

5. Precedents

León Tarantorio, León, Spain
BAAS Architects
2000



Crematorium Baumschulenweg, Berlin, Germany
Axel Schultes Architekten
1998



Modena Cemetery, San Cataldo, Italy
Aldo Rossi
1971-1978



MFO Park, Zurich, Switzerland
Raderschall Landschaftsarchitekten



Introduction

Fig. 43: (Previous page, top) Bird's eye view of León Tarantorio mortuary (Cohen & Metz, 2002: 93).

Fig. 44: (Previous page, second from top) Entrance facade of the crematorium in Berlin (Rusel, 2000: 227).

Fig. 45: (Previous page, third from top) Some of the completed buildings in the Modena cemetery, designed by Alalo Rossi (Adjmi, 1991: 21).

Fig. 46: (Previous page, bottom) MFO Park: a steel structure is put in place to support vines which will become a green canopy for users in a dense urban environment (Martholis & Robinson, 2007: 16).

The proposed thesis project consists of a vertical place of remembrance and a promatorium. Promession is a relatively new technological advancement with few existing examples. Crematoria are investigated for the similarities that exist between the functional requirements of crematoriums and those of promatoriums.

The main function of vertical parks of remembrance is to house the remains of those who have passed on in a park-like structure. Precedents are investigated with relation to vertical storage of remains and vertical planted structures.

The main issues to assess in every precedent:

- context
- movement
- light
- structure and materials
- spatial hierarchy

León Tarantorio, León, Spain

BAAS Architects

2000

The municipal mortuary (“tarantorio”) balances the idea of a large sunken tomb with the sky reflected in the rooftop pool above, creating a sheltered environment for mourning. The building was conceived from counterbalanced references — earth and sky; weight and lightness; openness and intimacy (Cohn & Metz, 2002: 93).

From the reflective pool, angled concrete “fingers” emerge not only to bring daylight into the chapel below, but also to emphasise the entrance (Cohn & Metz, 2002: 95). One enters the mortuary via a processional timber ramp, to find oneself in a large foyer with a full length window all along the building. The foyer becomes the public gathering space, furnished and divided with v-shaped columns that support the reflective pool above. Several private mourning vigil rooms flank the foyer. These spaces are illuminated by sunken private courtyards.

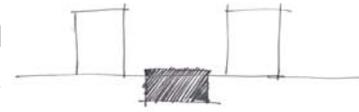
Fig. 47: View of the mortuary, dropped into the ground and covered by a reflective pool ((Cohen & Metz, 2002: 93).



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Context

Set within a high density residential area, the building had to respond accordingly. As a result the building was sunk into the ground (Cohn & Metz, 2002: 93).



Movement

Visitors to the mortuary arrive on ground level, next to the building. They experience a procession as they move down via a wooden ramp to the entrance of the building (Cohn & Metz, 2002: 95). They enter the foyer space through a set of glass doors and then move on into various vigil rooms.



Light

Light is used in two ways in the design, first in the foyer where the living commune. A full length window floods the public area with light. As one enters more private spaces shared by the living and the dead, light is used very specifically to emphasise the dead.

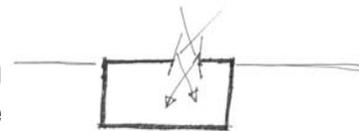


Fig. 48: The plan layout of the mortuary. The concepts of intimacy and openness can be read clearly in the articulation of the plan (archdaily.com).



Structure and materials

Concrete and wood are the main materials used in the building (Cohn & Metz, 2002: 97). The weightiness of the concrete structure is counterbalanced with the pool that reflects the sky above. The white concrete is offset in the interior with timber — signifying the complex relationship between life and death.

Spatial hierarchy

The mourner arriving at the mortuary experiences several emotions during this time. The first threshold becomes a ramp going down into the mortuary. Once inside, one is still aware of the environment outside. As the mourner progresses to the closed chapel or vigil rooms, light is used specifically to emphasize the relationship with the deceased.

Conclusion

The tarantorio in León responds to the context very specifically. The building is sunken not only to respect the existing environment it is placed in, but also as reference to the traditional form of burial. As one progresses into the building via the ramp one is conscious of the thresholds that are created and how both the physical structure and the use of light are used to emphasise

Fig. 49: Chapel interior showing the quality of light that fills the space and accentuates the plinth where the coffin is placed (archdaily.com).



these thresholds. The use of materials and light evokes different emotional responses. The building is successful in conveying the conceptual idea very clearly. The design houses not only the physical requirements of the building, but also addresses the emotional requirements of the bereaved.

In the context of the thesis project, placing spaces underground has much relevance in terms of the respect shown to the existing. The articulation of the spatial hierarchy and the very specific use of light are concepts evident in much funerary architecture, and will also be incorporated to identify different spaces in the facilities provided by the proposed thesis project.

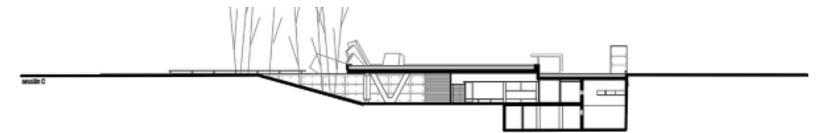


Fig. 50: Section showing the procession as one enters the space at a level lower than the ground floor. As in the plan the concept is visible in the articulation of the section (archdaily.com).



Fig. 51: The waiting area looking out towards the green berm (archdaily.com).



Fig. 52: The chapel interior. The contrast between the materials used is evident (archdaily.com).

Crematorium Baumschulenweg, Berlin, Germany

Axel Schultes Architekten

1998

The architects were commissioned with the task of creating a place that is non-religious and open to all to pay their respects to those who have passed on. The place had to convey a spirit of tenderness, intimacy and awe, without inflicting “God-fearing terror” (Russel, 2000: 225).

The monumental building is set within a 20th century cemetery. On passing through the tree forecourt on arrival, one is confronted with the stark modular concrete-framed block. The entrance is flanked by a chapel on each side and leads up into the main gathering hall with its double storey volume (Russel, 2000: 226). One large communal gathering space is created that binds people together to share their grief. Concrete columns with skylights are scattered throughout the space. Representing a meta-physical forest, the columns are a dominant feature whatever the number of people in the space. From the gathering space one can enter any one of the three chapels. The chapels are flooded with light through the glass façade, which is shaded with metal louvers.

Fig. 53: Public entrance to the memorial service spaces of the crematorium (www.jerembuczowski.pl).



Context

Set in an old cemetery, the crematorium sits in a serene setting with lush vegetation (Russel, 2000: 225). The building is perceived as a solid object in the landscape, confronting the mourner on first approach.



Movement

The mourner enters the building through one of three entrances. Wide steps lead up to the double volume gathering space. From the main gathering space the mourner can enter the various chapels. Deliveries are made on the opposite side of the building. The coffins are received and stored on the lower ground level. Elevators for coffin circulation link the lower ground storage with the chapels. Once the memorial service is over, the coffin is taken back down to the various incinerators in the building (Russel, 2000: 231).



Light

Light has been used to illustrate the concept of eternity. From the entrances the mourner is drawn into the space by slits in the concrete roof slab (Russel, 2000: 231). These slits are taken through the building, dividing the roof slab and washing the walls of the gathering space with light. The interfaces between obvious structural elements are disconnected and filled with light, stressing the notion of eternity (Russel, 2006: *ibid.*). In the main space the concrete

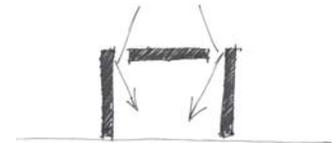


Fig. 54: The condolence hall: the main gathering space between the various chapels, dominated by the concrete columns (worldcities.bloguez.com).

columns with their light connections take on a ceremonial role. The entire front façade of the chapels is glazed and shaded with steel louvers (Russel, 2006: 227).

Structure and materials

The main material used is fair faced concrete (Russel, 2000: 225). The cold and barren simplicity of the structural material is contrasted with hints of light. Concerning the structure of the chapels: the glass façade, removed from the concrete box, seems to wrap over the concrete and envelop the mourner in the space. When one looks at the section one can see how the structure creates a distinction between public and service spaces — the floor of the gathering space is articulated through the thick ceiling void. This not only carries the structure above, but also provides opportunities for installing services. This separation and articulation of structural elements is also used in the plan to indicate hierarchy.

Spatial hierarchy

In all the above discussed aspects of the design, one can see how all the

elements have been used to create thresholds — space dividers aiding in the division of public and service spaces. The building plays with particular relationships to create spatial hierarchy. These relationships and instances of threshold creation are evident when moving between spaces that are carefully orchestrated so as not to feel forced.

Conclusion

Having a difficult brief, the architects accomplished a building that makes use of a limited material palette, and is flooded with light to accomplish the desired emotive reactions. The integration of both light and structure was used to create spatial hierarchy, aided by the use of thresholds. Instead of using hierarchy in a linear process, the design makes use of a circular form of hierarchy: public — service — private — service — public. The way this was done seems to have been effortless, yet when studied one realizes the complexity of this spatial formation.

In the proposed thesis design, light will be used to create an emotive space. The circular formation of spatial hierarchy is a valuable concept that can be incorporated. However, the building as object in the landscape is contrary to the objective of this thesis — being integrated and anti-monumental in its conclusion. Its value therefore lies in understanding the internal arrangement of the building rather than its relationship to the landscape.



Fig. 55: (Left) The image shows the differentiation between the concrete chapel box and the glazed facade wrapping around it (Russel, 2000: 230).

Fig. 56: (Right) One of the entrances to the main hall (Russel, 2000).

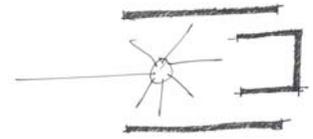
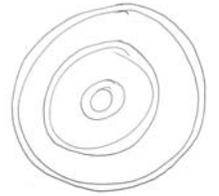
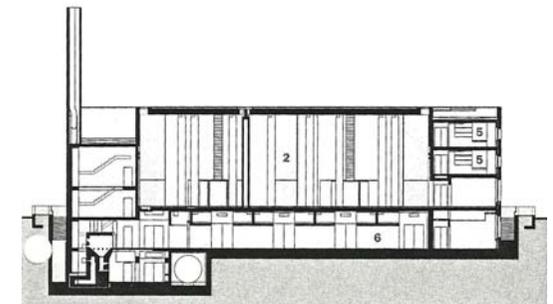
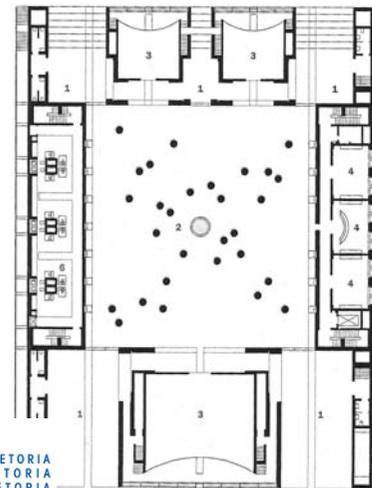


Fig. 57: The ground floor plan (Russel, 2000: 226).

- Key:
1. Entrance
 2. Hall of condolence
 3. Chapel
 4. Waiting area
 5. Offices
 6. Crematorium

Fig. 58: Section of the building. The relationships and thresholds between the different spaces are visible (Russel, 2000: 226).



Modena Cemetery, San Cataldo, Italy

Aldo Rossi

1971-1978

By using repetitive and universally recognised forms, Rossi creates architectural meaning through the largeness of space (Allibone, 1987: 12). The intent was to create a city for the dead that forms part of the urban space rather than being a monument. This was achieved through the creation of a public passage through the cemetery (Freiman, 1991: 58). The design consists of various elements that make up the cemetery. A perimeter building runs all along the boundary of the site; a second building running parallel to the perimeter building contains the ossuaries. This building is raised on a series of slender fins. A sense of eternity is instilled as one walks down the length of the raised ossuary. The main columbarium stands as an element in the landscape, yet forms part of the cemetery complex. The multi storey columbarium is penetrated by openings, flooding the interior space with light (Freiman, 1991: 62).

Fig. 59: Presentational drawing of the plan of Modena cemetery (www.anthonysilvioudaulario.com).

Fig. 60: (Opposite page, left) View of the main columbarium from the public walkway (Adjmi, 1991: 21).

Fig. 61: (Opposite page - right) The thin concrete fins of the raised ossuary create an endless rhythm (picasaweb.google.com).

Set on the periphery of the town of Modena, the cemetery was established after a design competition in 1971, with construction only starting in 1976

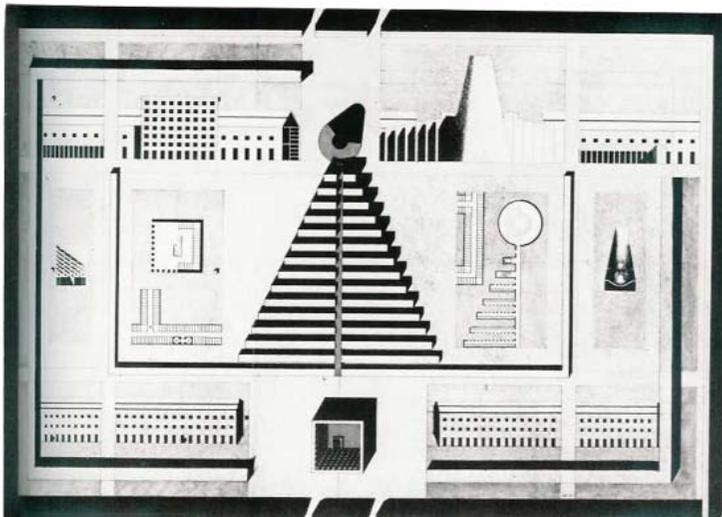
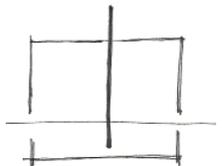
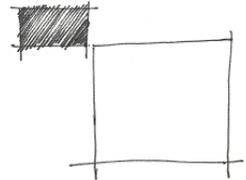
(Freiman, 1991: 49). The cemetery is still under construction. All the peripheral ossuaries have been completed. The main multi-storey columbarium has also been built. As the cemetery grows, it is completed in phases. The design was intended as a city for the dead, forming part of the urban environment next to the cemetery. This connection between the existing urban area and the cemetery is formed and strengthened by a public passage through the cemetery (Freiman, 1991: 58). The buildings in the design sit as stand-alone objects, but the spaces between these objects are crucial to the experience of the living, creating vistas, vantage points and framed perspectives.

Context

The cemetery is located in the well established town of Modena, Italy. It is being built on the periphery of the town next to the existing ossuary structures. Even though the town has grown over the past thirty-five years, the cemetery is still very much on the outskirts.

Movement

Movement through the site and the buildings is quite simple. As one enters on the axis of the cemetery one can either walk across the open interior court or enter one of the ossuaries encircling the cemetery. The ossuary facing the interior court is raised on thin concrete fins (Freiman, 1991: 62), which create



a walkway. Movement culminates at the object buildings, and from there proceeds to other parts of the cemetery.

Light

Light has been incorporated with rhythms and repetitions in the structures to create several forms of meaning in the cemetery complex. One such example is the slender concrete fins under the raised ossuary. The spatial quality speaks of eternity as the rhythm continues along the length of the building (Freiman, 1991: 62). The articulation and use of light in the main columbarium are also evident where the deep structural walls are penetrated with light openings next to the units housing the remains of the dead.



Structure and materials

As in most of Rossi's designs, humble and local materials are used in the construction of the buildings (Allibone, 1987). The buildings read as solid in their making, signifying the concept of strong vs. weak used in the structure of the buildings.



Spatial hierarchy

A reading of the plan shows which buildings and elements in the design carry higher importance through their articulation and placing in the design. The ossuary on the periphery has a communal, public character to it, similar to a stoa in Ancient Roman architecture. The arcade beneath provides space for communal gathering and meeting. As one moves through the site to the main columbarium, its importance is emphasized through the absence of structures in the immediate vicinity of the building. It also sits on the same axis as the main entrance, as well as next to the public passage progressing through the cemetery.



Conclusion

The cemetery is a personification of the work of Aldo Rossi. Making use of geometric shapes, his approach has a very strong emotive component (Freiman, 1991: 49). The design is based on the siting of objects in the landscape, but these become part of the composition of the cemetery. Rhythm is not only used to diffuse light, but also to create a sense of eternity, which has value in terms of the spatial quality and existential response desired in the proposed thesis design. The cemetery has a timelessness to it that has been enhanced through the typology and urban design used by the architect. This form of axial organisation can also be used in a small space to create a form of coherence in the spatial hierarchy. The Modena cemetery strives to provide a healing space, to restore the institution and reconstitute the public domain (Freiman, 1991: 49).

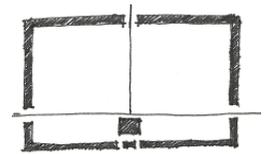
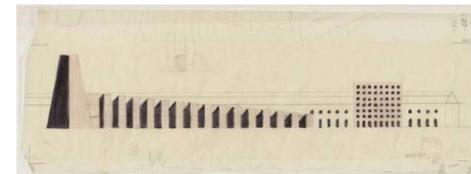


Fig. 62: (Opposite page, left) The interior of the main columbarium structure. The image shows light penetrating the structure (www.flickr.com).

Fig. 63: (Opposite page, right) The ossuary hallway conveying a feeling of eternity (Adjmi, 1991: 23).

Fig. 64: Elevation of the cemetery at Modena (www.moma.org).



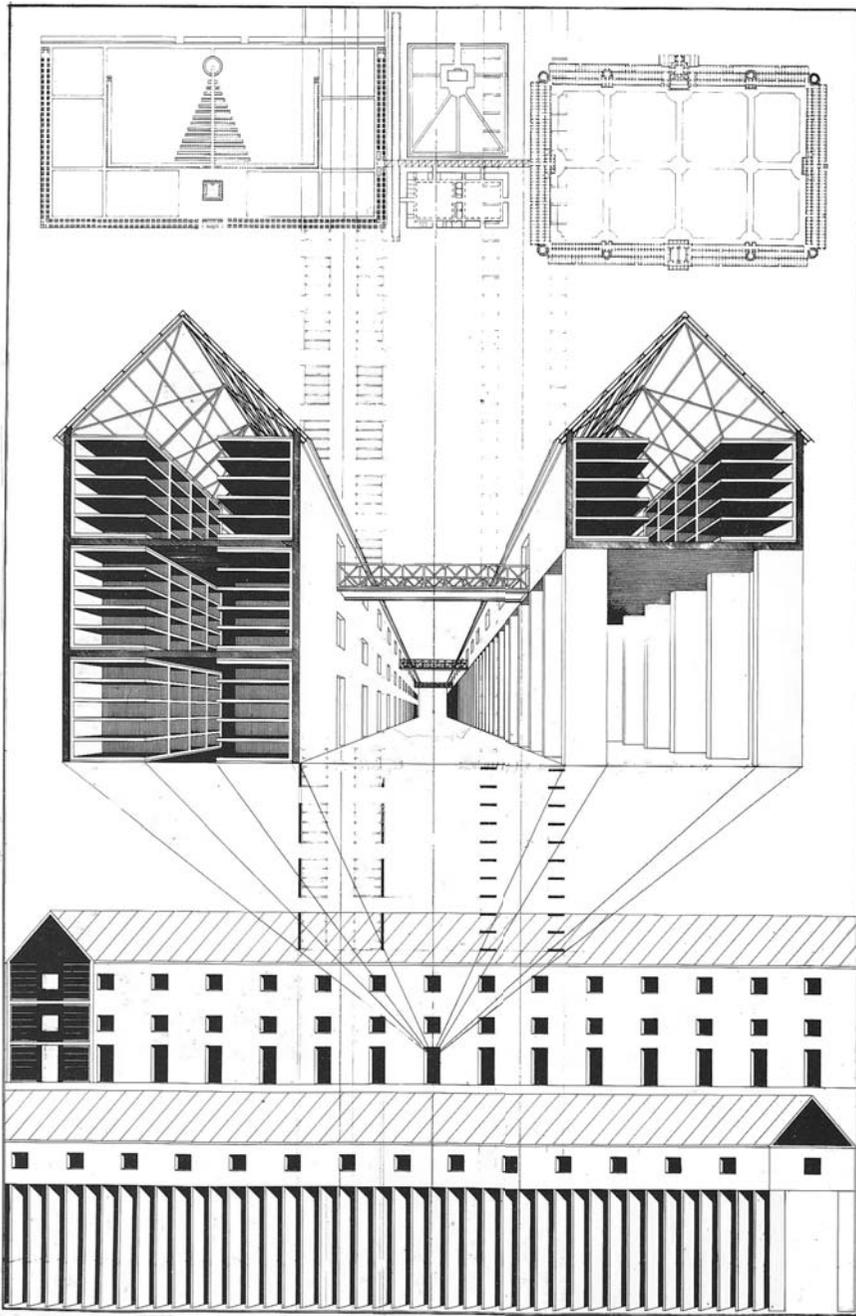


Fig. 65: Presentational drawings by Aldo Rossi: perspective section and elevations of the peripheral structures (Allibone, 1987: 15).

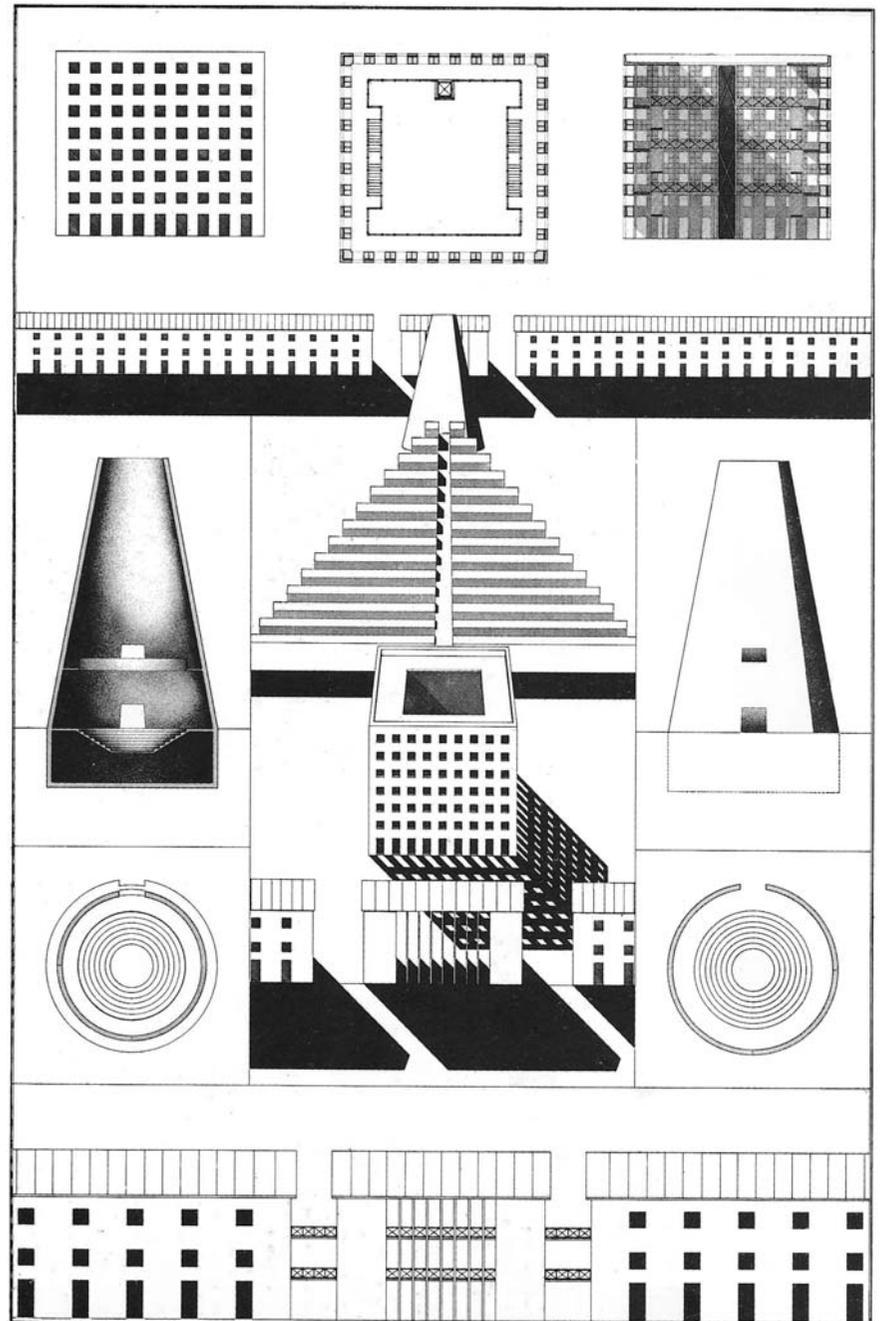


Fig. 66: 3D exploration of the different elements forming one design - another presentation drawing by Aldo Rossi (Allibone, 1987: 16).

MFO Park, Zurich, Switzerland Raderschall Landschaftsarchitekten

Commissioned as a park, it was seen fit to make reference to the industrial past of the area in constructing a steel structure (McLeod, 2008) and covering it with vegetation. A network of cables is tensioned for the vegetation to grow on (McLeod, 2008). With creepers and climbers planted on ground level, a second layer of planters was incorporated higher up in the structure to ensure that the whole structure will be dominated by vegetation. The vegetation is irrigated through a catchment system that conveys water drained from the floor of the park to planter pits, after which it is pumped up to serve not only the vegetation on the ground floor but also that on the higher level (Margolis & Robinson, 2007: 18). With each seasonal cycle the vegetation consumes more of the skeletal structure.

A gathering space with timber benches and a circular pool sits at the one end of the park. The structure contains circulation routes. Some platforms protrude through the envelope, set apart from the circulation routes. These protrusions become featured gathering spaces in the air, suspended from the structure above (Margolis & Robinson, 2007: 18).

Context

Set within an old industrial area, this structural park is part of a redevelopment (Margolis & Robinson, 2007: *ibid.*). It is clear from the images that buildings

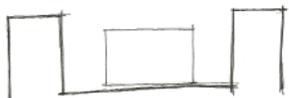


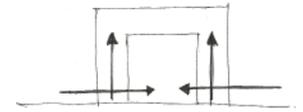
Fig. 67: One of the suspended platforms (Fajardo, 2008: 54).



surround the park structure. Small hedges introduce the user to the park, creating a threshold to the main space inside the park.

Movement

Horizontally the site is permeable from every direction. Vertical movement is facilitated by three staircases linking various platforms and gathering spaces in the structure (Margolis & Robinson, 2007: *ibid.*).



Light

Light will change as the vegetation changes and fills the structure over the course of time. Some creepers and climbers are deciduous and have a seasonal effect on the colour of the light that fills the space. Large halogen lights hang from the structure and are used in the evenings to create the illusion of an interior space rather than a park. Light, or the absence of daylight, frames the space.

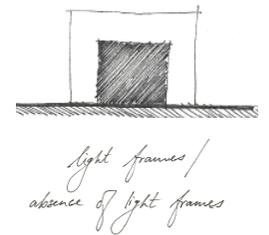
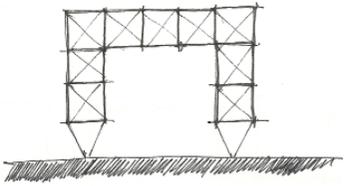


Fig. 68: MFO Park - a steel structure with a cable network for vegetation to envelop the structure (McLeod, 2008).

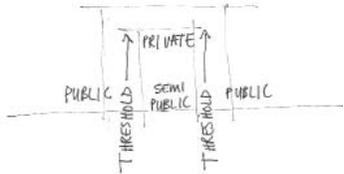


Structure and materials



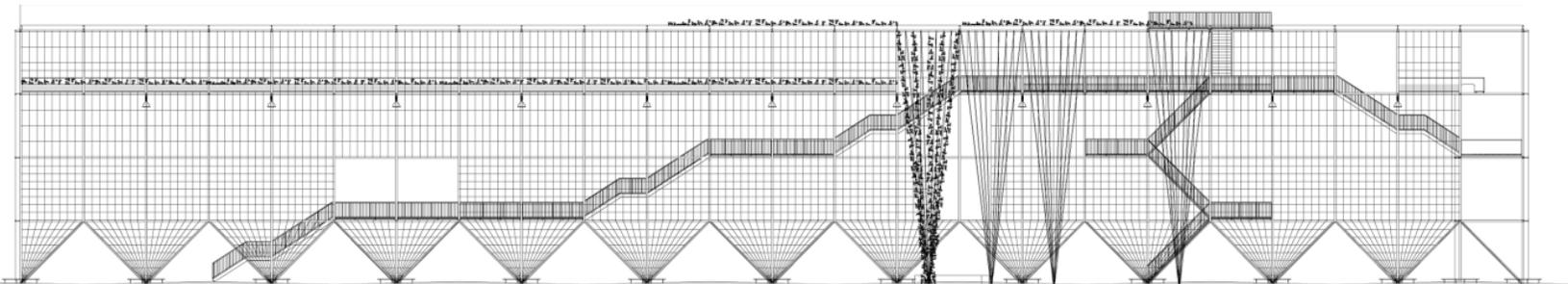
With an industrial past, the obvious choice of material is steel. Like old factory buildings, the structure has deep steel structural trusses spanning the large unobstructed interior space. The timber platforms and walkways allow the structure to be animated with people. The structure is covered with a network of cables (Margolis & Robinson, 2007: 18) for the vegetation to grow along, also animating the structure over time.

Spatial hierarchy



Several thresholds are created in the design. Two systems of hierarchy exist: horizontal and vertical. On the ground floor the user can move freely through the space, with a more intimate space formed at one end of the structure by using a difference in ground covering and adding furniture. Horizontally, users can make use of three vertical forms of circulation, two moving straight up, and the other progressing gently upwards, creating an experience of the space from several levels. Suspended platforms extrude from the structure into the interior of the space. These platforms become even more intimate spaces, removed vertically from the main space and also set apart from the vertical circulation routes.

Fig. 69: Elevation of the trellised structure indicating the various forms of movement in and through the structure (McLeod, 2008).



Conclusion

Very different from the previous precedents, this precedent is investigated as an example of vertical parks of remembrance. The MFO Park employs context and history to generate a three-dimensional exploration of what a park within an urban environment could become. The structure provides opportunities for horizontal and vertical movement, creating a spatial hierarchy not only on the ground but vertically also. The concept of the vegetation enveloping the structure is a valuable way of introducing the notion of the natural world reclaiming some of our urban landscapes. Several small and more intimate gathering spaces are created by breaking the boundary of the structure and not choosing conventional places for gathering to happen: by protruding from the structure and being suspended in the air the spaces are given a uniqueness which sets them apart from the rest.

The idea of a modular structure has relevance for the proposed thesis project in terms of the skills required for its erection. The ease of construction is further assisted as the application of such a structure will occur in a small space where large machinery will not necessarily be able to assist in its erection.

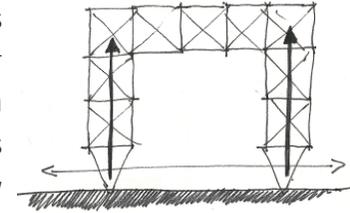


Fig. 70: The interior view of the park, showing the overhead structure that will be vegetated over time to create a green canopy (McLeod, 2008).

Fig. 71: A gathering space protruding through the vegetated wall into the main space (Fajardo, 2008: 52).

