

# EXPERIENCING THE DEADLY EMOTIONS THROUGH EXPERIENTIAL ARCHITECTURE A WALK THROUGH THE SUFFERINGS OF EARTHQUAKE SURVIVORS

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**Abstract.** The work examines the architectural and space designing strategies for human behaviours changing. This article studies the role that the height, width, and psychology of elements in architecture and space design can play in triggering the human emotions like fear, and confusion. The outcome of this study is then applied for designing spaces in such a way as to make its user feel the sufferings of the survivors of earthquake. This study first explored the literature on emotional and behavioural architecture. Feeling architecture was the main topic under which readings of various articles related to heights, width, element placement, and colour psychology was done. Secondly, three case studies, covering works of architects, were done to explore how they transformed feelings and emotions into architectural spaces to narrate stories.

Emotion of fear was of most attention, where the space is designed keeping in mind the earthquake 2005 as historical genius loci. A deadly scene captured inside the walls, reminded people the disastrous scenarios of earthquake. The ups and downs of human life translated into ups and downs of spaces though providing an experiential space making humans curious to explore more and experience more.

**Keywords:** Experiential Architecture, earthquake, historical genius loci, human emotions, fear, nature, memorial.

## Introduction

Our world has two most important belongings, first is we, the humans and second is the built environment around us. We move, we learn and we earn something from our environment and give something back to this environment. Our build surroundings are said to have strong impacts on our emotions and feelings. The way we behave, move or react is dependent upon the surrounding structures. Surrounding architecture strongly impacts and effects the psychological well-beings of humans and other living entities (Voegeli 2020).

It's not just the touch of hands, every sense has a touch. Our eyes can touch wall to wall and send a message to brain which directly effects the emotions and feelings inside our heart that directs us to behave or feel in a certain manner that makes us move, explore, interact and connect in our own way (Agrawal). A strong connection between

architectural spaces and human can be noticed in daily life, as human life walks parallel to architecture. Human emotions like happiness, sadness, fear, confusion, stress, and anxiety cause them to behave in a specific manner. We also know that architecture is capable of influencing these emotions and hence architecture controls behaviours. This relationship between emotions and architecture gives rise to emotional and behavioral architecture. This paper experiments with emotional triggering ability of architecture to design building spaces to let its users experience the sufferings of earthquake survivors.

Buildings are physically present but soul less.

The power of Architecture has been seen since ages. Many cities have used this term with the name of defensive or hostile architecture where they present the power through a small example of

bench through which you can make people move according to the designed built environment. People use stairs for sitting, and you design some attractive stone shaped benches at the end of the streets to restrict people from sitting on the stairs (WILSON). This shows the strength of architecture in our daily life. However, buildings around us don't usually have a body language. Architecture should not only halt bad human emotions but our space designs ought to contribute in society for ethical and positive emotions. The infrastructure though has its variety, the construction industries are progressing with the every passing day, but no such architectural structure/space can be witnessed in Pakistan that is a good example of effective design through which we can feel the power of architecture in Pakistan.

The survivors and martyred of the world incidents like the holocaust, 9/11 and many more were given respect by constructing a landmark in their memory. Even after years of time, the coming generations by looking at the memorials get to know about what happened in past (Heckenbach 2012). People know about the holocaust incident, happened in the 19th century, because many architectural memorials were designed in the memory of deaths of those people.

Earthquake 2005 in Pakistan, a world-wide known natural disaster, happened on 8th October 2005 is marked as the most crucial, difficult and fearful incident in the history of Pakistan which took lives of almost 80,000 individuals leaving the other thousands of people homeless (Rehman, Qadri et al. 2016). The incidents like earthquake 2005, needs to be remembered, and survivors & martyred of this incident deserved to be respected and honoured. The aim of this work is to honour the survivors and martyred by creating a memorial museum in the memory of 2005 earthquake. In order to attain the mentioned goal, this work designed a space that translated the incident of 2005 earthquake in the building mass having elements arranged in such a way that they awake the 'fearful' emotions and then 'life goes on' feelings in its users. This paper works with

emotional triggering ability of architecture to design building spaces to let its users experience the sufferings of earthquake survivors.

Main aims of this work are awakening of fearful emotions & then hope for future, in human by designing interactive and responsive building masses. These aims were achieved by first reviewing the literature on emotional and behavioural architecture. Feeling architecture was the main topic under which readings of various articles related to heights, width, lights, element placement, and colour psychology was done. Three case studies, Memorial to the murdered Jews of Europe, Wexner Centre for the Arts, and Yad Vashem Memorial Jerusalem, were done to explore how architects transformed feelings and emotions into architectural spaces which narrated stories.

## **I. Research Methodology**

This paper is based on study of previously written material on feeling architecture. Paper provides guidelines for design of a responsive and interactive building based on case studies related with architecture and human psychology. It further dragged to search for how architecture and humans are connected and what give them a common ground. This made us to search literature on emotional and behavioural architecture and to find how emotions can be impacted through intentionally designed architecture for triggering human emotions and changing its behaviours. Feeling architecture was the main topic under which readings of various articles related to heights, and element placement psychology was done. Three case studies of related buildings helped to explore how architects transformed feelings and emotions into architectural spaces which narrated stories.

Being the survivors of earthquake 2005, it was easy to understand the feelings of the survivors which added authenticity to the scenarios translated and emotions felt while being inside those spaces.

## 2. Literature Review

There is no emotion within us without a place.

Emotions of a person are strongly connected to architectural spaces. Whenever we think of a person or memories anything, the place where those memories are spent comes in mind along with it. A strong connection between spaces/architecture and human can be noticed in daily life as human life walks parallel to architecture. Human emotions like happiness, sadness, fear, confusion, stress and anxiety cause them to behave in a specific manner. We also know that architecture is capable of influencing these emotions and hence architecture controls behaviors. This relationship between emotions and architecture gives rise to emotional and behavioral architecture (Shah 2020). Architecture triggers emotions. Every building, if designed sensitively leaves strong impacts on the five senses. Mall properly designed makes a person experience and circulate through the power of its design. Memorials allows and emphasis a person to relate to the stories translating through the facades and elemental vocabulary. They can impact emotions in Nano seconds and causes a fearful aura. The more strong the design is, easier is for the user to make a connection (Lehman).

### **Feeling Architecture (Emotional and Behavioural Architecture) in today's Spaces design:**

A good designed space is the one that increases the curiosity of the user to get involved with the space and triggers the emotional senses active. Eisenman says that "Architecture has to find a way to excite people's emotions and feelings about being somewhere" (Workman 2008). A space design making its user move through the power of its design is where "power" and "feeling" architecture gets mixed (Shahid). Feeling Architecture is a term that can make us think in different directions. Experiences trigger emotions. Emotions that make us feel in a certain manner and change our behaviours. The more a space will trigger our emotions the more it is easy to connect and relate (DiCrescenzo 2021). Buildings shape human

behaviours. It's the designer who can make it positive or negative. Buildings can help in moving humans in certain ways.

One important feature of architectural design is that the context to which the design project is added also impacts ones emotions. We can observe and feel that same project placed in different surroundings will have a different impact. The contextual surrounding plays an important role and adds a different meaning to the meaning of project itself.

Building masses, now a day, are physically present but are soulless. These soulless buildings make us question about how architecture drastically changed with the passage of time. Architecture, in past times, was a bulk of minute detailing where everything used to be built with focus. The intelligent designs consumed less energy. But now structures got massively high and turned into skyscrapers, more and more energy is being consumed giving another reason to prove buildings now a days as soulless. The skyscrapers indeed gets the attention but one visit finishes it all as compared to old traditional buildings where every elements depicting and dictating story of its own gives you a different emotion every other time and gets you emotionally attached. Now a days, buildings don't need strong story lines or the contextual environmental aura even if not reflected in the building design is not considered a big deal (Kumar 2017).

The problem with the today's world is that people are being rigid, stubborn and heartless. It's true that bad architecture or bad design impacts our health and moods which directly impacts our productivity (Staczek) that is also to be believed that good architecture which has a deep thinking process behind, and is designed for a purpose to bring a change, can impact positively and bring a change in the heartless environment. Architecture is not just a built environment, it is the part of our culture. Architecture is something that, after years, can depict different stories. Some old architectural structures are said to be story tellers. Some buildings of old times, added to world heritage sites, tell us hundreds of stories. While some trends

in architecture are followed as respecting the human lives by constructing a land mark in the honour of the past people. The pain of losing someone can only be felt when you lose your closed ones. Erecting monumental structures makes people aware of how much importance life has. The important incidents can be respected and recalled after their translation into architectural spaces. The stories have strong feelings and emotions that monumental structures are found of translating (NicGhabhann 2017).

### 3. Site

Literature suggested that, for mentioned goal at hand, such a site is required that can easily be accessible from the main road, can attract a huge flux but still the context of the site should be as when people are inside the site interacting with the building, no external concrete mass can divert a person's attention from the building for establishing an emotional connection between the human and building mass. A site surrounded by nature was needed, where a person can only watch and interact with building encapsulated between the greenery (flora and fauna). Keeping these points in focus, location near Salhad, Abbottabad KP, Pakistan was selected. This site is encapsulated

between mountains and skyline, where one feels connected with the nature, details of site are explained in figures 1-3.

The macro plan was taken on the country level. The site is in Pakistan, the landmarked cities are mentioned through which the location of Abbottabad is made clearer as the site lies near Abbottabad, KP Pakistan. As mentioned in literature review, a site having such a psychological context was needed which is easily accessible yet if a person moves within in does not get distracted by any surrounding object. So the site was preferred to be between natures and the human attention from focus is not diverted (figure 1).

Meso plan shows the most immediate context of the site surroundings. In figure 2, Meso plan shows the surrounding architectural style along with the mostly used geometric styles and the fruit trees that helped, later on, for generating the economy.

Figure 3 shows the Micro plan covering the site only & the most important connections it has with the neighboring context. The water stream flowing behind the site and the trees surrounding the site fulfill the psychological contextual requirements (figure 3).

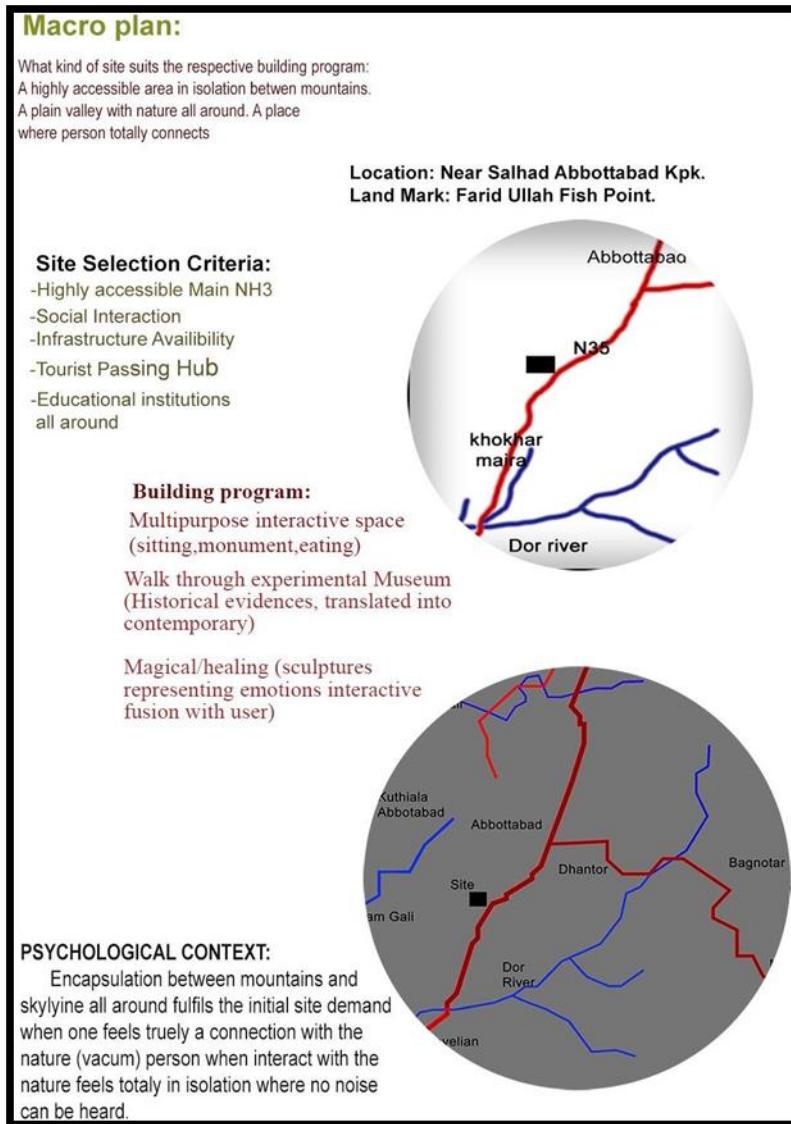


Figure 1: Context at Macro Level

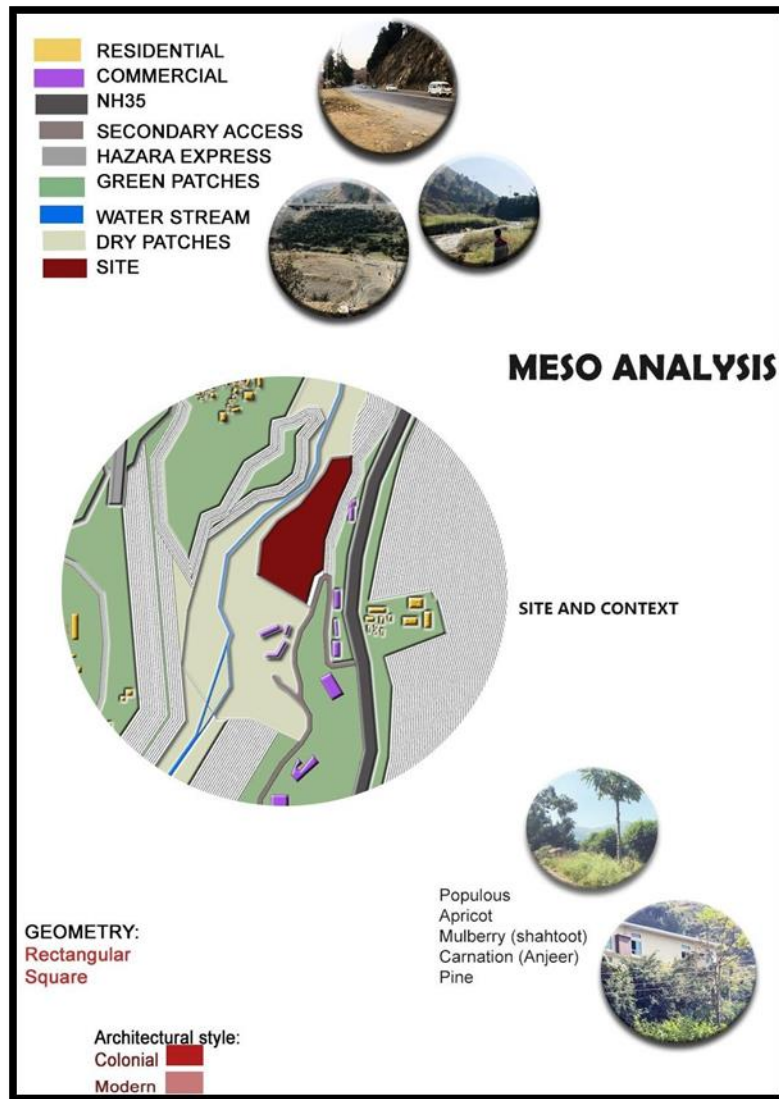


Figure 2: Context at Meso Level

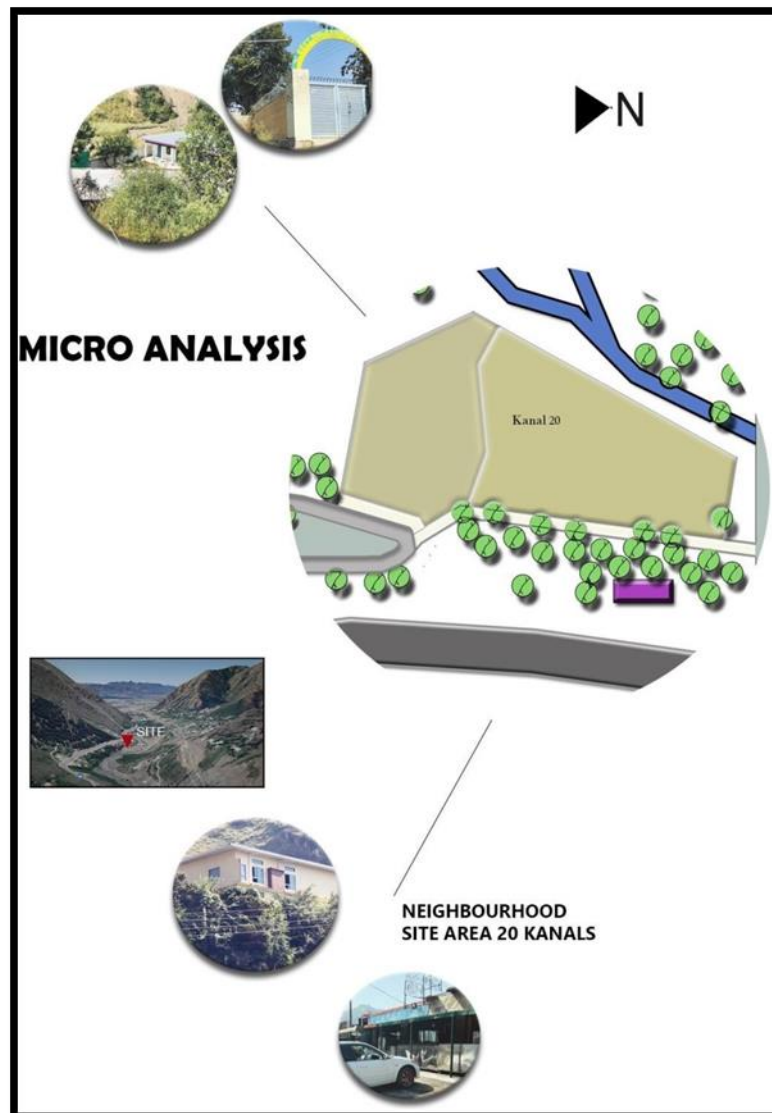


Figure 3: Micro Plan showing the site typology and connectivity

#### 4. Case Studies

This work studies three different buildings narrating stories, to know how architects transformed feelings and emotions into architectural spaces. Following case studies were done.

##### **Case Study 1: Memorial to the Murdered Jews of Europe, Berlin Germany** (Architect: Peter Eisenman)

About six million Jews were murdered all around Europe (United States Holocaust Memorial

Museum 2021). The “Memorial to the Murdered Jews of Europe” is a memorial in Berlin to the Jewish victims of the Holocaust, designed by architect Peter Eisenman (Cococotas 2017). The site consists of concrete blocks having height from 3’ to 15’. Architect Peter Eisenman translated the emotions of Jews slaughtered at that time into a monumental site which consist of almost 2,711 concrete blocks, - the rectangles having the same widths but varying heights. The stylistic execution is remarkable as the labyrinth patterned concrete blocks give an impression of confusion to people. When a person walks inside the labyrinth one can easily feel lost and anxiety can easily make person

to find a way to get out of the massive dead concrete blocks (figure 4) (Ahvenas 2016).

The Architect successfully narrated the emotions of the Jews, the way they rushed here and there to hide, who were taken every time for slaughtering. The widths of the walkways between the concrete blocks were intentionally kept 3 feet (figure 5). The path of the walkways is sloped showing about how much difficult the life became for the victims (Brody 2012).

### Conclusions from Case study I:

The case helped in understanding how emotions can be triggered by using sensible and simple architectural approaches. The architect played well with human psychology and imparted confusion, fear and anxiety just by using dead concrete facades with varying heights arranged in a labyrinth patterned maze. Humans being sensitive, when enter the labyrinth get confused while feeling

lost when they continuously watch the dead concrete facades that increase their anxiety and chaos which forces them to find a way out of fear.

This work: The anxiety level increases when such a space is created with simple dead concrete slabs where user cannot find an exit (Hall 7: the space into experiential yet confusing for the user which increases his/her curiosity levels triggering emotions such as panic, chaos and anxiety at the same time, that makes the user to interact and experience whole of the space, Perplexing-Confusion (Halls)). Even the master plan's landscape extrusions are done by taking an inspiration from the memorial where the distorted grid resulted in triangular forms and varying heights turned the space into experiential yet confusing for the user which increases his/her curiosity levels triggering emotions such as panic, chaos and anxiety at the same time and that makes the user to interact and experience whole of the space.



Figure 4: Memorial to Murdered Jews of Europe, 2711 concrete blocks forming a Labyrinth

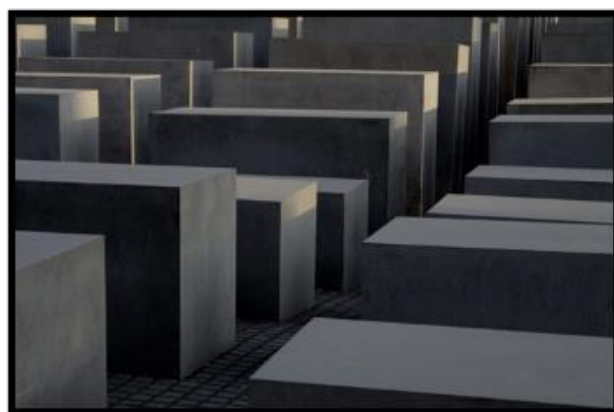




Figure 5: Decreased widths of the pathways between concrete masses (Left), Varying blocks (Rights)  
(Source Figure 4-5, <https://www.atlasobscura.com/places/memorial-to-the-murdered-jews-of-europe>.)

### Case Study 2: Wexner Center for the Arts

(Architect: Peter Eisenman)

The center provides a space for educational programs, resident artists and other performances or artistic exhibitions. The concept for Wexner

center for the arts was taken by the contextual history where an Armory castle was burnt and completely demolished in 1959. Architect Eisenman wanted to reflect the history of the castle through his design for Wexner center (figure 6).



Figure 6: Old Armory Castle Burnt (Source: <https://www.pinterest.com/pin/373376625327762197/>)

One can easily view a broken turret attached to the façade of the WEX (figure 7). The turret concept was actually taken from the burnt castle where there used to be platforms for arts and saunas. The people of the area used to attend the cultural events of the local communities and had a recreational time in their busy lives. The castle was burnt with people performing inside due to a clash between 2 governing bodies. The broken turret standing freely not exactly supporting any sort of load is just an aesthetic element that was attached in order to narrate story of the burnt castle where people were

burnt to death. The colossal sliced turret leaves an impression of fear and confusion (figure 7 Left). One, when watch it from a close distance, might have uneven feelings due to its height. The stairs converging at an angle gives an impression of confusion. User can easily feel like falling from them although they are just constructed that way to confuse or dodge people (figure 8).

The WEX is a perfect example of how to make use of a space perfectly while narrating past stories at the same time thorough the perfectly designed stylistic impressions (Latif).



Figure 7: Sliced Turret (Left), Front view of Wexner center (Right) Figure 8: Stairs converging at an angle (Source Figure 7: <https://www.pinterest.com/pin/114841859235480917/>, <https://www.pinterest.com/pin/261701428338464129/>, Figure 8: <https://news.artnet.com/art-world/wexner-art-center-shooting-suicide-374492>)

### Conclusions from case study 2:

The Wexner center is a perfect example of narration. It shows how an old element, which was dominant in the old armory castle, used in the Wexner center just by slicing it from the mid and increased size changed the meaning of it. This gave an idea of how past important historical events and happenings can be reflected in the new designs by intelligent architectural design techniques. The architect also changed the architectural vocabulary of old armory castle into a contemporary styled building which still reflects the architectural language of the old armory castle.

This Work: An inspiration of distorting the grid in the final master plan from a plain square grid was an idea that got generated after thorough study of Wexner center. The walk through 8 halls in the final master plan, where first 2 halls reflect the life

before and the other halls reflect the life during and after disaster, are generated by how events, era's and certain instants are translated differently via different elements like columns, stairs, internal space use and purpose of building by different architects specially Peter Eisenman. The sliced turret not supporting any sort of load gives an idea of how elements can be used for just aesthetical purposes. Such aesthetical elements not supporting any load but are used in the following museum halls because they helped in adding authenticity to the created scenes in Nudge, Smother and Perplexing halls.

### Case Study 3: Yad Vashem Memorial Jerusalemsum (Architect: Moshe Safdi)

Yad Vashem, the World Holocaust Remembrance Center, was established in 1953 (Figure 9). Its main task is to remember the genocide that claimed over six millions Jews (Holeman 2016). The concept of dedicating a whole museum to the holocaust Jews was to carry their names after death when there was no one left from them. The mountain was chosen as site for Yad Vashem. The mountain had its own importance known as mount of remembrance among the people of Israel so that gave a message of rebirth (Leij 2021).

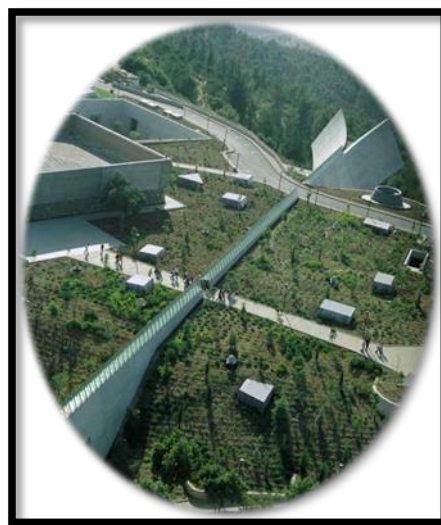


Figure 9: Yad Vashem, bird eye view

(Source: <https://tse4.mm.bing.net/th?id=OIP.koqjtQhJTr7S8KLUosFmVQHala&pid=Api&P=0>)

The whole area consists of special spaces designed in order to depict and narrate the sufferings of the Murdered Jews.

The museum leads to a hall where pictures have been displayed along with the names of millions of individuals, slaughtered at that time (Figure 10). Names can still be added in the computerized data. The somewhat of circular form becomes narrow as it points above and is opened to a lightened area just to show a connection of the dead ones with the sky that gives a beacon light of hope.

The cart placed at the broken bridge (figure 11 Left) depicts the story of the last slaughtering incident when the victims were pushed inside a cart and taken to slaughter and they knew that they are going to be murdered. The cart and broken bridge shows the half journey of the Jews, from where they were gone forever. All of the pictures sculpture or displays shows how sensitively and simply Architect translated the sufferings of each individual. The bunch of shoes placed within a glassed floor shows how they rushed to save their lives, how much they wanted to live and enjoy (figure 11 Right).

One can easily and visibly understand the sorrow and pain the artist wanted to tell by looking at the expressions of every individual present in the sculpture (figure 12). The sculpture also shows how groups of people were taken together and brutally murdered in front of each other. How

much it is hard to accept people being slaughtered in front of you when you know the next number is yours (Jager 2016).

The museum is originally covered with earth as it was constructed on the mountain. The contours helped in order, to translate the ups and downs of the lives of victims. The museum is shaped like a prism where the top of the museum is glassed in order to make connectivity to the sky. The ins and outs of the passage makes a person aware about the confusion the people faced at that time when they wanted to run but they couldn't hide anywhere (figure 13). Varying materials have been used in the floor in order to show the happy and sad phase of the holocaust sufferers (Jager 2016).

### Conclusions from case study 3

This Work: The inspiration from the concept of rebirth was taken from Yad Vashem where they placed the pictures of the slaughtered people in one hall. The picture inspiration of dead ones was modified into names of dead people (in final master plan) that were written on the bridge named as Voyage connecting the Perplexing and the Anticipation (Hope) halls. The meaningful sculpture inspiration narrating stories was taken again from Yad Vashem and sketches were sketched out of the concepts of earth quake disasters.



Figure 10: Hall of Names      Figure 11: Cart in the Yad Vashem narrating last slaughtering incident (Left), Bunch of Shoes placed in glass floor (Right)

(Source Figure 10: <https://www.britannica.com/topic/Holocaust-museum>. Figure 11: <https://www.blaineharrington.com/image/I0000nQVJErz0flA>,

<https://www.aljazeera.com/gallery/2016/5/6/week-in-pictures-from-may-day-to-president-trump-freedom-day>

## 5. Design Process

Starting from the point 1 till the last one, spaces are located at the best possible place (Figure 14). A partition is made between more visitor attention

(left) and less visitor attention (right) places. Admin and parking are placed on the area that is above the lower level and connected directly to the road. Museum and sculpture lawns are placed at the lower level as it is away from the road and exactly according to the desired psychological context of site for a building program like this (figure 14).



Figure 12: Sculpture placed at Yad Vashem  
Figure 13: Inside the main museum building, Yad Vashem Museum (Source Figure 12: <https://www.972mag.com/the-beaten-path-framing-the-story-at-yad-vashem-part-8/>, Figure 13:

<https://www.pinterest.com/pin/387520742930346529/>, <http://1.bp.blogspot.com/-SUDVoHMiEm0/UY6SIK7L2CI/AAAAAAAAALtQ/8vLvYugfP8/s640/1319639197-06-museum-interior-prism-2-770x1000.jpg>)

### Concept:

Concept is evolved from the cracking destruction. As the main distortion of earth quake is along x axis and the normal grid pattern is disturbed in earthquake, hence the irregular grid and extruded pathways out of it are used here. The nature of cracks is implemented in the elevation extrusion phase, where every crack is given different height. The whole concept was dependent upon the distorted mesh through which a whole visual impression of earth quake could have been given. The varying sizes of triangles gave an impression of the cracks. The triangles helped to execute the

building forms out of it (figure 15) and the site offsets truly helped in narrowing down the sizes of the halls which were literally needed to translate the concept of hard life, - when life became hard on the sufferers specially the Nudge hall where after earth quake walls fell down and people were finding ways to go out.

### Elevation Extrusion Process

Concept was evolved from plan to section, - concept of simple architectural principles where the distorted mesh effects are even visible on the facades and the hierarchy of each hall. The ups and downs of lives of sufferers of earth quake is translated and narrated through varying heights and form of roofs of each hall (figure 16)

The sketches were made considering the theme for inside and outside of the museum. The sketches of the sculptures were made that gave impression of how hard life became for the sufferers of earth quake and the interiors were made while choosing the architectural vocabulary that gave sense of chaos (figure 17) (inspiration taken from Yad Vashem Memorial).

6. Design

Following two design aspects were finalised;

1) Fearful interactive fusion (Power of design triggering emotions)

2) Historical Genius Loci (Earth Quake 2005)

Facilities like parking, reception, rest rooms etc., were provided, however main objective of this work was achieved by museum consists of Experiential halls, bridge, and lawn.

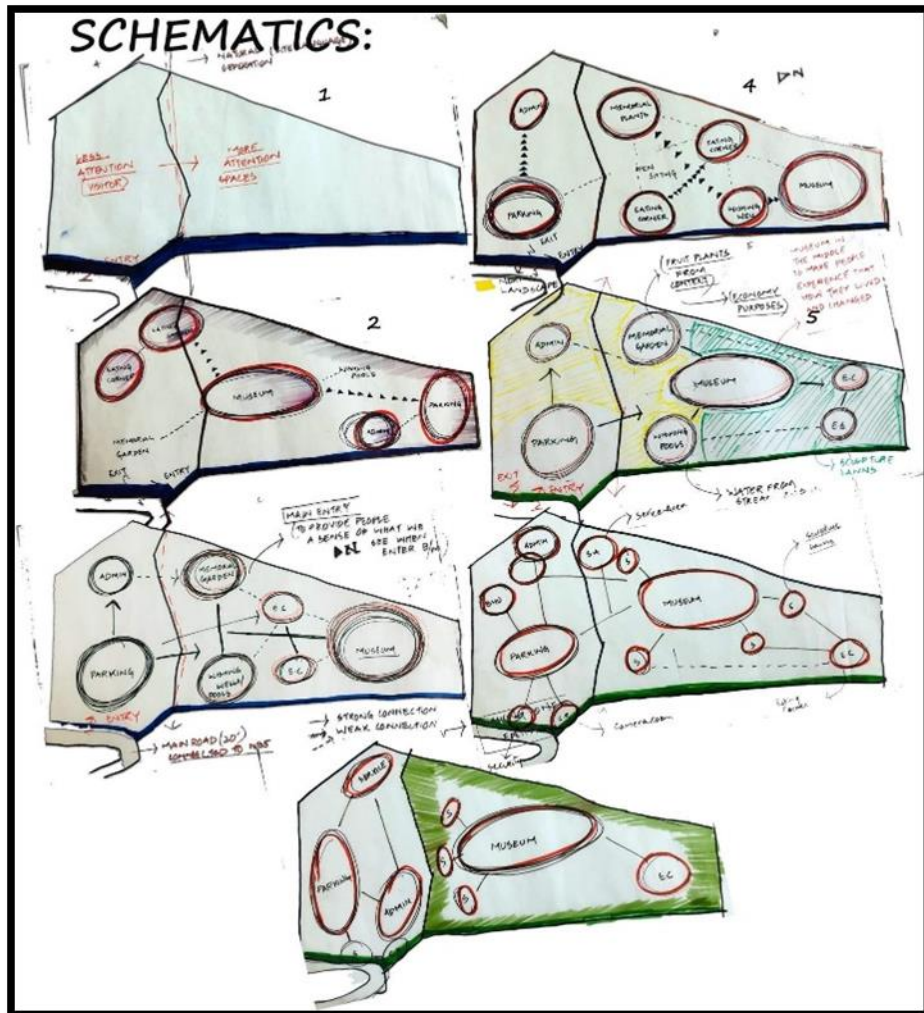


Figure 14: Allocation of building program

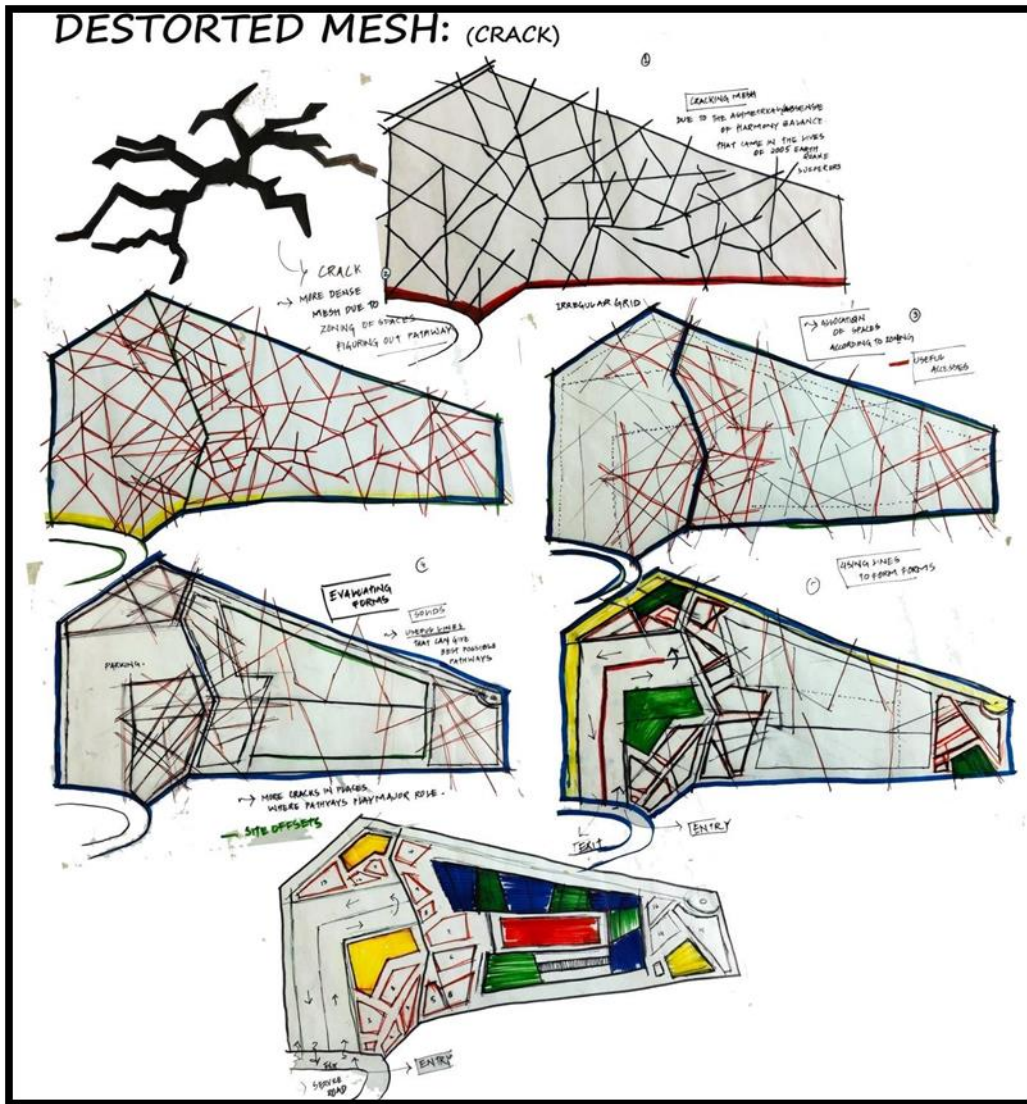


Figure 15: Distorted grid placement and spaces execution process

### CONCEPTUAL ELEVATIONS:

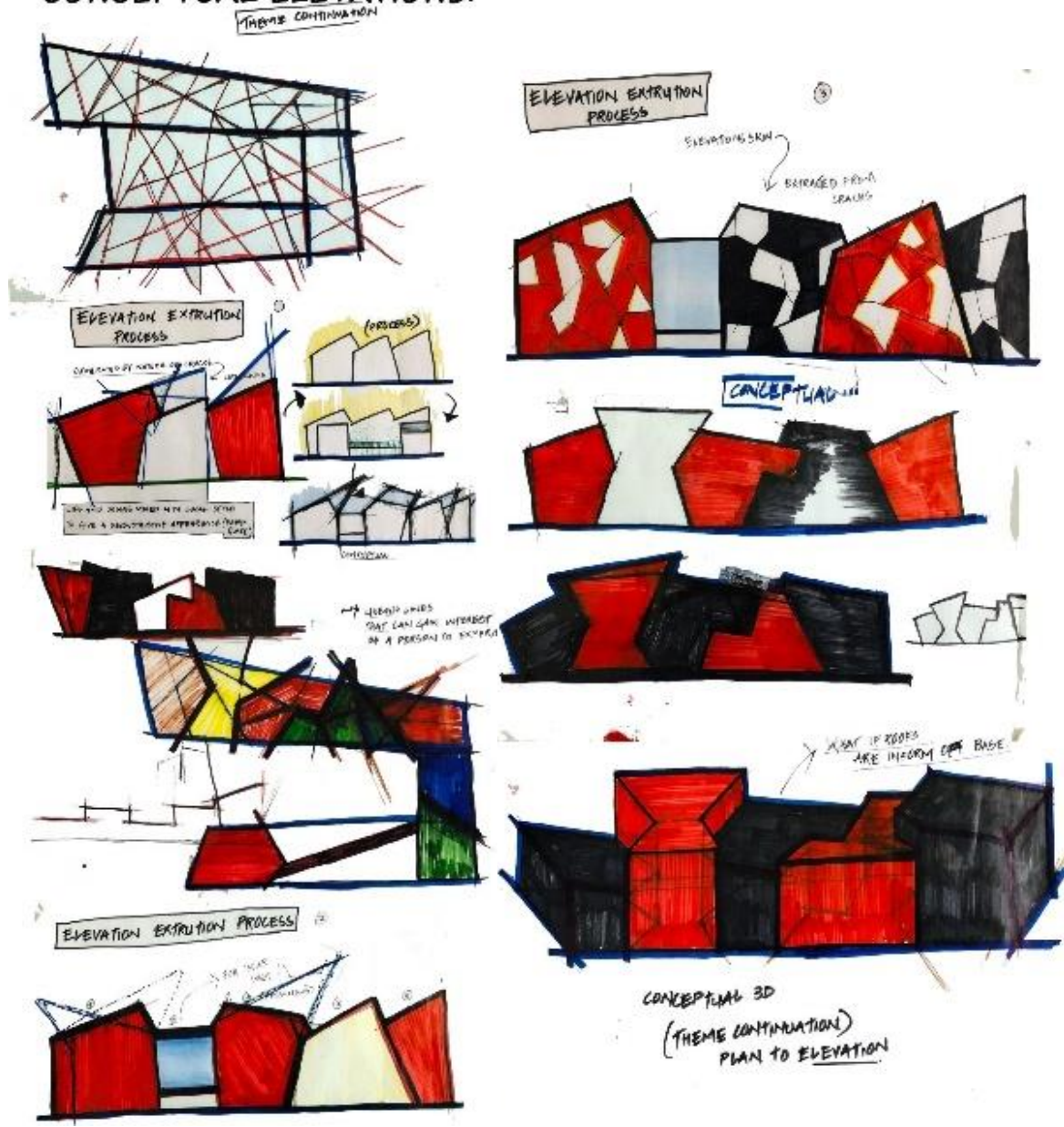


Figure 16: Elevation execution forms resembling the plans

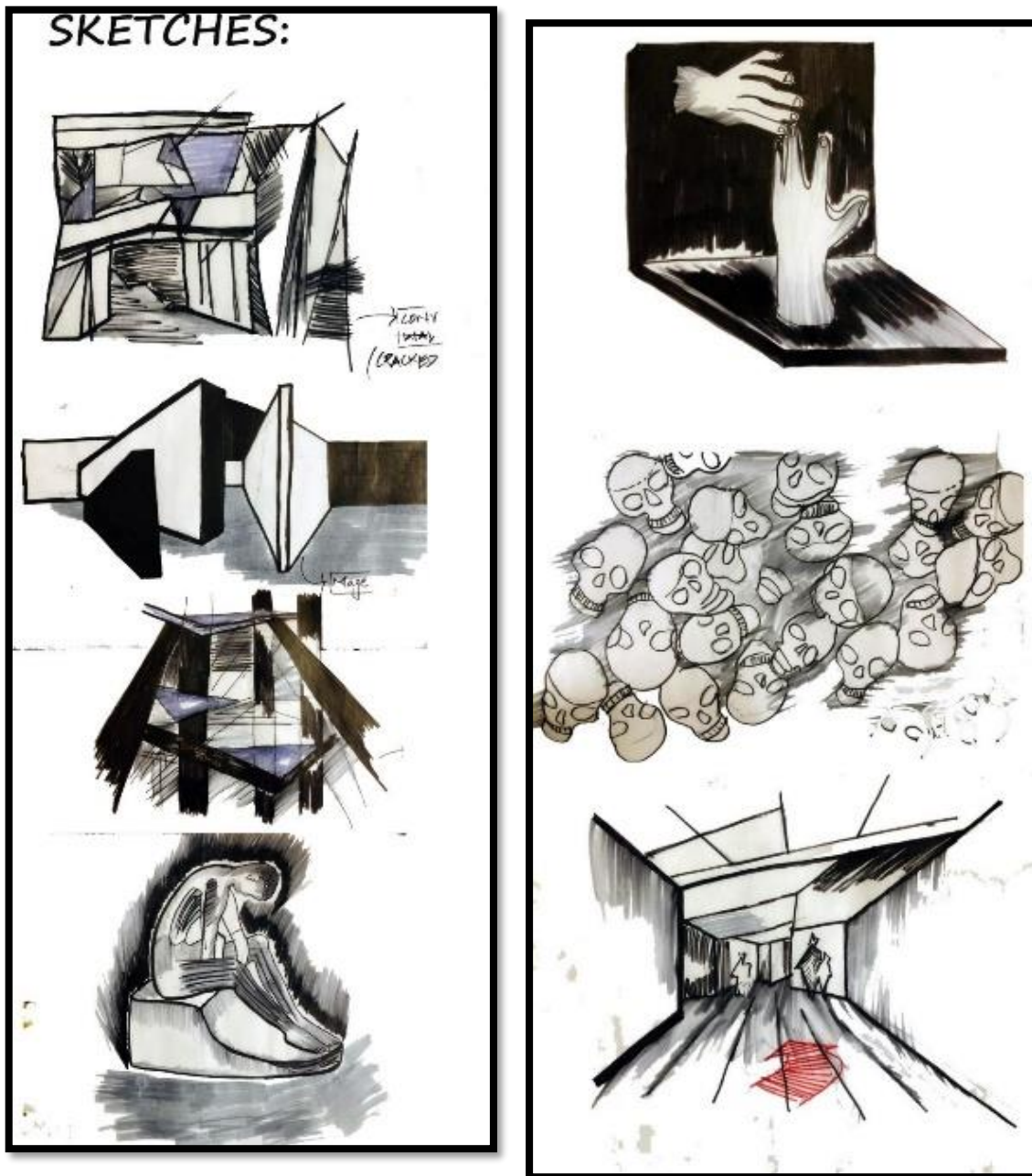


Figure 17: Sketches of few sculptures and interior spaces

### Experiential Halls, Bridge & Lawn:

Project deals with the museum consisting of different experiential halls for fulfilling the main objectives of this project. Every hall provides the user with different set of experiences. The incident of Earth quake October 08, 2005 acts as historical genius loci & translated into the architectural space by using elemental vocabulary, as the landscape patches extruded out of the distorted mesh in

triangular shapes given different heights to form an experiential landscape where one feels lost, one end is not clear from the other end (Figures 18, 25). The whole space keeps the user engaged, interacted triggering the emotions like confusion, anxiety yet maintaining the interest and that gives an impression of fear which creates an aura of fearful interactive fusion.

The museum is a walkable space where each hall, one by one, narrates the story of the earth quake



from start to end and what people have been throughout and after that time.

Hall 1 (Purity) is given the name Purity which gives an impression of how colorful life was before 2005 disaster, similarly hall 2 (Freshness) provides some displays from which one can relate to their happy lives before October 08, 2005, then the third hall known as Cracking Destruction gives a flash back of the earth quake and its scene by a floor sensor that quickly vibrates as one steps on it with which the red lights start blinking giving a dramatic ambiance which can easily effect and trigger the human emotions changing the static happy emotions into fear and panic. The Cracking Destruction hall leads to fourth hall, Nudge, which means dig. Nudge is a hall which becomes narrower and narrower and sloppier. The elements giving a sense of collapsing structures are attached to one side of the wall. Hall consists of a ramp that becomes narrower and takes a person to -2 feet from the original finish floor level. It points at the time when at the time of earth quake the earth got opened and houses got buried inside it. The structures got collapsed and people felt it suffocating. The narrow hall leads to fifth hall named Smother which is a hall that consists of low roof with suspended elements just to add authenticity to the created scene of 2005 disaster (inspiration from Wexner center). The Smother

then leads to sixth hall, Perplexing where maze patterned planes confuses the user, showing the points to the time when people were finding ways out of the collapsed structures. A bridge then connects the Perplexing and seventh and last hall known as Anticipation which means hope. The bridge is called as Voyage which means a long walk which has names of the 80,000 individuals who died at the time of disaster. A long walk from the bridge with written names points at the journey of people who suffered, lost their loved ones still trying to live again and then enter the Anticipation which has a punched roofs directly showing the sky which gives a hope to people that although they lost but life never stops and everyone should try to live happily whatever the circumstances are, because life never stops. The last is the Tribute lawn, where everyone can dedicate a tree to their closed lost ones. This was included as the site is rich with flora and fauna and the trees can help in generating the museum's economy (Figure 2). The walk through the sufferings ends here where exit takes to Experiential lawns extruded from the distorted grid given varying heights where one end is not clear from the other (inspiration taken from memorial to murdered jews). Table 1 provides summary of the spatial facilities for achieving the main objectives of this project.

Table 1: Museum: Details of Experiential Halls, Bridge & Lawn

Spatial Facility	Name	Type of Experience	Nature	Attributes
Hall 1	Purity	Before Earthquake	Walk Through	Landscape, water bodies
Hall 2	Freshness	Before Earthquake	Walk Through with short stays	Displays
Hall 3	Cracking Destruction	Depicting Earthquake	Walk Through	Vibrating Cracking floor effect
Hall 4	Nudge	Feelings of survivors under collapsed structures	Walk Through	Ramp (-2 feet), Converging walls
Hall 5	Smother	Feelings of survivors	Walk Through	Suffocation, lower roofs (-9 feet)
Hall 6	Perplexing	Feelings of survivors	Walk Through	Confusion, Maze.

Bridge	Voyage	Leaving behind hurtful memories for new life	Bridge, Walk Through	Distorted mesh pattern , Water body
Hall 7	Anticipation (Hope)	Connection to sky to experience beacon light of hope	Walk Through	Punched roof showing sky
Lawn	Tribute	Rebirth of the lost ones	Plantation, exit	Tree Dedication

### Design Drawings:

The first picture is a sectional elevation where the section of first half of the museum is shown (figure 18) Starting from the lobby then shifting to the first hall (Purity) which is all glassed. The whole concept of 8 halls revolves around the journey of earth quake survivors. Purity refers to the life they used to live before the 2005 disaster.

The water body used under the glassed 'Purity' hall is taken from the water line flowing around the site. Water and glass connection to the sky gives a sense of nature (figure 18, below). As the earth quake affected the regions of Kashmir and Balakot, and these regions are known for their natural landscape beauty. Then the second hall, 'Freshness', where work of people before 2005 earth quake are displayed, making the user feel how they were used to be.

Third hall, 'Cracking Destruction', is associated to the 2005 disaster time. The floor produces a vibration effect that can make user panic a bit and the floor consists of sensors that, as you step the floor, start vibrating and the lights start fluctuating, producing a scenario of the 8<sup>th</sup> October 2005 earth quake. The connection from Purity hall to Cracking Destruction hall also involves interviews from the people who survived the disaster.

The Cracking Destruction hall then leads to the Nudge hall, where the walls become narrower and narrower and a ramp that takes a person at a height of -2 feet from finish floor level make an impact of the scenario when the walls got broken, earth got open and people were buried under it. Some elements just to make story more effective are added to walls, like thinner and thicker planes of some soft material with look of concrete, so user does not get hurt if accidentally strikes them (Figure 19 -21). Then, they wanted to move out of the

collapsed structures. To provide such kind of scene next hall, Smother (suffocation), where low roofing technique is used along with some suspended beams to give a sense of suffocation to user, is provide. Inspiration was taken from Wexner center where elements such as a colossal sliced turret was used just for aesthetical and story narration purpose (figure 20).

This hall links to the Perplexing (confusion) hall, which directly points to the time when people were finding their ways out. The hall consists of a maze to increases curiosity to move out of the dim lighted rooms (figure 21).

A link to a bridge, Voyage, is made here. Voyage contains the names of all the people who lost their lives during earth quake. The bridge cover is topped with distorted mesh pattern upon which when light falls creates cracking pattern on the floor of bridge. The cracking pattern and names of the dead ones create a deep feeling of sorrow and pain (figure 22).

The Voyage takes the user to an open wide hall, Anticipation, which is opened from the top and sky is visible from it. It gives a hope, a feeling to the people that though people left us but life never stops and we have to move on with our loss. The walk ends at a Tribute lawn where each entity dedicates a tree to its loved one by planting it in a green lawn.

### Museum Ground Floor Plan

The ground floor consists of a long walk through experiential space, where a set of 8 halls can be seen. The ramps at 1:12 are given and, as discussed earlier, the cracks not at one level are applied inside. Level differences increase the curiosity of a user. Journey starting from hall 1 (museum) and then ending at Tribute lawn provides a full on

experience of earth quake experience through powerful design (figure 24).

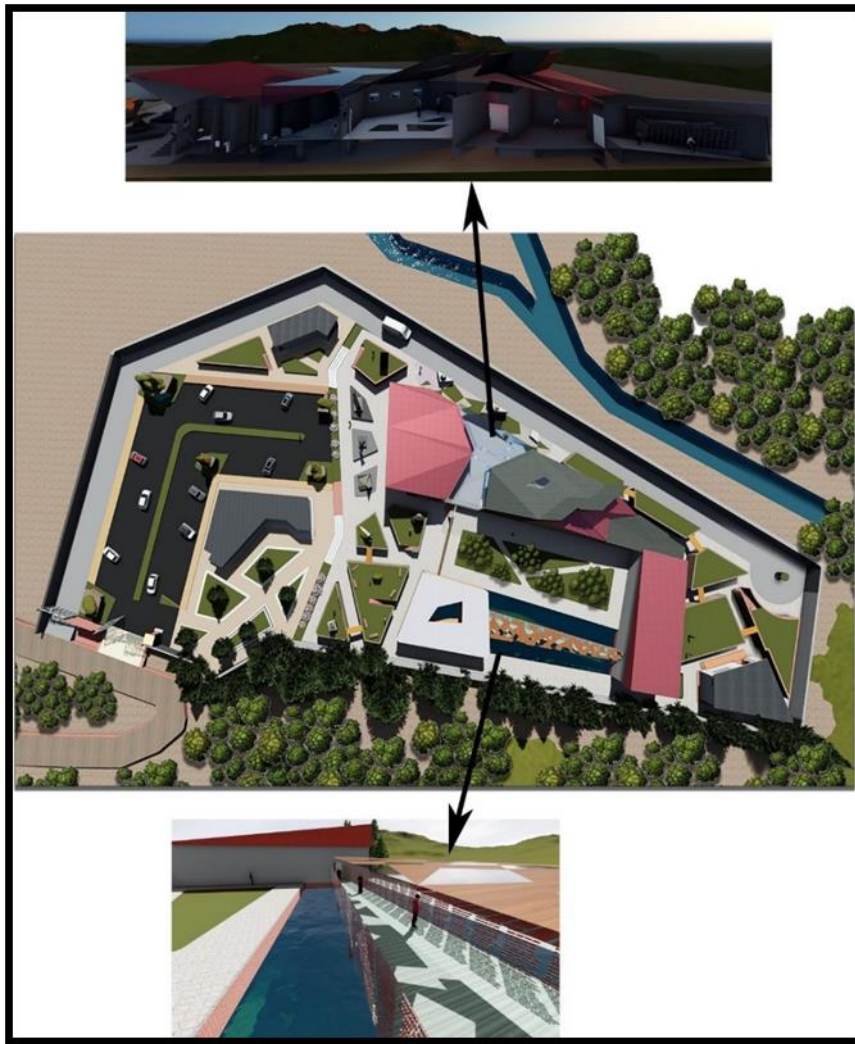


Figure 18: Final master Plan of project (Above arrow showing first half of museum lower arrow showing the Bridge Voyage that connects Halls of Perplexing and Anticipation)



Figure 19: The Nudge

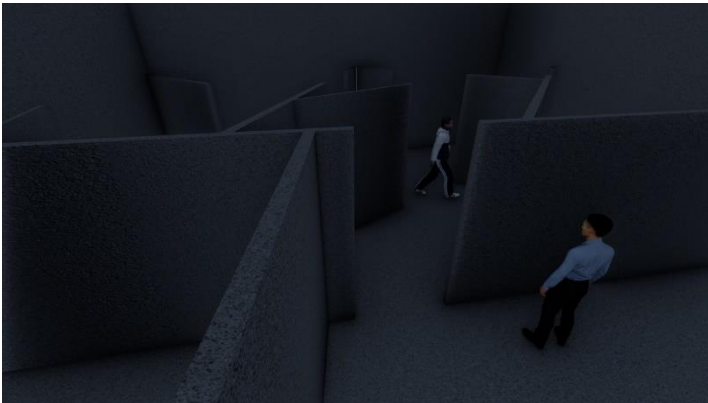


Figure 20: The Smother

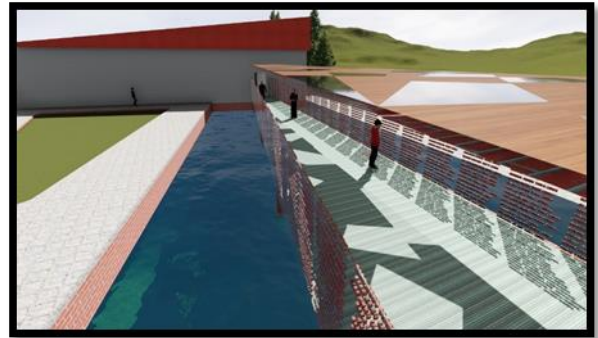


Figure 21: The Perplexing

Figure 22: The Voyage

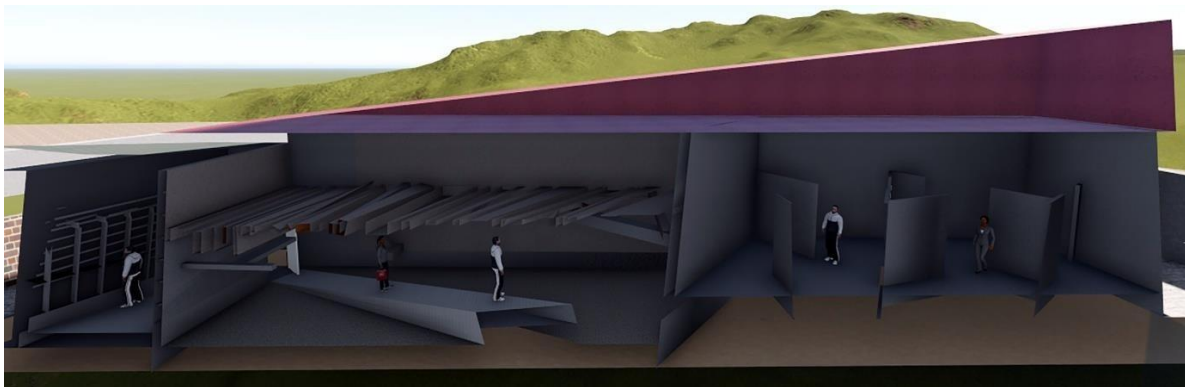


Figure 23: Nudge, Smother and Perplexing (section)

### Other exterior views:

Different heights given to landscape patches that were evolved from distorted mesh each patch connected to some via bridges. Heightes variating from 3 feet to 7 feet and more. The connection that one can make with the aura of the site could not be broken due to experiential surrouding and landscape (Figure 25).

### Conclusions:

The museum acted as a tribute to the people who lost their lives, and who lost their loved ones in the natural disaster of 2005. When people had no one to recall, the properly designed architectural spaces can serve as the rebirth for them. The properly

designed spaces with focus on elements dimensions, and placements can trigger emotions of fear, and confusion in human. The proposed design of the museum may act as a power symbol of architectural design through which one can easily grab the idea of powerful and effective design. The suggested design gives the soul to selected site and enables people to go through the sufferings of victims of earthquake 2005. The museum thoroughly shapes human behavior, emotions and body language. This shows that not only fearful emotions and feelings can be triggered but properly designed architectural spaces can change the perception and thinking patterns of people. It is foreseen that sensible and sensitive

architectural design approaches have the potential to positively shape the people psychology for better

society.

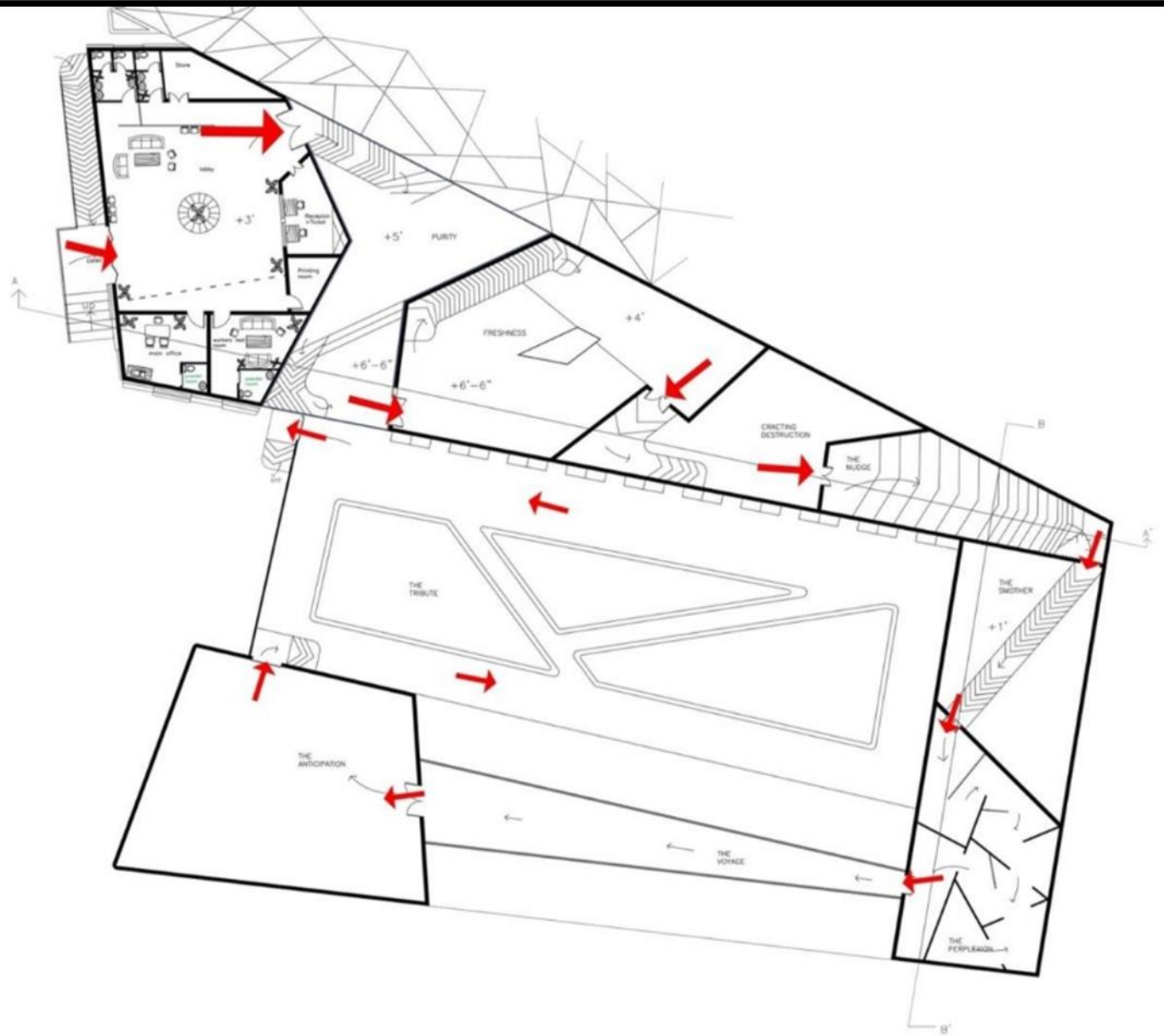


Figure 24 Museum Ground floor plan showing circulation route of user

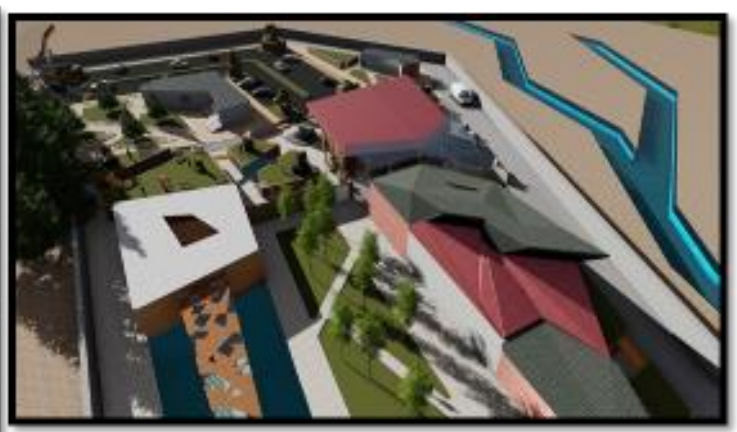
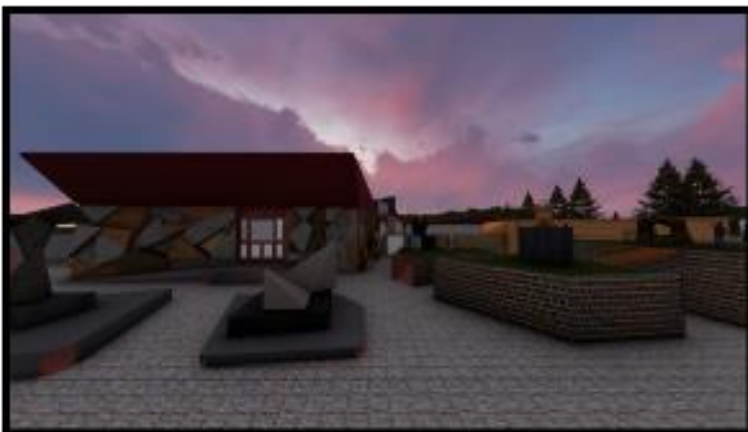


Figure 25: Front facade (Distorted mesh concept 3d triangles extrusions) (Left), Bird eye view of whole museum (Right)

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