During the Mass it is customary to distribute candles to the congregation. These are to be lit during the Gospel, during the latter part of the Holy Sacrifice from the Elevation to the .Communion, and during the absolution which follows the Mass. As already remarked the association of lights with

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Christian funerals is very ancient, and liturgists here .recognize a symbolical reference to baptism whereby Christians are made the children of Light,

ABSOLUTION

Absolution of the dead is a series of prayers for pardon be said over the body of a deceased Catholic wing a Requiem Mass and before burial. The absolution the dead does not forgive sins or confer the sacramental absolution of the Sacrament of Penance. Rather, it is a series of prayers to God that the person's soul will not have to suffer the temporal punishment. In purgatory due for sins which were forgiven during the person's life.



Figure 26-Procession towards grave

<https://s.aolcdn.com/dims-shared/>

CEREMONY BY THE GRAVESIDE



Figure 27-Prayer at the grave

<https://newartwestmidlands.org/wp-content/uploads/2018/07/funeral-planning-guide-worksheet-beautiful-christian-funerals-and-memorial-services-planning-guide-of-funeral-planning-guide-worksheet.jpg>

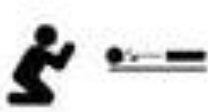
After the absolution, the body is carried to the grave. The tomb or burial plot is then blessed, if it has not been blessed previously. A grave newly dug in an already consecrated cemetery is considered blessed, and requires no further consecration the priest intones the antiphon "I am the Resurrection and the Life", after which the coffin is lowered into the grave and the Canticle Benedicts is recited or sung. Then the antiphon is repeated again, the Lord's Prayer is said silently, while the coffin is again sprinkled with holy water.

The final petition made by the priest is \"May his soul and the souls of all the faithful departed through the mercy of God rest in peace.\" At that point, the graveside ceremony and the burial is completed.

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2.5 METHODOLOGY

HINDU



Prayer



Cremation



Collecting Ashes



Dumping ash to the

river

MUSLIM



Bathing the body
vegetation



Enshrouding dead
In a white cotton cloth



Ritual in
mosque



Burying the dead in
grave and positioning



Plant

The head towards Mecca

CHRISTIAN



Priest lead the ritual
Pray for



Mourners condole
The death



Bury to Ground



Put headstone on top



soul

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2.6 THE ISSUE OF LAND

The cemeteries end up turning into urban dead space as it becomes less likely for people to use them as public parks .Probably it's time to utilize the square footage in a new, more efficient manner (going vertical)



Figure 29-result Over time of expansion of cemeteries

http://fpublicarchaeology.org/nerc/images/CRPT_logo.jpg

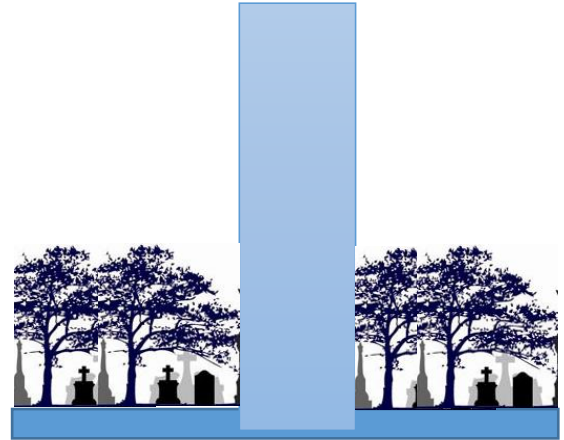


Figure 28-Going Vertical

http://fpublicarchaeology.org/nerc/images/CRPT_logo.jpg

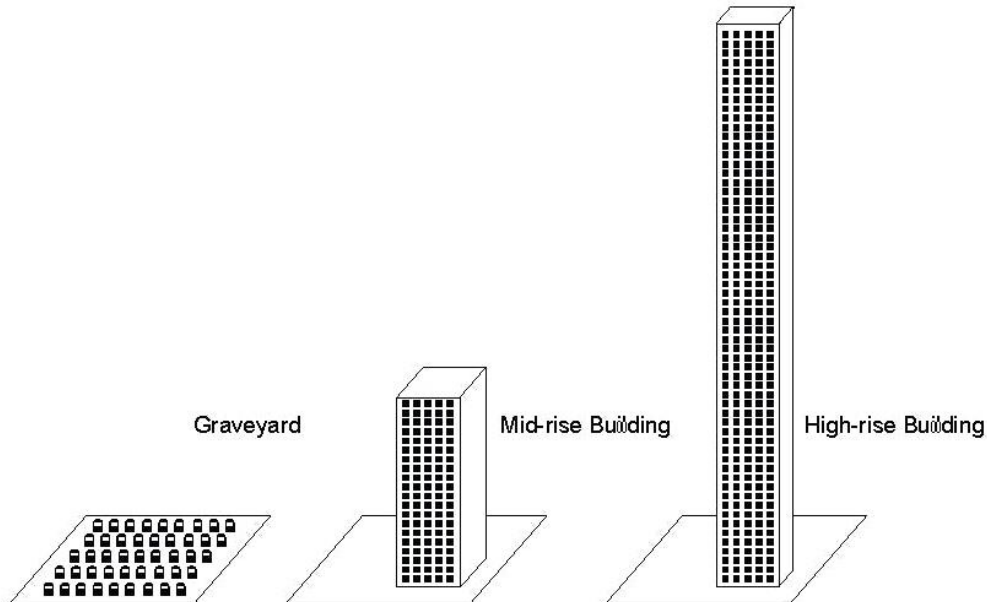


Figure 30-land usage for different areas

<https://archinect.imgix.net/uploads/g4/g43kbuxbfupr0r8s.png?auto=compress%2Cformat>

Ground area	100 acre	25 acre	12.5 acre
Plot area	1	5	7.5
Occupation	4000 bodies	400 families	600 families

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Open space

0 acre

75 acre

87.5 acre

2.7 WHAT HAPPENS TO EXISTING CEMETERIES

The existing cemeteries should be converted to wildlife reserve areas.

The environmental and visual value of cemeteries to the local community has generally been ignored. They usually contain the oldest trees in the locality, and provide habitats for mammals, wildflowers, insects, bats and birds. The old stone memorials are often the only available habitat for lichens and mosses.

Changing mowing regimes, placing bird and bat boxes and replanting herbaceous borders with butterfly plant species, are small yet effective parts of this process. These improvements to the older sections can complement intensive high quality maintenance in current and more recently used burial areas.

The environmental benefits of turning old burial areas into wildlife reserves are twofold. Firstly, there is a reduction in fossil fuel and herbicide usage. Secondly, the increasing bird's and wildlife create a valuable resource, offering benefits to the grieving process as well as increasing leisure/educational possibilities for the community. This process does not impact on graves visited by mourners and is generally supported by the majority of those using the grounds. The value of nature in improving the grieving process is rarely identified and yet, is very important. A singing bird, a beautiful tree, or a colorful bedding display, are all therapeutic and symbolic of new life.

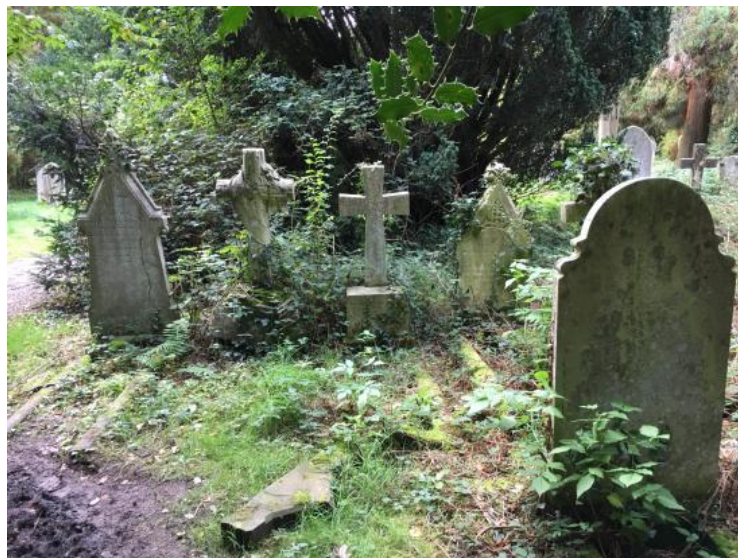


Figure 31-Wildlife reserve as cemeteries

<https://media-cdn.tripadvisor.com/media/photo-s/0a/00/63/cb/the-old-cemetery.jpg>

2.8 COLUMBARIUM AND FUNERARY URNS



Figure 32-Stacking of Urns

https://upload.wikimedia.org/wikipedia/commons/thumb/5/55/Columbarium_at_P%C3%A8re-Lachaise_Cemetery.jpg/240px-Columbarium_at_P%C3%A8re-Lachaise_Cemetery.jpg

2.8.1 COLUMBARIUM

Columbarium is a place for the respectful and usually public storage of cinerary urns (i.e. urns holding a deceased's cremated remains).

The term comes from the Latin Columba (dove) and originally referred to compartmentalized housing for doves and pigeons.

2.8.2 FUNERARY URNS

Funerary urns (also called cinerary urns) were used by many civilizations. After a person died, survivors

cremated the body and collected the ashes in an urn.



Figure 33-Columbarium

<https://upload.wikimedia.org/wikipedia/commons/thumb/e/e8/Oakland-columbarium-s.jpg/241px-Oakland-columbarium-s.jpg>

2.8.3 HISTORY OF COLUMBARIUM



Figure 34-Encrypted Urns

<https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQT-ZlHt8zmkGrQypDsOs1y9Ox6x9ehZRz9hbqilcnQcITBSdyi>

Columbaria were common during the early Roman Empire, when cremation was normal practice. They were usually erected and supervised by funeral societies to which most of the lower and middle classes in Rome belonged. In the Bavarian tradition, a king's heart would be placed in the urn upon his death (as happened with King Otto of Bavaria in 1916). Romans placed the urns in a niche in a collective tomb called a

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columbarium. The interior of a columbarium usually has niches to house urns.

2.9 GREEN BURIAL

2.9.1 GREEN BURIAL

Rapid urbanization and environmental concerns have necessitated new approaches to the cemeteries, too. "Eco-cemeteries" or so-called "green burial" or "natural burial" concept has begun coming forth especially in the West. This is an approach supporting environmental Transformation taking place. In the ecological cycle. Eco cemetery represents the idea of rapid return of the corpses to the nature and non-polluting burial methods and cemetery planning.

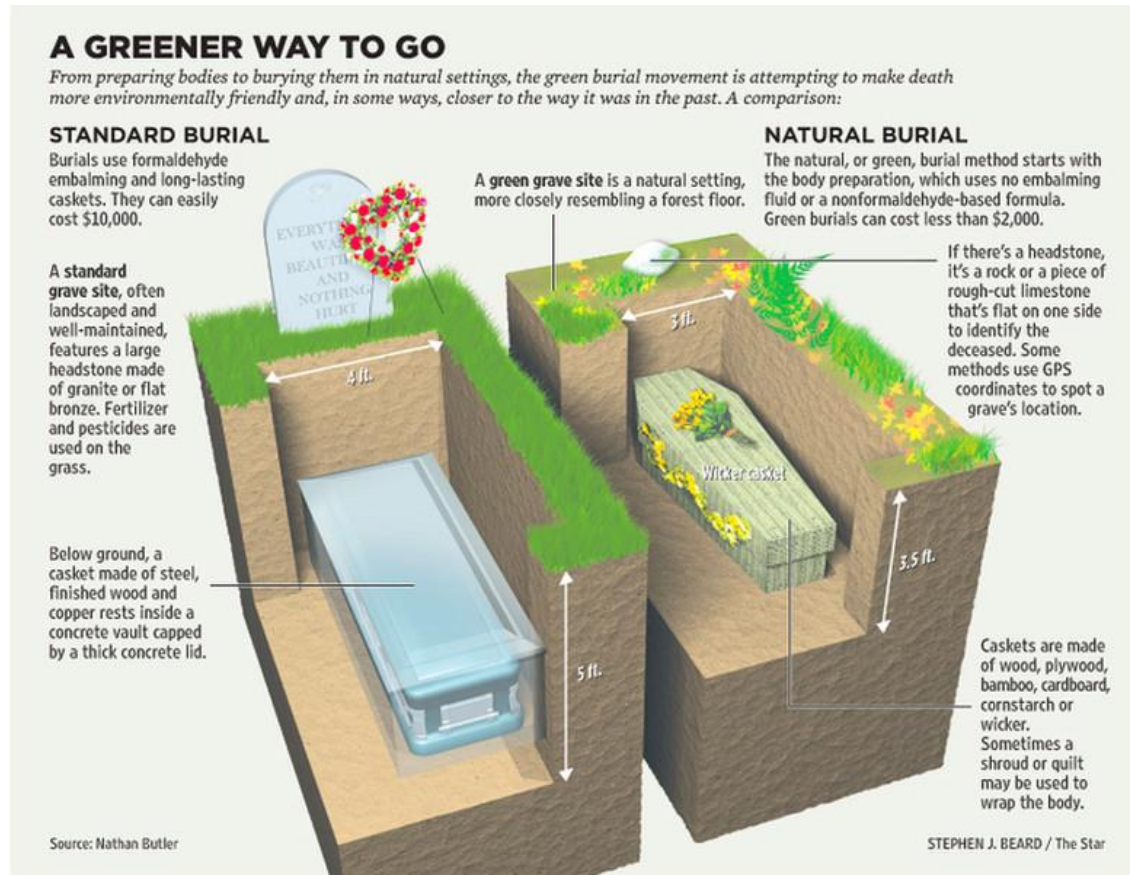


Figure 35-Burials

<https://cdn.flconnect.net/media/80410/r/782x655/1376960.jpg>

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CHAPTER 3:LITERATURE STUDY

3.1 DIAMOND HILL CREMATORIUM

3.1.1 INTRODUCTION

LOCATION: Po Kong Village road, Diamond hill ,Hong Kong

ARCHITECT: Enric Millares in Barcelona, Catalonia, Spain and Architectural Service Department of Hong Kong.

AREA: 7100. Sqm

PROJECT YEAR: 2009



Figure 36-Diamond hill crematorium-front elevation

https://images.adsttc.com/media/images/567c/50d7/e58e/cea0/6b00/031e/slide_show/C06_service_hall_lily_pond

3.1.2 RELEVANCE

The Diamond hill crematorium is located in Hong Kong, china. It is honors the circle of life with a restorative park like space. It provides people with opportunity to mourn their loved ones in an environment dominated by tranquility and comfort. The design created by Architectural Service Department was inspired by created ritual of climbing the mountain to pay respect to ones ancestors. The focus of the design was to create an environment that fosters healing and honors the dead.

The crematorium is located et to the columbarium designed by the same firm, located in diamond hill , the crematorium was created with the idea that ‘death is not the end’ and there is ‘life after death’. This reflected in the way the water us recycled in the lily pond and numerous circular pathways.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

To emulate the traditional journey of mountains, flights of landscaped steps allow people to access the niche on various floors and reconnect with nature. Natural ventilation, skylight and slit windows allows optimal level of comfort. The aim is to provide a calm, soothing and dignified place created through axial symmetrical disposition of the main service halls and landscape podium.



Figure 37-Circular staircase

https://images.adsttc.com/media/images/567c/52c3/e58e/cee2/8a00/031b/slideshow/portad_a_C05_circular_courtyard

3.1.3 SITE

The new crematorium is built on the slopes of diamond hill which is entirely dedicated to burial processes. It follows the existing site contours, facing south and comprises 2 district zones accommodated on 2 levels: the ground floor level drop-off and building services installation and podium level where service halls, lily pond, and landscaping area are located. The ceremonial path taken by the mourners is carefully designed, focusing on the serene and complete experience.

Through admission of the natural lighting from the skylight and slit windows, a calm, tranquil and warm ambience is created inside the service halls. The entrance and exit of each service hall are purposely segregated, avoiding any chances of different groups of mourners meeting each other and stirring up grievous emotions.

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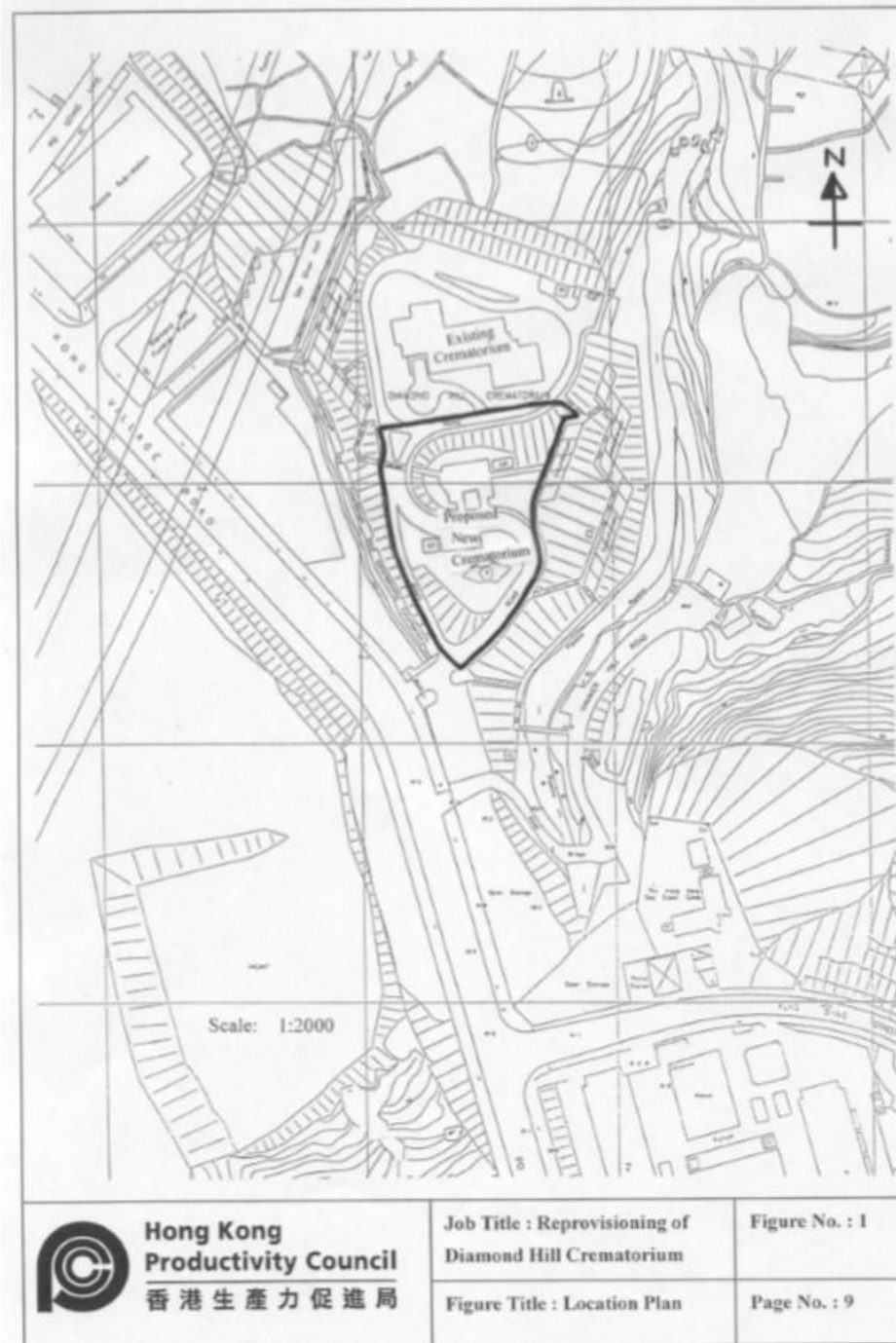
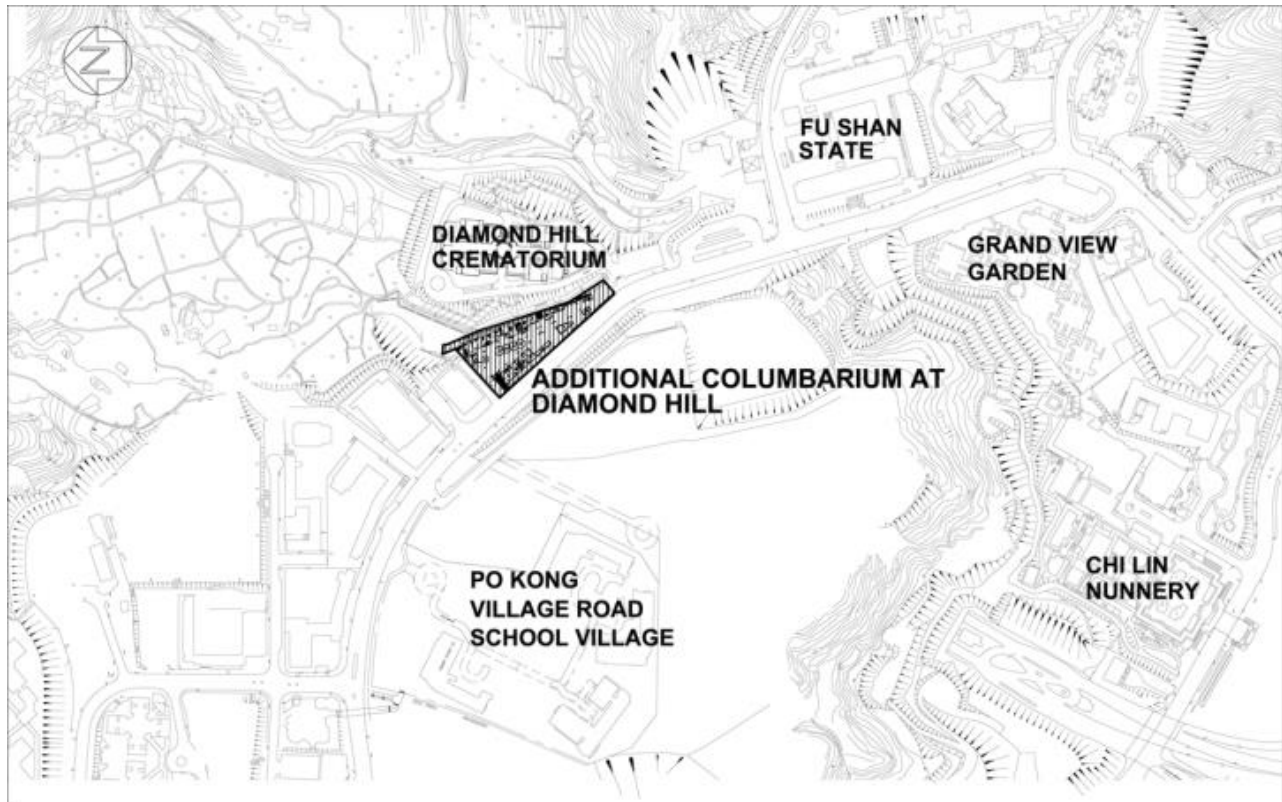


Figure 38-Diamond hill crematorium-location plan

<https://www.epd.gov.hk/eia/register/profile/latest/esb102.pdf>

The proposed site is located at the southern part of the existing Diamond Hill Crematorium site. There have been a pavilion, roads, walkways, a latrine, slopes, and a garden of remembrance in the proposed site.



LOCATION PLAN 1:4000

Figure 39-.Diamond hill crematorium-location plan

https://visuallexicon.files.wordpress.com/2017/10/cdh_09.jpg?w=723

The proposed crematorium is located in the southern part of the existing Diamond Hill Crematorium site, at an elevation of 75mPD to the east of Po Kong Village Road in Diamond Hill. Six cremators with associated air pollution control systems will be installed in the new crematorium to replace the existing cremators in the existing crematorium. The maximum cremation loading for the new crematorium is 1,260 kg per hour.

The land uses surrounding the site are mainly urn cemetery, residential areas, and educational institutes.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

3.2 ARCHITECTURE PLANNING

3.2.1 CONCEPTUAL PLAN

The concept of diamond hill crematorium is derived from **the circle of life**. The crematorium was created with the idea that **'death is not the end'** and there is **'life after death'**. This reflected in the way the water is recycled in the lily pond and numerous circular pathways.

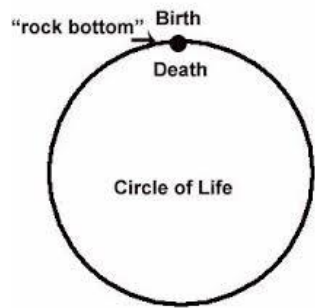


Figure 42-Concept of life cycle

<https://www.kjmaclean.com>



Figure 41-water body recycled

https://images.adsttc.com/media/images/567c/50d7/e58e/cea0/6b00/031e/slide-show/C06_service_hall_lily_pond



Figure 40-circular pathways

https://images.adsttc.com/media/images/567c/52c3/e58e/cee2/8a00/031b/slide-show/portada_C05_circular_courtyard

It provides people with opportunity to mourn their loved ones in an environment dominated by tranquility and comfort. The design created was inspired by created ritual of climbing the mountain to pay respect to ones ancestors.



Figure 44-Growth of a human

<https://medialib.aafp.org/content/dam/AAFP/images/am/2017-july/lv-circle-of-life920.png.dai.600.png>

The cycle of life is the image is representation of growth which is similar to climbing a mountain-
The JOURNEY FROM ONE SIDE TO THE OTHER.



Figure 43-Journey of Mountain representing life growth

<https://image.shutterstock.com>

3.2.2 SITE PLAN

Diamond hill crematorium is expanded over an area of 7100 sq. m and its entry from the north side.

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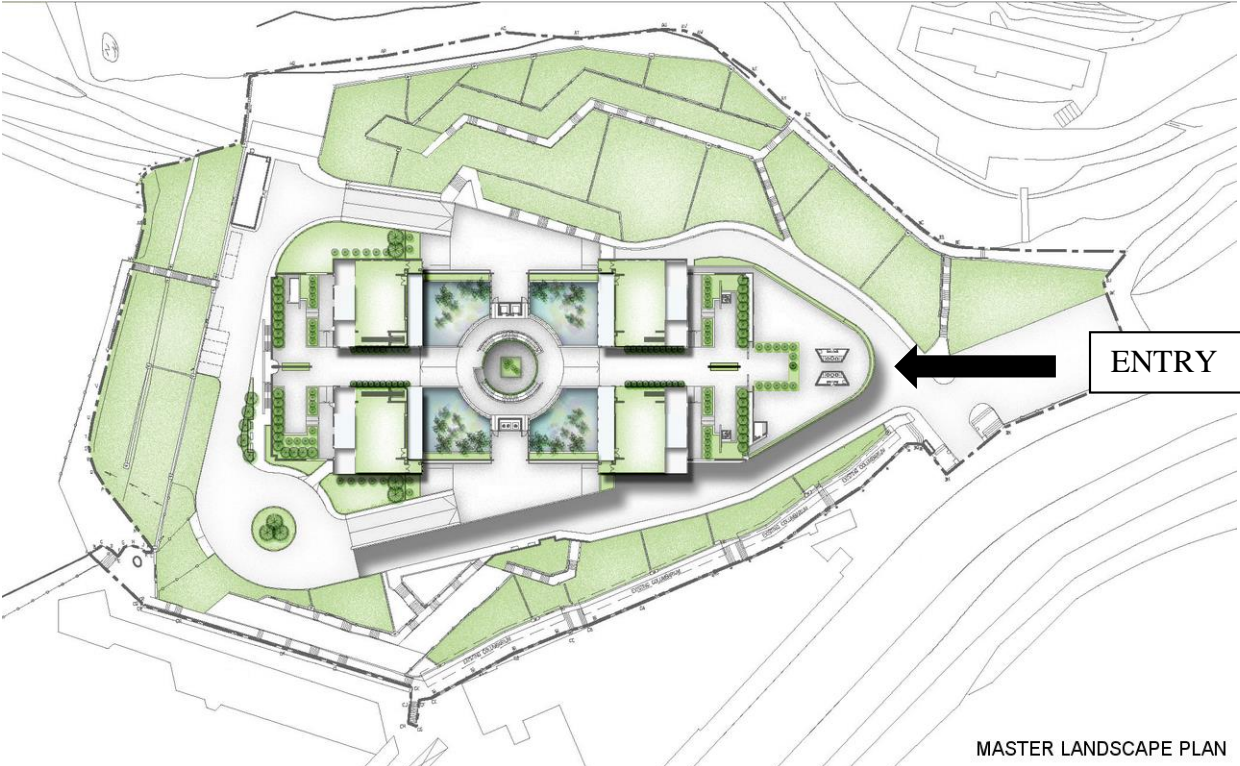


Figure 45-Diamond hill crematorium-site plan

https://www.archsd.gov.hk/media/exhibition/5495/RDHILLC_19.jpg

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3.2.3 FLOOR PLANS

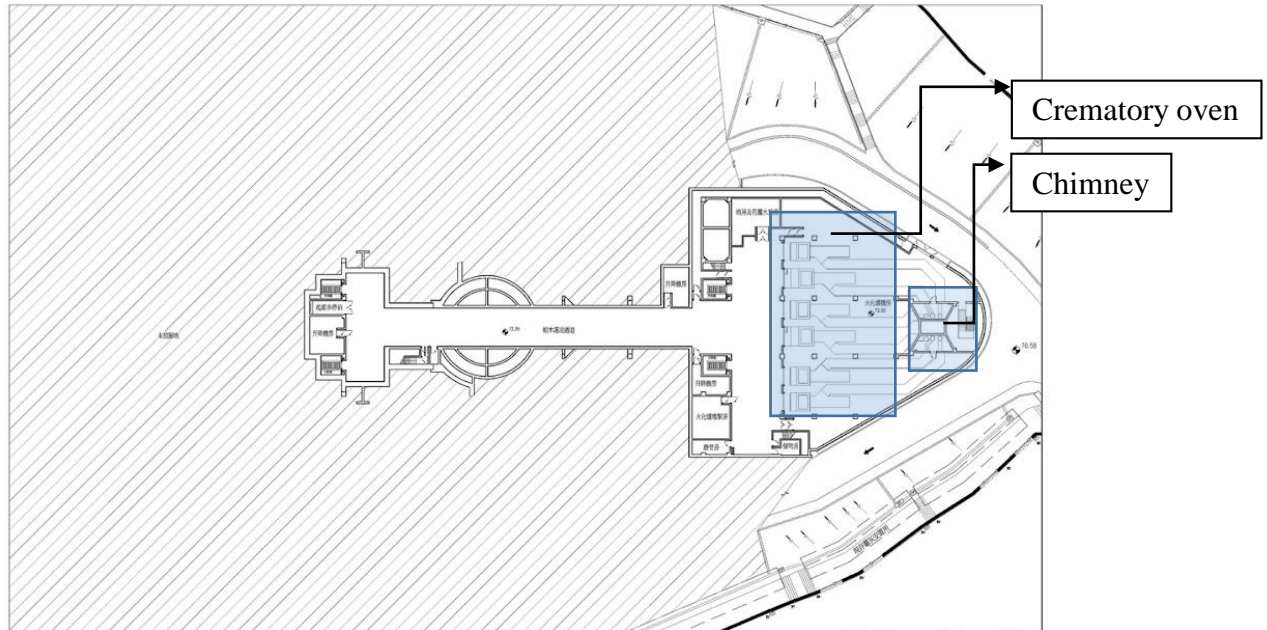


Figure 46-Diamond hill crematorium-lower ground floor

<http://4.bp.blogspot.com/>

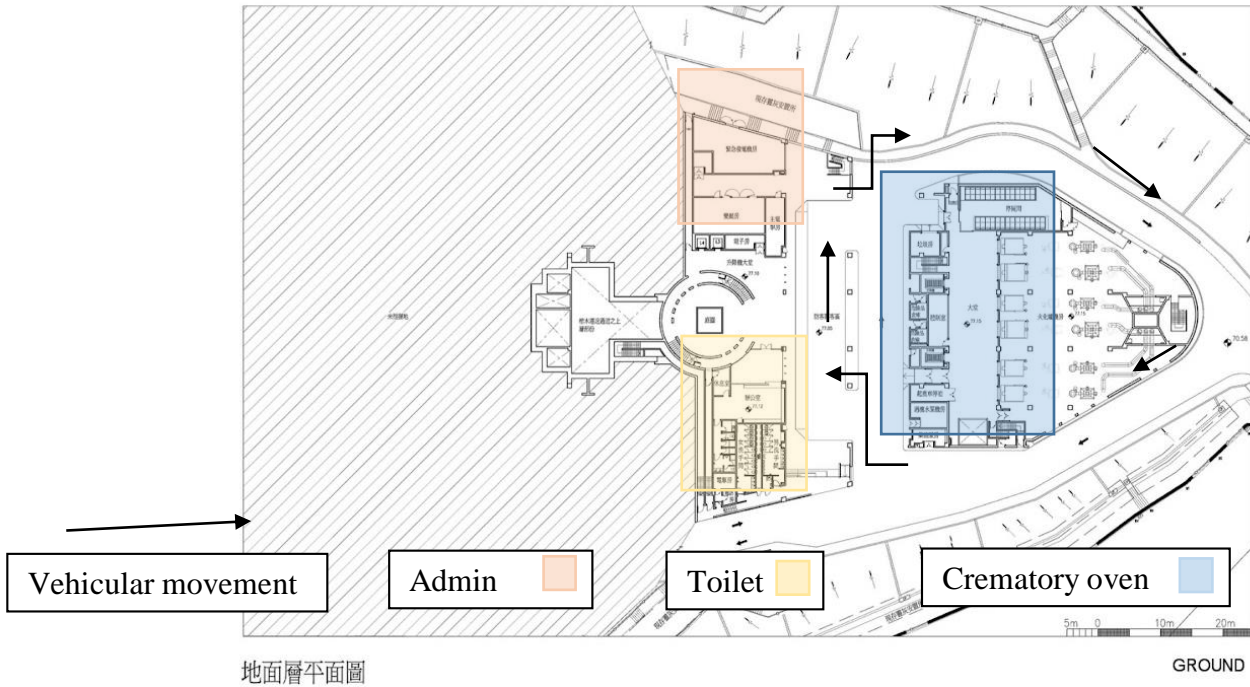


Figure 47-Diamond hill crematorium-ground floor

<http://4.bp.blogspot.com/>

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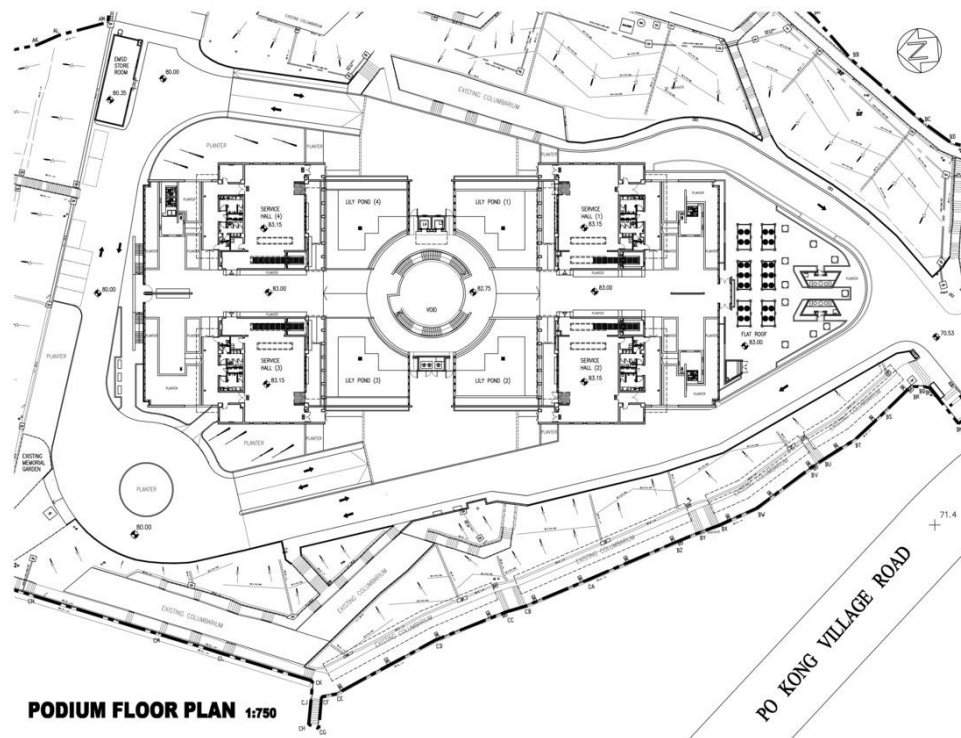


Figure 48-Diamond hill crematorium-podium plan

<https://images.adsttc.com>

The podium floor centers on the circular circulation space to the floor. The circle in the Chinese culture represents heaven while the square represents the earth. With these two forms resting within each other in the architecture, this creates a symbolic meaning of a connection between heaven and earth. There are four lily ponds that creates the square and this is another connection to the concept of earth. There are four service halls, each located to the out-side of each lily pond .This square creates an open space accessible to the public. To the left of the plan are offices and more circulation space, while the right has some exterior space with the chimney from the crematory space below becoming an architectural element.

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3.2.4 CIRCULATION PLAN

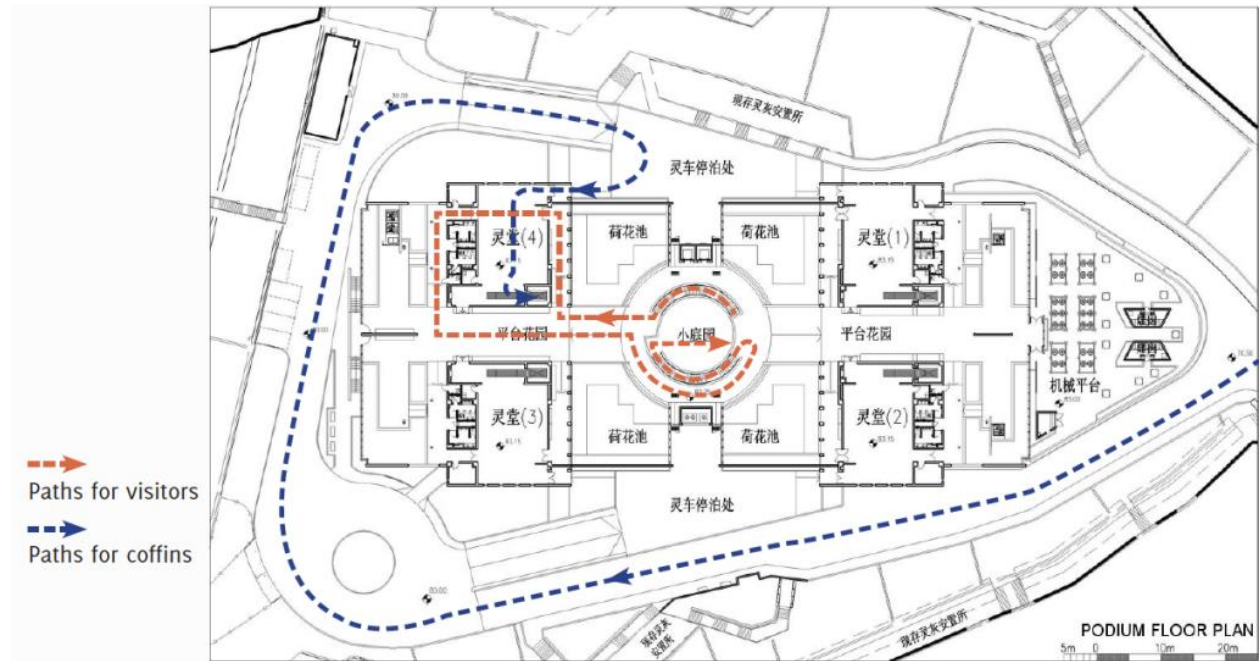
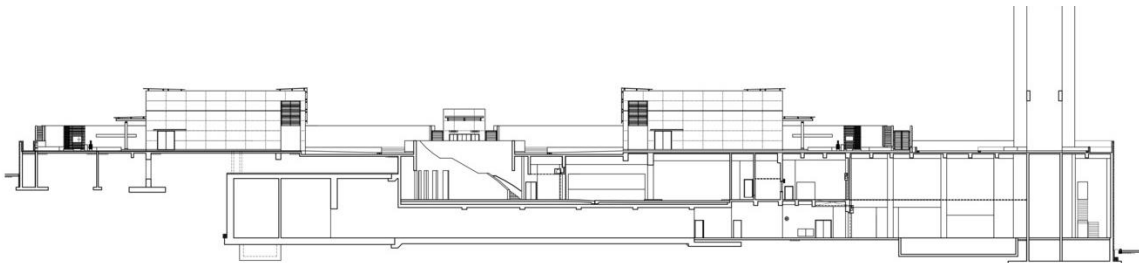


Figure 49-Diamond hill crematorium-circulation plan of podium floor

<https://visuallexicon.files.wordpress.com/>

SECTION



SECTION 1:500

Figure 50-Diamond hill crematorium-building section

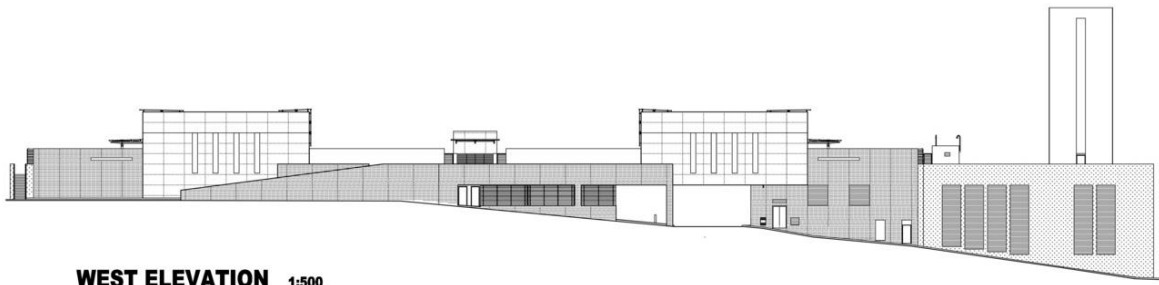
<https://images.adsttc.com>

The design through section shows the public space in center at the top with the lily pond, with the circular space cutting the middle between two levels. The square volumes to either side of the public space are the service halls. The middle floor is for the drop off and offices, while the lowest

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floor is the more functional space for the cremation ovens . To the right is the chimney from the cremation ovens at the bottom most level, which becomes an architectural element.

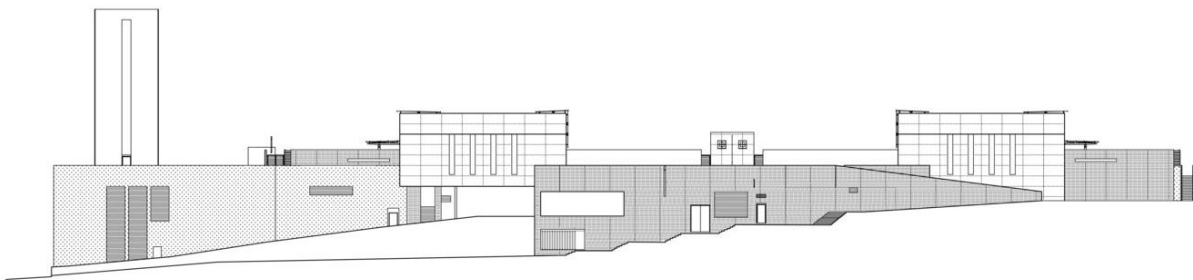
3.2.5 ELEVATION



WEST ELEVATION 1:500

Figure 51-West Elevation

<https://images.adsttc.com>

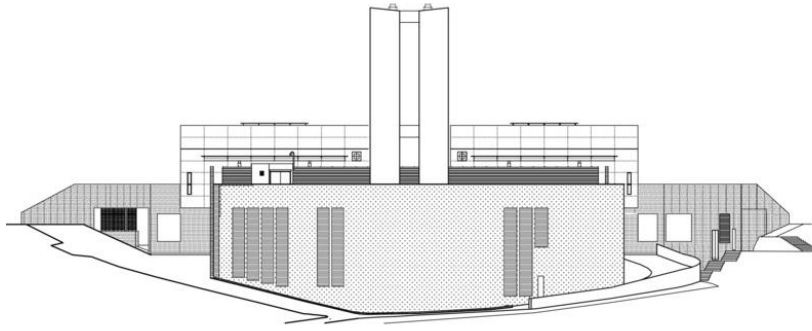


EAST ELEVATION 1:500

Figure 52-Diamond hill crematorium-east and west elevation

<https://images.adsttc.com>

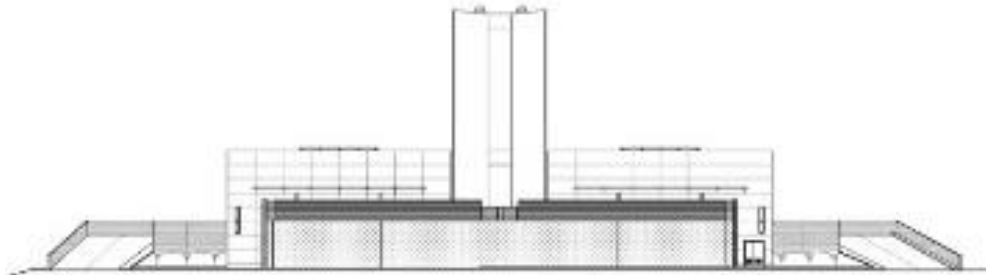
HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE



SOUTH ELEVATION 1:500

Figure 53- Diamond hill crematorium-South Elevation

<https://images.adsttc.com>



NORTH ELEVATION 1:500

Figure 54-Diamond hill crematorium-north elevation

<https://images.adsttc.com>

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The design of the entry expresses access by foot or vehicle and puts someone into the circular space representative of heaven. A person then climbs a stair that wraps around the inside of the

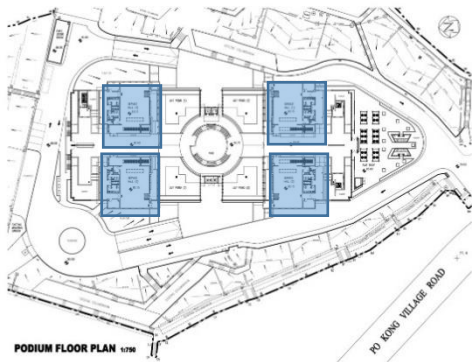


Figure 57-funeral halls in the podium floor

<https://images.adsttc.com>

square to the podium level above. This design is reflective of the spiritual; journey to visit and pay respect to the graves of the loved ones in Chinese culture. The square at the top has a cross shape of circulation going through it to bring someone to the service halls, which are located on the outsides of the lily ponds. This building has large connection with nature and thus the entry space really expresses this through the materiality of concrete. By using concrete, the natural material of plants contrasts the concrete and creates more focus on the greenery. This square at the podium level creates a public space that can be used before and after ceremonies or rituals.



Figure 56-Diamond hill crematorium-circular staircase

https://images.adsttc.com/media/images/567c/52c3/e58e/cee2/8a00/031b/slideshow/portada_C05_circular_courtyard



Figure 55-Diamond Hill Crematorium-Perspective

https://images.adsttc.com/media/images/567c/50d7/e58e/cea0/6b00/031e/slideshow/C06_service_hall_lily_pond

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3.2 ISLAMIC CEMETERY IN ALTACH

3.2.1 INTRODUCTION

LOCATION: Altach, Vorarlberg, Austria

ARCHITECT: Bernardo Bader

PROJECT YEAR: 2012

RELEVANCE

The first Islamic Cemetery in Vorarlberg, Austria, opened on June 2, 2012, nine years since the first idea for the project. Located in the municipality of Altach, along the road L190 between Hohenems and Götzis, the cemetery serves all Islamic communities from different towns and cities of Vorarlberg, allowing for burials according to the Islamic Rite. The facility can accommodate approx. 700 graves;



Figure 58-Islamic cemetery-entrance area

<https://images.adsttc.com/media/images/5044/1d27/28ba/0d7e/d400/0115/slideshow/stringio.jpg?1361416078>

it encompasses a plant for the ritual

washing, as well as a small prayer space. With this cemetery, both immigrants and hosts in Vorarlberg are setting an important sign for coexistence in Austria. For Muslim immigrants in Vorarlberg, the cemetery is a symbol that Austria has become their new homeland beyond the death.

SITE

The first Islamic Cemetery in Vorarlberg, Austria. Located in the municipality of Altach, along the road L190 between Hohenems and Götzis, the cemetery serves all Islamic communities from different towns and cities of Vorarlberg,

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3.2.2 AREA PROGRAM

AREA CHART

total site area: 8,415 m²

Ground floor area: 4,235 m²;

USER ACTIVITY



Figure 59- Islamic cemetery-user flow

<https://archinect.imgix.net>

Bathing the body	Enshrouding dead	Ritual in	Burying the dead in	The head
Plant vegetation	In a white cotton cloth	mosque	grave and positioning	Mecca

3.2.3 ARCHITECTURAL DRAWINGS

CONCEPTUAL PLAN

The design of a cemetery is based on the beliefs and their funeral rites, which in turn say a lot about the particular understanding of nature and social relations.

The aim of the design is a very open and clearly laid out the overall concept. A delicate weave of wall panels in various heights frame the graves and the built-structure. The 'finger-like' grave-scale fields allow implementation in stages.



Figure 60-Islamic cemetery-concept

data:image/png

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SITE PLAN

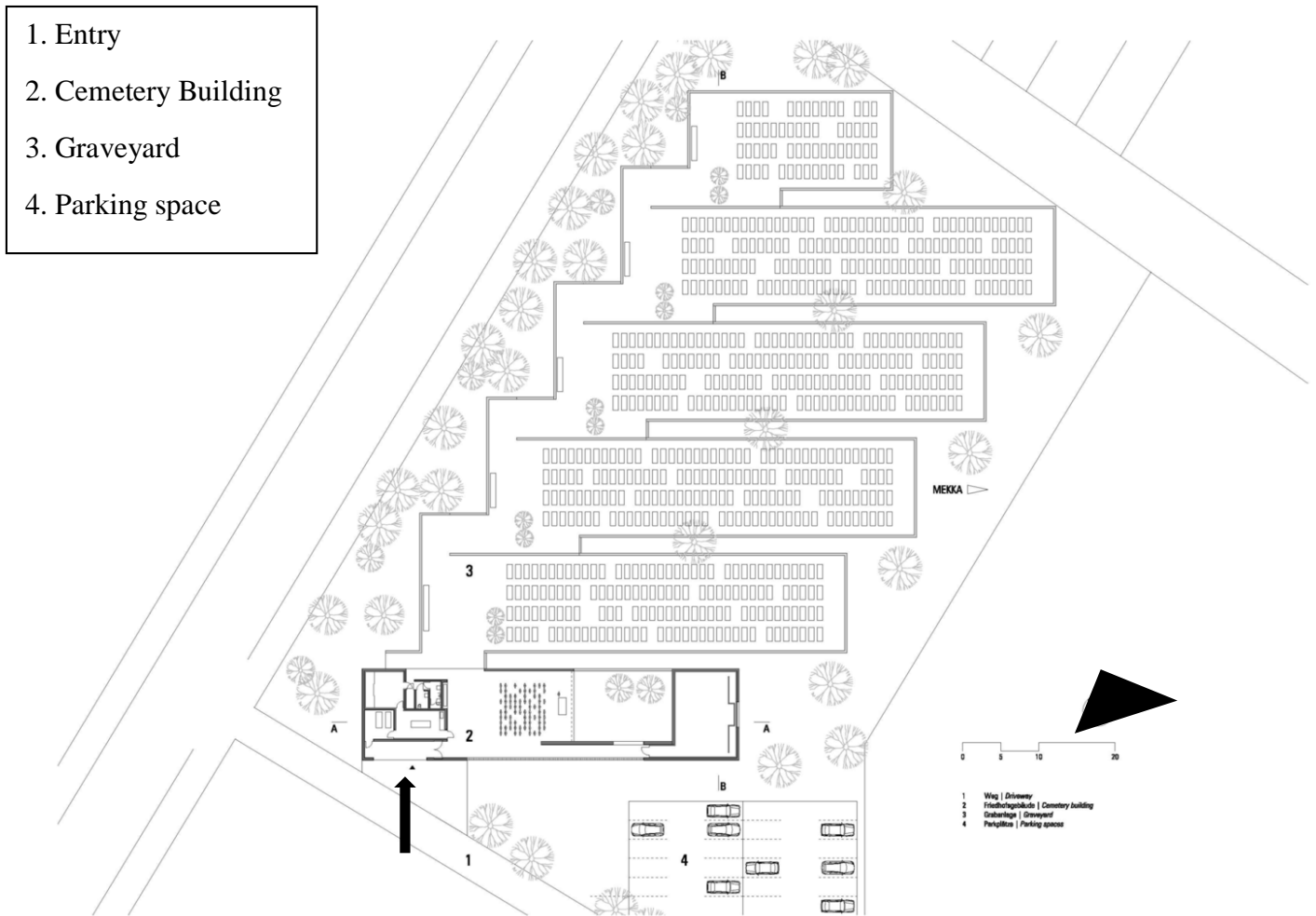


Figure 61-Islamic cemetery-site plan

<https://s3.amazonaws.com>

Regardless of religious orientation, is the two forms of Christian and Muslim burial site in common, that the cemetery was the first garden. As the real ‘Urgarten’ it is characterized by the cultivation of its soil and its clearly defined from surface.

When creating a garden for the first time a piece of land is bounded and clearly delineated against the wilderness. It finds inspiration in the primordial garden, and is delineated by roseate concrete walls in an alpine setting, and consists of five staggered, rectangular grave-site enclosures, and a structure housing assembly and prayer rooms.

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CIRCULATION PLAN

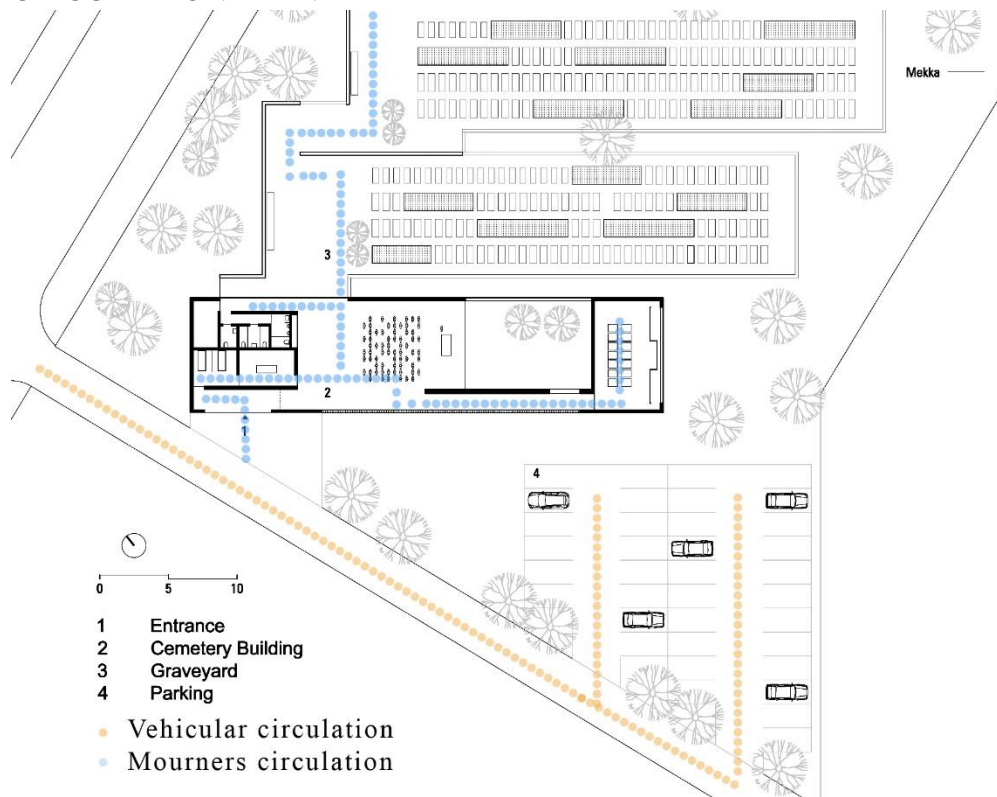
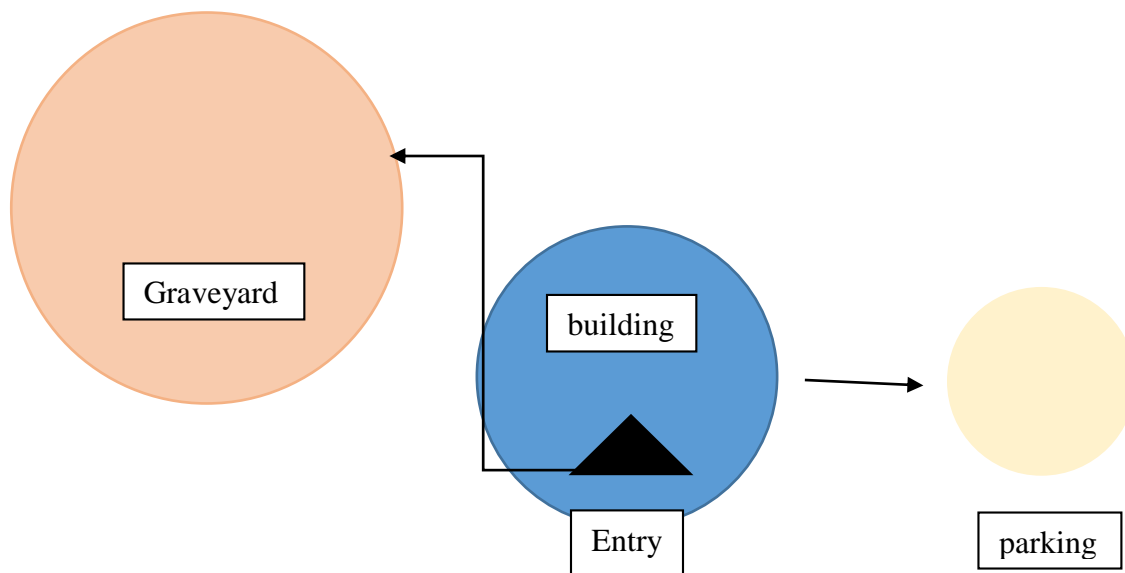


Figure 62-Islamic cemetery-circulation plan

Source-self drawn

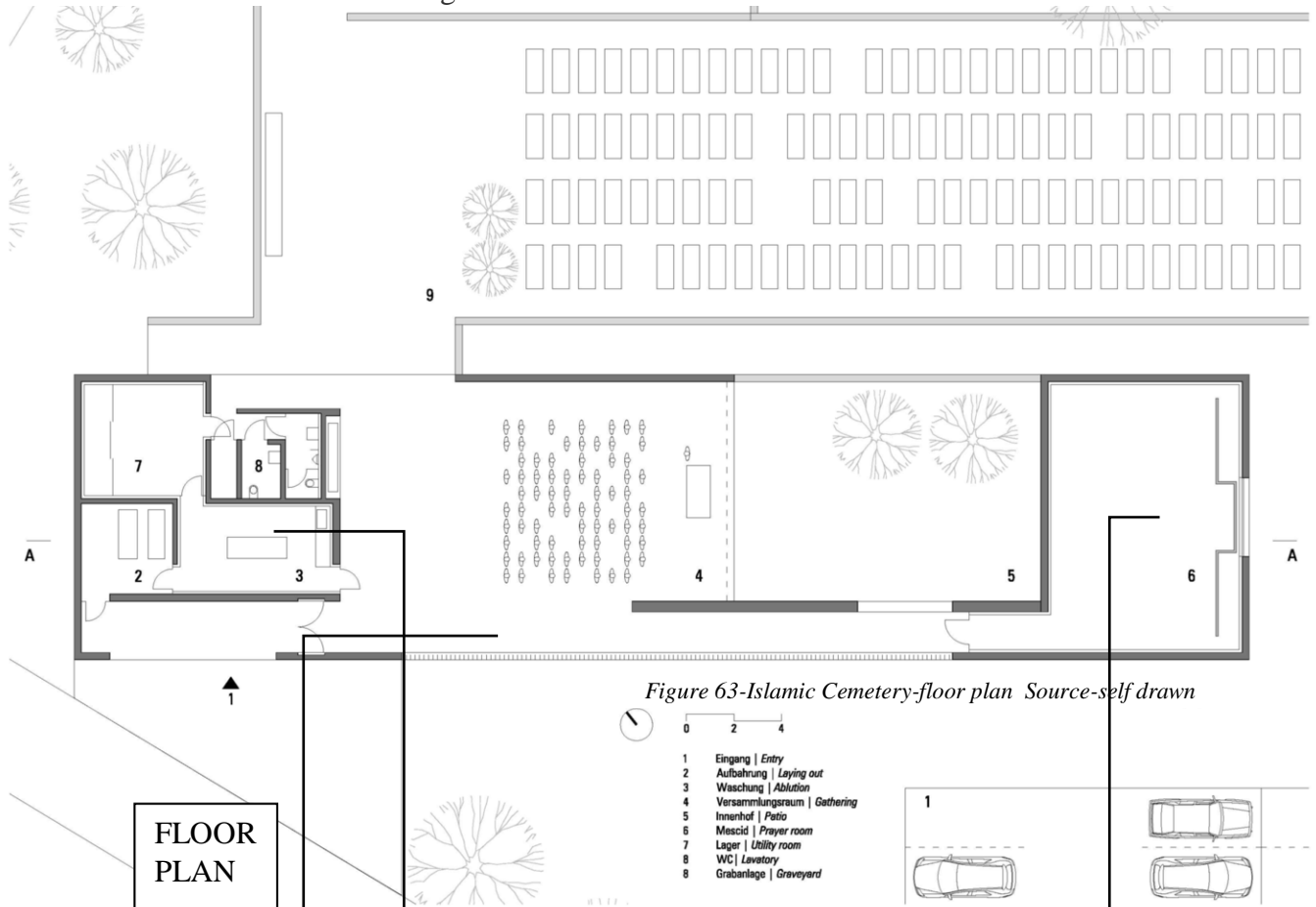
ZONING



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FLOOR PLAN

The grave fields extend into the pristine landscape. The planned grave fields are bordered by low walls and form separate rooms. They are each divided into a compact area for organized grave burials and a small room with sitting-bench.



FLOOR PLAN



Figure 64-Islamic Cemetery-Gathering,laying room,Prayer room

<https://images.adsttc.com>

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SECTIONS

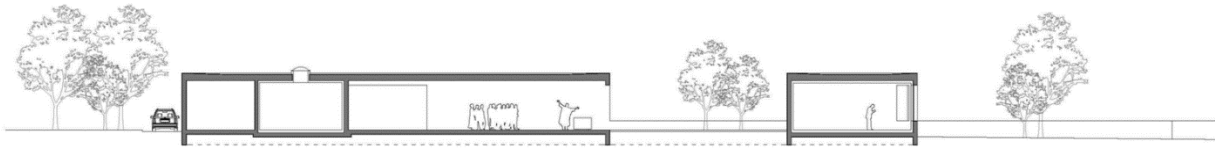


Figure 65-Islamic cemetery-section of cemetery building

<https://images.adsttc.com>

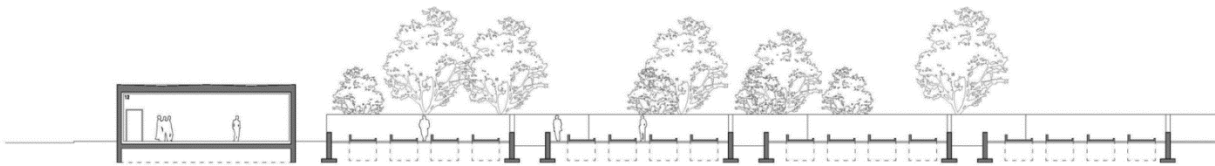


Figure 66-Islamic cemetery-section through prayer hall towards graveyard

<https://images.adsttc.com>

MATERIALS

The principal materials used were exposed reinforced concrete for the walls and oak wood for the ornamentation of the entrance facade and the interior of the prayer space. The visitor is greeted by and must pass through the congregation space with its wooden latticework in geometric Islamic patterns. The space includes ablution rooms and assembly rooms in a subdued palette that give onto a courtyard. The prayer room on the far side of the courtyard reprises the lattice-work theme with Kufic calligraphy in metal mesh on the 'qibla' wall.



Figure 68-. Islamic cemetery-red concrete

<https://images.adsttc.com>

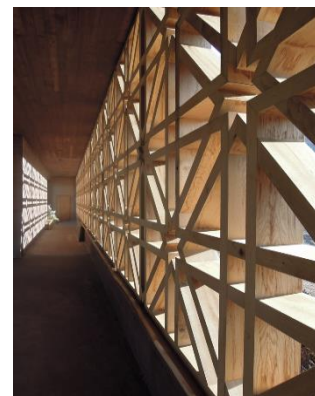


Figure 67-Islamic cemetery- wooden framework

<https://images.adsttc.com/media/images/5044>

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3.3 IGUALADA CEMETRY

3.3.1 INTRODUCTION

LOCATION: Barcelona, Catalonia, Spain

ARCHITECT: Enric Miralles and Carne Pinos

PROJECT YEAR: 1991.

RELEVANCE

The cemetery is located on the outskirts of Barcelona, at the far end of an industrial region, yet isolated in the middle of an untouched setting. This contemplative backdrop allows the spiritual conception of the project to express fully.

SITE



Figure 69-Igualada cemetery-google map showing orthogonal grid like context

<https://www.google.com/maps/place/Igualada+Cemetery>

Igualada has approximately forty thousand inhabitants and is considered to be an industrial manufacturing town, igualada cemetery is located between the industrial sector and the valley of river Riera De Odena.

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wooden Characteristic of both the typology are reflected in the design of the cemetery. The industrial sector has an easy access to the main highway while the Igalada historic urban edge tucks along the river's curve.

The cemetery exists on the site which was used as a quarry for extracting heavy stones. Hence both the functions involve cutting into the site. It acts as a place for removal of the earth while the other hand it becomes a place for returning back. The initial move to excavate and emphasize the

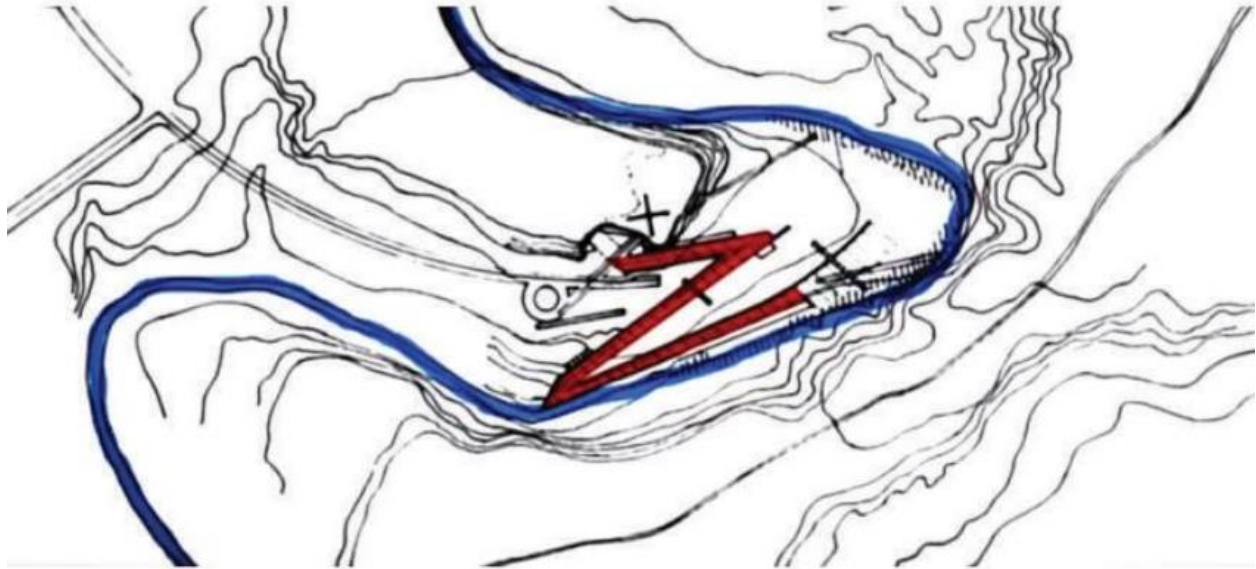


Figure 70- Igalada cemetery-position of the cemetery along the river Rier De Odena

Source –self drawn

cut in the land was derived from the geographical history of the site which is a dried up river valley. The messy edges and the monolithic construction is inspired from the topographical condition and eccentricities.

3.3.2 ARCHITECTURAL DRAWING

CONCEPTUAL PLAN

When considering the symbolic form, the cemetery was to be designed as a path, a route which people could follow and which would itself be exposed to the elements. When designing the Igalada cemetery, the architect's attempts to combine a variety of elements from the disciplines of landscape design, architecture, urban design, sculptures and land art.

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The spaces are curled, laid out progressively, far from any 'Theatrical' conception in which architecture forms the backdrop for the action and the beholder is a spectator. Cemetery display acceptance of the cycle of life, to enable a link between the past, the present and the what count is the sequence of paths and events .

The form of the building is generated by responding to the immediate context but it is not bound by the programmatic requirement that forces to attain a rectilinear shape or grid like sub-divided plan.

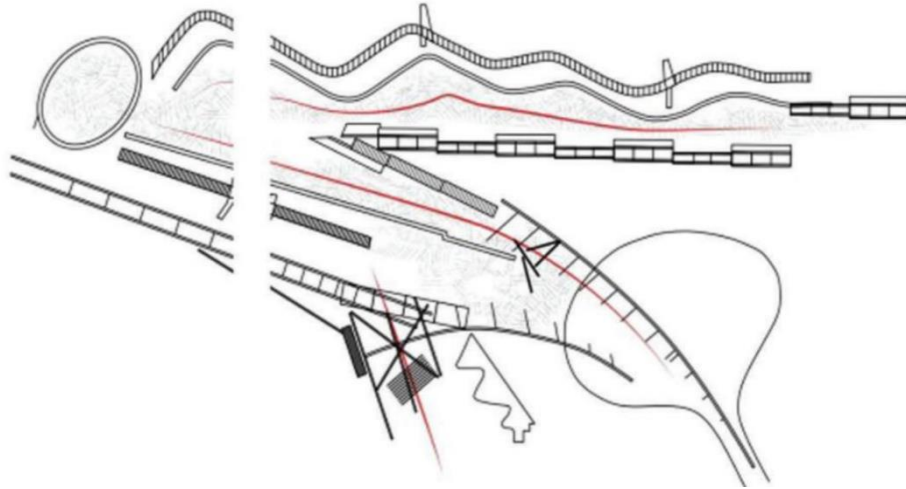


Figure 71-Igualada cemetery-Conceptual plan in continuation of site contours

Source-self drawn

As a generator of form , the idea of spine is manifested.

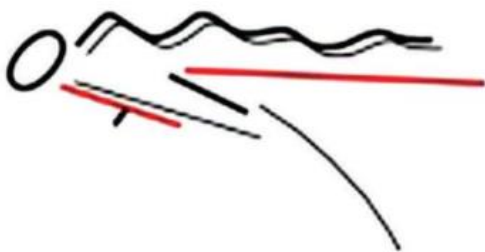


Figure 73-Igualada cemetery-spine manifestation

Source-self drawn

Organic and Amoeba like form.

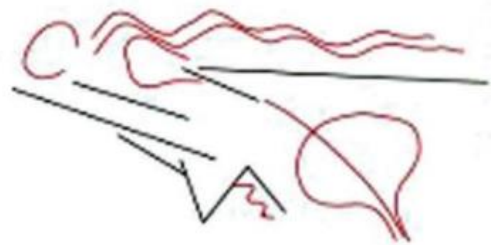


Figure 72-Igualada cemetery-the red line

Source-self drawn

Depicts organic lines in plan and black and lines depicts orthogonal lines

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Figure 74-Igualada cemetery-red shows area with higher level and back with level down

Source-self drawn

SITE PLANNING

Here, architecture naturally adapts itself to a given site. The architecture adopts the form of a street, a public social space where corridors and pathways follow a processional route that descends towards the burial area. Here architecture related directly to the landscape, so 'primary' function like dying and 'archery' find a suitable context in partially underground constructions. The spaces are curled, laid out progressively, far from any 'Theatrical' conception in which architecture forms the backdrop for the action and the beholder is a spectator. Cemetery display acceptance of the cycle of life, to enable a link between the past, the present and the what counts is the sequence of paths and events.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

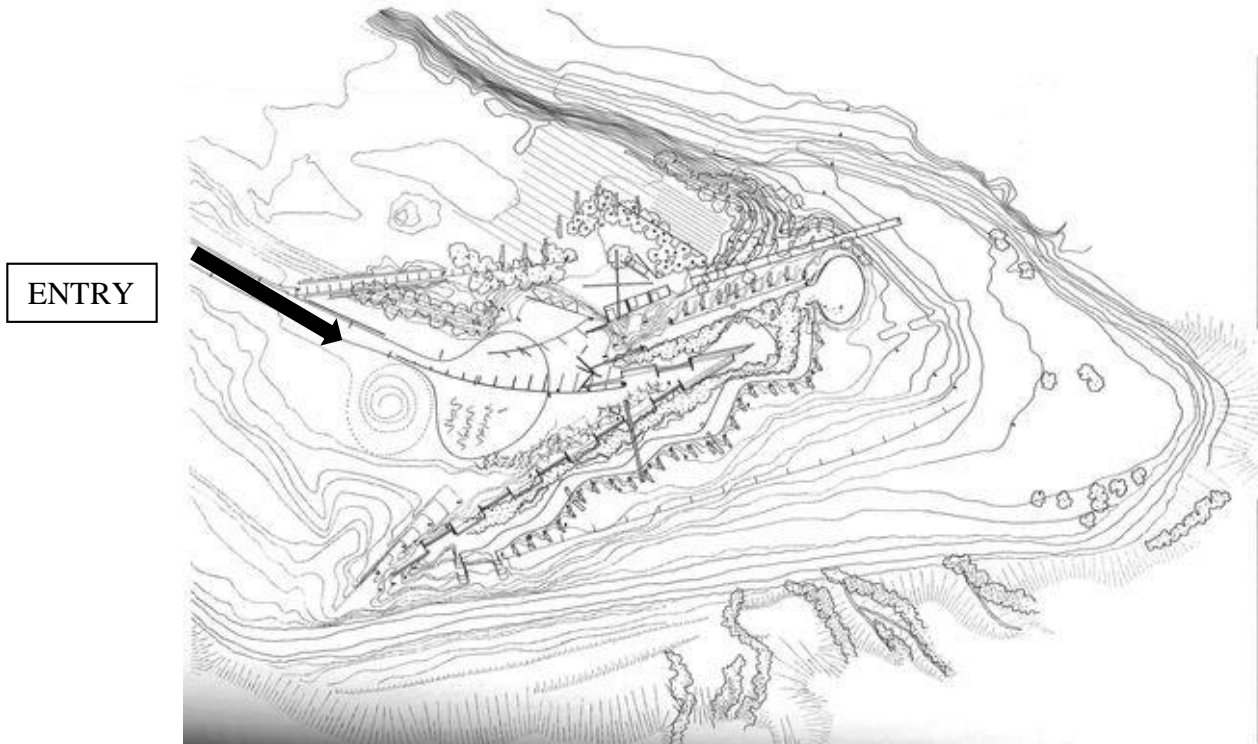


Figure 75-Igualada cemetery-Site plan

<https://i.pinimg.com/564x/85/7a/7c/857a7c25060a281f5b622bf6e1bc56ed.jpg>

When seen from above, the land on which the cemetery is constructed appears untouched because it is sunk in the ground. In case of the Igualada cemetery the landscape is more important than a building. The existing topographical order is framed by the trenches and angular lines. The site plan reflects the swirl of surrounding context path and contours. To mark the termination of old street Carrer Paisos Baixos, which has an industrial manufacturing building, the gravel paved entrance



Figure 77-Igualada cemetery-Entrance

<https://images.adsttc.com/media/images/5037/f838/28ba/0d59/9b00/0709/slideshow/stringio.jpg?1414206504>



Figure 76-Igualada cemetery-enroute by burial

<https://images.adsttc.com/media/images/5037/f88d/28ba/0d59/9b00/070f/slideshow/stringio.jpg?1414206507>

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plaza is created for the cemetery. The entrance path was designed such that the mourners can accompany their deceased beloved till the funeral cottage. The point of arrival is marked by the curved platform on the top with trees planted on several points.

The street is perceived as a street and the route is defined by the burial vaults acting as walls.

Descending slowly, the visitor reaches the ground and between the cliff of the tomb, angled parapets, and the frame that is cutting of all the distraction excluding sky and the mountain ridges. At the bottom of the ramp, the angular lines are terminated into the curved outdoor chamber .The idea was to bring the visitor down and away from the street into the landscape which is analogous to the regional landform. Here, the visitor gets the view of the tombs and the stony walls.



Figure 78-Igualada cemetery-angular line terminated into circular chambers

[https://images.adsttc.com/media/images/5037/f87b/28ba/0d59/9b00/070d/slideshow/stri
ngio.jpg?1414206528](https://images.adsttc.com/media/images/5037/f87b/28ba/0d59/9b00/070d/slideshow/stri
ngio.jpg?1414206528)

CIRCULATION

Design of cemetery includes main entrance, chapel, mortuary and stack of rows of burial niches which leads to mausoleum On approaching the entrance, a visitor is greeted by arrangement of the steel rods which is similar to the crosses at Calvarying. The cemetery emphasizes an idea about the Christian rituals to be followed at end of the life. This cross describes the crucifixion of Jesus.

The composition of these three elements - chapel, burial spaces and morgue creates a fourth function which acts as a public park.This public park is defined by the movement between entry plaza and a reciprocal but it is bounded by the mausoleum place at the lowest level of the site. Primary circulation axis is formed by the cut in the site along the old river valley which is 5 meters

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lower than the plane of the city. Towards the west, the straight line of the design meets the new industrial sector of the city while it adjoins the contours of historic river bed on the other side. The wall on the south slopes towards the viewer while the northern wall counterpart pulls away .

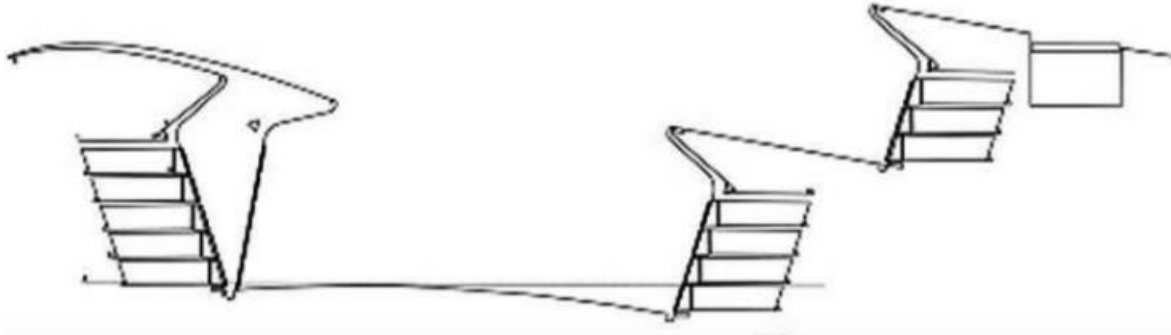


Figure 79-Igualada cemetery-burial wall slopes

<https://www.transfer-arch.com/materiality/>

This allows the intermediate space to be framed as an eroded channel. The trees are slim and its height doesn't exceed more than concrete canopies. This tree acts as a figure in a bounded space that stands straight against the sloping concrete walls

These tall standing trees emphasize the inclination. From distance, it is the tree which attracts one's attention and not the man-made construction on the site. The design draws an inspiration for construction of system of niches from traditional Spanish cemetery. The burial vaults are "neither neglected nor monumentalized".

The retaining of the earth is done through the burial spaces which have sloping concrete walls which is vertically stacked four or five on top of each other. These concrete canopies are sloping towards each other across the spaces and hinting us as an enclosure. The burial vaults occupy their place in landscape

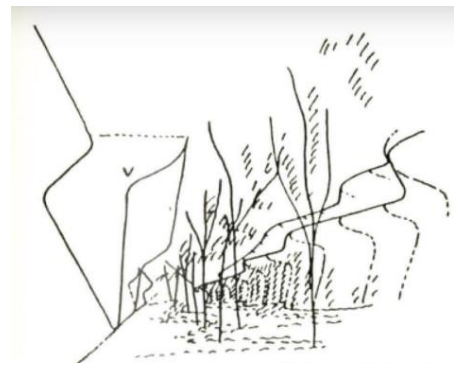


Figure 80-Igualada Cemetery-inclined with tree

<https://sam-naylor.com/igualada-visitors-center>



Figure 81-Igualada Cemetery-vertically stacked

http://en.turkcewiki.org/wiki/Enric_Miralles#/media/File:Igualada_5.JPG

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

which is side by side along the path of movement. Thus, Miralles concept is to choreograph the movement in the space.

Graves are stacked in stepping landscape into the earth and it features as a stacking element. Here, decoders as a stacking element. Here, dead (corpse) also becomes part of the site along with the relatives. At various places, the tomb's inclined cliff is fractured to give sense of the pressure of the earth behind. The top of these concrete bands which is slightly rounded reminds us of the Ron Champ .Contraction and compression of space along with light and shadow will appreciate the movement along the path which is descending down through the ramp into lower plaza.

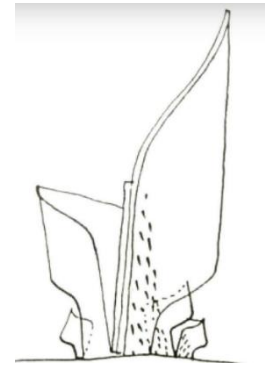


Figure 82-Igualada Cemetery-top of concrete bands

Source-self drawn

The movement on the same level is smooth, but the stairway or the fight is slightly elevated above the ground. This creates pause in the circulation and leads to obscure angles which redefines the path. The circulation is skewed in plan and the slanting wall in section decreases the comfortless and ease in movement in the cemetery

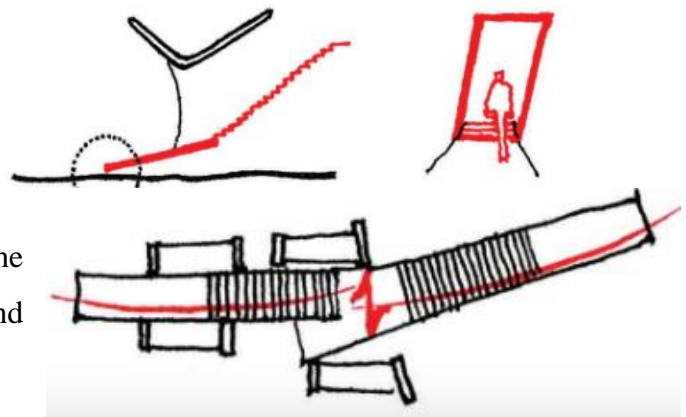


Figure 83-Igualada Cemetery-levels achieved through stairs

Source-self drawn



Figure 84-burial façade

<https://in.pinterest.com/pin/335307134743166642/?lp=true>

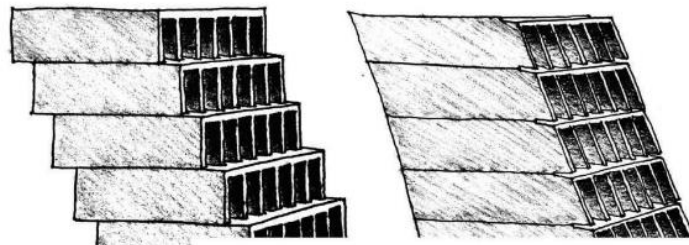


Figure 85-Burial niches in retaining wall

Source- self drawn

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

These mausoleums are buried in the retaining walls made up of stones. The ground level is actually lowered in order to separate cemetery from the surrounding industrial context. The main burial area of the cemetery is level down than the Surrounding context and puts the visitors at the same level of the dead. There also exists a secondary pathway above and to north of the primary out which branches out just beyond the entry plaza. It wraps the mausoleum and mediates the chapel and morgue which are located higher up the hillside and burial path at lower level.

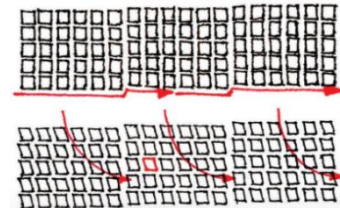


Figure 86-mausoleum buried in retaining wall

source-self drawn

The chapel is beyond the perforated wall towards the left on the entry. This perforated wall marks the boundary between the divine and the profaned. The construction of chapel remained incomplete which was later taken up when he started office with his second wife in 1993. Miralles has written that he enjoyed cut-outs for giving the work a certain sense often immediacy... emphasizing certain moments. Miralles designs mostly contain geometrical out outs, zigzag routes and inclined walls. Cut outs in the ground and the reciprocal fill in shape of curves allow places of flow as well as places for community and individual too. This excavated path creates communal spaces shared by trees, crypts, visitors, memories and objects. The design intends to have constant engagement with the site for viewer. The moments created within the building are never isolated but it is related to history of the place the position of a wall has e relation to nearby landform and the out of the building outline focuses on how the building meets ground. The relationship between the architecture and the landscape is evidently powerful. A+ Modena cemetery by Aldo Rossi, there is an established relationship between part and whole while Igualada cemetery is

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

inmedicable touts port and is inseparable from its terrain. This project deals with the network of interloping spaces that marks the project as the fragments of articulated time.



Figure 87-flow according to the contours

Source-self drawn

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ZONING

IGUALADA CEMETERY PLANS AND PROGRAM

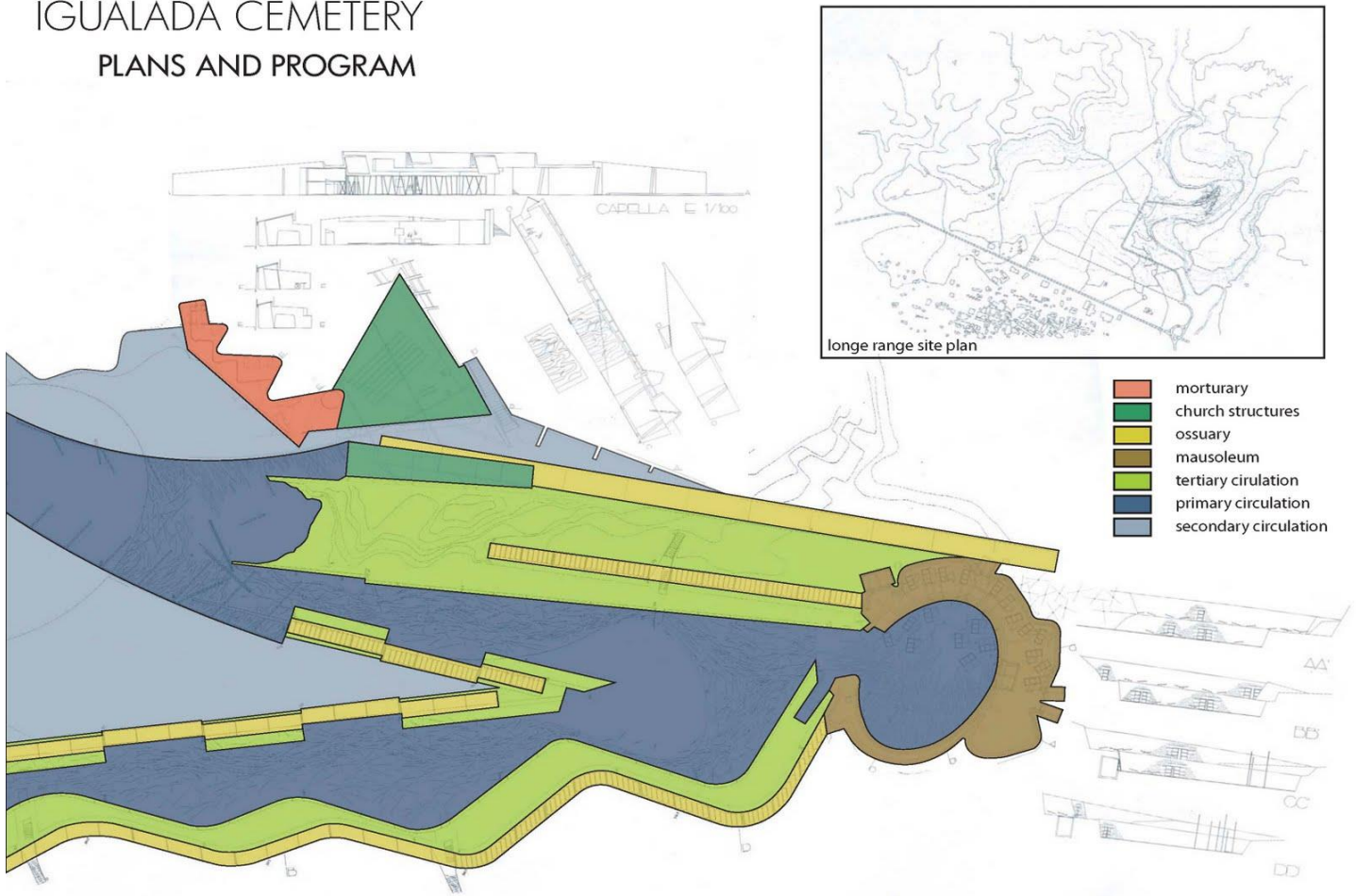


Figure 88-Zoning plan

<http://1.bp.blogspot.com>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

SECTIONS

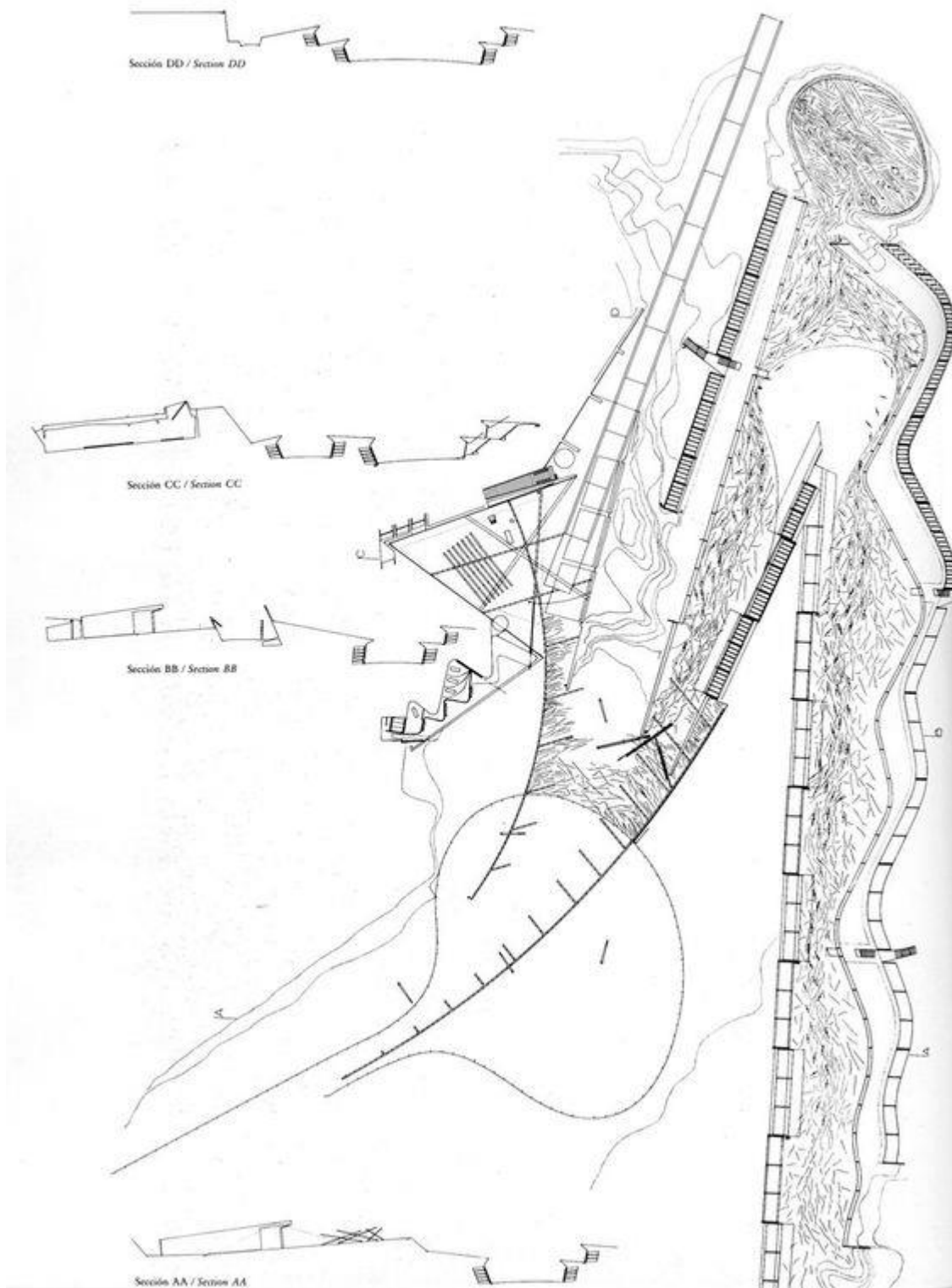


Figure 89-Igualada Cemetery-sections

<https://i.pinimg.com/564x/2f/cb/5d/2fcb5dea05e7895c4d51dc623d35f7c8.jpg>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

3.4 MOKSHA TOWER

3.4.1 INTRODUCTION

LOCATION: Mumbai, India

ARCHITECT: Yalin FU & Ihsuan Lin,

RELEVANCE

Designed by Yalin FU & Ihsuan Lin, the majestic Moksha Tower in city of Mumbai, India would cater to the burial needs of the four major cultures/religions represented in the community (Hindu, Muslim, Christian and Parsi), while freeing up much needed ground space and introducing new areas of greenery into the city to help absorb CO2.

Reflecting the four major cultures of Mumbai, the cemetery would have dedicated facilities for the burial ceremonies of each. For Muslims and Christians, areas for funerals and space for garden burial would be provided.



Figure 90-Moksha tower-conceptual model

<https://inhabitat.com/vertical-cemetery-is-a-green-lined-final-resting-place-for-mumbai/moksha-tower-vertical-cemetery-9>

SITE

The moksha tower is designed to be built in Malabar hill on the green zone where hanging garden and tower of silence (paresis) exists.It is the biggest green zone in the central Mumbai.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

Mumbai Population

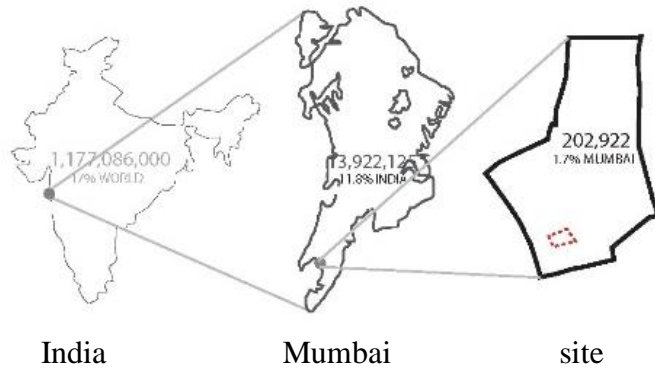


Figure 91-Moksha tower-site population

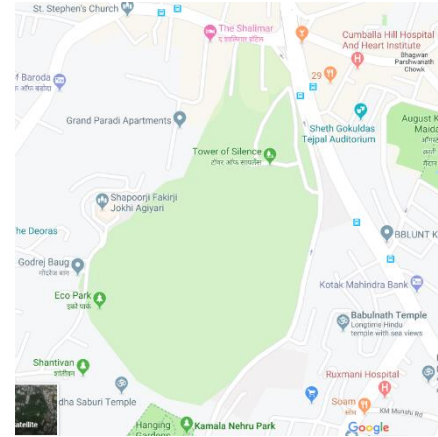


Figure 92-Moksha tower-Site

<https://archinect.imgix.net/uploads/k4/k4n9jvi6rrzw3192.png?auto=compress%2Cformat>

Mumbai has a 13,922,125 no. of people and for every 0.12sq.m there are 1000 occupancy making it one among the most crowded cities in the world. Due to increased population there is hardly any green space left.

With hardly any space for living, there is no question for dead, the cemeteries are over loading with dead bodies as there is no space.

<https://www.google.com/maps/place/Tower+of+Silence>



Figure 93-Moksha tower-population

<https://archinect.imgix.net/uploads/k4/k4n9jvi6rrzw3192.png?auto=compress%2Cformat>

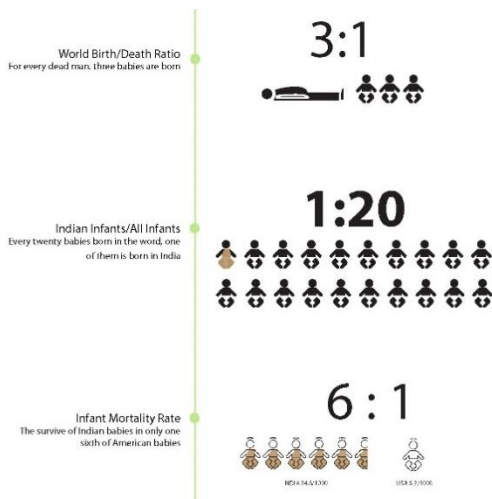


Figure 95-Moksha tower-demographic ratio

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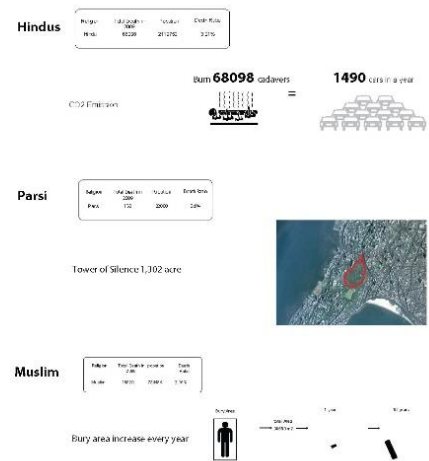


Figure 94-Moksha tower-deaths in different religion

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HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

3.4.2 ARCHITECTURAL DRAWINGS CONCEPTUAL DRAWING

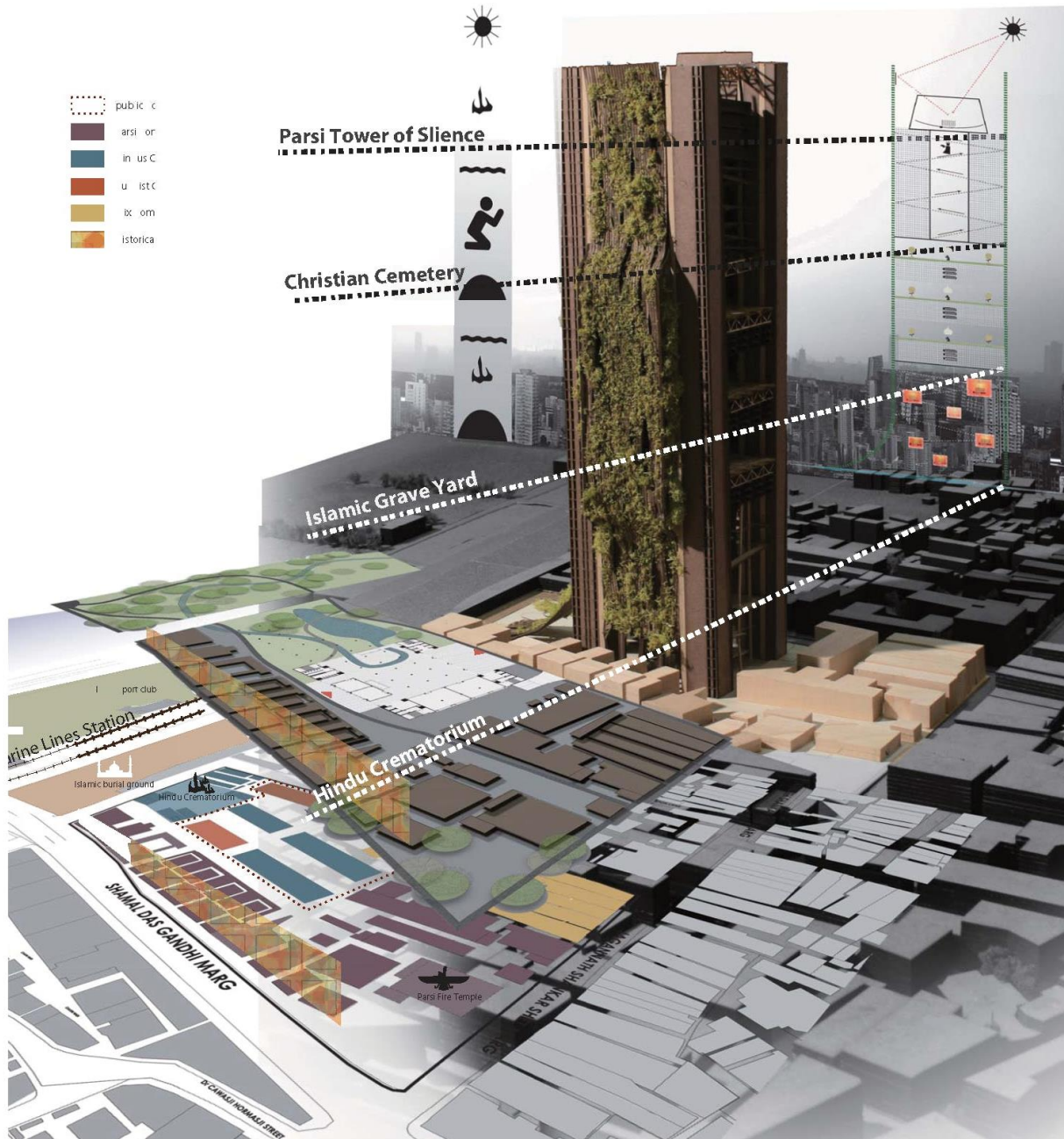


Figure 96-Moksha Tower-conceptual plan

<https://archinect.imgix.net/uploads/zi/zifytwti1ipvbmrg.png?auto=compress%2Cformat>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

Every religion is segregated in different floor to avoid any controversy thus also giving its own space to each religion.

SITE PLAN

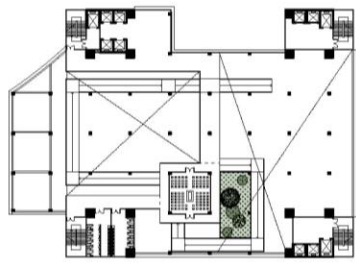


Figure 97-Moksha Tower-Site plan

<https://inhabitat.com/wp-content/blogs.dir/1/files/2010/09/moksha-tower-vertical-cemetery-7.jpg>

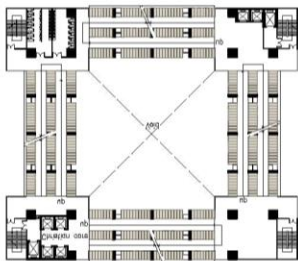
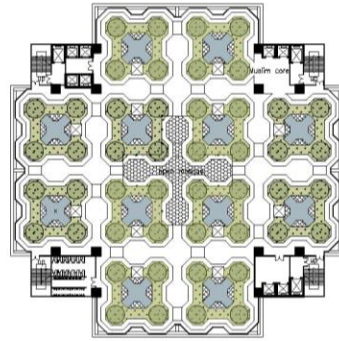
HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

FLOOR PLANS



Hindus Crematorium Floor Plan

Muslim service Floor Plan



Christian Cemetery Floor Plan

Parsi Tower of Silence Floor Plan

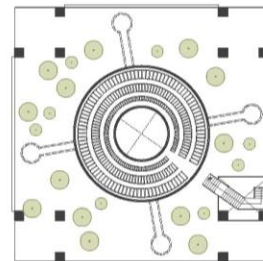


Figure 98-Moksha Tower-floor plans with view

<https://archinect.com/people/project/22890512/moksha-tower/22896515#&gid=1&pid=7>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

SECTION

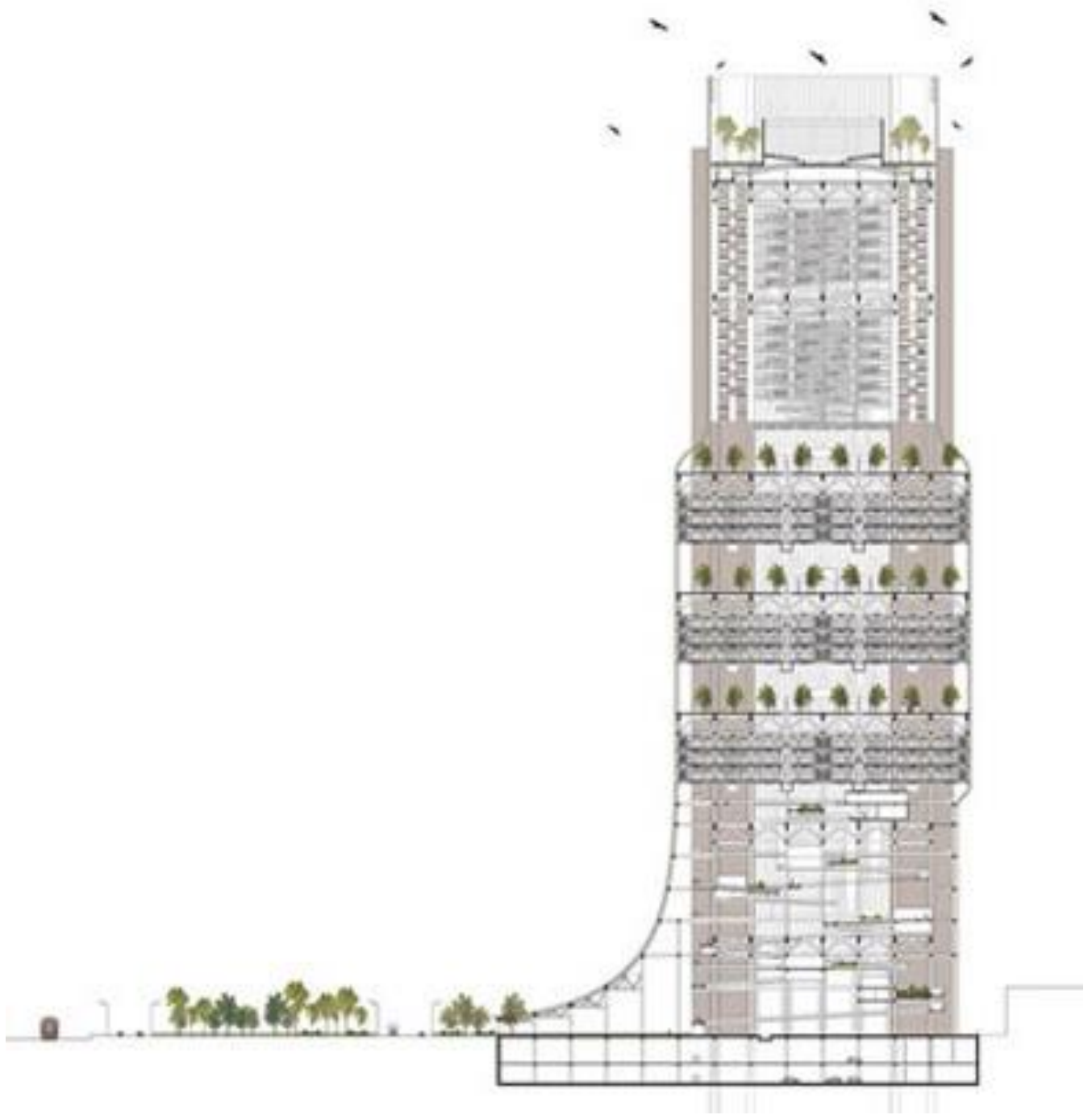


Figure 99-Moksha Tower-Section of the tower

<https://inhabitat.com/wp-content/blogs.dir/1/files/2010/09/moksha-tower-vertical-cemetery-2.jpg>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

DETAILS

A multi-layered skin consisting of an outer skin, glazing, plants, woven material and a steel frame would line the tower, absorbing heat and CO2.

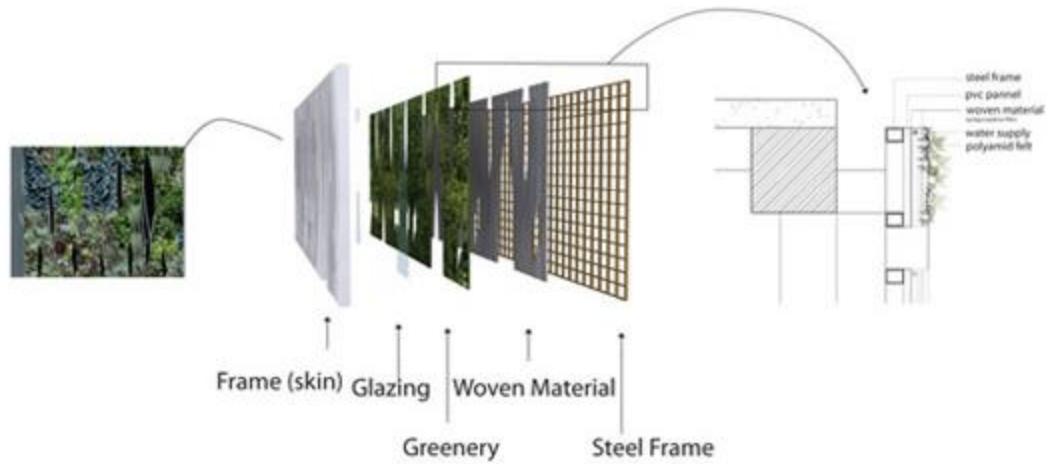


Figure 100-Moksha Tower-Façade Detail

<https://inhabitat.com/wp-content/blogs.dir/1/files/2010/09/moksha-tower-vertical-cemetery-11.jpg>

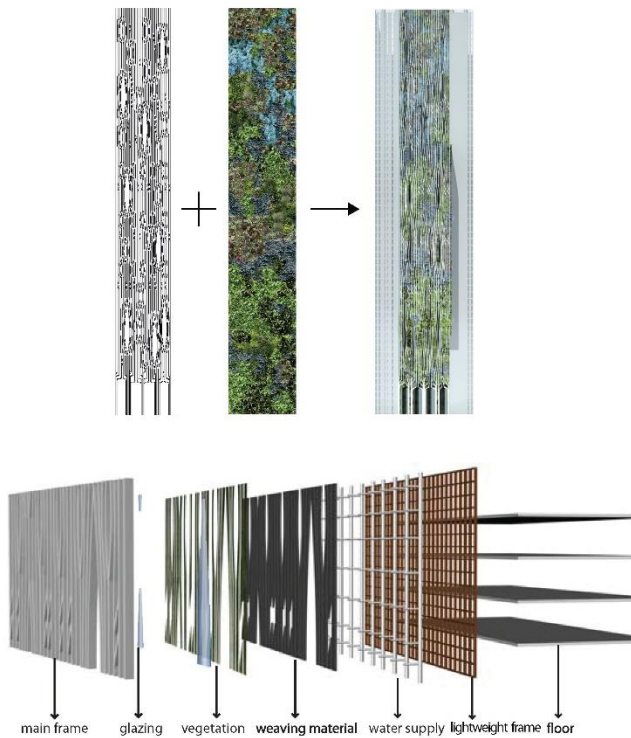


Figure 102-Moksha Tower-Façade system

<https://archinect.imgix.net/uploads/qz/qzmbn53dpudjgsak.png?auto=compress%2Cformat>

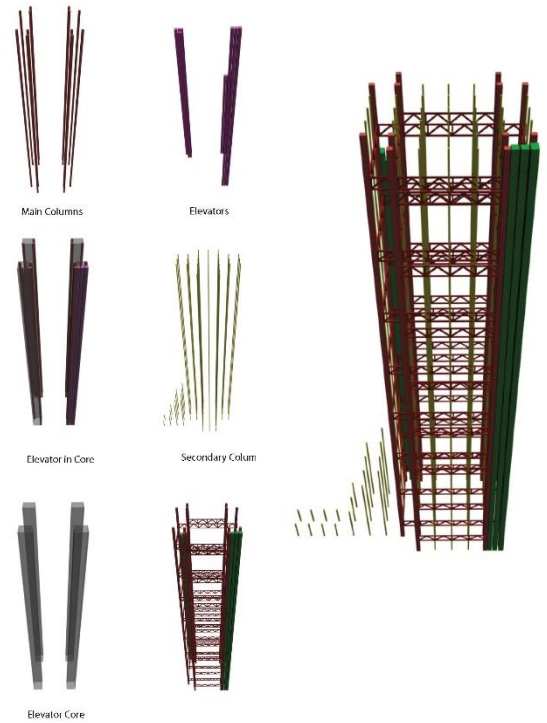


Figure 101-Moksha Tower-Structural System

<https://archinect.imgix.net/uploads/qz/qzmbn53dpudjgsak.png?auto=compress%2Cformat>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

3.5 ASHWINIKUMAR CREMATORIUM

3.5.1 INTRODUCTION

LOCATION: Surat, India

ARCHITECT: Matharoo Associates

PROJECT YEAR: 1999

AREA: 1.3 acre

RELEVANCE

Surat is a city on the river Tapi in Gujarat, near Ahmadabad, the capitol of the Indian modern architecture, where both Kahn Corbusier built and distinguished contemporary architects like Doshi carry on the tradition.



Figure 103-Ashwinikumar Crematorium-Flood prone area

<https://architexturez.net/doc/az-cf-21716>

Surat was partly overwhelmed by a flood in 1994, after which there was a disastrous epidemic of the plague. So, the authorities decided to overhaul the urban infrastructure and the new crematorium is one of the results of their plans. A national competition was organized for a building, which was to house five gas-fired furnaces

SITE

The denomination for this crematorium is Hindu and cremation focused. The area of the building is about 10,000 square meters, with its entry at the north and located along the River Tapi. The plan shows that the building is designed around the Hindu ritual for cremation. On the other side

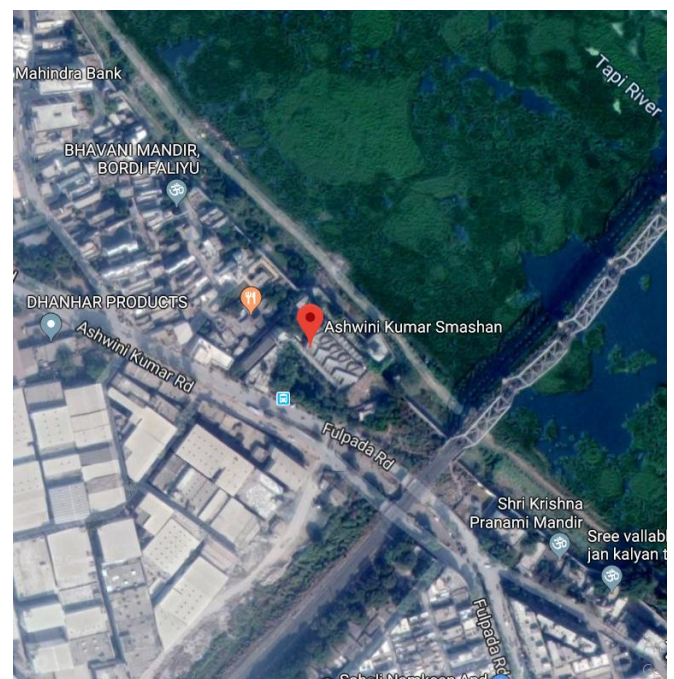


Figure 104-Ashwinikumar Crematorium-Site

<https://www.google.com/maps/place/Ashwini+Kumar+Smashan>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

of the road is commercial and industrial sector and adjacent to the crematorium is a railway bridge crossing the river tapti.

3.5.2 AREA PROGRAM AREA CHART

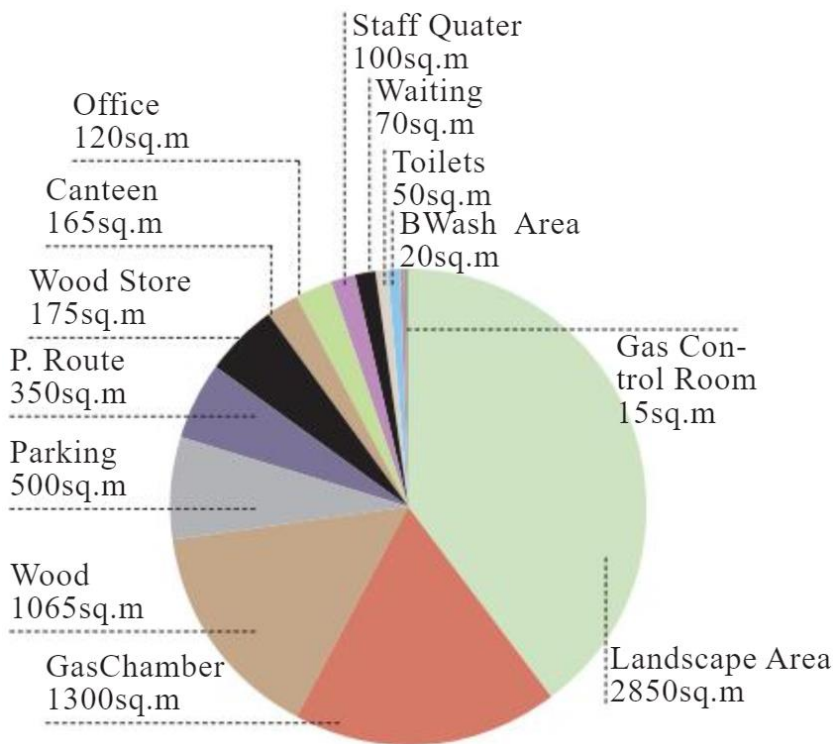


Figure 105-Ashwinikumar Crematorium-Area Chart

https://issuu.com/sukhmanikaur32/docs/ashwini_kumar_case_stud

USER ACTIVITY

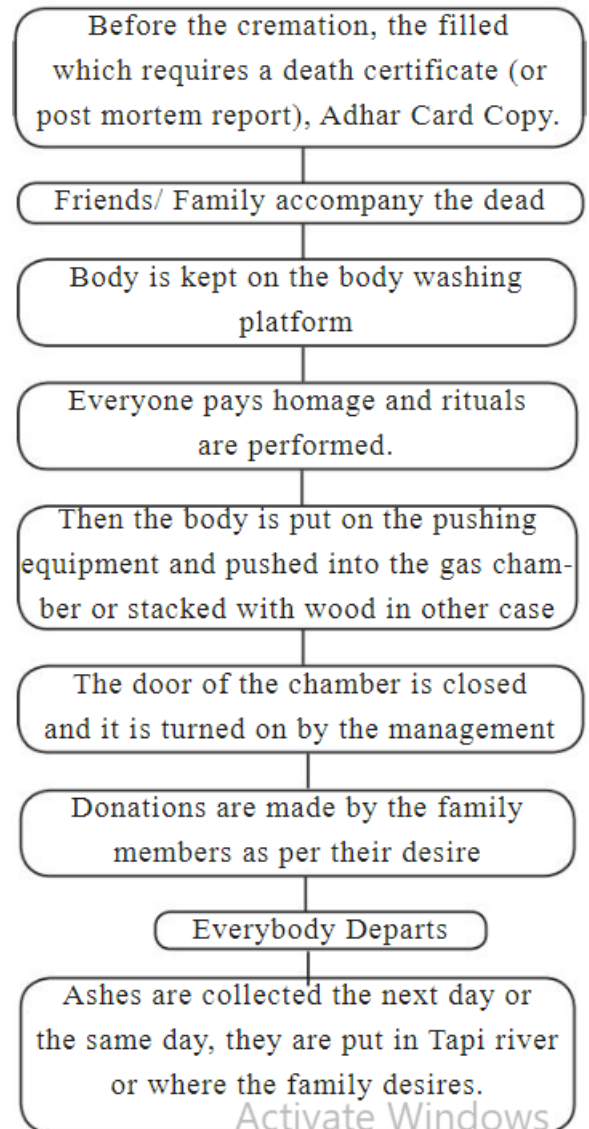


Figure 106-Ashwinikumar Crematorium-activity mapping

https://issuu.com/sukhmanikaur32/docs/ashwini_kumar_case_stud

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

3.5.3 ARCHITECTURAL DRAWING CONCEPTUAL PLAN

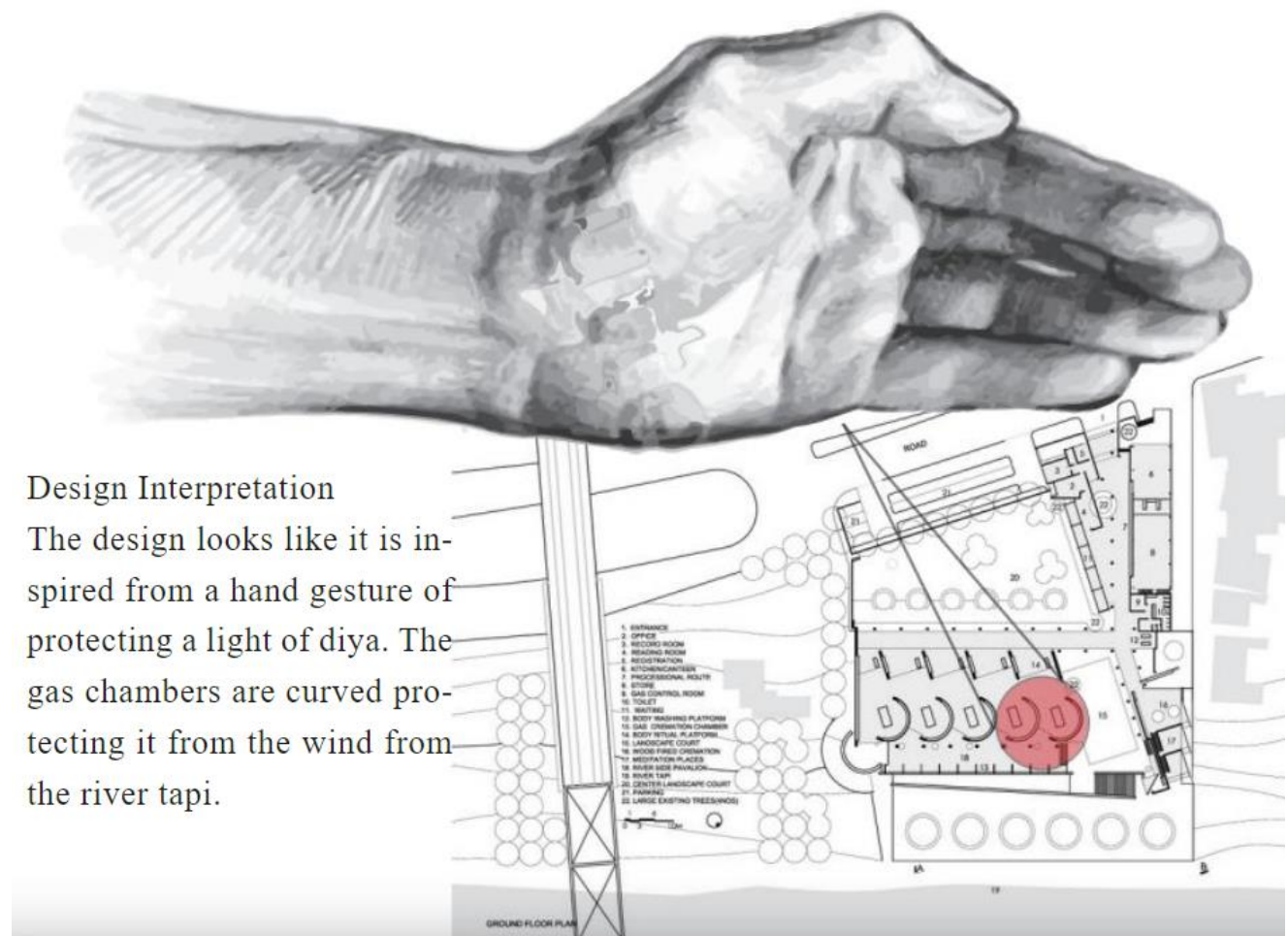


Figure 107-Ashwinikumar Crematorium-form orientation

https://issuu.com/sukhmanikaur32/docs/ashwini_kumar_case_stud

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

SITE PLAN

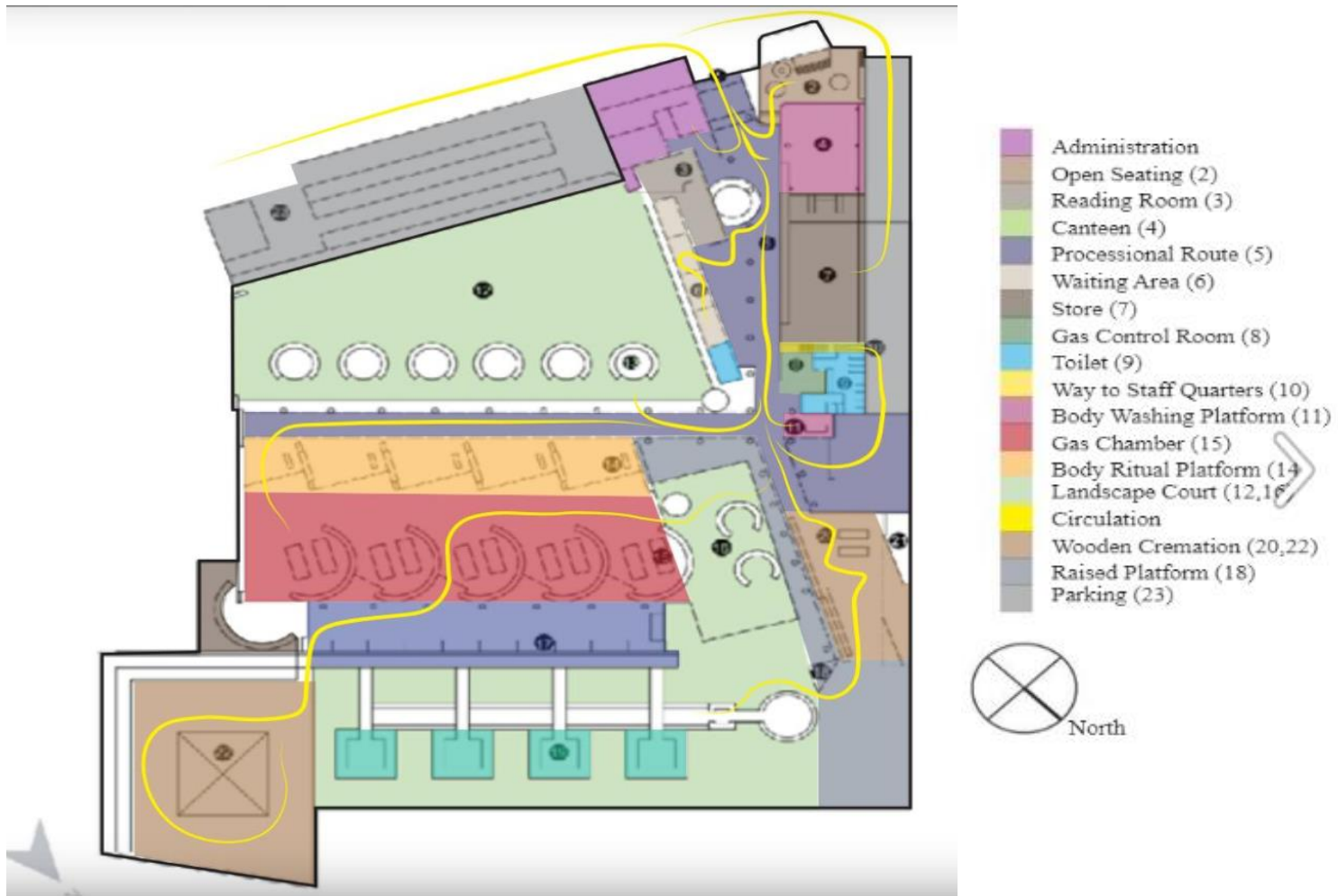


Figure 109-Ashwinikumar Crematorium-Ground floor plan

Source-self drawn

The built up and the landscape area are interconnected. It is an open plan where the staff resides on the upper floor. Sense of direction is parallel to the north as per the Hindu funeral rituals.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

CIRCULATION



Figure 110-Ashwinikumar Crematorium-site circulation

Source-self drawn

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

ELEVATION

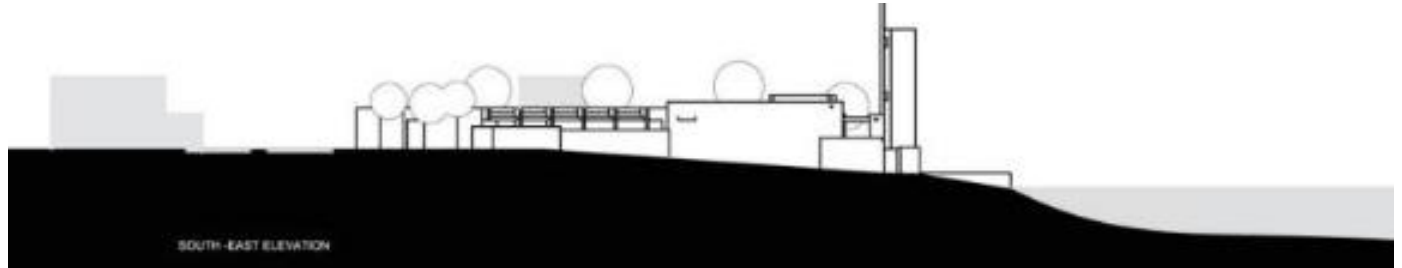


Figure 111-Ashwinikumar Crematorium-South East Elevation

Source-Brian Starr and Michael Zeller, university of Utah

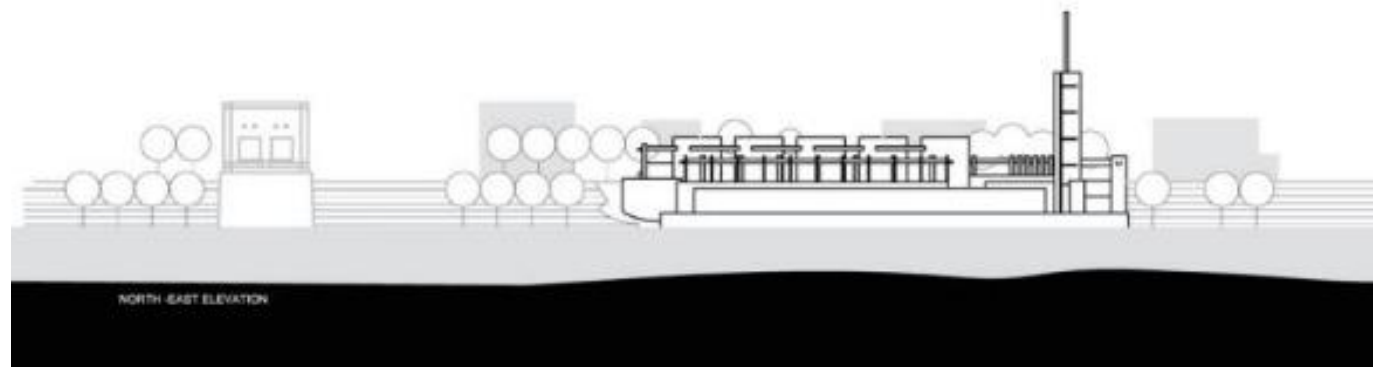


Figure 112-Ashwinikumar Crematorium-North East elevation

Source-Brian Starr and Michael Zeller, university of Utah

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

SECTION

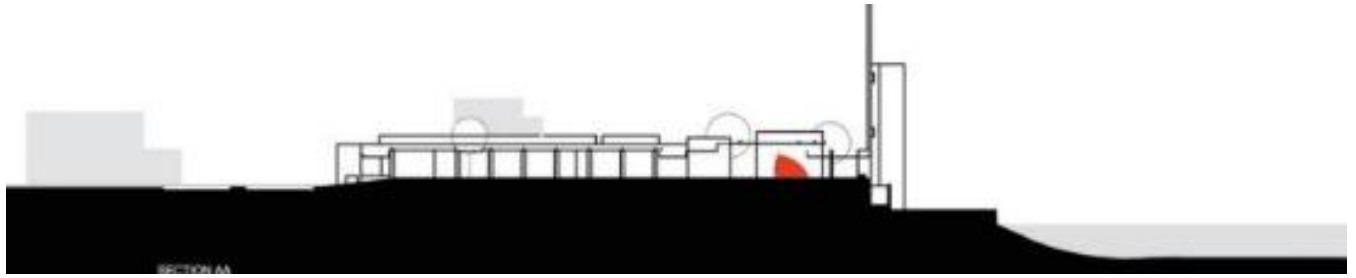


Figure 113-Ashwinikumar Crematorium-Section XX

Source-Brian Starr and Michael Zeller, university of Utah

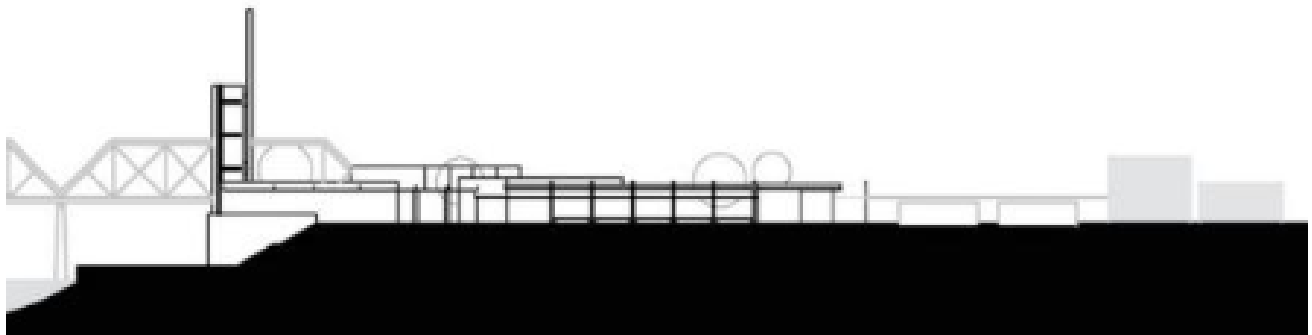


Figure 114-Ashwinikumar Crematorium-Section YY

Source-Brian Starr and Michael Zeller, university of Utah

CHAPTER 4: COMPARATIVE ANALYSIS OF CASE STUDIES

4.1 CONCEPT

4.1.1 DIAMOND HILL CREMATORIUM

The concept of diamond hill crematorium is derived from **the circle of life**. The crematorium was created with the idea that **'death is not the end'** and there is **'life after death'**. This reflected in the way the water us recycled in the lily pond and numerous circular pathways.

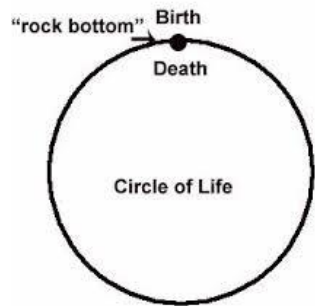


Figure 116-Concept -Life cycle



Figure 117-Concept-recycling water ponds

<https://images.adsttc.com>



Figure 115-Concept-Circular pathways

<https://images.adsttc.com/media/image>

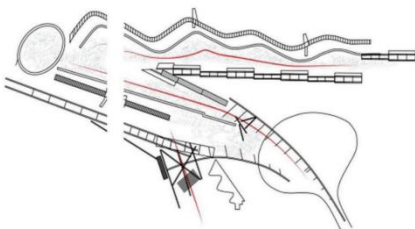
4.1.2 ISLAMIC CEMETERY,ALTACH

The design of a cemetery is based on the beliefs and their funeral rites, which in turn say a lot about the particular understanding of nature and social relations.

The 'finger-like' grave-scale fields allow implementation in stages.



4.1.3 IGUALADA CEMETERY



The form of the building is generated by responding to the immediate context.

Figure 118-Igualada cemetery-Conceptual plan in continuation of site contours

Source-self drawn

As a generator of form , the idea of spine is manifested.

Organic and Amoeba like form.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

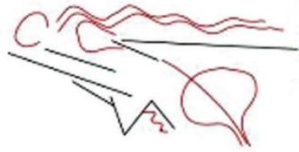


Figure 120-Iqualada cemetery-the red line

Source –self drawn



Figure 119-Iqualada cemetery-Organic form

Source-self drawn

Depicts organic lines in plan and black and lines depicts orthogonal lines.

4.1.4 MOKSHA TOWER

The division of the building in terms of religion according to usage of natural resources such as sun, wind and soil

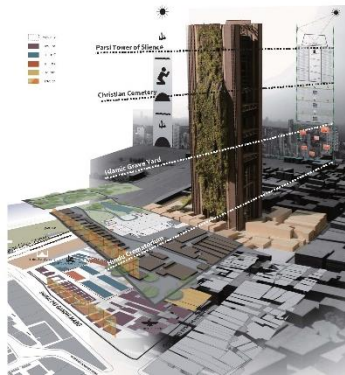


Figure 121-Moksha Tower-conceptual plan

<https://archinect.imgix.net/uploads/zi/zifwtwtl1ipvbmrg.png?auto=compress%2Cformat>

4.1.5 ASHWINIKUMAR CREMATORIUM

The design looks like it is inspired from hand gesture of protecting a light of Diya. The gas chamber protecting it from the wind from the river Tapi.



Figure 122-Ashwinikumar Crematorium-form orientation

https://issuu.com/sukhmanikaur32/docs/ashwini_kumar_case_stud

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

4.2 PLANNING

4.2.1 DIAMOND HILL CREMATORIUM

The planning is done in level to compliment the contours of the hill and also done in levels in which podium level is accessible to public while the service floors are below beyond public access.

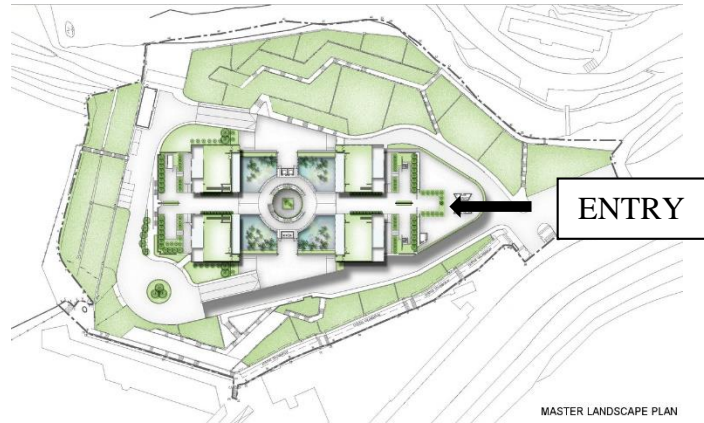


Figure 123-Diamond hill crematorium-site plan

https://www.archsd.gov.hk/media/exhibition/5495/RDHILLC_19.jpg

4.2.2 ISLAMIC CEMETERY, ALTACH

The cemetery is only 10% buildup area which has the prayer complex while the rest are open graves majority accessible to all.

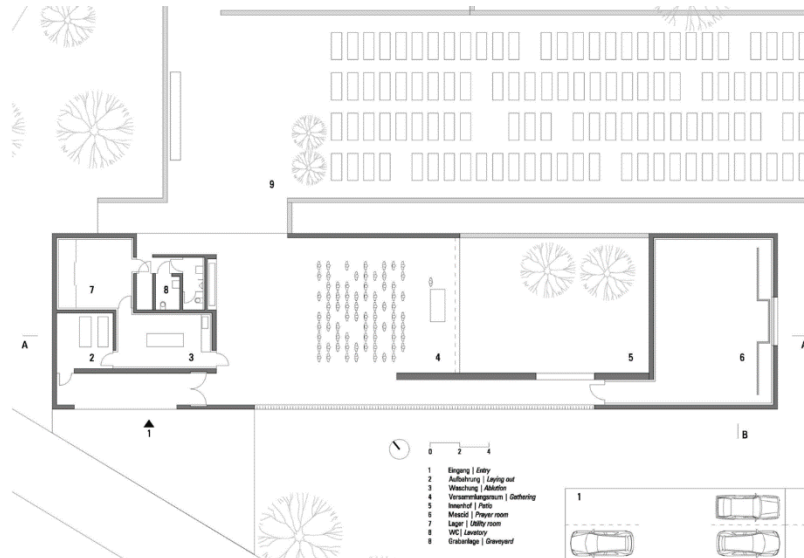


Figure 124-Islamic Cemetery-floor plan

Source-self drawn

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

4.2.3 IGUALADA CEMETERY

When seen from above, the land on which the cemetery is constructed appears untouched because it is sunk in the ground.in case of the igualalda cemetery the landscape is more important than a building .the existing topographical order is framed by the trenches and angular lines. The site plan reflects the swirl of surrounding context path and contours.

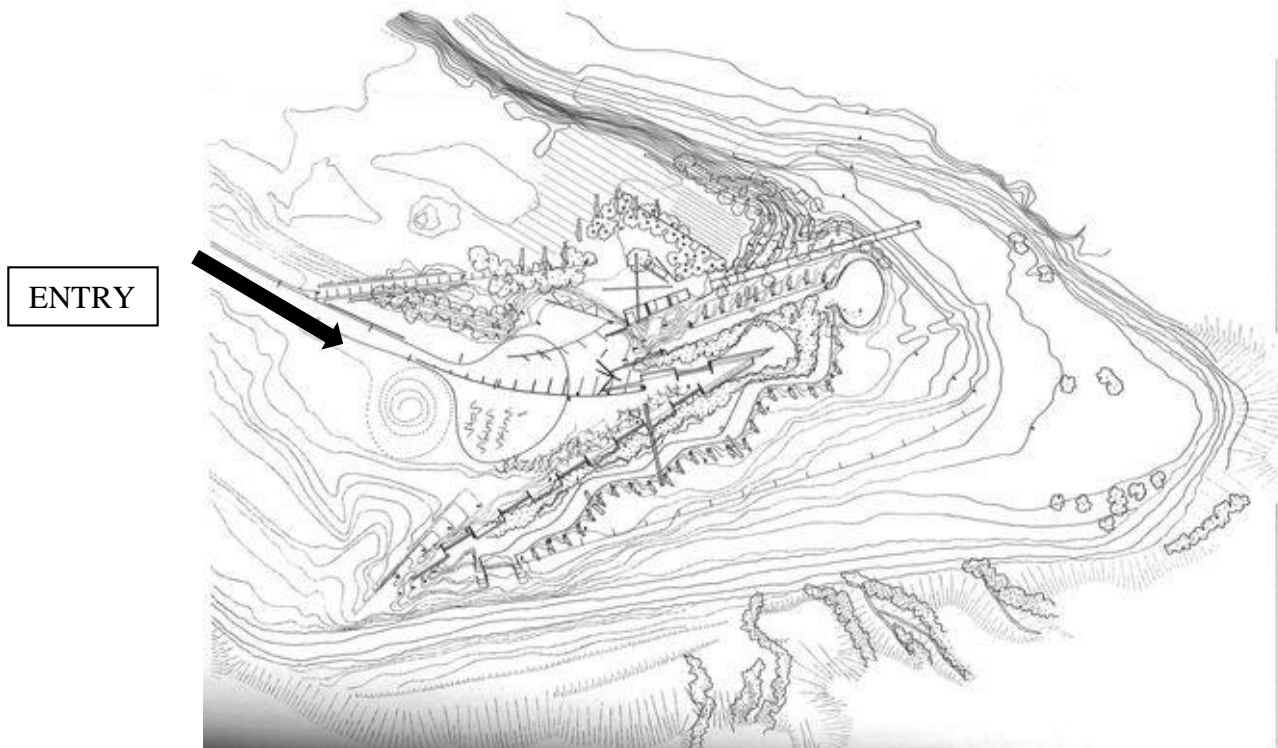


Figure 125-Igualada cemetery-Site plan

<https://i.pinimg.com/564x/85/7a/7c/857a7c25060a281f5b622bf6e1bc56ed.jpg>

4.2.4 MOKSHA TOWER

The planning of the tower is done in accordance to every religion and the placement of the floor are done on the basis of requirement of the natural resources like sun wind and soil.

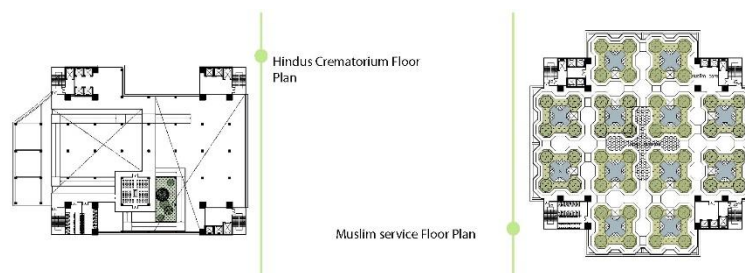


Figure 126-Moksha Tower-floor plans with view

<https://archinect.com/people/project/22890512/moksha-tower/22896515#&gid=1&pid=7>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

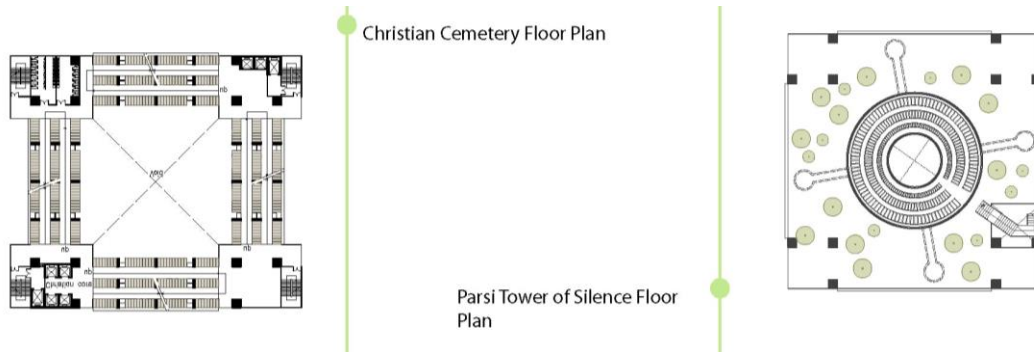


Figure 127-Moksha Tower-floor plans with view

<https://archinect.com/people/project/22890512/moksha-tower/22896515#&gid=1&pid=7>

4.2.5 ASHWINIKUMAR CREMATORIUM

The crematorium is an open plan and the landscape area are interconnected. It is an open plan where the staff resides on the upper floor. Sense of direction is parallel to the north as per the Hindu funeral rituals.

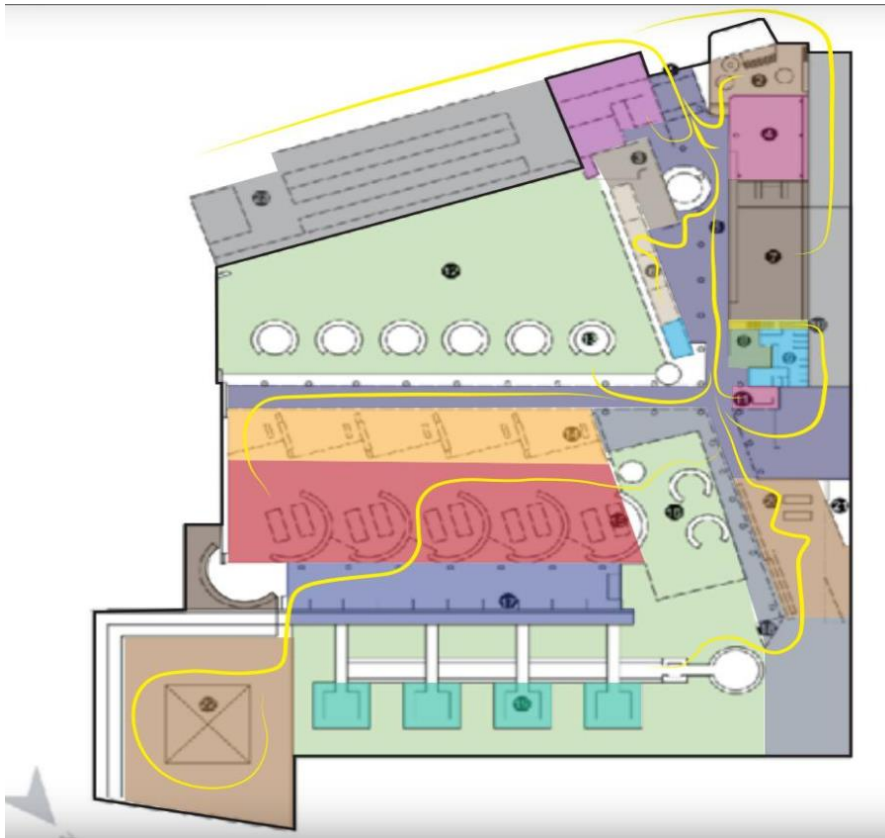


Figure 128-Ashwinikumar Crematorium-site plan and circulation

Source-self drawn

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

4.3 CIRCULATION

4.3.1 DIAMOND HILL CREMATORIUM

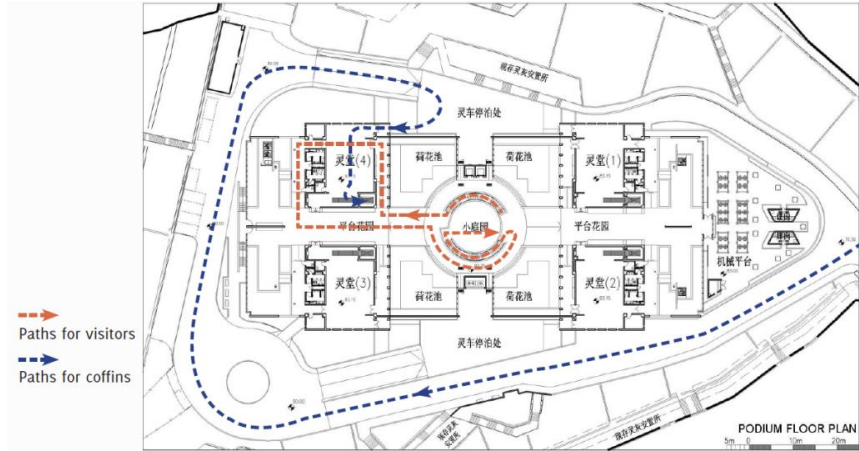


Figure 129-Diamond hill crematorium-circulation plan of podium floor

<https://visuallexicon.files.wordpress.com/>

4.3.2 ISLAMIC CEMETERY, ALTACH

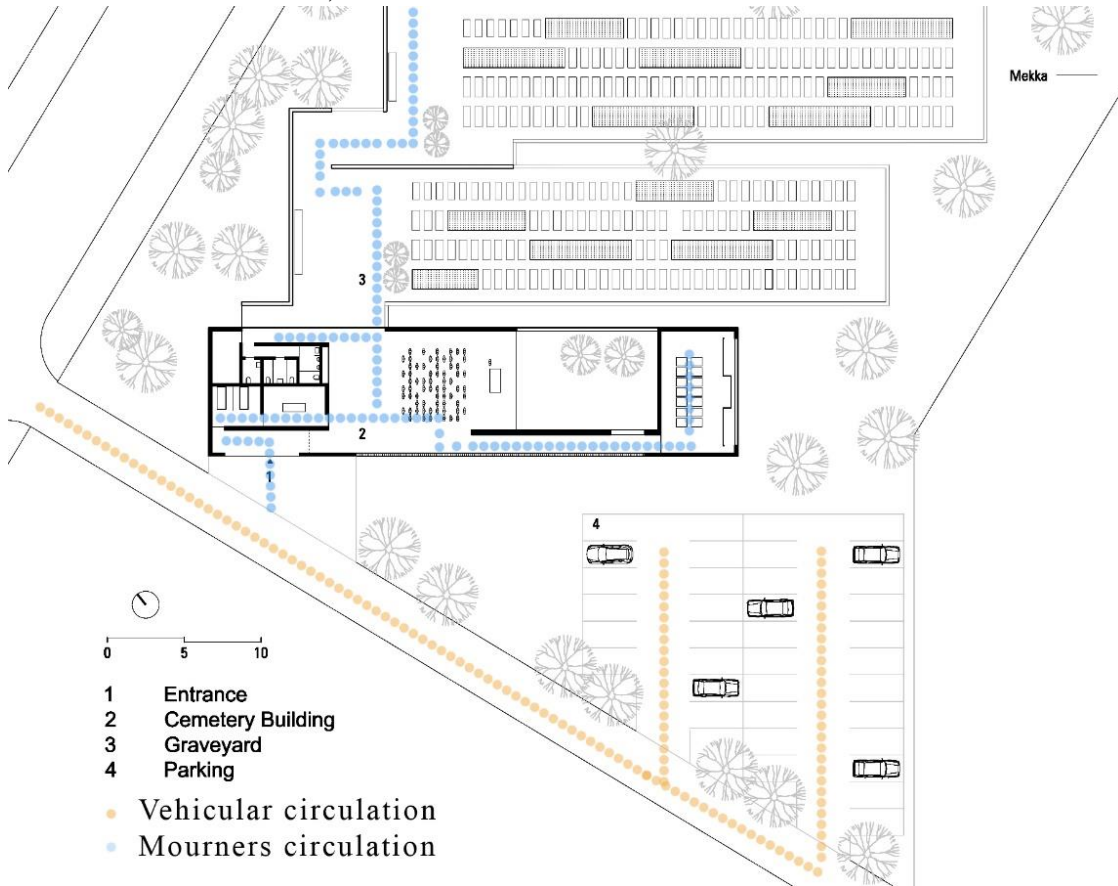


Figure 130-Islamic cemetery-circulation plan

Source-self drawn

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

4.3.3 IGUALADA CEMETERY

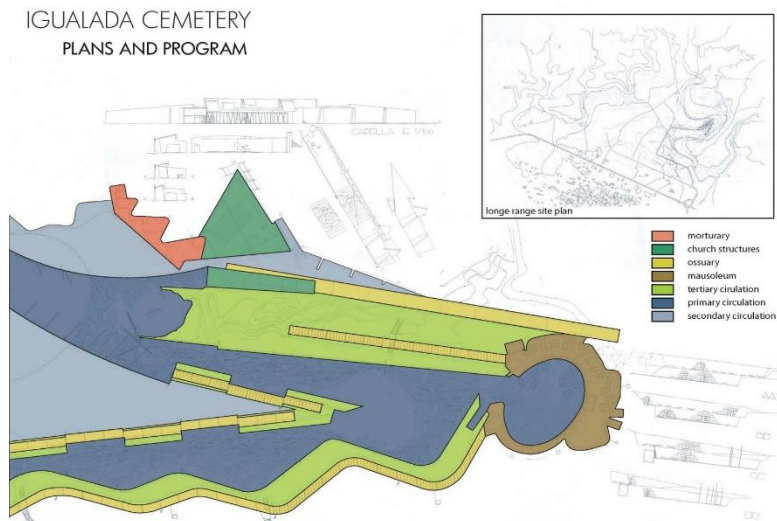


Figure 131-Zoning plan

<http://1.bp.blogspot.com>

4.3.4 MOKSHA TOWER



Figure 132-Ashwinikumar Crematorium-site circulation

Source-self drawn

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

4.4 MATERIAL

4.4.1 DIAMOND HILL CREMATORIUM

The crematorium is buildup of concrete and glass with maximum green incorporated in the design.



4.4.2 ISLAMIC CEMETERY,ALTACH

The principal materials used were exposed reinforced concrete for the walls and oak wood for the ornamentation of the entrance facade and the interior of the prayer space. The visitor is greeted by and must pass through the congregation space with its wooden latticework in geometric Islamic patterns.



Figure 134-. Islamic cemetery-red concrete

<https://images.adsttc.com>

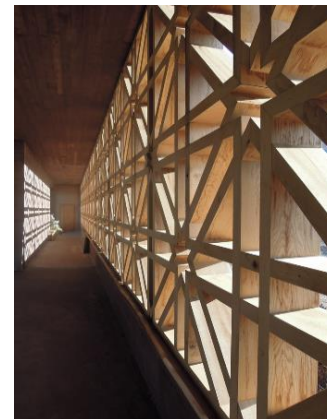


Figure 133-Islamic cemetery- wooden framework

<https://images.adsttc.com/media/images/5044>

4.4.3 IGUALADA CEMETERY

The buildings such as crematorium inside the site and burial niches and columbarium is made of concrete and marble, while the landscape and the contours achieved by clubbing random rubble together.

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE



Figure 136-Concrete and marble columbrium rubble

<https://images.adsttc.com/media/images>



Figure 137-Contour Stalking with random rubble

<https://images.adsttc.com/media/images>



Figure 135-Concrete creating shadows

<https://images.adsttc.com/media/images>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

CHAPTER 5: PROJECT SITE

5.1 LOCATION

The site is located in bhayenderpada, thane west,Mumbai near to Lodha Splendora Society.The site face the Ghodbunder Road.The site is at a distance of 14Km from the thane west railway station and 32Km from Chhatrapati Shivaji International Airport.

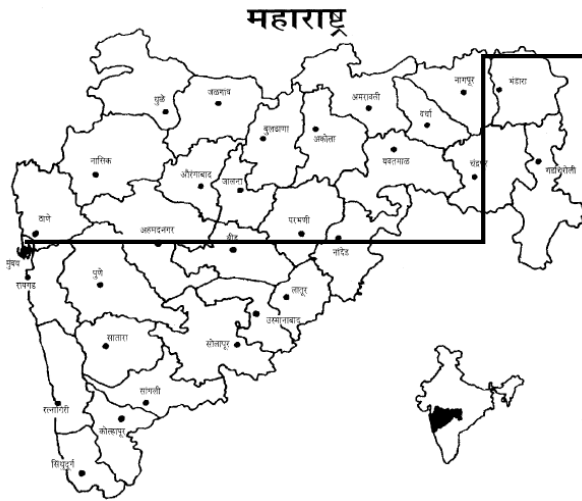


Figure 138-State map
www.ncdirindia.org

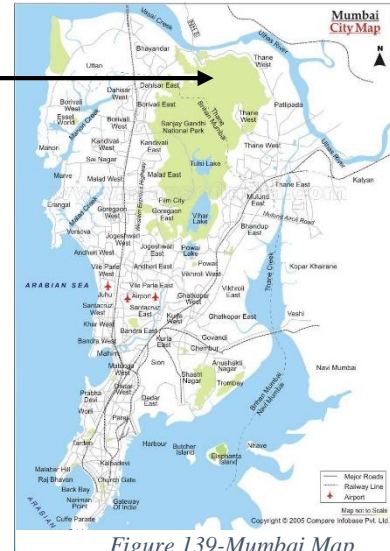


Figure 139-Mumbai Map

<http://www.orangesmile.com>



Figure 141-Statelite image
Source-google earth pro



Figure 140-Site image
Source-google earth pro

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

5.2 CONTEXT

The landuse of the site according the landuse map is a green zone which could be use for further government development.

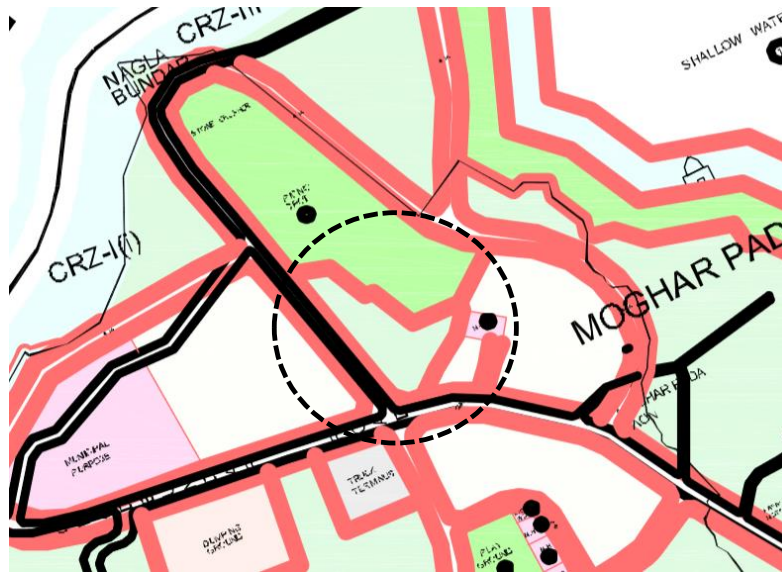


Figure 142-Master Plan of Thane (<https://thanecity.gov.in/uploadpdf/ThaneMap.pdf>)

There are various building surrounding the site such as residential tower such as lodha splendor, Imperial square and Godrej emerald, many different religious bulding such as temples churches and mosques surround the site which makes it more suitable for the location. At the front of the site there is small urban village at an end of a national scantuary which is an important aspect to the site.

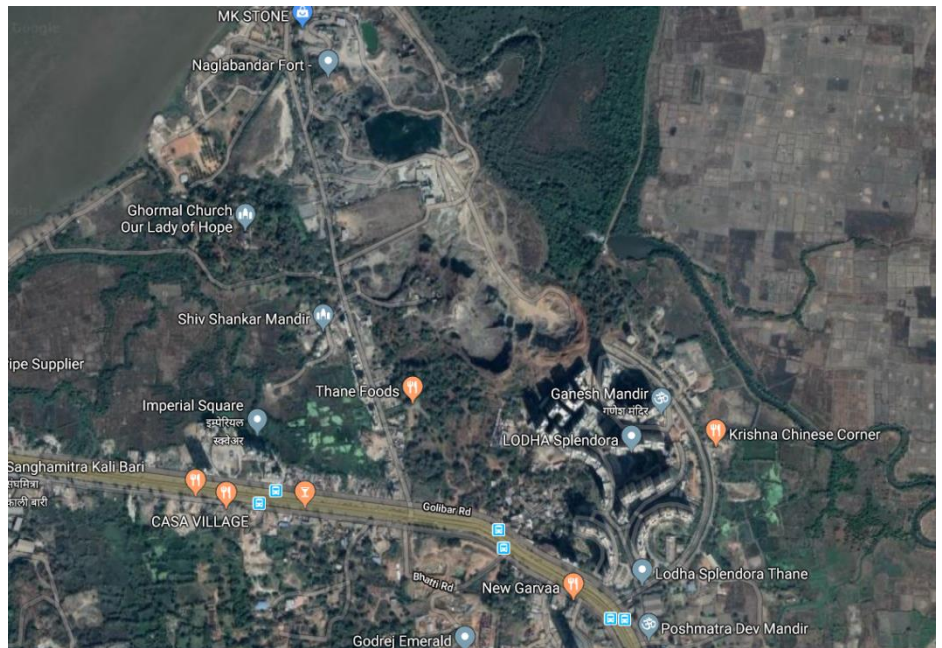


Figure 143-site context

<https://www.google.com/map>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE



Figure 147-Lodha Speldora

Source-self



Figure 146-Service lane passing in front of site along main road

Source-self



Figure 148-Site image

Source-google earth pro



Figure 145-service lane

Source-self



Figure 144-Unauthorized automobile shops

Source-self

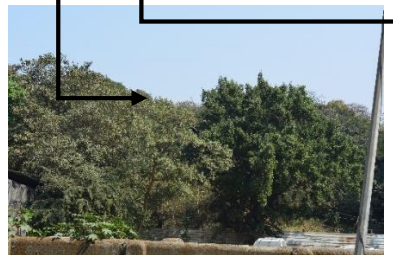


Figure 149-site images

5.3 CONNECTIVITY

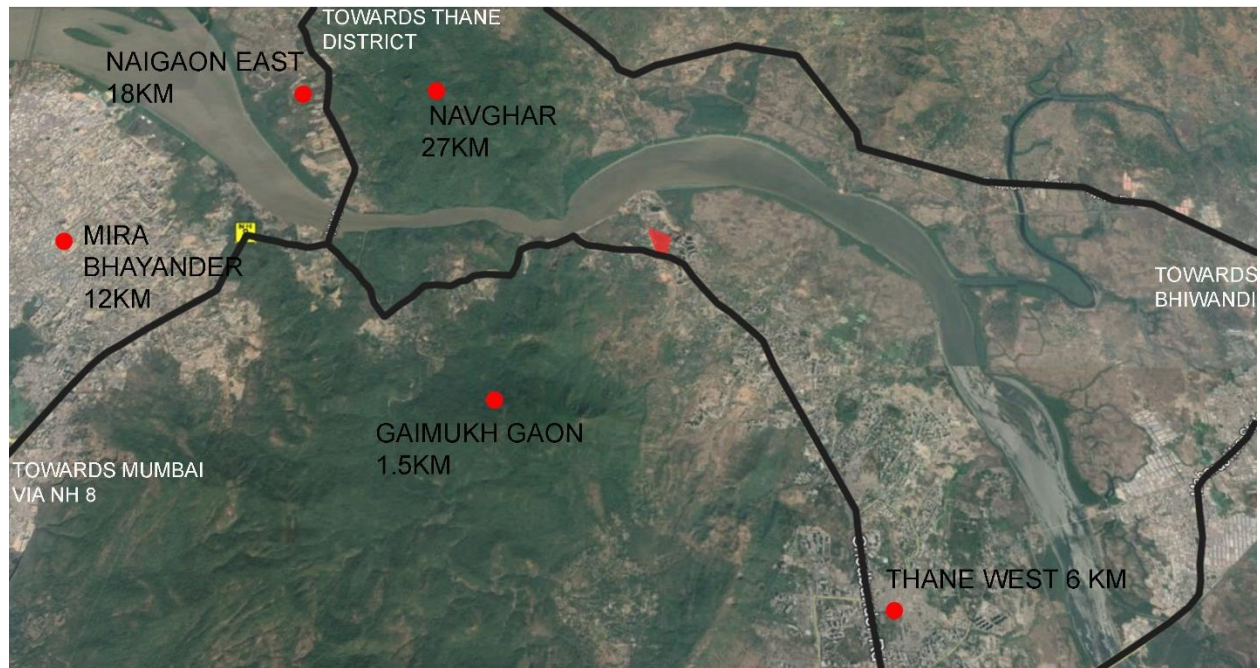


Figure 150-Rad network-Source-self

The site is approximately 6km from thane west and takes about 15 mins to reach the site.

The site is nearby the gaimukh gaon is an important factor that needs to be considered as it is a national park(Sanjay national park). Thou there are many crematoriums in mira bhayander but comparing with the cemeteries which is running out of spaces ,the site would be good location for the burial and a 30 minute drive will also serve a reasonable amount of time for frequent visitations.

5.4 POPULATION AND RELIGION STATUS

5.4.1 POPULATION

As per provisional reports of Census India, population of Thane in 2011 is 1,841,488; of which male and female are 975,399 and 866,089 respectively. Although Thane city has population of 1,841,488. The population density of Thane is about 851 persons per square kilometer.

5.4.2 RELIGION

Hinduism is majority religion in Thane city with 73.91 % followers. Islam is second most popular religion in city of Thane with approximately 17.96 % following it. In Thane city, Christianity is followed by 1.88 %, Jainism by 1.40 %, Sikhism by 0.32 % and Buddhism by 0.32 %. Around 0.11 % stated 'Other Religion', approximately 0.24 % stated 'No Particular Religion'

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

Description	Total	Percentage
Hindu	1,361,018	73.91 %
Muslims	330,719	17.96 %
Buddhist	76,916	4.18 %
Christian	34,665	1.88 %
Jain	25,826	1.40 %
Sikh	5,937	0.32 %
Not Stated	4,377	0.24 %
Others	2,030	0.11 %

Figure 151-Population division according to religion

<https://www.census2011.co.in>

5.5 CLIMATE

5.5.1 PERCIPITATION DATA

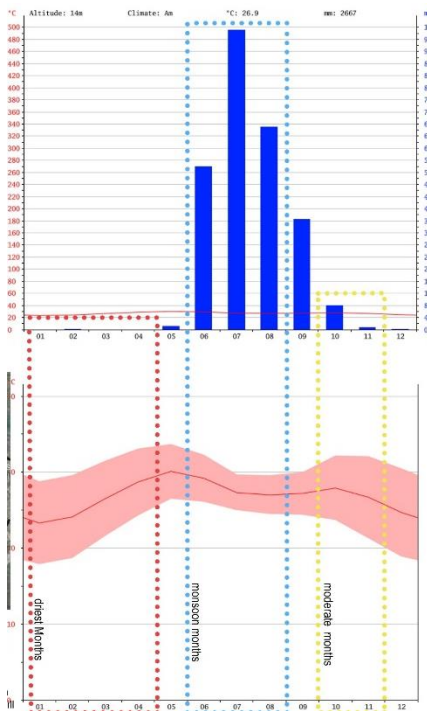


Figure 152-precipitation data

<https://en.climate-data.org>

5.5.2 SUNPATH AND WIND DIRECTION

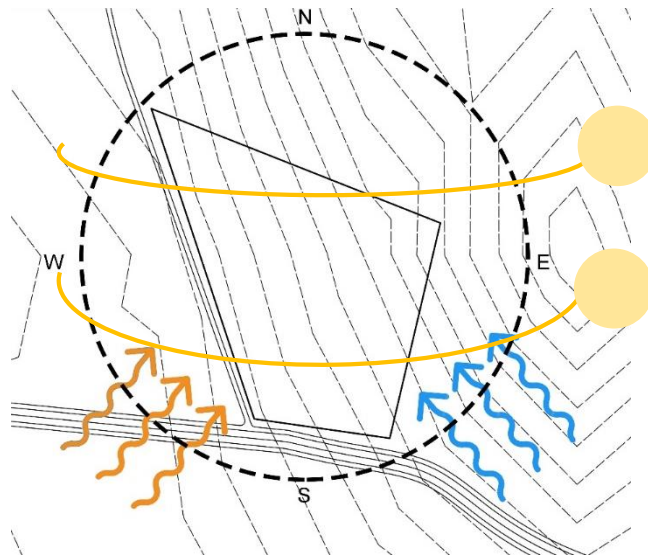


Figure 153-Wind path and sunpath

<https://yandex.com>

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

CHAPTER 6: REQUIREMENTS

HOUSE OF SOULS :A MULTI FAITH DECEASED CENTRE,THANE

AREA STATEMENT

TOTAL PLOT AREA= 63600SQ.M

GROUND COVERAGE 10%

TOTAL AREA 6360 SQ.M

F.S.I 0.2

TOTAL FLOOR AREA 12720Q.M

S.NO	NAME	AREA	UNIT	TOTAL AREA
ADMINISTRATION BUILDING				
1	ADMIN OFFICE	50	1	50
2	WAITING AREA	152	1	152
3	SURVELLANCE ROOM	48	1	48
4	COMMERCIAL SHOPS	14	1	14
5	COLLECTION ROOM	15	1	15
8	MALE TOILET	30	1	30
9	FEMALE TOILET	18	1	18
10	COLUMBRIUM	150	1	150
ISLAMIC CEMETRY COMPLEX				
1	ENTRANCE	52	1	52
2	ADMIN ROOM	15	1	15
3	LAYING ROOM	14	1	14
4	ABULTION ROOM	180	2	360
5	UTILITY AREA	27	1	27
6	MALE TOILET	24	1	24

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

7	MALE TOILET (2)	15	3	45
8	DIFFERENTLY ABLED TOILET	4	4	16
9	WAITING HALL	150	1	150
10	PRAYER ROOM	250	2	500
11	LAB	26	3	78
12	GRAVEYARD HALL(1)	330	3	990
13	GRAVEYARD HALL(2)	270	3	810
14	REST ROOM	16	3	48
15	CARE TAKERS ROOM	12	3	36
16	STORE	9	3	27
CREMATORIUM				
1	ADMIN OFFICE	24	1	24
2	REST ROOM	12	2	24
3	WAITING AREA	300	2	600
4	STORE	12	3	36
5	GAS CONTROL ROOM	20	2	40
6	MALE TOILET	30	4	120
7	FEMALE TOILET	4	2	8
8	DIFFERENTLY ABLED'S TOILET	4	2	8
9	BODY WASH AREA	10	10	100
10	GAS CREMATION CHAMBER	86	5	430
11	STAFF'S ROOM	24	2	48
11	BODY RITUAL PLATFORM	45	10	450
12	WOOD CREMATION SPACE	270	1	270
13	WAITING AREA 2	80	10	800
13	CHIMNEY	3	10	30

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

15	PRAYER ROOM	150	2	300
18	WOOD STORAGE	225	1	225
CHRISTIAN CEMETRY COMPLEX				
1	ENTRANCE HALL	130	1	130
2	ADMIN ROOM	15	1	15
3	LAYING ROOM	10	1	10
3	FUNERAL CHAPEL	120	1	120
4	REST ROOM	14	2	28
5	SHOP	12	1	12
6	LAB	24	1	24
6	TOILETS MALE	30	2	60
7	FEMALE TOILET	27	2	54
8	GRAVEYARD HALL	450	1	450
	RESIDENTIAL QUARTERS	600	1	600
	LAPIDARIUM	314	2	628
	OVERHEAD TANK	120	1	120
	SEWAGE TREATMENT PLANT	18	2	36
	TOTAL			9329
	CIRCULATION STRUCTURE		25%	2332
			10%	932
	TOTAL			12593
	PARKING			
	E.C.S	4 PER 25 PEOPLE		
		TOTAL NO. CARS	200	
		NO. OF DIFFERENTLY	6	

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

		ABLED CAR PARKING		
		NO. OF AMBULANCE PARKING	10	

CHAPTER 7: CONCEPT

ZONING

The site zoning is done as per the norms which say 5% construction and a non-segregated planning. The three building of respective faith is kept at same alignment and each given a seggrate space of their rituals. The site is kept limited in vehicular movement and a majority of the site is kept pedestal.

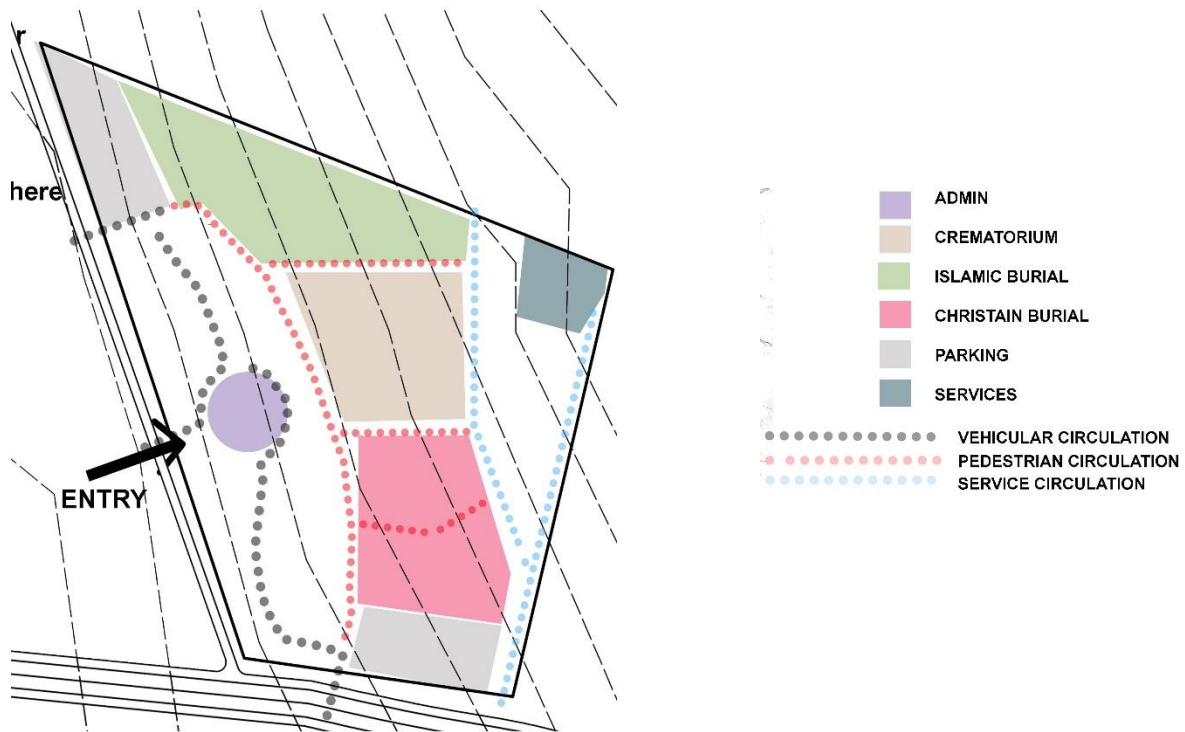


Figure 154 Site Zoning

FLOW DIAGRAM

CREMATORIUM

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

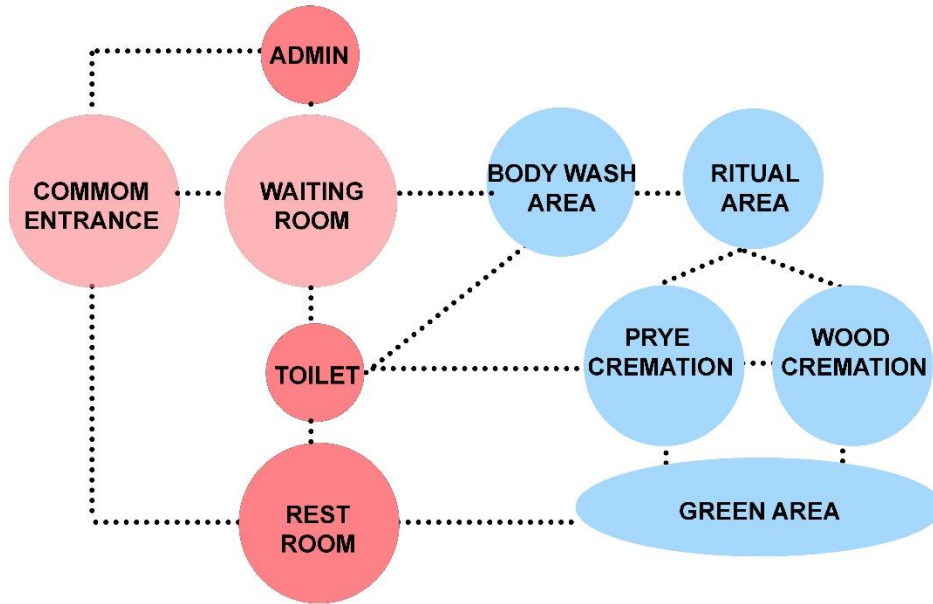


Figure 155 Crematorium-Flow diagram

ISLAMIC BURIAL COMPLEX

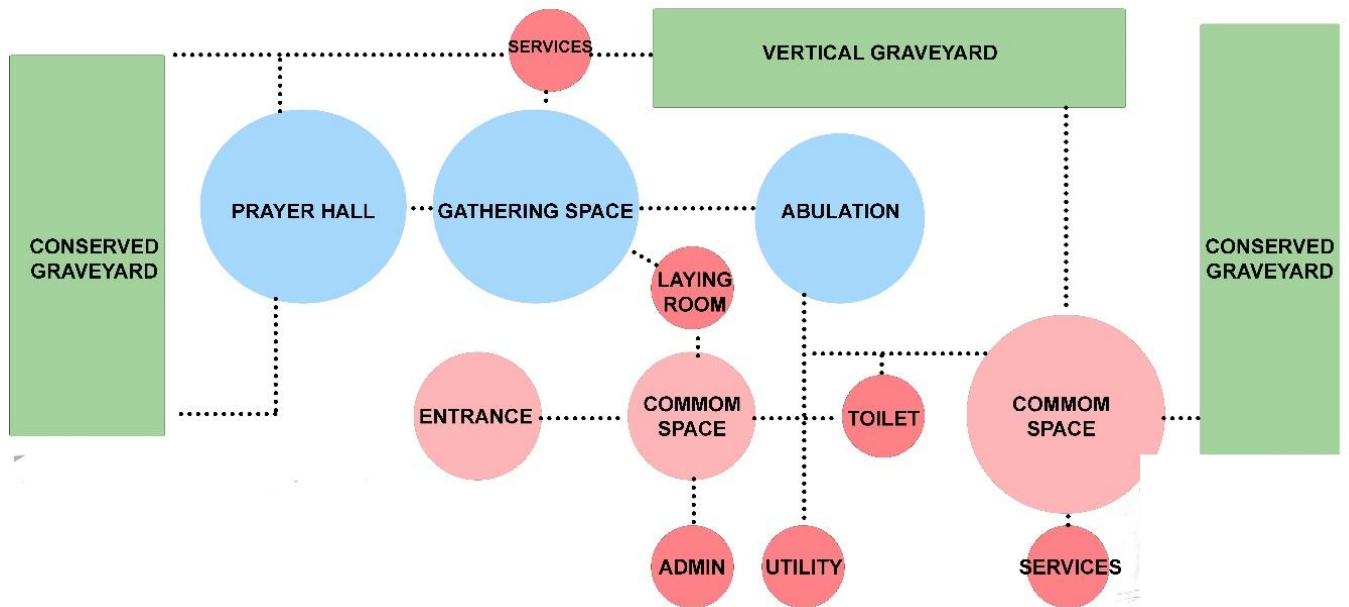


Figure 156 Islamic Burial Complex-Flow Diagram

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

CHRISTAIN BURIAL COMPLEX

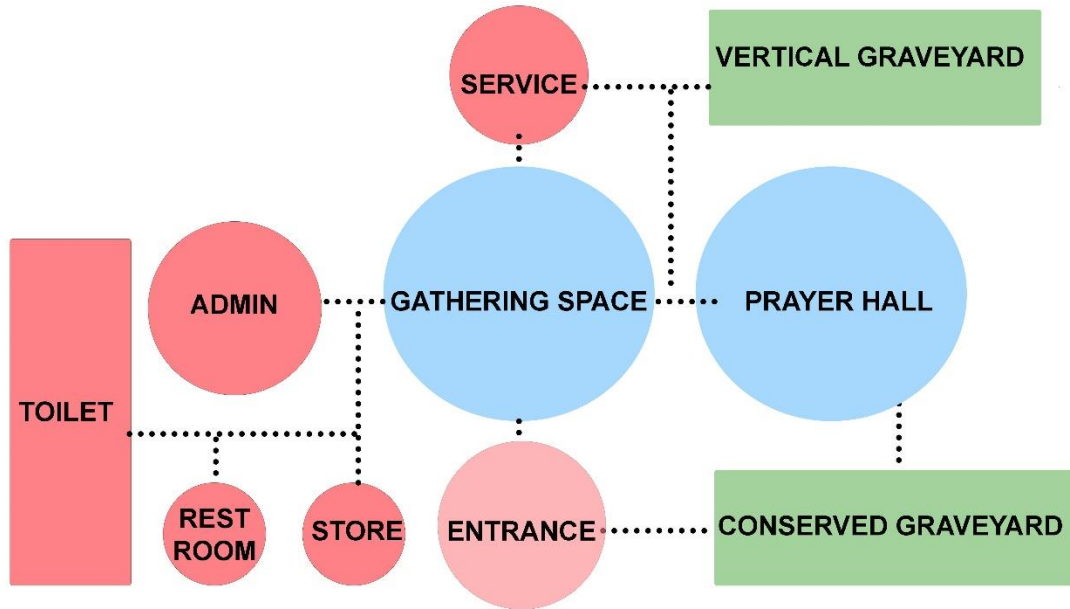


Figure 157-Christain Burial Complex-Flow Diagram

levels in the floor plans to shows the ups and downs of life as in a circle and high ceiling with sky lights create a sense of divine in the moment of grief which is used in all the other structures as well.

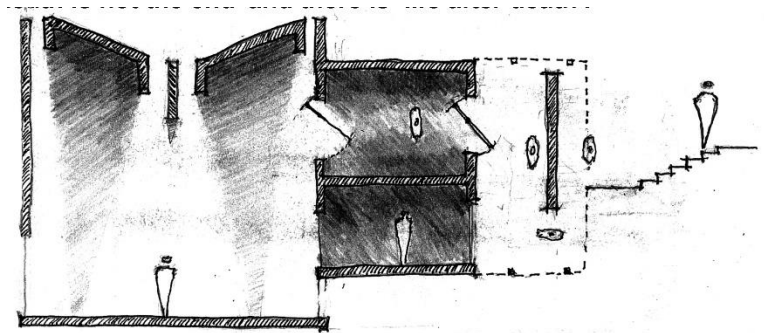


Figure 158- Conceptual Crematorium Space

Usually there are no proper spaces for mourner to see their loved ones go , hence it is an important so level stepped cremation spaces are designed.

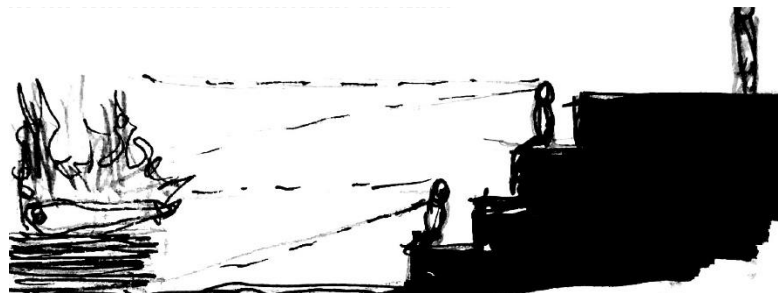


Figure 159- Conceptual Sketch of mourners

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

ABULATION SPACE

This is the only place where the Islamic influence could be incorporate as the structures is designed is common resemblance. It has a dome over the abulation area which a small opening for light penetration, which will create a reflection of sun over the water. It creates the feeling hope in the grief.

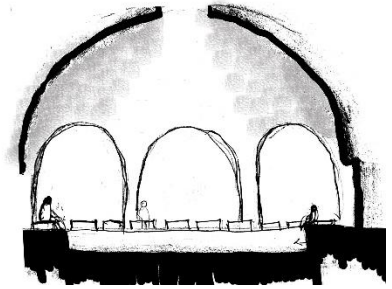


Figure 160- Abulation Space

GATHERING HALL

Such places should be with high ceiling with slit windows as light Penetration will be less such thin rays which will create a feeling of Hope in the dark space High ceiling also intimidates user thus the process goes by filling the mourner with grief by putting in dark space then slight lit spaces then in complete lit places.

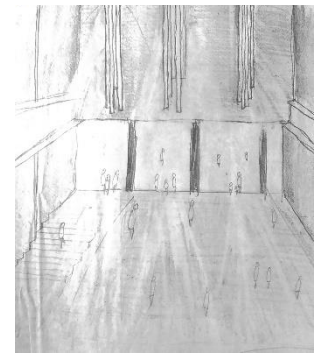


Figure 161 Gathering spaces

VERTICAL GRAVEYARD SKYLITS

As vertical graveyard are the new solution for the land scarcity. The graves are laid inside buildings, but Requires natural light as well. Hence roof cut outs are inserted on the floors so that the light could fall directly on the graves.

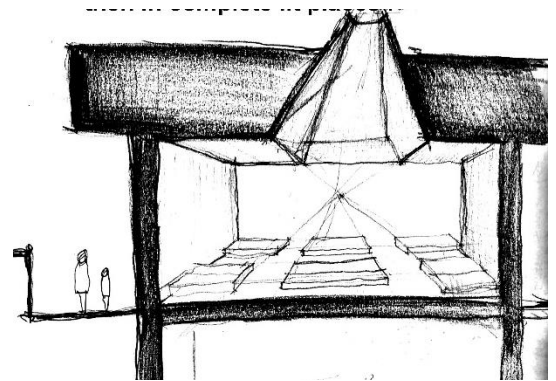


Figure 162 Graveyards skylights

Columbarium or memory wall are to be laid surrounding the graves. These memory wall will have the name embed On them of the dead whose graves are given to the other.

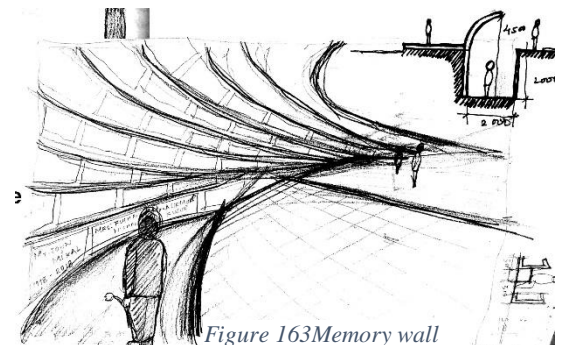


Figure 163 Memory wall

CHAPTER 8: DESIGN

HOUSE OF SOULS:A MULTI-FAITH FUNERAL CENTER,THANE

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IMAGES

Figure 164-Master Plan of Thane -<https://thanecity.gov.in/uploadpdf/ThaneMap.pdf>

Figure 165:Site Description ([google earth pro](#))

Figure 166-Site Article (<https://www.mid-day/articles/thane-multiple-faiths-to-build-a-crematorium-on-common-ground/18899187>)

Figure 167-Site Article (<https://www.mid-day/articles/thane-multiple-faiths-to-build-a-crematorium-on-common-ground/18899187>)

Figure 168- The body would finally be returned to nature
(https://www.thedickinsonpress.com/sites/default/files/styles/16x9_620/public/1pTM1VwdxwH8eTfBVkru8Z6o_fHZ6l_d.jpg?itok=8xLJR70C)

Figure 169-Step 1 (<https://www.slideshare.net/CleantechInnovate/cryomation-ltd>)

Figure 170-Step 2 <https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

Figure 171-Step 3 <https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

Figure 172-Step 4 <https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

Figure 173-Step 5 <https://www.slideshare.net/CleantechInnovate/cryomation-ltd>

Figure 174-Method of Resomation <http://geog.ucsb.edu/img/news/2011/ecofuneral.jpg>

Figure 175-Process of resomation
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Figure 176-Ohm https://szamanskibeben.pl/1556-large_default/sticker-ohm-symbol.jpg

Figure 177-Body ready for wood based cremation
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Figure 178-Body Preparation

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Figure 179-Cremation

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Figure 180-Process of Cremation

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Figure 181-After cremation ritual

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Figure 182-Covering the dead <https://www.islam21c.com/wp-content/uploads/muslim-shroud-620x300.jpg>

Figure 183-Janazah prayer <http://www.funerals-and-flowers.com/images/islamic-funerals2.jpg>

Figure 184-Burial <https://bloximages.chicago2.vip.townnews.com/>

Figure 185-mourning time https://gdb.voanews.com/7E84583A-39DA-4142-A433-B05033634122_cx0_cy11_cw0_w408_r1_s.jpg https://gdb.voanews.com/7E84583A-39DA-4142-A433-B05033634122_cx0_cy11_cw0_w408_r1_s.jpg

Figure 186-mourning time <https://5.imimg.com/data5/QQ/ER/GLADMIN-55278872/christian-funeral-500x500.jpg>

Figure 187-Coffin brought to the chapel <https://i.guim.co.uk/img/media/>

Figure 188-Mass in the chapel <https://www.gatheredhere.com.au/wp-content/uploads/2017/09/Christian-Funeral-Service.jpg>

Figure 189-Procession towards grave <https://s.aolcdn.com/dims-shared/>

Figure 190-Prayer at the grave

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Figure 191-result Over time of expansion of cemeteries
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Figure 192-Going Vertical http://flpublicarchaeology.org/nerc/images/CRPT_logo.jpg

Figure 193-land usage for different areas
<https://archinect.imgix.net/uploads/g4/g43kbuxbfupr0r8s.png?auto=compress%2Cformat>

Figure 194-Wildlife reserve as cemeteries <https://media-cdn.tripadvisor.com/media/photo-s/0a/00/63/cb/the-old-cemetery.jpg>

Figure 195-Stacking of Ums
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Figure 196-Columbarium
<https://upload.wikimedia.org/wikipedia/commons/thumb/e/e8/Oakland-columbarium-s.jpg/241px-Oakland-columbarium-s.jpg>

Figure 197-Encrypted Urns <https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQT-ZlHt8znkGrQypDsOs1y9Ox6x9ehZRz9hbqilcnQcITBSdyi>

Figure 198-Burials <https://cdn.f1connect.net/media/80410/r/782x655/1376960.jpg>

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Figure 199-Diamond hill crematorium-front elevation

https://images.adsttc.com/media/images/567c/50d7/e58e/cea0/6b00/031e/slideshow/C06_service_hall_lily_pond

Figure 200-Circular staircase

https://images.adsttc.com/media/images/567c/52c3/e58e/cee2/8a00/031b/slideshow/portada_C05_circular_courtyard

Figure 201-Diamond hill crematorium-location plan

<https://www.epd.gov.hk/eia/register/profile/latest/esb102.pdf>

Figure 202-.Diamond hill crematorium-location plan

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Figure 203-Concept of life cycle <https://www.kjmaclean.com>

Figure 204-water body recycled

https://images.adsttc.com/media/images/567c/50d7/e58e/cea0/6b00/031e/slideshow/C06_service_hall_lily_pond

Figure 205-circular pathways

https://images.adsttc.com/media/images/567c/52c3/e58e/cee2/8a00/031b/slideshow/portada_C05_circular_courtyard

Figure 206-Growth of a human <https://medialib.aafp.org/content/dam/AAFP/images/ann/2017-july/lv-circle-of-life920.png.dai.600.png>

Figure 207-Journey of Mountain representing life growth <https://image.shutterstock.com>

Figure 208-Diamond hill crematorium-site plan

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Figure 209-Diamond hill crematorium-lower ground floor <http://4.bp.blogspot.com/>

Figure 210-Diamond hill crematorium-ground floor <http://4.bp.blogspot.com>

Figure 211-Diamond hill crematorium-podium plan <https://images.adsttc.com>

Figure 212-Diamond hill crematorium-circulation plan of podium floor

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Figure 213-Diamond hill crematorium-building section <https://images.adsttc.com>

Figure 214-West Elevation <https://images.adsttc.com>

Figure 215-Diamond hill crematorium-east and west elevation <https://images.adsttc.com>

Figure 216-Diamond hill crematorium-east and west elevation <https://images.adsttc.com>

Figure 217- Diamond hill crematorium-South Elevation <https://images.adsttc.com>

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Figure 218-Diamond hill crematorium-north elevation <https://images.adsttc.com>

Figure 219-Diamond hill crematorium-circular staircase

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Figure 220-funeral halls in the podium floor <https://images.adsttc.com>

Figure 221-Diamond Hill Crematorium-Perspective

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Figure 222-Islamic cemetery-entrance area

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Figure 223- Islamic cemetery-user flow <https://archinect.imgix.net>

Figure 224-Islamic cemetery-concept

Figure 225-Islamic cemetery-site plan <https://s3.amazonaws.com>

Figure 226-Islamic cemetery-circulation plan Source-self drawn

Figure 227-Islamic Cemetery-floor plan Source-self drawn

Figure 228-Islamic Cemetery-Gathering,laying room,Prayer room <https://images.adsttc.com>

Figure 229-Islamic cemetery-section of cemetery building <https://images.adsttc.com>

Figure 230-Islamic cemetery-section through prayer hall towards graveyard <https://images.adsttc.com>

Figure 231- Islamic cemetery-red concrete <https://images.adsttc.com>

Figure 232-Islamic cemetery- wooden framework <https://images.adsttc.com/media/images/5044>

Figure 233-Igualada cemetery-google map showing orthogonal grid like context

<https://www.google.com/maps/place/Igualada+Cemetery>

Figure 234- Igualada cemetery-position of the cemetery along the river Rier De Odena Source – self drawn

Figure 235-Igualada cemetery-Conceptual plan in continuation of site contours Source-self drawn

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