# Recognizing the Passage of Time to Auschwitz-Birkenau: An Admonishing Memorial

by

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Submitted in partial fulfilment of the requirements for the degree of Master of Architecture

at

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## **DEDICATION**

For my family.

Here, there and everywhere.

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#### **ABSTRACT**

The grounds and buildings of highly loaded historic sites are continually changing due to environmental and human interaction, ecological erosion, disposition, erasure and the various levels of human intervention. These factors dissolve both physical structures and the meaning embedded in them, to varying degrees. In loaded historic sites, such as Auschwitz-Birkenau, revitalizing the ruins to their original state trivializes the Holocaust. On the other hand, creating an architecture that does not directly engage with existing conditions shows the inability to translate history into an architectural narrative and achieve an awareness of the events that took place there. The challenge then, is to find a place for architecture to operate within, and to activate the ruins of these fragile sites.

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Portions of the fence that once enclosed Auschwitz-Birkenau, are deteriorating due to erosion caused by years of exposure to the elements. The sacrificial concrete is washing away to reveal the enduring steel structure within.

#### **CHAPTER 1: INTRODUCTION**

## Architecture as a Strategy in Highly Charged Historic Sites

Debates for and against preservation efforts for highly loaded and historically significant sites, bring forward questions of memory and cynical nostalgia.

Ecological and human disturbances, such as flood water and foot traffic, continue to erode the grounds and ruins which are considered sacred. Areas of such high historic or cultural significance can be very difficult to contend with, yet can result in powerful and positive reactions should architectural interventions be put into action.

Urban examples of change even in a modest scale, can lead to hopes and expectations. They can serve as a positive catalyst. Working with doubt and openness is, in essence, a form of optimism. Regardless of how unfortunate and difficult elements accumulate in our daily lives, as architects and urbanists it is important to aim with optimism at a long term view (Holl 2009, 34).

#### **Thesis Question**

How can architecture be used to address the fact that erosion and erasure occur in sites that are highly charged?

Site: Auschwitz-Birkenau

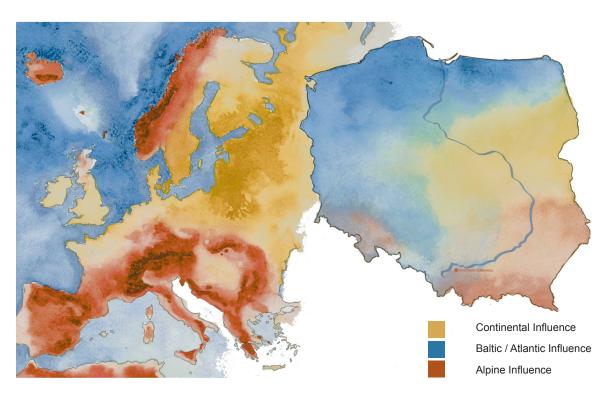
#### Context

Auschwitz-Birkenau, is a former Nazi concentration and death camp located in southern Poland. With the liberation by the Soviets in 1945, the vast majority of the buildings were completely or partially destroyed (Cinal 2011), particularly those in Birkenau, the site for

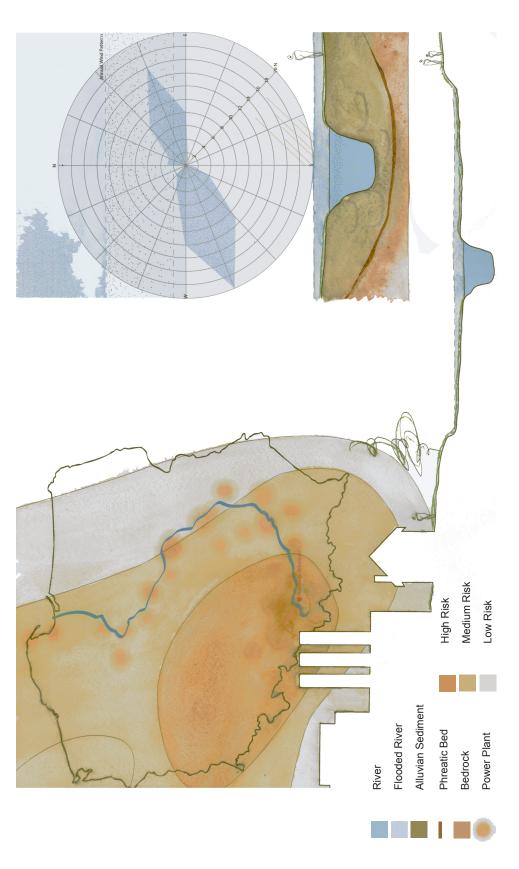
this thesis. The greater part of what is visible to this day are the brick chimneys and foundations, paying homage to the scale of the camp and the crimes that were committed there.

#### **Climatic and Ecological Processes**

Located in southwest Poland, the climate of Auschwitz-Birkenau is derived from the northern ocean currents of the Baltic Sea, continental breezes from the northeast of the North European Plains and the alpine air lapse from the mountain ranges a few hundred kilometers south. Due to the orientation of all of these forces, the wind along the camp either blows west in the fall and winter and east in the spring and summer and creates a wide range of seasonal temperatures. The mountain range to the south of the camp also strongly affects the hydrology of the site. Concentrating the precipitation



Located centrally within Europe, Poland has many topographical factors that influence its climate. To the east, a continental subarctic zone; to the north, the Baltic Sea; and to the south, mountain ranges.



Within Poland, coal power plants produce much of the country's electricity. Many of these factories are located along the Vistula River, the longest and most important waterway in the Country, filtering one of Europe's largest watersheds. Some 40 km north-west of Auschwitz-Birkenau, Katowice and the surrounding area produce more pollutants than any other region in the country. Nearly all of Poland is at risk of acid rain, as are many of the surrounding countries. If the toxins are not filtered efficiently, through natural and mechanical processes, this transfer can have detrimental effects on natural and built environments. (Hockmann 2011)



over the flat stretch of land on which Auschwitz-Birkenau is situated, carried south from the Atlantic Ocean and Baltic Sea, the clouds are not readily transferred over the mountain range and thus a rain shadow is created. The precipitation carries with it toxins that fall in the form of acid rain and acid snow, due to the heavy industry throughout Poland (Hockmann 2011).



The Vistula River, artery of the largest watershed in Poland, runs just west and north of Auschwitz-Birkenau and floods each spring. With the spring time floods, the landscape is altered dramatically making parts inaccessible and threatening collapse of the structures of the camp.



After a major flood in 1997, a flood-protection scheme was established, which proposed to strengthen and raise the current dyke system along the Vistula River (Sawicki 2010, 8). Due to the climatic conditions, this area of Poland has very cold winters and hot summers, so the ground is seasonally freezing and thawing, which pushes the soil against the walls of the structures and puts them in danger of collapsing. As the gas chambers and Crematoria on Auschwitz-Birkenau are partly buried underground, they are more fragile than the barrack foundations, which largely rest on the top layer of earth. Current conservation efforts largely focus on the more sacred portions of the camp and deal generally with stabilizing the earth to prevent further destruction while maintaining their form as closely to the time of the camps liberation as possible.



used the museum to be shut

Conservation Efforts

Photos illustrating the extent of the 2010 flood in Birkenau, which caused the museum to be shut for the first time in history. The cost to remediate damage was nearly twenty times the annual conservation budget of 56 million euros. (Arjuna Zbycho 2010)

Part of the existing program at Auschwitz-Birkenau is a preservation and conservation studio for the movable



On the left, a photo of the off-loading ramp in Birkenau, taken during the time of its operation. On the right, a picture of the same location taken in its current condition. (BBC 2012)

artifacts of the camp and for the structures contained within it. The conservation studio has created a master plan for the site prioritizing the elements through a series of phases (Auschwitz-Birkenau Foundation 2010). The plan accounts for over 150 structures, nearly 300 ruins and 13 km of fencing with 3,600 concrete posts. It also constitutes infrastructure elements such as roads,



The greater portion of Birkenau is in ruins, depicting only the foundation walls and chimneys of the prisoners barracks. Many of the chimneys that are visible to this day have been reconstructed by the preservation and conservation department at the Auschwitz-Birkenau State Museum.

paths and the Rail Line. The plan also extends to the vegetation on site and the wooded areas surrounding the camp (Auschwitz-Birkenau Foundation 2011, 11-13). While the preservation efforts aim to maintain the camps authenticity, the cost of doing so exceeds the incoming resources (Auschwitz-Birkenau Foundation 2011, 14-23). Largely supported through donations, the Foundation's mission is to safeguard the site for future generations.

For the first time in 2010, due to spring floods, the museum closed its access as the Vistula broke through



The Auschwitz-Birkenau State Museum has created a master plan for the conservation and preservation efforts of Birkenau. To be implemented through a series of stages, the plan includes over 150 structures, 300 ruins, 13 km of fencing, and groundworks such as roads, paths, Rail Lines and vegetation. (Auschwitz-Birkenau Foundation 2010)

the riverbanks and flooded a large portion of the camp (Associated Press 2010). The cost of repair from the 2010 flood was estimated at 56 million euro, nearly twenty times higher than the annual preservation budget for the entire museum (Auschwitz-Birkenau Foundation 2011, 14-23).

Though there are people actively and enthusiastically involved in the conservation of the objects, grounds and structures, there is a lack of financial funding to maintain the efforts. Due to natural and human induced erosion, over 65 years after the establishment of Auschwitz-Birkenau, conservation efforts are an uphill battle. By limiting the area of preservation efforts the associated costs of doing so will decrease, while fragments of the various and unique typologies of Auschwitz-Birkenau will continue to maintain the testimonies of the past.



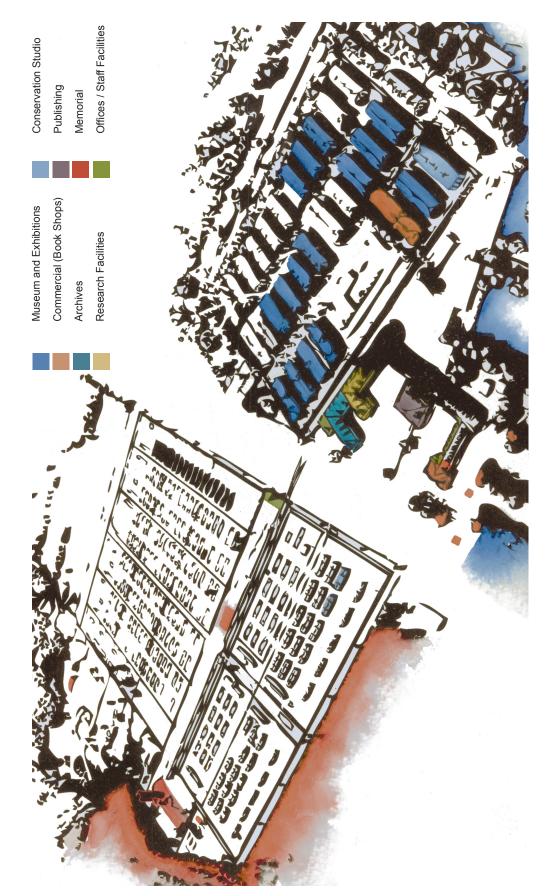


Auschwitz-Birkenau, has a comprehensive program in place. In the summer of 1947, a mere two years after the liberation of the camp, the Auschwitz-Birkenau State Museum was established (Auschwitz-Birkenau Foundation 2011). Since then, a more thorough analysis of the camp and the events that took place there has helped to strengthen the program of the museum into a number of other institutional facilities including a research and analysis lab, library, conference centre and preservation department. In all, the Auschwitz-Birkenau State Museum has developed into a world-leading facility dealing with Holocaust related material.



Although the entirety of the Auschwitz-Birkenau camp is classified as a museum, to some it is better understood or acknowledged as a memorial institute, cemetery,

Auschwitz I was founded in a series of barracks that were formally used by the Polish Army. After the establishment of the Auschwitz-Birkenau State Museum in 1947, the barracks were retrofitted to house the museum's collection.



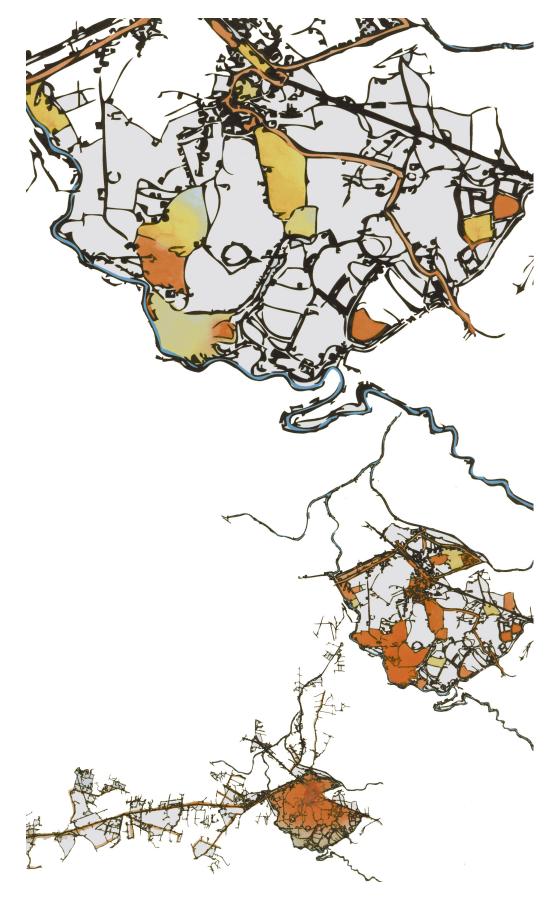
The program of Auschwitz I (Auschwitz), illustrated in the bottom right, is significantly more structured than that of Auschwitz II (Birkenau), in the top left. Auschwitz is considered more of a museum and institutional centre, while Birkenau is considered to be more of a memorial and place for intimacy. This is largely because of the use of buildings on Birkenau, and that many were the residence of death. This includes the gas chambers, crematoriums, Ash Ponds, Burial Pits and Burning Fields.

monument or research and education centre. These titles and associated tasks are instilled in the camps erection act, passed by the Polish Government in 1947 (Auschwitz-Birkenau Foundation 2011, 13-15). Each is correct and each is meant to complement the other.

The museum comprises of two parts; Auschwitz I (Auschwitz) in Oswiecim and Auschwitz II (Birkenau), in the neighboring village of Brzezinka. The vast majority of program specific spaces, that is buildings with a delegated function, are situated on Auschwitz. Located here are a number of brick barracks, used in the 1800's and early 1900's by the Polish Army (Cinal 2010), which currently house the mass of the museums exhibition materials. The collection includes victim belongings, camp clothing, religious artifacts and art. Portions of the barracks have remained largely unchanged since the camps liberation and illustrate the prisoner and staff living conditions. As the vast majority of tourists who visit Birkenau, first visit Auschwitz, it has the task of preparing the visitors for the immensity of scale that Birkenau demonstrates. Auschwitz provides a comprehensive introduction to the history of Nazi ideologies and the methods in which they were executed, both on a continental and local scene.



The vast majority of what remains on Birkenau, is the brick foundation walls and chimneys of the prisoners barracks. Each, with few exceptions was 40 x 8 meters and was clad with wood. In many cases, the chimneys have been rebuilt to illustrate the scale of the events that took place in Birkenau. The chimneys, along with the fence are among the most iconic features of the camp.



Katowice, located 40 km from Auschwitz-Birkenau, was a major source for the construction of the camp. To maintain good relations with the Nazis, many building materials were 'donated' from the city to the site. As the Nazis travelled towards the camp, they drew materials, energy and knowledge from the surrounding areas. This method of extraction meant that the surrounding area, in all aspects, was made to surrendered to the officials.



Buildings in the surrounding area were utilized to construct Auschwitz-Birkenau. The buildings were dismantled brick by brick and board my board and reconfigured into the camps first gas chambers.



To display the prisoners living conditions, wooded barracks were reconstructed after the liberation. The latrine above includes masonry foundations and wooden siding.

#### Site Documentation: Birkenau

#### Vernacular

In contrast to Auschwitz, Birkenau is more a place of reflection and reverence (Cinal 2011). Considerably larger in size, over twenty times the area, Birkenau dramatically illustrates the scale of the events that occurred on the camp at the time of the Third Reich. The grid of chimneys and foundation walls stretch into the horizon, with few complete structures on the site. Of those intact, they are to illustrate the prisoners conditions during their time at the camp. Some, particularly those along the south boundary, also contain smaller museum collections.

Prior to the erection of the camp, the surrounding area was a conglomeration of eight small villages (Cinal 2011), made up almost entirely of agricultural and cottage



Grass and wildflowers now prevail over the grounds of Birkenau, where death was once all encompassing

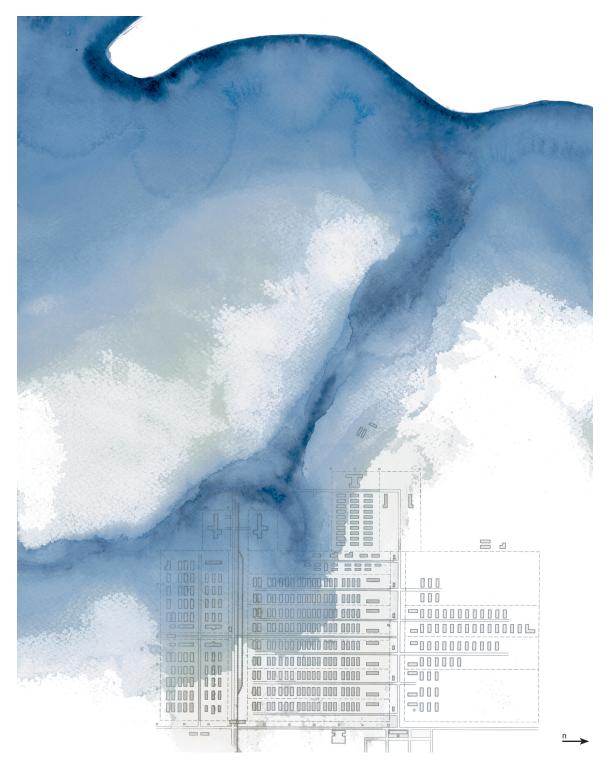
land. As the Nazi ideology developed, the surrounding farm houses, barns and cottages were demolished or dismantled brick-by-brick and reassembled to become the camps first barracks and gas chambers. When brick was no longer locally available, the cladding and timbers from barns was harvested and used to continue the camps growth northwards. Similarly, wood from the local forest was used as a building resource for the camp. The only new material used for the construction of the camp was concrete and reinforcing steel bars. The barracks in Birkenau consisted of brick foundations, walls and chimneys, masonry or wood chip floors and timber framework.

#### Water - The Vistula River

As an irrigation method, canals were dug through the landscape to channel water from the Vistula River to the agricultural land beyond, where the camp was planned and constructed (Katz 2006, 61). When plans were proposed for the extension of Auschwitz into Birkenau, some of the canals were re-routed to the camp to supply potable drinking water for the site. The water table in the area is relatively high, meaning that the canals could be filled with only a few meters of excavation. Due to flooding, the waterways frequently fill with sediment, so the canals were dug to a depth of approximately five meters to reduce maintenance (Katz 2006, 67). The



Annually, firefighters, staff, patrons of Auschwitz-Birkenau and members of the surrounding community, come together to sandbag the canal on the western boundary of Birkenau in an effort to protect the camp from flooding. (Auschwitz-Birkenau Foundation 2010)



The Vistula River is the longest waterway in Poland and is one of Europe's largest watersheds. Each spring the river floods and in recent years this has posed an increasing threat on the surrounding communities and the monument of Auschwitz-Birkenau itself. When Birkenau was established, extensive groundworks were completed in order to channel fresh water from the Vistula into the camp. Doing so made the camp susceptible to flooding. As the water table is relatively high in the area, the floods extend 700 meters into the camp from the canal on the western edge of the site. The flood threatens the structures on the camp as well as the museum collections and exhibitions.



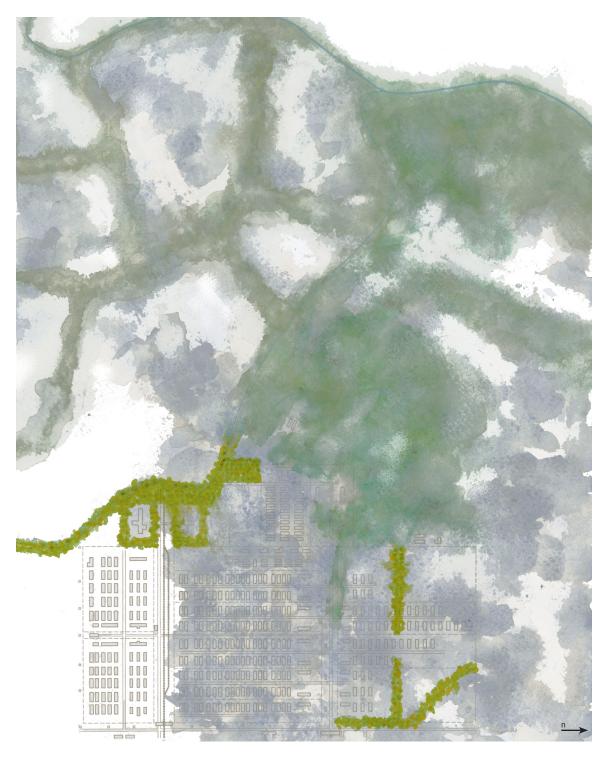


After the liberation of the camp, lines of poplar trees were planted adjacent to the mature forest which includes a mix of hard and soft wood. Among these, birch trees, the literal meaning of Brzezinka, the name of the surrounding community.

extensive ground works during the construction of the camp made the grounds even more susceptible to flooding, causing the flood line to extend east, between 600 and 700 meters into Birkenau. As the river floods the camp, soil disposition is an ever increasing worry, particularly as the site is also considered a cemetery. Though there are no 'conventional' graves, the ashes of the camps victims exist in the soil, in the Ash Ponds and pyres of Birkenau. The river is washing away the human remains at an accelerated pace, which for decades, has been a problem for the museum, as it not only takes away the ashes of the victims, but as well threatens the collections and various structures on the camp as well (Sawicki 2010, 6-9). Preservation efforts are trying desperately to counteract the affects of this, through renovations to the most vulnerable buildings and sandbagging the riverbanks. Protecting the site from inevitable collapse has become a sort of ritual for the museums staff, the surrounding community and patrons of the memorial.

#### **Vegetation - The Forest**

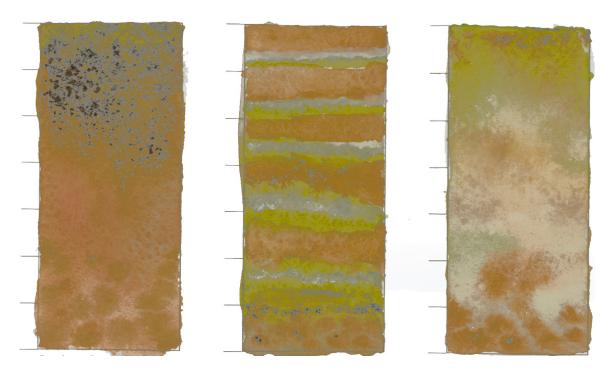
To help prevent sediment displacement, the officials at the Auschwitz-Birkenau State Museum undertook a major planting scheme as part of the camps conservation attempts (Auschwitz-Birkenau Foundation 2011, 11-13). The area that is most affected by the annual floods is the area surrounding the International Memorial, at the end of the Rail Line. This is also the area that has the most significance in Birkenau due to the symbolism of the memorial itself and that the two largest Crematoriums, II and III, and a series of Ash Ponds are within the floods embrace. Consequently, several lines of trees have been planted between the International Memorial and the river, largely of poplar, which is symbolic of



Prior to the establishment of Birkenau, portions of the forest were cleared (in grey) to make more space for agricultural land. The large patch of forest still in place (in dark green) to the west, helped determine the site of the camp because of its concealment to the surrounding community. Throughout development, the forest remained largely intact to maintain this veil. Among these trees were the first constructs to the Nazis crimes at this site, including the first gas chambers as well as a number of clearings that were made and used as Burning Fields and Burial Pits. After the liberation of the camp, lines of trees were planted around the International Monument and the north-east of the site to further protect and conceal the site (in bright green).

family, genealogy and strength. Also planted in the area are rows of cypress trees, evergreens, that can be emblematic of sacrifice and death. Along the river, there is a rich vegetated buffer zone that creates a strong root system, which helps stabilize the banks when water levels rise. North from the memorial and along the west boundary of the camp, is an overlay of mature forest that was present before and through the course of the camps existence. The forest has a range of species including old established hard and soft wood trees. The forest also provided a veil for the on goings of the camp. A large percentage of the trees in the area are birch. 'Birkenau', the German name provided to the Polish community of Brzezinka, literal means birch tree.

The ground on which the camp is situated, though once very fertile agricultural land has be stripped of most of its nutrients. This is because powdered lime was used to

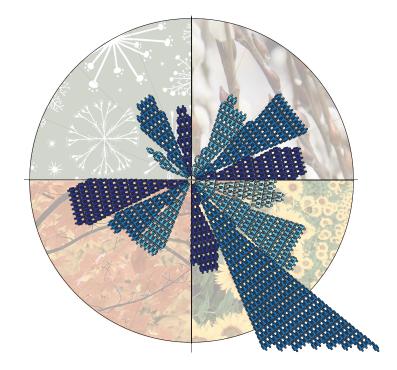


Prior to the erection of the camp, the grounds of Birkenau were very fertile (left image). Before crematoriums were used, bodies were laid in pits and covered in lime and earth. This was repeated until the pits were full (centre image). Through natural and mechanical process the earth has since mixed and is slowly returning to a fertile state (right image).

help dispose of the bodies, during the camps operation. With such high concentrations, the earth is depleted of its fertility. Through natural processes and plowing of the site, it is slowly being revitalized. In some areas, where the use of lime was particularly intensive, only vegetation with a thin root system, such as grasses and wildflowers, are able to survive.

#### Populace - Tourists, Pilgrims and Neighbours

Within the last few decades, the number of visitors to Auschwitz-Birkenau has grown exponentially and in 2010 there were roughly 1.3 million visitors (Auschwitz-Birkenau Foundation 2011). Owing to the graphic content of the exhibitions and psychological impact of the museum, children under the age of 14 are refrained from entering the camp. As such, relative to the volume of in comers, there are very few visitors of this age group. Roughly half of the visitors are adults between





Each year there are approximately 1.3 million visitors to Auschwitz-Birkenau. Of those, the majority are adults that come in the spring and summertime. Older generations tend to avoid peak tourist season, with the majority arriving in the fall. (Auschwitz-Birkenau Foundation 2011)









You are in a building where the SS murdered thousands of people. Please remain silent here: remember their suffering and show respect for their memory

























Memory is owned by a group and it is the cement of this group... History, on the other hand, belonging to everybody and nobody, makes a claim to universality.

















The top arrangement, in orange, reflects the allure of Auschwitz-Birkenau to a typical tourist. In contrast, the red arrangement on the bottom, displays the attractions to the site for pilgrims or people that have resonance with the camp. It is a place to pay homage to the events that occurred during the Holocaust. What these groups share, is the sympathy towards the people that were affected. For a place that was once so isolated, now it stands for a place of sorrow and humanitarianism.







A number of ceremonies events take place throughout the year at Auschwitz-Birkenau that draws many pilgrims to the site. These include, the March of the Living (Skarzynski 2012), Anniversary of the Liberation of Auschwitz-Birkenau (Gallup 2005) and All Saints Day (Swiebocki 2007). All of these events are to honour the dead and to rejoice the life after such a horror.

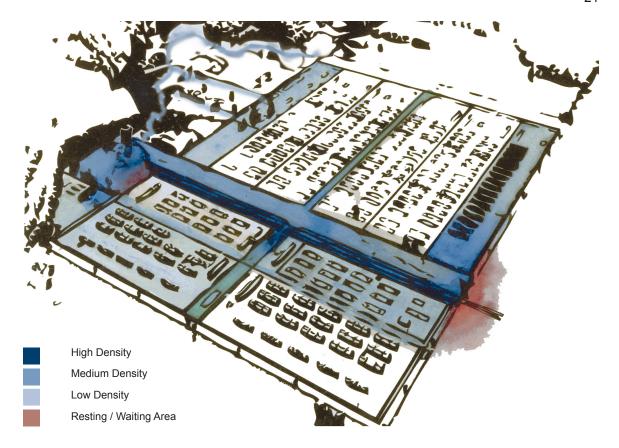
25 and 65 years old. The other half is comprised of young adults and retirees. Young adults largely come during the summer holiday, while retirees seem to prefer to avoid peak tourist season and summer heat (Bajer 2011). It is assumed that a high percentage of retirees are pilgrims that visit the site regularly. Though many nationalities come to the site, nearly half of the visitors are Polish while the other half are dominantly from other European countries. In 2009, Israelis were fourth on the attendees list with 62,400 visitors (Auschwitz-Birkenau Foundation 2011).

Many of the visitors that come to the site do so by arriving on tourist buses from city centres such as Krakow and Katowice, some 40 km away. In contrast to this mass, there are also pilgrims that come to the site ritually throughout the year to mourn those that were victims of the camp. Generally arriving in smaller numbers, these people tend to avoid peak tourist season and largely remain on the existing path along the western boundary of Birkenau, in this thesis referred to as the Pilgrimage Pathway. Throughout the year, there are ceremonious events which take place that attract larger numbers of pilgrims to the site. These include events such as the March of the Living, held in early May, the Anniversary of the Liberation of Auschwitz-Birkenau in mid January and less formal dates such as All Saints Day in November, which also attracts many patrons to the site.

Another constraint for Birkenau is the encroaching community surrounding the camp, particularly that on the northern boundary. As the establishment of the camp caused the relocation of over 5,000 people and destruction of several villages, once the camp was liberated, it was promptly reclaimed for the former residence of the area. Named as a State Museum, the



After the camp's liberation, there have been many debates as to who owns the property on which Birkenau is situated. As these debates have continued for decades, the surrounding community, and residence of the area prior to the camps establishment, have pushed on the boundaries of the camp. As the full development of the camp was never fully realized, and is significantly less maintained than the remaining portions, this is particularly evident along the northern boundary. In some areas the fence, which physically marked the boundary of the camp, has been torn down and the area within it has been swallowed by the encroaching community. Trees have been planted along the current edge to block the sight of the camp from the camp's neighbours.



The circulation of visitors within Birkenau is concentrated around the Rail Line. The majority of visitors walk down the secondary north-south axis and the remainder meander through the ruins and pathway among the forest.

entire camp could not be reclaimed, though, the custody of the camp was argued and partially returned to the community. Land rights of the camp are highly contested to this day.

#### Circulation

Due to its shear size as well as the number of sacred elements within its grounds, Birkenau lends itself to exploration in smaller groups or as individuals creating a personal experience of reflection. The expansive nature of the site can be daunting, so tourists generally remain on the axis along the Rail Line, the area of the camp that receives the highest volume of people. Other visitors will trail off along the perpendicular secondary paths to explore the north and south edges of the camp. The central north south axis acts as the spine of the camp. It runs through the area where the most ruins are located, making the sheer scale of the site overpowering. Brick



The secondary north-south axis of Birkenau is enclosed by fences on either side, which exhibits the often overwhelming scale of the camp.



The ruins of the prisoner barracks have been marked with a black granite stone indicating the number of the barrack. It creates a method of way finding for survivors and ancestors of those who resided in the camp during its operation.

foundations and chimneys protrude into the skyline in all directions, with kilometers of the fence entrapping one within the axis. Many walk a portion of the axis, and turn back to where they came from. This is perhaps because of its repetitive nature or that there appears to be no concluding destination at the end of the path. At the northern most portion of Birkenau, is so called 'Mexico', which was used for the temporary containment of prisoners that were to be sent to other working camps.

Highly explored are the south and east edges, where buildings are largely intact. On the east, the row of reconstructed wooden barracks demonstrate their form during the time of the Holocaust. This path also runs parallel to the SS administration buildings, the Death Gate entrance and large parking lot that facilitates the visitors of the camp. A few visitors also meander through the grass areas among the ruined barracks. Each barrack is marked with a black granite stone, resembling a rectangular tombstone, engraved with a number. Where memory or official records permit it, survivors, friends and family of victims are able to visit the specific barrack where their loved ones were captive or lost.

The channeled river, used to provide water to the site and the veil created by the forest during the camps planning and construction, creates a barrier between the Pilgrimage Pathway and the 'machine' or grid organization of Birkenau. The majority of the crematoriums, gas chambers, ash ponds and victim collection stations were located along this front. The majority of which are now in ruins but are referenced again by a series of black granite markers. The trees, ruins and delta-like scattering of memorials in this area create smaller pockets of reflection due to the very human and empathetic response experienced by most individuals who come to these sacred areas. It is this western boundary, the Pilgrimage Pathway, that is the most sacred portion of the camp and in some areas, the black markers are the only way to know that these are places of significance. A good example of this is the first gas chamber on Birkenau, known as Bunker I or the 'Little Red House' (Katz 2006, 36). Today, there are no ruins of the building, only markers located in an empty, fenced-off field, encompassed on three sides by homes of the Brzezinka community.

#### **Pilgrimage Pathway**

In this thesis it was decided to choose three typologies or sites along an existing prominent pathway that



In places where significant termination has occurred or where human remains are present, black granite markers are positioned to pay homage to those that were lost. There are usually four stones; one in English and Polish and the other two in the language of the group that was most significantly affected.



The Pilgrimage Pathway contains a concentration of contested and historically significant sites. In comparison, the remainder of Birkenau is considered benign.

pilgrims take to commemorate their loved ones who were victims of the Holocaust. This route is referred to as the Pilgrimage Pathway and the three sites will be used to facilitate the human need to remember, to pay homage and to mourn the victims of the camp. Various strategies are developed to mediate between people, time/ history and landscape. The proposed interventions aim to create a set of architectural strategies that mark, preserve and protect the memory and history from erosion and disposition from nature and human hands that erase and erode histories presence.



A collage was developed to help provide a narrative for the Pilgrimage Pathway. The images and text combine to explain or describe the impressions that the Path may leave with a visitor. It also includes precedence and examples of ceremonies or activities that people take part in to commemorate the victims of the camp.

If the memory of the camp and the victim's of it is to be passed on, it would be best delivered to those who take sincere meaning in the place and who have a more personal connection with the camp and understanding of the severity of events that took place there. Along or very near the Pilgrimage Pathway are nine key points of interest that are significantly loaded. The pathway connects all stages of the camps development, from the initial gas chamber, Bunker I, to the final stage of development, 'Mexico', to the perceived future of the camp through the International Memorial and the encroaching community. It encompasses all time frames of the camp and therefore intrinsically brings together the widest range of people.

#### **Nine Key Points**

With the exception of the "Arbeit Macht Frei" (work makes free) sign over the entrance gate and the 'Death Wall' in Auschwitz, the majority of iconic structures are located in Birkenau. Scattered throughout the camp the memorials have various levels of sacredness associated with them. Sacredness is determined by the level to which the structures, ruins or grounds are contested by a group of people having significant resonance with the camp. As previously mentioned, black granite markers are located throughout the camp to reference a specific instance or location in the camps history where a certain race, nationality or group was affected. In almost all of these locations, there are four stones; two of which are always engraved in Polish and English. The other two stones are embossed with the languages that represent the group of people that had the most significant loss in the particular location. The most common languages are Hebrew, Yiddish, Russian and German. Though English was not spoken on the camp during the time of its





The iconic 'work makes free' sign over the entrance to the camp, positioned to entice prisoners to work for their freedom, and the 'Death Wall' used for executions are both located in Auschwitz. (Auschwitz-Birkenau Foundation 2011)

operation, it is used as a common account for all of the other nationalities that were transported to Auschwitz-Birkenau.



The Pilgrimage Pathway is the primary site for this thesis, and as such, the nine key points or structures have been identified along it that strongly resonate with the memory of the camp. Of these, three are pulled out as exemplar and are referenced in the Design chapter of this thesis, as sites for proposed architectural interventions.



The Pilgrimage Pathway begins at the end of the Rail Line, furthest from the entrance. Located here, is a large stone memorial to acknowledge all of the lives lost on the camp during its operation. The International Memorial includes a literal representation of some of the principle extermination methods and figures of the dead, with 22 plaques running its length, one in each language spoken on the camp during the camps existence, plus one in English. Though the International Memorial is a main feature in Auschwitz-Birkenau and is situated along the Pilgrimage Pathway, it is not included as one of the nine key points. This is because the area has already received a major architectural intervention, completed by a collaboration of designers. The points which are



The International Memorial was erected in 1967 through a collaboration of designers. It includes a series of stones along its length, a tall off centre tower and 22 plaques, one in each language that was spoken at the camp plus one in English. The stones represent the mass of the victims while the tower represents the execution wall at Auschwitz and the Burial Pits and Burning Fields in Birkenau.



Along the Rail Line and Off Ramp is a wooden rail cart memorial to commemorate the Hungarian Jews deportation to Birkenau in 1944.

identified and studied in this thesis are ones which have not yet been considered for architectural intervention.

# Rail Line and Off Ramp

One of the most prominent elements of Birkenau, and the first of the nine key points identified, includes the Rail Line running east and west through the camp. Discontinued from use after the liberation of the camp (Cinal 2011), it also includes the Off Ramp where hundreds of thousands of victims' fate was decided. Sitting on the tracks opposite the Off Ramp, is a small wooden rail car; a memorial dedicated to the mass of Hungarian Jews transported and murdered in the spring of 1944 at Birkenau (Swiebocki 2007, 51).

## Crematoriums II and III

Located at the end of the Rail Line and on either side of the International Memorial, are the two largest and most efficient gas chambers and crematoriums in existence during the Holocaust. Crematorium I and II are mirror images of one another and were in operation from spring 1942 to the fall of 1944. A large undressing room and the gas chambers were located underground. After gassing the interned, the bodies were taken by lift to the crematorium on the first floor. The vast room, with 15



Though Crematoria II and III looked relatively small, the greater portion of the buildings was located underground to conceal the mass of the destruction they caused. (Auschwitz-Birkenau Foundation 2011)





Though the Nazis evicted the people of the surrounding community that were not supportive of their ideology, there were a few in the neighbourhood who were known to help the prisoners. Along with smuggling in food, prior to the uprising a woman provided one of the prisoners with dynamite to initiate an uprising. In 1944, Crematoria II was destroyed by Birkenau prisoners which started a revolt that lasted one day before the guards regained control. Crematoria III was blown up by the Nazis just prior to the liberation of the camp in an effort to remove evidence of the crimes that were committed there. As the ruins currently contain much human matter, they have remained largely untouched or maintained and will remain so until ownership is agreed upon between Poland and Israel.

ovens, took up most of the main floor of each building.

Crematorium II was destroyed during a prisoner uprising in October 1944. In January of the following year, in a futile attempt to hide their crime, the SS blew up all of the other gas chambers and Crematoria in the area. This included Crematoria III.

#### **Ash Ponds**

It's said that science will dehumanize people and turn them into numbers. That's false, tragically false...This is where people were turned into numbers. Into this pond were flushed the ashes of some four million people. And that was not done by gas. It was done by arrogance, it was done by dogma, it was done by ignorance (Bronowski 1976, 374).

The third key point along the Pilgrimage Pathway is one of three that will be the site of a proposed architectural design. There are several Ash Ponds located throughout Birkenau, though most are concentrated around Crematoriums II and III. To dispose of people's ashes after they were burned in the crematoriums or open air burning pits, they were discarded into the manmade rectangular Ash Ponds. Some of the Ash Ponds,



Though there are many Ash Ponds on Birkenau, those most visited are the ones near the International Monument and Pilgrimage Pathway. They are honoured with four granite markers which read "In memory of men, women and children, the victims of Nazi genocide. Their ashes are here. May they rest in peace."

particularly those further from the flood line, have since dried up. Today they are distinguishable by the depressions left in the surface of the ground and the black granite markers, which read "In memory of men, women and children, the victims of Nazi genocide. Their ashes are here. May they rest in peace."

### Crematoriums IV and V

Considerably smaller in size than II and III, Crematoriums IV and V were still of a sufficient size to kill and incinerate nearly 800 people per day each. The area in behind the main camp was encircled with barbed wire and laced with tree branches and leaves to further conceal it from the prisoners and to muffle the noises and voices from



The remains of Crematoria V, identical to that of IV, with the gas chambers in the foreground. The Crematoriums included a large eightfold furnace and two chimneys each. (Jacobs 2011)



Though there are no plans or photographs of Bunker II while it was being utilized, the above image is a cottage that would have resembled The 'Little White House.' It included a thatched roof and masonry walls that were plastered white. (Peterson 2012)

within the compound. Because of this camouflage, the crematoriums were known as the 'Little Wood'.

#### Bunker II - The Little White House

Two farm-houses which were in a secluded part of Birkenau area were sealed and converted into gas chambers with strong wooden doors, and the windows bricked up... On the doors "Desinfektionsraum" (disinfection room) was painted. The doors were screwed shut and 1-2 cans Cyclone B scattered in through small openings... The gassing lasted 3-10 minutes, depending on the weather... After half an hour the doors were opened and the corpses were pulled out by a prisoners command which permanently worked there (ARC 2006).







All that remains of Bunker II are the stone ruins. The foundation walls illustrate the shape and dimensions of the interior rooms and also indicate the entry point of its victims, which is the same as the exit point for the SS. Prior to the erection of the black granite markers, former prisoners of the camp, who knew of its function during the time of the Holocaust, placed a grey granite stone at one of the ends of the Bunker to identify the ruin. The stone, engraved in Polish, reads, "Gas Chamber; the Little White House; Layers of Burnt Corpses." The last phrase on the plaque seemingly making reference to the Burning Fields just beyond the ruins. (Jacobs 2011)



Prior to the erection of the crematoriums on Birkenau, corpses were burned in the open air. This was done either in a large field or a shallow pit. When complete, the ashes were collected and deposited in any of the several Ash Ponds on the site. (Auschwitz-Birkenau Foundation 2011)

In June of 1942, the transports sent to Auschwitz increased, necessitating the use of two farmhouses expropriated from Polish farmers from the village of Brzezinka as provisional gas chambers. Bunker II, was named the "Little White House," due to its plastered masonry walls and thatched roof. Used until the spring of 1943, when the larger gas chambers and crematoriums were constructed on Birkenau. However, with the increase in Jews from Hungary in the spring and summer of 1944, the Bunker was put back into operation. Demolished in November 1944, by the Nazis, to this day the foundations of the building are still evident. This serves as the second locale for the proposed design.

## **Burning Fields**

Just beyond Bunker II, is where some of the larger burning pits at Birkenau were located. One of the major problems for the Nazis was disposing of all of the millions of corpses. Before the crematoriums were built on the camp, burning and Burial Pits were used. Once the crematoriums were completed, the pits were not utilized again until May and June of 1944, when transports were at their highest volume and disposal also needed to be at an increased capacity. First, a layer of wood was placed in the pit, next a layer of corpses, finally petrol waste was poured over the bodies, and the layering repeated until the three meter deep pits were filled. To make the process more effective, trenches were dug on either side of the pits to catch the fat run off. It would then be collected and thrown back on the pile to increase the temperature.

#### Russian Prisoner of War Cemetery

In the clearing just beyond the Burning Fields, is a small monument and Cemetery paying homage to Soviet



Plaques on the headstone of the POW mass grave. (Jacobs 2011)

Prisoners of War (POW's). As the Soviets did not sign the Geneva Convention, the Nazis used this as an excuse to treat them harder than POW's of other nationalities. During WWII, nearly 60% of Soviet POW held captive by the Nazis died, many of which starved or froze to death during the harsh winters. Some 10,000 Soviet POW are buried in an unmarked mass grave, located in a small clearing in the forest of Birkenau.



The Soviet Prisoner of War Cemetery is a mass grave for some 10,000 people. A tombstone and concrete slab marks its location in a small forest clearing. (Jacobs 2011)

#### **Burial Pits**

[We] worked in a special unit of prisoners whose job it was to bury the bodies of the victims who had been gassed in the little white house and the little red house. The SS men brought the bodies to the burial pits during the night and by the next morning, we had to bury them. (Scrapbookpages.com 2008)

The third and final site proposed for architectural design is the Burial Pits on the northern edge of Birkenau. Victims from Bunker I and II were either burned in the open air or buried in one of four massive Burial Pits. Copses were laid down in the pits and covered by a heavy coating of lime to increase the rate of decomposition and reduce odors. This layering was repeated until the pit was filled. Once Crematoriums II and III became fully operational,



This photograph was taken at Bergen-Belsen, located in northwest Germany and illustrates a burial pit that would have been very similar to those located in Birkenau. In 1944, a series of mass graves, where thousands of bodies were buried in pits at Birkenau were removed and disposed of in the crematoriums. The ground was later refilled and made level. (Auschwitz-Birkenau Foundation 2011)

prisoners were required to unearth the bodies from the pits, which were then transported by truck to the crematoriums for more efficient disposal. The pits were filled with soil, and no longer used by the Nazis.

### Bunker I - The Little Red House

The last point along the Pilgrimage Pathway, was the first provisory gas chamber on Birkenau known as Bunker I, or the 'Little Red House'. The former cottage home was repurposed into two small gas chambers where Cyclone B was poured through windows along the roof line. The corpses were initially buried in the Burial Pits nearby, but were later burned. With less than two years of operation, Bunker I murdered tens of thousands of people from all over Europe. When the new gas chambers went into



There are no photographs of the massive Burial Pits that existed on Birkenau during the camp's operation. Only prisoner and SS testimonies as well as patches of vegetation that differ from the surrounding area, which indicate their location. The field in which the pits were located has remained vacant with four markers, disclosing the field's significance. (Jacobs 2011)



Bunker I, or the 'Little Red House', so named for its red brick walls, was the first provisional gas chamber on Birkenau. The cottage was divided into two small gas chambers and was used from March 1942 until 1943, when more efficient gas chambers were built on site. Eventually, the building was dismantled and the ground was plowed to remove all evidence of its existence. (Jacobs 2011)

operation in 1943, the building was torn down and its various parts were reused in other places of Birkenau. The ground was then plowed over to remove all evidence of its existence. Though Bunker I has been erased from the landscape, this site, as the initial building of the death camp, is among the most sacred.

# Site Analysis

## **Categorization of Sites**

Concluding the documentation of Birkenau, it was realized that the Pilgrimage Pathway is the existing feature that contains the most highly charged and historically significant places. Of the nine key points along the path, each can be categorized as having one of three major threats to its survival that can lead to its physical disappearance or failure to be recalled. These three categories are: ecological destruction, human induced erosion and erasure. Though there are a few sites that may exist as a hybrid, each of the key points has been identified in only one category.



Acid precipitation is one of the factors that lead to environmental destruction of the grounds and structures of Birkenau. (Burrows 2009)

# **Ecological Destruction**

The sites where ecological destruction is the prevalent threat to a structures existence are Crematoria II, III, IV and V, and the Ash Ponds. Of all of the sites, these are also considered the most loaded as they currently contain human remains. All of these sites are inaccessible to the public and are largely fenced off to prevent encroachment. The Crematoria, themselves, have a very defined boundary created by their foundation walls, whereas the boundary edge of the Ash Ponds is significantly less distinguishable and defined.

#### **Human Induced Erosion**

The Rail Line, Soviet POW Cemetery and Bunker II are the points along the Pathway where human induced erosion is most evident. Though interaction is allowed,

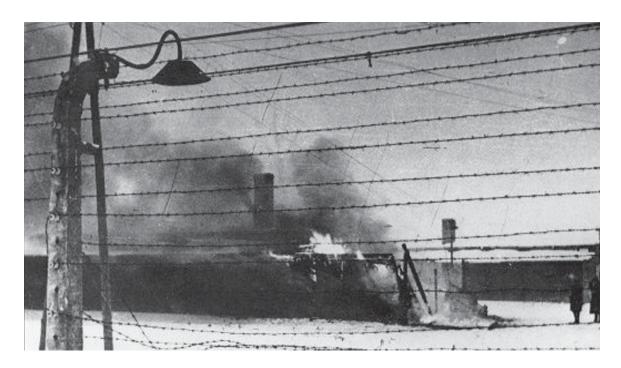


The structures of Auschwitz-Birkenau are eroding at an accelerated pace due to the tourist influx in recent decades. (BBC 2012)

visitors are encouraged to be respectful of the structures as here, people are free to roam on and through the ruins as they wish. While being slightly further from the Pathway than any of the other sites, the Rail Line and Off Ramp see the highest volume of traffic, as it is along the primary tourist access route. The Soviet POW Cemetery, which is essentially a large concrete plinth over the mass grave below, too sees a lot of footfall and memoirs for the people who are buried there. The ruins of Bunker II, constructed prior to the World War, are extremely fragile and susceptible to damage caused by people exploring the structure as no barrier has been established on this site.

### **Erasure**

Sites such as the Burning Fields, Bunker I and the Burial Pits, were erased from Birkenau by the Nazis prior to the liberation of the camp in an effort to conceal the crimes



In 1945, the Nazis made efforts to erase the evidence of their crimes in Auschwitz-Birkenau. Many buildings were destroyed, grounds plowed and materials (artifacts) burned, as in the photograph above. (Auschwitz-Birkenau Foundation 2011)

that were committed there. Now, the only thing that exists as tokens of their memory are the black granite markers, which resemble tombstones. Otherwise, the fields in which they existed have remained bare and manicured with minimal landscaping efforts.

# **CHAPTER 2: DESIGN**

# **Working Method**

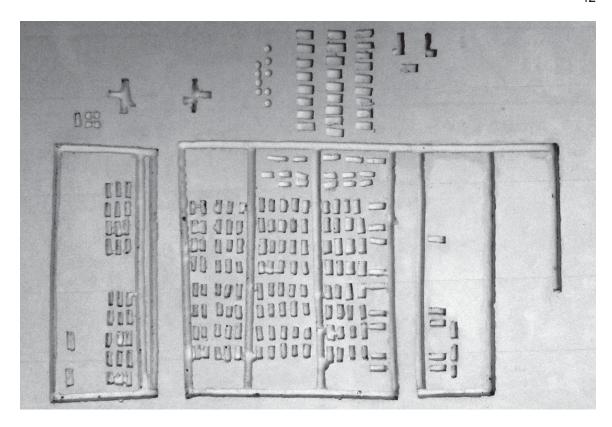
To understand the complexity of the camp, Birkenau, was studied in its entirety. Common themes, such as positive and negative volumes, edge conditions and interfaces of the various forces involved, as well as the physical and metaphysical conceptions of the specific areas of the site were used to isolate and study the relationship of one on or to another and the influences that they do or do not have in their current state. Some of the edges and relationships that were studied include: the volume of flood water penetrating Birkenau, forest coverage through the development of the camp, circulation and patches of various groups of people, both during the camps operation and in it's current state, and the deterioration and reconstruction of the structures on the camp.

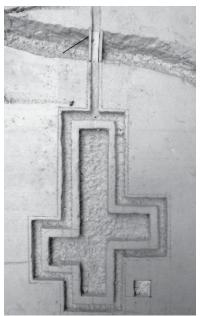


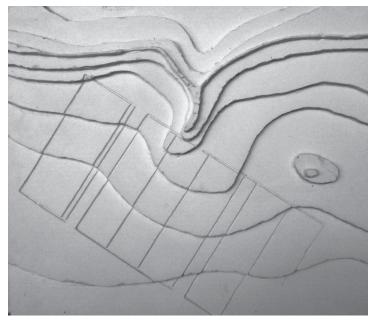
Of the three elements that apply the most change and constraint upon the camp, the river, the forest and the



The Judenplatz Holocaust Memorial, designed by Rachel Whiteread, is dedicated to the Austrian Jews that died in WWII. The memorial represents the empty spaces of library shelves, where the spines are turned in and are illegible.



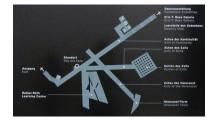




The above models were done in an effort to understand and describe the relationship between the different aspects of the site and the various edges, layers of containment and separation between elements. The top image illustrates the volume of ruins as recesses in the ground. The bottom left image shows the level of the Crematorium and Ash Pond in relation to that of the canal, which is slightly deeper yet helps demonstrate the effect of flooding on the two sites. The bottom right image was created to emphasize the volume of water that is held in various parts of Birkenau including the canal, forest depression and trenches. It also shows the gradual incline in elevation from the canal to the parking lot on the east side of the camp.

surrounding populace, the river is the element that can most severely damage the camp, through erosion, in the least amount of time. For this reason, to understand the different methods and actions of deterioration and conservation, a section of the camp, was selected to serve as a study model. The section was decided upon based on its proximity to the flood zone, its offer of each type of camp vernacular and its variance of importance from a very sacred area to one that is largely benign. The various typologies available in the study section present different sets of requirement and therefore strategies for decay, adaptation and preservation.

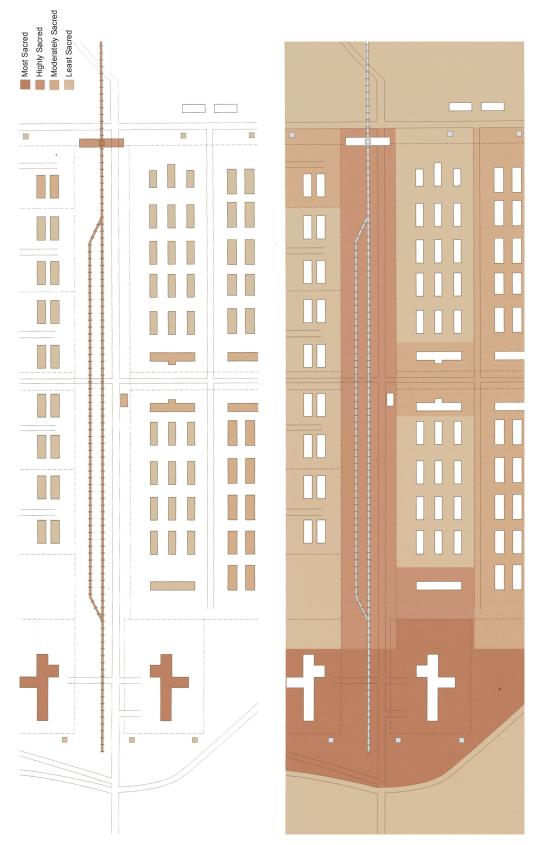
Throughout the progress of the thesis, stories were used as another method to add in the design process. Auschwitz-Birkenau is a site that is thoroughly documented and continues to be analyzed today. There are many references available to attain a better understanding of the camp and other concentration camps that were in operation during the Second World War. As an example, Daniel Libeskind, referencing his Jewish Museum in Berlin, explains how narratives were a primary tool to create abstraction within his architectural design. Speaking to Walter Benjamin's *One Way Street*, "[the] aspect is incorporated into the continuous sequence of sixty sections along the zigzag, each of which represents one of the 'Stations of the Star'



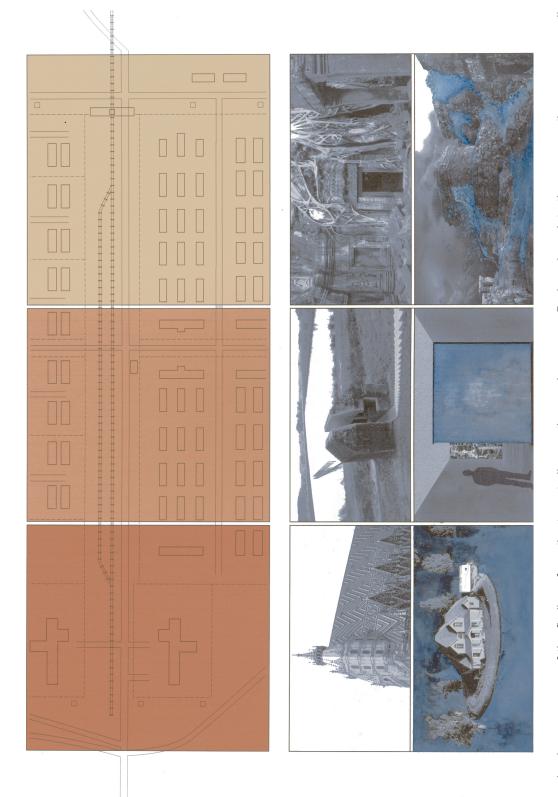
The plan of the lower level of the Jewish Museum is intended to resemble an abstracted Star of David.



The 'voids' that run the height of the building are located at the interface between the zigzag and straight line which constitutes the floor plan. The facade is covered in zinc cladding with diagonal slashes for window openings.



A study section of Birkenau was chosen to help identify criteria to determine the level of sacredness to the various components. The top plan identifies the buildings, structures and ruins that are most and least significant in relation to one another. Similarly, the bottom plan identifies the ground that is most and least contested.



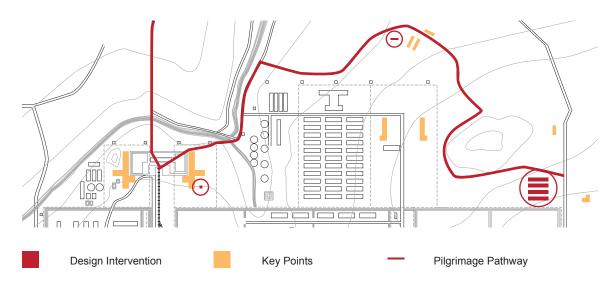
The top plan is a summary of the findings from the two studies on the previous page. Broken down into three zones, the area surrounding the Crematoria at the end of the Rail Line is identified to be the most highly charged, while the area furthest from this is the zone that is the least contested. This helped distinguish the type and level of architectural intervention that was appropriate for each zone.

described in the text Benjamin's apocalypse of Berlin" (Patterson 2000, 34).

Initial studies on how memory, in the form of a narrative, can be translated into a built form were conducted with the assistance from a few volunteers (see Appendix C). Friends were asked to describe a vivid memory that they had in roughly 150 words. They were explicitly asked to describe a place rather than reveal where it was to remove any biased from the translation of their memory. Small models were created to provide the narrative with a three dimensional form. Models of the narratives that provided a lot of detail on one specific aspect of the memory, turned out to be very literal in their translation. In contrast, narratives that provided vague descriptions and were based more on one of the five senses translated to models that were more conceptual or abstract.

# **Site Strategy**

My proposal for this specific site is to mediate the effects of erosion and erasure by finding a way to use architectural preservation to articulate the passage of



Of the nine key points that have been identified along the Pilgrimage Pathway, the three that will be used to test the architectural interventions are the Ash Pond, Bunker II and the Burial Pits.







The above are photos of the test sites in their current conditions. Top: Ash Ponds, Middle: Bunker II. Bottom: Burial Pits. (Jacobs 2011)

time. The designs aim to maintain portions of Birkenau and create a new architecture that speaks to the memory, present condition and future possibilities of the camp as a site of significant historical value. Some architectural interventions discourage deterioration, while others will encourage and accentuate the process. The river, forest and populace are each integrated into the architectural and landscape intervention at each of the three points along the Pilgrimage Pathway.

Of the nine key points along the Pilgrimage Pathway, the three chosen to test architectural interventions include the Ash Ponds, Bunker II and the Burial Pits. Each is a model for one of three categories that will or have already lead to its physical or cognitive disappearance.

The first, the Ash Pond, is hardly visible except for a shallow slope into the ground and pools of mirky water, which contain human remains. These are very susceptible to environmental disposition. This site deals with the issues of containment and creating an experiential marking of its edge. The second site along the pathway, Bunker II, proposes minor conservation and protection through architectural means. The Bunker site was home to significant massacre during the initial years of Birkenau, and the ruins are still present. The strategy here, will be to preserve the ruins while still allowing them to be seen. The final site for the proposed design intervention is the former Burial Pits along the northern edge of the camp, which were erased by the Nazis when the Crematoria where constructed and provided a more efficient means to dispose of the bodies. The pits no longer contain human remains, though the memory of the site and its former function is still very much present. Here, the proposed architecture will reinstitute this memory.

Trees are a symbol of the inter-connectedness and the evolutionary processes of all life. Already used by the conservation team of Auschwitz-Birkenau as a means to protect the grounds from erosion, trees have been planted and are protected throughout the site. This thesis suggests further planting along the pathway and across the groups of the main camp, or machine, as a means to allow nature to reclaim what was commandeered by the Nazi empire.

# **Plantings**

All of the erosion and erasure on Birkenau cannot be prevented. While some elements of the camp should be preserved and maintain their integrity, such as the points chosen for the architectural interventions, other elements should become sacrificial to natural and human induced decay.





As the ruins of the Bunkers continue to erode, birch trees will be planted in the centre of each to mark the plots and reintroduce the forest, which was once vast in that area, back into Birkenau.





Scarpa uses new materials such as glass and steel in a contemporary way to contrast the existing palette of stone and wood at Castelvecchio. (Crawford 2011)

The Bunkers of Birkenau, where prisoners were housed, is chosen to be the element of the camp that is sacrificial. Memory and camp records uncover which prisoners were housed in which barracks. After the foundations and chimney towers erode away, all that will be left to distinguish the plots from one another are the current black granite markers which are engraved with the number, acting as an address, of the Bunker. To accelerate the act or erosion while still marking the place, a birch tree will be planted in the centre of each Bunker. Birch trees are chosen, not only because they are common in the area, but because the Polish name of the surrounding town, Brzezinka, literally translates to birch tree. The species is also the national tree of Russia, the liberators of the camp. In generations to follow, it will not be the chimneys that dominate the skyline, but rather the birch trees, reintroducing the camp to the forested environment that surrounded it prior to its establishment.

# **Materiality**

All of the architectural interventions on the site use one key element, earth, and earth from the site itself. This design principal will be present in the form of rammed earth and rubble at thresholds, retailing walls and other key design components. These earth surfaces exhibit the exceptional significance of the ground, of death and the regeneration of all things. The connection, removal and displacement of some of the building materials and excavated earth is an important concept in the scheme. As well, other materials are integrated to highlight and contrast the architectural interventions from the existing conditions. Similar to Carlo Scarpa's technique in Castelvecchio, "the introduction of new materials and forms is admissible... while maintaining total clarity as to what existed while the camp functioned and what

was added later" (Marszalek 2004, 27). The existing materials are all very raw in character. Similar to the way that the black granite memorial markers contrast their surroundings in order to more effectively mark places of significance, new and finely finished materials will be used in analogous instances.

The palette for each intervention consists of three main materials. Black polished granite will be used to carry through the existing memorial palette of the place markers already on site. Corten steel, which highly deters corrosion and provides a color contrast that is reminiscent of glowing candles will be used for the primary structure of the interventions. Rammed earth and ruin rubble will also be reused from the excavation and construction processes. In areas, such as Birkenau, that are highly contested the architecture should be of the place, which is why natural and existing materials form the site will be used. The connection or relationship to and removal of ground is essential. Another material that will be used sparingly is concrete, and where exposed, white concrete is used and is significant as it adds additional structural support as well as providing a stark contrast to the material palette, harkening back to the lime that was a major component in the geological history of the camp.

# **Program Development**

I seek to create an intimate dialogue with the viewer, to allow a place of contemplation, sometimes an incorporation of history, always a reliance on time, memory, a passage or journey (Lin 2000, 23).

The proposed interventions will create an experiential program that creates spaces for recollection and reflection. As well, the architectural and ecological elements interact with one another to evoke different

emotions or represent certain fragments in the history of the camp that are currently not present. The program, then in some way relates directly to the acts that occur on each of the chosen sites and helps to evoke the seen and unseen histories, artifacts or ruins. Presenting that which is no longer there, and hopefully encouraging people to engage more directly with their surroundings, its histories and embodied energies of time, allow people to come to their own conclusions. Referencing a memorial designed in Hamburg by Jochen Gerz,

With audacious simplicity, their 'counter-monument' thus flouted a number of memorial conventions it's aim was not to console but to provoke; not to remain fixed but to change; not to be everlasting but to disappear; not to be ignored by its passerby but to demand interaction; not to remain pristine but to invite its on violation; not to accept graciously the burden of memory but to throw it back at the towns feet. How better to remember a now-absent people than by a vanishing monument (Young 2000, 7-8).

The architecture will attempt to provide a different experience from that which is currently available on the camp site. The sheer scale of Birkenau quite literally displays the severity of the crimes that were committed there. In the area of the 'machine', the emotions one might experience are perhaps more similar to those experienced when visiting a ghost town where the scale of empty remains of human habitation is evident. Though, here at Birkenau, it does not fully pay respect to the travesty of the events that occurred on these grounds. Similar to the function of the black granite markers already in place, the proposed architectural interventions will engage visitors of the site in an attempt to connect people, time and landscape.

Movement through a... landscape is a spatial experience: a film for the traveller with an open mind and eye, a means of orientation for the visitor... Movement through time and space strings together levels of scale and makes the qualities of a landscape





The Monument Against Fascism in Hamburg was a forty-foot high column that was sunk into the ground as people inscribed there names on its lead surface. In 1993 it completely disappeared and the artist hoped that it would return the burden of memory for those who came looking for it. (Ronquillo 2008)

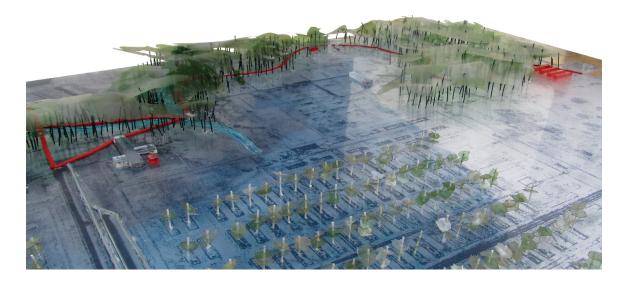
visible, as in a *route architecturale* (Palmboom 2010, 173).

Auschwitz-Birkenau is "the most familiar killing site of the bloodlands. Today Auschwitz stands for the Holocaust and the Holocaust for the evil of the century" (Snyder 2010, 4:23). That, in its self, is invaluable and irreplaceable. Auschwitz-Birkenau, is the primary site in which the horrors of the 'Final Solution' took place.

This thesis studied the site and its evolving condition of erosion and erasure. It is intended to be interpreted from as wide a perspective as possible. The proposed architecture is not a means to an end, but rather a diverse proposal in response to the enormity of the Holocaust. There is no answer, but after the Holocaust, "there can be no more final solutions" (Young 2000, 10).

### **Architectural Interventions**

Each of the three architectural interventions mark the site in someway, they also address one of three categories: ecological destruction, human induced erosion and erasure.



The site model illustrates the location of the Pilgrimage Pathway in relation to the three sites for architectural intervention (red blocks), existing and new vegetation, the canal and the 9 key points.

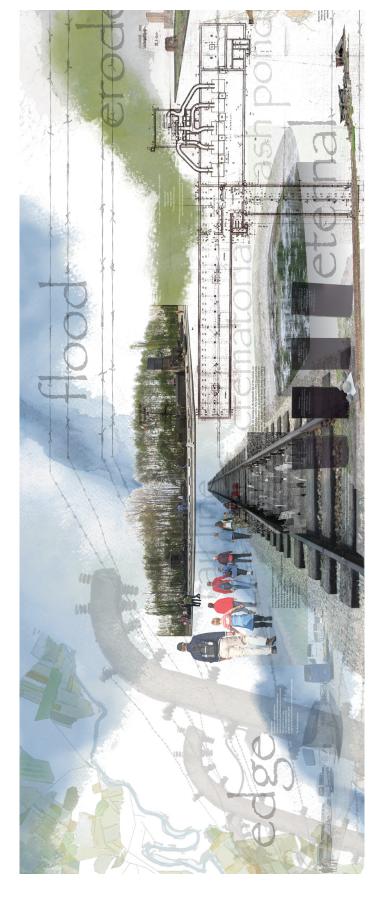
As Birkenau is a highly loaded site that both large masses of tourists and smaller groups of mourning pilgrims come to visit, each intervention must provide space for both large numbers of people to circulate as well as providing intimate or private areas where people can be at one with their thoughts. These areas also provide small places where people can leave tokens such as stones, notes, flowers and candles for those that were lost during the Holocaust.

### **Ash Pond**

The volume of water and ashes within the pond is highly susceptible to disposition, especially during the annual floods. The intervention here, then, tries to contain its contents as much as possible to prevent the relocation of



The Ash Pond is located in the area of the camp that receives the highest level of traffic, at the interface between the Pilgrimage Pathway and the Rail Line. Visitors in the area meander throughout the structures and grounds in this portion of the camp.



Located at the beginning of the Pilgrimage Pathway, the first site for architectural intervention is located at a cross roads between tourists and pilgrims that come to the site to mourn. The area contains other highly charged points such as Crematoria and the Rail Line and Off Ramp. Black granite markers are used to identify different points along the Path that are considered loaded or historically significant.





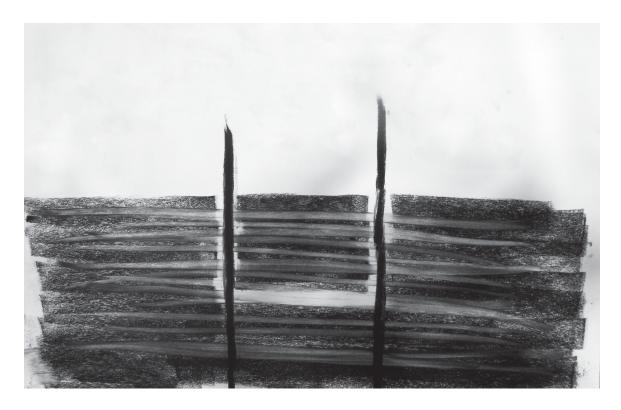




Similar to the way each architectural intervention is intended to cater for a large group of people and yet provide areas of solitude, the Pilgrimage Pathway collage contains text of various sizes. Examples of this intimate text have been pulled from the portion of the collage that directly relate to the first architectural intervention, the Ash Ponds, and surrounding areas. material. It also marks the edge of the pond and provides areas where people can leave a small expression of their remembrance.

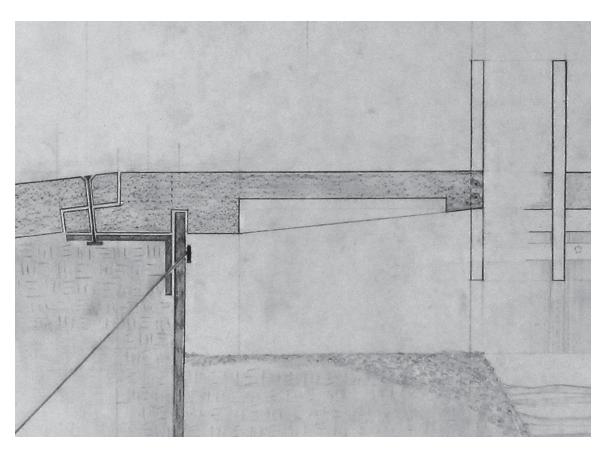
Though the Ash Pond are not located as directly on the Pilgrimage Pathway as the other sites, the area where it is located is the most charged and thus one comes to it when exploring the grounds in its vicinity, by meandering through the various structures in this area. It is also located at the entrance of the Pilgrimage Pathway and the Rail Line, the primary tourist axis. Due to this, all sides of the Ash Pond intervention were treated equally.

The design consists of a series of granite slats that are threaded and pinned together using steel, to create a wide square platform. The inner edge of which is void to the pond below and provides an elevated view of the Ash Pond.



As the parti drawing above illustrates, the design intention for the Ash Pond is to define its edge and to contain the material within it from environmental destruction and disposition.

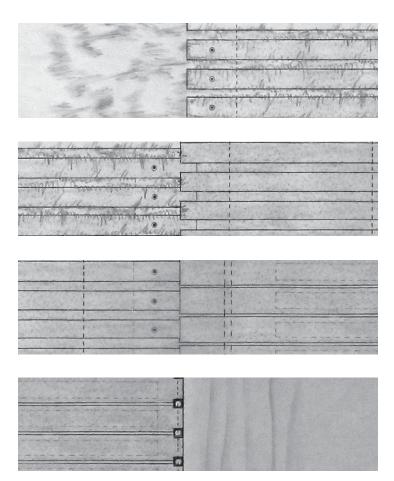
At the edge furthest from the pond, the granite slats are separated from one another and anchored into the ground to allow the natural vegetation to grow between them. This provides a transition from the surrounding area onto the platform. Walking towards the centre of the pond, the next threshold is a solid stone perimeter where the stone slats from the previous area interlace or key into the proceeding stones. Here the stones are all threaded together horizontally to create a continuous unit from multiple individual pieces. Symbolic of the individual victims of the Holocaust coming together to form a structural unit. A steel sheet pile below the area of 'solid' stone is used to contain and mark the edge of where the watery ash remains are held. The final portion of the platform hovers above the pond and is delineated through the structure of the path, spatially understood



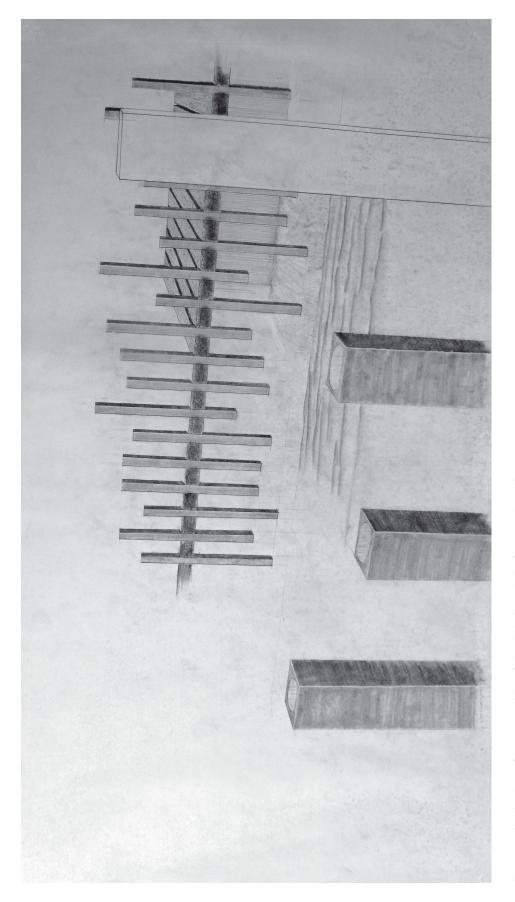
Section drawing of the portion of the Ash Pond platform that cantilevers to the edge of the pond. A steel sheet pile is embedded in the ground to prevent material disposition.

as individualized stone slabs. This in combination to the slight incline and berm created from the ground and previous stone slats enables the final section, beyond the sheet piles, to hover over the ground surrounding the pond.

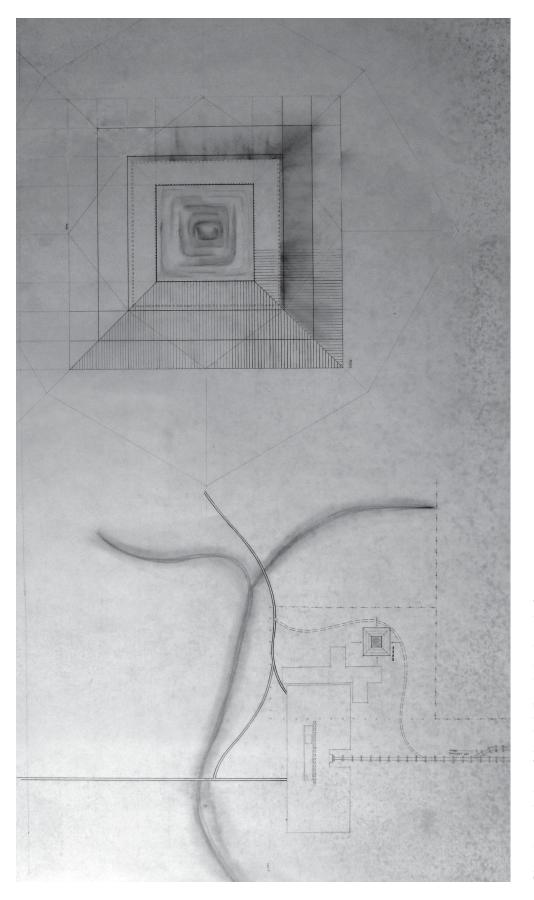
As one approaches this inner edge, the sensation of leaving the ground behind will become intensified. The balustrade for the elevated platform is made of Corten steel sections that provide a place for candles and stones. Each balustrade is human height and placed between the granite slats at various heights. This is



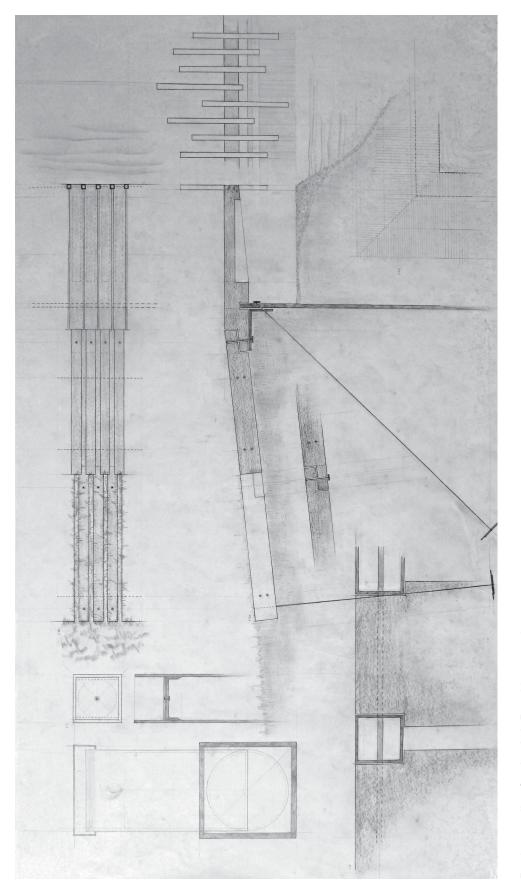
The series above illustrates the various thresholds that are present in the design of the Ash Pond intervention. The granite stone slabs transition from a grassy berm to a solid stone platform and then to a section that hovers above the ground immediately surrounding the pond. The slabs finger between one another to seemingly create a continuous platform.



Perspective looking from one side of the Ash Pond platform to the other.



Site plan and plan of the Ash Pond viewing platform.



Design studies for the Ash Pond intervention.



Detail and sectional models of the Ash Pond design intervention.

intended to be reminiscent of individuals falling into the pond.

## **Bunker II - The Little White House**

Though Bunker II is also threatened by ecological destruction, human induced erosion has deteriorated the ruins at an accelerated pace, more than would naturally occur. People who visit the area stumble upon the ruins causing further collapse. This interventions primary objective then, is to protect the site from further damage, while still allowing people to see and experience the spaces framed by the foundations.

The structure for the design is comprised of a series of Corten steel columns which rise out of the ground to support the structure within, like the exoskeleton of an insect. The columns are located to reflect the interior room partitions of the gas chambers that were once present within the Bunker. At the top of each is a beam which runs the entire length or width of the Bunker.



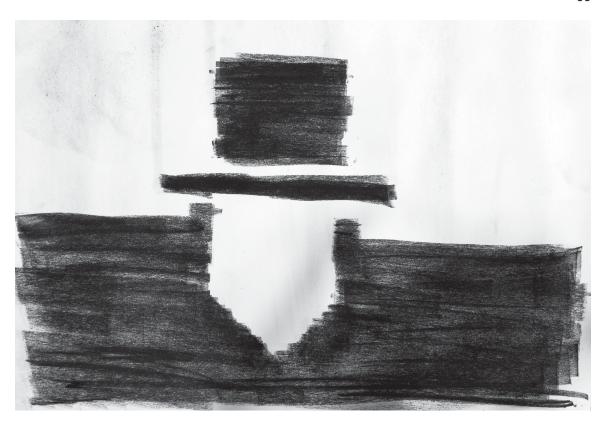
Bunker II is located in the middle along the Pilgrimage Pathway and is nestled between the forest canopy and an open field.



The second design intervention, Bunker II, is located in the middle along the Pilgrimage Pathway. In its proximity are the chimney columns of the machine and the ruins of other structures such as Crematoria III and IV. Just beyond the Bunker are the former Burning Fields. The forest surrounding the camp is the most dense in this area and embraces the clearing where the Soviet POW Cemetery is located.



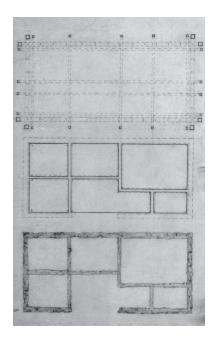
Sections of text from the second portion of the Pilgrimage Pathway collage have been pulled out to depict personal recollections from survivors of the camp.



The above parti for Bunker II creates a juxtaposition between the weighted ruins and the structure that lifts and hovers a habitable space above the existing structure.

The primary structure, which supports the facade, is intensionally oversized to dramatize the events, while pulling out from the ground the history that took place on this particular site. The secondary structure, from which the floor is suspended, has smaller steel sections and is positioned underneath the primary structure. This juxtaposition of structure is to create curiosity and tension within the visitor. Tertiary structure includes the suspended cables from which the facade and floor hang and also the cross-bracing on the exterior of the columns. Cross-bracing is also used to mark the location of the gas chambers that once existed in the Bunker.

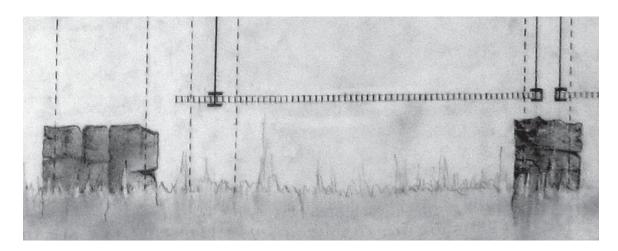
The facade of the intervention exists only where the exterior foundation wall is present. Leaving an opening of approximately five meters to enter and exit the enclosed space. Polished black granite stones in the



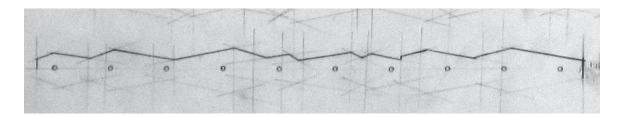
Plans of the ruins, floating platforms and structure of the intervention for Bunker II.

shape of coffins create the facade. Each stone varies in size representing the proportions of a man, woman and child. Positioned on their side, where the thinnest profile is in elevation, the stones appear to be oddly shaped and creates an irregular texture, though the coffin shape of the stones are not necessarily noticeable. The visitors of the site, however will be able to recognize their body proportions in relation to the length of the stones. The stones are fingered together and connected through suspension cables, creating a permeable enclosure. The random nature of the stone layout, creates areas for private seating or enclaves where memorabilia can be left behind.

The suspended floor is made of extruded metal grating, each section revealing the footprint of the room defined



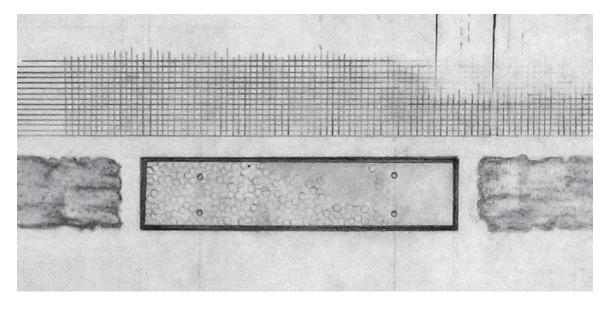
Section illustrating the ruins of Bunker II in relation to the floor that is suspended above it. The floor is made of extruded metal, which allows for a visual connection to the ruins and ground below while separating visitors from it and deterring further human induced erosion.

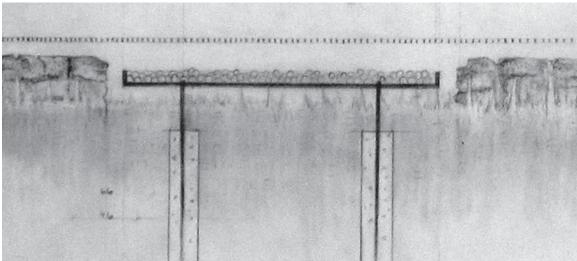


The facade of the building is comprised of granite slabs in the shape of coffins. The lengths relate directly to the proportions of an adult man, woman and child.

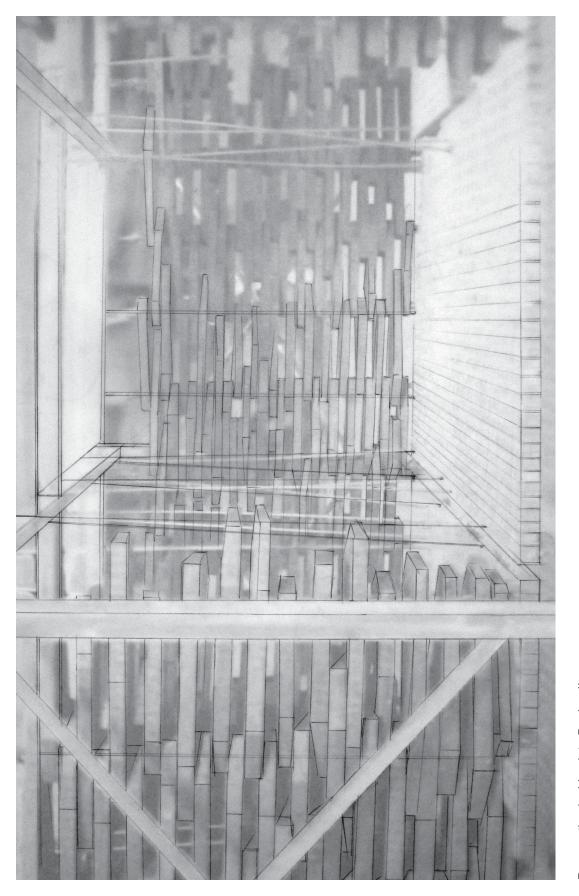
by the ruins of the foundation wall below. A narrow gap located between each plate further articulates the division between one room and the next while providing a better view of the ruins themselves.

The threshold between the surrounding grounds and the suspended floor is created by an intermediate step that is set in line with the foundation walls, anchored to the ground, and contains small granules of rubble from the ruins themselves.

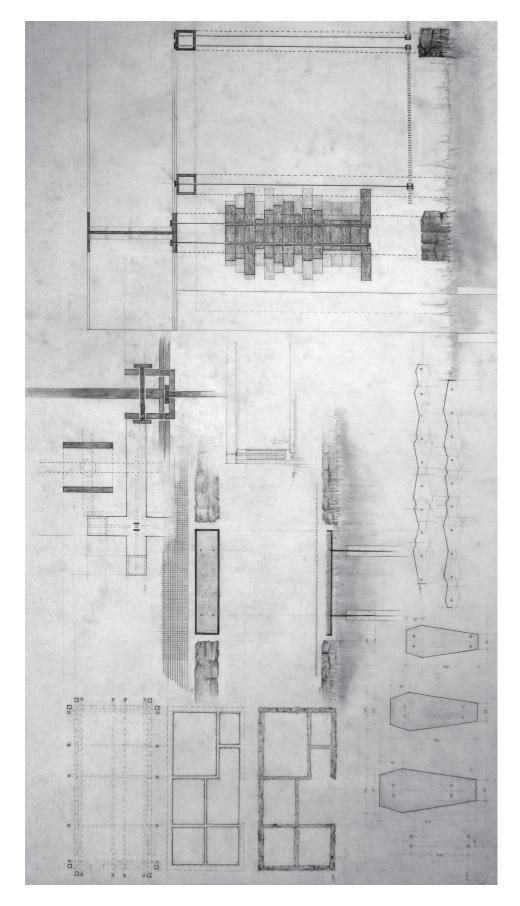




The threshold between the ground and the suspended floor of Bunker II is a steel tray that has been anchored to the ground and contains ruin rubble.

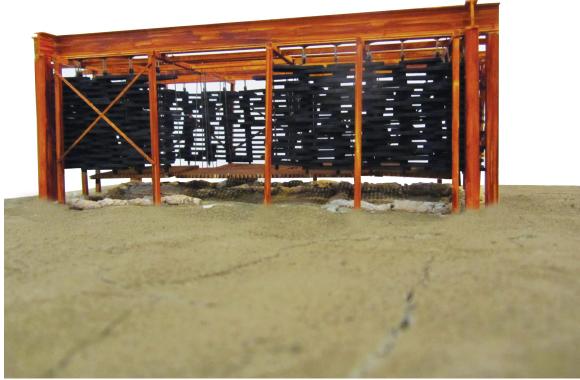


Perspective looking into Bunker II.



Design studies for Bunker II intervention including plan, details, section and facade exploration.





Detail and building model of Bunker II.

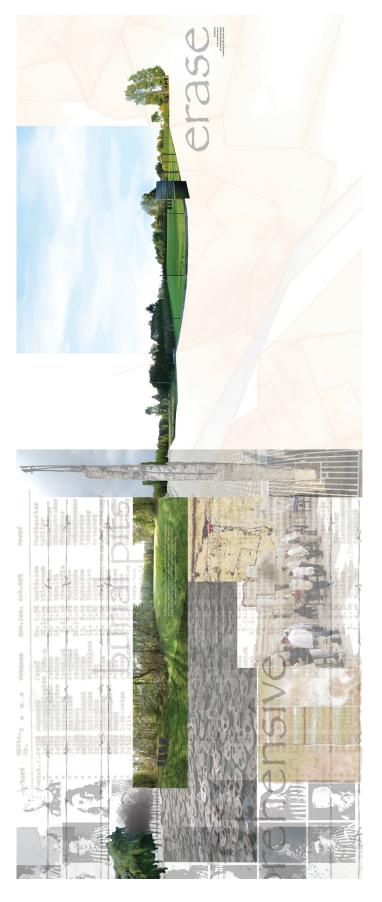
#### **Burial Pits**

The intent for the final intervention is to make present what was erased, in this case, by the Nazis. The site has high historic value, which is unexpected when looking at the current condition of the grounds. The site of the former Burial Pits is not distinguishable from the surrounding fields or landscape. The design therefore marks the spaces where bodies were buried by bringing that area back into visibility.

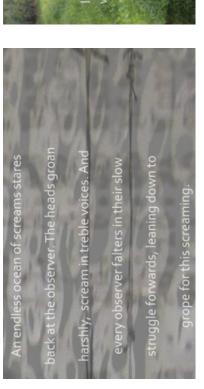
The design essentially takes the section of earth, that once contained the mass graves, and elevates it above the ground giving it presence and to make it uninhabitable to people circulating in the area. The perimeter of the exposed rammed earth would contain lime, a stabilizing agent which is abundant in the area, to increase the lifespan of the material and discourage erosion. The sections would also have planting on them where the roots would be used to help stabilize the earth and also make the intervention more visible from a distance. Striations in the earths color and texture would



The Burial Pits are located towards the end of the Pilgrimage Pathway in a large open field on the fringe of the forest canopy.



The final intervention, the Burial Pits, is located on the north edge of Birkenau, towards the end of the Pilgrimage Pathway. This is the defining edge of the camp's boundary and the surrounding community of Brzezinka. Since the liberation of the camp, the area of Birkenau has diminished and once extended beyond the field where the memorial markers for Bunker I now sit.





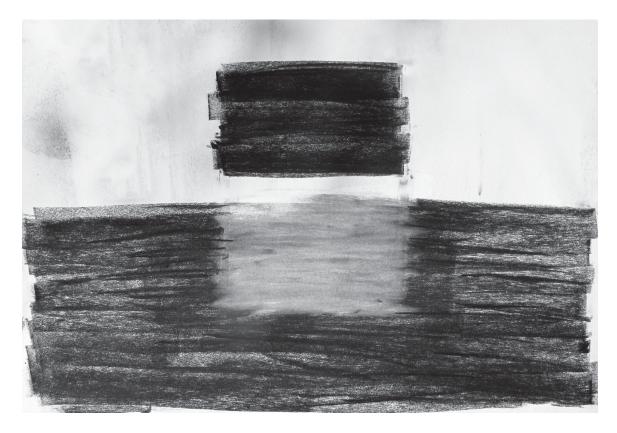


of nothingness perhaps, is waiting for the person here.



also be emphasized to represent the burial techniques used by the Nazis during the camps operation.

Though the sections of earth would not be accessible, the area below where the pits existed, create a massive void within the earth. The volume of earth that is displaced, would be seven meters under the surface of the ground, five meters wide and fifty meters in length. Long ramps extend at either end of the void, to make this space accessible. Similar to the threshold detail of the design intervention to Bunker II, a recess in the ground containing small granules of rubble, from ruins elsewhere on the camp, would mark the edge and start of the descent below the void of the Burial Pits. Like a spade digging into the earth, the ramps will be made of Corten steel while the sides will be earth retaining walls. At the bottom of the ramp, once stepping into the



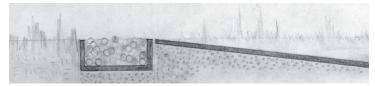
The final intervention deals with marking the Burial Pits that have been erased from the landscape. The design is intended to make visible and recall something that has been lost in recent history.



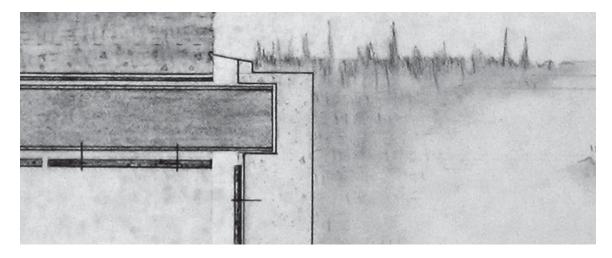
Long section of the Burial Pits design intervention.

space below the void, the ground and walls, two meters from the floor level, consist of stark white concrete. The composition of the concrete on the walls contains a lot of aggregate, recesses and cracks upon its surface. Similar to the Wailing Wall in Jerusalem, the wall provides a place for people to leave memorabilia. Above the white wall, is the void from the excavated and elevated earth of the Burial Pits. The walls and ceiling of which are lined with black polished granite.

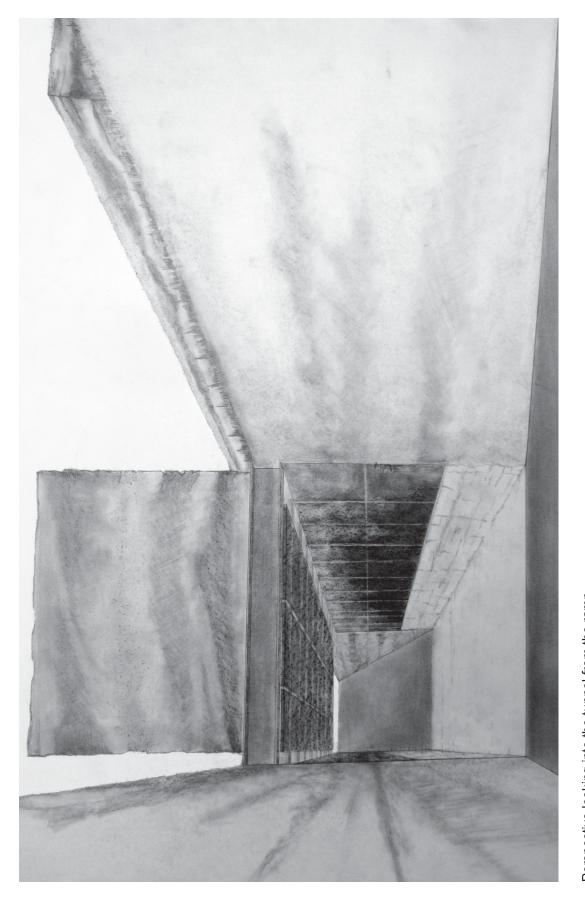
The ceiling panels are suspended from steel beams that also support the earth above and allow for light to penetrate the space between the elevated earth and wall panels. As the pits are oriented north and south, throughout the year, light will be able to slip into the space and reflect against the polished granite to highlight the void.



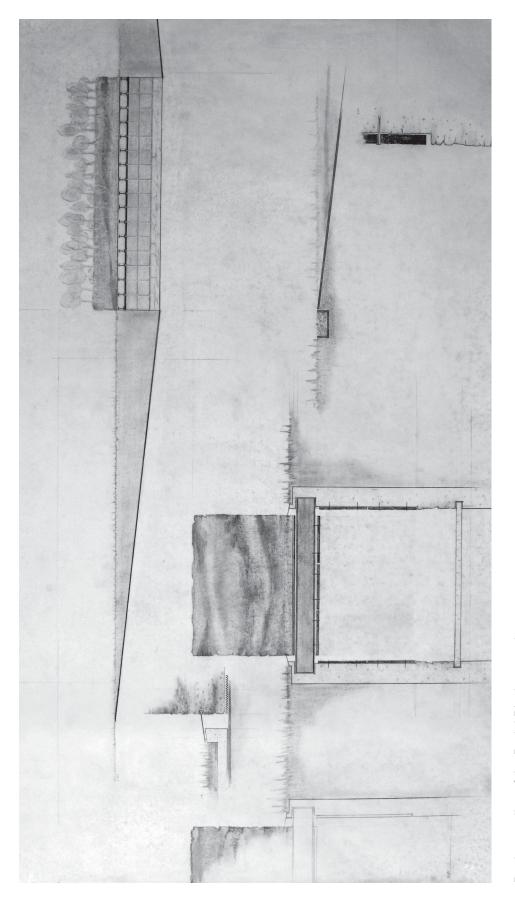
Threshold detail of the Burial Pits from the surrounding grass field to the steel sheet ramp leading to the void.



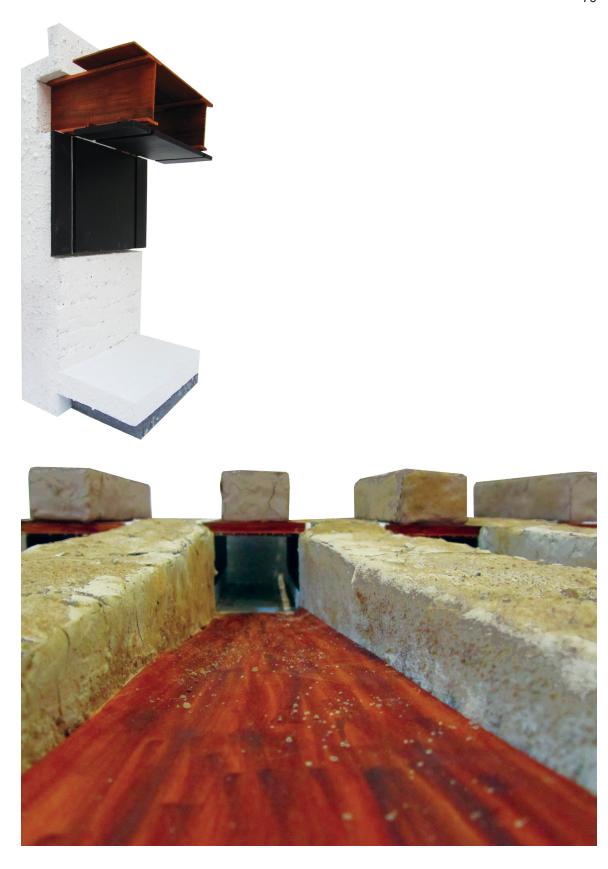
Short section illustrating the composition of the 'hovering' earth, sky light, steel and concrete structure and black granite walls and ceiling.



Perspective looking into the tunnel from the ramp.



Design studies of the Burial Pits intervention.



Detail and building model of Bunker II.

# **CHAPTER 3: CONCLUSION**

All of the design interventions along and near the Pilgrimage Pathway, aim to mark and protect both the physical structure and cognitive associations of that place and the events that occurred there. Though they have occurred through a variety of ways, erosion and erasure are subtractive forces that threaten the long term transfer of the meaning of highly loaded historic sites.

At this site, Auschwitz-Birkenau, the Nazi ideology developed a machine for killing that is most evident in the architecture. Financial feasibility makes preservation of the inevitable erosion and eventual erasure of all things impossible. Therefore the proposed interventions provide possible strategies for a set of three different typologies found at this site. Auschwitz-Birkenau, being possibly the most contested site in the world is the extreme condition for which these architectural strategies were tested. They developed principles for design that can be used as examples of ways that architecture can be used to mark, preserve and protect other highly contested and historically significant sites throughout the world.





The model is used to represent the parti, or overall idea of this thesis. The rammed earth, intended to be a sacrificial element, is deliberately striated to represent the layers of history and geological composition, while the ruins at the core are encased in resin and are intended to be an eternal element. The choreography of the separate elements is made possible with the steel framework.



The conclusion panel for this thesis is intended to provoke continual education of the events that took place during the Holocaust and an encouragement to widen the community of Auschwitz-Birkenau. Throughout the world, there are a series of memorials and institutions that recall the events that occurred on the camp, though the memory of the actual places where those events took place are even more important to maintain.

# **APPENDIX A: BIRKENAU BOUNDARIES**

# **Birkenau Development Phases**

From Birkenau's establishment, in 1942, the camp developed in four primary stages. The initial structures of the camp included the first gas chambers, Burial Pits and storage facilities. These were located throughout the clearings in the forest, along the Pilgrimage Pathway, to keep them concealed from the surrounding community. The next stage of development was significant in scale and was located on the south portion of the site and included the Rail Line and Crematoria II and III. The third



Map of Birkenau depicting the four primary stages of development.

stage includes the current central portion of the camp and the storage warehouses, so named 'Canada'. The final stage of construction, which was realized, includes 'Mexico', the portion furthest north. Another stage of construction was planned for Birkenau but was never realized.

# **Birkenau Occupancy - Family Camps**

As occupancy in Birkenau increased, family camps were established to group people of like race, religion or ethnicity in the same area. By doing this, it was



Prisoners of Birkenau were grouped in 'family camps' according to their race, religion or ethnicity.

believed that diseases would be contained within certain areas rather than spreading throughout the camp. The barracks to the north of the site, in 'Mexico', were not considered to be prisoners of Auschwitz-Birkenau. Rather, the people that were intended here were in transition to other concentration and death camps throughout Europe.

# **Birkenau's Current Building Conditions**

After the liberation of the camp in 1945, most of the buildings were demolished. Since then, many have been rebuilt to display the prisoners living conditions and to



Much of Birkenau was distroyed after the liberation in 1945. The map above illustrates the current conditions of the camp.

house the museums permanent exhibitions. The map below illustrates the current condition of the structures on Birkenau, distinguishing those that lay in ruin, have remained intact after the liberation of the camp in 1945 or have been reconstructed since the liberation.

# APPENDIX B: HISTORY OF AUSCHWITZ-BIRKENAU DURING THE SECOND WORLD WAR

# 1939

# September

Nazi Germany and Soviet Russia attack Poland within the same week, signifying the outbreak of WWII.

#### Year End

Due to mass arrest of Poles, prisons become over crowded. The Higher Office of the SS draw up plans of a concentration camp.

#### 1940

### 27 April

Heinrich Himmler, Commander of the SS, orders the establishment of a concentration camp in the former army barracks in Oswiecim.

#### 14 June

The first prisoners are sent to Auschwitz, recognizing this day as the day the camp started functioning.

# 19 June

The first relocation of local people in order to prevent them from witnessing the crimes, contacting the prisoners and helping them escape. In total, approximately 5,000 people were moved from Oswiecim and seven other villages. More than 100 buildings were demolished or reproposed.

#### Autumn

Polish resistance informs the Polish Government in exile in London of the camps existence.

#### 1941

#### 1 March

Commander Himmler gives orders to expand Auschwitz into Birkenau and to build nearby industrial plants.

#### 6 June

The first non-Polish prisoners are transported to Auschwitz. In the years to come, transports arrive from all over Europe.

## 3 September

The first mass murder of people with the use of Cyclone B. Approximately 900 people are murdered. This leads to the development of gas chambers in other camps.

#### Autumn

Camp authorities start operating the first gas chamber in Auschwitz, turning the formerly established concentration camp into a death camp.

#### October

Work starts on building the second part of the camp, Birkenau, in place of the previously demolished village of Brzezinka.

#### 1942

#### 1 March

Birkenau starts functioning as a concentration camp but with the vision of development into a death camp.

#### March - June

Temporary gas chambers are established in former dwellings alongside Birkenau, known as Bunker I and II.

# 4 May

The SS carry out the first mass murders in the provisional gas chambers.

July

The first of almost 50 Auschwitz sub-camps is established.

#### 13 December

As part of Hitler's 'General Plan East', nearly 50 million Slavs (Poles, Russians, Byelorussian's, Ukraine and others) are evicted or exterminated. The first transport of this eviction arrives in Birkenau.

Year End

SS doctors start medical experiments on prisoners at Birkenau.

#### 1943

22 March - 25 June

Camp authorities start up four Crematoria with gas chambers in Birkenau.

Summer - Autumn

Mass deportations to Birkenau begin from all over Europe. 'Family camps' are established within Birkenau to house prisoners of like race, ethnicity, religion, etc.

# 1944

May

The first Ally planes fly over Auschwitz-Birkenau to take aerial photographs showing the gas chambers and smoke from the burning pits. American and British planes bomb the surrounding industrial camps.

16 May

Infrastructure upgrades in Birkenau allow deportees to be transported directly to Crematoria II and III to be gassed. This leads to the camps most efficient working phase, cremating as many as 5,000 people per day.

10 – 12 July

The Nazis begin liquidating family camps, as Soviet forces are encroach Nazi territory.

12 August

13,000 Poles are deported to Birkenau, arrested en masse after the start of the Warsaw Uprising.

14 October

Prisoner uprising; As rumors that the Soviet Army is nearby to liberate the camp, prisoners destroy Crematoria II.

November

Mass murders in the gas chambers cease.

# 1945

6 January

The last public mass execution sentenced by the Nazi officials.

17 January

The SS evacuate almost 60,000 Auschwitz-Birkenau prisoners, starting the Death Marches.

21 – 26 January

In an effort to conceal evidence of the crimes committed there, the SS blow up the remaining gas chambers and Crematoria at Birkenau. 27 January

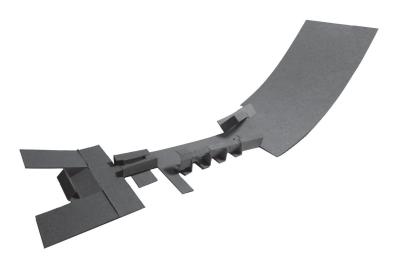
7,000 prisoners live to see the liberation of the camp by the Soviet Army.

April - May

Germany surrenders to the Western Allies and the Soviet Union. The end of the Second World War in Europe.

# APPENDIX C: MEMORY MODELS EXERCISE

# The Path



It's sunny, not really warm, but warm when the sun hits your face. I've got red patent shoes on and fold over white ankle socks with frilly edges. I'm sat half way up the garden path, looking down towards the back of the building. The path is long and steep, with a brown stone wall and a blue gate that leads out onto the top of the mountain; the garden is slightly raised so there are steps made of grey/brown slate down to the open back door. I can see over the roof of the building, rows and rows of houses leading down to the pit and the giant wheel lift.

# The Deck



The day was hot and the sun was just past it's highest point. My favorite uncle was there and we ate watermelon on the stained wood deck. We started telling jokes and being silly. The shade from the surrounding pine trees didn't protect us from the heat and it was one of those lazy summer days. The water on the narrow lake was calm and glistening in the intense sun. I had half a can of root beer to finish. I decided to scare my uncle. I proceeded to climb over the wide railing of the deck. The railing was wide enough to sit on when there were lots of people visiting. It had 2 x 2 wood balusters nailed to a 2 x 4 under the 2 x 12 of the railing. I pushed myself out over the drop with my legs, my feet planted on the edge of the deck, and my hands holding onto two balusters. My uncles jolly face quickly turned stern. "Oh, now, you be careful... This deck is old..." Before he finished his sentence the balusters gave way and the nails pulled clean out. I began to fall to the lumpy hillside scattered with clumps of dead grass, about 2.5 metres below. Because of the way I was hanging, I landed head first and blacked out upon first contact. I must have rolled down the short bumpy slope, because when I knew what was going on, my mom was by my side and I was laying in the shade of the old boathouse.

# The Wedding



Fuck it's hot... It's cold outside but it's hot in here. Rip off nearly all my clothes. Pay considerably more than the people in wedding clothes around me to get rid of my coat and get through the next door. It is amazing! The sweeping staircases where the bride and groom are clambering to have their pictures taken are all white and gold and mirrors, the carpet doesn't match, the smell of damp is quite suffocating, the condensation is thick on the million glazed windows, the incessant chattering parties are giving me a head ache, I escape into a corridor that resembles a Victorian Gothic hospital with a view of the river of the immense, sluggish river.

# The Yard

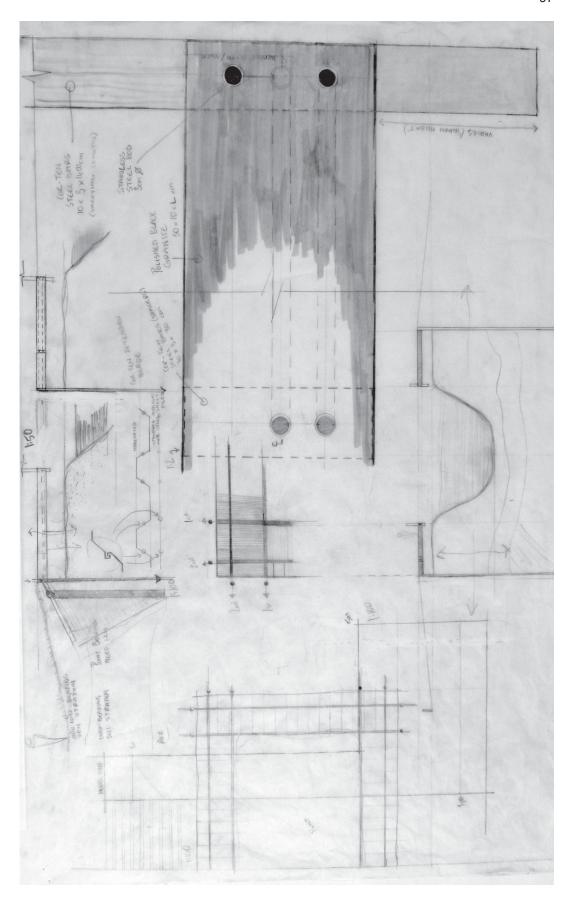


My sister and I used to play in a very small backyard. It was quite dark and moist. The walls and floor were grey and plain with streaks of watermarks mixed with mould and moss. The rain gutters of the building had many cracks and there was rain dripping down even if it hadn't rained for a day or more. The constant dripping made the concrete floor wet and nice and soft because

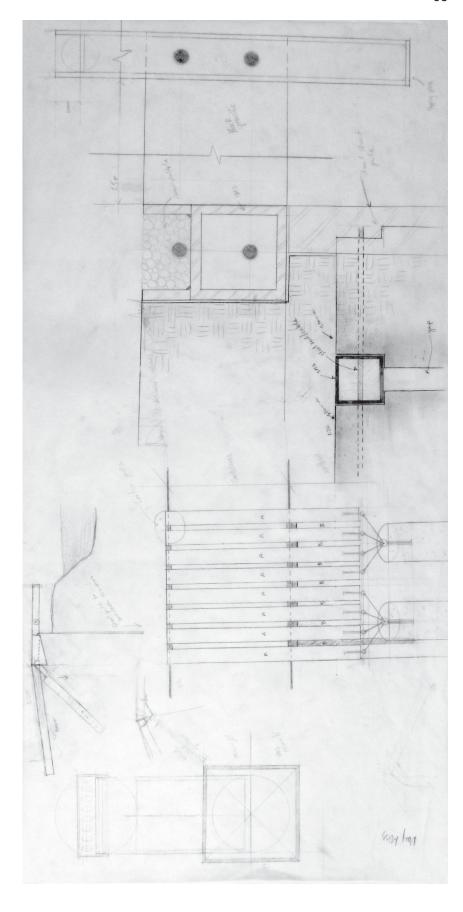
of the moss growing on it. I could spend hours scratching away the moss from in between gaps and play with all the little bugs and worms that lived in the moist mixture of dirt and moss.

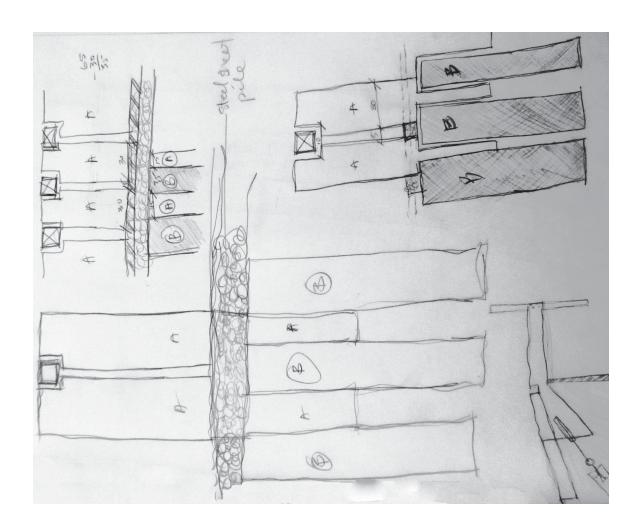
# APPENDIX D: DESIGN STUDY SKETCHES

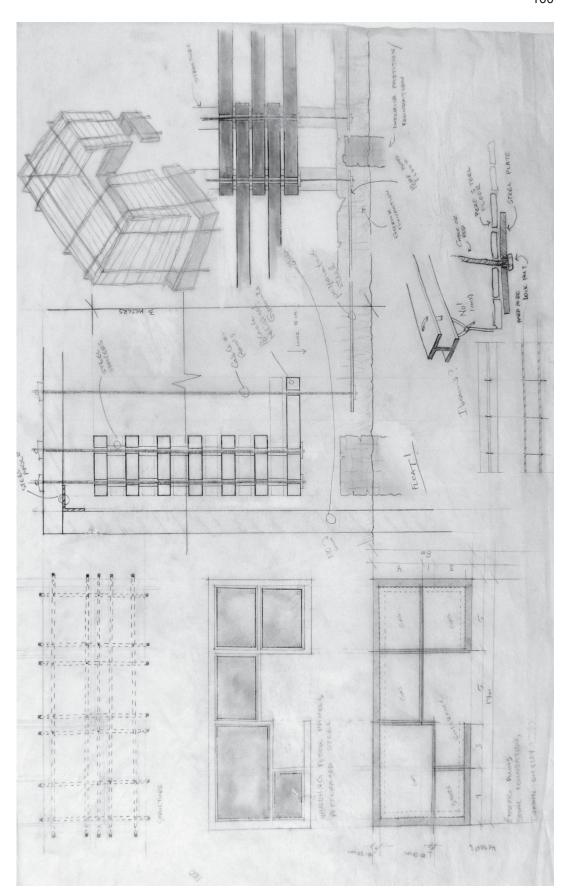
The following sketches are a series of studies that were conducted to realize the concept behind each architectural intervention. These include structural, spatial and material studies. The sketches are chronicled from initial studies to the most recent rendition of work. The most resolved ideas and drawings are contained within the design chapter of this thesis.



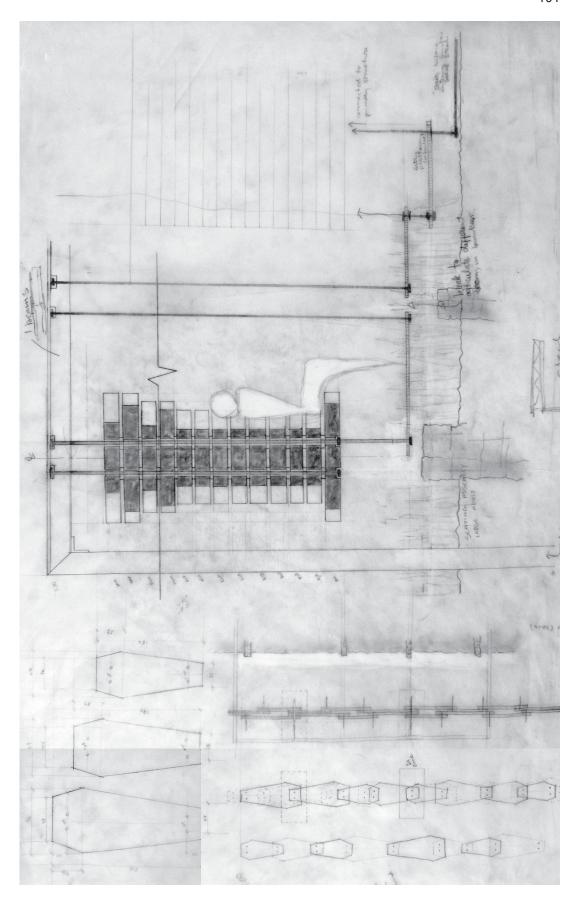
Ash Pond Intervention

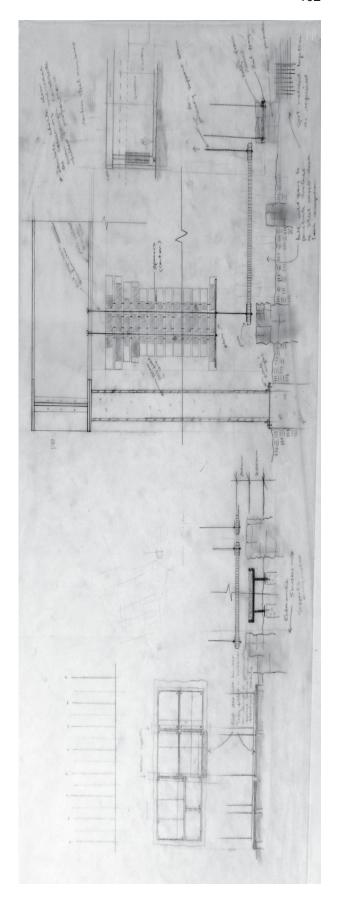


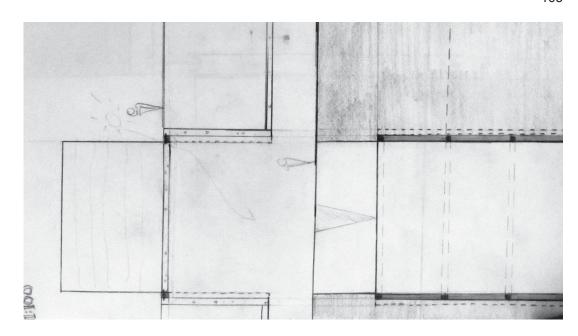


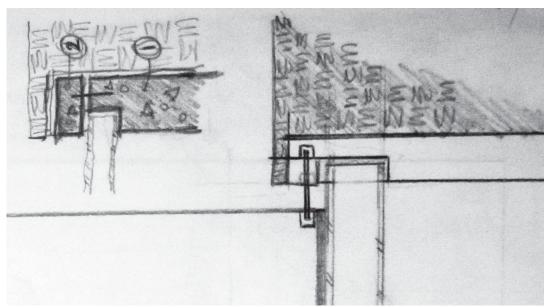


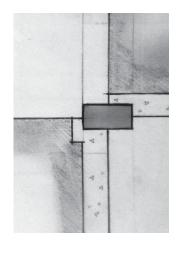
**Bunker II Intervention** 

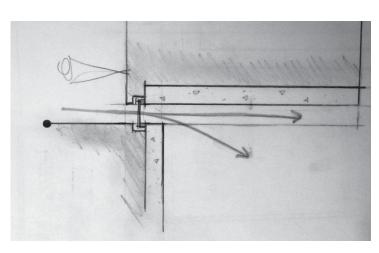




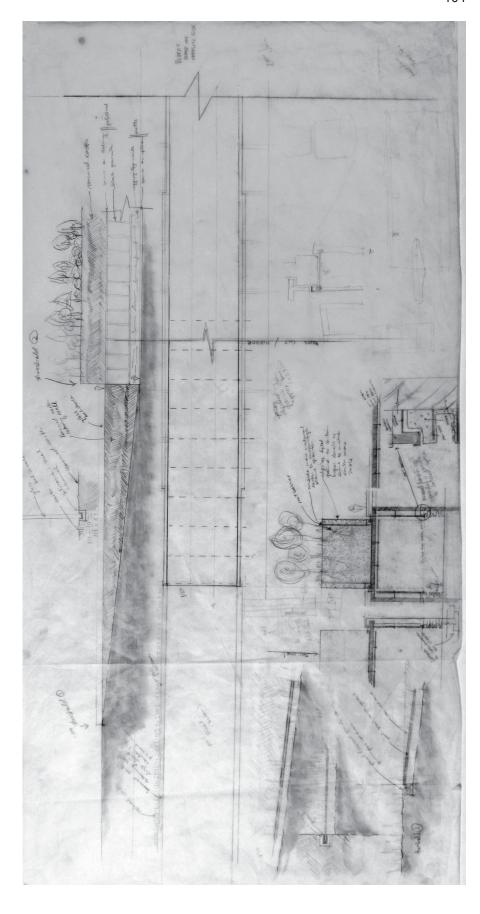


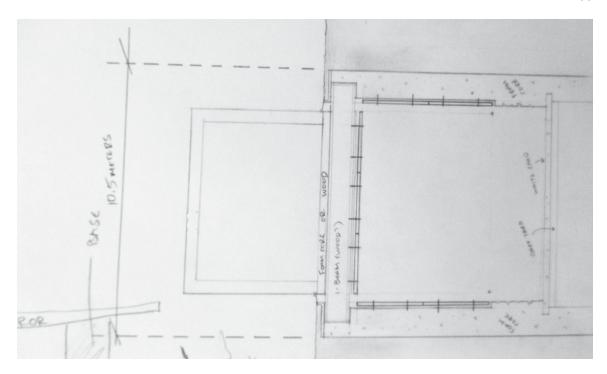


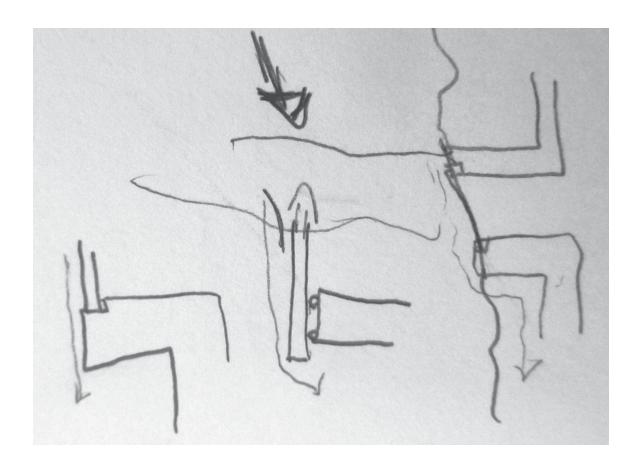




**Burial Pits Intervention** 









**APPENDIX E: THESIS PRESENTATION - JULY 2012** 

The photograph above illustrated the main body of the thesis presentation. The Pilgrimage Pathway collage creates a narrative of the site and the three architectural positions are located along it.

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