The Banality of Death

life death life death life death

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TU Delft
Architecture and the Built environment
Graduation studio Borders & Territories
Year 2021

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Part I - Collective Research

01 Shifts in Mashhad

A mapping exercise focused on the shifts of territory and border conditions in Mashhad

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“Everything flows and nothing stays the same”. This quote from Heraclitus perfectly explains the condition that each city is subjected to: perpetual change. Thus, if one is attempting to understand the becoming of a city, it would make sense to look at these processes of change, through identifying the key-shifts within them.

Mashhad, situated along the ancient Silk Road, has had a tumultuous past that resulted in an ambivalent condition of its contemporary borders and territories. In order to research this condition, we focused on these key-shifts, and extracted the most important historical events of which we analysed how they defined and redefined the city’s characteristics. It is these shifts, or changes in direction, orientation and tendency, that built up to form the current urban structure, which we intend to unravel in this mapping exercise.

The exercise consists of two maps. Choreography of (Dis)Continuities explores the development of the border conditions that emerged around the Holy Shrine in Mashhad, by focusing on spatio-temporal shifts of the most prominent buildings and typologies, and reveals how the city is meeting its past. The Power of Water elaborates on how the changes between water systems and their respective territorial relations shaped the city, and reveals a changing ideology.

02 The Power of Water

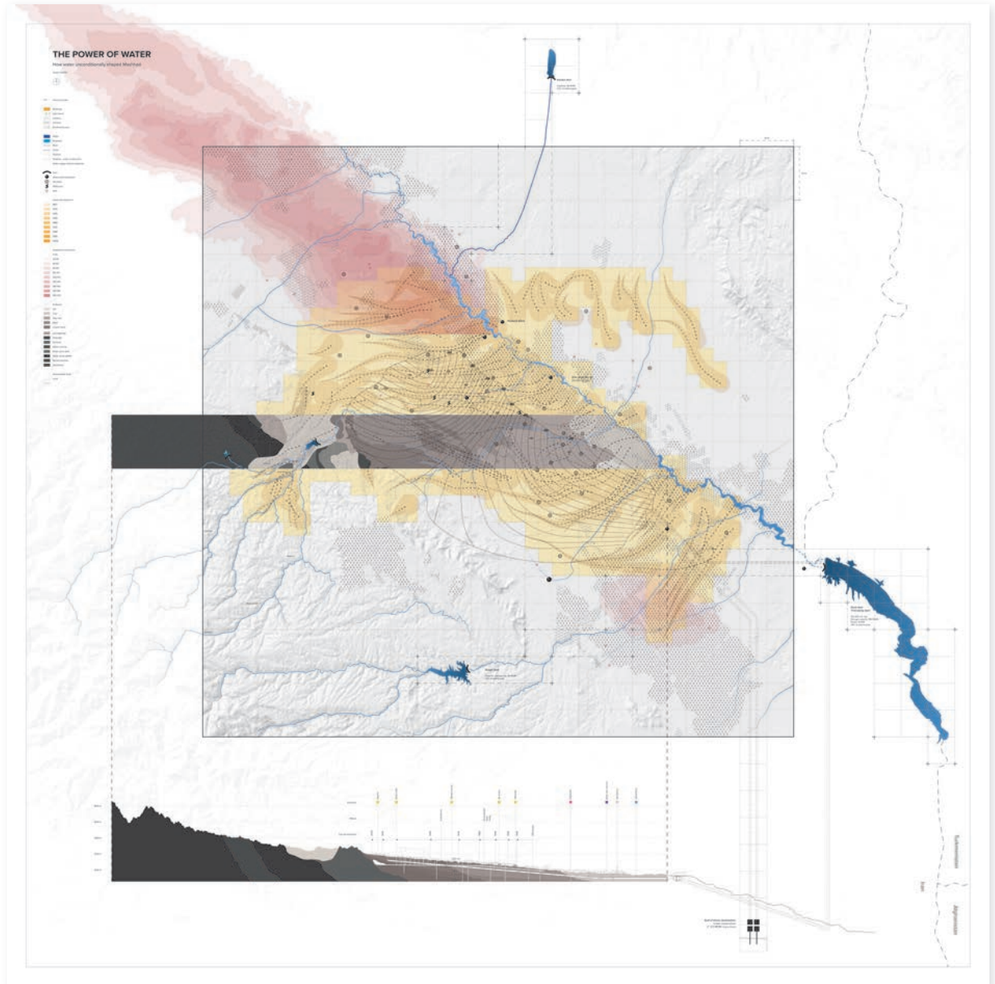
How water unconditionally shaped Mashhad

How do you inhabit the desert? The societies living in the ancient villages that preceded Mashhad found their answer in the qanat system: a technological invention that allowed them to settle in this mostly dry and arid land. The tunnels of the qanats transported water from underground aquifers into these villages, enabling them to gradually develop into the city of Mashhad. This quest for water shaped the city, directing its growth uphill towards the freshest water, and imprinted a landscape in the desert that captures Mashhad's intricate relationship with water.

Water, the key element of life, flows, floods, erodes, and provides. Its fluid characteristics allow it to pass through life and landscapes in different forms, it being simultaneously a quencher of thirst, a generator of electricity, and an ingredient in the production of bricks. In every one of its many possible forms, water leaves its traces. Water supply and management systems, their usages, and the structures that govern them, are thus essential elements in understanding the geographical, political, existential, economical, and even religious organisations of territory.

Different water supply and management systems have constituted the territory of Mashhad over time, each iteration leaving its own traces on both city, society and landscape. The deep-well technology, for example, created major land-subsidence throughout Mashhad, caused by excessive water pumping. Moreover, the increasing water-demand of the city resulted in the creation of the Doosti Dam, which is situated more than 100km from Mashhad on the border of Turkmenistan, and pumps water into the city. The creation of this dam extends the territory of the city, and resulted in international border tensions, as tensions over water supply rose. By superimposing the systems and their corresponding organisations, usages, and structures into a patchwork on the map, we are able to reveal their visible and invisible impacts, and understand how water in the end resulted in Mashhad's territorial developments, conflicts, and redefinitions.

The shifts between the water systems read as instigators of both conflict and harmony as they collide with each other. The transitions from qanat to well to dam to sea can be seen as shifts from a collective and intimate relationship with water to an indifferent one, revealing a changing ideology. Modernisation in the mid-twentieth century rendered sustainable qanats obsolete while liberalisation of the economy after the Islamic revolution privatized the management of water, increasing the distance between water and user and consequently redefining water's territory in Mashhad.



03 Choreography of (Dis)Continuities

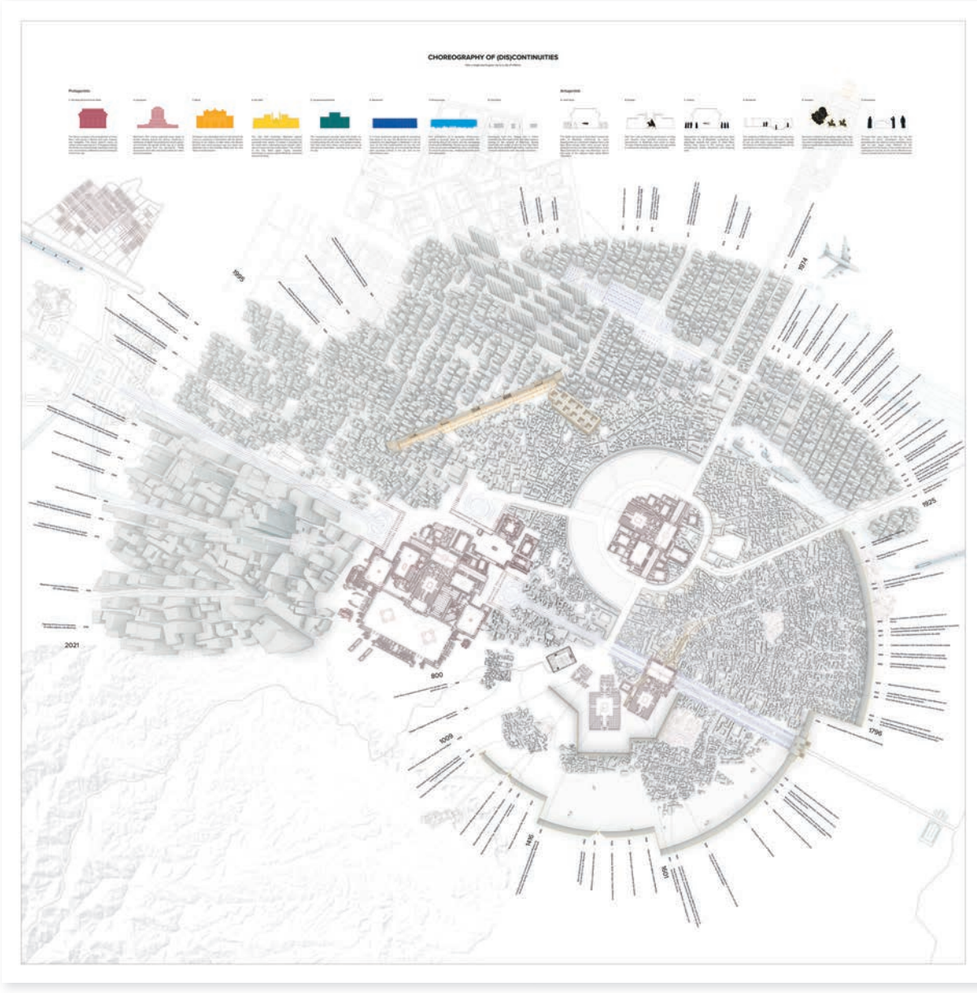
How a single event gave rise to a city of millions

Mashhad, translated to the ‘place where one is buried’, originated around the burial place of Imam Reza. What started as a simple grave in between two villages, developed into a massive pilgrim destination that materialised as the Holy Shrine Complex, with the city of Mashhad surrounding it. How can a single event, the death of the Imam, cause a chain reaction of events, luring millions of people into the creation of a city? We answer these questions by mapping historical moments in the development of Mashhad. A process which results in an assemblage of temporal fragments.

The assemblage is constructed with a cast of characters: the most prominent buildings, complexes, and typologies that existed throughout the history of Mashhad. They are the protagonists of this mapping exercise, comparable to Rossi’s ‘loci’, and are visualised as architectural constructs. Different iterations of each of these protagonists are highlighted on the map, allowing the reader to trace their development, which in turn emphasises particular events that locate shifts in the border conditions between the protagonists themselves and their context. Thus, as the protagonists develop throughout the map, a choreography of (dis)continuities unfolds.

The choreography is loosely staged on a spiraling timeline that frames the movements, retraces the growth of the city, and allows the reading of the origin of each character. Events that have taken place within the city give context to the development of the protagonist, as one can find them on the timeline. These events were driven by what we call the antagonists: deciding factors, usually of political, religious or economic nature, prompting Mashhad and its protagonists to develop in a certain direction, alignment, or orientation. These attitudes are visualised on the map using representational techniques such as axonometry, perspective projection, or superpositioning.

The shifts of the protagonists and their border conditions throughout the map reveal how the city changed from an organic structure with integrated functions and smooth transitions to a fragmented one. This process was ignited during the modernisation, as the city’s wall was torn down, and new infrastructures were developed inside and outside the city, which rigidly ordered a previously organic fabric. Also the entanglement of the Holy Shrine with its surrounding neighborhoods was ruptured by the creation of a borderzone during this time, consisting of commercial developments for tourists. Subsequently, the Holy Shrine became a less central point, allowing new centralities such as the administrative axis, touristic shopping districts, and the centralized graveyard to emerge. Upon inspecting the map, one is able to read and interpret the juxtaposed temporal fragments. At the end of the timeline, one then sees how Mashhad is meeting its past: how a single grave in the desert evolved into a city of millions.

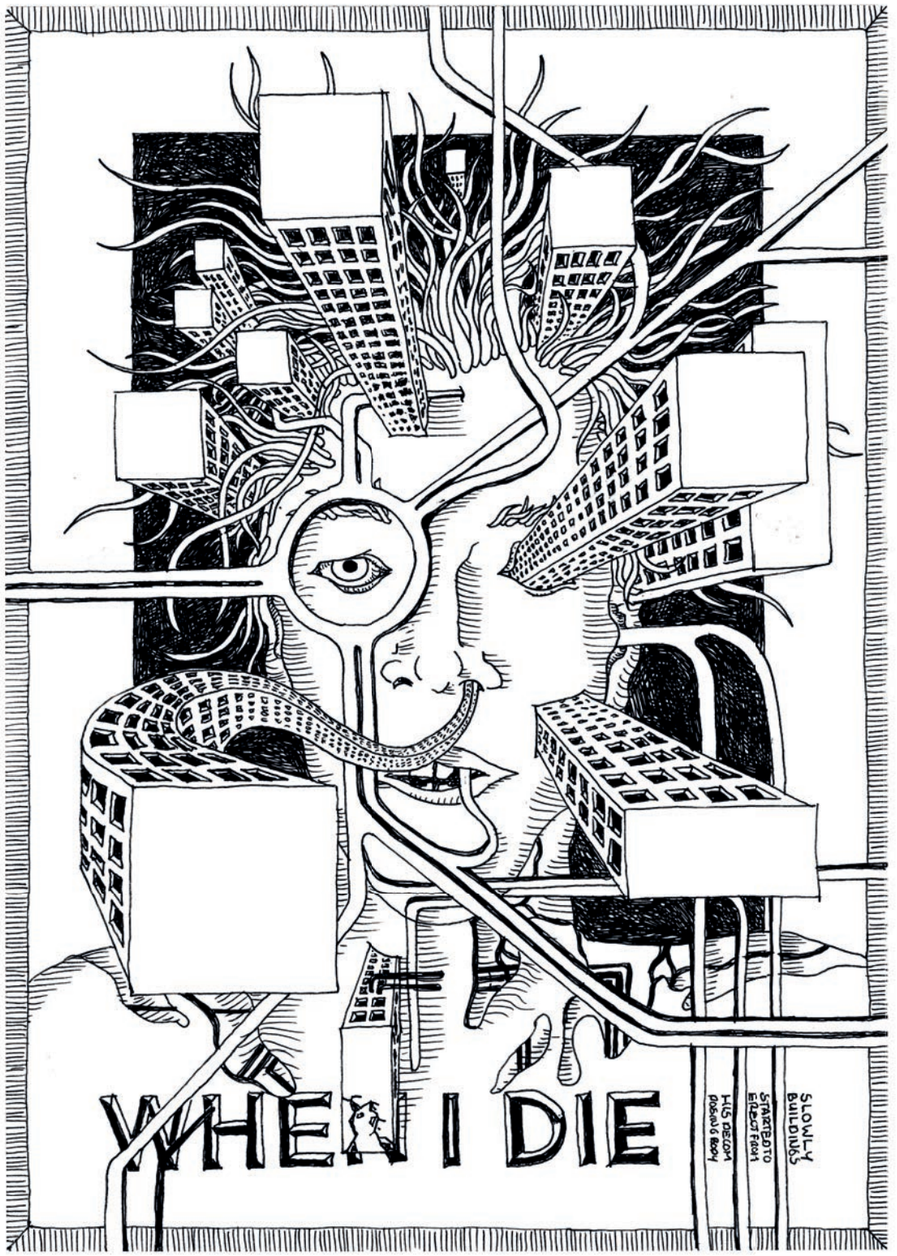


Part II - Individual research

00 The City of Imam Reza

Slowly, buildings started to erect from his decomposing body. Piercing though his skin, like fungi on a dead tree, they grew higher and higher. They were not like regular buildings, on the contrary, nourished by the great value of the 8th Imam, they shined brightly like Amanity Muscaria. His final resting place, marked by the extraordinary structures, became a beacon for the living, and later, the heart of a new city: the city of Mashhad.

As the shrine became a massive point of attraction for Shia pilgrims, and hereby the main driving force of the city, one could argue that death is, ironically, Mashhad's raison d'être. It seems that Imam Reza, by dying, has breached the walls of mortality, having found new life in the form of a city.



The creation of this drawing and poetic piece of text, shaped my understanding of death in relation to the city. Notions as: death inherent part of life, death as the beginning, the city as an organism, the city as a materialisation of death, were incorporated in this piece.

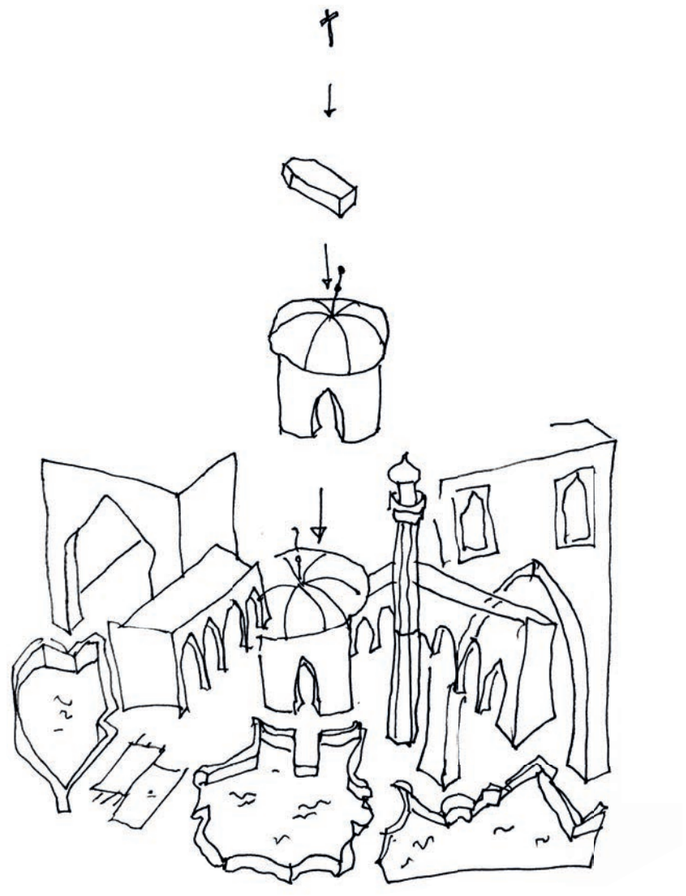
00 Introduction

The city of Mashhad, which translates to ‘the place where one is buried’, originated around the burial place of Imam Reza. What started as a simple grave in between two villages, developed into a massive pilgrim destination that materialized as the Holy Shrine. Due to the importance of this event - i.e. the martyrdom of Imam Reza - in Shia’s believe, the structure became the main driving force for the city and its larger territory. One could say that death is embedded in the history of the city. But other than its physical presence, the theme of death takes on a significant role in the consciousness of Mashhad’s residents.

Due to its geographical location close to a fault line in the valley of the Kashaf-Rud river, there is a constant looming risk of flooding or earthquakes: The city has lived its life between the constant threat of destruction and the necessity of accessing water to make inhabitation in the desert possible. Moreover, and this goes for the whole of Iran, the contemporary society is centered around death as a result from the political reformation after the Islamic Revolution in 1979. Following Ghorbani, this is reflected by the fact that ‘the most religious centers, religious themes and forms, calendar plans and religious symbols are related to death.’ (2018). Adding to that, Mirdamadi argues the existence of a death-conscious culture that emerged from the implications of the Iran-Iraq war, the prevalence of death in Iranian literature and the Shia teachings and rituals (2019). Part of the literature is a genre of historical texts called ‘Ziarat-nameh’, in which the customs related to visitations of the dead, or pilgrimage, are described. Particularly the notion of pilgrimage and the religious rituals like the mourning of Muharram are extremely prominent in Mashhad due to the presence of the Imam.

The importance of Imam Reza’s grave in Shia culture, made Mashhad a preferable burial place for many people. This not only resulted in various tombs around the city, but also in the presence of grand graveyards around the shrine that largely exceeded the need of the population of the city itself (Darwent, 1965). The traditional cemeteries were integrated in the morphology of the city and part of the daily life of its residents. Moreover, the numerous villages around Mashhad each had their own cemetery where locals collectively carried out funeral rituals.

However, as the city modernized and the population rose rapidly, the city grew upon the territory of the dead. Almost all of the former burial spaces that were situated around the shrine or belonged to the villages which became part of the city, are now completely erased. One big centralized cemetery named Behesht-e Reza took over their role. As it is situated just outside of the city due to hygienic reasons, this modern burial place has become an isolated fragment situated next to one of the main highways leading out of the city. In this cemetery, that is almost set up like a city itself, the burying process is standardized and bodies are efficiently ‘dealt with’. Compared to the traditional processes, the funeral ritual has become dehumanized, streamlined and bureaucratized. In the context of Iran, this is referred to as the sequestration death (Bayatrizi & Ghorbani, 2019): a trend which can be considered to be part of a world-wide problematic tendency of distanciation from death (Ariès, 1976; Mellor & Shilling, 1993; UIA, 2020).



00 Introduction

While the theme of death plays a significant role in the culture and history of Mashhad, the relation between the dead and living has now become increasingly severed. Due to the disappearance of burial grounds inside of the city and their displacement to the urban fringes, the formerly entangled territories of the dead and living are now completely separated. This contemporary situation results in a city that is 'burying' its past and is literally and figuratively taking distance from the dead. This project intends to research how architecture can deal with this changed relationship and how it could potentially be deployed to mediate new relations between life and death.

Initial research

The general research into Mashhad started with the production of the two 'megamaps'. The research for these maps focused on the current, and specific border/territory conditions of the city (They can be found in the chapter with our groupwork). In order to establish these, general research, like for instance the setting up of a timelime with rulers/events/natural disasters etcetera was done, which formed a base for the individual research. The maps worked as 'overviews' of knowledge.

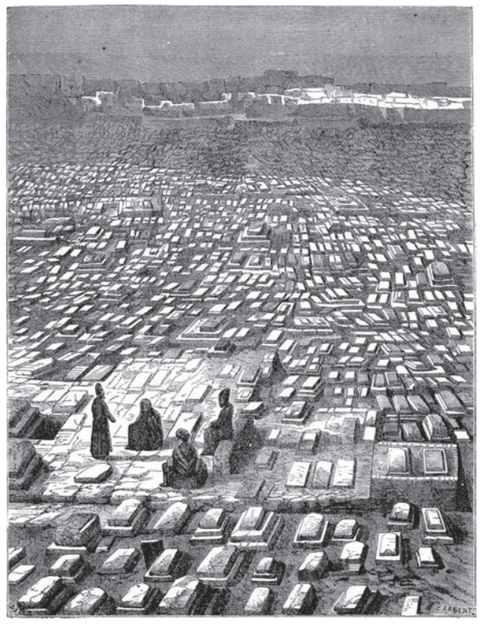
Through the big maps, one gained an overall understanding of the city, the context of the to be developed project. It could be said that it worked as a substitute for a site visit, but then ofcourse in a completely different way. Due to our distant view, the information that we extract from it is of an entirely different nature. It is not based on the experience of a specific place, but on the description of others' experiences or hard data. Comparing this distant way of working to the 'normal' way, I would state that one misses out on the specifics of a site, the details, the feeling, the atmosphere and the individual experience, but instead gains a more objective and overarching understanding of it.

The effort of making these maps, basically attempting to combine as much data and research as possible into an comprehensive image, teached me a lot about organizing the research. In one of the earlier lectures, Joost Grootens told us that the most important thing to remember in the making of maps is to define a base map, the underlayer for the specifically highlighted information. On top of that, the maps have different layers of information that become visible from different viewing distances. Because of these constraints, we had to decide what the base information was, the main concept that we wanted to show, and all the additional information that could be 'hung up' to the rack we created. In the end, this forced us to think deeply about all the data we found, and only extract the most important pieces. The process of making these maps was for thus the most important part. It is in this process when the organisation of knowlegde happens. Furthermore, by trying out many different configurations, a specific interpretation or conclusion starts to emerge, as each iteration makes for a more profound understanding of what is mapped.

Both of the maps fuelled the individual research. I did not only gain a specific understanding of the emergence and development of Mashhad, but it also let me to contemplate about the phenomenon of the modern city itself. Both maps show a tendency that moves from a local, collective and organically grown city or system to one that is extended and fragmented. After further elaborating on this in Chapter 2 of the theoretical paper, it formed an important part in the theoretical positioning and formulation of the design intention.

The interest for the theme 'Death' originated from the fact that the existence of the entire city of Mashhad is based on the Death of a person - i.e. Imam Reza. The research was set up as a 'catalogue', with the goal of gathering a rather broad spectrum of specific but also contextual information about 'death' in Mashhad. By mapping the literal manifestations of death in the city, like cemeteries, rituals, processions, tombs etc, and their development through time, general themes/trends were extracted that later fuelled the theoretical position that was taken. In the following pages, the main parts of the catalogue are exposed accompanied by a small description.

Image: Source: https://www.alamy.com/old-view-of-katlgah-cemetery-in-mashhad-iran-created-by-de-bar-after-image150198098.html



A drawing of the grand graveyards that surrounded the shrine, made by a traveller around the 1870s

'Within the enceinte of the town, are numerous cemeteries of immense extent far exceeding the requirements of the population'
(Basset in Darwent, 1871)

Individual research

1. Exploratory research

01 Death in the city

Muharram

Muharram is one of the four holy months of the year and the first month of the year in the Islamic calender. On the tenth day, the day of Ashura, the Shia muslims commemorate the martyrdom of Imam Hussein. The changing of the flag, is a changing of the sign. The flag changes the topological relation of the architecture (shrine) and death.

The processions usually start at the Husseiniya's which, go through the city, preferably through the bazar and then end in the Shrine.

The mourning ritual is extremely popular in Mashhad and is for example practised in the yard of the Goharshad mosque with candles and chest-bumping.

Formerly, performing the ritual included self-flaggation, but this is now prohibited.

From a theological approach, these religious rituals are perhaps a recreation of collective memories that help to shape what is known as collective identity, an essential foundation for a sense of belonging.

Source: https://www.tehrantimes.com/news/451790/A-glimpse-of-Muharram-mourning-rituals-across-Iran-Sham-e-Ghariban
https://www.tehrantimes.com/news/451790/A-glimpse-of-Muharram-mourning-rituals-across-Iran-Sham-e-Ghariban

Images: https://en.isna.ir/photo/99072921772/Black-flag-over-Imam-Reza-s-Holy-Shrine-replaced#17

During Muharram city gets 'taken over' by black flags, detailed with red and green colored texts. These photos are from a neighbourhood in Mashhad

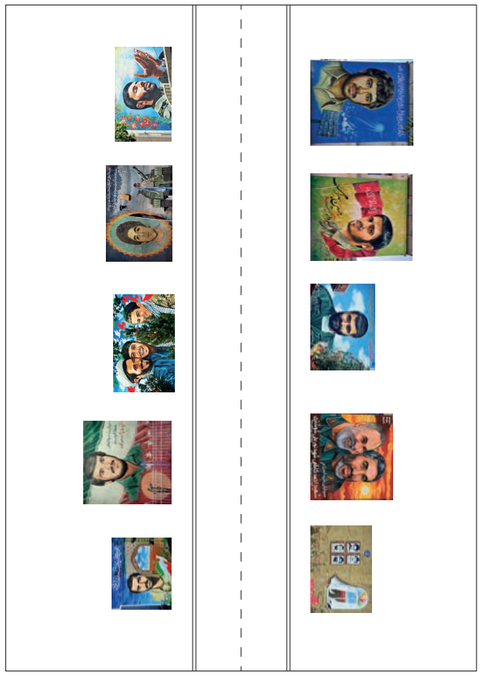
Image: https://iqna.ir/en/news/3464024/streets-in-mashhad-neighborhood-in-muharram

Martyrs

Self sacrifice is one of the main characteristics that define Iranians. A martyrs death has been regarded in Muslim countries as the most dignified way for people to leave the world.

Source: Surdykowska, S. (2012). Martyrdom and Ecstasy: Emotion Training in Iranian Culture. Cambridge Scholars Publishing.

Images: http://www.qudsonline.ir/photo/71423



01 Historical research

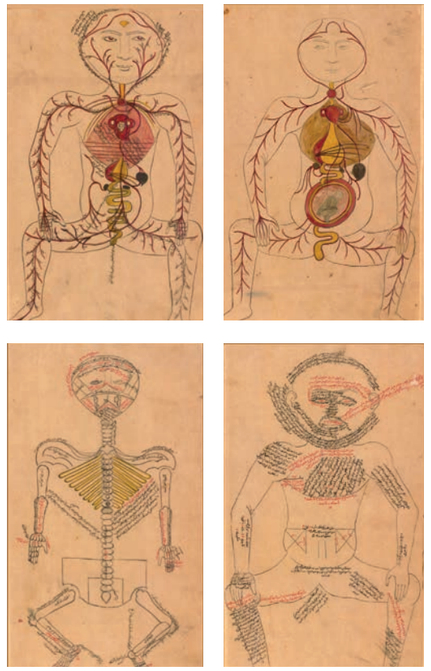
Historical research was done in order to get a better, contextual understanding of the Persian culture in relation to death. Two of the main findings were Persian anatomic drawings and 2 Iranian miniatures of the Persian poem Mantiq al-tair (Language of Birds). They were not only interesting because of their topics, but also because of their graphic style. The style of the Iranian miniature for instance, was later used in a mapping of the Behesht-e Reza cemetery.

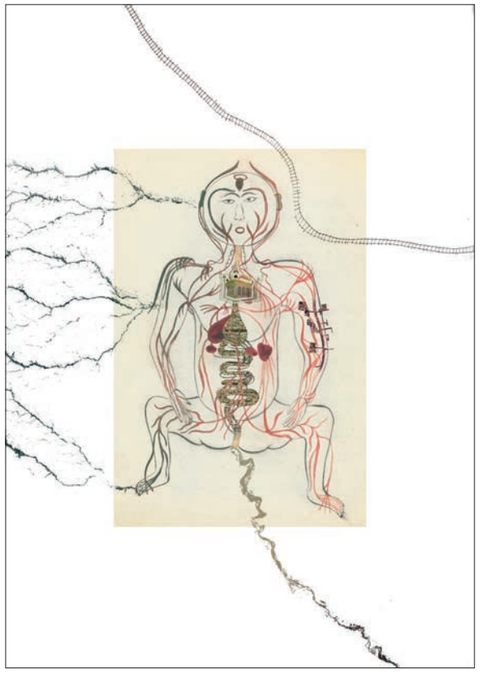
Iranian miniatures
Folio 35r. This illustration is associated with a story related by the hoopoe as a response to a bird who complains about his fear of death.

Persian anatomy
Jurjānī's medical encyclopedia, Zakhīrah-i Khvārazm'Shāhī (The treasure of Khvarazm'Shah) was the first major medical book in post-Islamic Iran written in Persian, and it soon became a primary resource for Iranian physicians, used for many centuries.

Image: https://iiif.wellcomecollection.org/image/L0031822.jpg/full/full/0/default.jpg

https://www.metmuseum.org/art/collection/search/451731





The city as a living body.
The city is attached to the rivers like drips in a hospital, is the city dying?
The city and its waste.

01 The Death of the Vitruvian Man

‘Now the naval is naturally the exact centre of the body. For if a man lies on his back with hands and feet outspread, and the centre of a circle is placed on his nave, his figure and toes will be touched by the circumference. Also a square will be found described within the figure, in the same way as a round figure is produced. For if we measure from the sole of the foot to the top of the head, and apply the measure to the oustretched hands, the breadth will be found eqal to the heigt, just like sites which are sqauared by rule.’ (Quote from Vitruvius Polio translated by Morris Hickey).

‘Vitruvius described architecture as scientia, which was a form of knowledge based upon mathematics. This was achieved using the human body, which provided a source of numeric relationships, or proportions, relating part to the whole. An extensive list of bodily features, including the face, palm, head, chest, head, chest, and foot, are connected to each other and to the height of the body through whole number ratios.’ The whole is normally described by a square an a circle, however in this depiction I ‘killed’ the Vitruvian man. His arms are put down and what is now described is not a perfect square, but the rectangle of a grave. This is to actually state how the body dimension is, logically, related to the dimension of the grave. In this way, the grave, based on human dimension, becomes a way of ‘measuring’ the landscape.

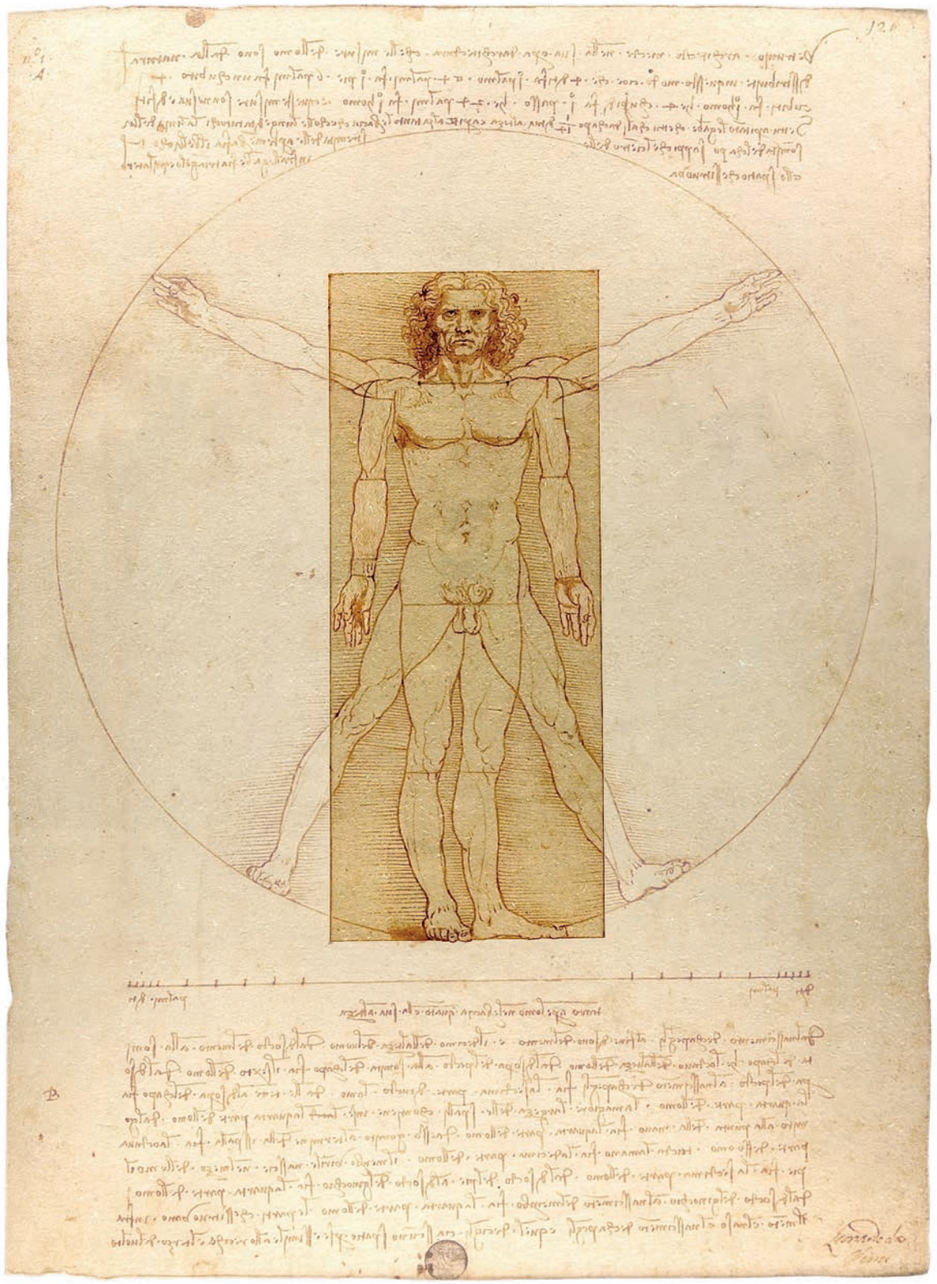
Furthermore, the square, which symbolises the mundane or worldly order is broken down into a rectangle an a-worldly order: the order of the underground. The total composition then reveales an a-worldly manifestation of transcendent order (circle).

Other thoughts: Death is restricting the body, confining movement.

The contrast between rigidity of forms and the human body

Text: Drake, S. (2002). *A Well-Composed Body: Anthropomorphism in Architecture.* School of Environmental Design University of Canberra.

Image: https://en.wikipedia.org/wiki/Vitruvian_Man#/media/File:Da_Vinci_Vitruve_Luc_Viatour.jpg



01 Mashhad, the embodiment of death

This mapping was made at the P1 presentation as a summary of all the themes that were explored in relation to death. The human shape is displayed as the understanding of the city as a body. The figure is moving to show the conclusive understanding of how the different materialisations of death invoke movement in the city.

1. The heart = The shrine
That what the body evolves around, that what keeps the body moving, alive. That what invokes movement.

2. The head = The display of the martyr
This shows at the one hand the visualisation of death consciousness in Iran, and at the other hand the literal represenation of death in the city. The gaze of the martyr, the city as a morbid museum

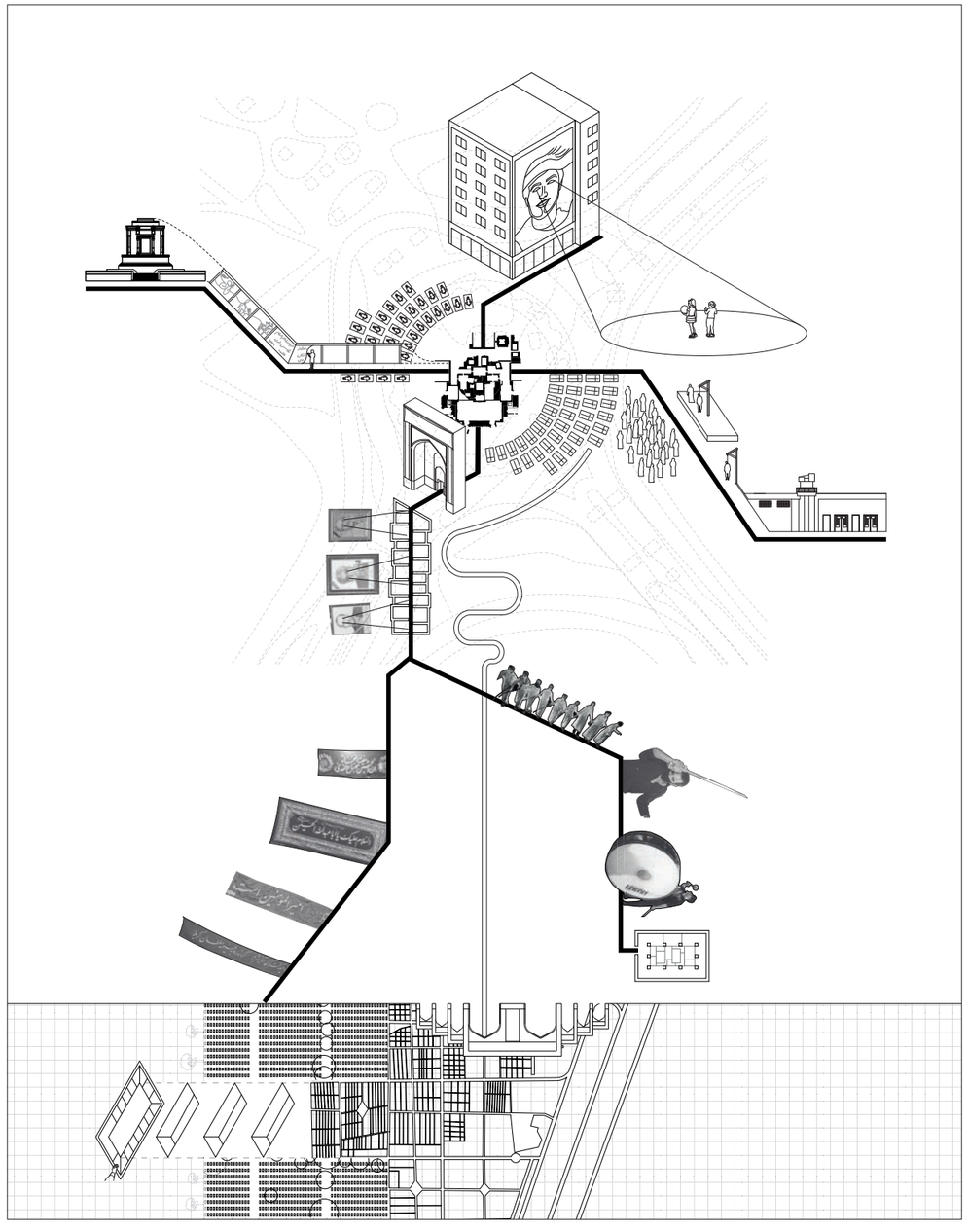
3. The arms = The conflicts
Left: Ferdowsitomb, built in the modernisation era, to lead attention away from the shrine and towards secularity. There is an ongoing tension between the shrine and the tomb, painting the Shanameh on walls in the city and the being removed by advocates of religion.
Right: Executions and even sometimes public, are still present in Iran. Practiced in relation to the Vakilabad prison. Death as a spectacle.

4. The backbone = The bazar
Arguably, it could be said that the bazar was the backbone of society in Iran before modernization. Bazaris proudly display their relatives in their shops. Processions of Muharram also pass through these shrines, under the gaze of the dead.

5. The digestion system = The funery ritual
The way to take distance from the dead body is by perfoming a ritual. Simultaneously it shows how the disposal of bodies in the city is looked at as waste.

6. Legs = The Muharram processions
The legs are the advocates of movement. Left: on this leg, it is shown how the city temporarily gets taken over by the black flags. As if the pirates raise the flag when they conquered a ship, the people of Iran when they take over the city. Right: The right foot symbolizes the space of the Tekyeh and Hussainiyeh, These places have a multitude of functions, but are mainly built for the Muharram commemorations. On the leg itself, different objects used in the processions are displayed, including fake swords that are used for ‘symbolic self-fleggation’.

7. Feces
The feces are dumped in a machine-like grave system that evolved as a city itself. It resembles the Behesht-e Reza cemetery and is situated outside of the city. This also shows the notion of distanciation.
The cemetery is ‘under ground’ to show the notion of going into another world, one that is closest to the dead. This is why emphasis is put on the entrance of this world through displaying the entry gate.



Individual research

2. Cemeteries in the city

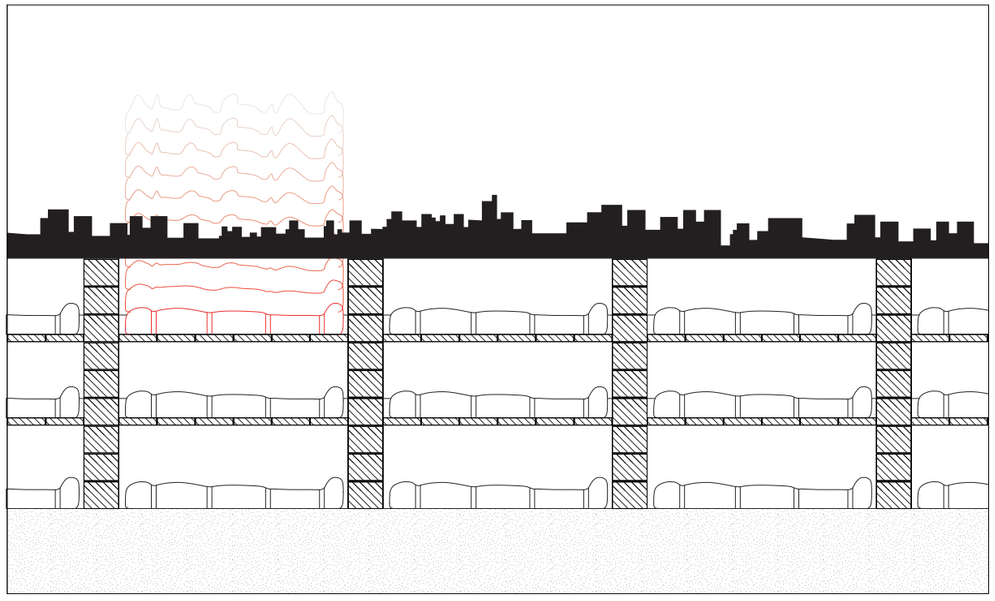
02 Cemeteries in Mashhad

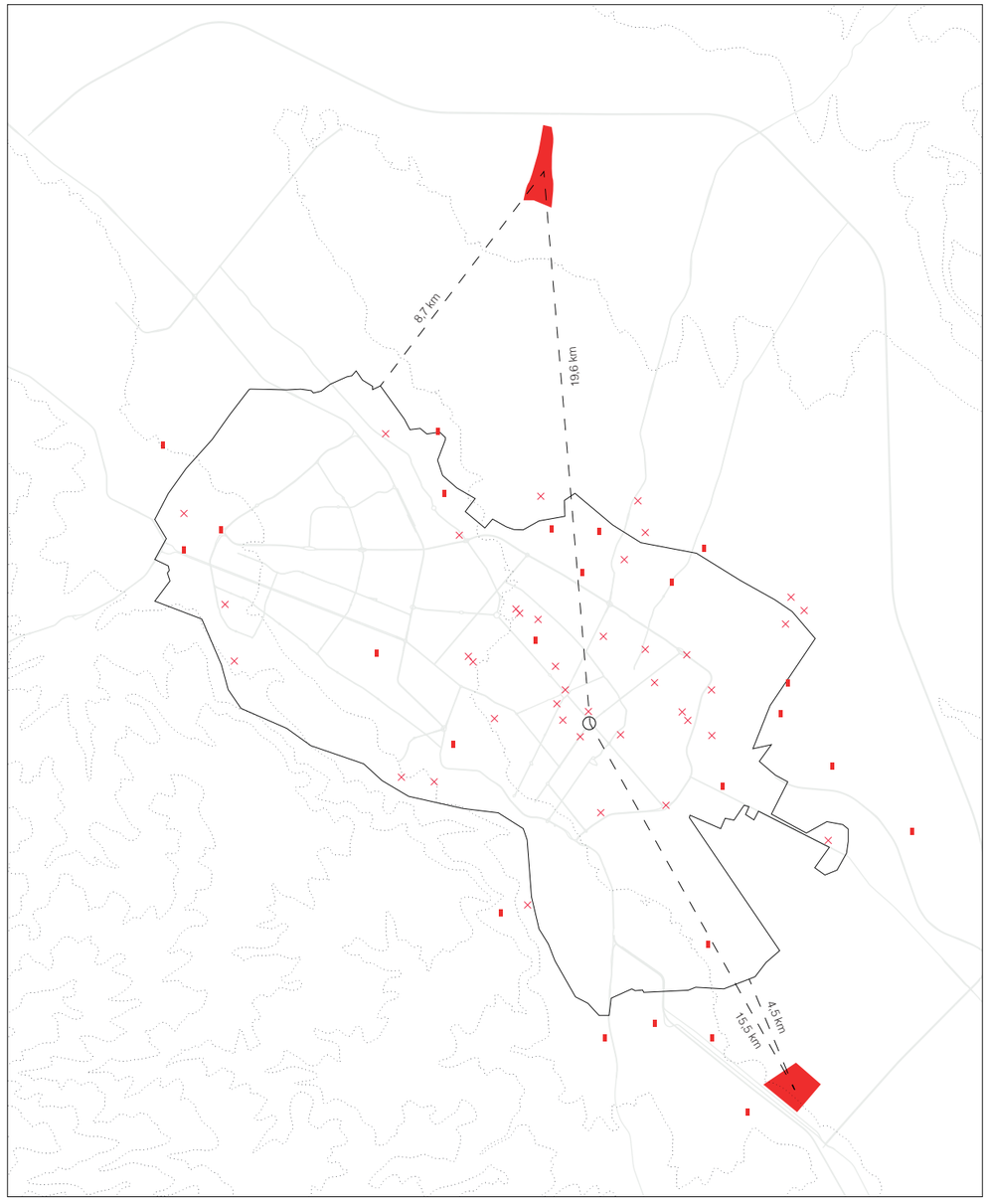
Scale 1: 200.000

Legend

Modern, centralized cemeteries
Old cemeteries
Demolished cemeteries
City outline
Highways
Contours

Source: Graveyards of Mashhad, 1970; Google Earth

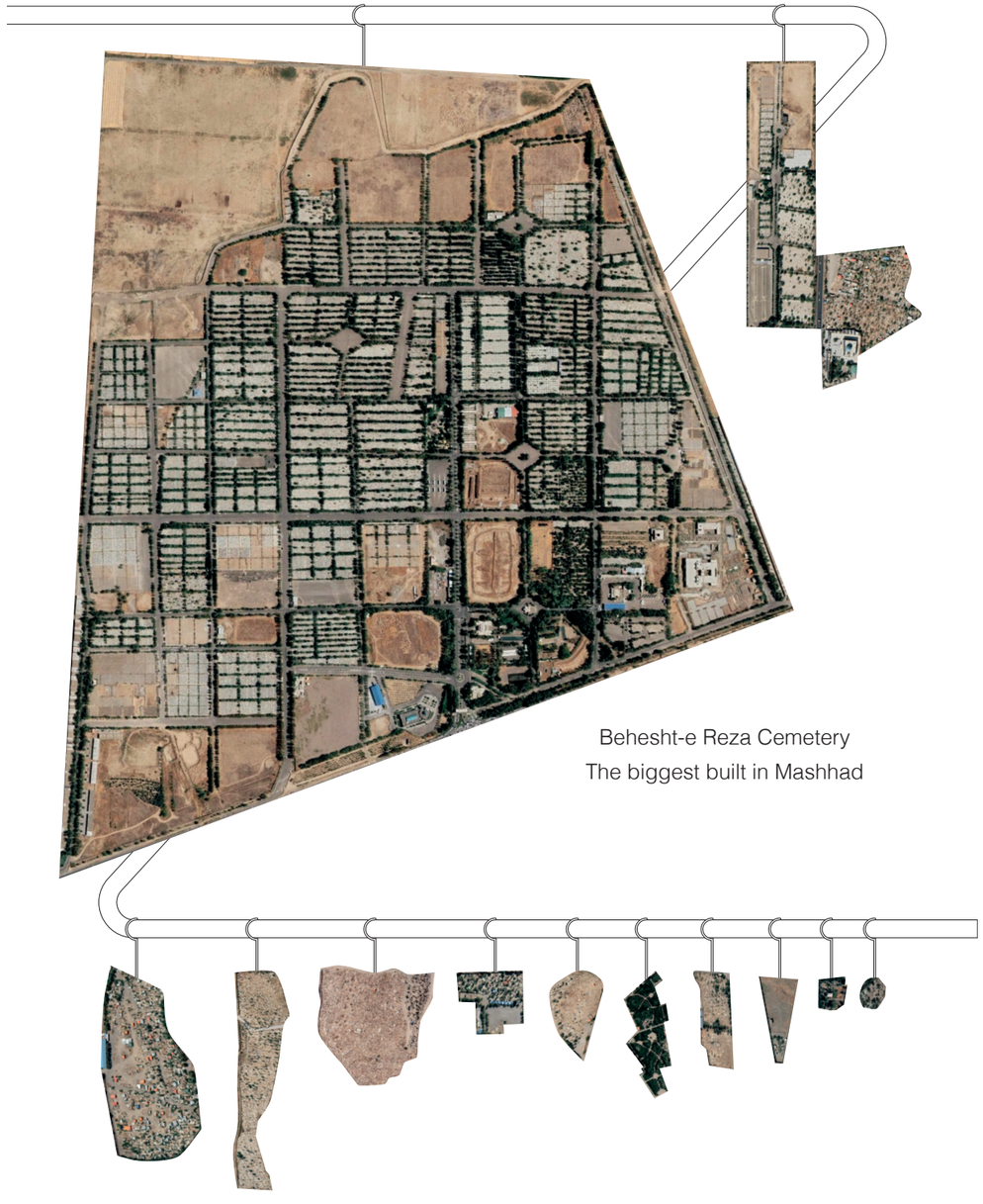




02 Slaughterhouse - a comparison of scale

Revzan Cemetery
The latest built in Mashhad

Source: Google Earth



Behesht-e Reza Cemetery
The biggest built in Mashhad

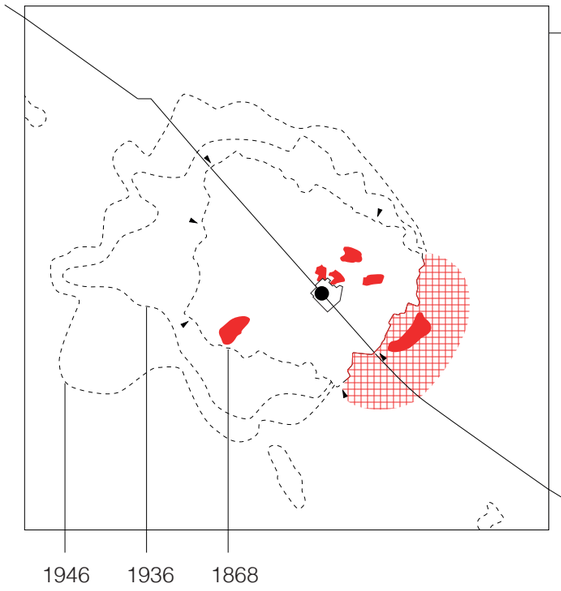
02 City development & cemeteries

Scale 1: 200.000

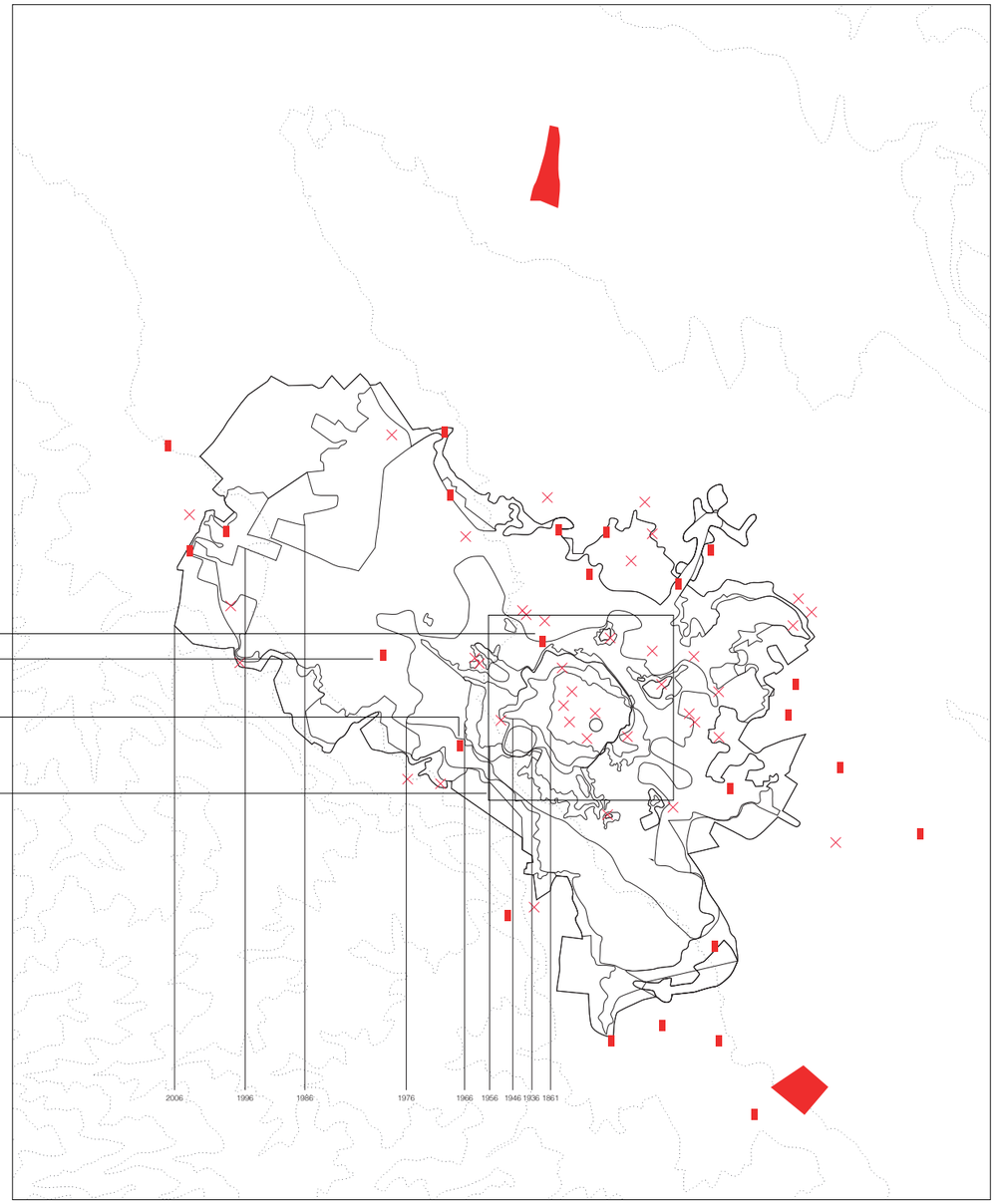
Legend

First cemeteries of Mashhad (around 1870)
Polluted area - pushfactor for development
Shrine
Gate
Old wall around shrine
City outlines

Source: Darwent, 1965; Graveyards of Mashhad (book); Google Earth
Image: https://www.alamy.com/old-view-of-katlgah-cemetery-in-mashhad-iran-created-by-de-bar-after-image150198098.html



Old Silk Road



Legend

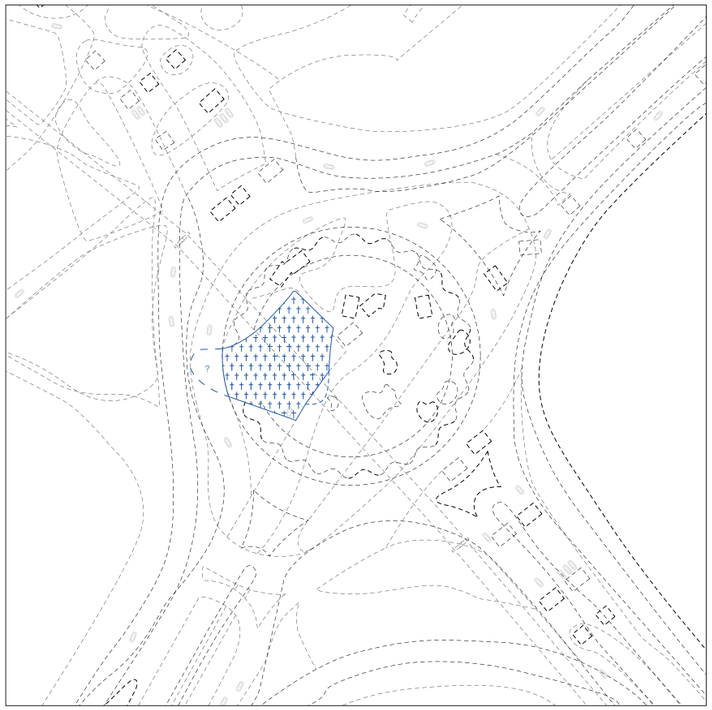
Modern, centralized cemeteries
Old cemeteries
Demolished cemeteries
City outlines (development from 1868 -2006)
Contours

02 Case study: Point of order

Scale 1: 2.000 (Right)

Legend

- *Grave (Left)*
- *Cemetery (Right)*
- *Tree*
- *Border of cemetery*
- *Plan outlines (2020)*
- *Plan outlines (2015)*



Case Study: Grave or Garden

Scale 1: 17.000

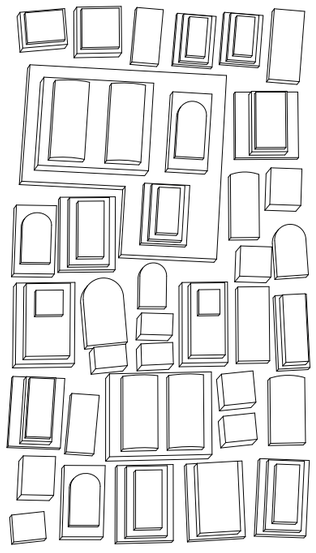
Legend

- *Cemetery*
- *Park*

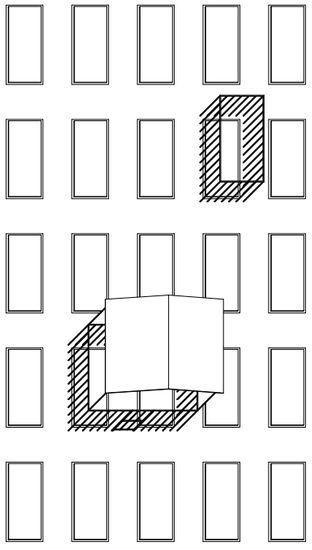
Source: Google Earth

2014 Cemetery

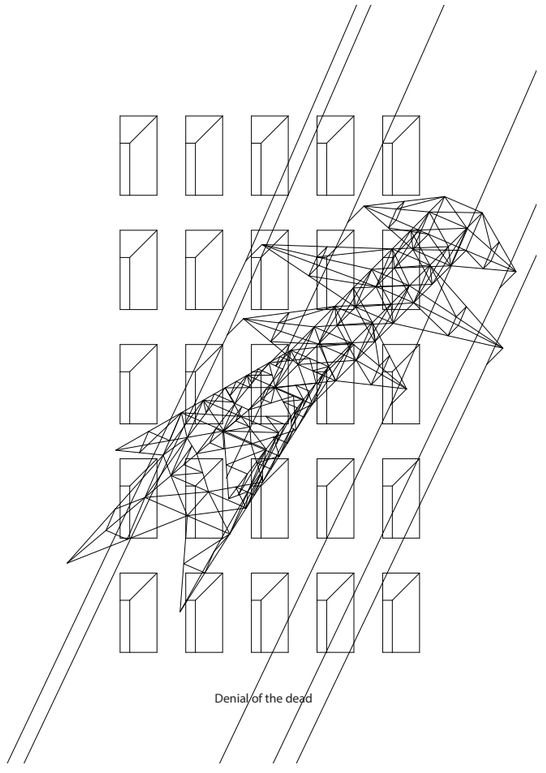
2015 Public park



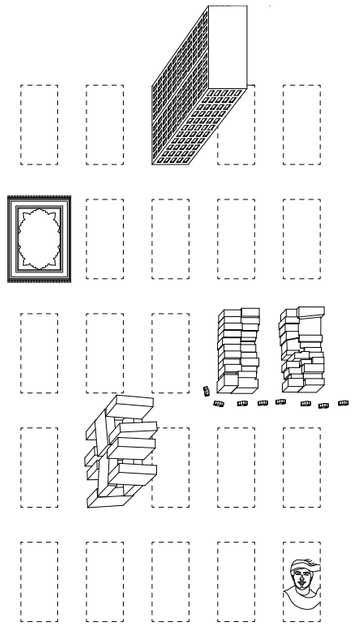
Graveyard of identi-
ties
Reflection of society



The imprisoned grave
The protected grave



Denial of the dead



Graveyard of typologies
Museum of monuments

Individual research

2. The modern cemetery

3. The modern cemetery

03 Distanciation - the urban fringes

Scale 1: 200.000

Legend

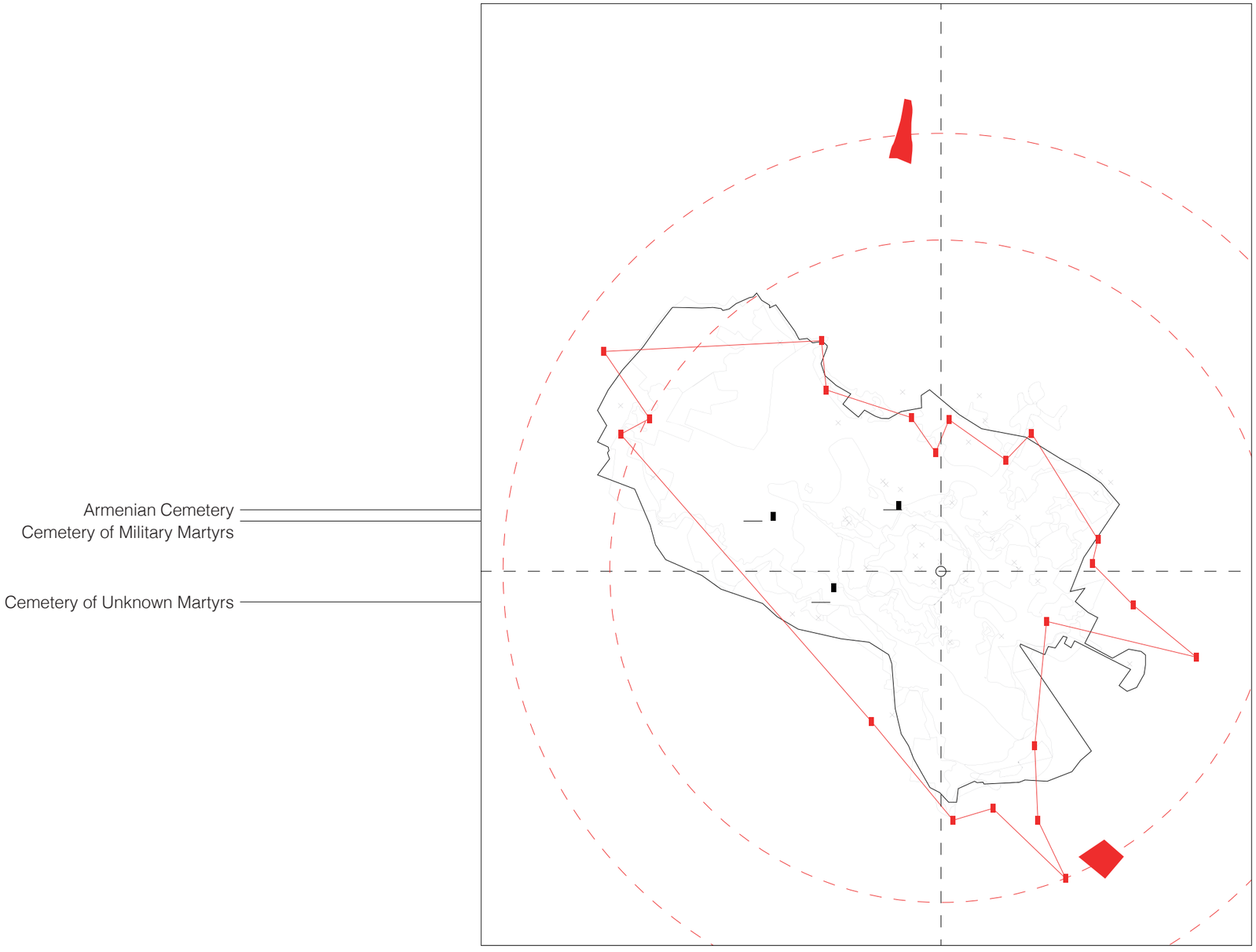
Modern, centralized cemeteries

Old cemeteries

City outline

City development

Source: Graveyards of Mashhad (book); Google Earth



03 Burial prices in Mashhad

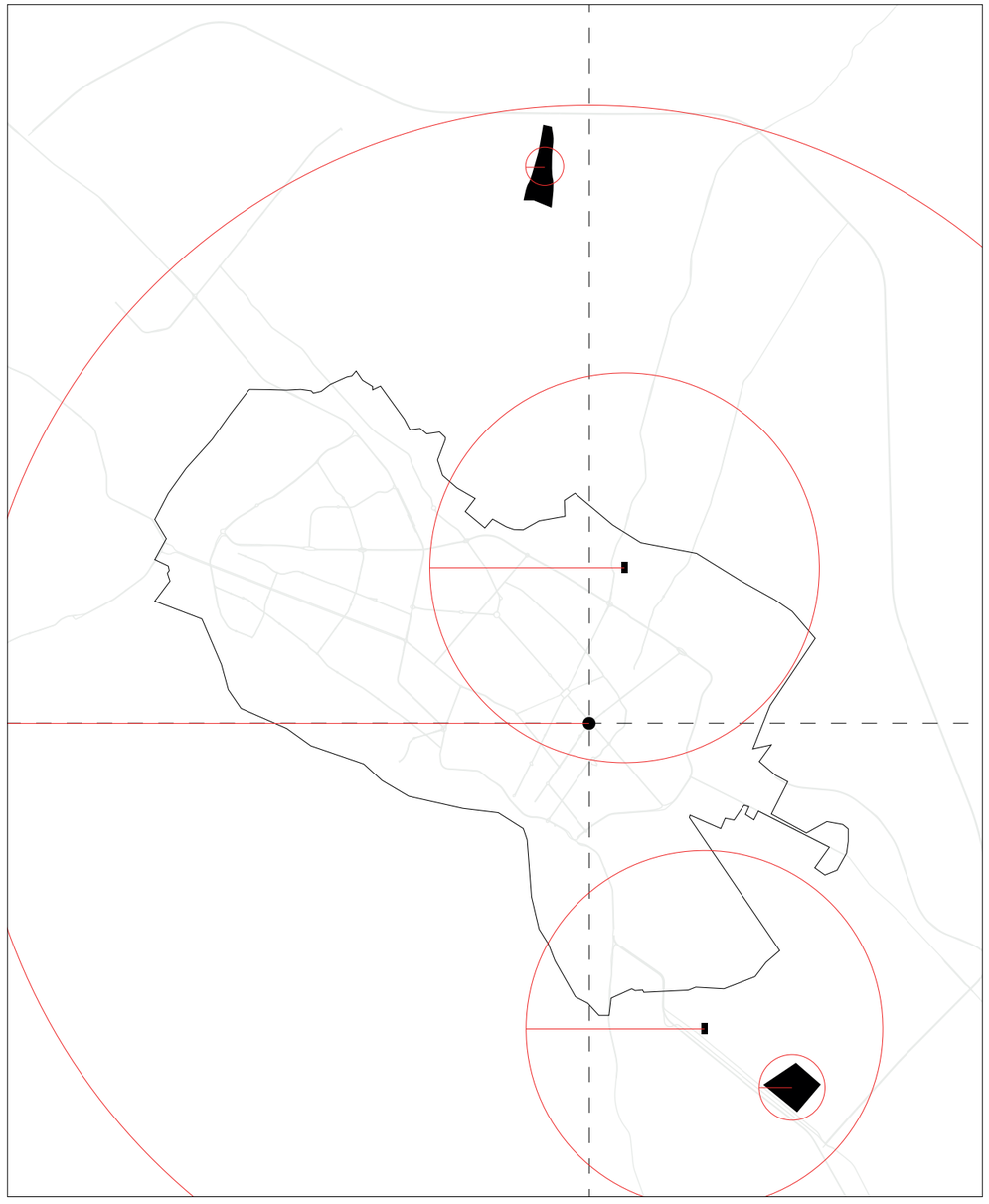
Shrine:	300.000.000	Tomans	(up till 700.000.000 Tomans)
	58.000	Euro	(135.000 Euro)
Khajeh Rabi:	30.000.000	Tomans	
	5.800	Euro	
Khajeh Abasalt:	26.500.000	Tomans	(up till 73.000.000 Tomans)
	5.100	Euro	(up till 14.000 Euro)
Behesht minimal:	808.000	Tomans	(free grave+burial costs)
	160	Euro	
Behesht special:	29.000.000	Tomans	
	5.600	Euro	(close to Mirza Jawad Mr. Tehrani)
Rezvan:	282.000	Tomans	(minimum prize)
	55	Euro	

Normal period of burial = 33 Years (confirmed for Behesht-e Reza and Rezvan)

The costs for Rezvan are lower at the moment as the municipality wants to attract attention to this cemetery as Behesht-e Reza is nearing its limits.

For comparison: the average price for a house of 100m2 in Mashhad would be around: 2.500.000.000 Tomans.
The price per 2 m2 (gravesize) would than be 50.000.000 m2. It is said that a grave at the Imam Reza shrine would cost as much as an expensive penthouse square meter price.

Sources: https://www.tashrifatsharif.ir/; https://jamejamonline.ir/fa/news/750833/; https://www.imna.ir/news/260686
Mirkatouli, J., Hosseini, A., & Samadi, R. (2018). Evaluating and analysis of socio-economic variables on land and housing prices in Mashhad, Iran. Sustainable Cities and Society, 41.; https://ttbehesht.com/%D9%82%D8%B%8C%D9%85%D8%AA-%D9%82%D8%A8%D8%B1-%D8%AF%D8%B1-%D9%85%D8%B4%D9%87%D8%AF



Legend

- *Behesht-e Reza and Revzan (Bottom/Top)*
- *Khajeh Rabi*
- *Shrine*
- *Burial costs (area of circle)*
- *City outline*

03 Placement

Scale 1: 200.000

Legend

Modern, centralized cemeteries
Section
City outline
Distance to shrine

Geology

Silt
Clay
Silty clay
Sand
Coarse sand

Leucogranite
Dolomite
Terraces
Stone outcrop
Shale stone dark
Shale stone Phitilic
Recent Aluvium
Sandstone

Source: Graveyards of Mashhad, 1970; Google Earth

Placing

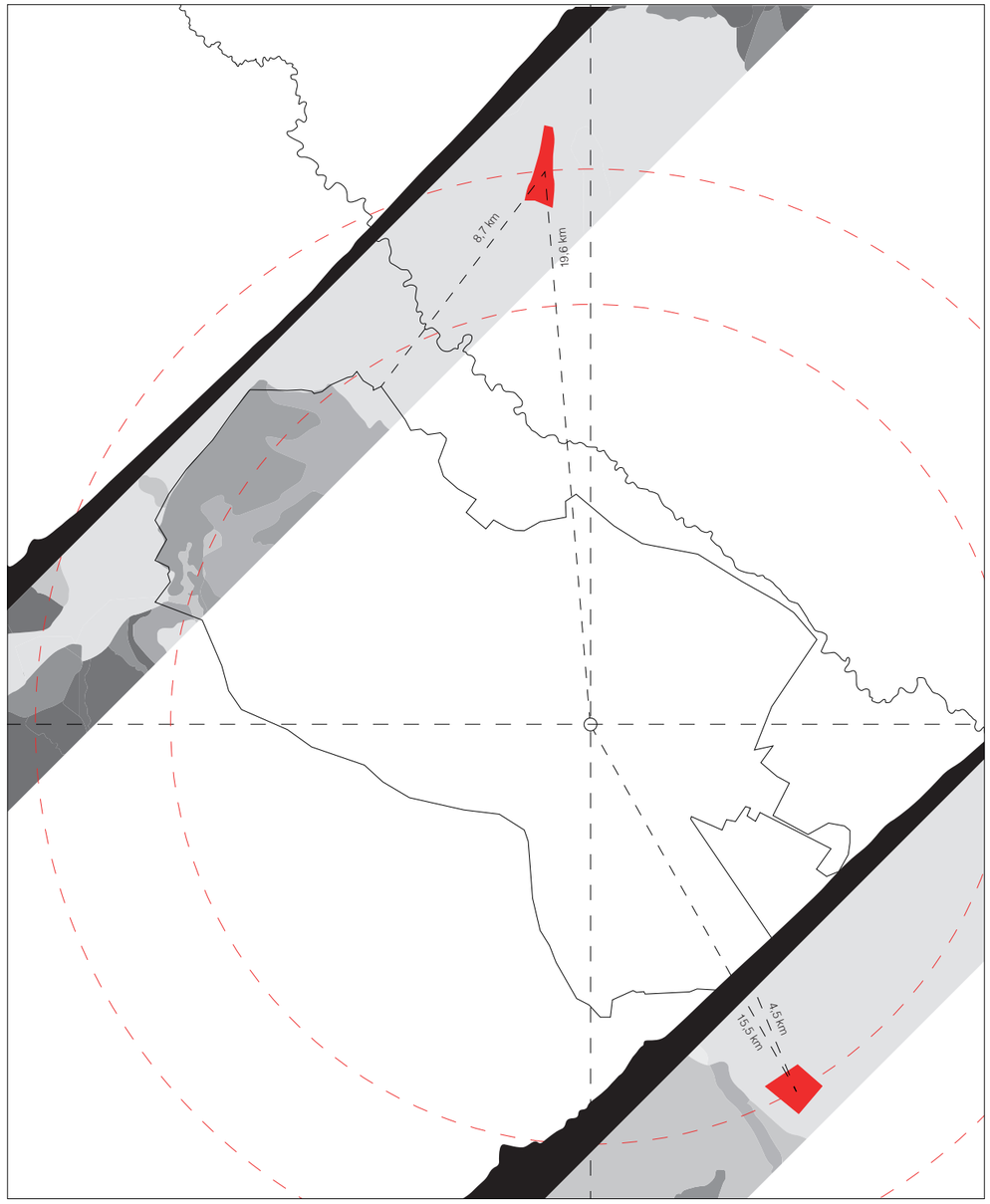
- The cemeteries are placed on ‘soft’ ground, both on ‘Silt’. This ground is easy to remove for building the gravestructure in it.
- Furthermore, the cemeteries are placed on relatively flat ground with a slight tilt so that the surface water does not stay but flows off. If the surface water would not be able to go away, the pollution would be even higher.

Distanciated from the city

- Due to various pollutants, the modern cemeteries can only placed with distance from the city (at least 5km).
- A cemetery within city limits would cause depression for those who live close (Goli et al., 2016)
- Traffic due to the large amounts of people who go there during holidays

‘The people of Mashhad are relatively depressed compared to the people of other cities of the country and should look for happy uses, correct lighting and positive designs, should not create a cemetery near the places where people are supposed to have daily activities, causing a sense of frustration, laxity, disability and despair in people, now the world is going to create happy cities, people’s morale should be promoted.’

Source:
Goli, A., Rahmani, T., Fakhrabadi, M. A. (2016). A place for the underworld, identifying areas prone to the construction of a cemetery in Shiraz, 7(25), 43–62.
http://sobhanehonline.com/fa/news/61216/
https://donya-e-eqtesad.com/



03 Behesht-e Reza

Scale 1: 15.000

Legend

- *Buildings*
- *Parking/Public transport (Bus)*
- *Playgrounds*
- *Family graves*
- *Roads*
- *Footpaths*

Source: Google Earth

The cemetery was built in 1976.
The land was originally owned by the Astan-e Qods.

The cemetery is around 161 hectare and has:

- 55 blocks
- 124 familiy burial places
- 2 mosques
- Several Hoseinieh
- A waiting room
- A goodbye room
- Shops related to the funeral ceremony and food
- A medical clinic
- Several toilets
- Bus terminal
- Parks & playgrounds

Around 300.000 people have been buried here.
Daily around 10.000 people visit the cemetery
On religious holidays 30.000-40.000 people visit.

It has 2 deep wells to provide the required water.

Before, the graves were all mixed: families, children, unknown people etc.. Now they are all seperated in their own blocks.

There are a few places with allegedly have massgraves. On these spots, political prisoners that were killed during the mass killing after the revolution in 1988, were buried in secret.

Source: Graveyards of Mashhad (book)

1. Gravestone shop
2. ?
3. Restaurant
4. Administration
5. Admission
6. Husseiniya
7. Waiting room
8. Washing room
9. Shops
10. ?
11. ?
12. ?
13. Prayer room/Husseiniya

03 Zoning

Scale 1: 15.000

Legend

- *Buildings*
- *Parking/Public transport (Bus)*
- *Playgrounds*

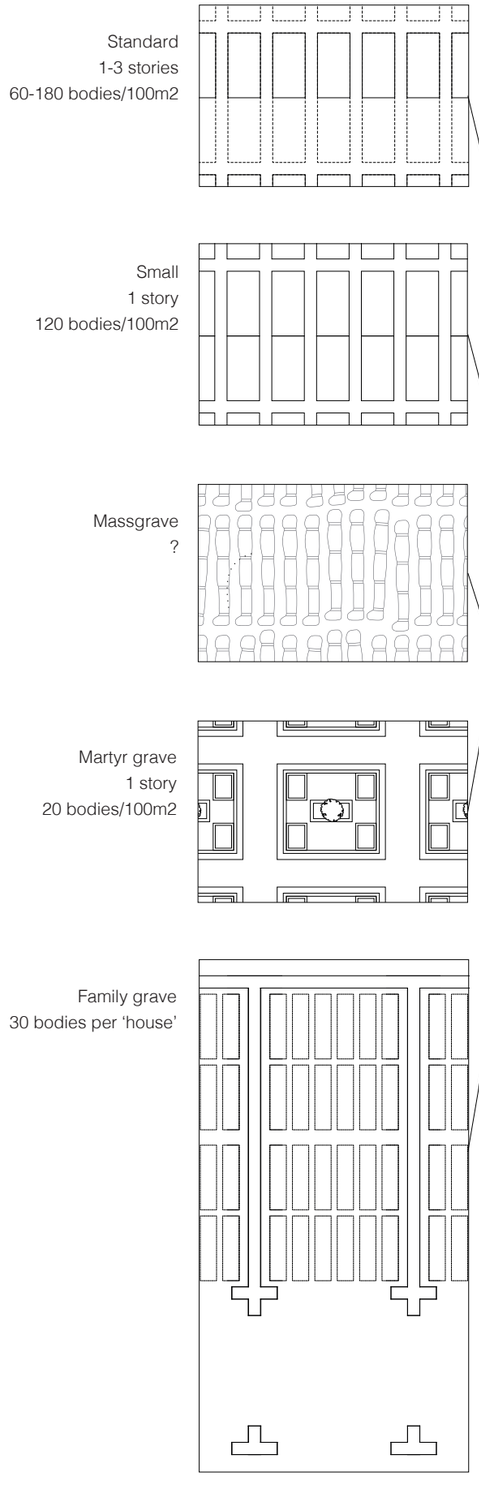
- *Standard graves*
- *Martyrs*
- *Children*
- *Family graves*
- *Mass graves*

- *Assumed main way of entering cemetery*
- *Roads*

Source: Google Earth

The graves of the Martyrs and the children seem to be placed most central as they are arguably most special. The standard graves take up the most space and are placed around this centre. The mass graves are situated at the fringes (in comparison to the city, again the ‘unwanted’ seem to be placed at the outskirts). However, the family graves form a physical border at the sides of the cemetery and are placed in a linear way.

Most of the buildings are placed close to the entrances of the cemetery.



03 The funeral ritual

Time	Place	People	Event
Day 0	Hospital/ Home	-	Death
	Hospital/ Home	Hospital or medical examiners	Death certification
	-	Relatives	Calling out cemetery for arranging the burial - burial permit
	Hospital/ Home	Small crowd	Procession to ambulance
	Ambulance	Transportation team	Deceased brought to cemetery (sometimes they are brought to home first, but this is not practical in high-rises.
	Morgue	Transportation team	Body arrives in cemetery
	Waiting room	Administrative personell - Mobashers	Relatives present death certificate and burial permit to get ablution permit and an assigned grave. (body can additionaly be brought to the shrine for taqwaf) (railsystem in Tehran cemetery)
	Ablution/ Purification hall	Corpse washers: Supervisor, two assistants	Purification: 1. Bathing the body three times using camphor, dried cedar leaves, and plain water. 2. Anointing the body with more camphor.
	Cemetery	Specialized body wrapper	Wrapping the body with three pieces of cloth. (usually cotton) (railsystem in Tehran cemtery)
	Prayer hall	Clergyman	Prayer (12 corpses at same time in Tehran)

Washing process steps

1. Head and neck
2. Right side
3. Left side

This is performed three times respectively using
1. Water and cedar
2. Water an camphor
3. Pure water

An automatic washing machine is installed at Behesht-e Reza for purification of the deceased.

‘The corpse is placed on a rail and is washed through automatically controlled nozzles.’

Reasons
- Efficiency: ‘The corpsewasher is rooted in a history of standaristaion.’ & ‘It uses 500-00 litres of water, this device only used 50/60 L. Traditional method takes 55 minutes, this one takes 20 minutes.
- Distanciation: ‘Washing the dead is something people do not like to do.’

‘The Ayatolla approved the use of this device and saw it as ‘unproblematic’ under the condition that a Muslims pushes the botton, he/ she intents proximation to Allah while doing so and the corpse is washed according to the steps that are prescibed in Islam.’

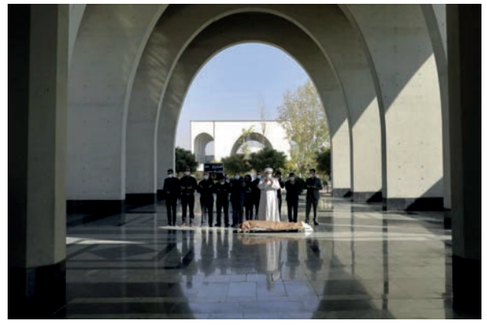
One article also mentions that the machine is mainly used during moments of crisis (earthquakes or corona). From other sources it seems that this is just the way they do it now.

Images: https://khabarban.com/a/21188031
Text: Doostdar, H. M., Doostdar, H. M., Shah, M. H., & Sattari, H. (2014). A stylish burial: Tracking the Socio-Technical Aspects of Death in Iran. Journal of Development Studies, 50(6), 855–863.
https://www.dana.ir/news/864899.html
http://sobhanehonline.com/fa/news/61216/

03 The funeral ritual

Time	Place	People	Event
		and relatives	
	Cemetery	Transporation team	Transfer to burial place. (The coffin or stretcher is carried toward the grave in three phases and is lowered to th grond three time, the third time at the gravesite.)
	Around grave	Maddah	Ritual prayer. Speach, reciting poems and singing berievement songs.
	Around grave	Relatives	Final visitation. (the shroud is lifted, the last time that relatives see the deceased.)
	Around grave	(Secular musicians)	(Music)
	Grave	-	Corpse put in grave (laying the body to rest directly in a grave on its right side facing Mecca, using a clump of soil to prop up the head.
	Grave	Close relative	Talghin: During talghin a family member holds the shoulders of the deceased inside the grave, shakes it firmly (to arrouse the attention of the deceased), calls him/her by name and recites testaments of faith in his or her ear in order to prepare them for the questioning that the deceased are believed to undergo in the first night after burial.
	Grave	-	Flat table stone is positioned to protect the head
	Grave	-	Filling the grave
< Day 1			
	Around grave	Relatives	Grave is sprinkled by water, covered with a black drape, and marked by a temporary

Washing and wrapping the body



Putting the body down multiple times

Procession to grave

Procession to grave

Last goodbye's

Body put in grave

A burial in Behesht-Zahra Tehran during corona.

Images: https://www.beaumontenterprise.com/news/article/In-Iran-a-massive-cemetery-struggles-to-keep-up-15718154.php#photo-20243417

03 The burying ritual

Time	Place	People	Event
			marker
Day 1 After burial	Around grave	Relatives	People usually linger around the graveside because they believe that it is only after the burial that the deceased realizes that they are dead - he or she tries to get up and leave but his or her head hits the flat stone, causing panic of fright. They stay around until the deceased accept his or her predicament.
Day 1 Evening	-	Relatives	On that evening, people usually perform a special prayer of fright, which again meant to help the deceased through the frightful questioning,
Day 2 Dawn	Around grave	Relatives	At dawn on the following day, they visit the grave to bring the good news to the deceased that the frightful night is over.

Relatives visit the graves, have picknics, read passages from the Quran, clean the stones etc.

Source: https://mcm.mashhad.ir/media_gallery/2286020

03 Construction methods Behesht-e Reza

Graves are constructed by freeing up a plot of land and then filling it in with a new structure made of bricks. The bricks are finished with a layer of cement. The older graves have one story, the newer ones have two. Construction work is mainly done by Afghan migrants (?).

Source:
https://mcm.mashhad.ir/media_gallery/1228810
http://www.qudsonline.ir/news/33280

The usually black marble gravestones are placed later which makes the whole plot one big surface.

Source:
https://mcm.mashhad.ir//parameters/mashhad/modules/cdk/upload/content/media_content/273384/image4337.jpg
https://mcm.mashhad.ir/media_gallery/1210419

Other methods used in Iran

Other methods of constructing the graves are using hollow cement blocks or casting it on site. The top picture shows the construction method in Behesht-e Zahra Cemetery, with graves of 3 stories.

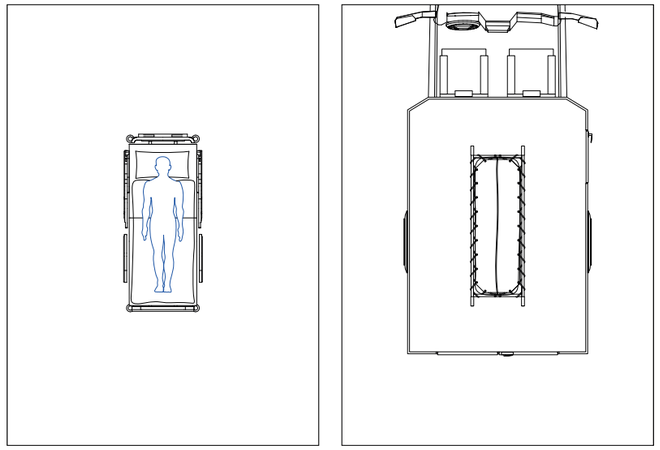
Source:
http://newspaper.hamshahrionline.ir/id/30705
https://mcm.mashhad.ir//parameters/mashhad/modules/cdk/upload/content/media_content/159310/image16811.jpg

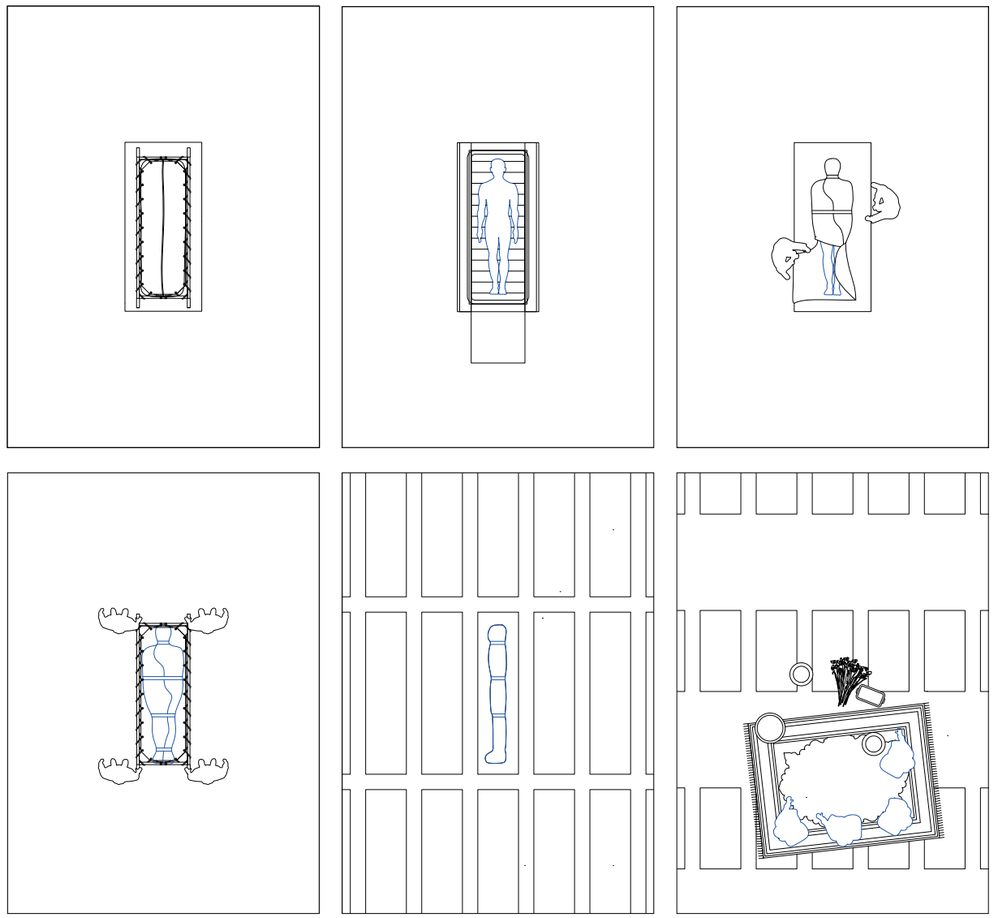
The latest developments are structures made of concrete pre-fabricated parts, these have four stories.

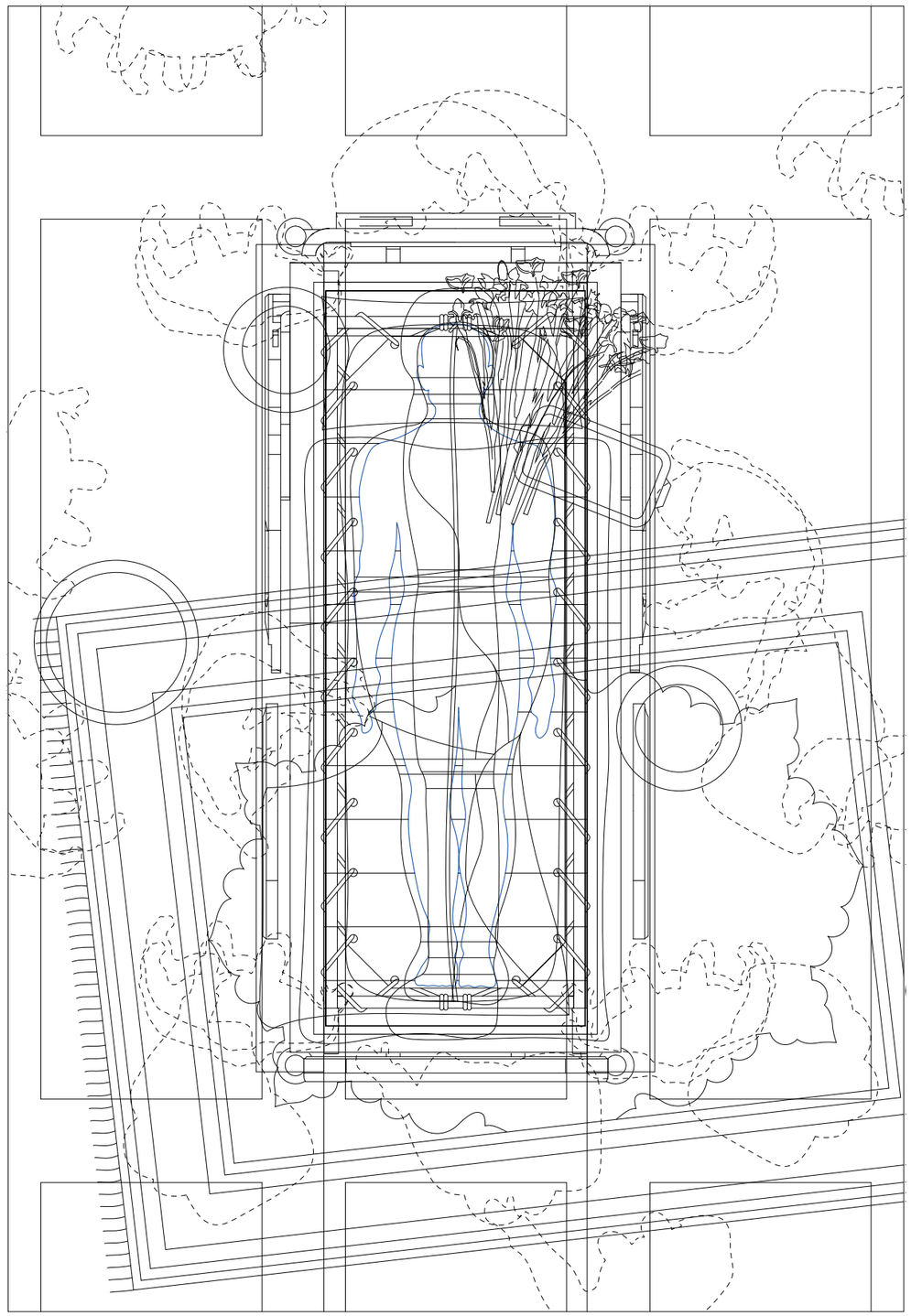
Source:
http://dokalbeton.blog.ir/1395/10/09/
https://mcm.mashhad.ir/media_gallery/1142707988

03 Movement around the body

1. Hospital
2. Ambulance
3. Morgue
4. Washing machine
5. Wrapping
6. Procession
7. Burial
8. Visitation







03 Behesht-e Reza - Plot 62

04-2010 - Plot

09-2018 - Clearing the plot

01-2019 - Infill, structure

03-2019 - Infill, structure and first burials

11-2018 - Infill, structure

12-2018 - Infill, structure

07-2019 - Burials

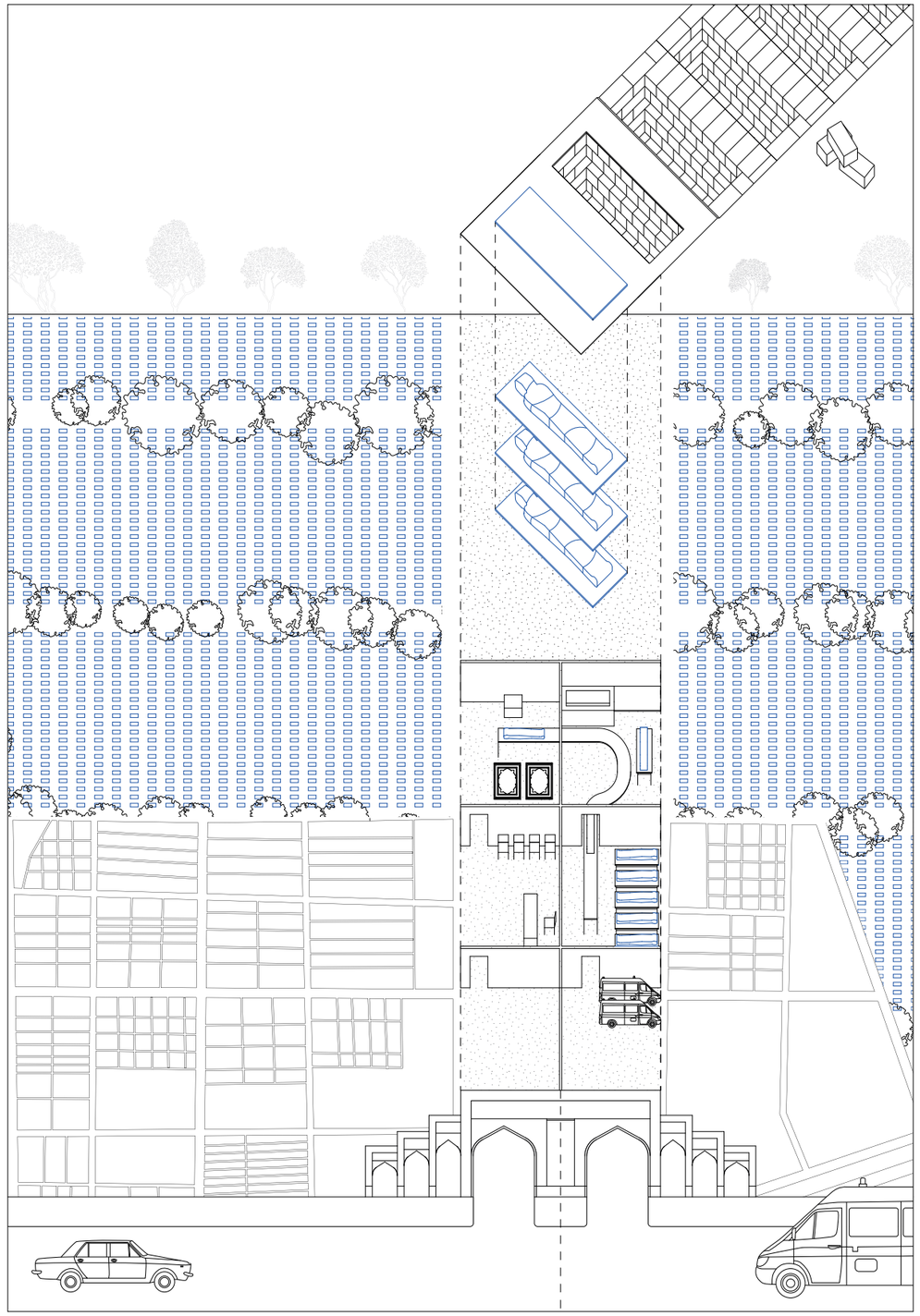
10-2020 - Burials

03 Massproduction Paradise

To show the ‘mass’ of graves in this cemetery, different scales have been alligned sequentially. Behind the gate to ‘paradise’, an organised grid of roads unfolds itself to an organised grid of graves. The newest plots contain a few stories.

The small structure that is built up at the centre represents the two routes of body and relatives. The body is seperated from the relatives at the hospital and reconciliated when brought to the cemetery plot.

When Behesht-e Reza opened up, no one wanted to be buried at this place as it was so far away from the city. To stimulate people to come, a Peykan car was promised to the relative of the first one to be buried here. This greatly represents the modernist time, when the city was fully adapted to the car. Similarly this cemetery is also designed on the use of cars.



Individual research

4. Tombs in Mashhad

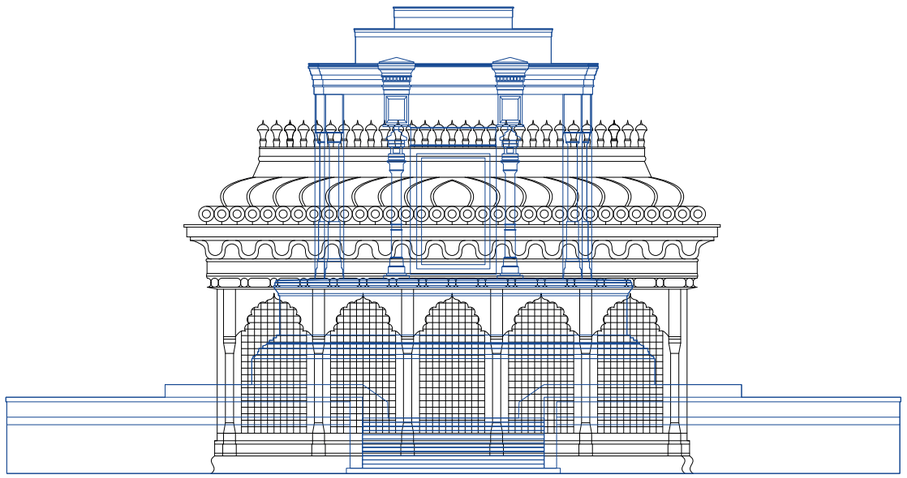
04 Tombs in Mashhad

Scale 1: 200.000

Legend

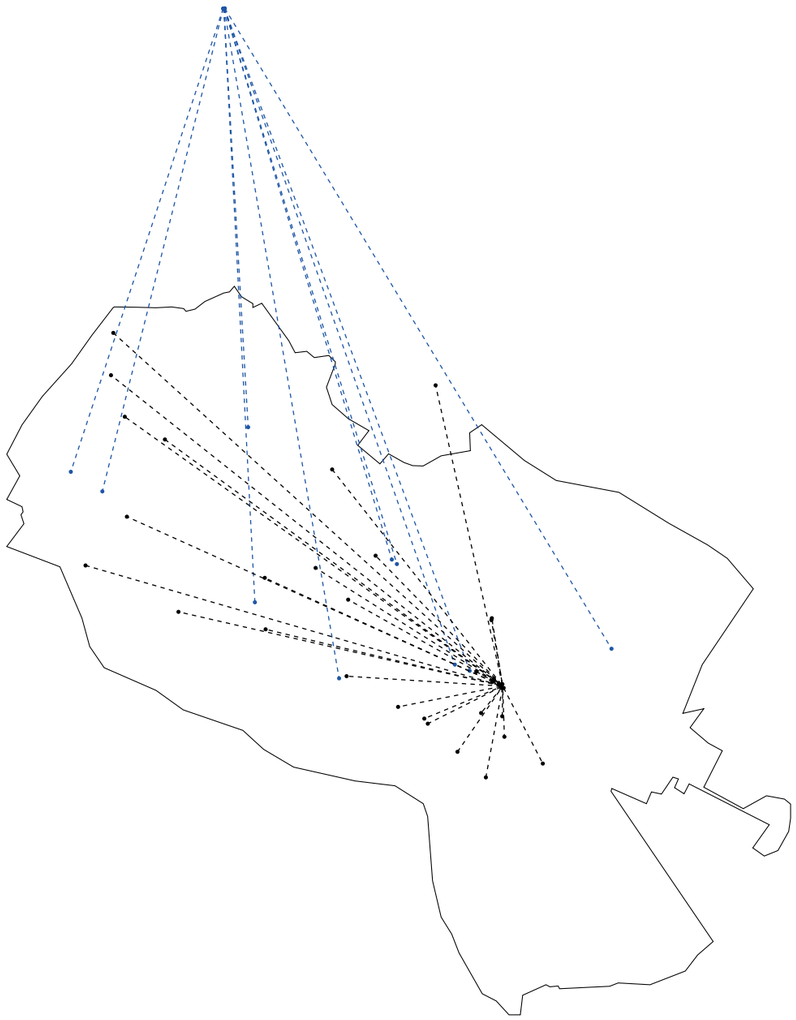
- *Shrine*
- *Tombs*
- *City outline*
- *Highways*
- *Contours*

Source: Graveyards of Mashhad (book); Google Earth



Imam Reza
Ferdowsi

04 The Impeccable Imam vs. The Precious Poet



Imam Reza Square
Ferdowsi University of Mashhad
Imam Reza Arena
Ferdowsi Square
Golestan Imam Reza Hotel
Ferdowsi Square Bus Station
Complex Imam Reza (I)
Ferdowsi Shopping Centre
Complex Imam Reza (II)
Herbarium of Ferdowsi Ferdowsi University
Imam Reza Complex
Ferdowsi Hall
Imam Reza Hospital
Ferdowsi Hotel
Mosque and Hussainia Imam Reza
Ferdowsi Institute
Imam Reza Hospital Mosque
Ferdowsi Cultural Institute
Imam Reza Mosque (I)
Ferdowsi Business School
Imam Reza Mosque (II)
Ferdowsi International Academy of Research
Imam Reza Mosque (III)
Information Centre and Central Library of Ferdowsi University of Mashhad
Imam Reza Mosque Library

Mosque of Imam Reza Soccer Field

Clinic of Imam Reza

Imam Reza International University
Imam Reza School
School of Imam Reza
Imam Reza Historical Shopping Mall
Dorm Girls Imam Reza
Imam Reza Charity Foundation
School of Architecture and Islamic Arts University of Imam Reza
Imam Reza High school
Imam Reza Dentistry Clinic
Guest House and Zaisara Imam Reza
Central Imam Reza Shopping Mall
Garden Endowment Imam Reza
Husseiniya Imam Reza
Imam Reza Medical Centre
Rezvan Campus Of Imam Reza International
Cultural Educational Complex Rehabilitation Imam Reza

04 Ferdowsi's Tomb, The origin

Hakim Abol-Ghasem Ferdowsi Tusi, the author of the epic poem 'Shanameh' or the 'Book of the King', was buried in the small town of Tus in the northeastern province of Khorasan in **1020**.

After the destruction of his tomb in **1926**, the reconstruction of a new mausoleum for Ferdowsi was the first national project in a series built under the supervision of Resah Shah and his Ministry of Public Instruction.

The German Orientalist Ernest Herzfeld, the French archeologist Andre Godard, and the German trained Iranian architect, Karim Taherzadeh served as the principal designers of the tomb. The new tomb was inaugurated on 12 october **1934** as an integral part of the millenial celebration for Ferdowsi and the defining moment of the 'nation's renaissance'.

Reza Shah advocated what he called 'Persian architecture', a style that involved reinvigorating elements of Iran's ancient past to create a new national identity. (...) According to the art historian Talinn Grigor, the project offered a nearly pure expression of authoritarian modernization.
Its final iconography blended aspects of both Parthian mausoleums and the Zoroastrian tomb of Cyrus the Great in Pasargadae.

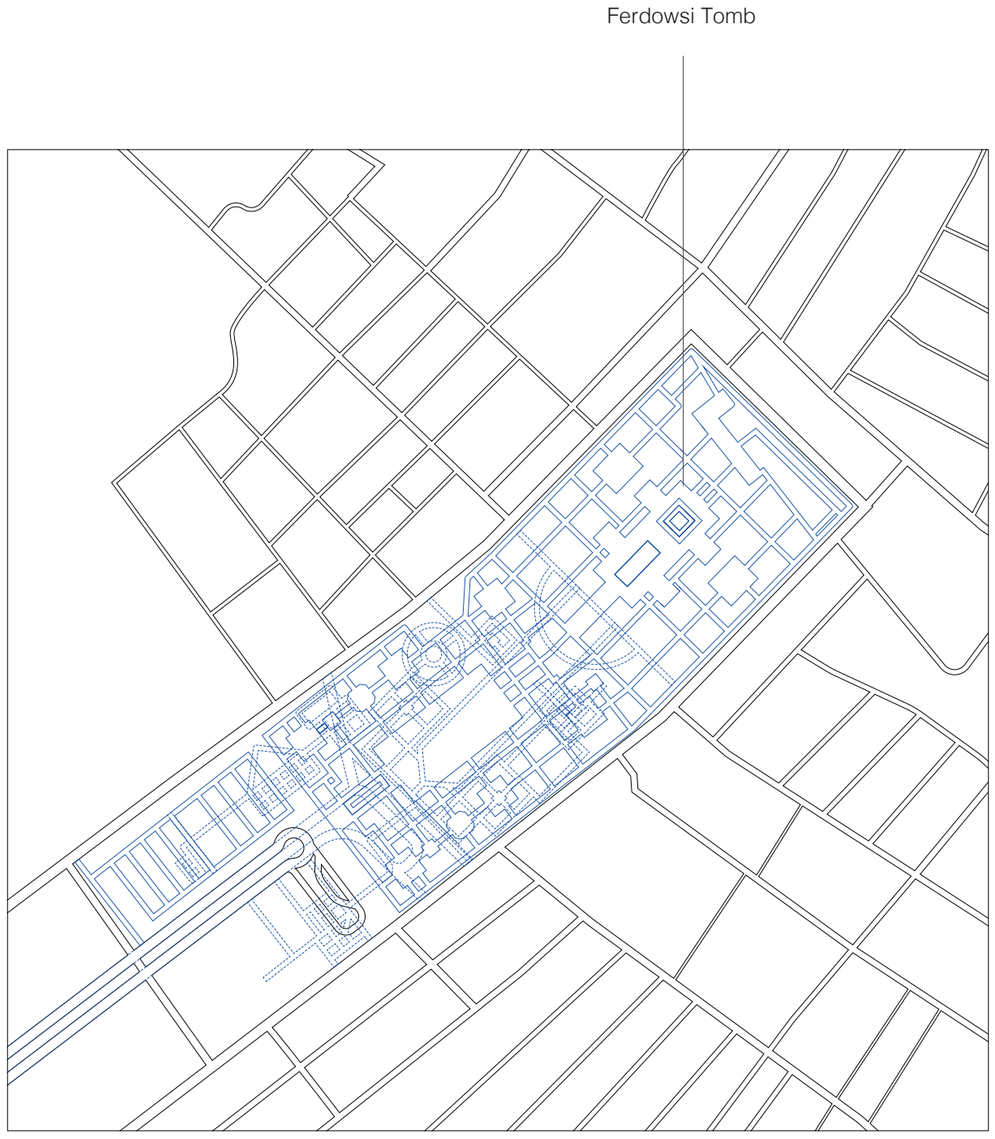
One of the architects of the Institute of National Heritage, Mohsen Forughi, was involved in the (re)construction and expansion of the complex thirty years late, in 1964, Mohammad Reza Shah and Queen Farah Pahlavi reinaugurated the tomb on 30 April **1964.** The heavy construction was damaged because of subsidence.

As an embodiment of the rivivalist and modernist ideologies in Reza Shah's ara, the landmark was meant to function as a pilgrimage site, to satisfy the Shi'a ritual of visiting saints' tombs.

Although the monument contains explicit Zoroastrian and Achaemenian iconography, Ferdowsi's tomb remains fundamentally modern in its funtion, composition and narrative quality.

At the core of the Pahlavi 'pride', around which the imagined Iranian nation was exulted before the Revolution, the tomb came unde rthe risk of state vandalism between 1978 and 1980. During the last months of **1978**, Ayatolla Kahlkhali sought to destroy the monument as part of his wide-ranging revolutionary plan to eliminate Pahlavi signs.

Structure was saved at the last minute by locals and underwent several modifications to make the site more religious. For example, royal inscriptions which referred to the Shah were substituted with Quranic terms such as 'Allah', the museum and the restaurant close, a state ban on 'Shanameh' readings and perfomances was instituted, and the State dissuaded public visitations to the tomb through the use of mass media. Instead, people were encouraged to make pilgrimages to Shi'a centres such as Mashhad, Qom and Karbala. The Ferdowsi tomb complex was ignored for a decade and reintroduced into Iranian public life only in the **1990s**.



Scale 1:5000

Legend

Road network

Ferdowsi Tomb and Garden (2020, 2016, 2007)

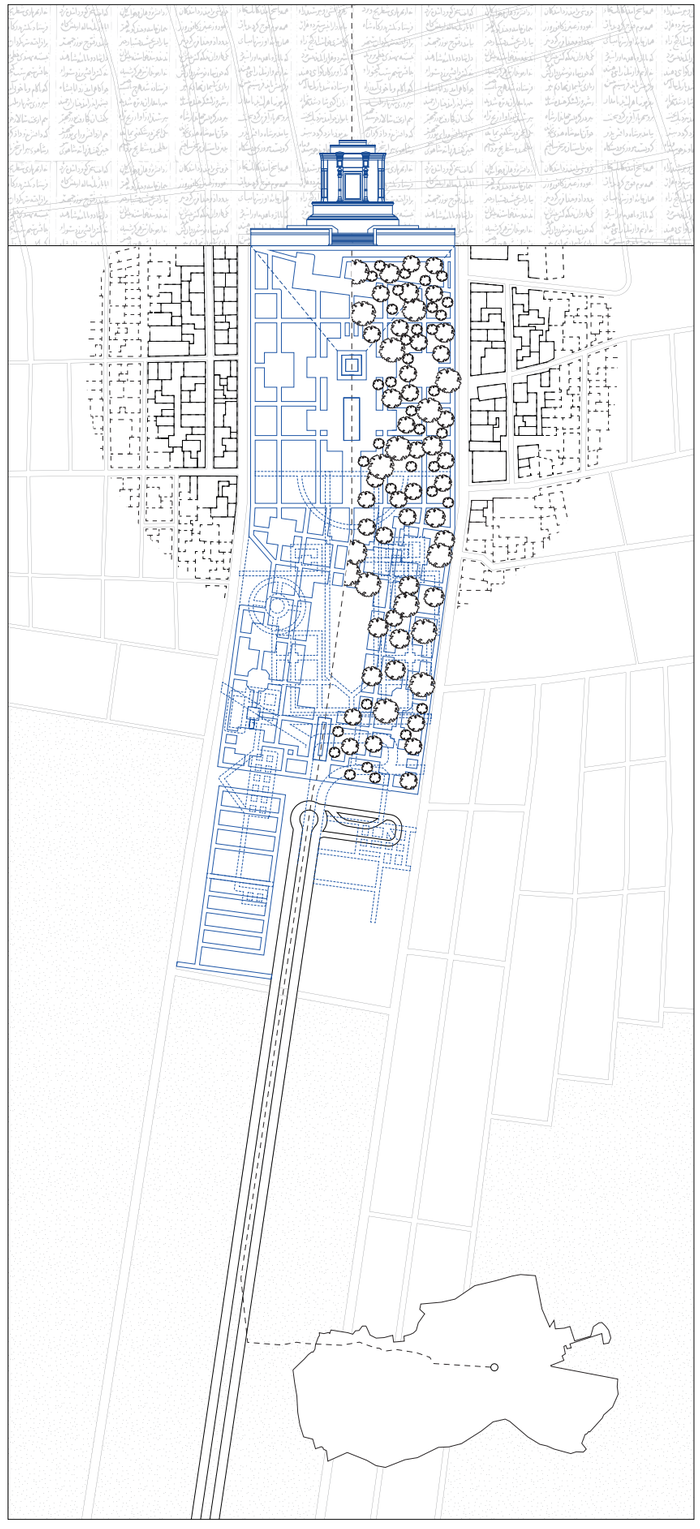
04 Architectural style - Tomb as node

Tomb of Cyrus the Great - inspiration for architecture of Ferdowsi's tomb.

Around 1922 - Pyramid design by André Godard

Current Ferdowsi tomb

Sources:
https://en.wikipedia.org/wiki/Tomb_of_Cyrus#/media/File:Pasargad_Tomb_Cyrus3.jpg
http://persiaexpedition.com/Attraction/Tomb-of-Ferdowsi-Mashhad



Individual research

5. Modi Operandi

05 Modi Operandi workshop

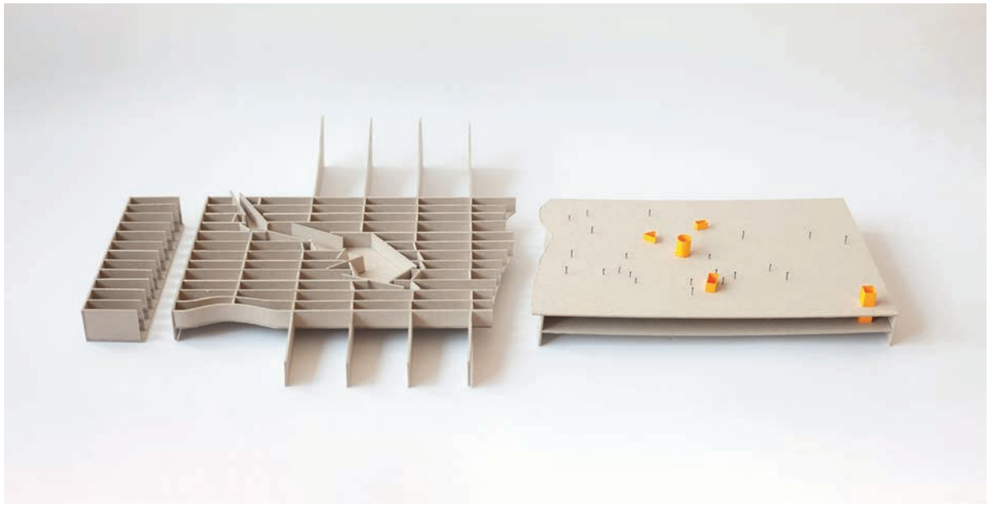
The goal of this workshop was to spatialise mappings so that certain spatial qualities or principles could be extracted in order to move towards an architectural construct. The dimensionalisation and materialisation of the theoretical themes that came forth from the initial research serves as a translation. It is a next step where one is challenged to take a position as one moves from the factual research towards an interpretation of the data.

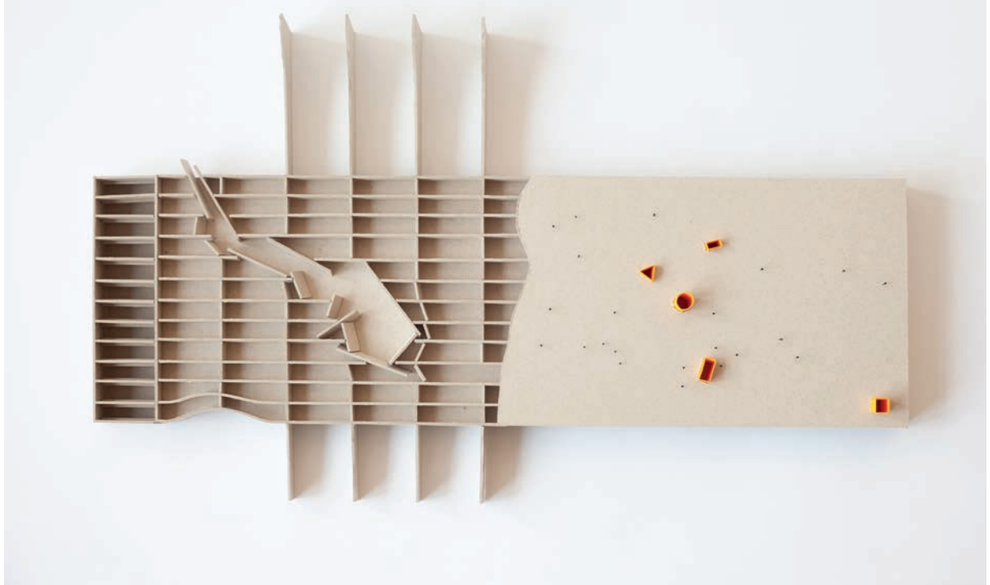
The Modi Operandi was divided in 3 parts: Site, Assemblage and Tectonics. At the time, the research was still in a quite general phase. Because of this, the workshop was approached more as an exploration of certain topics that either came forth from the initial research phase for the city, like the site model and the assemblage model, or additional themes that were more generally related to death like the notion of decay that was explored in the third exercise. So in the end, a method of designing (Modi Operandi) was not necesarily, or specifically developed, as one was just not far enough in the process yet.

Because of this, it did not feel that productive at first: whilst I thought I was supposed to diverge, I had the feeling of only converging even more. Looking back however, this can also be seen as something positive. It kept doors open, I did not limit myself to a certain direction from early on but kept exploring, which made the research ‘richer’. The main thing I realised, mainly because of the modelling, is that this way of working can be of great value of intrisically capturing the specific of the theme one is dealing with. If done right, the model does not become a literal translation, but it captures the essence. An essence that does not have to be, or sometime cannot even be described in words.

Using this way working, in the end, one could create architecture that is capturing the essence, by a spatial translation of specific information regarding the theoretical position/ theme.

The following pages contain numerous photos of the models made during the two weeks workshop with small explanations/reflections.





Modern Cemetery

City

05 Forgotten past - discontinuities

The site was investigated on 2 scales, the city and the graveyard.

On the scale of the city, the focus was put on the old cemeteries (disappeared or not) and the tombs and their hierarchy. The hierarchy was spatialized by working in different layers, the ones still existing or the tombs that impose an order on the city on top and the disregarded cemeteries below. By looking at the side of the model, an underground space is revealed, the layer of earth where the city is built upon. The celebration of certain graves is shown by their differentiation in shape and color. These architectures of immanence protruding from the ground up, impose order on the city. Whilst they can be regarded as nucleus of the city, the still existing graveyards are mainly situated on the outskirts, and thus reveal the border of the city. If the city grows further, these cemeteries will most likely also be reconfigured into parks or institutional buildings (as the land is mostly owned by the municipality).
Moving towards the other side of the model, the scale of the modern, centralized cemetery is depicted. Instead of digging a grave, a whole plot is dug out here, and a standardized structure is built in it to accomodate the individual cells of the dead. Interestingly, the ground taken away can be transformed into the very bricks of which this structure is built from. The earth is thus taken out, put into molds, dried, and put back into the earth.

The standardized topography of the modern burial grid is situated by extending certain walls into sections of the landscape. It reveals the human construction of ‘ground’ while simultaneuously linking it to the surrounding topography of the mountain, the direction of groundwater flow (pollution) and the agriculture.

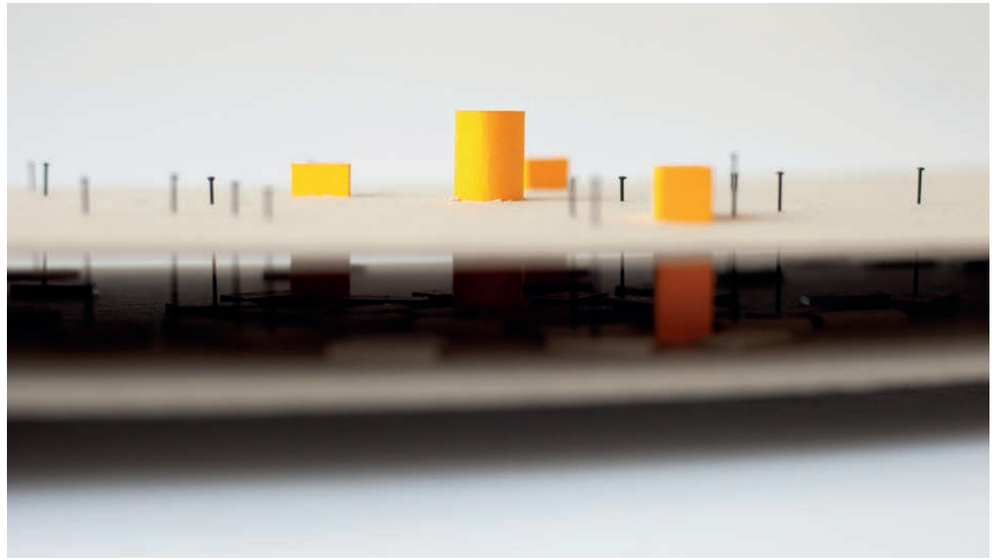
The grid shows two distortions. The distortions bring to the surface the contrasting elements/ movements on top and below: the public space of the cemetery and the structures filled with individuals.

The movement of the burial ritual collides, breaks, destroys the grid. The failure of life as a failure of structure, life as the negative of death. It is the breaking down of the structure that reveals the value of the structure, like death gives meaning to life.

The second distortion of the grid, reveals the contrasting activity of play that is present on the cemeteries. Playing children, ‘negating’ the dead, push the boundary of the territory of the dead.

Both distortions reveal territorial tensions between spaces for life and death.

In the test model for the grid wax was used to fill the grid. The wax shows the condition of decay in the individual chambers. Pieces of a book represent the seriality and at the same time difference of the human beings. Sometimes the text is still readible, sometimes it disappears, showing fading memories of the beings.



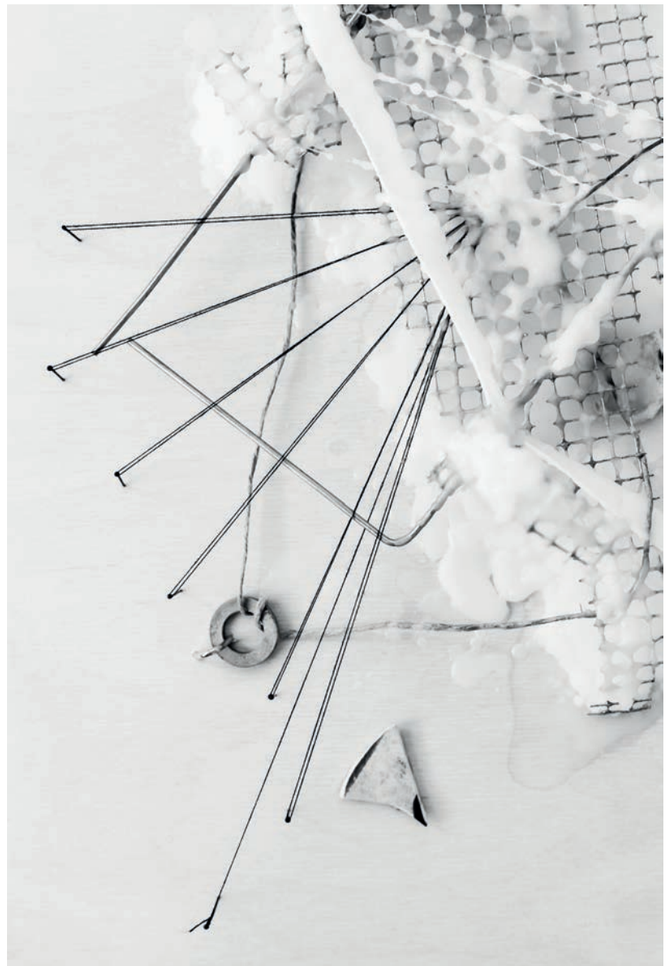
05 Assemblage - Death and movement

In the first assembly model, an attempt was made to spatialise a specific mapping. The mapping of the ritual around the dead body, was materialised by assigning certain materials to the specific stages.

As the model was quite explorative, it is not entirely clear what exactly it shows. It is a quite literal translation of the drawing, adding some layers and leaving others out. I would not say it led to a specific method, it dit however urge me to contemplate about the body in relation to death: the process of decay and the relation of movement with the apparent stillness of a dead body. These contemplations later led to the construction of the models about decay.

Next to the theme-specific contemplations, this model made me think about the technique of assemblage. In this method, one creates a whole from fragments. Fragments that carry meaning, but when brought together, transcend their individual value. This is because relations between materials or structures start to emerge, it is the interaction between different materials that makes the method of assembly a powerfull tool to interpret certain notions.

05 Assemblage - Death and movement

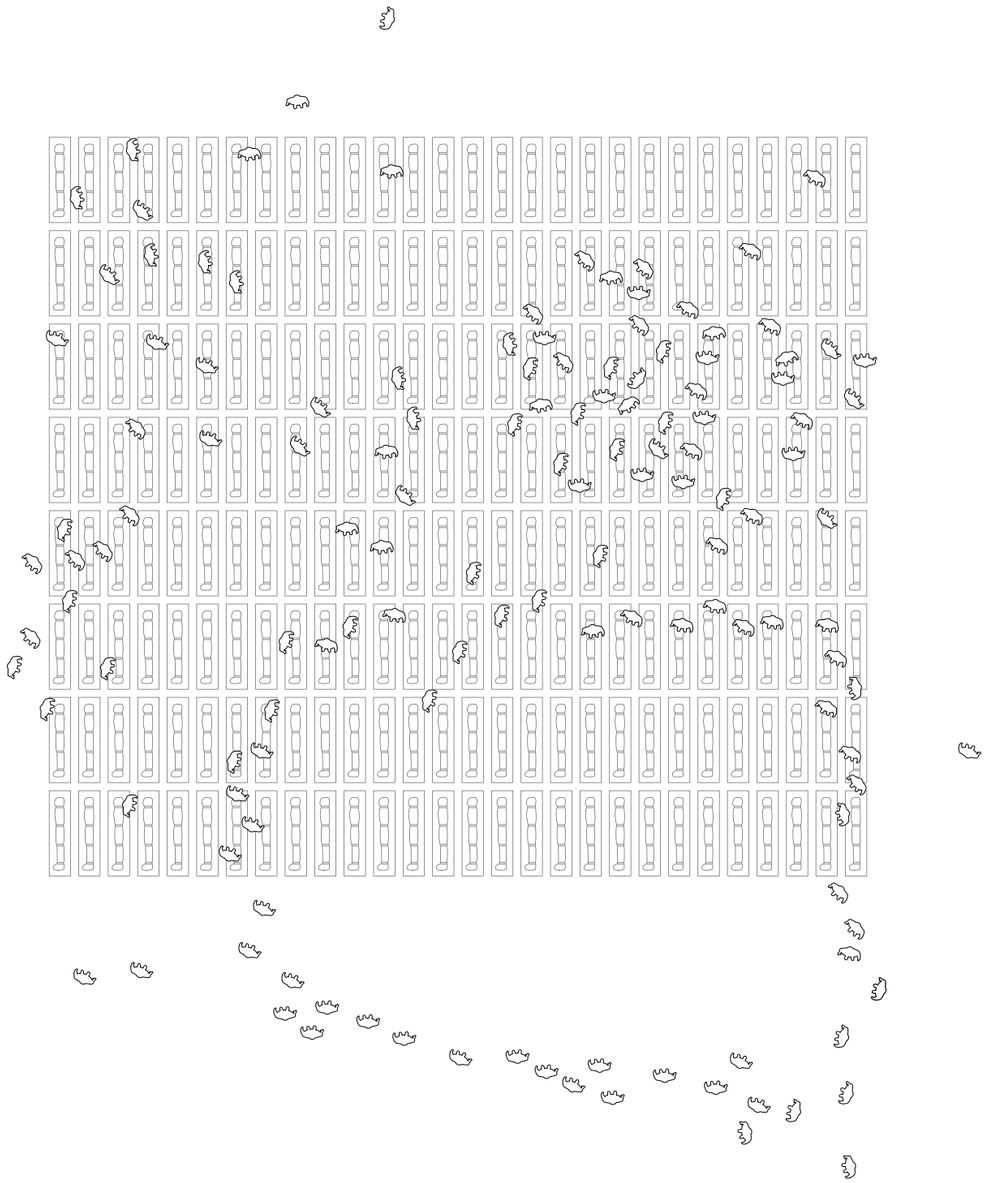


05 Assemblage - the collective body

In the second model for the assembly exercise, the human body was again central. Dolls were disassembled and assembled in different ways, questioning the unity of the body. The study was related to the theoretical paper where it is argued that we cannot convey the contemporary city as a organic unity, but rather as one that is reconstructed, fragmented and extended, like a post-human body.

05 Assemblage - the collective body

The standardized body



05 The process of decay

In the last series of models, the notion of decay was studied. Before the modelling a short photographic documentation of decaying leafs served as an exploration of the theme. As one can see in the pictures, the process of decay, in these stages, is the disappearance of the ‘soft’ part of the object, the infill, which then simultaneously reveals the underlying structure. It is the stage of instability. The deconstruction of an order. What one sees in the photos, is merely the disappearance of the initial object, ut one forgets the emergence of another. Decay is part of the cycle of life in the understanding of it as the construction and deconstruction of orders.

By using the material qualities of candlewax in relation to the different structuring materials, the models elaborate on the tension between stability and instability, failure and emergence, decay and growth.

05 The process of decay

Individual research

6. Site

06 Site - plan

Scale 1: 110.000

Legend

- *Imam Reza Shrine*
- *Tomb*
- *'Razavi Pilgrims Town' (pilgrim accomodation)*
- *Torogh Monument (pilgrim stop, ruin)*
- *Pilgrim stop*
- *Baha'i former cemeteries*
- *Baha'i cemetery*
- *Tapeh Salam ('Hello Hill')*
- *Alleged locations of mass graves*

- *Traditional cemetery*
- *Demolished cemeteries*
- *Metrostation*

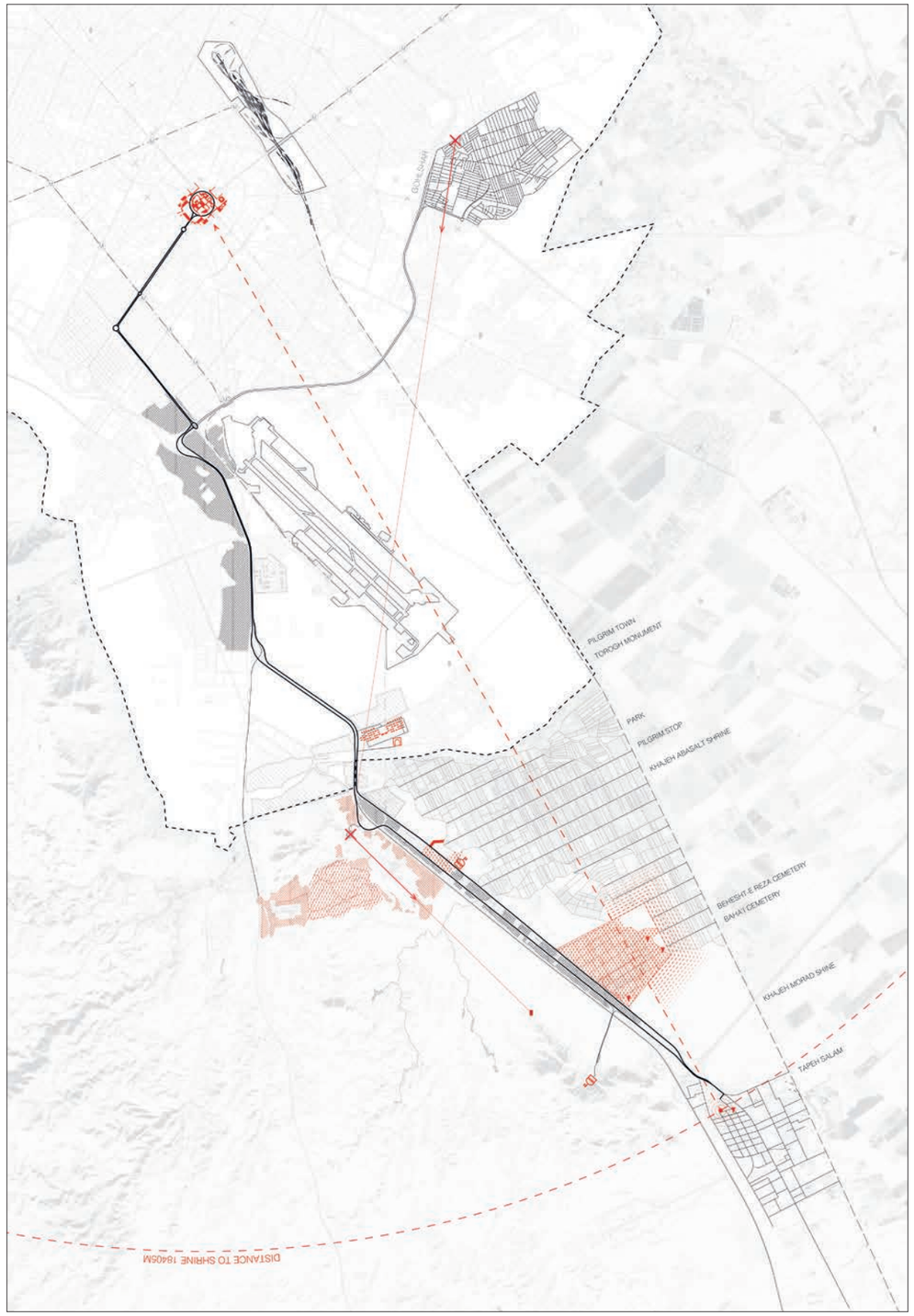
- *Cemetery*
- *Trashdump*
- *Picknic Park*
- *Green*
- *Industry*
- *Pollution*

- *Sightline*
- *City outline*
- *Train*
- *Metro*
- *Water*

Sources: Openstreetmaps; Google Earth; Cemeteries in Mashhad (book); Painscapes

This phase of the research focused on the initiation of a project in the context of the research done prior. Reflecting back, this was the moment of convergence, the moment of specifying and ordering the work that was done before. Because of the diverged way of research - the production of a catalogue and the explorative models - it was fragmented, but rich. It was thus very challenging to combine the ideas, extract what was most important and decide what could be used to construct the narrative of a project. What was noted however, is that starting from this fragmented whole, in the end, the most diverse and original ideas can emerge as one can formulate relations between them: in this phase, the prior research was assembled into an architectural initiation.

The following pages will take you through this last phase, moving from a profound analysis of the site to the theoretical position and lastly the formulation of the design intention consisting of two scenario's.



06 Transition zone

As the project intends to research how architecture can deal with the changed perspective on death and how it can potentially be deployed in this new context at the outskirts of the city to mediate new relations between life and death, the area around the main modern cemetery was chosen as the site.

This area is not only interesting because of the presence of the modern cemetery, but also for other reasons which will be discussed in the following analysis of this territory.

In order to establish the relation of this area to the city, a mapping was done focusing on the road between the shrine and the cemetery, extended to Tepeh Salam which marks the end of the territory.

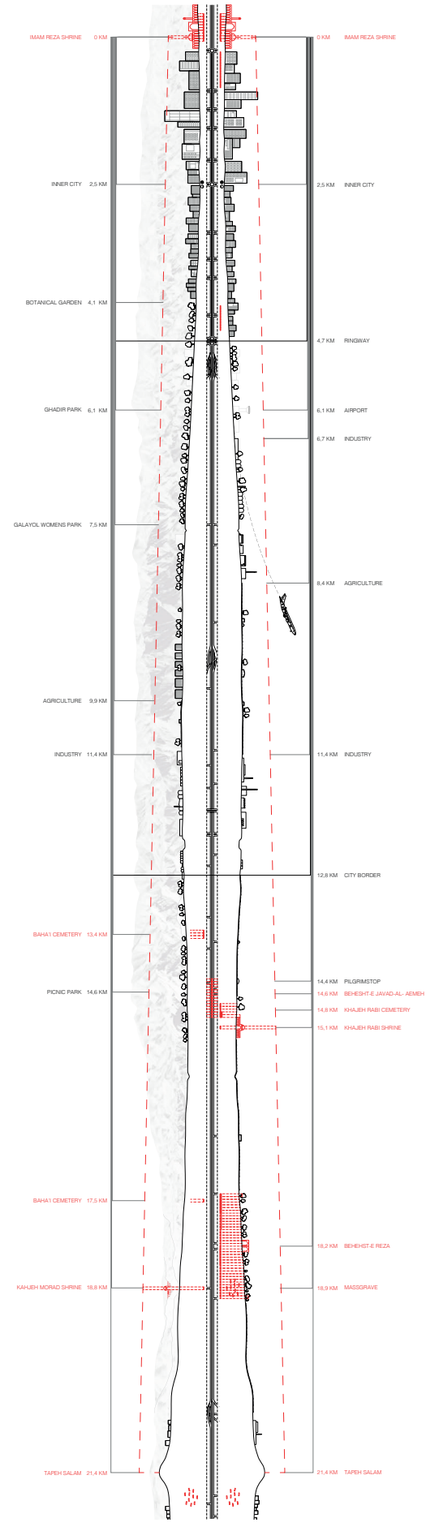
Tapeh Salam translates to ‘Hello Hill’ and refers to the small hill located in this village, which has an historical value. From this point, the pilgrims would be able to get their first glimpse of the shrine which they would then greet. There were six of these around Mashhad but this is the only one left. It is a registered monument, bu tno longer valued or used as the visual connection to the shrine is now obstructed by other buildings.

Moving along the line from the inside to outside of the city, one can see how the airport and industrial areas form a border between the inner city and the suburban area. The area consists, next to other functions that the city has no place for, like agriculture, a wastedump and industrial areas, of a multitude of different burial places.

Next to the main cemetery of Mashhad, there are two shrines of which one has another, more traditional cemetery. Furthermore, there are a couple of politically contested burial places. One of them is a cemetery that was removed from its original location after the Islamic revolution and assigned to a new place next to the waste dump. It belonged to the Baha’i people, which, due to religious reasons is a persecuted minority in Iran. Recently they are again asked to move away because this are is now part of a greenification project and is becoming a popular area for picnicking. Lastly, there are three alleged massgrave locations at the big cemetery, and one at the Tapeh Salam Hilll containing the bodies of political prisoners from the Islamic Revolution

The site acts as a transitionzone between the city and the countryside. It is a place where people stop on their travels. Either residents who seek temporary escape from the city or people that come into the city like the pilgrims, who also pass this site. With the three highways crossing right through the area, and the various adjacent burial places, it becomes a death avenue.

An avenue that could have a similar allure as the Via Appia Antica. This was a road leading into the old city of Rome with many tombs around it. As one approached the city, it was culturally and politically presented by these monuments that reflected the city.



06 The peri-urban area

The site is located at the fringe of the city: the peri-urban area. (The difference is however that there are is almost no residential functionality at the site)

For Rossi, the periphery presented a new urban reality that contained the seeds of the future city. The periphery is a completely different space than Rossi describes, as it does not conform to historical rules like Rossi's city, it does not follow specific periods, nor can their artifacts be classified in that sense.

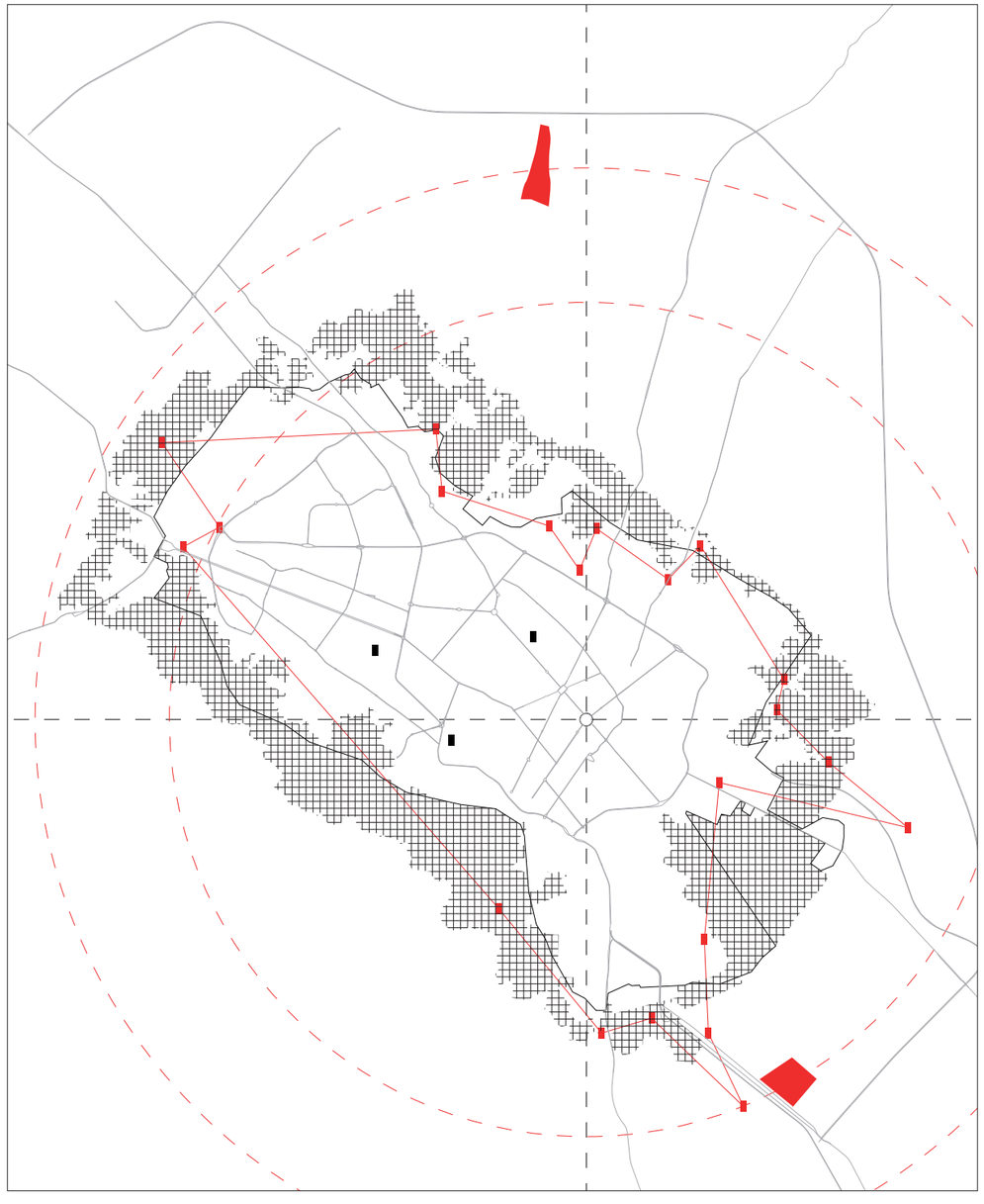
Text: The architecture of the periphery 2016

Characteristics

- Peri-urban landscapes are low-density territories that have emerged in recent times all around Europe, and they can be defined as ***discontinuous and fragmented.***
- Peri-urban areas are landscapes that are characterised by a ***patchwork*** of dispersed urbanised areas, agricultural land, open space, and high density residential areas.
- Peri-urban areas shape a specific landscape where different functions are ***only juxtaposed*** without really being inter-connected with eachother. They exist without ever sharing any facilities, resulting in a combination of parts that generates ignored areas.

- Low population density
- Mixed functions
- Car based structure
- Physical and social fragmentation
- Lack of spatial organisation

Text: 'Beyond Wastescapes'



Legend

Modern, centralized cemeteries

Old cemeteries

Greenification project

City outline

Highways

06 Territory of death

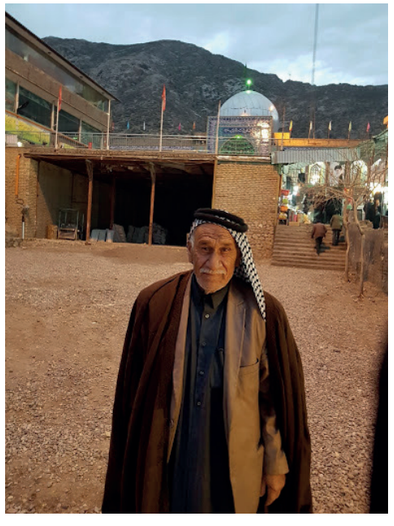
However, at the same time one can find very banal events and programs at the site, co-existing with the burial places like the hostel, gas station, picnic, playground and fast food restaurant.

And lastly, the burial places are contextualized by other uses of land that are pushed out of the city: The Baha'i cemetery is situated in between an increasingly becoming more popular picnic park and the main waste dump of Mashhad, The Behesht-e Reza cemetery is surrounded by a large area of agriculture, and the Tapeh Salam Hill is now submerged in the stone and meat industry.

The relation between spaces of life and death is what was elaborated upon in the theoretical paper. Concluded was that familiarization of death is necessary and favorable, but regarding the contemporary society, this relation should be made at a certain distance. It does not have to be confrontational, but can also be subtly integrated in something else, so that is becomes a banality. In realtion to the site, there is thus high potential in seeking out the relations bewteen the apparent dissonant co-existences.

Banal programs: Hostel, Gas station,
Picnic, Playground,
Fast food restaurant

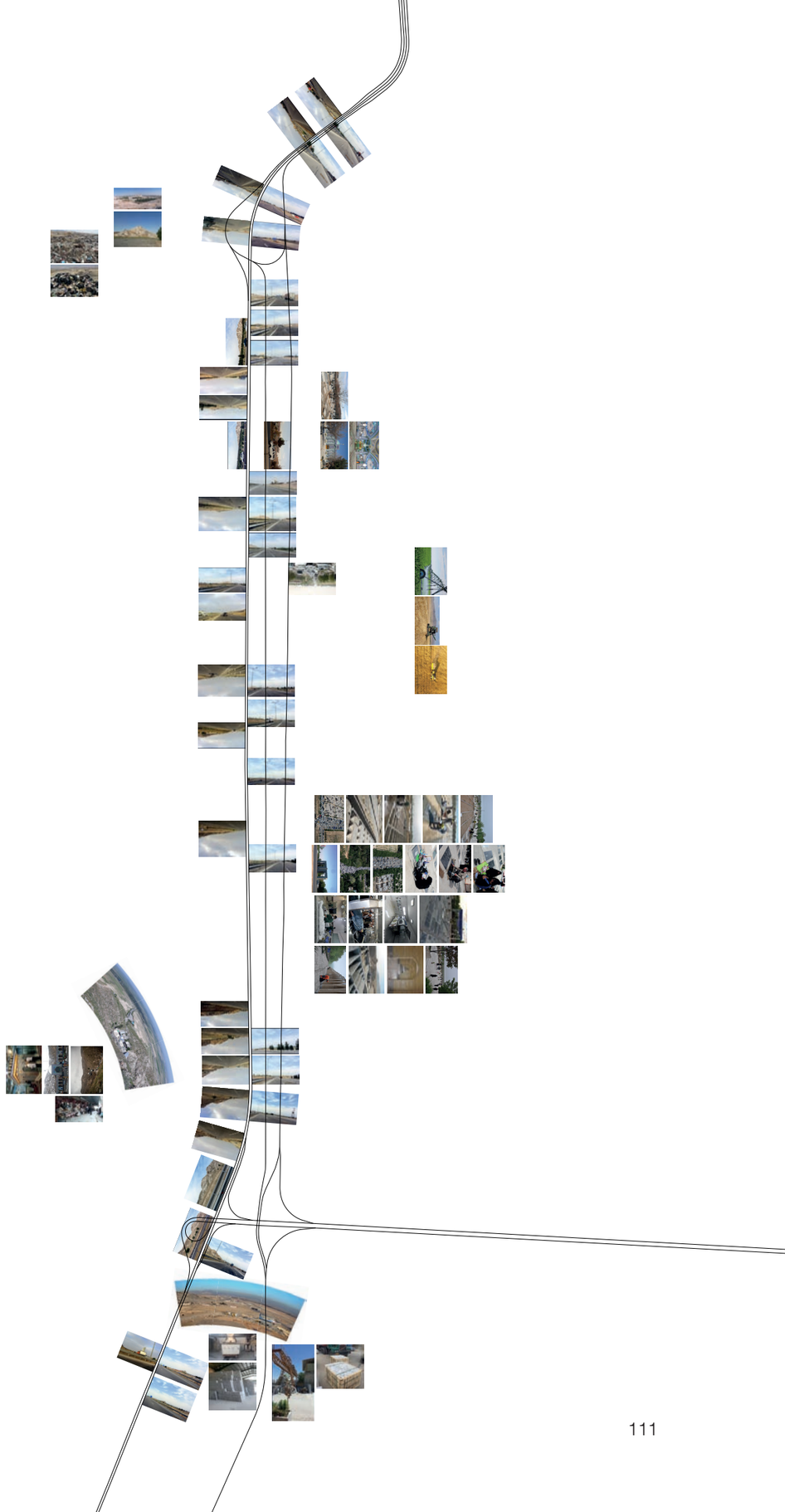
06 Tourism - banalities



06 Suburban highway

Picnic park in front of mountain

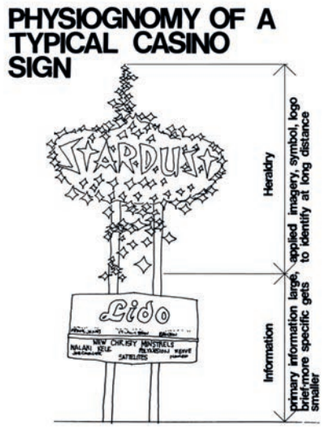
Panoramic views from highway



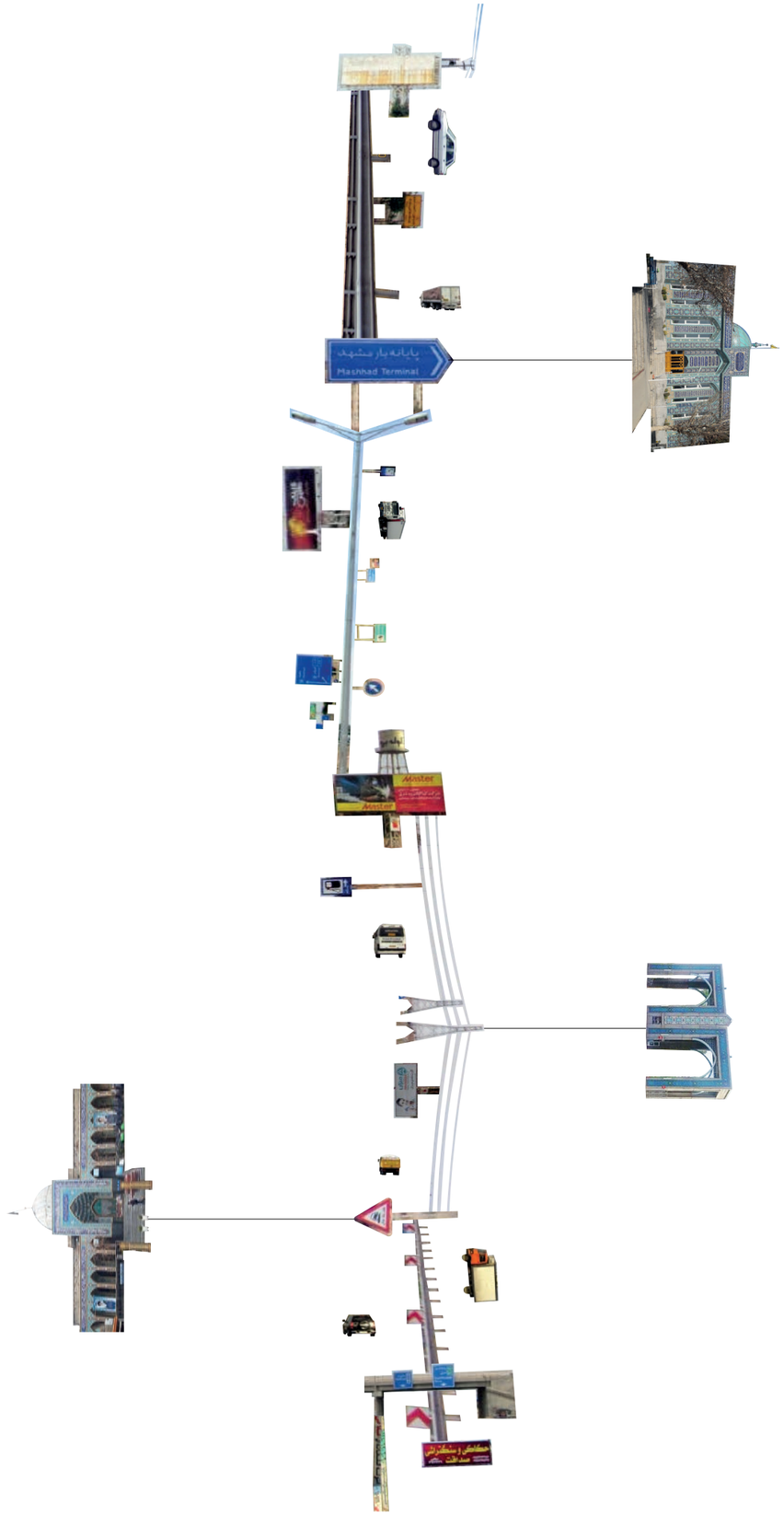
06 The highway atmosphere

Coca Cola advert

Welcome to Mashhad



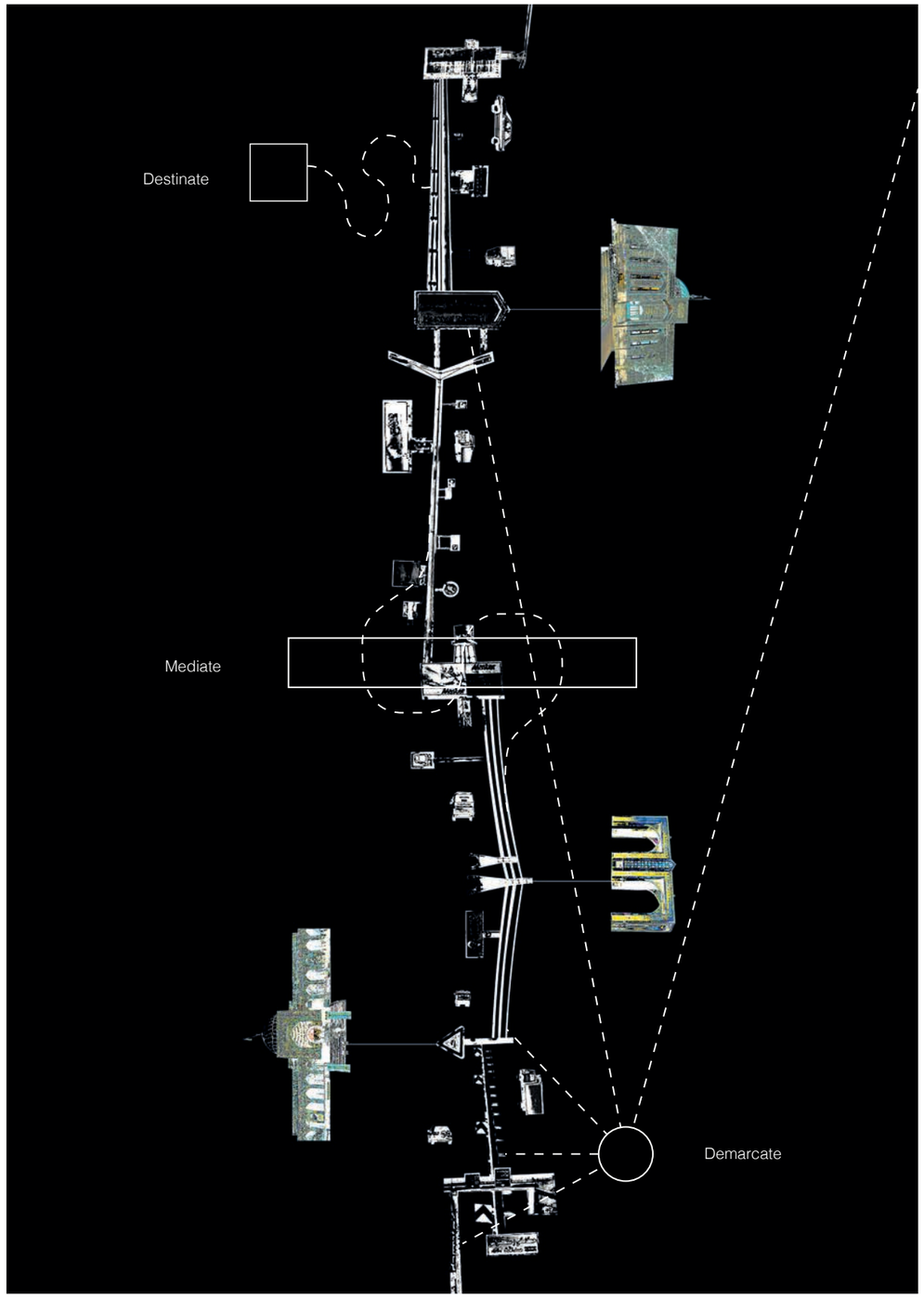
Learning from Las Vegas, the architecture of the sign



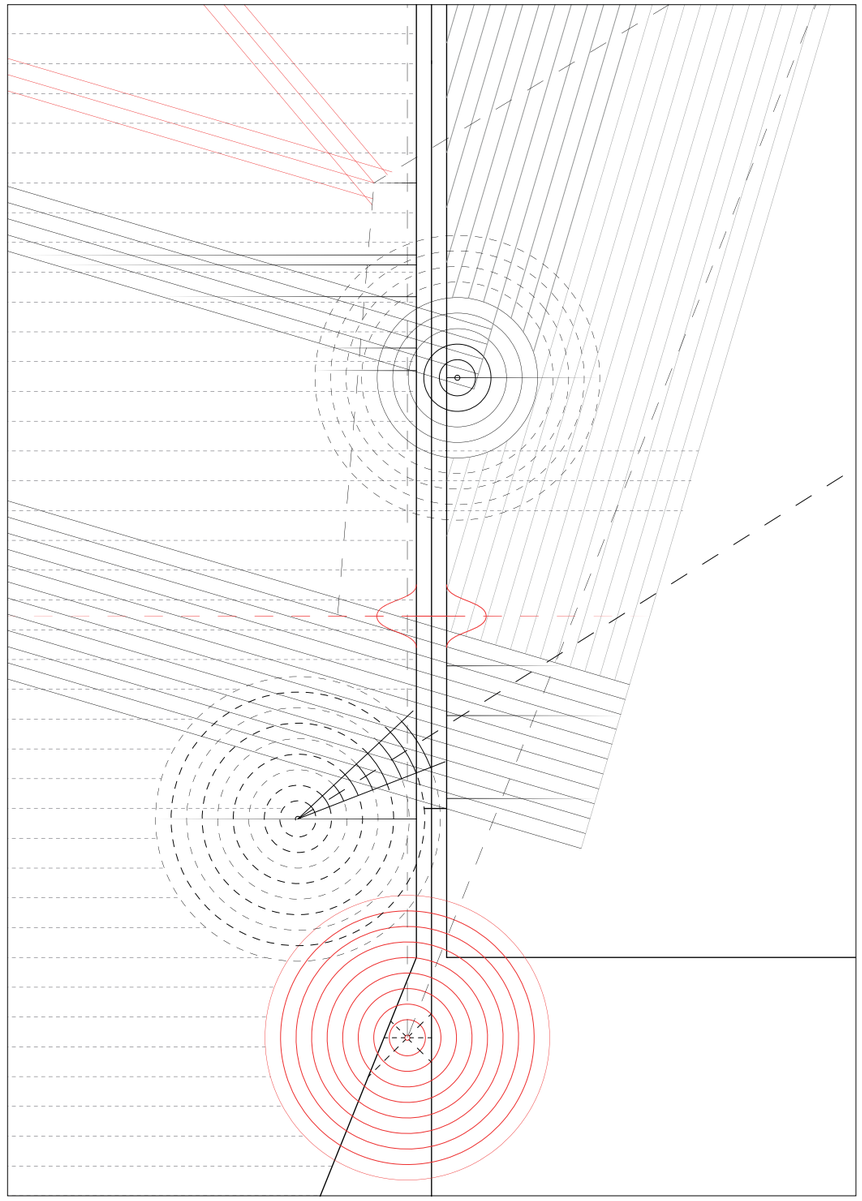
06 Placement of interventions

Learning from Las Vegas, the architecture of the sign

Via Appica Attica, death as an introduction to the ctiy

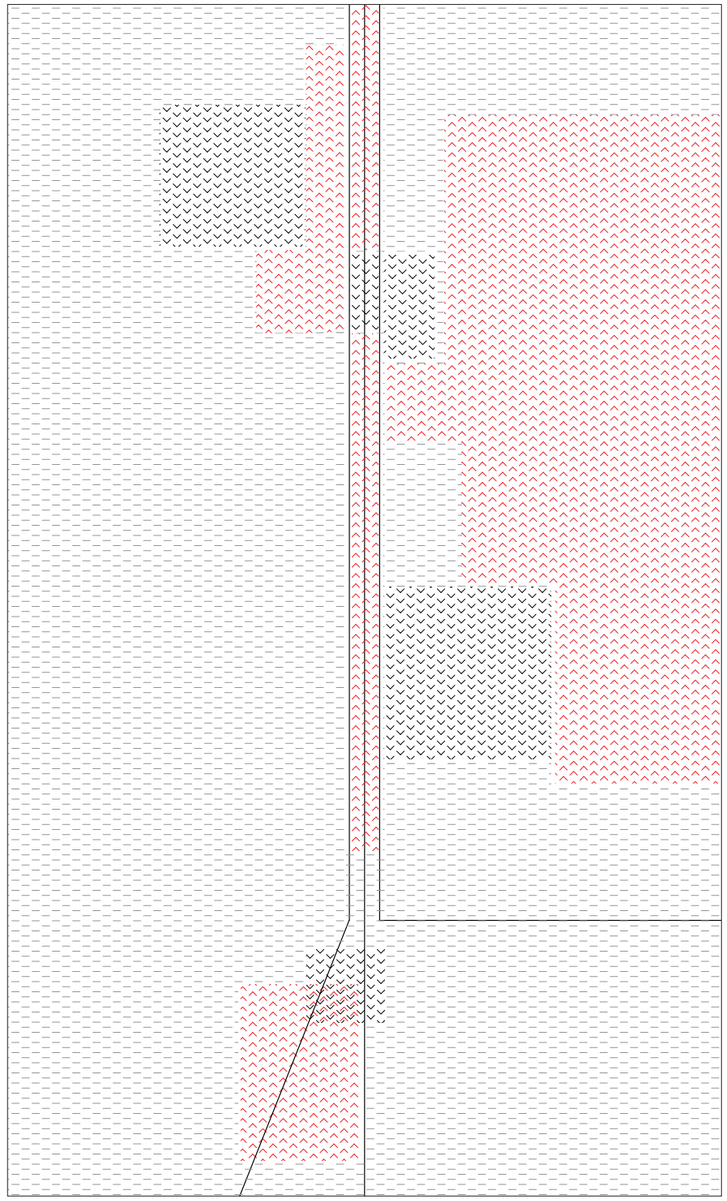


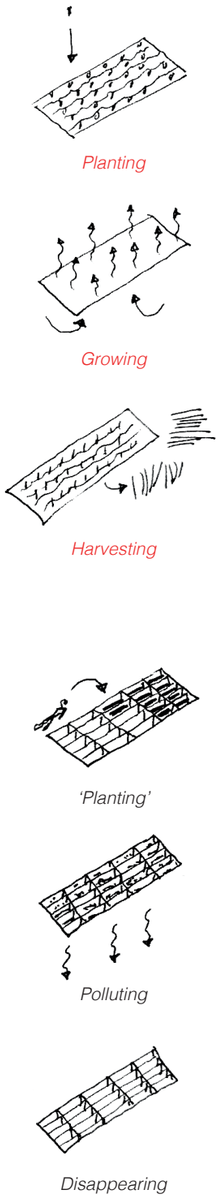
06 Directions



The Islamic cemetery is faced to Mecca - Qibla.
The Baha'i cemetery is faced to Akko - Qiblih.
The different directions represent the space of conflict at the place of the old Baha'i Cemetery.

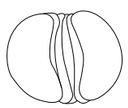
Growth & Decay

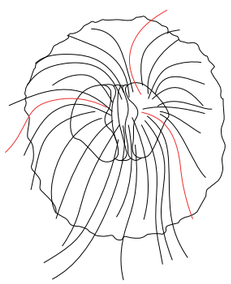


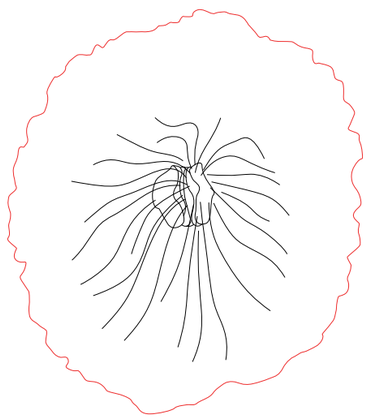


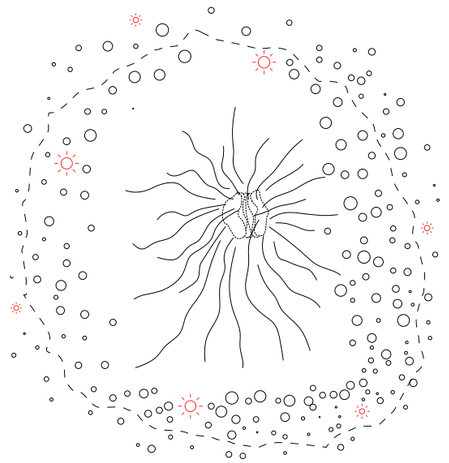
Territories of Production (red):
Agriculture, industries, greenification
Territories of Decay (black)
Burials, landfill

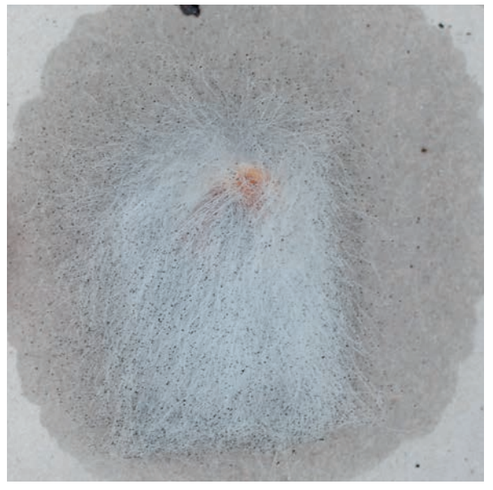
06 Process of decay







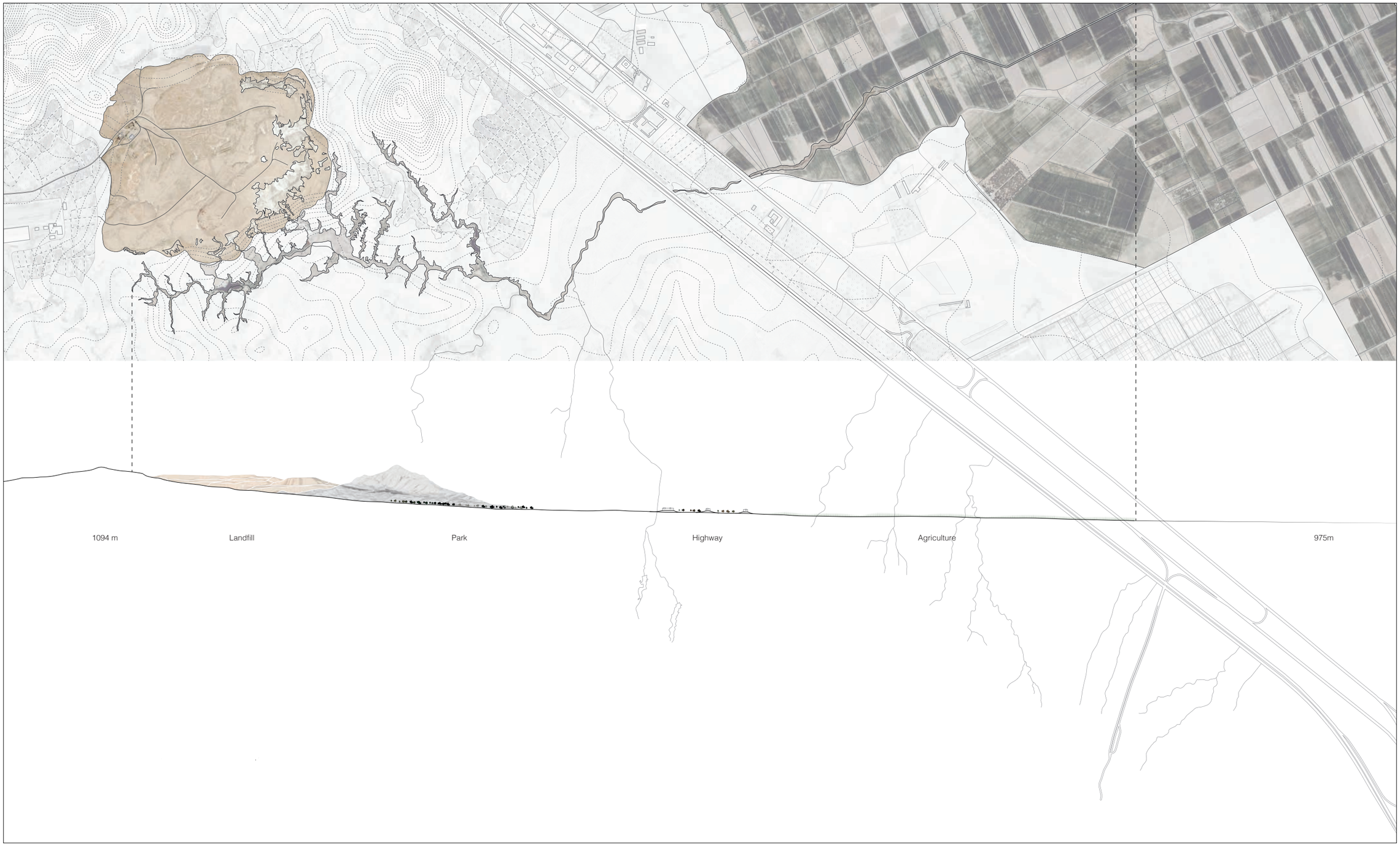




Day 0	Day 16	Day 24	Day 56
Unpeeled mandarin half	Hairy mold starts to grow from the mandarin Fluid starts to come out of the mandarin (pollution)	Fluid stain grows (area of power/territory)	Fluid stain partially dried up, mold seems to be in decay. New speckles of mold start to emerge from the fluid stain. (new beginnings) (positive influence of existence and disappearance)

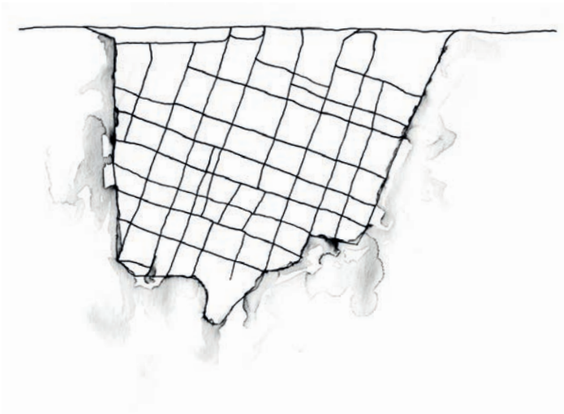
06 The River

The hidden but polluting wastescape

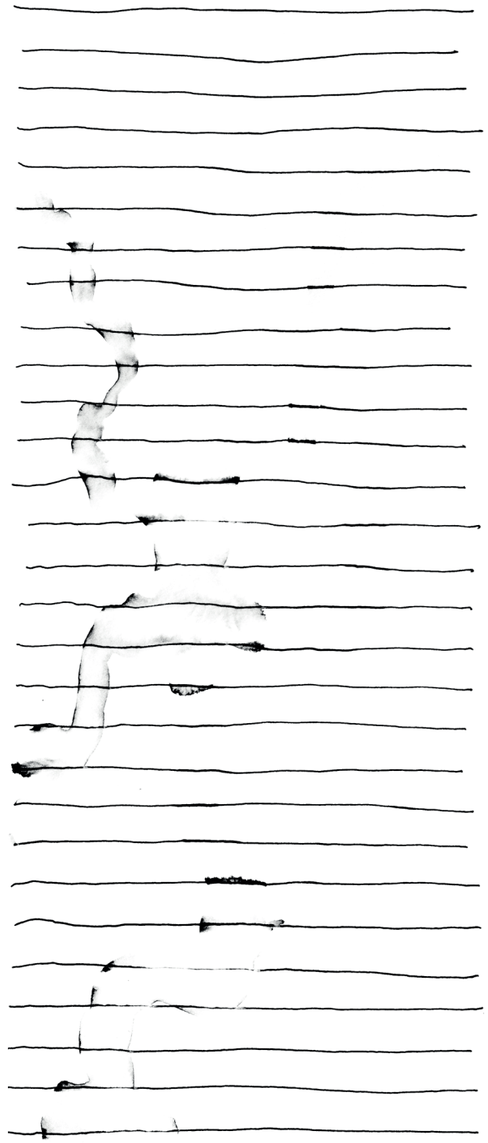


06 Fluidity tests

Greenification - Retaining water
(From dot to territory through water)



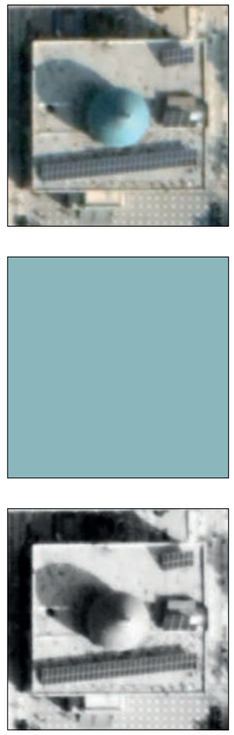
Graveyard - Pollution and Flow

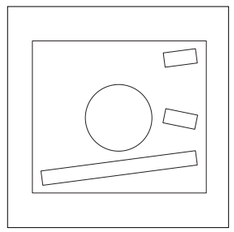


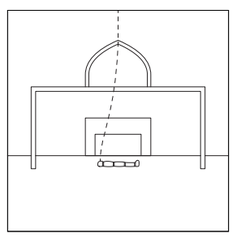
Abstract - Water influencing grid
Grid reveals the invisible stream of water
(water applied first)

06 Typologies of death

Khajeh Abasalt Shrine

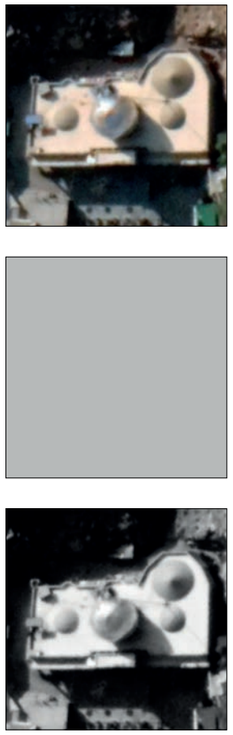


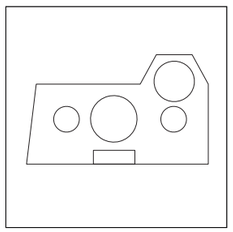


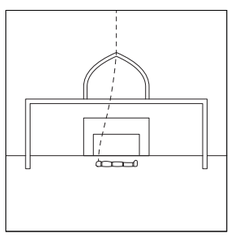


The pinnacles of glorification: the body is extended through multiple layers and made visible from great distances. The structures are main points of attraction, for the living and dead.

Khajeh Morad Shrine

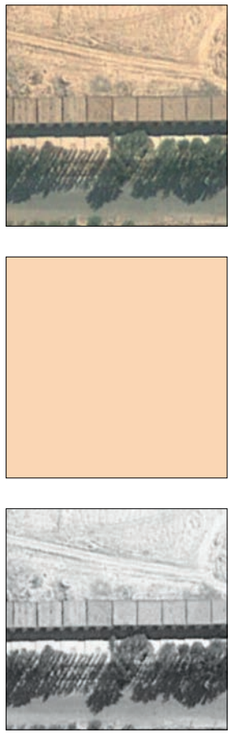


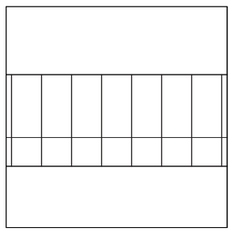


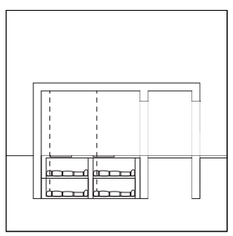


Houses without windows. The interior of these houses is sunk into the ground.

Family graves

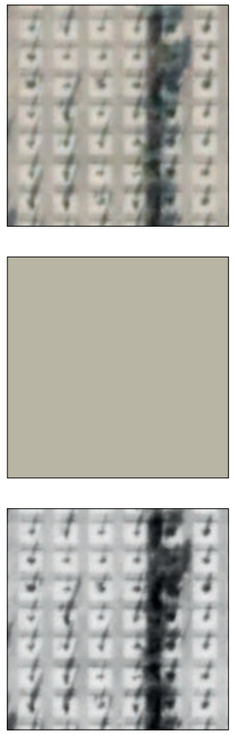


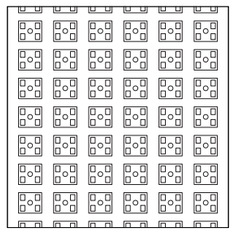


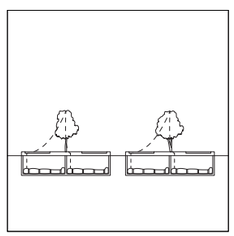


The feeding ground: roots below and fruit above. Glorification materialized in nature.

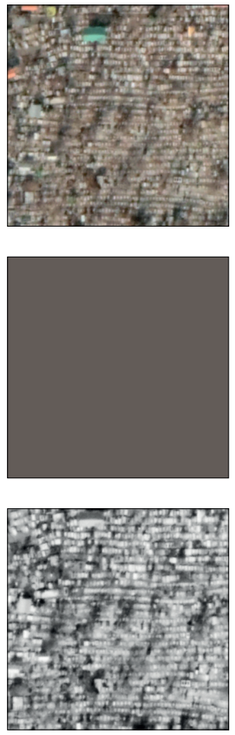
Martyrgraves

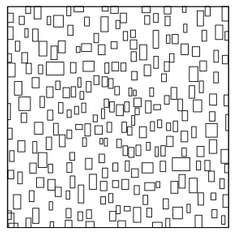


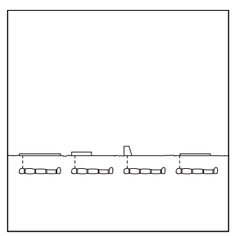




Khajeh Abasalt Cem.

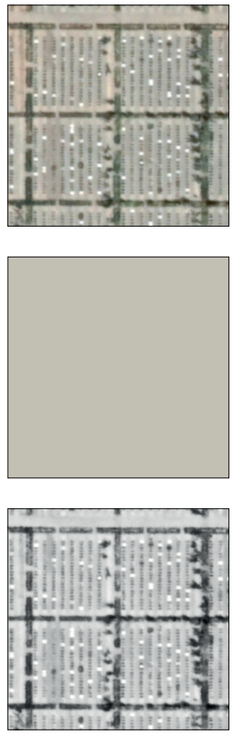


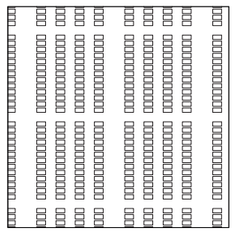


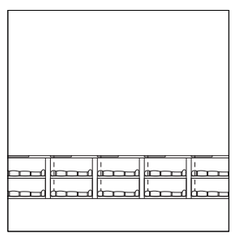


Individualized plots with heterogenous materials and forms extending the body.

Behesht-e Reza Cem.

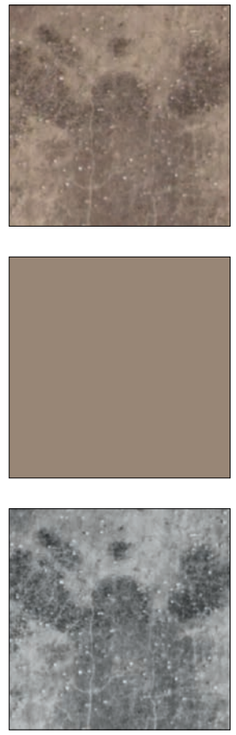


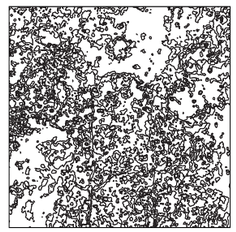


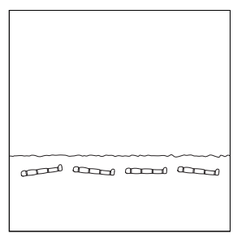


Materialisations of modern efficiency. Upside down houses.

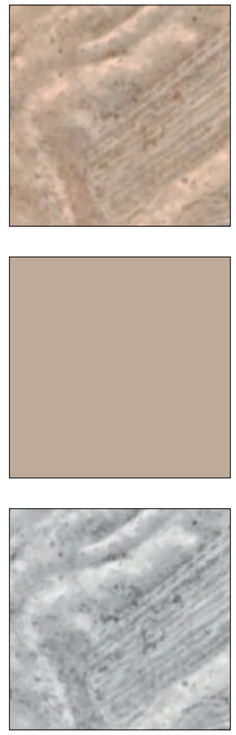
Massgrave Behesht-e

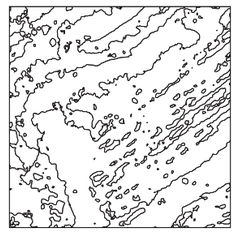


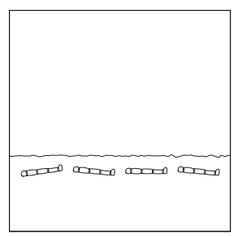




Massgrave Tapeh S.







Sites of mystery, as one can only speculate. They are the buried ‘secrets’ of the city. They are political graves, distorted territories.

Individual research

7. Design intention

07 Mediating territories of life and death

As a conclusion to the analysis of this transition zone, it can be stated that it a very contested site that consists of decontextualized fragments. Fragments that were either formerly valued, like the Tapeh Salam Hill, or that were displaced to the outskirts of the city, like the burial places. The amalgamation of these spaces of death, and banal functionalities, contextualized by other suburban land uses makes for a site full of pressured co-existences.

As a starting point for the design phase, two scenario's have been formulated that each treat the intention differently.

The first scenario consists of a singular architectural intervention that should reflect the way the city deals with death in a spatial experience based on the topographies of the site.

Topographies, as detailed descriptions of the surface of a place, inherently contain information about not only the forms and features of a piece of land, but also about the local culture and history. The way the city deals with death, is thus reflected in their respective topographies as can be seen in the analysis in some of some of the burial places.

The method of this proposal consists of a close analysis and extrapolation of the topographies that are present on site. The relation between the territories of the dead and living is established by the method of collage and assembly of the topographies. With the goal of formulating a new understanding of it, operations are applied conform the characteristics of the topographies.

The end goal is to interpret the relations and extract their spatial qualities. Which would eventually be the ingredients for an architectural construct: An assembly that would mediate relations between territories of life and death through a spatial experience.

07 Scenario I & II

Compared to Scenario I, the second scenario deals with a cocnrete program and is less focused on the methodology. The mediation between life and death is made by integrating themes that are related to the changed perspective into banal programs. For now, the interventions reflect on the distanciation of death, death as a failure of life, and the standardization of the body, which were outcomes of the prior research. The isolated or decontextualized fragments are subsequently used to determine sites and are taken as inspiration for the spatialization of these narratives.

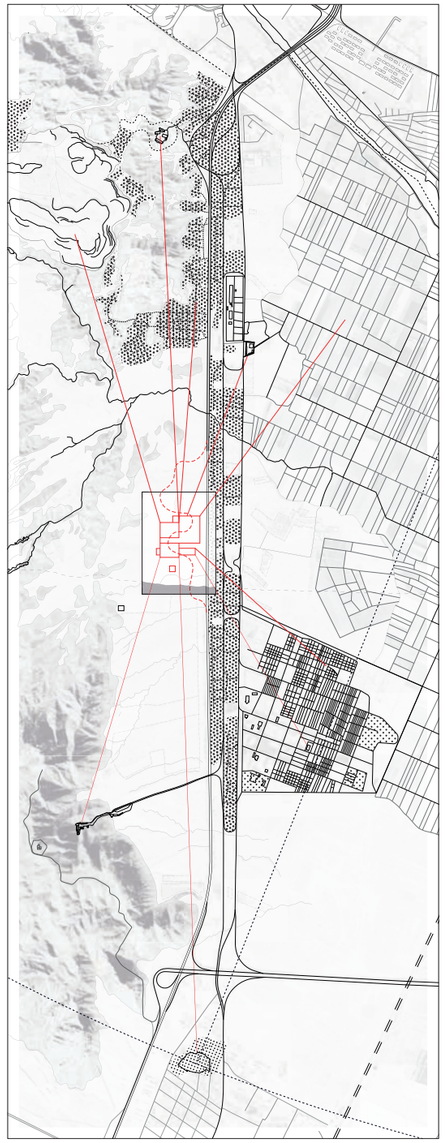
The approach consist of three interventions of which their program is inspired on the banalities found on site.

The first one is a fastfood restaurant on top of the Tapeh Salam Hill, that would act as a marker of the territory. The narrative assigned to this structure is the distanciation of death. This is appropriate as the view from this hill reveals the separated relation of the modern cemetery and the city.

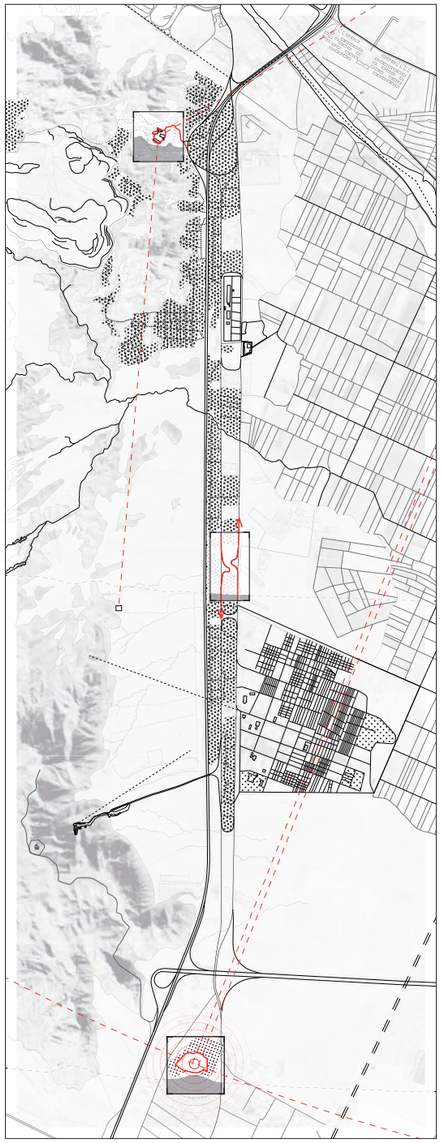
The method that is derived from the surrounding stone industries is the act of excavation. In the understanding of the word as taking out a specific piece of the landscape in order to reveal its characteristics. The piece of land in this case would be the sightline to the shrine. It would reveal a sequence of topographies, that can subsequently be interpreted or extrapolated so that a sequence of spatial qualities can be derived from it and used in the design of the intervention. The construct would then become the materialization of the distanciation of death in Mashhad.

The second intervention is the gasstation in between the two highways, which would deal with the contemporary perspective on death as a failure of life. The method for design is derived from the relation between the cemetery and agriculture. The decay of bodies in the cemetery infiltrates the ground and becomes an ingredient for the food produced on the farmlands. Thus: the destruction of one order leads to the construction of another, a principle that was discussed in the last exercise of the Modi Operandi workshop.

The third intervention is a playground situated at the former site of the Baha'i cemetery.
The theme of death that i deals with is the standardization of the body, which is highly visible in the structure of the modern graveyard.
The method of manipulation is derived from the landfill area, which contains a terrain that is continuously redefined by the movement and unloading of trucks. The grid of empty graves, which also refers to the removed cemetery on this site, would be the starting point for this method. It can subsequently be manipulated in different ways, so that a landscape or playground emerges where living bodies would come in contact with the structure of death.
This method was aswell researched in the first models of the Modi Operandi workshop.
By combining a banal program with the presentation of a theme regarding the changed perspective on death, the three interventions become interactive monuments organizing the territory by recontextualizing the fragments.

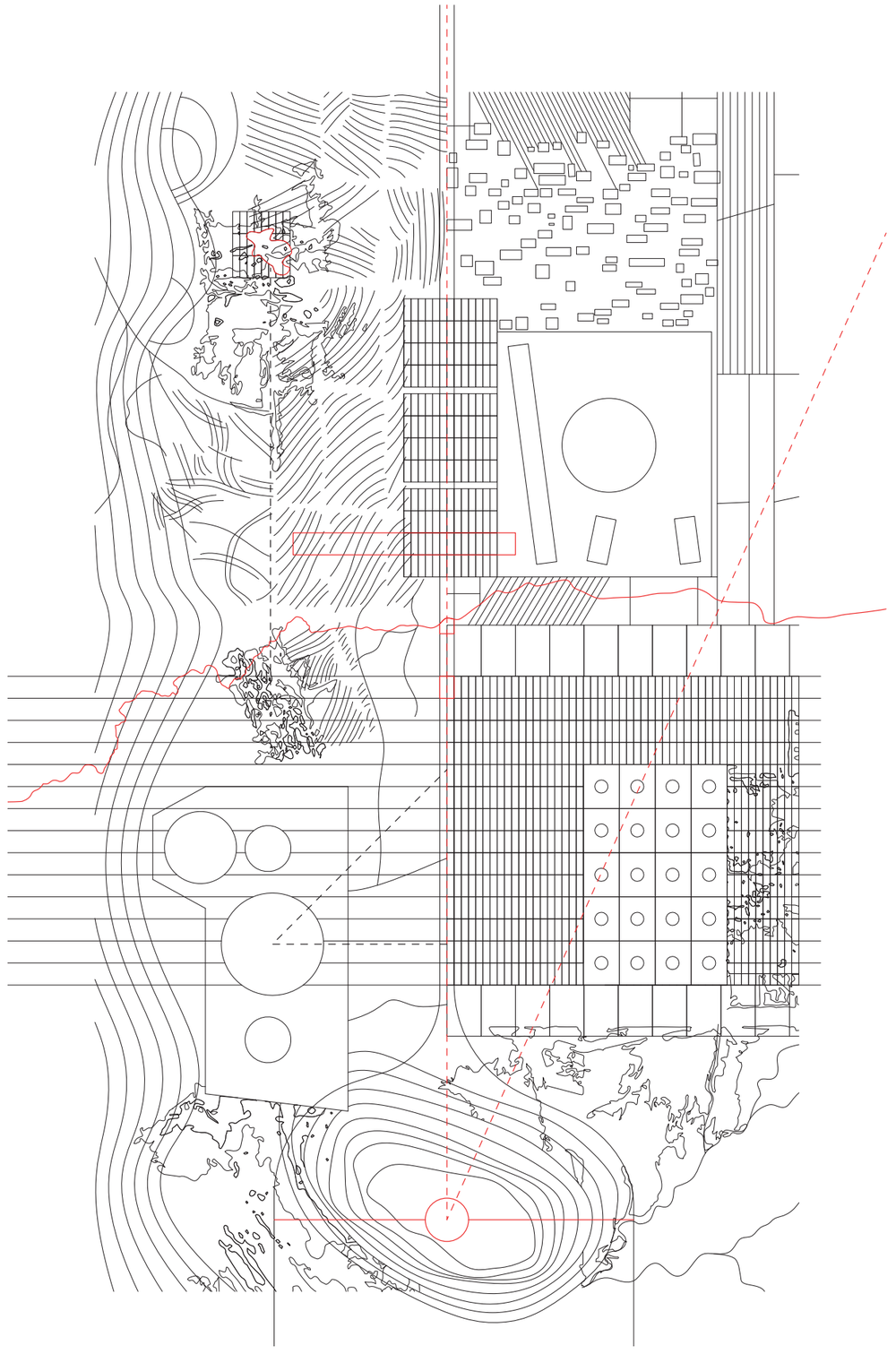


Scenario I: Constructed topography reflecting how the city deals with death. The placement of the first scenario, the singular intervention based on the topographies of the site.



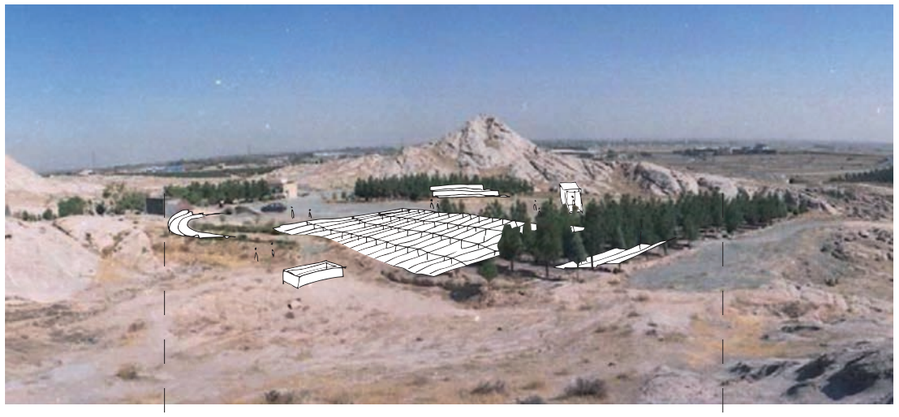
Scenario II: Consists of three interventions. From top to bottom: The playground at the former Baha'i cemetery, the gas station at the exit of the Behesht-e Reza cemetery and the fast food restaurant at the Tapeh Salam Hill

07 Scenario I - Topopgraphies

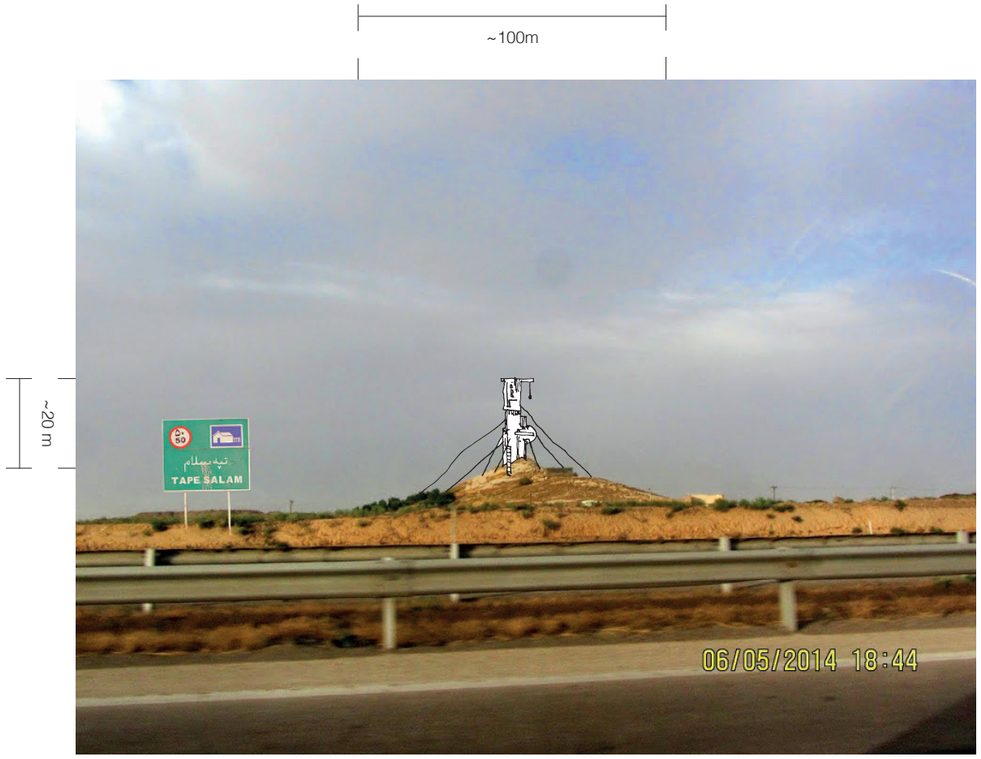


07 Possibilities on site

Baha'I Cemetery



Mid-Highway



Tapeh Salam

Part III - Theory paper

00 Introduction

Slowly, buildings started to erect from his decomposing body. Piercing through his skin, like fungi on a dead tree, they grew higher and higher. They were not regular buildings, on the contrary, nourished by the great value of the 8th Imam, they shined brightly like the Amanity Muscaria. His final resting place, marked by the extraordinary structures, became a beacon for the living, and later, the heart of a new city: the city of Mashhad.

As the shrine became a great point of attraction for Shia pilgrims, and hereby the main driving force of the city, one could argue that death, ironically, is not only Mashhad's origin but also its raison d'être. It seems that Imam Reza has breached the walls of mortality, having found new life in the form of a city – by dying.

Formerly, grand graveyards surrounded the shrine, far exceeding the need of the population of the city itself as pilgrims preferred to get buried close to the grave of Imam Reza (Darwent, 1965, p. 89). Death was integrated into people's daily lives and children were playing in the cemeteries. However, as the city modernized and the population grew rapidly, the city expanded upon the territory of the dead. Instead of the many smaller graveyards within the city, one big one outside of the city was built to efficiently deal with burials. As an effect, the city is literally and figuratively taking distance from the dead. This not only seems to be the case for Mashhad, but a general tendency throughout modern society. Especially in Western countries, people seem to fear death and if possible even avoid to acknowledge its existence. Therefore, and not coincidentally during a pandemic, this essay elaborates on the essential notion of death in the contemporary field of architecture.

The topic is explored in three chapters. The first one deals with the recently changed perspective on death. This is broadly discussed in the sociological field, for instance by Ariès, who states the following regarding this shift: 'A revolution so brutal that social observers have not failed to be struck by it. It is really an absolutely unheard-of phenomenon.' (1974, p. 85). As death is an inherent characteristic of human life, an anthropomorphic lens is used in the second chapter to link the notion of death to the city. In other words: the current border conditions of the contemporary city are conceptualized using the human body as a metaphor. The third chapter deals with expressions of death on an architectural level by discussing two projects that treat the theme differently: Superstudio's Continuous Monument and Arakawa and Gins' Reversible Destiny Lofts.

01 Perspectives on death

Before discussing the contemporary perspective on death, let's take a look at how it has developed throughout history. In his book, Ariès (1974) defines three historical stages leading up to today's attitude[1]. Starting from the Early Middle Ages, he defines the first period as *Tamed Death.* In this period, people were familiar with the phenomenon as it was regarded as a collective characteristic of the human species and not given any further implications (Ibid, p. 25)[2]. Death was not theatrical, wild, or feared like nowadays which explains the name Tamed (Ibid, p. 14). The second period – *One's Death* – started around the 11th and 12th centuries, when the view shifted. Here, the phenomenon became personal as members of society became more aware of their individuality[3] (Ibid, p. 28, 51). Moving on to the 19th century, death was slowly given more meaning. It was dramatized and for the first time seen as a break from the ordinary and a transgressive act (Ibid, p. 56, 57, 58). People started to mourn excessively, meaning that they had more difficulty accepting the death of another person (Ibid, p. 68). Ariès thus calls this period *Thy Death*, as a deviation of the personal relation of the individual to death.

As stated in the introduction, the attitude towards death recently changed dramatically. Ariès presents a period of *Forbidden Death* starting from the 1930s and describes it as follows: 'Death so omnipresent in the past that it was familiar, would be effaced, would disappear. It would become shameful and forbidden.' (Ibid, p. 85). Subsequently, two factors, social and spatial ought to have triggered this shift.

Social

The social factor is related to the negative connotation of death. Due to the prevalence of medicine in society, the focus on extending life – or, as Baudrillard describes it 'forcing life for life's sake' (in Chuk, 2015 p. 56) – we are collectively denying death. As a consequence, it is now seen as a failure of life. It has become a limitation of our being that we keep on trying to surpass, transforming us into 'living memorials' that hide the marks of death (Chuk, 2015, p. 56). The research institute Union of International Associations refers to this shift as the dehumanization of death and evaluates it as a worldwide problem: 'Grief and mourning are considered abnormal. Dying is a taboo.' (UIA, 2020). Referring back to Ariès, it is the de-normalisation and oppression of negative emotional expressions that seem to have triggered the change: We feel obliged by modern society to contribute to a – what he calls – collective happiness, and thus rather hide the negative parts of life[4] (1974, p, 94).

[1] It should be noted that Ariès elaborates on the Western perspective. However, regarding the context of Mashhad, a comparative study states that the Persian perspectives on death through history followed roughly the same course (Aramesh, 2016).

[2] He states: 'In death, man encountered one of the great laws of the species, and had no thought of escaping it or glorifying it. He merely accepted it with just the proper amount of solemnity due one of the important thresholds which each generation had to cross.' (Ariès, 1974, p. 28)

[3] One of the phenomena that Ariès derives this conclusion from is the increased use of individual tombs with inscriptions. (Ariès, 1974, p. 46).

[4] He states: 'one must avoid – no longer for the sake of the dying person, but for society's sake, for the sake of those close to the dying person – the disturbance and the overly strong and unbearable emotion caused by the ugliness of dying and by the very presence of death in the midst of a happy life, for it is henceforth given that life is always happy or should always seem to be so.' (Ariès, 1974, p. 87).

Spatial

The second factor is one of displacement: where formerly people would die at home, they now die in a hospital; segregated from society (Ariès, 1974, p. 87). In A Social History of Dying, Kellehear links this segregation to the development of cities. As cities grow and modernize, there is an increase in specialization. Processes become more complex, leading to a tendency of managing death: an attempt to 'control the potential chaos that dying may elicit' (Kellehear, 2007, p. 149). Moreover, it is stated that, due to the medicalization of society, we are not the ones in charge of our end, but it has become managed for us (Kellehear, 2007, p. 156). The institutionalization and increased privatization, or in other words, the sequestration of the experience of death is also mentioned by Mellor & Shilling (1993, p. 411). The spatial separation is explained as a 'strengthening of boundaries between the living and dying bodies' (Ibid, p. 424). Lastly, the frequent relocation of cemeteries to the outskirts of the city as another form of displacement is explained by Worpole as one of the reasons for the fact that death is hardly tangible in modern cities (2003, p. 23). In fact, one could argue that the theme of death was never even in the equation in the building of these cities. After all, the modern city is built to be productive. It is a place that supports the collective happiness of contemporary society and is mainly constructed for work and leisure. Due to the separation of the territory for the living and the one of the dead or dying, we are less confronted with the phenomenon in our daily lives. As architecture can, according to Bataille, be seen as 'the expression of the very being of societies, the same way that human physiognomy is the expression of the being of individuals', it might be valuable to look at this changed perspective in relation to the contemporary architectural discourse, as a continuation of its exile from the city in the realm of urbanism (1997, p. 21).

02 The body of the city

> *'If we were to come across a mound in the woods, six foot long by three foot wide, with the soil piled up in a pyramid, a somber mood would come over us and a voice inside us would say, 'There is someone buried here.' That is architecture.'*
> *(Loos, 1910, p. 8)*

In his article about architecture and death, Adolf Loos presents the capacity of architecture to communicate (Ibid). Once a person is buried, the body is (re-)united with the ground and starts to decompose. The physical body thus disappears and the tomb, as a sign, refers to this body (Finkelstein, 2019, p. 56). Essentially, this makes the architecture of death a materialization of an absence[5]. As the tomb or shrine communicates the presence of a body that once was, it arguably becomes an extension of that body, embodying memory and identity. On the urban scale, this makes graveyards, as places where collective identity and memory is stored and shared, extensions of a former society. Architecture and the body become unified, a link as powerful as the link between human physiognomy and the individual expressed by Bataille.

The use of a metaphor as a form of imaginative thinking next to the empirical one, which is limited to physical and measurable objects, can be productive for conceptualizing and structuring a chaotic whole (Ungers, p. 8)[6]. In our search for an understanding of the border conditions in the contemporary city, an anthropomorphic way of thinking is proposed. As Drake mentions in his thesis on anthropomorphism in architecture: 'The body provides a model of unity, as a necessary and sufficient combination of parts working together to maintain human life.' (2003, p. 25). As our cities are built for the same reason, this lens could be valuable in an exploration of the city as a living body and subsequently its relation to death.

Our bodies are in constant movement – we grow and change until the point of death, which is the moment that our bodies cease to be active and naturally start to decay. To find out in what state the contemporary city finds itself, we follow the development of an imaginary city.

Organic body

The body of the city emerged when people started to settle on a fruitful location and built up a civilization. The generally accepted theory for these settlements that would later form the first cities, is the availability of a surplus of food as a consequence of agricultural improvements (Beall & Fox, 2009, p. 36). The early city was thus very dependent on its direct environment: if there was no possibility to suffice basic needs such as food and water, then settling was not at all possible. The early city had a confined territory and organically grew into the landscape. It was like a microcosm: local, conceivable, and unified. This is analogous to the way the body was firstly introduced in the architectural discourse by Vitruvius. The body was used to structure and order architectural principles and provided 'a visible metonym of natural or cosmic order, a microcosm' (Drake, 2002, p. 4). Thus, the early city is understandable as a human body. In this configuration, the cemetery was an integral part of the city. Like the original local cemeteries of the inner city districts in London, there was a close spatial relationship between life and burial space: 'the cemetery was a vital part of the urban palette' (Worpole, 2003, p. 32).

Restructured body

However, the city did not stay in its original shape. As it grew exponentially bigger and its needs amplified due to bigger populations, it was radically restructured into what we call the modern city. In order to explain this shift in form, a parallel is drawn between the transformation of the city and the study of anatomists in the Renaissance, which allegedly jeopardised 'the unity and integrity of the human body itself.' (Drake, 2002, p. I). In order to get grip on its workings, the anatomists engaged with the body scientifically: they dissected the corpse, revealed its interior, and re-arranged its parts on a table in an orderly manner. In the modernization period, the naturally grown relations between the city's organs (read markets, squares, houses, graveyards, etc.) were violently negated as its body was similarly cut up. The parts were separated by functionality and subsequently ordered on a grid that overshadowed the city's original landscape, and finally reconnected by straight infrastructural networks. On the one hand, the city became cleaner, less complex and structured. In the eye of the modernists, the body was mechanically transformed into one 'whose needs can be satisfied', one that was able to 'enjoy previously unimaginable levels of comfort.' (Ibid, p. 9). On the other hand however, it can be stated that modernism, in this rationalised attempt of creating a healthy, fixed and stabilized body with a correctly functioning combination of parts, killed the natural body of the city. The effect of this manipulation on the relation between city and cemetery can again be recognized in the context of London. In the 19th century, its local cemeteries were replaced by massive suburban ones, which severed the natural link between

[5] In his essay The Thing, Heidegger reflects on death in a similar way when he states: 'Death is the shrine of Nothing.' (p.176)
[6] In his book Morphology – City Methapors, Ungers compares the plans of different city designs to images of things that share a similar design principle. One of them is for instance the human body.

the territory of the living and the dead (Worpole, 2003, p. 32). When Haussmann similarly proposed to remove the local cemeteries in Paris as a part of his plan to restructure the city, the residents started protesting with the cry: ‘No cemetery, no city.’ (Ibid), which reflects the violence of this reorganization.

Assembled body

The violence imposed by the restructuring was revealed and pursued by post-modernists like Wolf D. Prix, Bernard Tschumi and Daniel Libeskind. They strongly oppose identifying the body as a unified whole, and instead refer to one that ‘seems to be fragmented, if not contorted, deliberately torn apart and mutilated almost beyond recognition.’ (Vidler, 1990, p. 3). In this line of thought, the contemporary city cannot be seen as the human body that Vitruvius depicted as such, or an anatomically or mechanically correct one according to the modernist understanding. It seems to have more in common with a post-human body, a body that has moved beyond death. Similar to the medicalization of society and the consequent focus on prolonging life, the city can be regarded as a body ‘being kept alive’. Due to the urge towards progression, growth and development, parts of the city perceived as decaying are replaced or modified with surgical-like operations. In this way the city becomes, again using Chuks words, a ‘living memorial’ (2015, p. 56) with a body that is constantly changing and re-written as a palimpsest. As Braidotti notes: ‘post-human thinking is post-identarian and relational: it turns the self away from a focus on its own identity into a threshold of active becoming.’ (2019, p. 87). Similar to the way we have gained a certain freedom over transforming our bodies through plastic surgery, the identity of the city can be modified whilst simultaneously hiding the traces of death and decay. The post-human body of the city thus is an amalgamation of organically grown, indigenous material and components of a more ‘technological’ nature.[7]

The effect of technology on the body is described by Halberstram & Livingston: ‘technology makes the body queer, fragments it, frames it, cuts it, transforms desire’ (1995, p. 16). The body of the city cannot anymore be regarded as a unified whole with a confined territory, but rather a fragmented, extended[8] and continuously changing one, resulting in vague borders and an ill-defined territory[9]. Due to fragmentation, the body of the city is not revolving around a certain locality like the organic city but has multiple centralities. The fragmented pieces, broken up by the modernist restructuring, becoming autonomous and externalized parts of the city. An example of a cemetery that is related to this condition is San Cataldo by Aldo Rossi. Here, the cemetery has become such an autonomous fragment. In fact, Rossi regards the cemetery as a city on itself, a city for the dead that reflects the city of the living (Connelly, 2017, p. 4). Its architecture, as described by Scalbert as indifferent to the human and almost scientific, suggesting an extension of technological nature (2019, p. 38, 44). The once entangled territories of the living and the dead are now completely separated. The dead here have their own city, a city that can be visited by the living.

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[7] The combination of organic and inorganic material is also occurrent in the notion of the assemblage described in assemblage theory. Moreover, it is stated that: ‘Unlike organic totalities, the parts of an assemblage do not form a seamless whole.’ (Delanda 2009, p. 9), which is similar to the organic body of the early cities opposed to the assembled body of the contemporary ones.

[8] ‘Posthumans regard their own being as embodied in an extended technological world.’ (Pepperell, 2003, p. 152)

[9] The city of Mashhad for example, is now quenching its thirst with water from hundreds of kilometres away (provided by the Doust Dam). The shrine, which was formerly the only centre of the city and integrated in the fabric has now become increasingly autonomous, having a severed, sometimes completely denied relation with its indigenous context and its residents. And lastly (also noted in the introduction), bodies of the deceased are now dealt with in a centralized cemetery outside of the city, which could almost be regarded as a city on its own.

03 Architectures of movement and stagnation

In describing two projects that treat the contemporary perspective on death differently, this chapter aims to explore different effects of this change on the expression of architecture.

Static

In 1971, Superstudio designed twelve imaginary cities. The project critiques the modernist ideology by extrapolating it into twentieth-century modernist utopias (Moma, 2020). The First City is one that consists of a continuous, universal architecture in the shape of a grid, that is superposed onto the landscape (fig. 1). The grid is inhabited by individuals, each having their own cell which suffices all their needs. Just like the restructured body, discussed in chapter 2, all relations are broken up. In this structure, every individual is equal and death does not exist. Only if one would resist against this ideal state of being, one would be obliterated and replaced by a new perfect resident (Ibid).

At first glance, the non-existence of death here seems to fit the contemporary perspective on death as discussed in chapter 1 perfectly. This leads however to an incredibly non-organic and static architecture, restricting movement of the human body or any movement at all. Bodies are ‘dealt with’ in the same way as we deal with dead bodies in mass-cemeteries. The cells of the Continuous Monument are similar to the graves in cemeteries like the Arlington National Cemetery in Washington, or Behesth-e Zahra in Tehran (fig. 2). They completely restrict, standardize and equalize the human body. The Continuous Monument renders a world with an atmosphere similar to the cemetery which, using Worpole’s words, ‘evokes a sleeping world, a horizontal world, a world of permanent darkness and rest’ (2003, p. 29). The non-existence of death, or at least the meaninglessness of it, seems to result in an equal insignificance of life. So is death actually non-existent here? Or is this project the very manifestation of death?

Dynamic

After deciding ‘not to die’, the artists/architects Arakawa and Gins completed a project called Reversible Destiny Lofts in 2005 (figure 4). In their view on death as a process, they argue that a body must be trained to resist decay (Lambert, 2014, p. 15). Therefore, the project consists of several rather unconventional apartments that contrary to the Continuous Monument pose a non-uniform architecture. In this architecture against death, bumpy floors, bright yellow ladders and atypical spaces form a playground-like environment that challenges and activates its inhabitants. In this case, rather than a restriction, architecture becomes

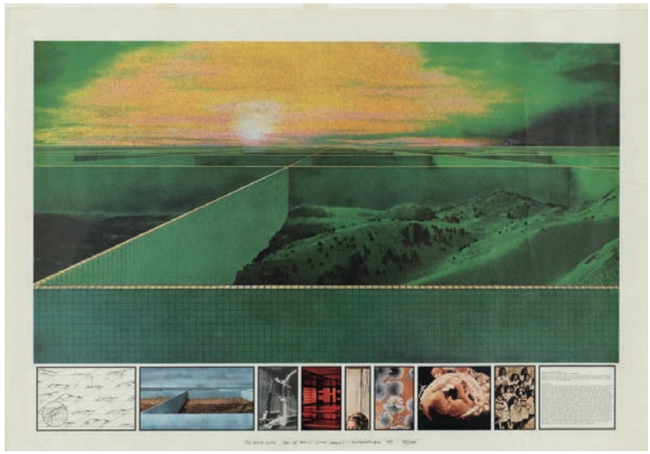

Figure 1: The First City made by Superstudio in 1971.

Figure 2: The landscape of Arlington National Cemetery in Washington.
Photo by Dudva, 2014.

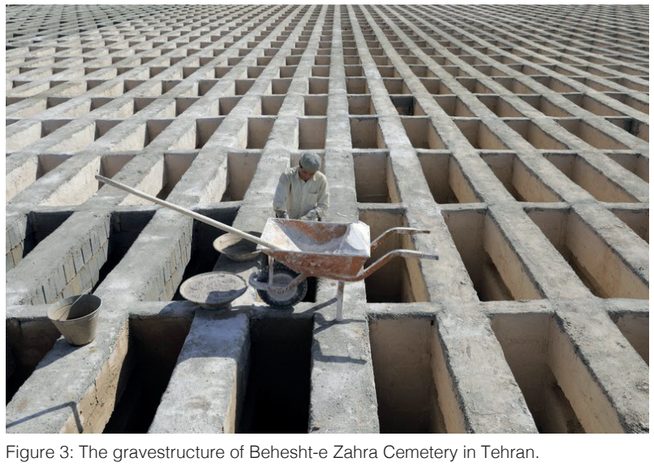

Figure 3: The gravestructure of Behesht-e Zahra Cemetery in Tehran.
Photo by Noroozi, 2020.

an extension of the human body. Rather than making the distinction between space and body, they merge into the architectural body (Gins & Arakawa, 2002, p. 120). Following the philosophy of Arakawa and Gins, death manifests itself in a state of non-movement. If we convey the Continuous Monument as an ultimate restriction of movement, then the project seems indeed to be a manifestation of death. In Reversible Destiny, on the contrary, the denial of death leads to exactly the opposite: movement evoked by a dynamic architecture.

Figure 4: Interior shot of Reversible Destiny Lofts.
Photo by Ohira, n.d..

04 Conclusion

In the search for the effects of our shifted attitude towards death on the architectural discourse, it was established that the change was triggered by spatial and social factors. Next to the fact that the modernization and specialization of cities led to a separation between territories of the living and the dead, the medicalization of society and the urge to keep people alive resulted in our view on death as a failure of life. The negative connotation of death leads to a society that rather hides its existence. Taking this into account, it seems that we deal with our contemporary cities the same as with our bodies. In an effort to keep the city alive it has become an assembly of fragments. It transformed into a body that has most in common with one that moved beyond death: a post-human body. The city of today cannot be seen as a unified body, but more as a fragmented, extended and ever-becoming one. The cemetery in this situation has become an autonomous fragment, an indifferent piece of architecture. The very indifference towards anything living results in the incredibly static architecture of The Continuous Monument: an architecture that eludes an insignificance of life due to the non-existence of death. On the contrary, the denial of death in the Reversible Destiny Lofts leads to a highly dynamic structure, functioning as an extension of the body.

On both the urban and architectural scale, it seems that the focus on continuation results in the extension of the human body, transforming it into a body that denies death. As death, being an inherent part of all life, can never be fully denied, it occurs that the crux of dealing with death in modern society lies in the notion of extension: something that stays at a certain distance while also being part of our daily lives.

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Part IV - Design process

Design process

1. Masterplan

01 Problems

From: The bureaucratic professionalisation of funeral rites in Behesht-e Zahra.

General problems

- *Death is sequestered*
  - *Seperated and isolated from normal, everyday experiences and hidden behind walls in hospitals and funeral homes.*
  - *Segregation of the dying from the rest of the city*
- *Death's existence is denied*
- *A taboo on conversation about death*
- *Decline of mourning rituals*
- *Death denying funeral practices.*

Burial rituals have become

- *Impersonal*
- *Bureaucratic*
- *Individualized (in the non collective sense)*

'Problems' in Iran

- *There is simply no choice to legally dispose of a corpse in any other way anywhere in Iran than the Shia-Islamic way.*
- *The large amount of burials make it necessary to streamline the process and hand it over to professionals and bureaucrats. Death is sequestred because of the need for efficiency, this is the main reason, at least in Mashhad.*
- *Bureaucratic professionalization collides with the traditional religious duties of collective participation in funeral rituals.*
- *There is no room for individualization, all corpses undergo the same process.*

The ritual

The ritual gives

- *A sense of order*
- *A script for action*

In the Shia religion, there are three primary religious components of the burial ritual:

1. *Ablution and enshrouding*
2. *Prayer of the dead*
3. *The burial*

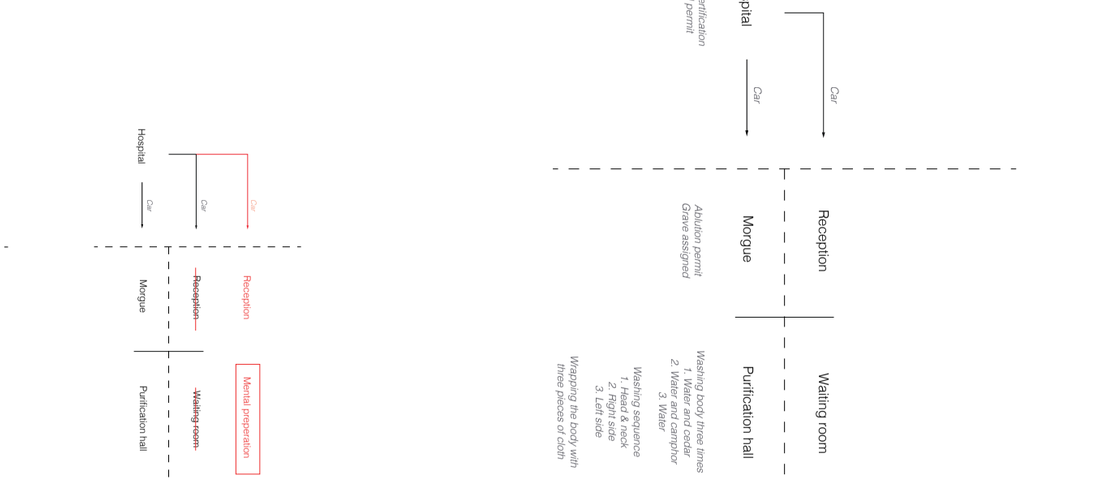
Differences with the traditional way

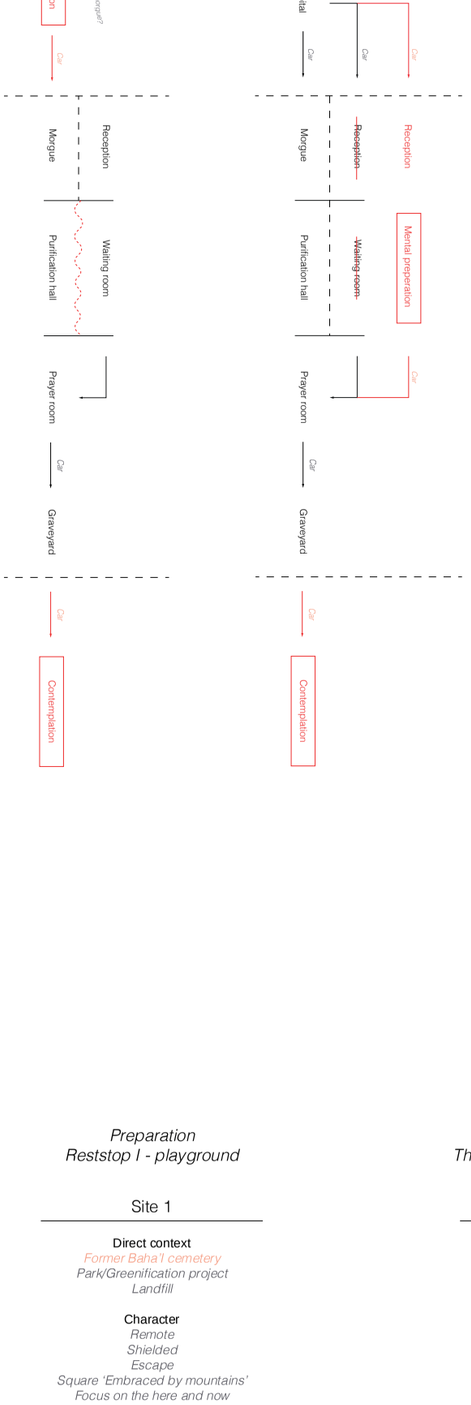
- 'Problems' with the burial
- Traditionally there was a lot of space for grief.
- The washing would normally be done at home
- Grave was dug by community members
- Back in the city a feast would be served to the crowd an it too would be prepared by neighbours and acquantances while the family grieves.

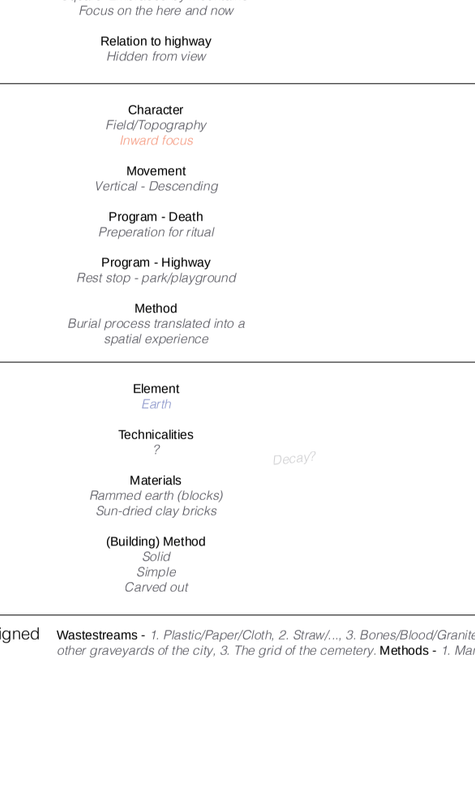
The most important development relative to the traditional way:

- *Where the ritual formerly was largely an emotional happening, there is now less space for that. The emotional space is reduced to a minimum by the professional space.*

Emotional space < Professional space







	Preparation *Reststop I - playground*	*Transition* *The service (purification) station*	Cemetery Burial	*Contemplation* *Reststop II - The restaurant*
	Site 1	Site 2		Site 3
Context	Direct context *Former Baha'i cemetery* *Park/Greenification project* *Landfill* Character *Remote* *Shielded* *Escape* *Square 'Embraced by mountains'* *Focus on the here and now* Relation to highway *Hidden from view*	Direct context *River* *Agriculture* Character *Speed* *Motion* *Linearity* *Break in order* Relation to highway *Along the highway*		Direct context *Former pilgrimage site* *Granite industry* *Meat industry* Character *Overview/Panorama* *Point of order* *Exposed* *Focus on the there and then* Relation to highway *Marker* *Point of recoginizion*
Design	Character *Field/Topography* *Inward focus* Movement *Vertical - Descending* Program - Death *Preperation for ritual* Program - Highway *Rest stop - park/playground* Method *Burial process translated into a spatial experience*	Character *Sequential/Repetitive* Movement *Horizontal - Linear* Program - Death *Washing the body* Program - Highway *Washing the car (service station)* Method *Juxtaposing washing rituals*		Character *Ascend/Protrude* *Outward focus* Movement *Vertical - Ascending* Program - Death *Contemplation/Framing* Program - Highway *Rest stop - Restaurant* Method *Materialization of distanciation*
Technical	Element *Earth* Technicalities *?* Materials *Rammed earth (blocks)* *Sun-dried clay bricks* (Building) Method *Solid* *Simple* *Carved out*	Element *Water* Technicalities *Purification of water* Materials *Cloth?* (Building) Method *?* *Mechanical*		Element *Air* Technicalities *Cooling with airstreams* Materials *Lightweight versus heavy (?)* (Building) Method *Carving out and building into (?)*
To be assigned	Wastestreams - *1. Plastic/Paper/Cloth, 2. Straw/..., 3. Bones/Blood/Granite(dust).* Contextual elements - *1. Greenification process - Relation to nature (present in all sites), 2. The border constructed by the other graveyards of the city, 3. The grid of the cemetery.* Methods - *1. Manipulation, 2. Construction/Deconstruction, 3. 'Excavation'.*			

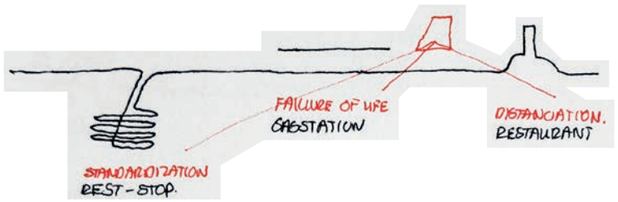
Sharing food?
Prayer room?
Using white cloth?
Decay?
Moving parts?

01 Constellations

The modern pilgrimage

Interactive monuments along the highway

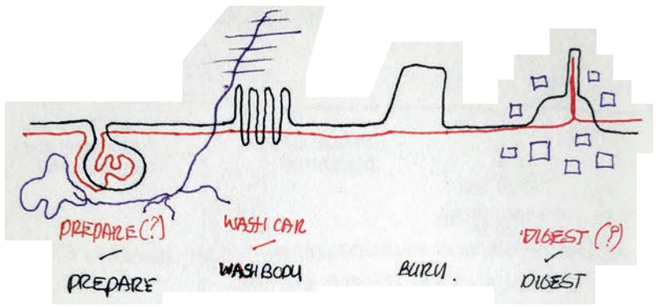
Instead of visiting shrines, caravanserai, minarets etc., the modern pilgrim travels by car and visits, restaurants, gasstations and rest stops.



The weave

Weaving the fragments of the context, the modern pilgrimage and the extended ritual together.

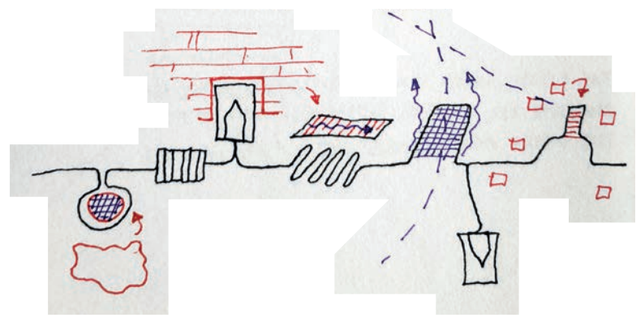
The exploded ritual coincides with banalities from the highway.



The mediating monuments

Three interventions add to the monuments along the road (via appia antica)

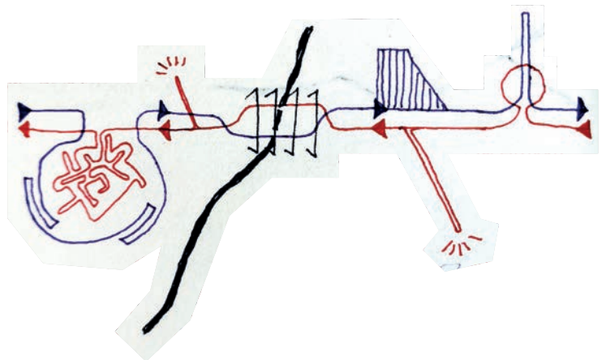
The monuments are the things in between, the connectors, they take principles from the main graveyard and combines this with direct contexts.



The weave

Weaving the fragments of the context, the modern pilgrimage and the extended ritual together.

The banal life is respectfully weaved into the mourning ritual at specific points. These point are materialized by the interventions. They are points of mediation, of connection.

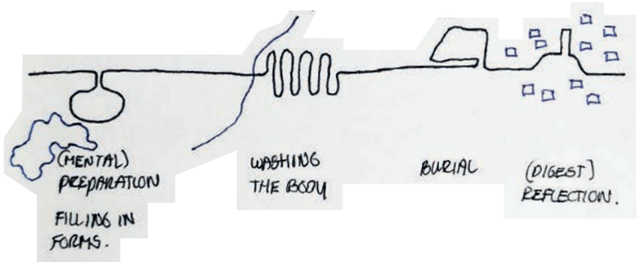


01 Constellations

The extended ritual

Ritual by car

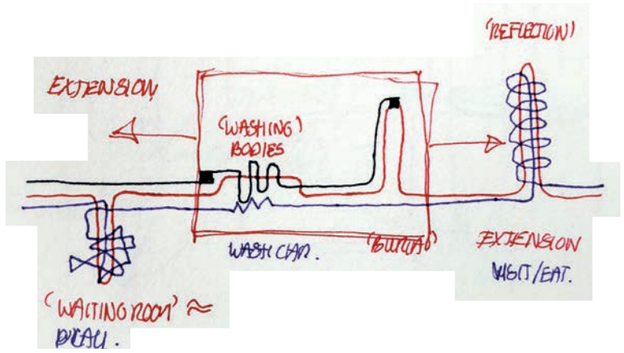
The ritual, which would now solely take place at the big cemetery, is exploded and extended along the highway. The whole site becomes part of the process.

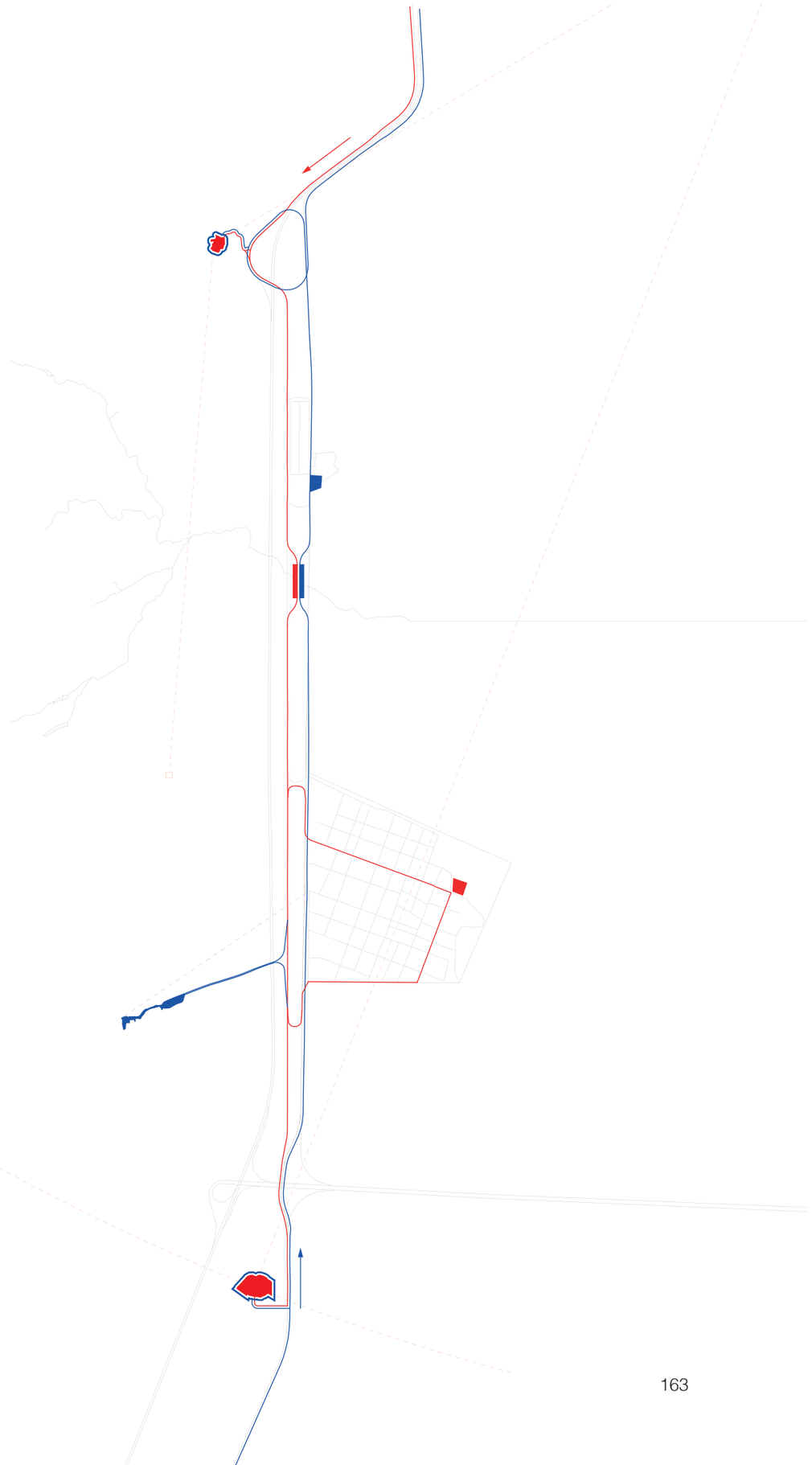


The extended ritual

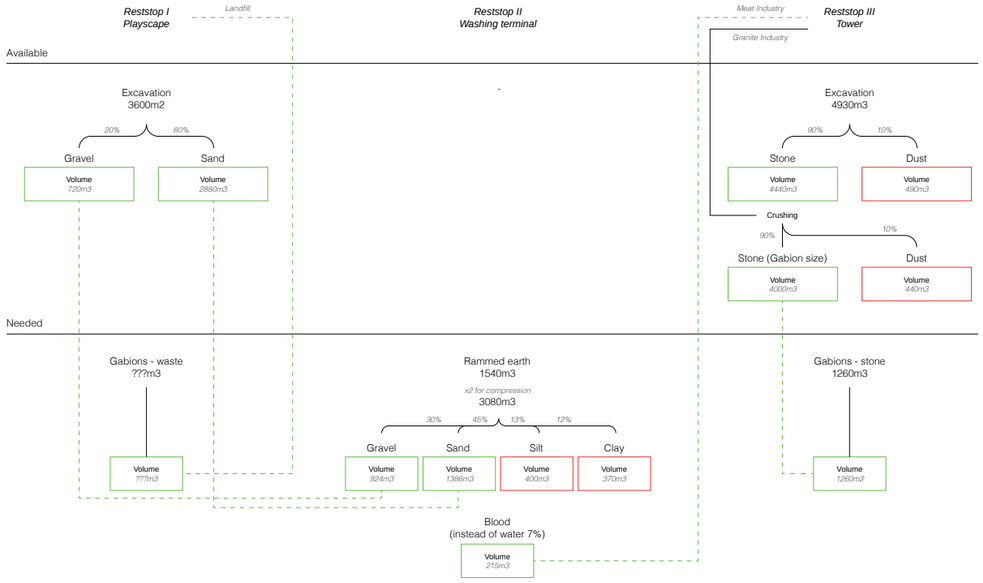
Emotional space

As the burial ritual is forced to be efficient and quick, the extended ritual makes place for emotional space outside of the ordinary ritual.





01 Materials and balance



Wastematerial from landfill

Greenification - wood?

Highway - Steel & Asphalt

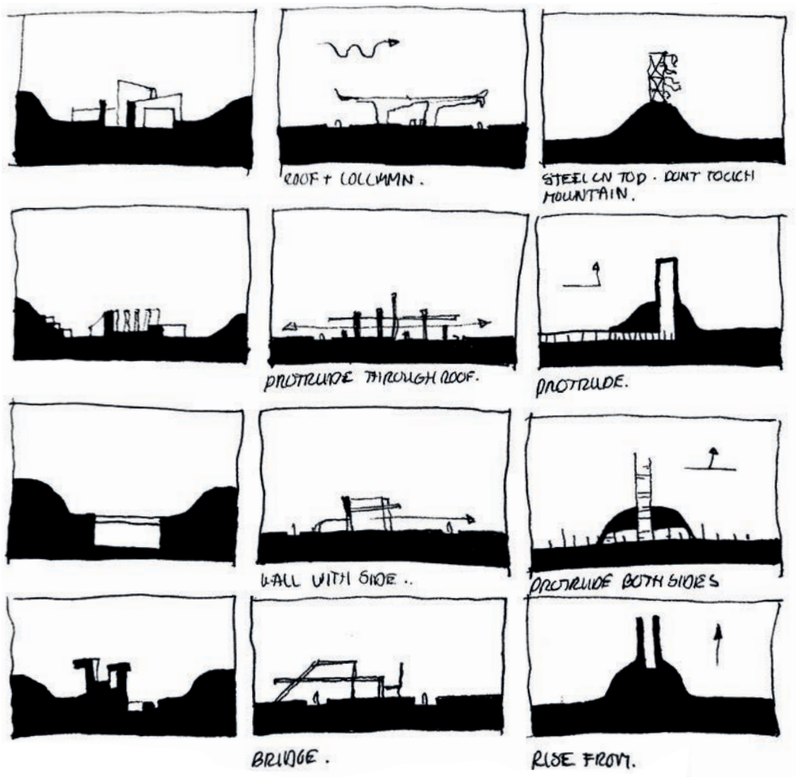
Agriculture - Wasteproducts

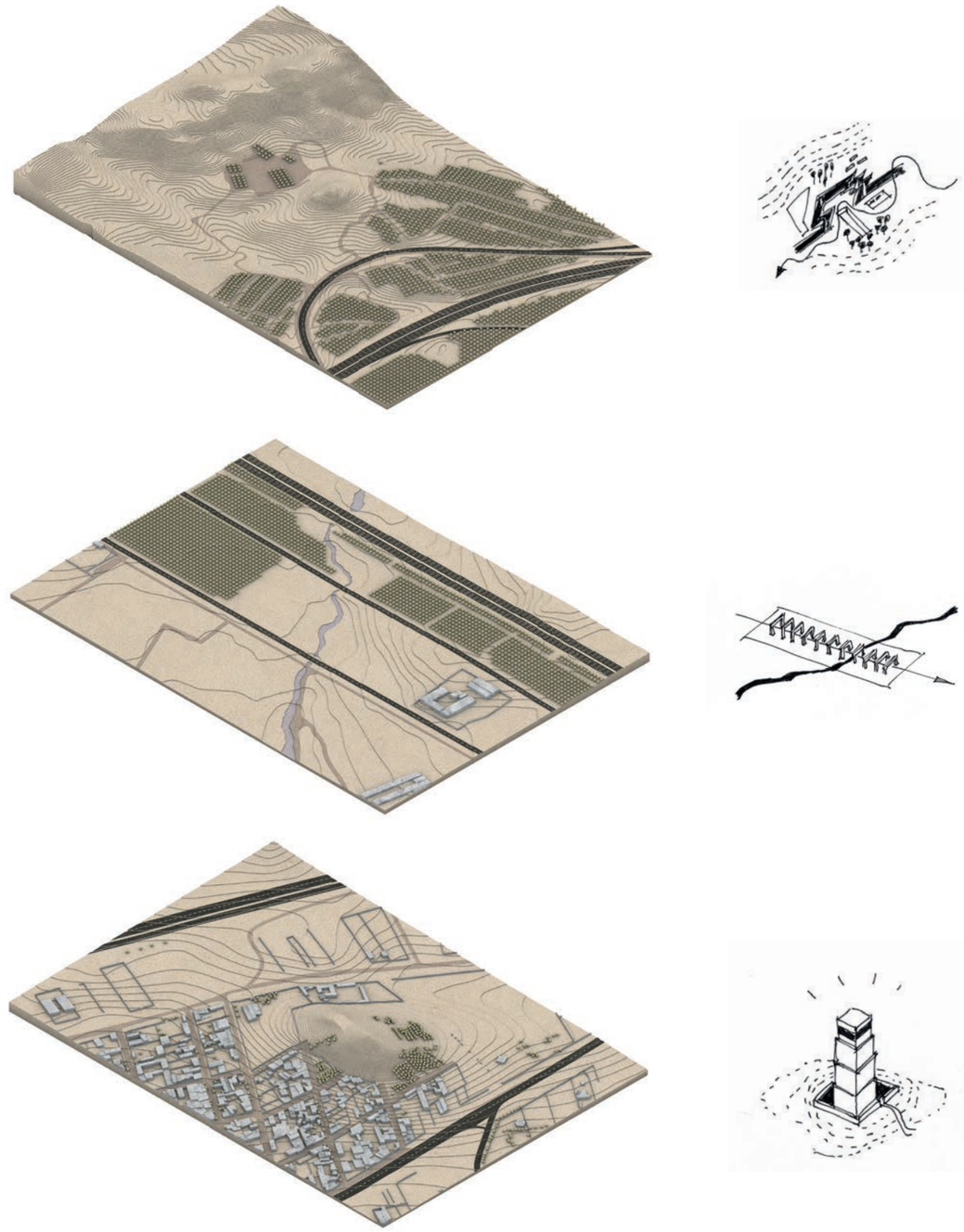
Cemetery - Bricks

Meat industry - blood and bones

Granite industry - machines

01 3 characters in 3 landscapes



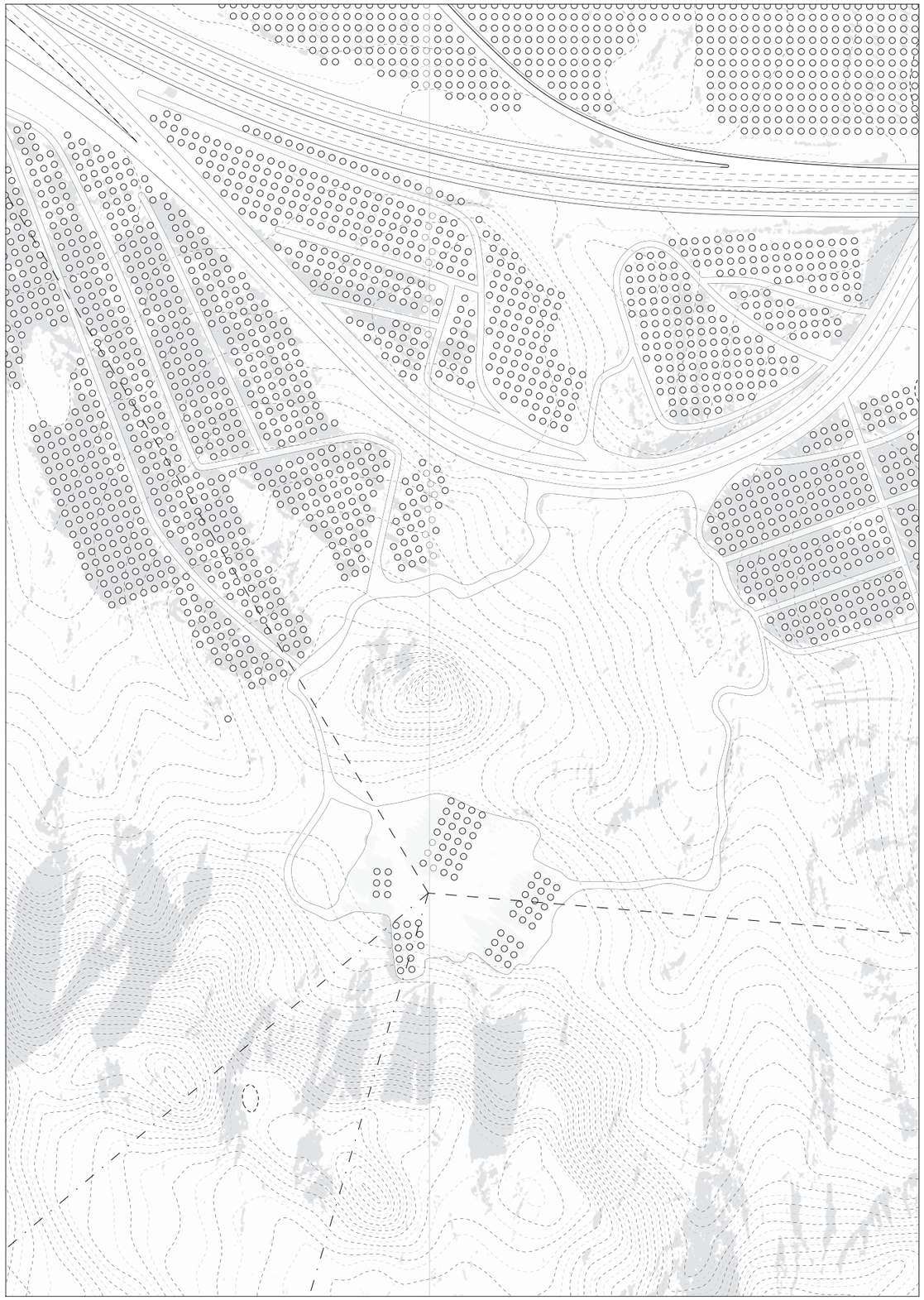


Design process

2. The playscape

02 Site plan and section

A flat land in a rocky landscape



02 Complexity drawing

Baha vs Islam

- Mohammed vs the Bab
- Directional conflict: The dead face Mecca: Qibla vs the dead feet to Akka: Qiblih
- May 29, 2010: The Baha'i cemetery in Mashhad was vandalized on the night of 29 with a front end loader and other heavy machinery.
- Identity and standardization: The graves are regular and numbered only, without any name or adress of the deceased on the grave.
- The persecution of Baha'is has been most severe in Iran

Baha'I

- The body of man, which has been formed gradually, must similarly be decomposed gradually: a symmetry of slow birth to slow decay.
- One of the core teachings of the Baha'i Faith is the unity of humanity (and the unity of God.)

Greenification project

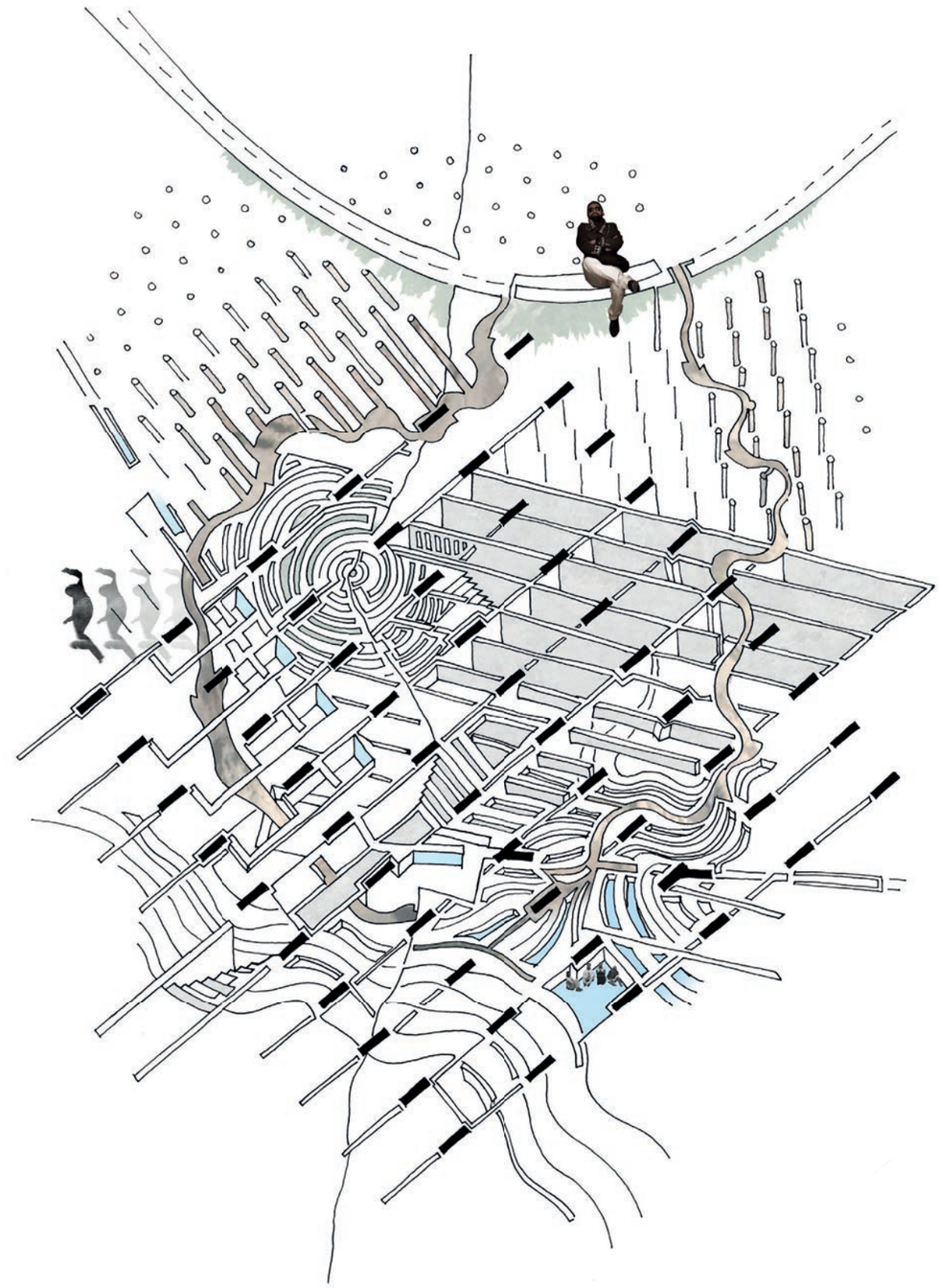
- South-Eastern zone as recreation services and nature-based tourism.
- Trees are a sign of life: 'Trees are signs of God and signs of environmental health'

Wastedump

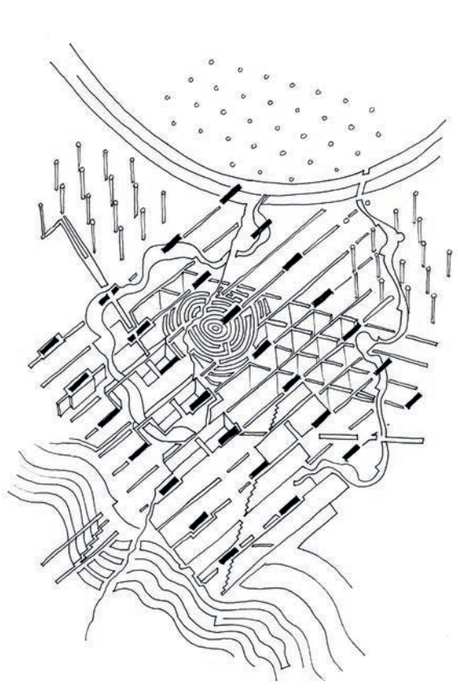
- The modern city deals with the dead similarly as it deals with its waste. Bodies are disposed of.

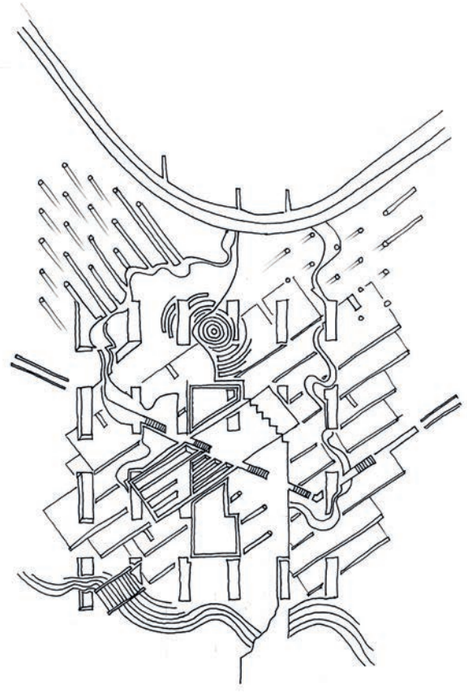
The play

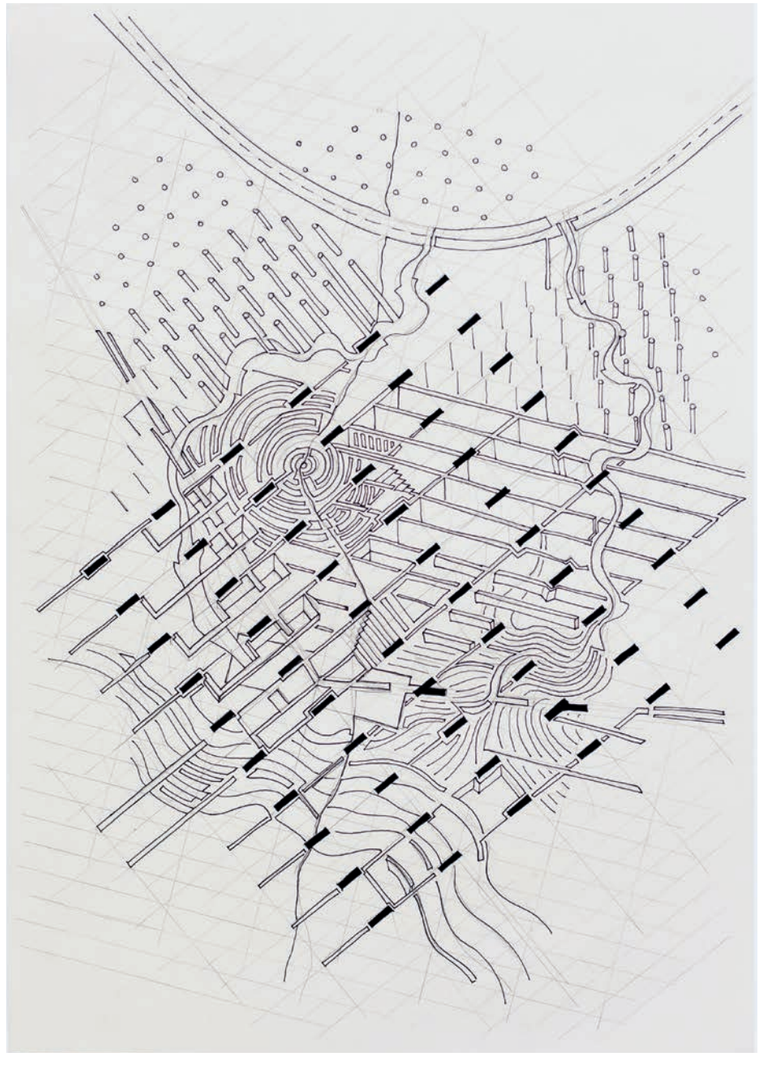
- Ta'zieh, means comfort, condolence or expression of grief. In persian culture it means a 'condolance theater' or Passion play.
- During Muharram, the death of Hussein and his companions in a brutal massacre on the plains of Karbala, is re-enacted.



02 Complexity of direction







02 Directional conflict - Baha'I cemetery

Persecution in Mashhad
July 21, 1998: Mr. Ruhu'llah Rawhani, a 52-year-old medical supplies salesman was hanged in Mashhad solely for religious reasons. Later that morning, his family was summoned to collect his body and required, despite their protests, to complete the burial in one hour, under the supervision of Government intelligence agents.

March 5, 2008: Mahvash Sabet - a schoolteacher, mother and member of the national-level administrative group for Iran, the Yaran - was arrested after having been summoned to Mashhad to discuss some matter regarding a Baha'i burial. She subsequently spent 175 days in solitary confinement. On the 26th of May she was moved to Evin prison in Tehran. The arrest marked a new wave of persecution of the Baha'i Faith in Iran.

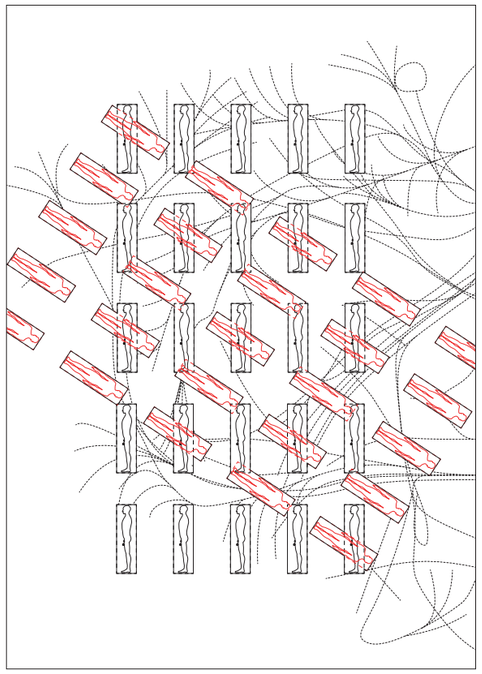
May 29, 2010: The Baha'i cemetery in Mashhad was vandalized on the night of 29 by unknown intruders. The vandals used a front-end loader and other heavy machinery to deface the premises. The cemetery's walls, the mortuary, and the place where prayers were recited were severly damaged.

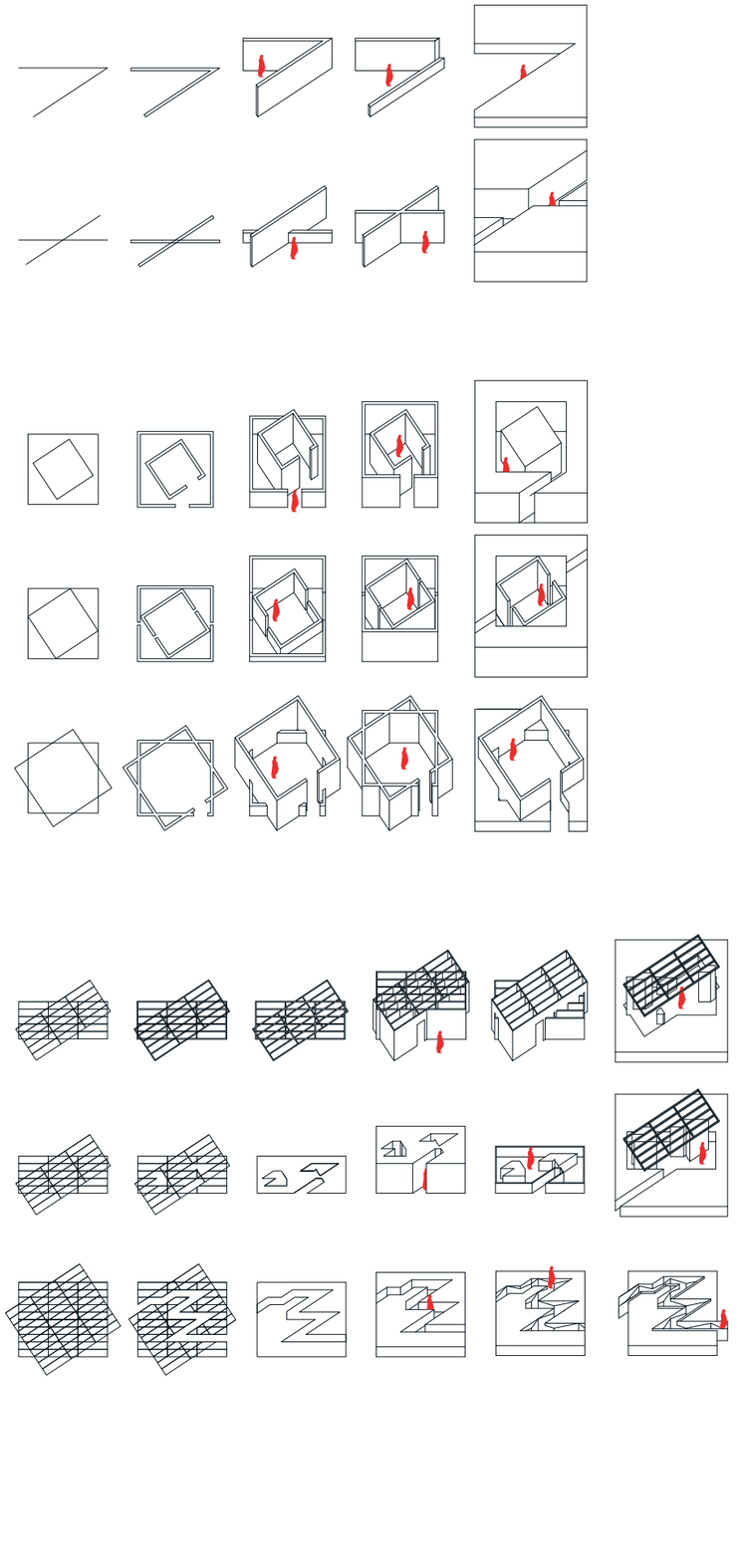
Baha'i Cemetery Mashhad
The main Baha'i cemetery was located at the beginning of Golshahr Boulevard (100m from the Beltroad) and was inactive (?) and destroyed after the Islamic Revolution. But untill the beginning of this revolution, the Baha'i wer buried here. With the measures taken by municipality and the obstruction of buring their dead in the Shiite cemetery, a cemetery has been planned for them on Fariman Road, before Khajeh Morad and the village in front of Behesht Reza, some distance from the road.

The cemetery is hidden from public view as it is located behind small hills on the right side of the road. Although the cemetery has a bathhouse, Baha'is often bathe their dead in Behesht Reza and then transfer them to the cemetery after obtaining legal permits.

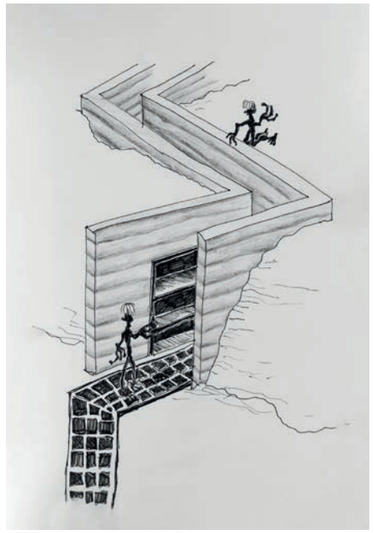
The graves are regular and numbered only, without any name or adress of the deceased on the grave.

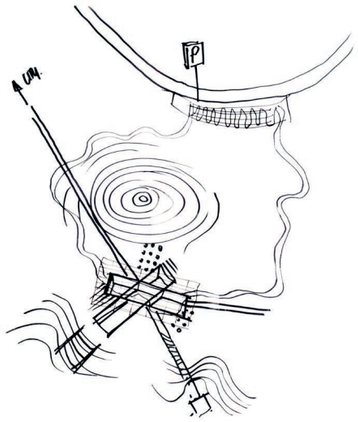
Source: Graveyards of Mashhad (book)

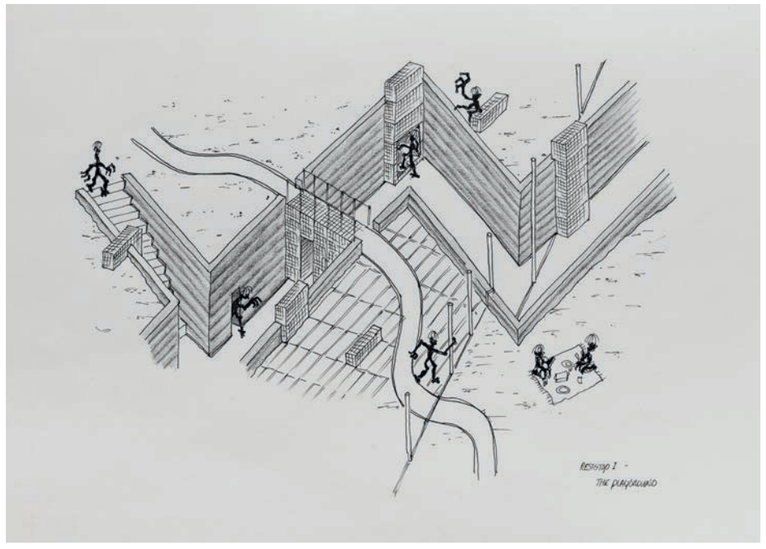


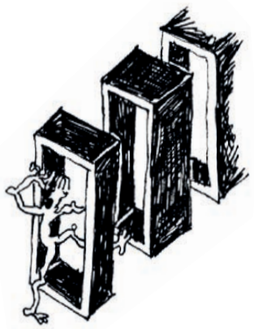


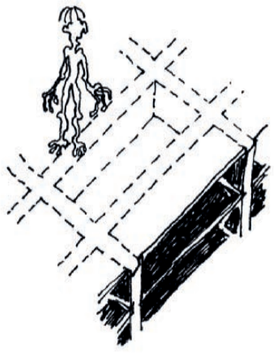
02 Microlandscape conditions

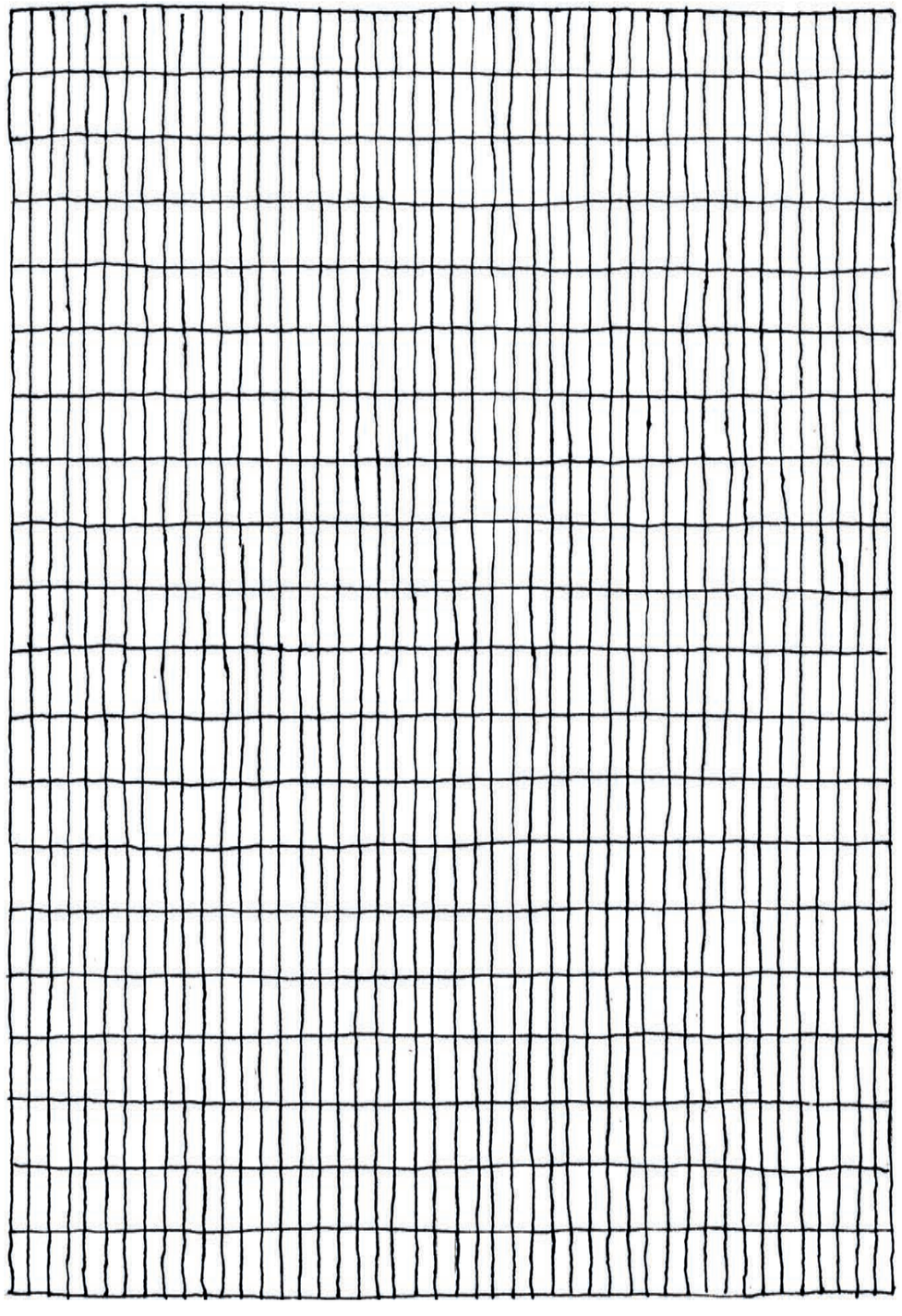




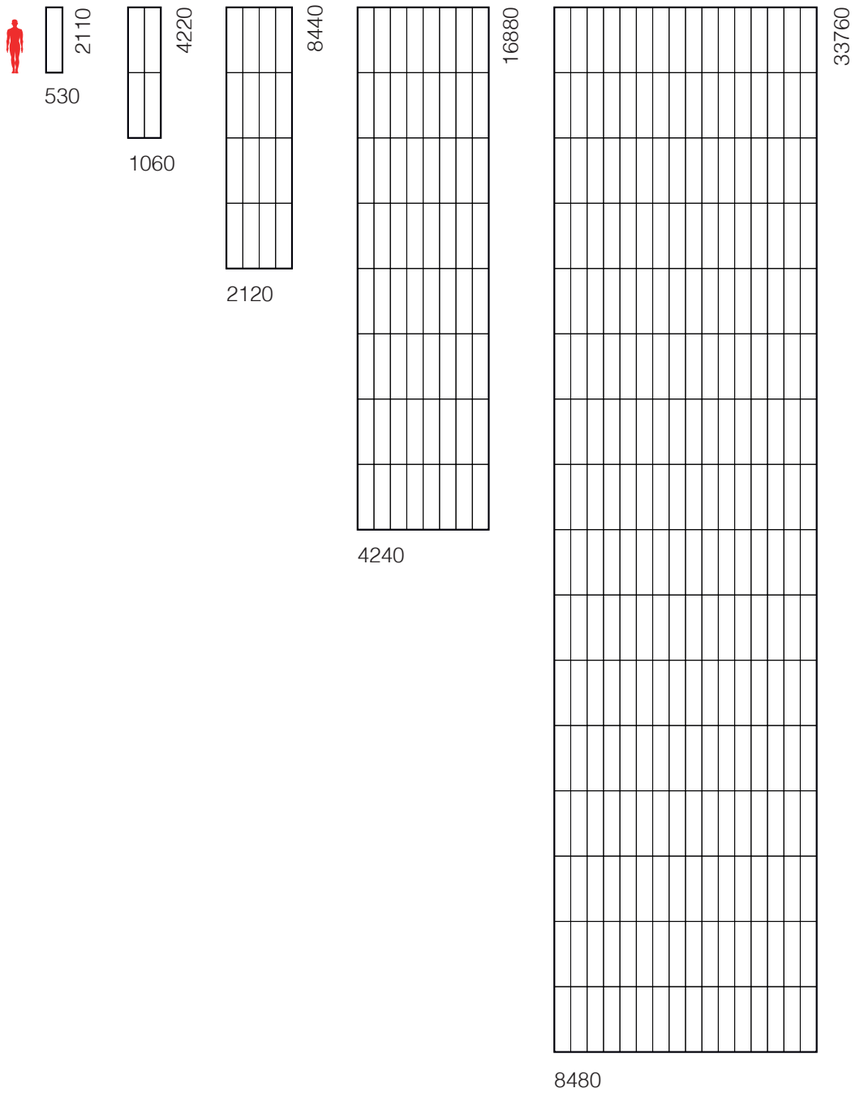


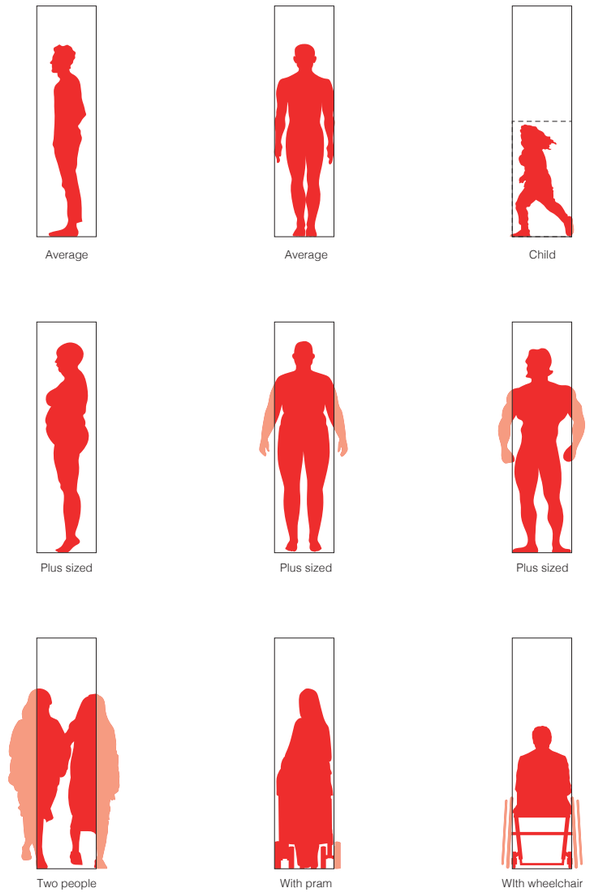




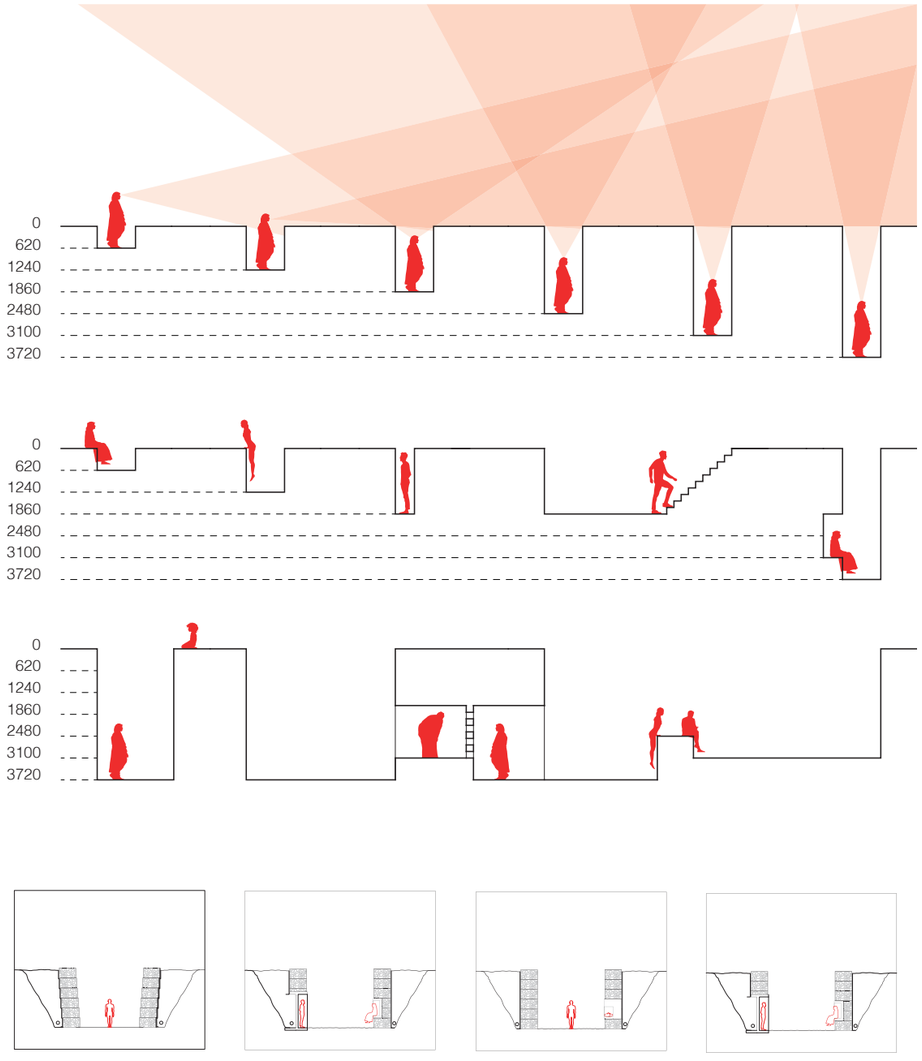


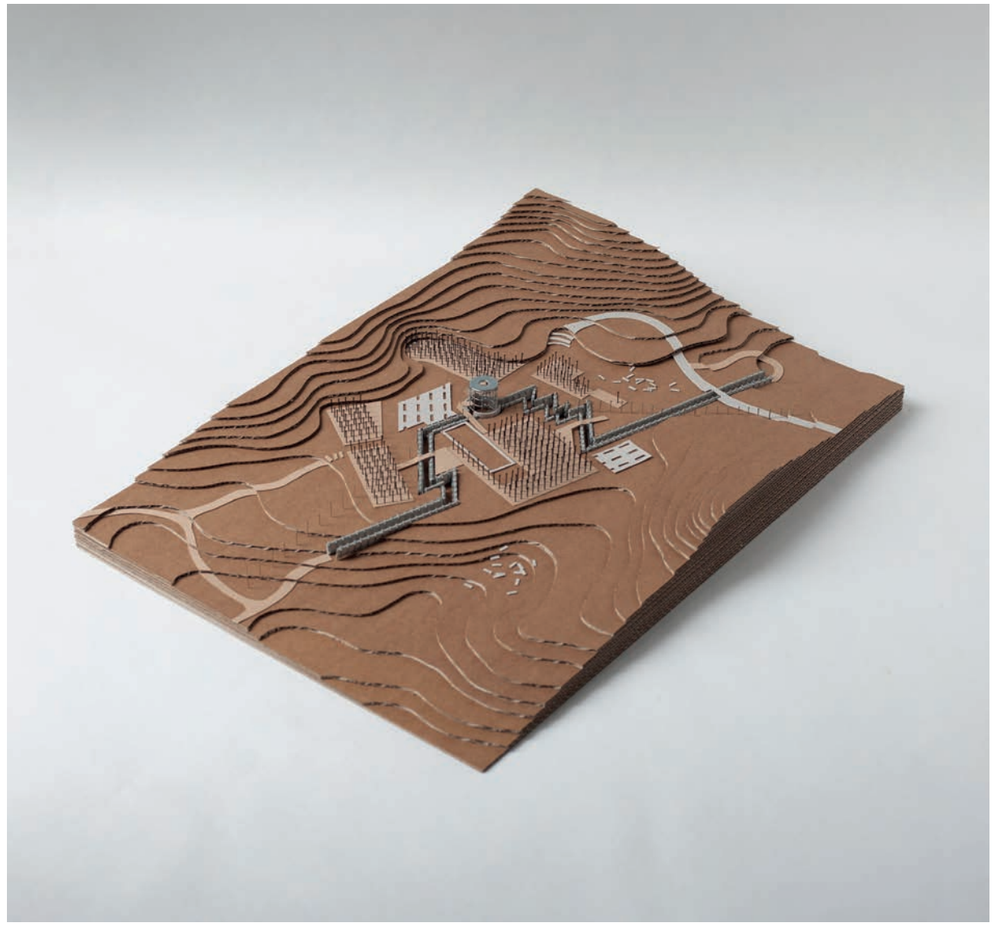
02 Measurements system



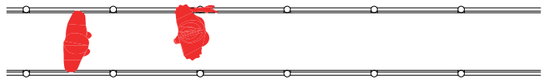


02 Measurements of the grave

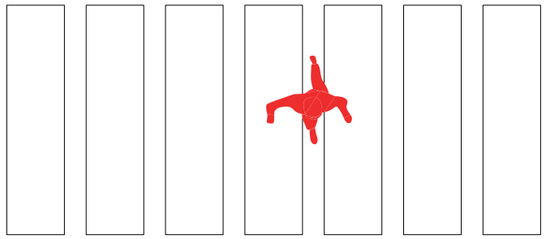




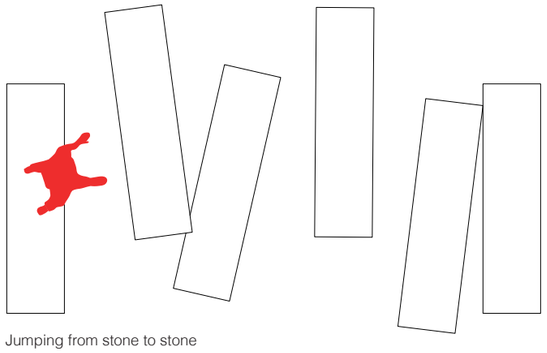
02 Interactions with the measurement system



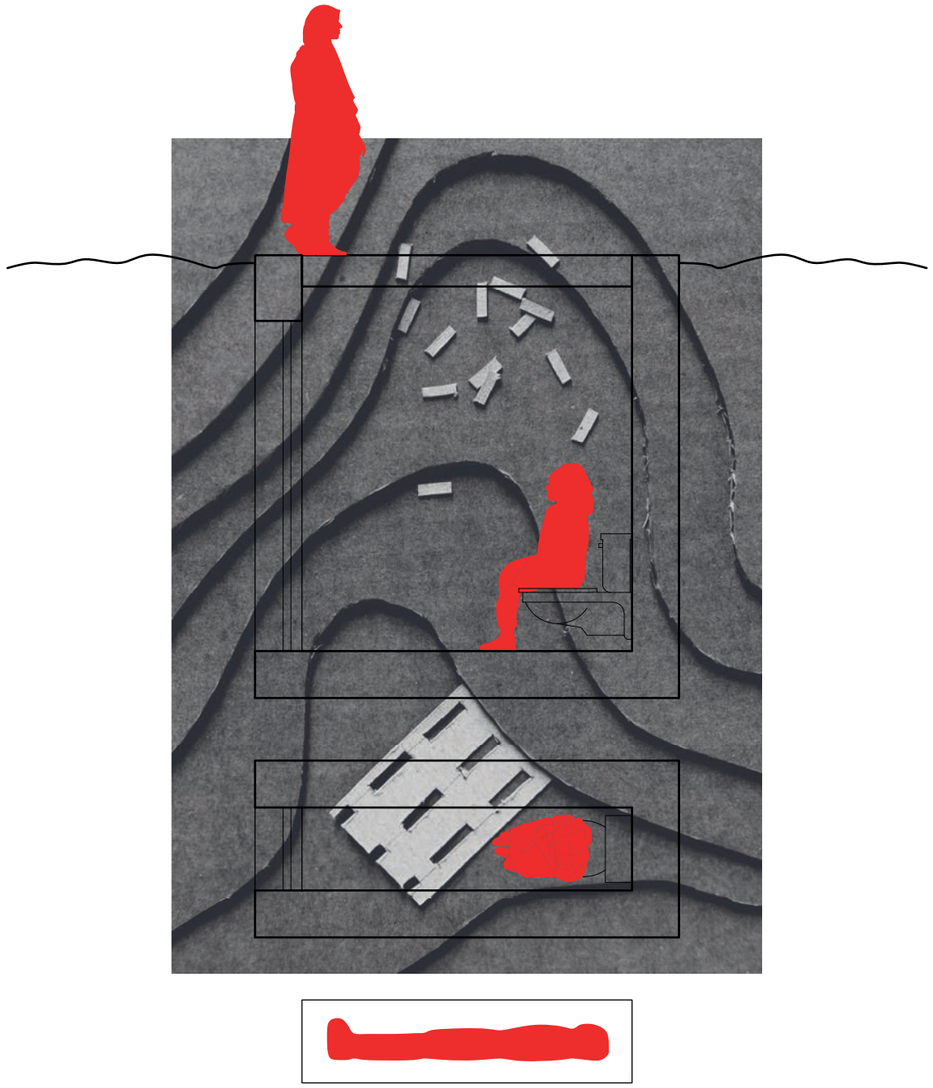
Bridge



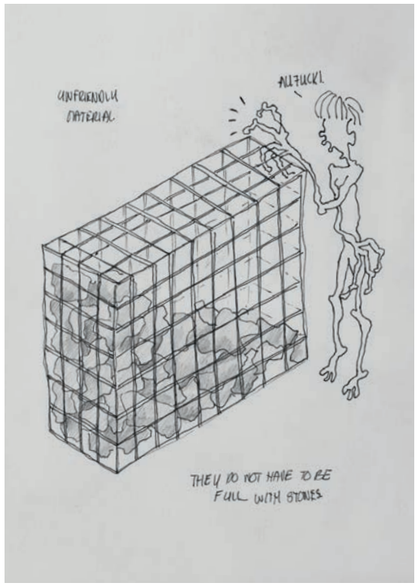
Movement between

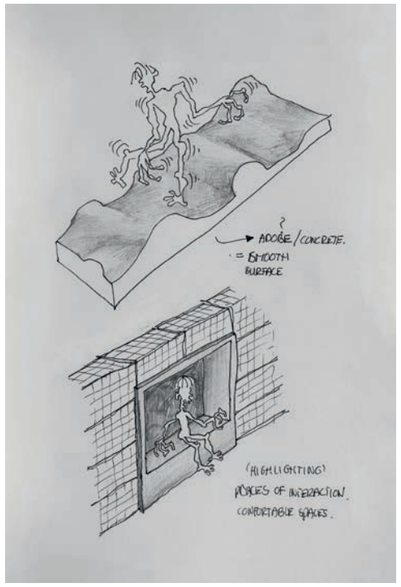


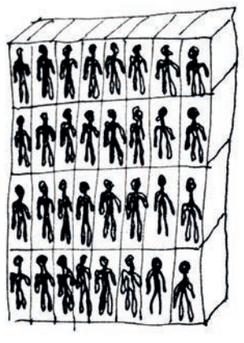
Jumping from stone to stone

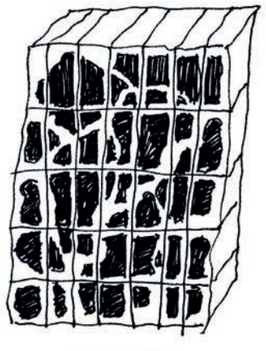


02 Material and (dis)comfort

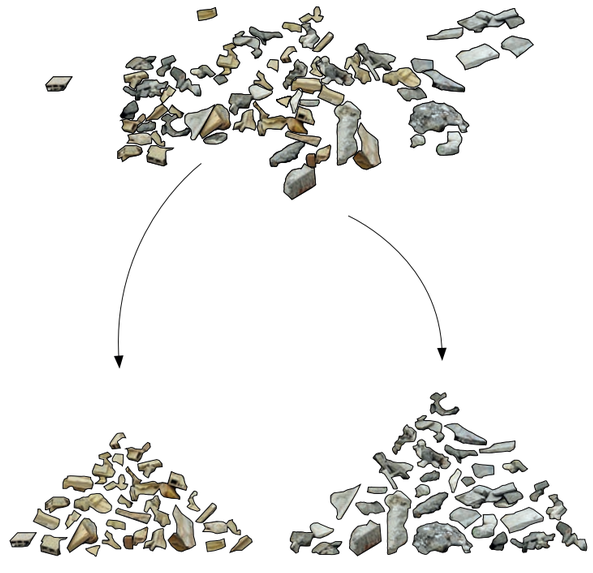








Framing the decay of the city by using the waste from deconstructed buildings

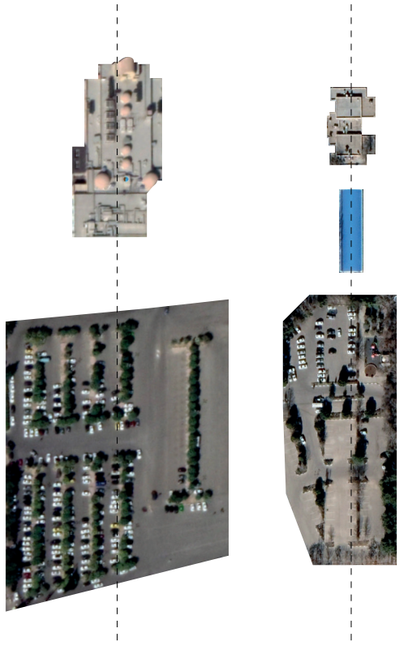


Design process

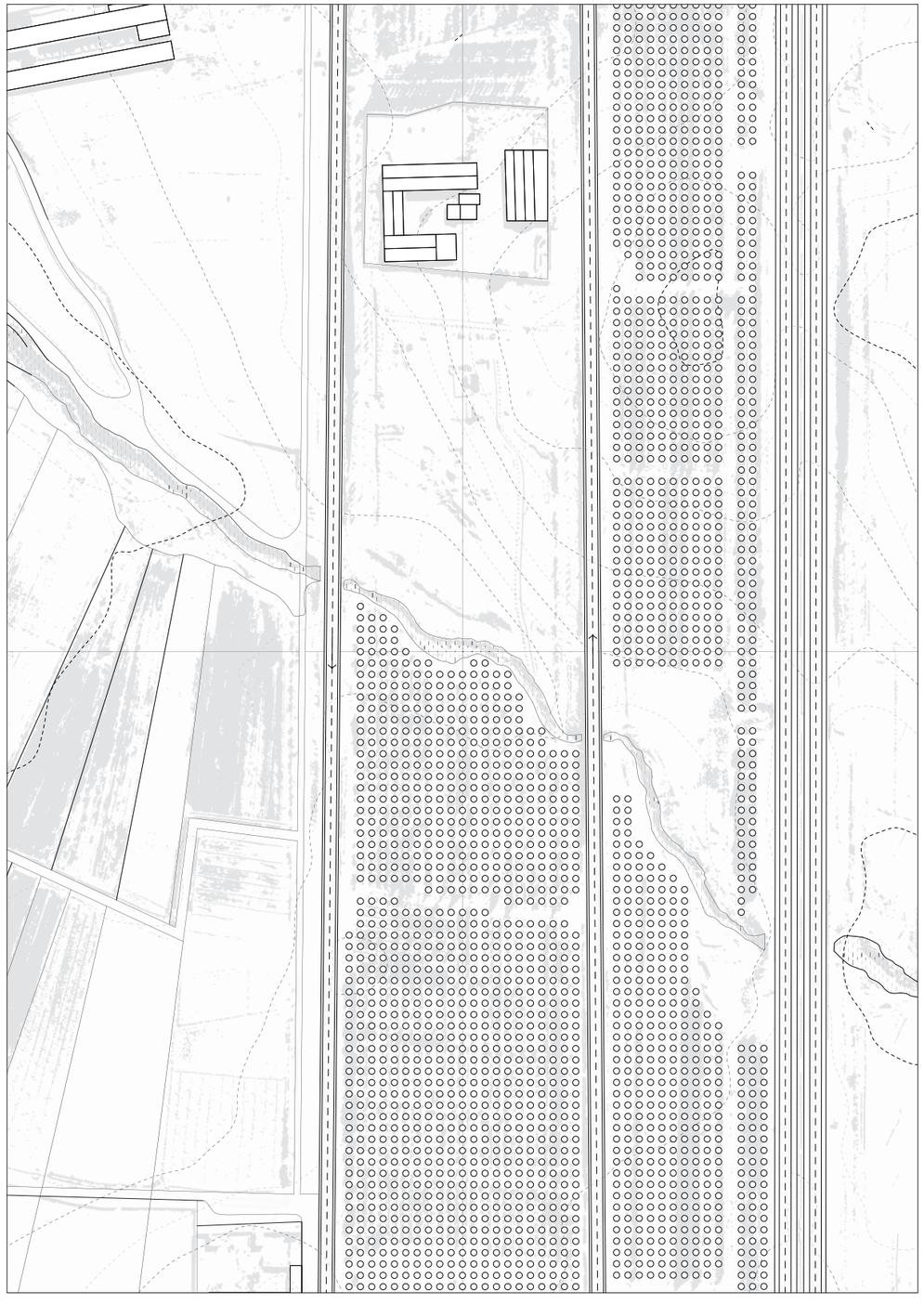
2. The washing station

3. The washing station

03 Site an program



Existing Purification hall and waiting room Behesht-e Reza



03 Complexity drawing

Mechanization
‘It should be noted that this device, thanks to technology, can speed up the purification process saving water in reverence of the dead.’

The whole process is composed of three operational units lined up in a series: 1 automatic washing chamber, 2. drying cell, 3. semi-automatic shrouding table.

‘washing machine’

‘Ayatolla Fazal Lankari saw the mechanized ritual as ‘unproblematic’ under the condition that a muslim pushes the button to start the operation.’

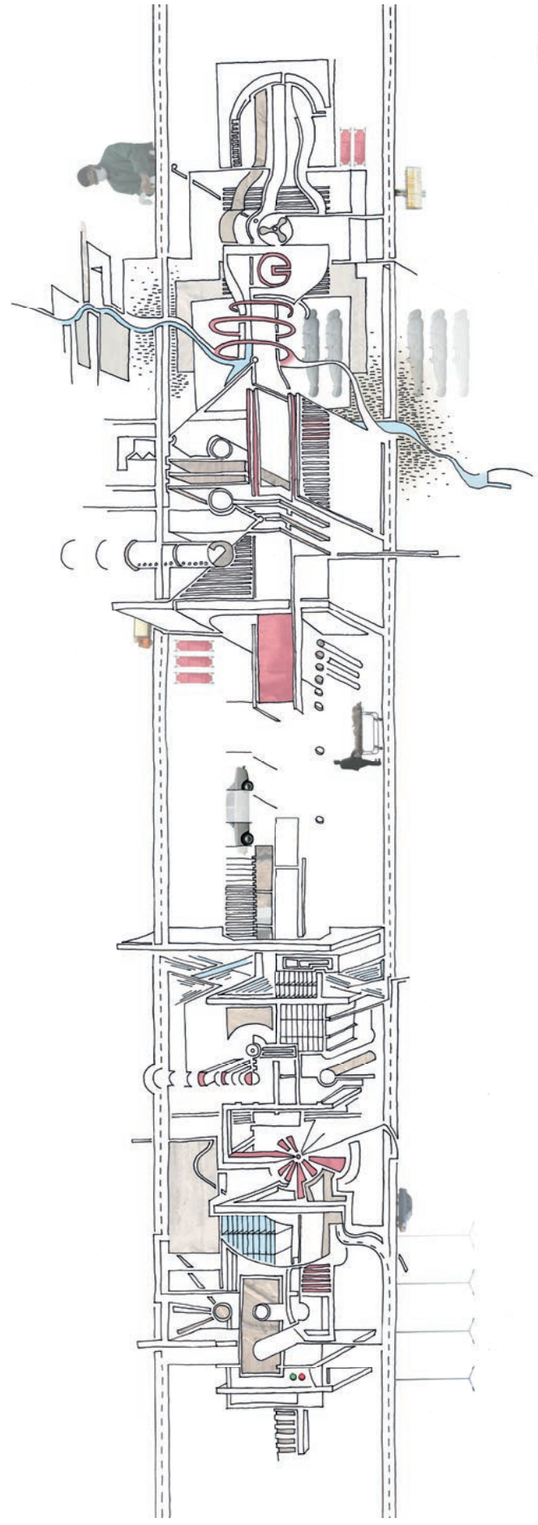
‘The new Orujian Complex in Tehran has the capacity of accepting 32 people per hour.’

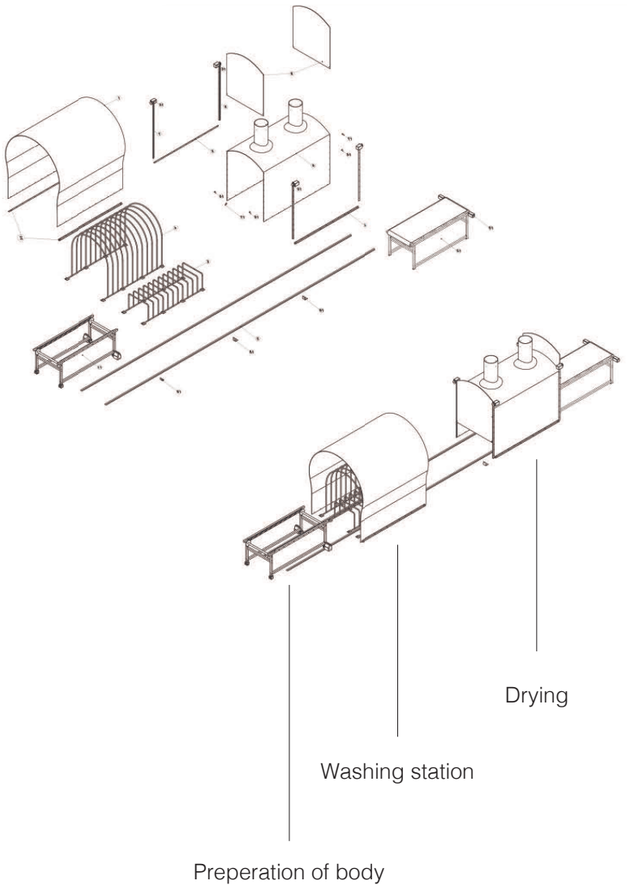
Architecturally
‘Tehran, with an average of washing 130 bodies per day, which are send to three or five levels of graves on top of eachother, it might be reminiscent of factory production lines.’

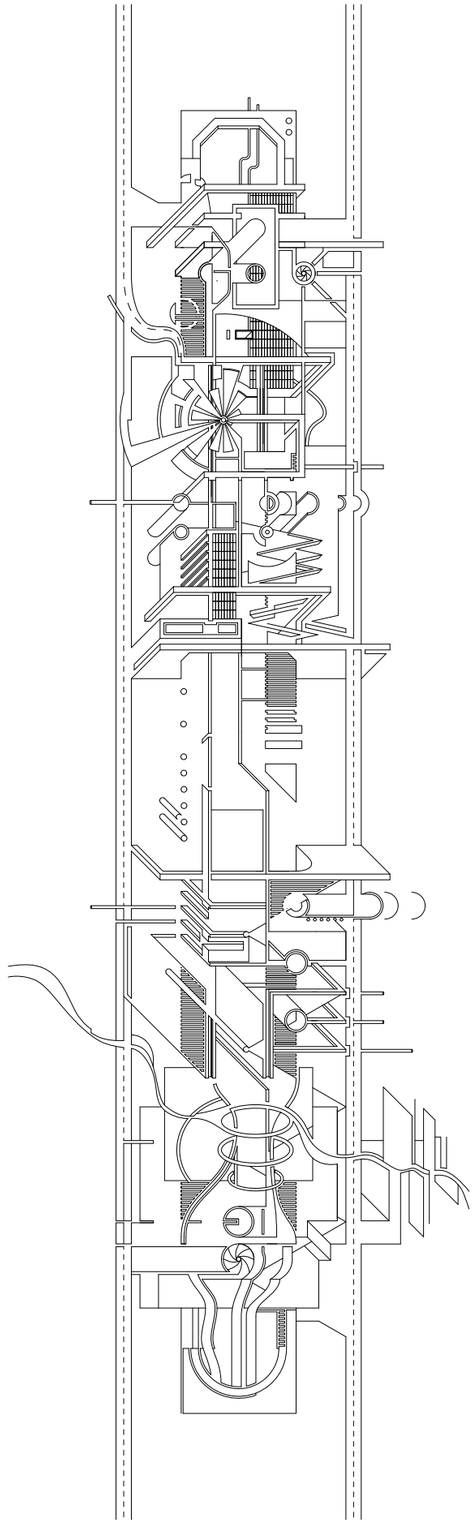
‘Once a body is washed and wrapped, it is placed on a stretcher on rails and send to the prayer hall. The transfer is materialised by a large tunnel which the staff compares to the ‘birth canal’. It symbolizes the persons rebirth, it is the start of the journey to the other world.’

Difference between traditional
It is a common practise for cemeteries around the country to have an area where visitors are albe to see the washing process. A reminder that death is inevitable which motivates them to lead a better life’ - However in Tehran this window is blinded because men dressed as women would look at the deceased women.’

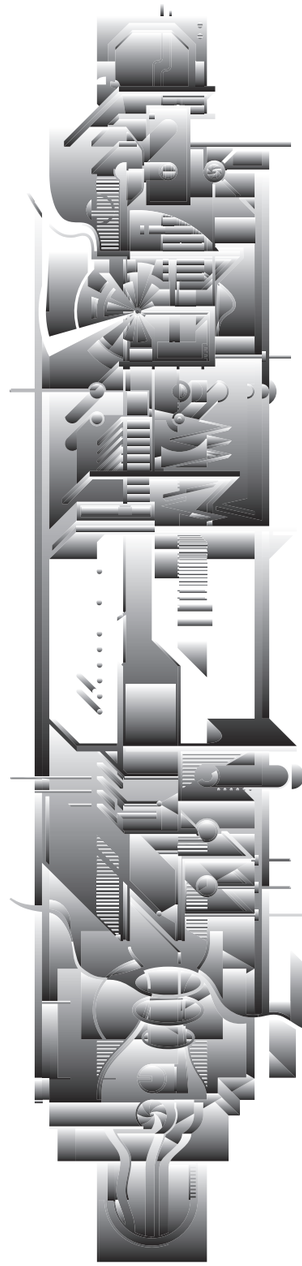
‘It is now forbidden for relatives to enter the washing room.’




Drying
Washing station
Preperation of body



03 Modern washing process



03 Meaning of water

- For Muslims, water is first an foremost, as **social good** in Islam.
- It is regarded as a blessing from Allah that **gives and sustains all life** in this world.
- Perhaps the most quoted verse of the Quran is ‘And We created from water every living thing. It testifies to teh centrality of water to life in the ecosystem as a whole, and as the unifying common medium among all species.
- In Islam, the relationship between humans and water is **part of daily social existence**, which is basd on the Muslim belief that everything on earth worships the same God.
- Water is the most precious and valueable resource of the physical environment for all living things. The link between life and water is explicitly stated in several verses of the Holy Quran, for example. ‘We made from water everything’, ‘And Allah sens down rain from the skies, and gives therewith life to earth after its death.’
- Islam places strong emphasis on the achievement of **perfect harmony between spiritual and physical purification**. Physical purification can only be achieve by ablution and bathing, which both require clean water.
- **Therefore, purity and cleanliness of water recieve a great deal of attention** in both the Holy Quran and the sunnah, and Muslims are urged not to pollute water. ‘Let no one of you bathe in stagnant water to remove the state of ceremonial impurity’

Water Management in Islam, Faraqui, I.

- The seven types of water considered lawful for drinking or ablution were distinguished by source (**water from rain, snow, hail, springs, wells, rivers, and the sea.)**
- ‘**Purity** is half the faith.’
- Water’s presence was also made visible in public institutions such as the bathhouse and **mida’a** (ablution fountain)
- In any mosque, water was a crucial consideration because of the **necessity of ritual ablution before prayer.**

Rivers of Paradise, Water in Islamic art and culture by Sheila Blair Jonathan M. Bloom.

- Water is the origin of life, and created by God
- Water serves to purify the human being, **cleaning both the outside body and the inside soul.**
- In the Koran, water appears as a symbol of divine generosity, without which the earth would not be able to provide food and drink for people and animals.

https://medomed.org/2010/espanol-el-agua-y-la-civilizacion-islamica/#:~:text=For%20the%20Islamic%20world%2C%20water,and%20was%20created%20by%20God.&text=In%20the%20Koran%2C%20water%20appears,drink%20for%20people%20and%20animals.

- In the Koran, relationship of water and wind are mentioned. In paradise, **steams are counted as divine blessings.**

https://fa.wikishia.net/view/%D8%A2%D8%A8

Water purification in the desert.

Extensive reed-bed sewege treatment operation at a waste management site in Um Al Quwein in the UAE. The lake of sewegewater is bordered by domestic waste and a landfill area.

The piece of desert in this operation is alive with a multitude of wildlife. It has become a rich desert oasis ecosystem.

Source: https://www.greenprophet.com/2013/07/reed-beds-richard-allenby-pratt/

It seems thats ‘natural’ waste water treatment is mostly done by reeds (however, does this area, the river have enough water for them?)

For really pollluted water (like the landfill mountain will produce) should be properly cleaned with a water purification station.

03 Case study: Waterfiltration - Tower of silence

In general

A tower of silence (known also as a ‘dakhma’) is a type of structure used for funerary purposes by adherents of the Zoroastrian faith. The most prominent Towers of Silence are in Iran. But as the urbanization brought them closer to the city’s limits, there use was severely curtailed. After vultures have picked the bones clean, they fall into a pit below, thereby fulfilling the injunction that a corpse must not suffer contact with either fire or earth.

Pollution - Purification

According to Zoroastrian belief, the four elements – fire, water, earth and air, are sacred, and ought not to be polluted by the disposal of the dead. Cremation, for example, is believed to cause pollution to fire, air, and at times river water as well, whilst burial (without adequate lining of the grave) causes pollution to the earth and ground water.

Once the bones have been bleached by the sun and wind, which can take as long as a year, they are collected in an ossuary pit at the centre of the tower (all members of the ocmmunity, regardless of their status during their lifetime, are joined for eternity), where – assisted by lime – they gradually disintegrate, and the remaining material – with run-off rainwater – runs through multiple coal and sand filters.

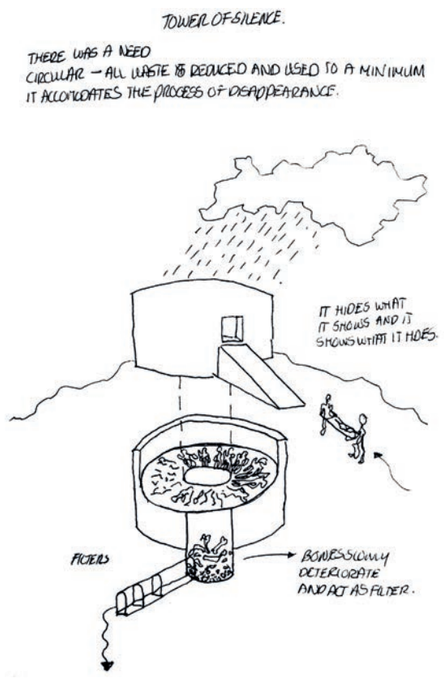
After the process of purification, bones were placed in ossuaries near, or inside, of the towers. Ossuaries from these rituals have been discovered from the 4th and 5th century BCE.

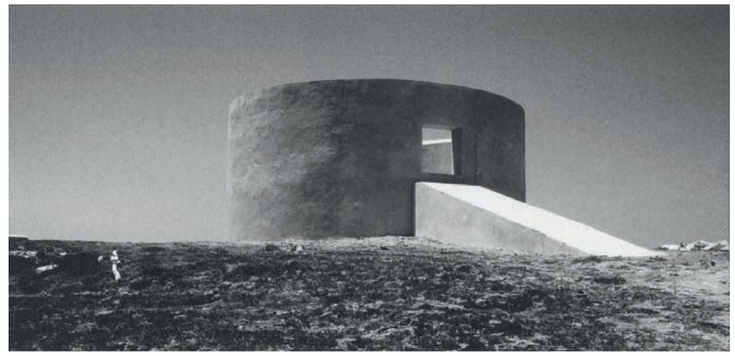
Untill forty years ago, corpses could still be found on the top of the Towers of Silence in Yazd.

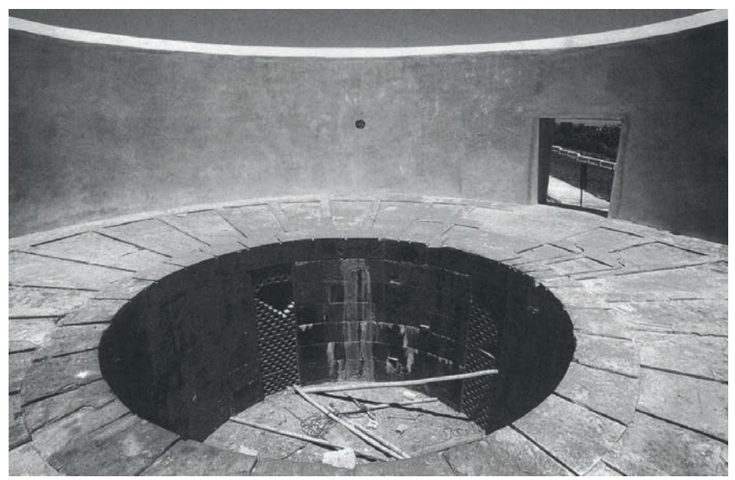
- *Completely circular*
- *There was a need, a place was made.*
- *The building is a manifesto for the process.*
- *The architecture is communicating, clarifying.*
- *The building communicates*

Source: Wikipedia; https://www.britannica.com/topic/dakh-ma; https://iranparadise.com/zoroastrian-towers-of-silence/

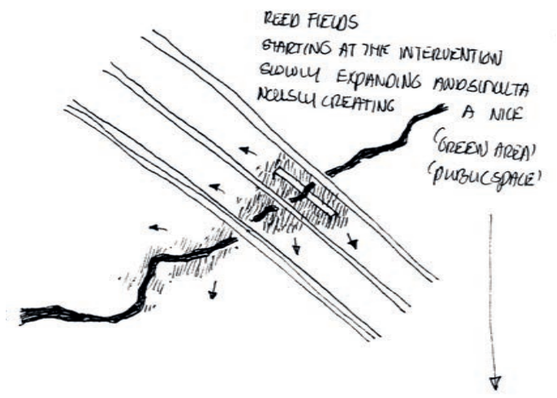
https://www.jstor.org/stable/24049363

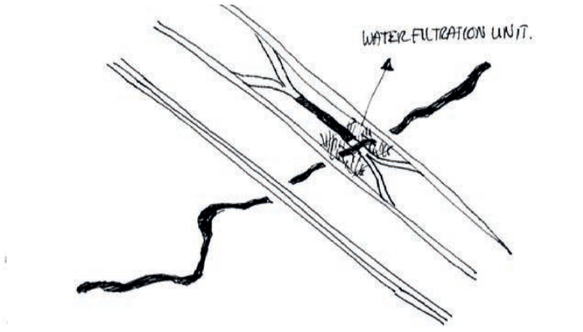


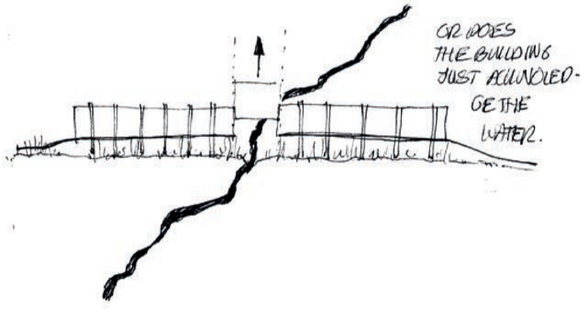


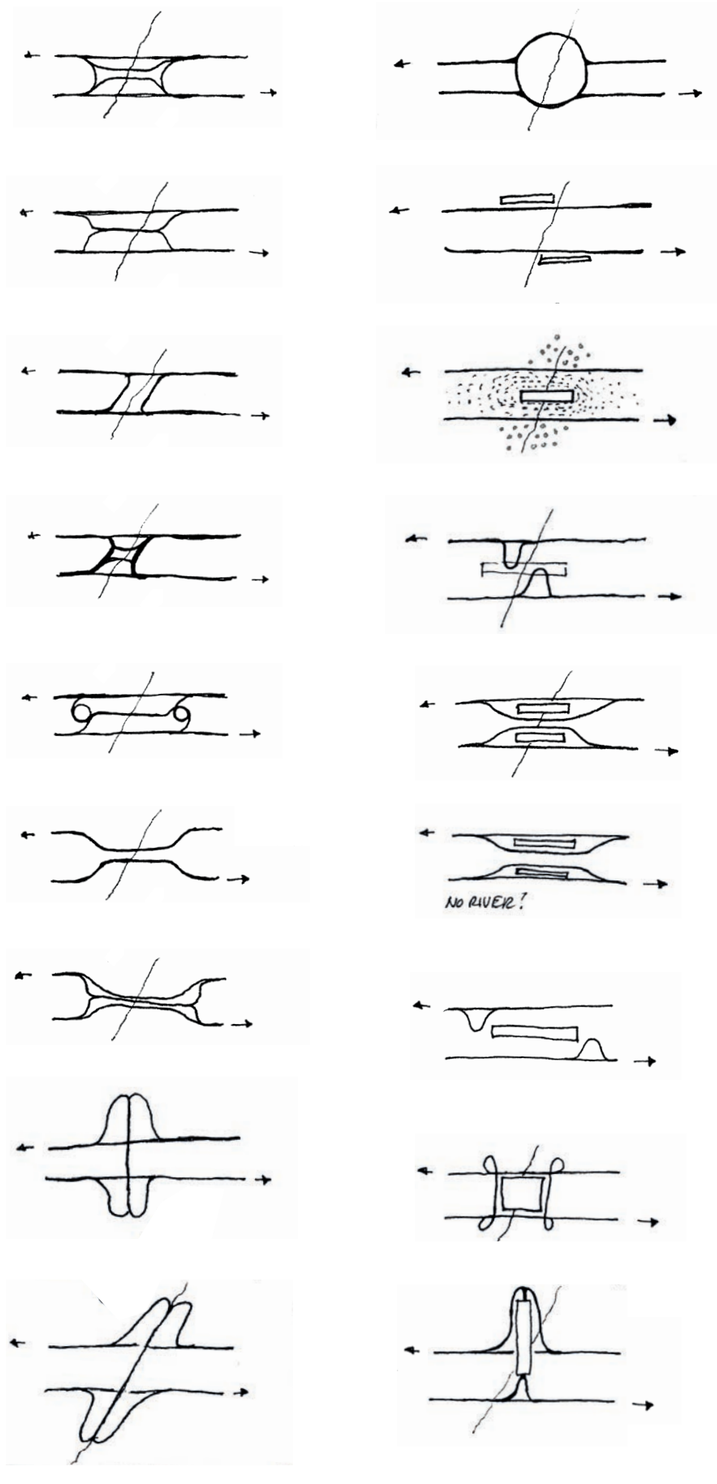


03 Relation to highway and river



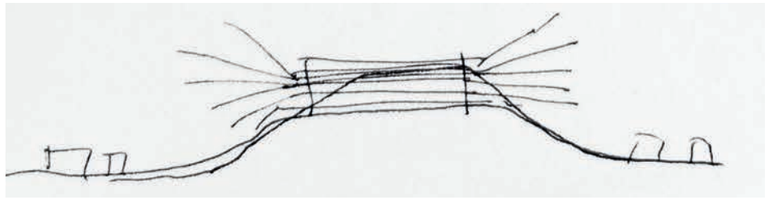




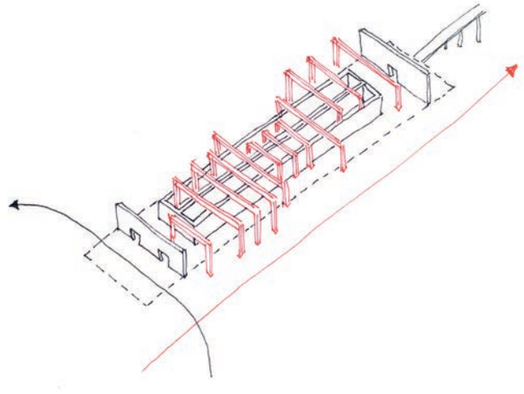


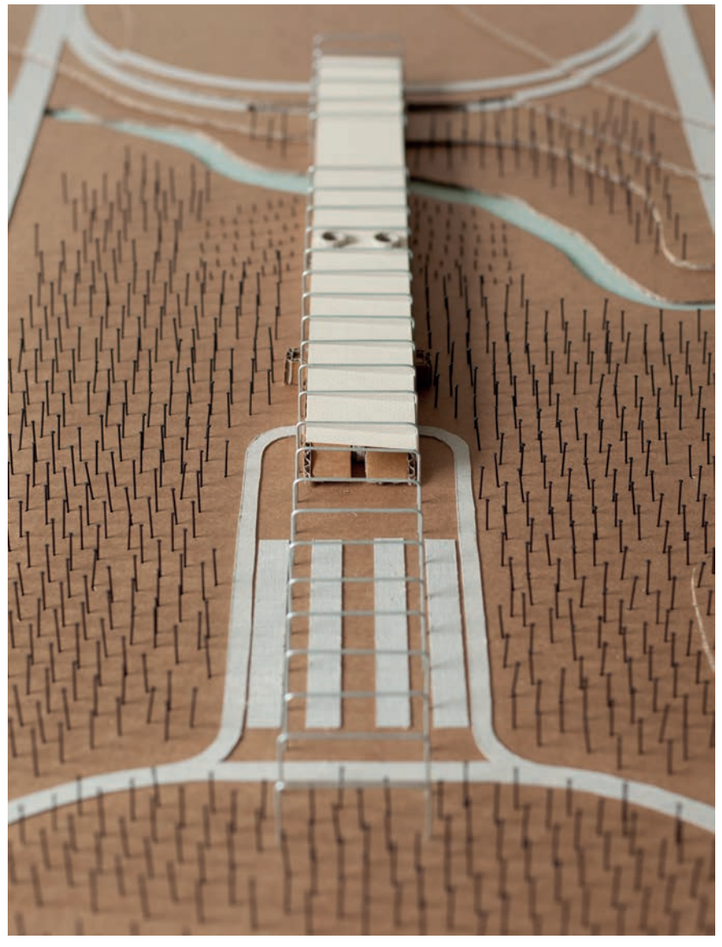
03 The washing station

Showing what it hides and hiding what it shows

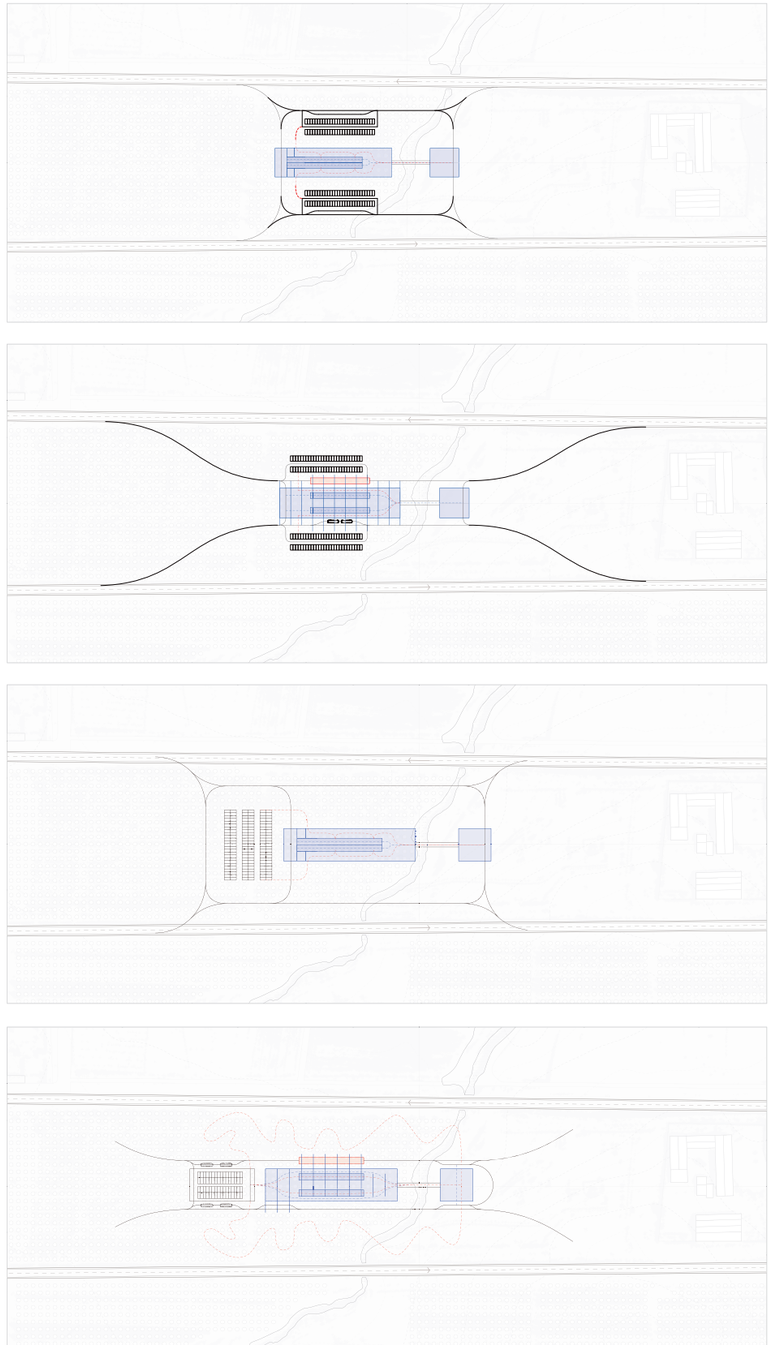


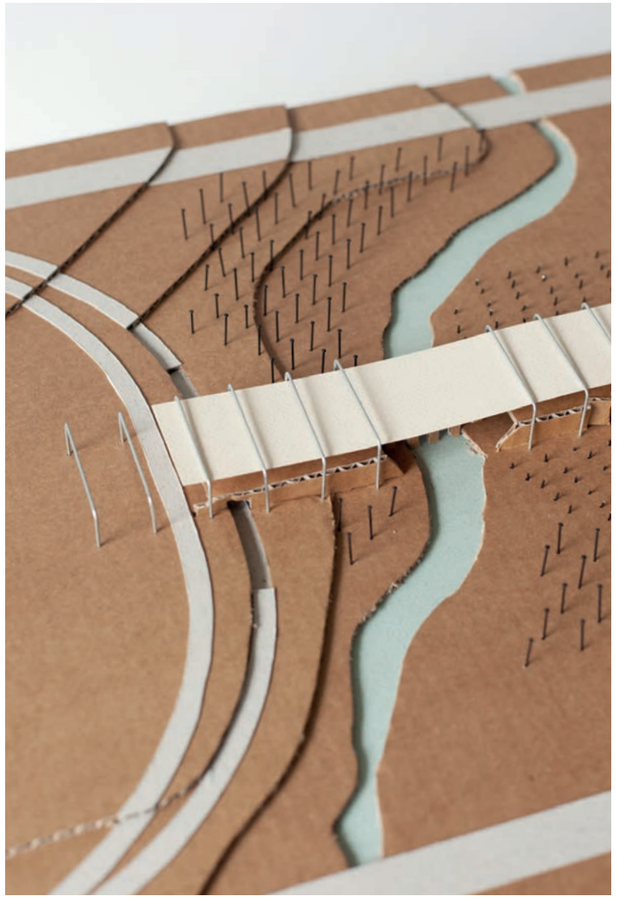
Indirectly communicating what happens inside.
Pleasantly distanciated.



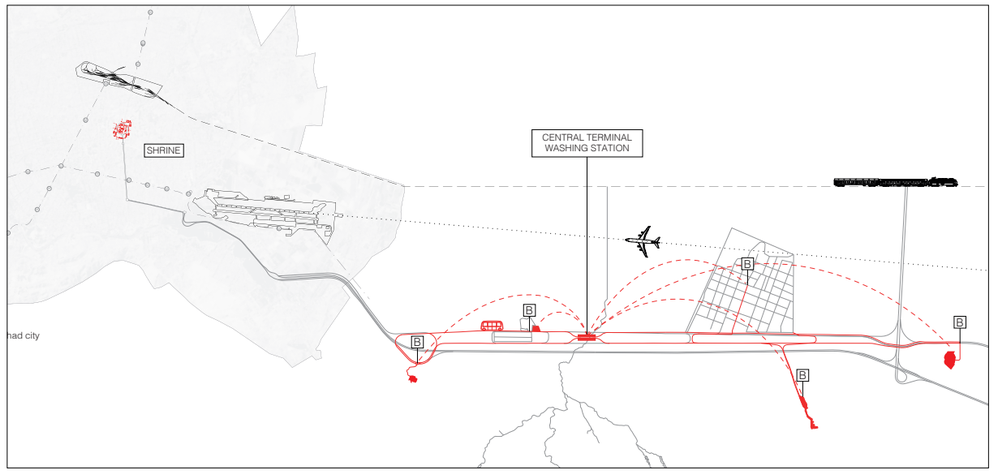


03 Plan configurations





03 Intermodality



The site is strongly connected to the city because of the highway.
On the site itself, a public transport zone is set out with the terminal at the washing station. This also defines the territory of the project as a bigger whole.

The ritual

Can also be performed at the cemetery

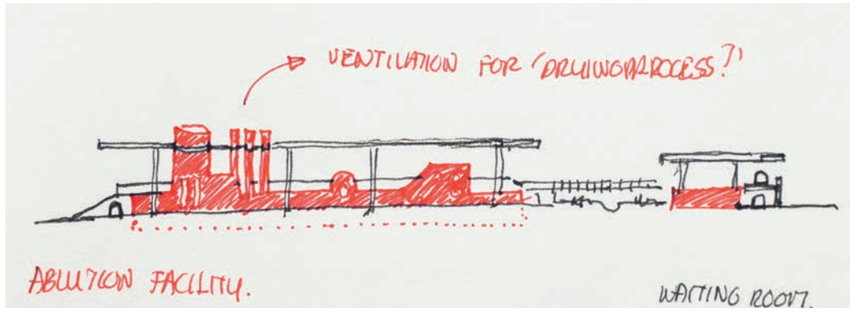
Total: ~45 min

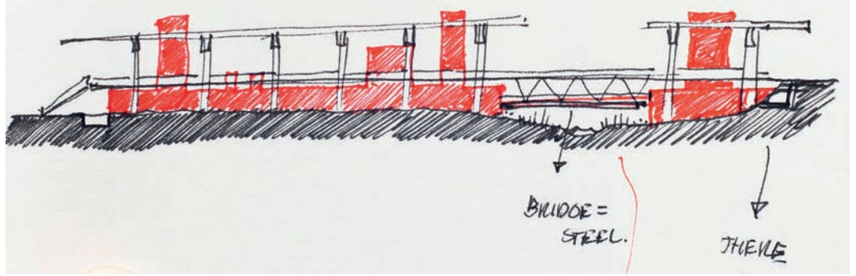
10 min	*5-15 min*	*2 min*	*2 - 4 min*	*3 min*	*15 min (estimated)*
Reception	Preperation	Washing	Drying	Shrouding	Prayer
Receptionist	*Done manually*	*Machine*	*Machine*	*Partly manual*	*By clergyman*
Ablution permit *Grave assigned*	*Remove all clothing and personal apparels such as rings, watch jewellery, etc.* *Cleaning of all nail polish, make-up, marks or injuries on the skin of th body*	*1. (Water & Soap)* *1. Cedar* *2. Camphor* *3. Pure Water* *1. Head & Neck* *2. Right side* *3. Left side*	*Airdrying system*	*Putting camphor on seven body parts that touch the earth in sajda* *Placing cotton sheets* *1. Lame* *2. Shirt* *3. Overall*	*Prayer of the dead performed by clergyman for up to 12 bodies and relatives at the same time.* *Reciting 5 Takbirs* *Body to Qibla, prayer between Mecca and body*
Can be done automatically	*Can probably not be taken over by a machine*			*Can be done automatically*	*Can be done automatically (as they also do with prayer calls for example)*

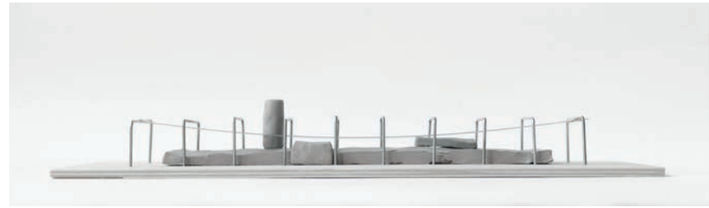
10 min

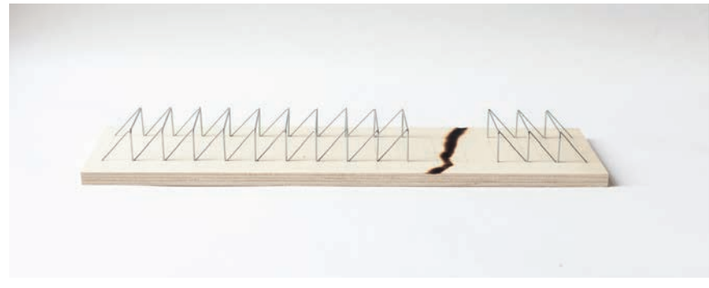
MRI autopsy (?)

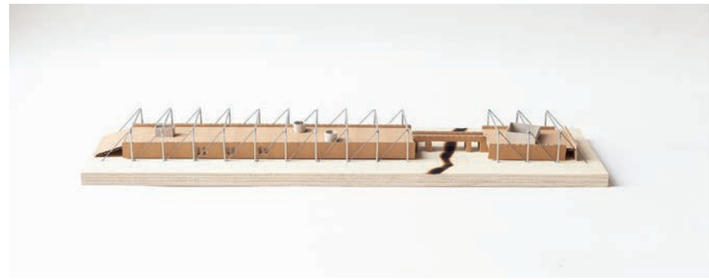
Automatic autopsy using MRI scanning - which would diagnose the reason of death

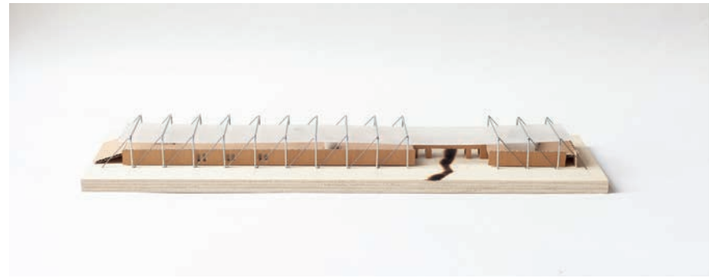

VENTILATION FOR DRAINAGEPROCESS?
ABLUTION FACILITY.
WAITING ROOM.


BRIDGE = STEEL.
THEME

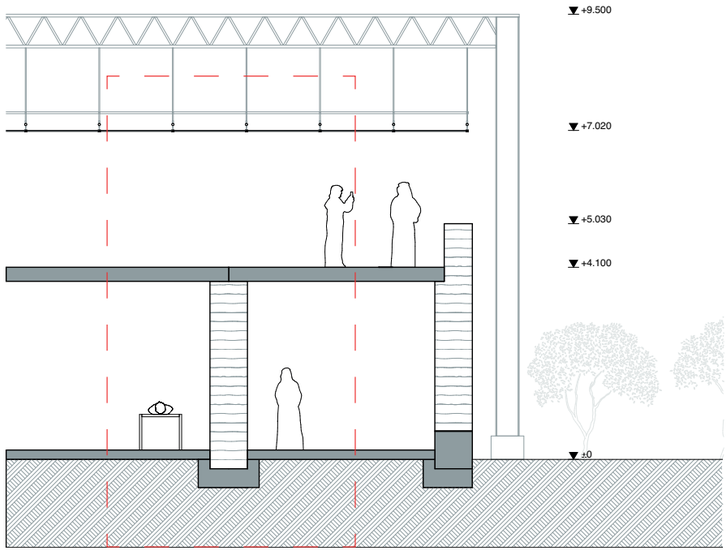


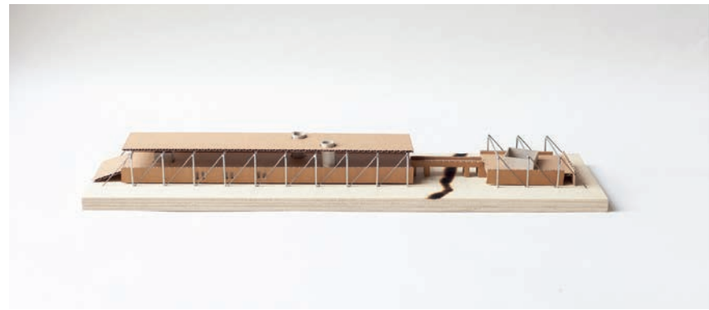


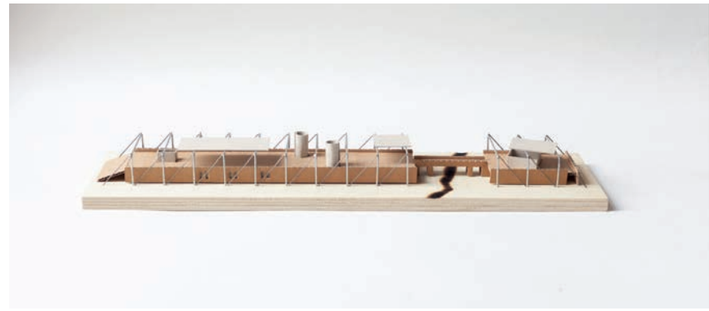


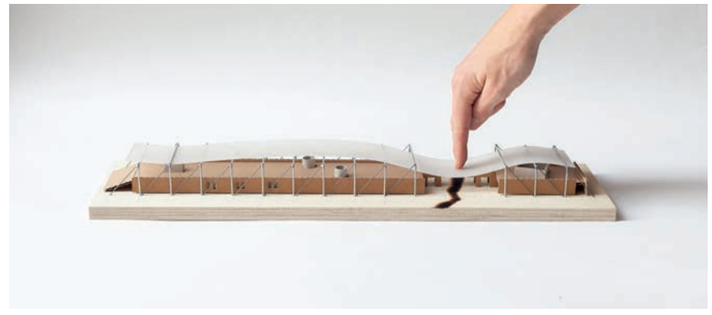


03 Roofs and protruding volumes

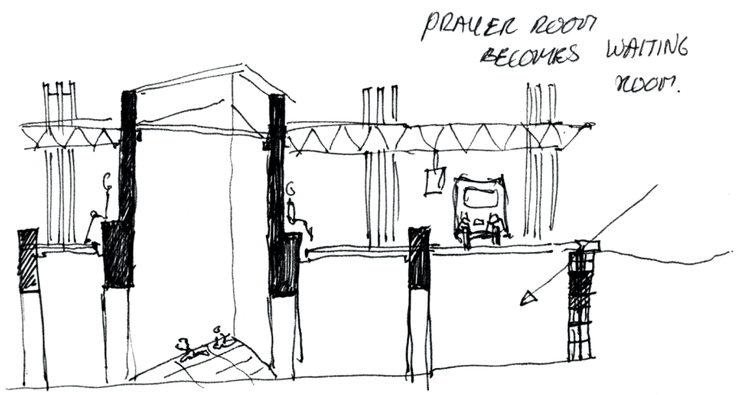


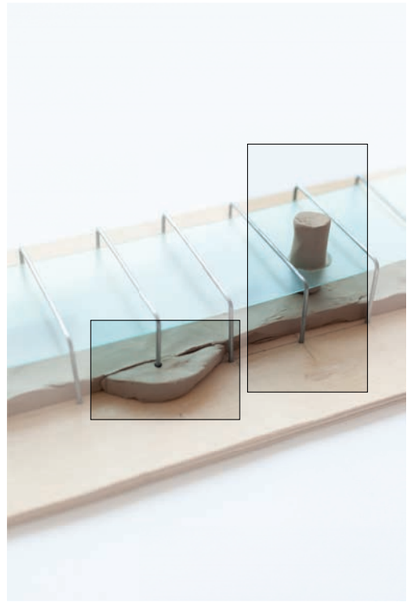


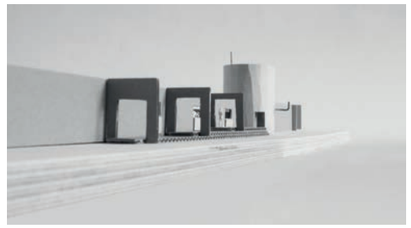


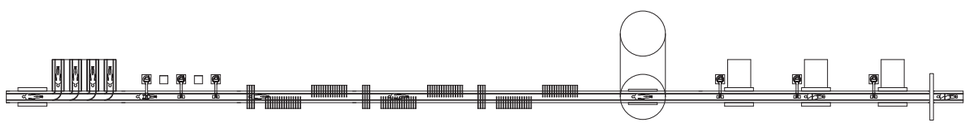


03 The hallway - sequence of spaces









03 Water system

NEEDED

Mashhad 2021

3,2 million people

49 bodies washed/day

Mashhad 2070

4,4 million - 5,2 million

67 - 81 bodies washed/day

60 Litres (a stylish burial, not the most trustable source as it comes from people who promote the automatic corpse washer, but it is the only source that gives an indication)

49-80 bodies a day * 60L*365 =

1.070.000L-1.700.000L a year for the automatic corpse washing.

Source: A stylish burial

AVAILABLE

Average precipitation per year = 255mm

$A_{total,roof}$ = 5400m^2 * 0,255 = 1377m3 per year =

1.377.000 L per year.

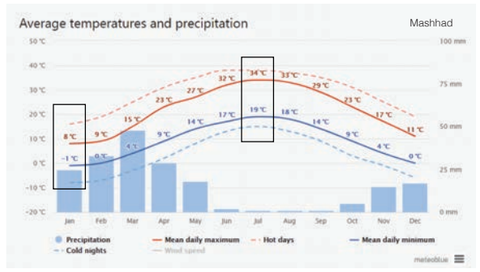
Source: https://www.climatestotravel.com/climate/iran#:~:text=The%20annual%20precipitation%2amounts%20to,and%20a%20minimum%20in%20summer.

Water storage needed:

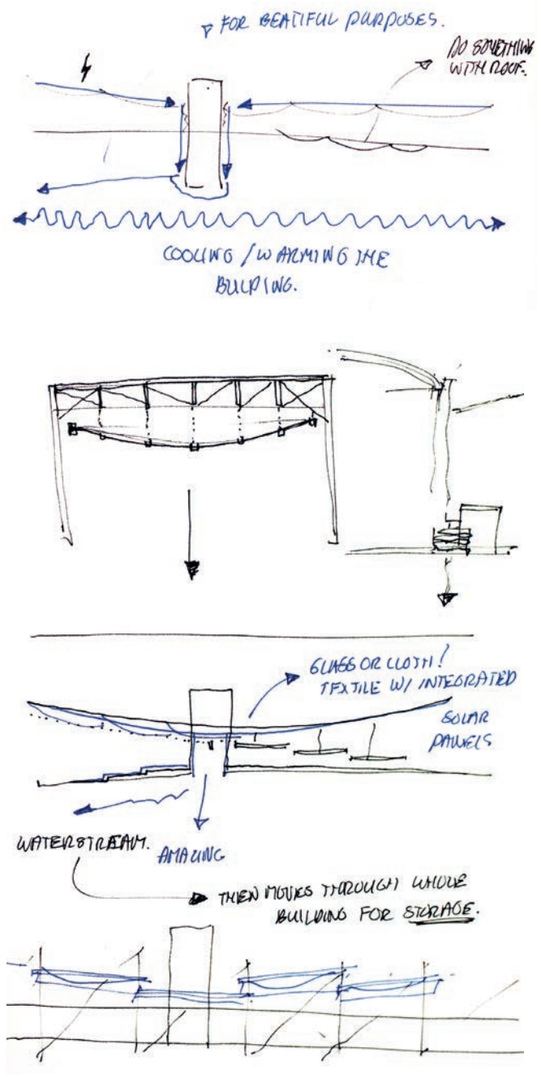
Per month - 106.000 L = 106m3

Per 2 weeks - 50.000 L = 50m3

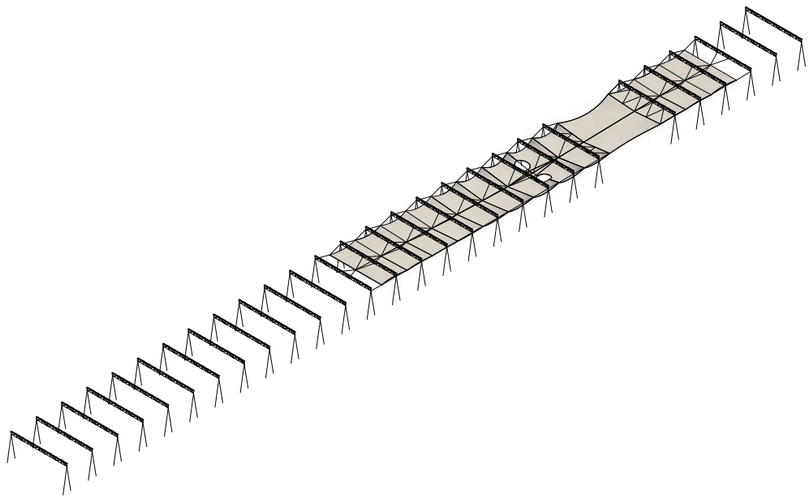
Per week - 25.000 L = 25m3

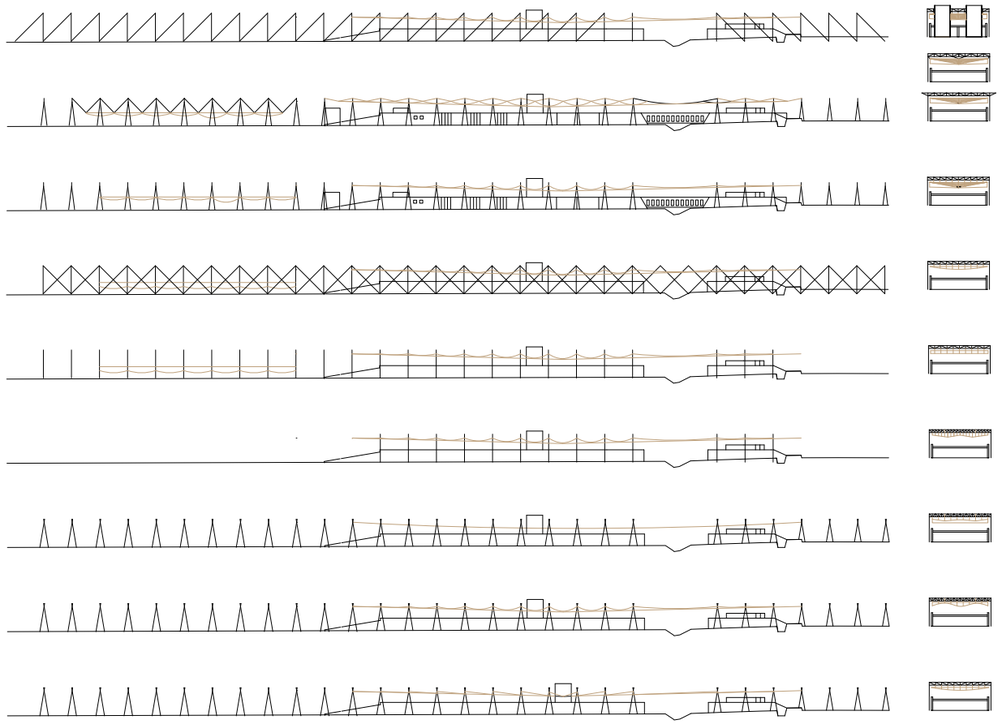


https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/mashhad_iran_124665

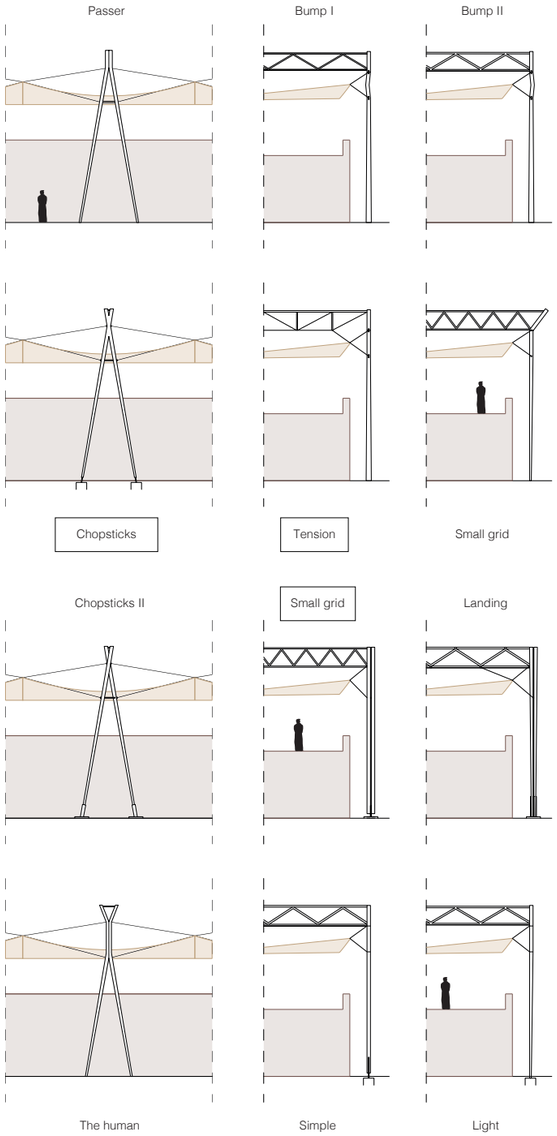


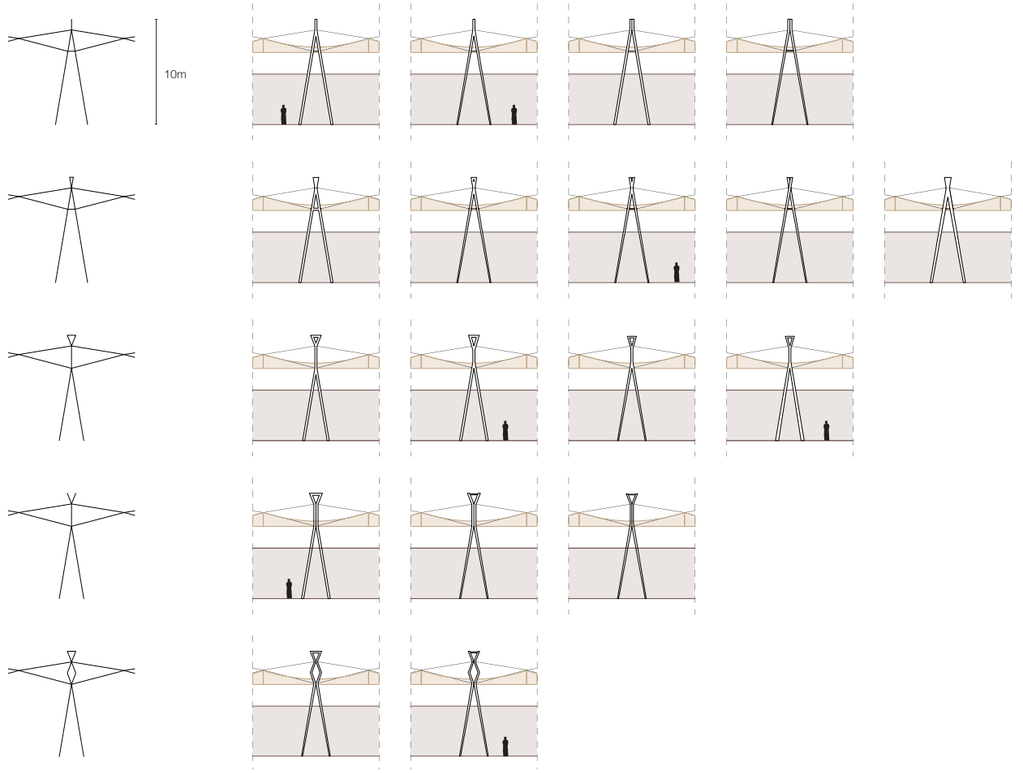
03 The solar-textile roof





03 Structure options



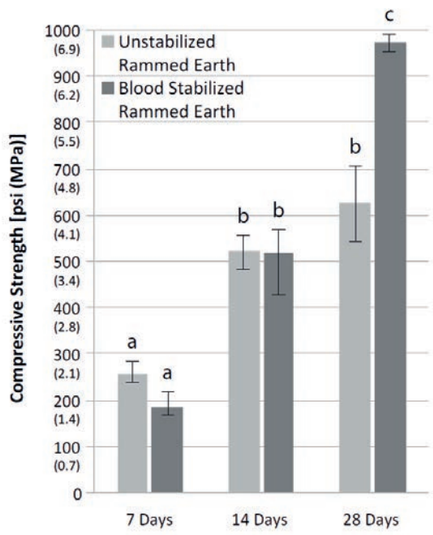


03 Rammed earth with blood

Blood - biostabilizer

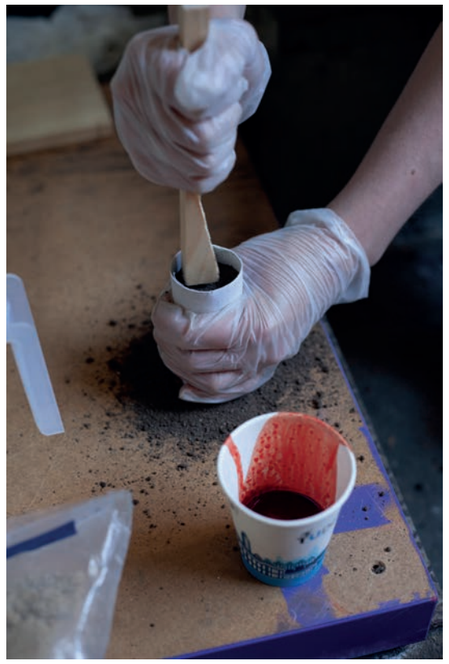
Contemporary advances in rammed earth material have largely been borrowed from concrete construction - e.g. cement stabilization, hydrophobic admixtures, insulated rammed earth, and pneumatically impacted stabilized earth. While these advances are commendable, there appears to be temendous potential in lesse processed, lower polluting technologies - such as biostabilization - that promise to maintain the low embodied energy of earthen materials while increasing its strength and moisture resistance to meet contemporary building standards. Additionaly biostabilizers may be able to be extracted from waste streams as industrial byproducts, further contributing to is lighter ecological footprint.

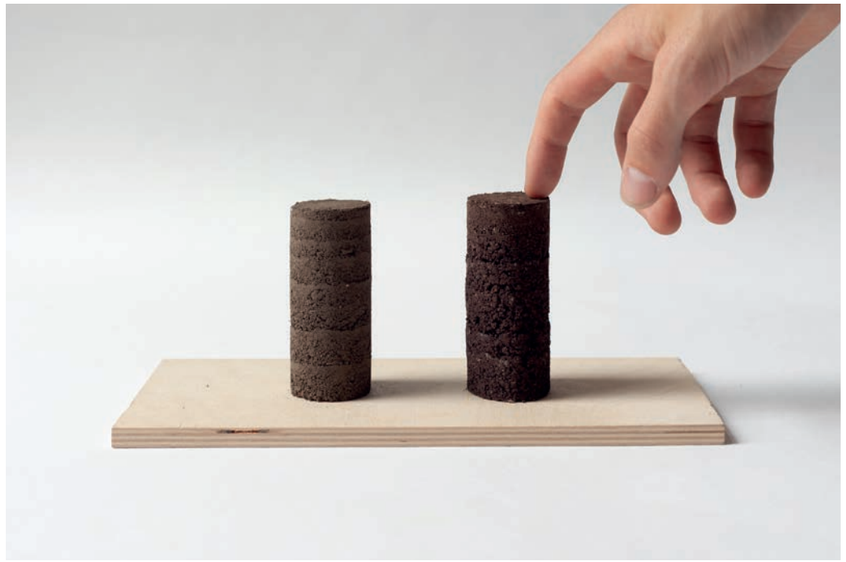
Text/Image: https://www.researchgate.net/publication/324435386_Compressive_Strength_of_Blood_Stabilized_Earthen_Architecture



Tests

In order to see the color difference between rammed earth mixed with water or biostabilized with cow-blood. Different ratio's were tested.

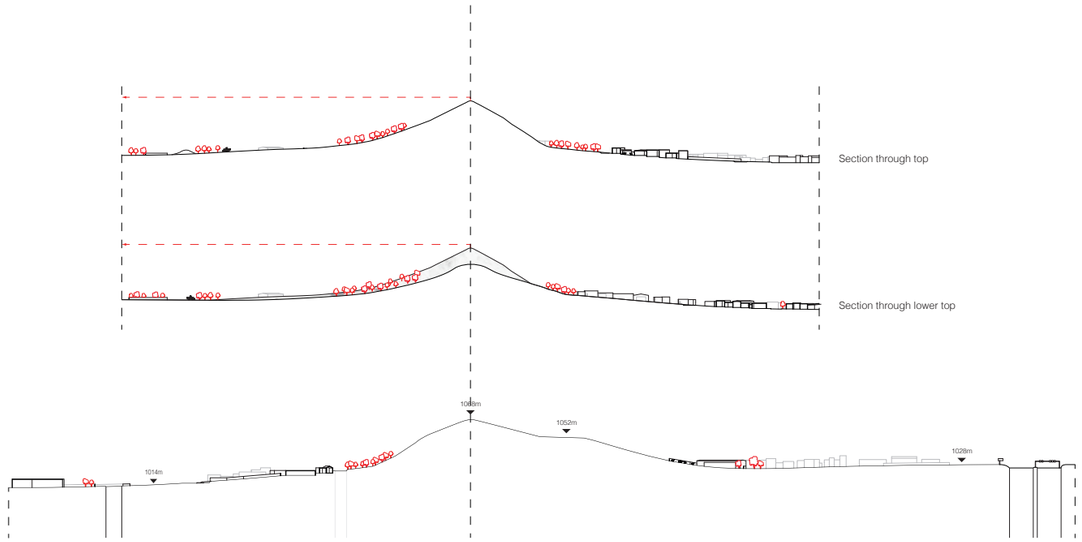




Design process

4. The watchtower

04 Tapeh Salam - Site



04 Complexity drawing

Customs - bringing something of leaving something behind.

- Large stones - large stones that were slightly carved and circular and were called ‘pilgrims’. One of the tasks of passers-by is to bring these stones to the city three times.
- People made ‘regular handpicked collumns at the top of the hill to remember the people who had crossed this path.
- Until 30 years ago, people would bring local sweets to hand them out at this place. (at last this was done in the bus.)
- The villagers would present gifts to the caravans.

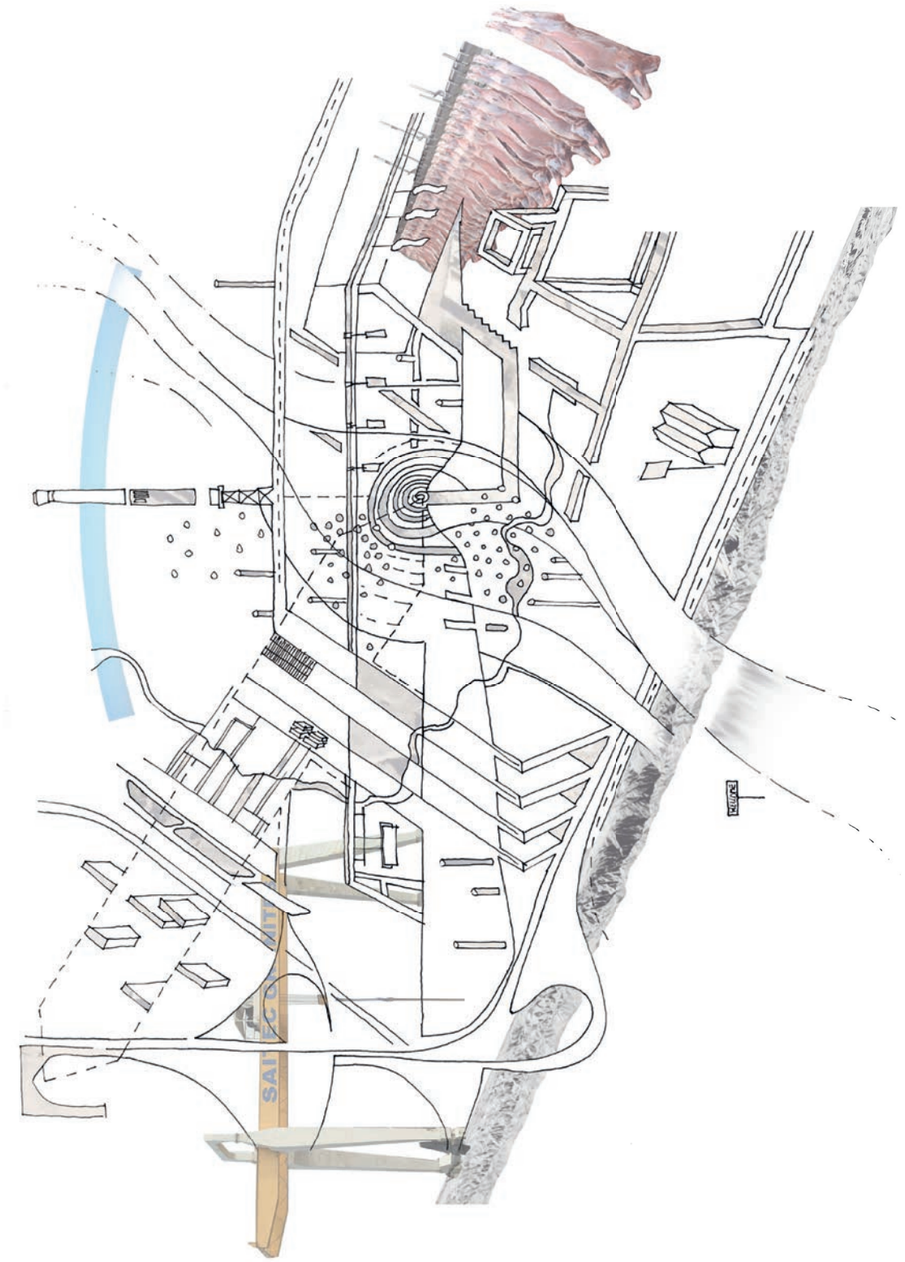
The site mainly consists of industries. The industries are characterised by the use of metal for either lightweight construction or very heavyweight lifting. The drawing exposes an atmosphere of repetivity, linearities and discontinuities.

Tapeh Salam then

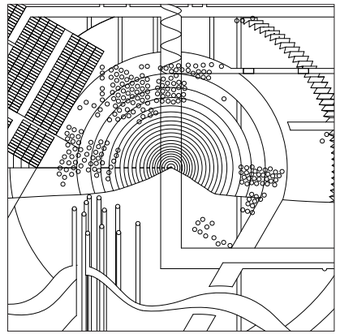
- ‘The historical phenomenon was forgotten to the point that there is nothing left but a name.
- People would greet the shrine from this point.
- When the caravans arrived, tradition was that they would receive ‘glad things’ (reward for prayer). Which was known as ‘the dome of the facade by Sarban & Charvavar.

Tapeh Salam now

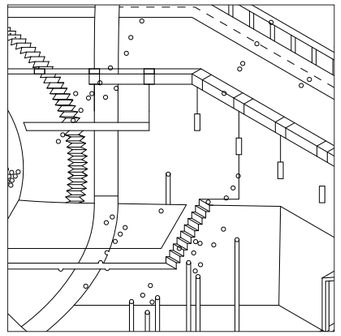
- Lifestock complex
- Cattlefarm next to school - ‘to see the juxtaposition of functions here, go on top of the hill’
- Now the air is so polluted above Mashhad that from the top of the hill you can only see a layer of grey.
- Environmental experts described the condition of the lifestock as a threat to public health.
- Cows need a lot of water which makes for a local water shortage.
- The ‘green belt’ is located at the entrance of Salam Hill.
- The hill is currently a service provider for Mashhad.



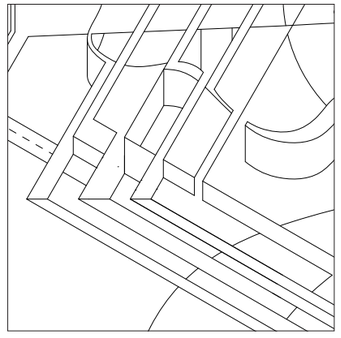
04 Fragments - Experiences



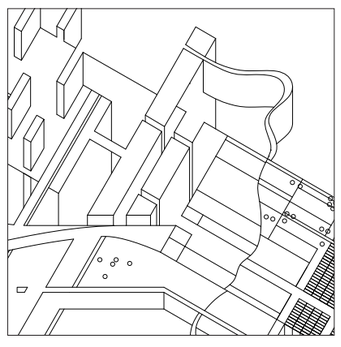
- Focal point on hill
- A tunnel leading to the tower, going underground and rising up into the air
- A spiraling movement reminiscent of the minarettes.
- Dots that resemble trees or the ‘effect’ of the massgraves around the hill.
- A pathway leading towards/spiraling around and towards the hill.



- Repetitive motions of industries & highway architecture
- Different linear paths crossing eachother like a system
- Hanging entities going into the mountain like hanging meat from the meatindustries.



- The highway and the exchange between the linear and perpendicular experience.
- The ‘section’ of the landscape starts to interact with the highway, becomes visible, starts to interact with surrounding site.
- The section is brought to the site, influences it, after all, the site (was) solely important because of this sightline.



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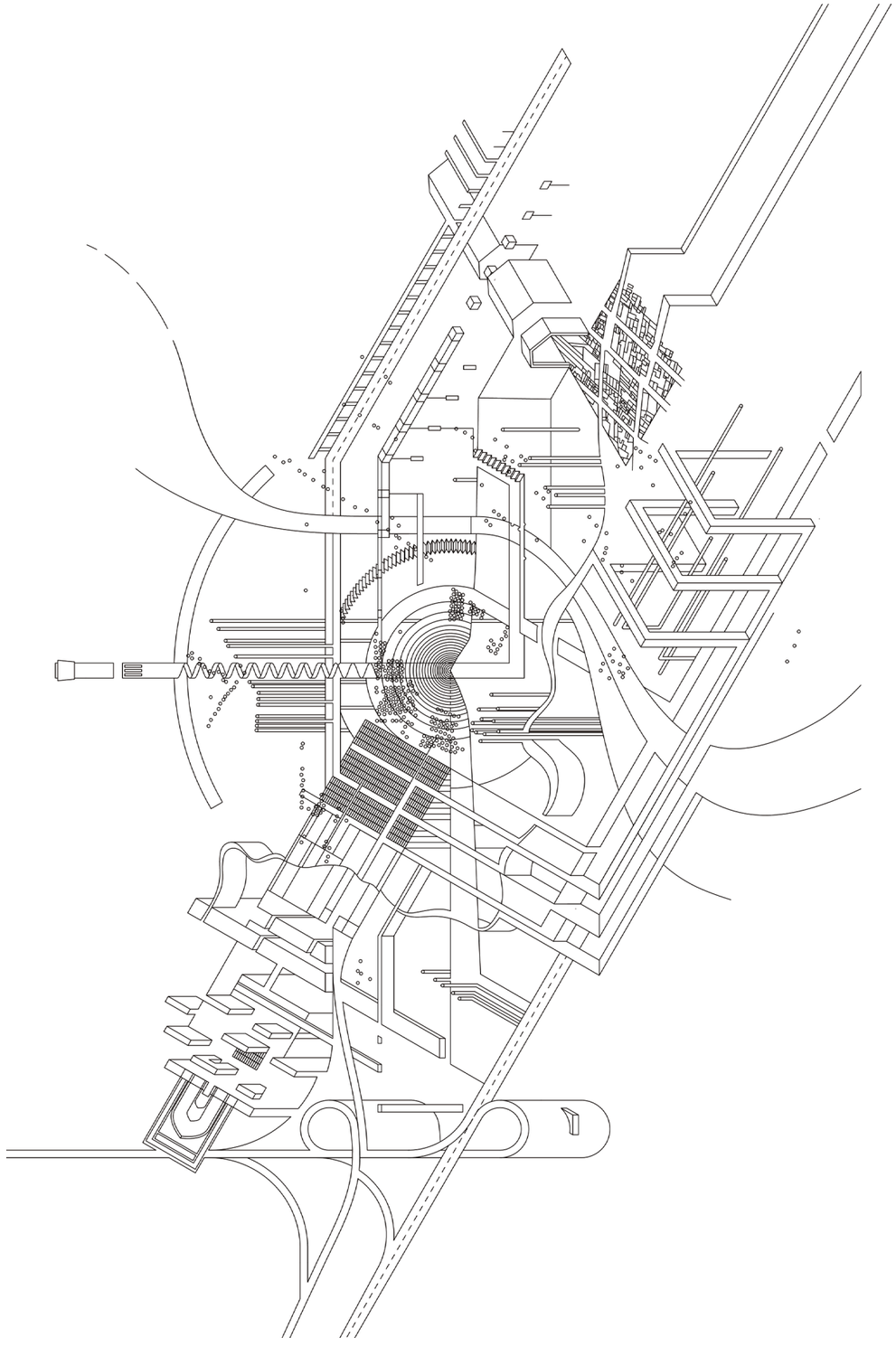
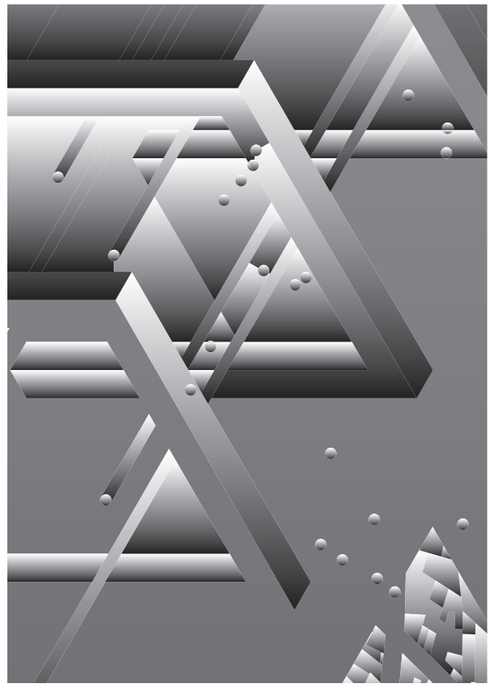
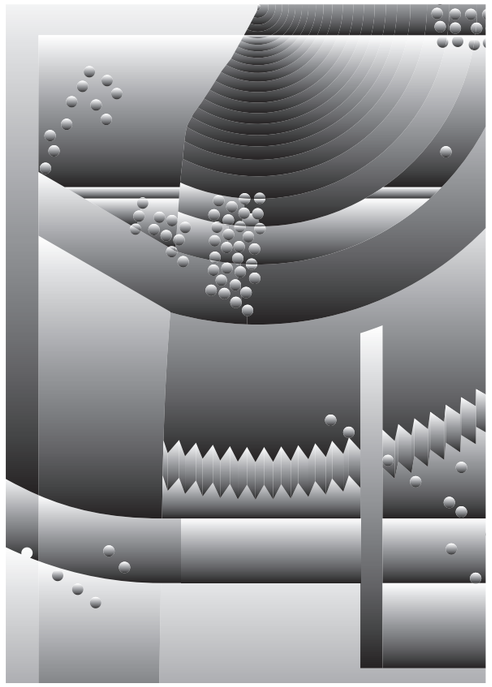
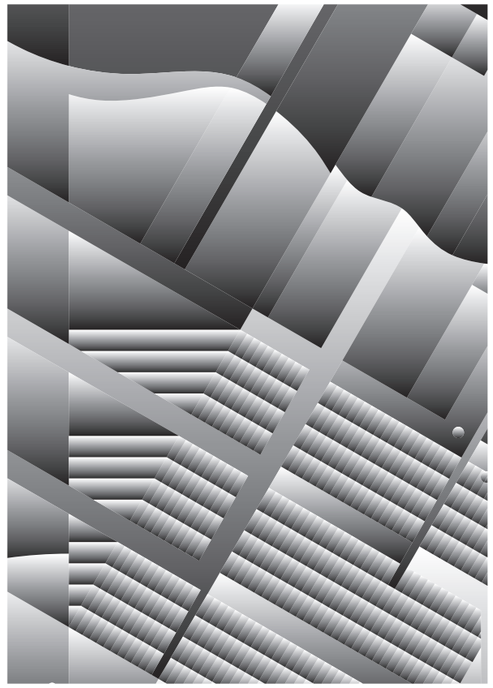
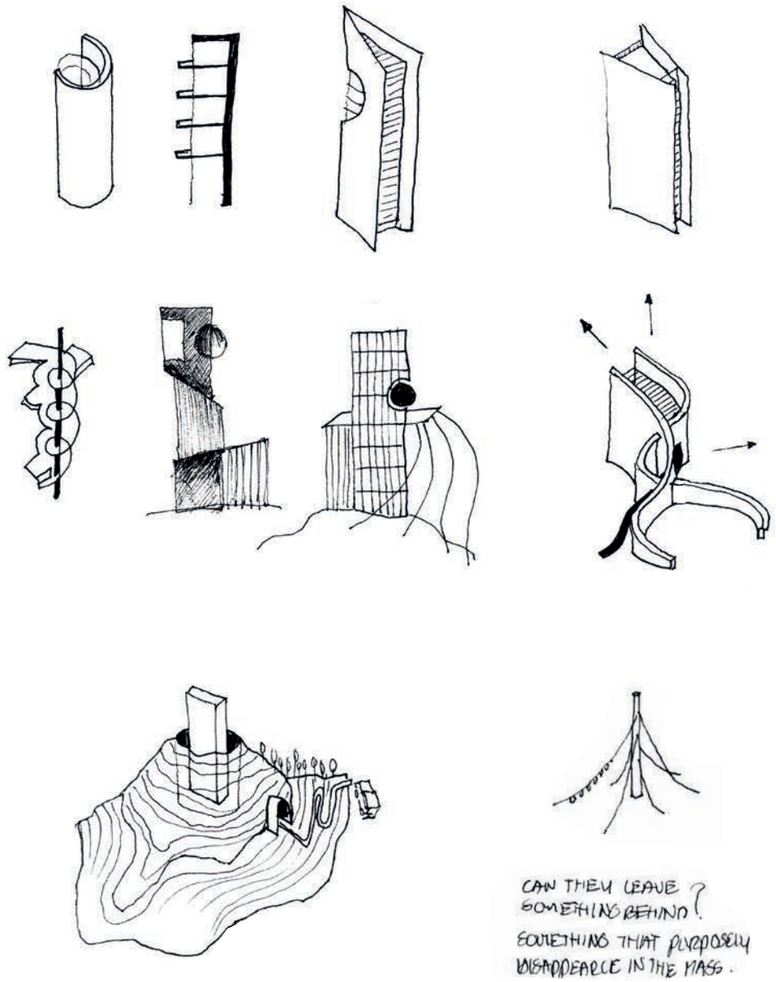


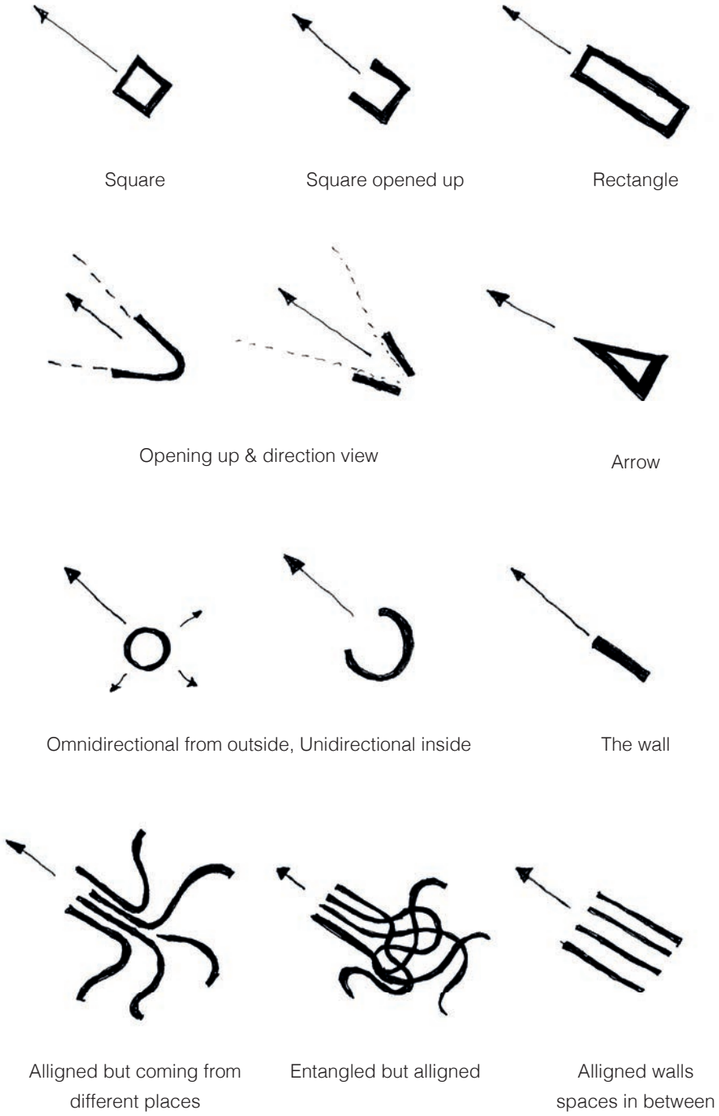






04 Tower explorative drawing: What is possible?





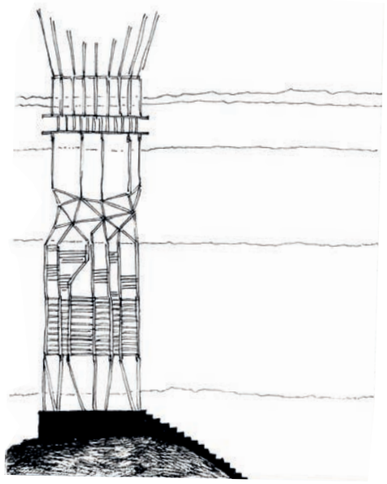
04 Minarette

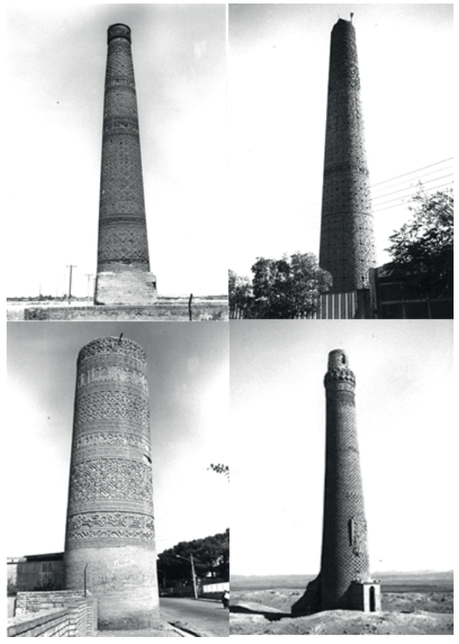
A single building that was also called ‘lamp’ or ‘base lamp’, literally meaning the focus or place of light in the pre-Islamic era. The minaret guided the caravans etc in the desert.

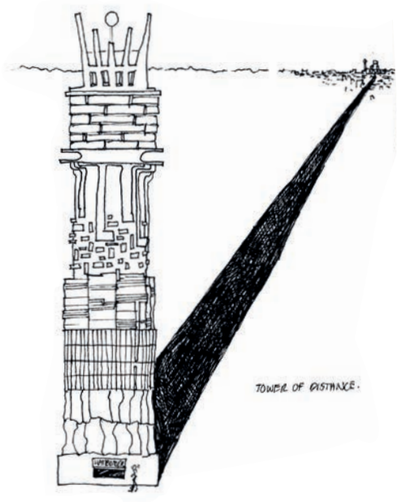
They are derived from lighthouses, and also occasionally a fire could be lit on top to signal a locality to others.

They have one or two winding staircases in the middle to go upstairs. They are made from baked brick.

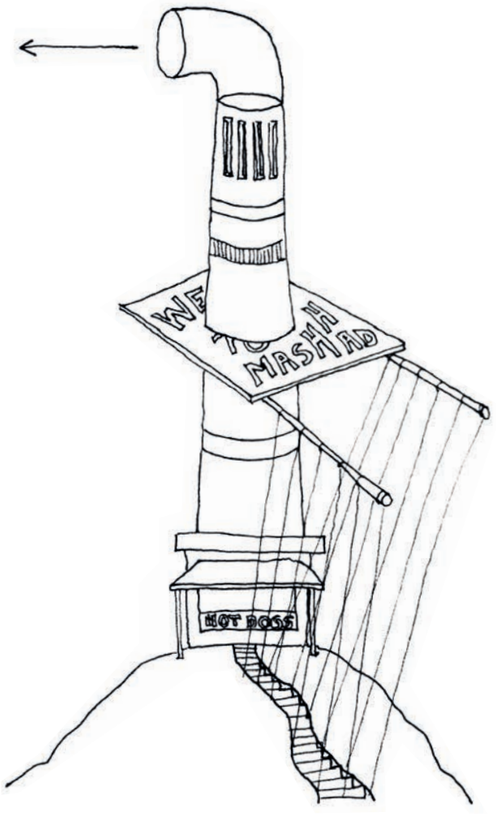
Text/Image: https://fa.wikipedia.org/
https://iranicaonline.org/articles/minaret-1
https://fa.wikipedia.org/
https://s3.us-east-1.amazonaws.com/media.archnet.org/system/publications/contents/2/original/FLS0002.jpg?1384746727





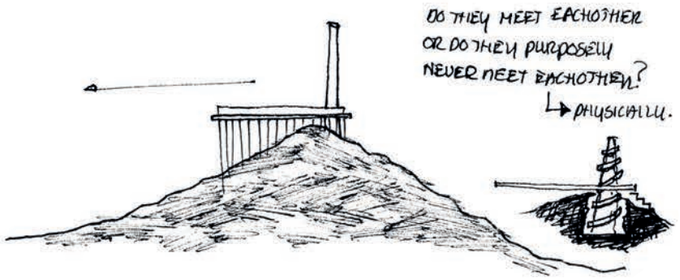


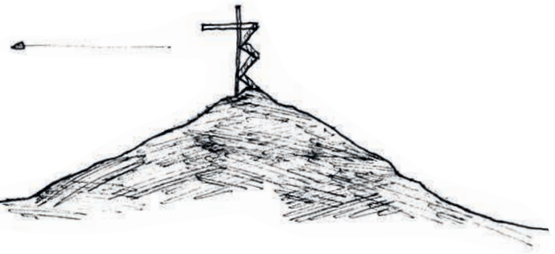
Tower as materialisation of distanciation



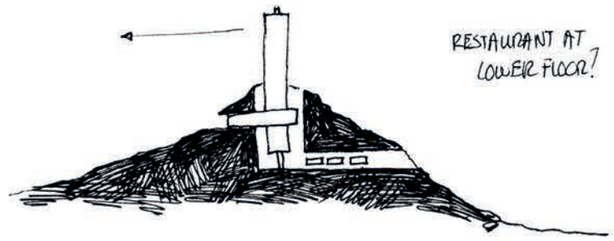
Complexity - Contradiction - Conflict

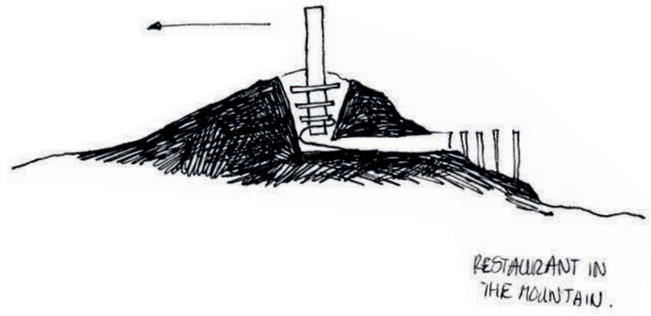
04 Tower explorative drawing: What is possible?

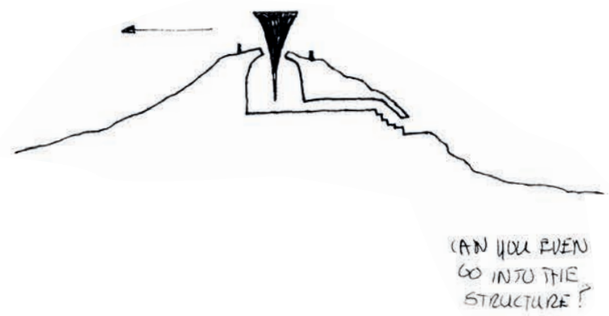




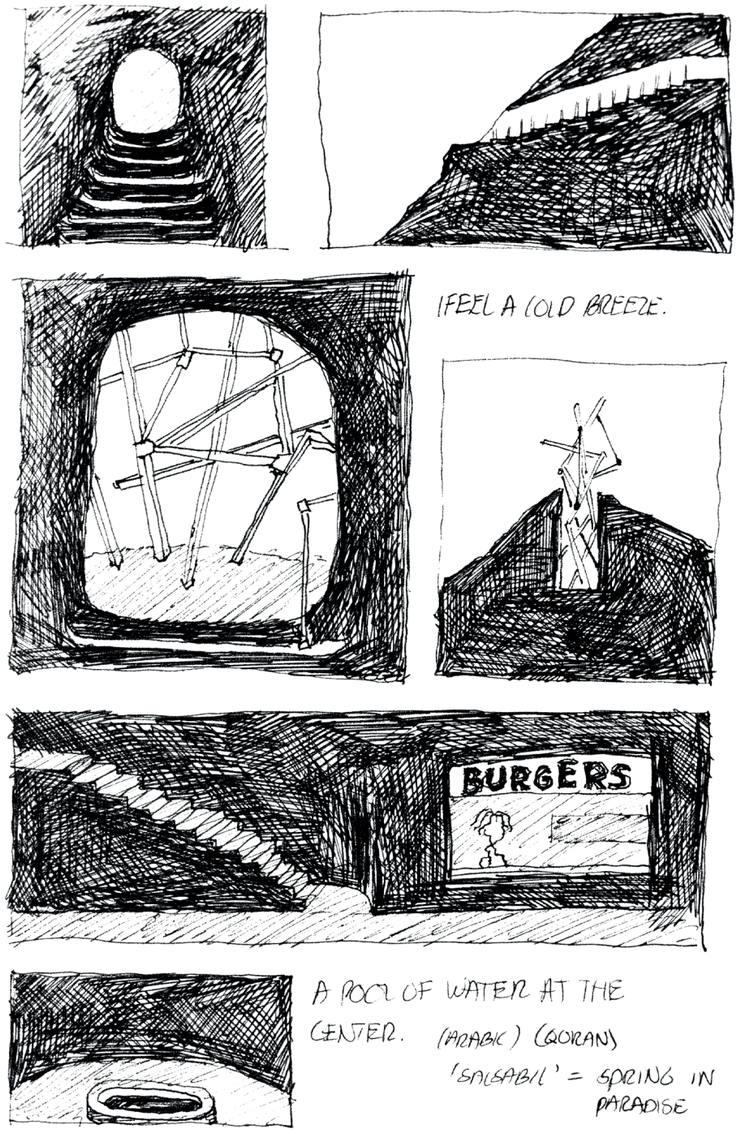
The structure can also be a tower and another structure. The tower would then mainly function as a landmark from further away, whilst the other structure would serve the visitors. In this scenario, the tower can be used as a ‘windcatcher’ - cooling the visitors in the other structure.

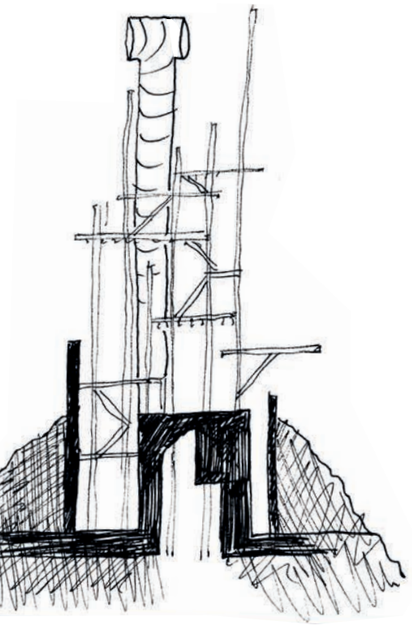






Relation between being in the ground - inward perspective and protruding out of the ground - panorama. As the highways are around, the place inside the hill can function as a silent space, a shelter.


I FEEL A COLD BREEZE.
BURGERS
A POOL OF WATER AT THE CENTER. (ARABIC) (QURAN)
'SALSABIL' = SPRING IN PARADISE



04 Granite industry - Tapeh Salam

Granite industry
Belongs to some of the main industries of Mashhad (there are 33 types of minerals to be found in the surrounding earth).

Material
Granite is a very strong and durable material. It has a natural origin which makes its production energy less than concrete and ceramics. In mining and processing dust comes free which is bad for the workers.

Granite dust
The article considers the possibility of significant improvement of technical properties of granite concrete with the addition of granite dust. Concrete investigations were carried out in the “Portland cement - granite dust - sand” system. It is established that the fresh properties of concrete mixtures and the kinetics of concrete hardening on the basis of granite dust slightly differs from the consistency and character of the strength increase of regular concrete. It is characterized by a more intensive of strength gain and a mixture of “sticky” consistency. The addition of granite dust leads to an increase in the average density of concrete. Due to the partial replacement of sand with dust, the microstructure of the cement matrix is compacted, which is the main reason for increasing the strength of concrete with dust. The introduction of granite dust into the concrete mixture leads to a reduction of water absorption by 32–38 % and water penetration by 60–70 %.

Text: https://www.sciencedirect.com/science/article/pii/S2214509520300218

Images: Google Earth

Windcatchers

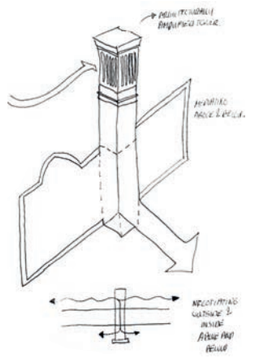
A wind-catcher (badgir) is a traditional Persian architectural device used for many centuries to create natural ventilation in buildings. It is a ventilating shaft which projects above the roof of a building and provides it with air-conditioning of a most effective kind. Wind catchers are among the most spectacular and best-known elements of Iranian architecture.

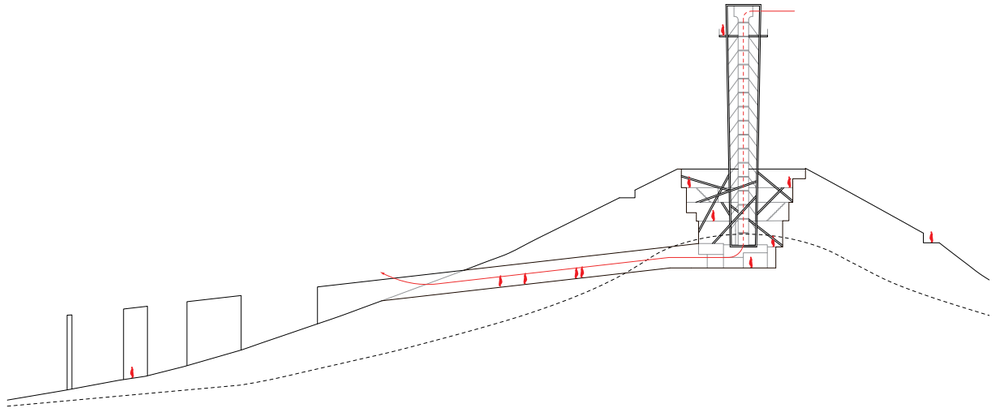
The tower is usually used to cool houses by creating a system of air-conditioning in one of the main rooms. This may be in the cellar, or at ground floor level. Towers vary greatly, but the ventilator at the top, which may be around two metres high is usually divided on the module of a mud-brick (20 cm) by thin mud-brick partitions. It may be further baffled with divisions formed of mud on a framework of light timbers.

In the case of a cistern, which, since it is otherwise sealed, must have a minimum of two towers, a current of air flows down one tower and out of the other, cooling the water by evaporation as it passes over it.

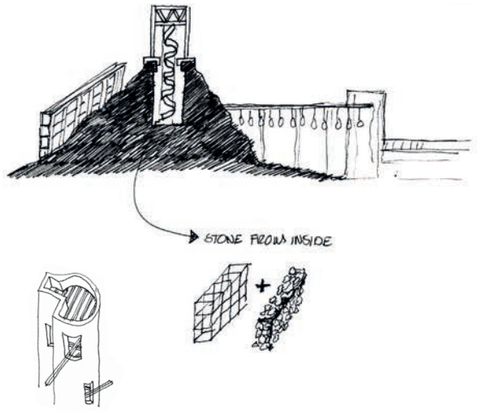
Windcatcher is like a chimney whose end is in the underground and the top is set over a specific height on the roof and were built at the entrance of the house over underground water reservoirs or ponds built inside the house. The dry and warm wind will pass over a pond with a fountain gets cool and wet through evaporation. The Badgir’s material again plays another role. Due to high fluctuation of temperature differences between day and night in this climate and night time coldness, Badgir which is made with mud-brick, get cool by radiation and convection.

Text/Image: http://iotpe.com/IJTPE/IJTPE-2011/IJTPE-Issue8-Vol3-No3-Sep2011/21-IJTPE-Issue8-Vol3-No3-Sep2011-pp130-137.pdf; http://www-cpsv.upc.es/ace/Articles_n17/articles_pdf/ACE_17_SA_11.pdf





04 Excavating



Controlled fracture by blasting

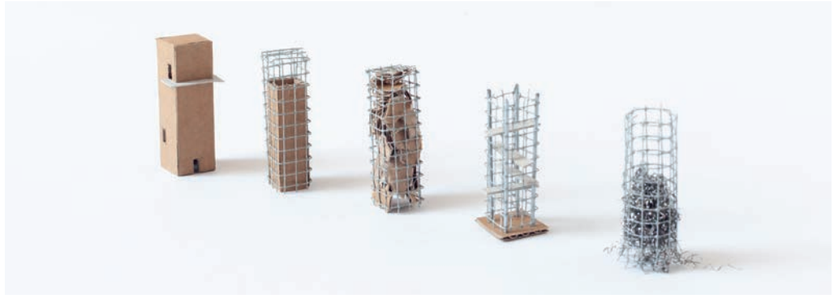
https://www.youtube.com/watch?v=BPCMXPsl9mg&ab_channel=DemolitionDaveDrillingandBlasting

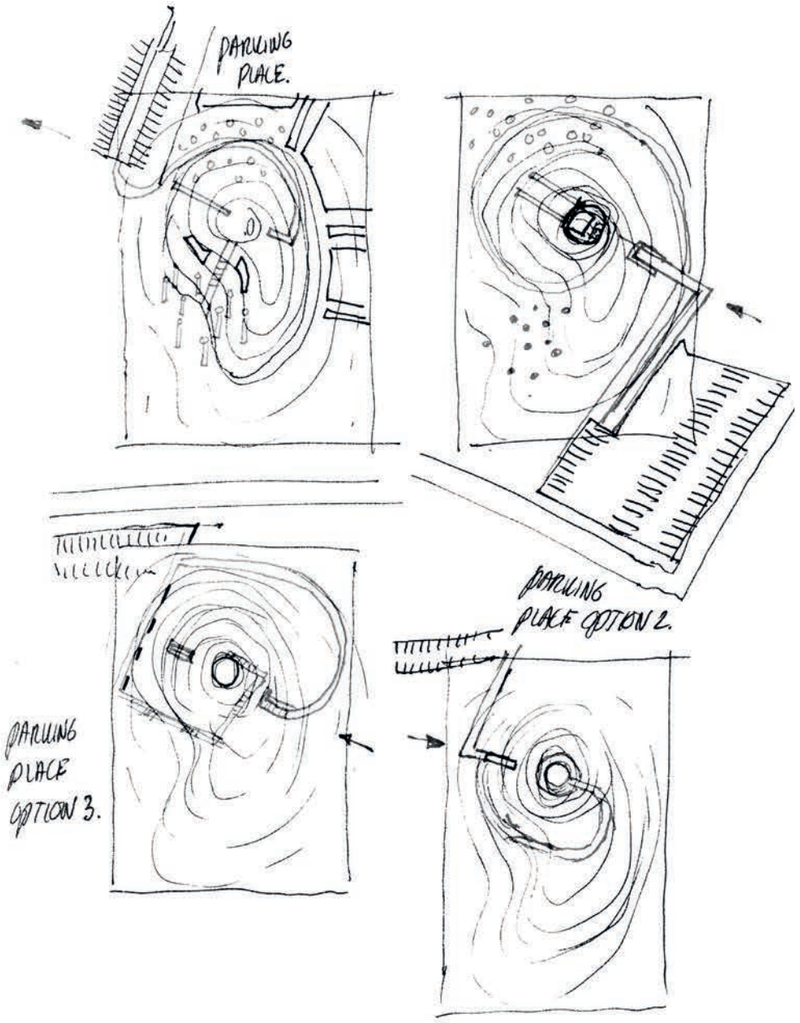
1. The hill

2. Excavate

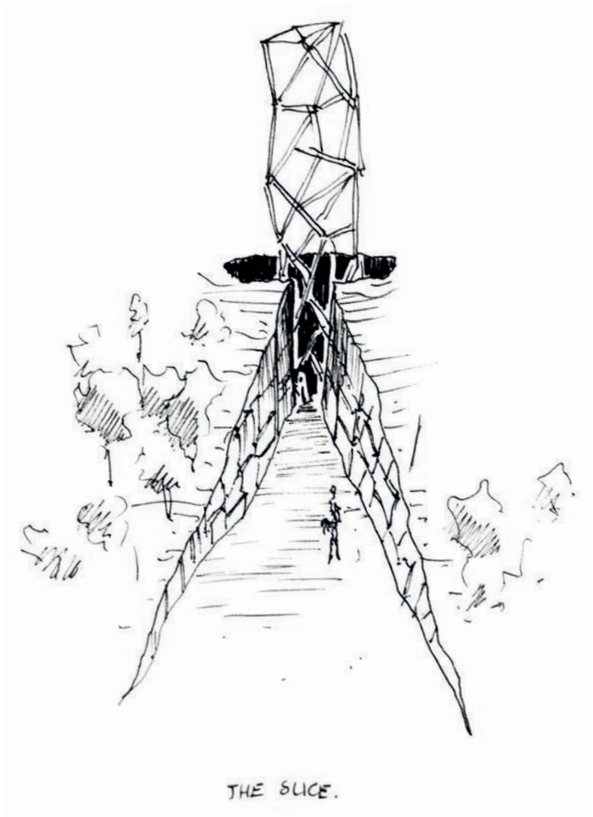
3. Steel structure

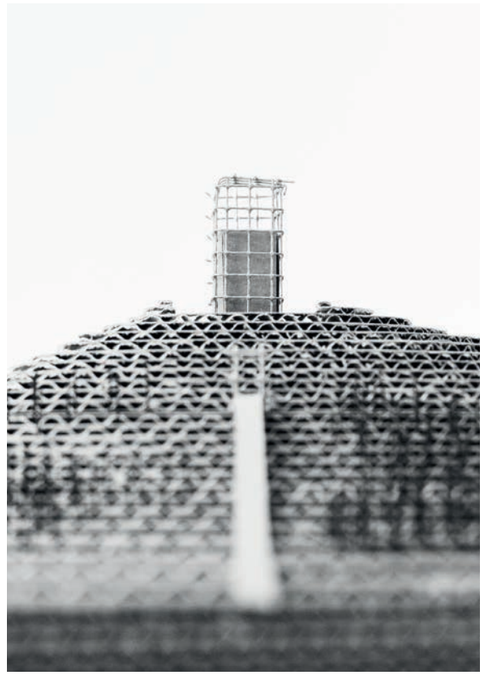
4. Rock infill - Gabions

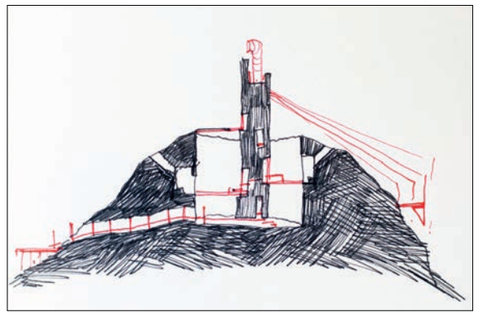


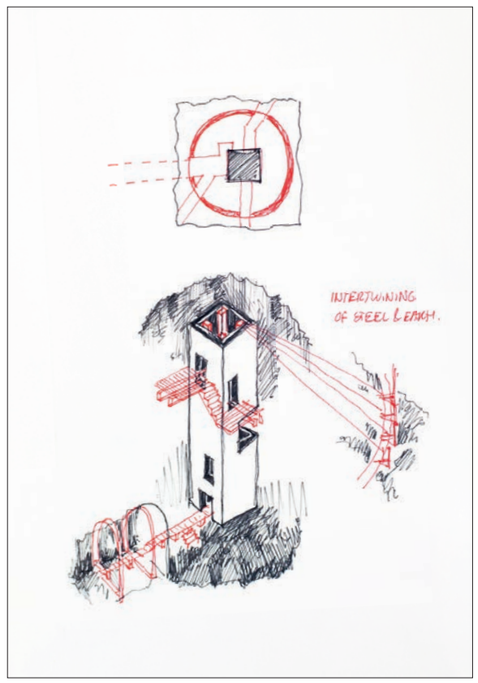

PARKING PLACE.
PARKING PLACE OPTION 2.
PARKING PLACE OPTION 3.

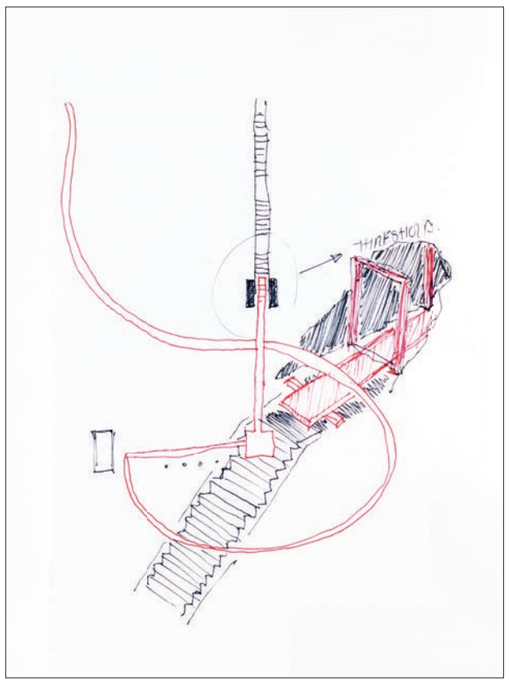
04 Sketches

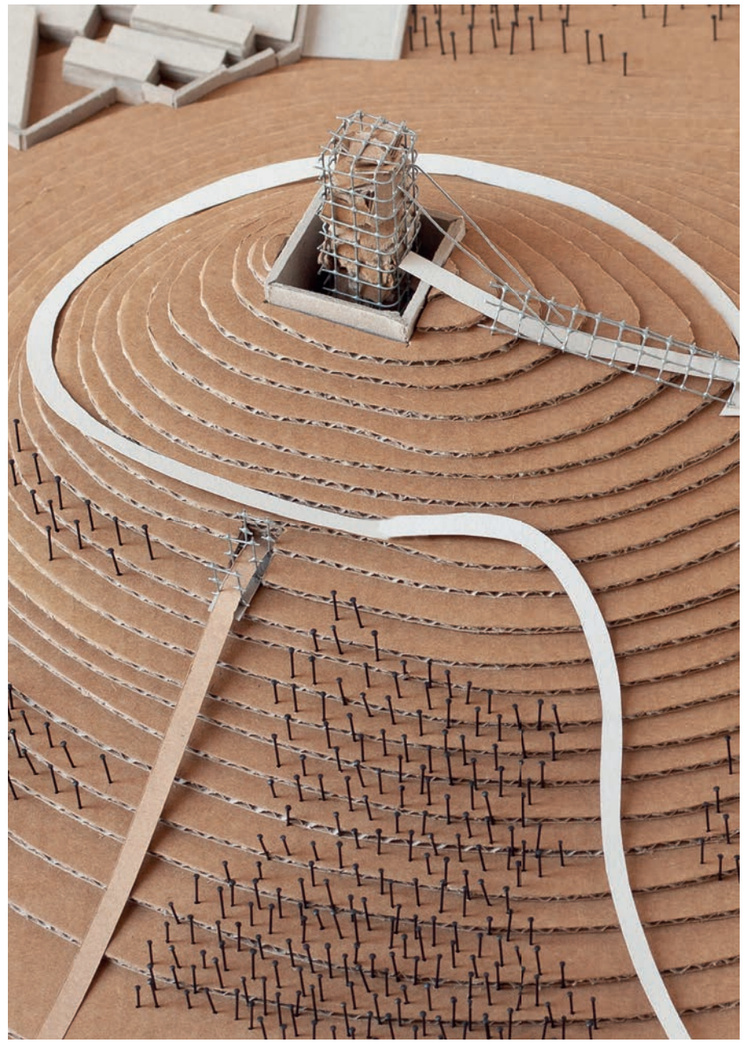







INTERTWINING
OF STEEL & BRICK.





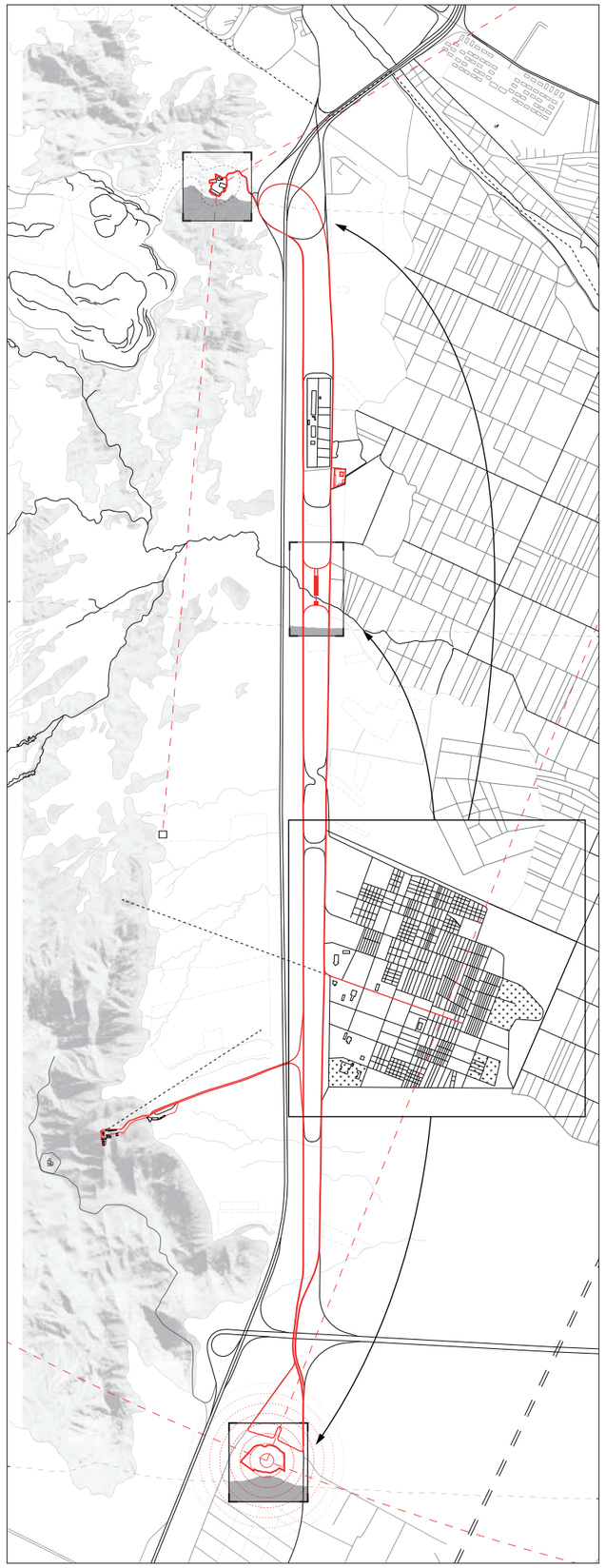
Part V - Final project

00 The Banality of Death

Death was once part of the daily life of Mashhad's residents as burial places were integrated into the city fabric and death rituals were carried out collectively. However, in the contemporary city with a population of three million, there seems to be no place for the organisation and space that is needed for acommodation of the sheer amount of burials and the ritual that preferably takes place directly after death. It is mainly due to this reason and the pollution of groundwater that is caused by the traditional washing process and decay of bodies, that the burial practice has been pushed out to the fragmented peri-urban landscape, where it has become an isolated entity. The territories of life and death, once entangled, have now become severely separated.

As repositioning the graveyard inside the city seems not to be a favorable solution due to the beforementioned reasons, an interesting design task arises: the reintegration of the territories of death and the living in the 'new' context of the burial practice: the urban outskirts.

The Banality of Death addresses the way the city of Mashhad deals with death. It is an attempt to architecturally translate and expose the tensions that arise between traditional values and the modern transformation of the burial process by the design of three extended rest-stops along the Bagcheh Highway that act as mediators with the goal of interweaving the territories of the dead and living. They are part of the burial ritual as well as they accommodate places for rest and leisure. The design includes a *playscape* at a former burial place of a persecuted minority in Mashhad where people are playfully confronted with death and its architecture (1), an *ablution facility* in between two highways that functions as the starting point of the burial ritual and acts as a transfer point for a mobility system, taking visitors that are not necessarily related to the burial ritual around the territory (2) and a *watchtower* situated on/in a forgotten site of heritage where formerly pilgrims encountered their first view towards the golden dome of the Imam Reza Shrine at the center of Mashhad, and has a role in the completion of the mourning process.

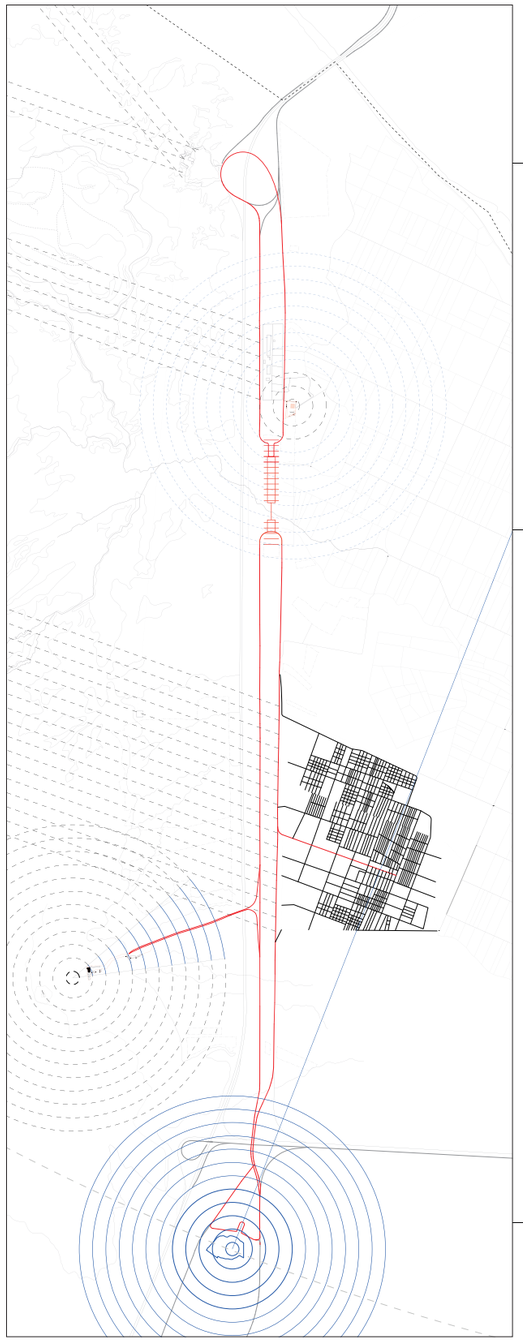


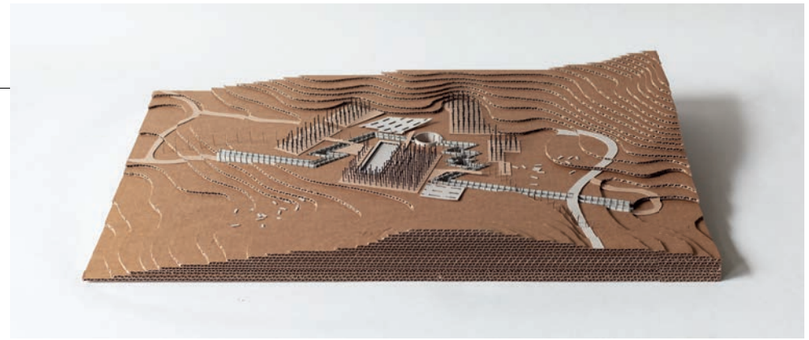
Reststop I - The playscape

Reststop II - The washing station

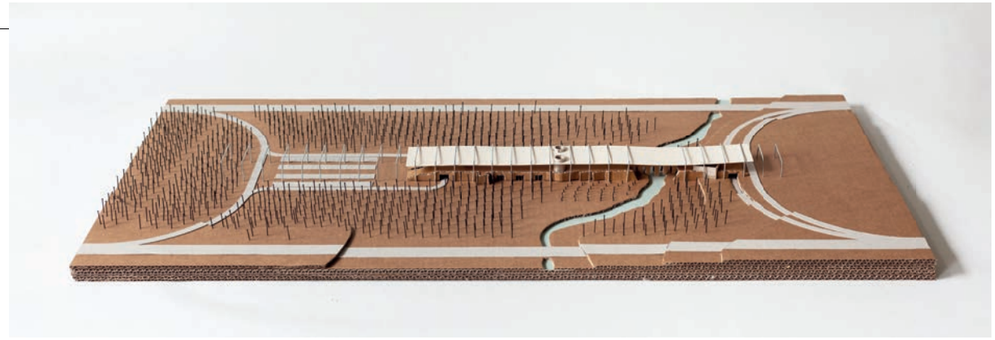
Behesht-e Reza Cemetery

Reststop III - The watchtower

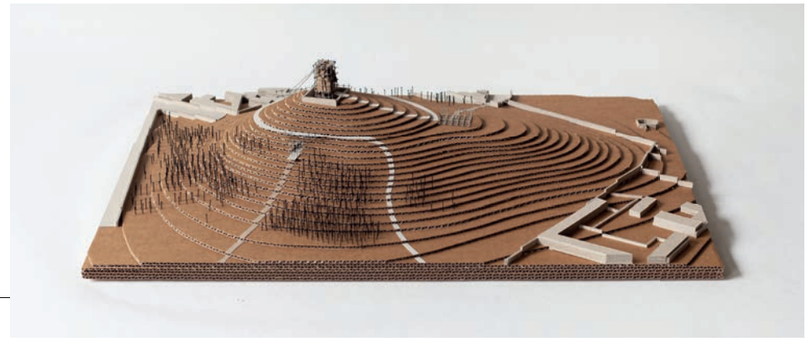




Reststop I - The playscape



Reststop II - The washing station

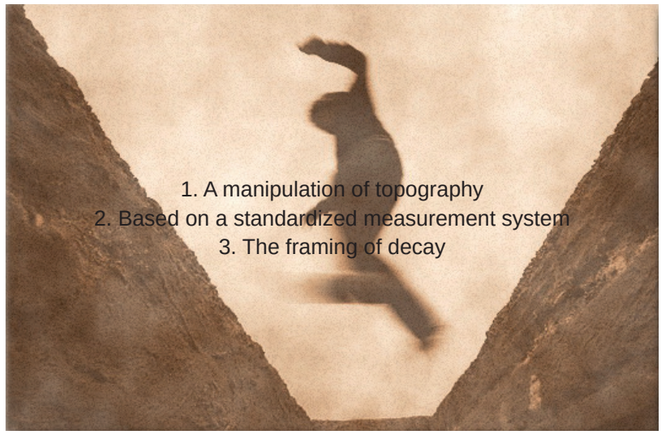


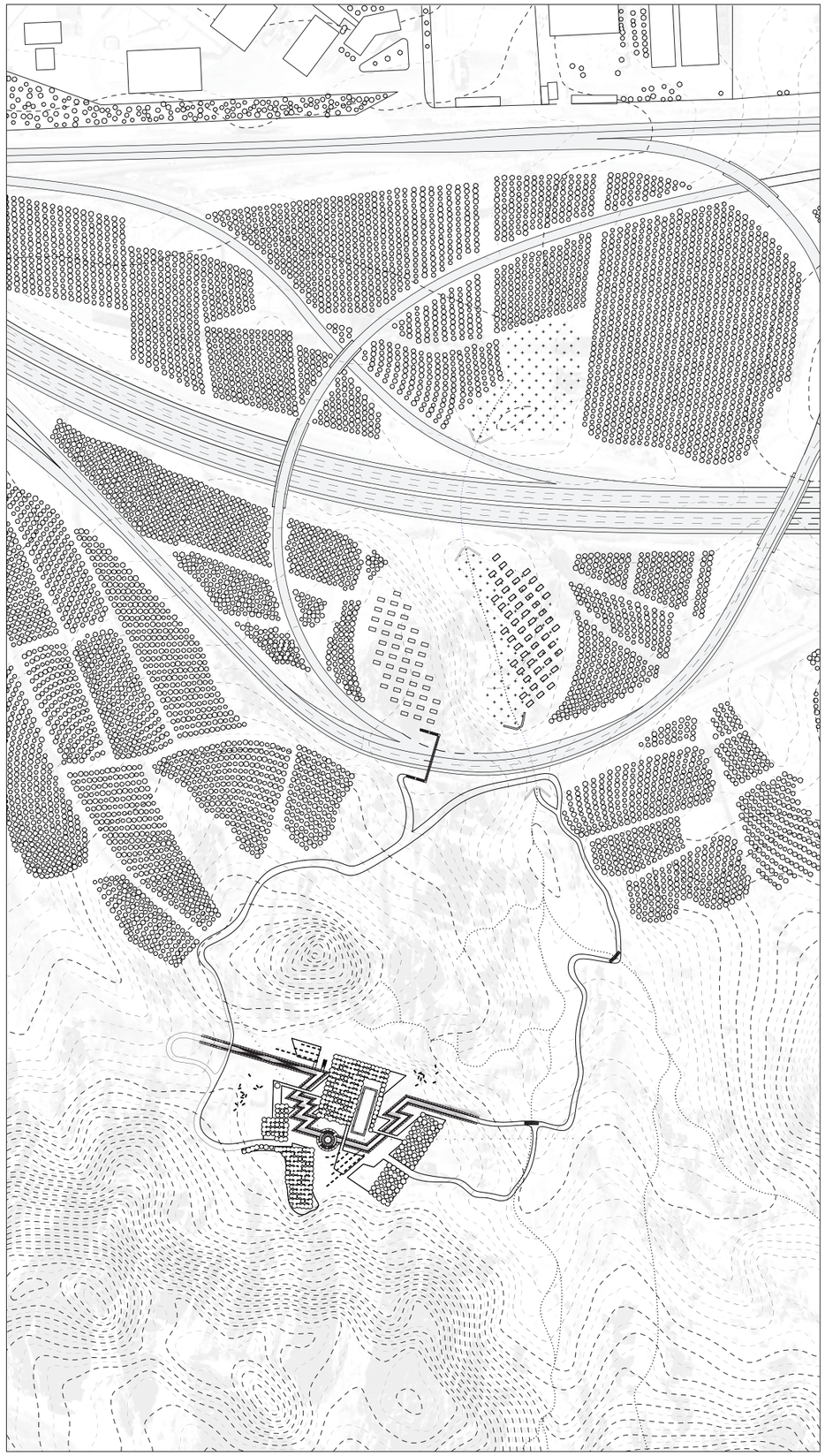
Reststop III - The watchtower

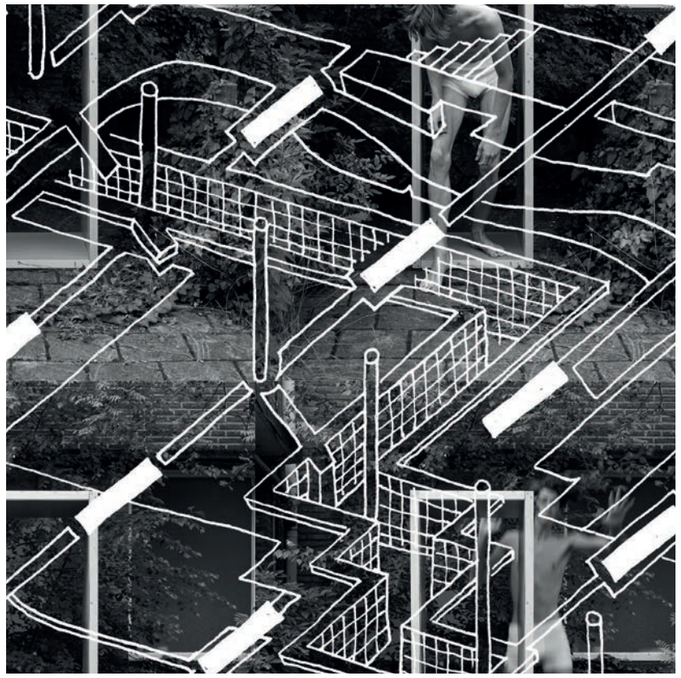
Reststop I - The playscape

01 Site

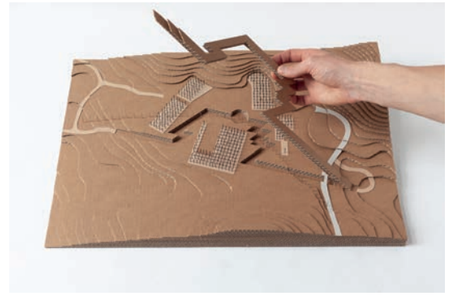
Playful interactions with the architecture of death

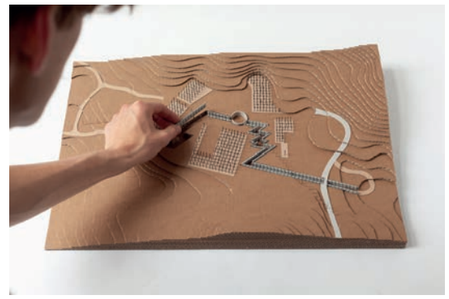


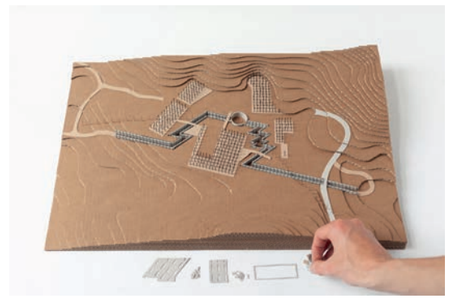


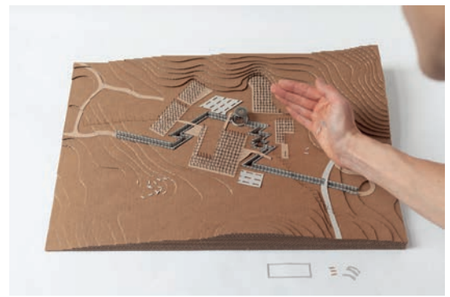


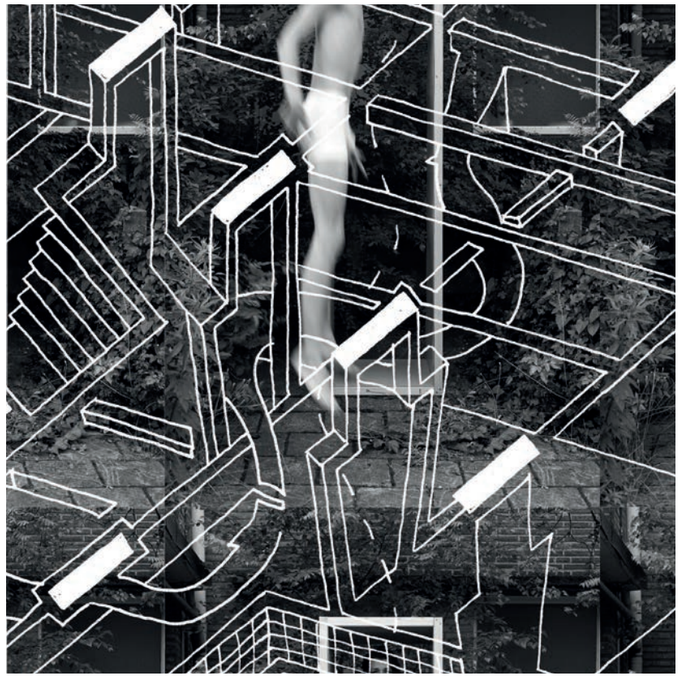
The architecture of death is a **manipulation of topography**



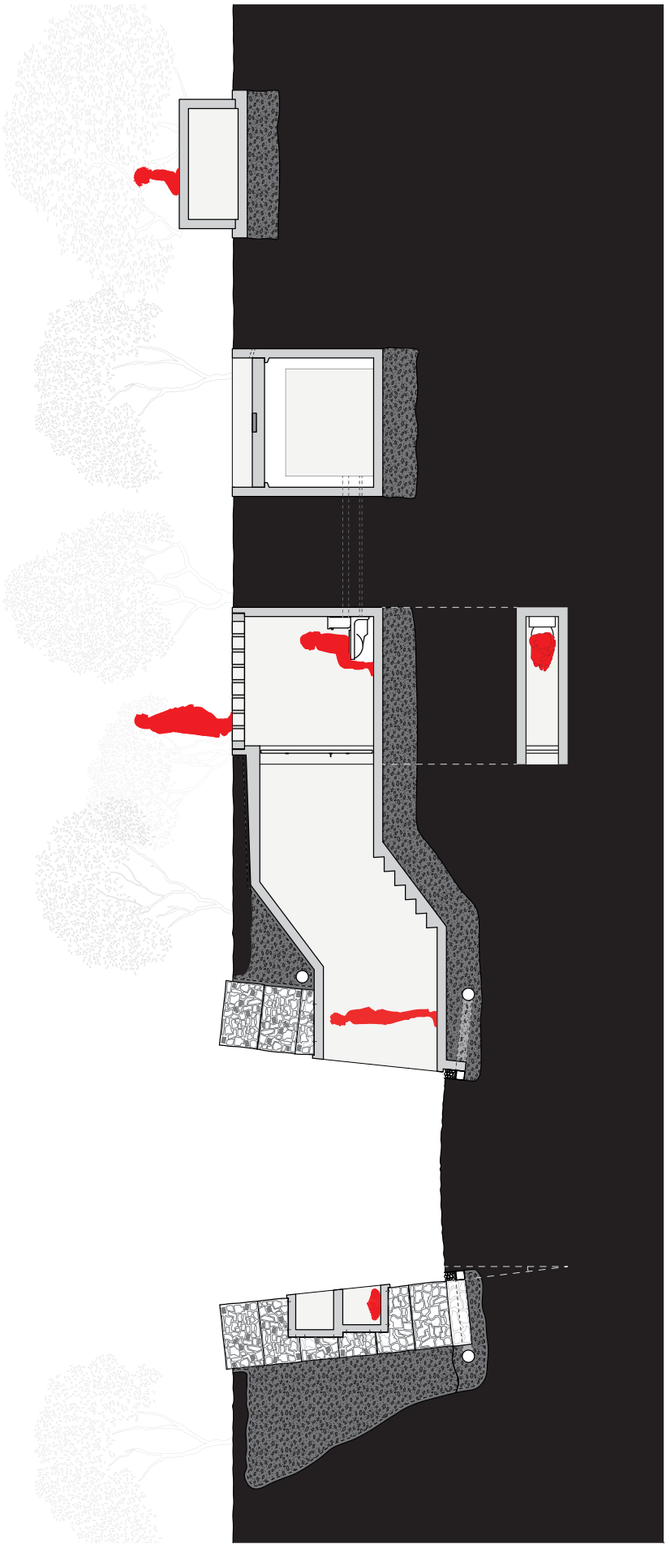




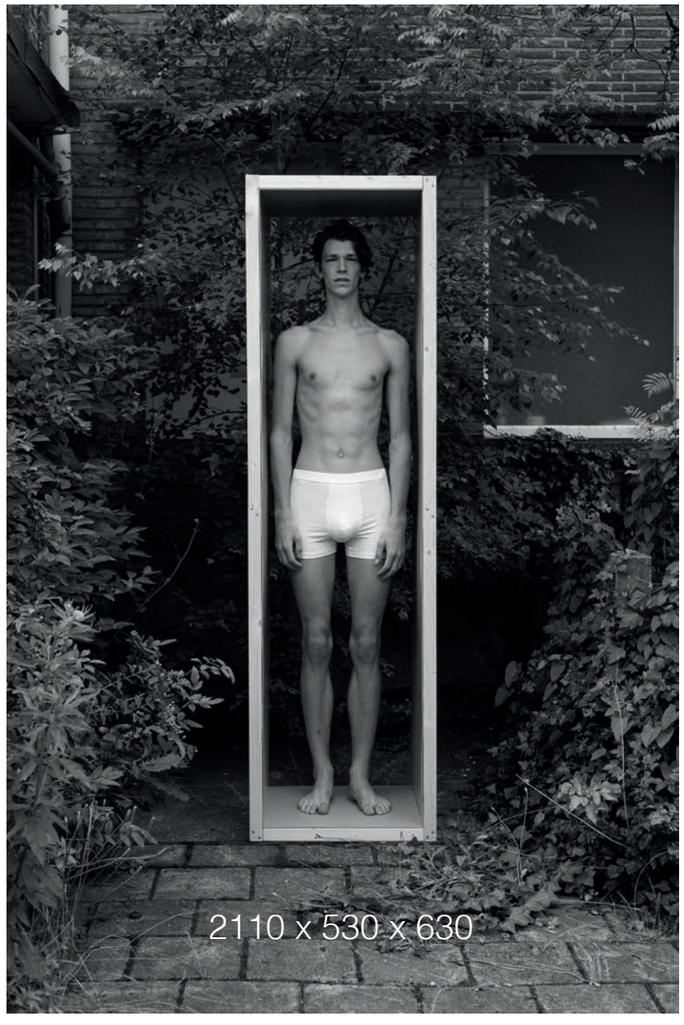


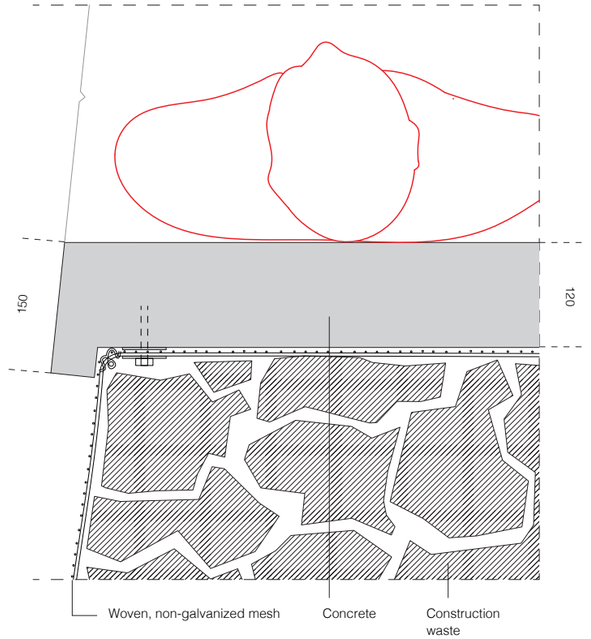


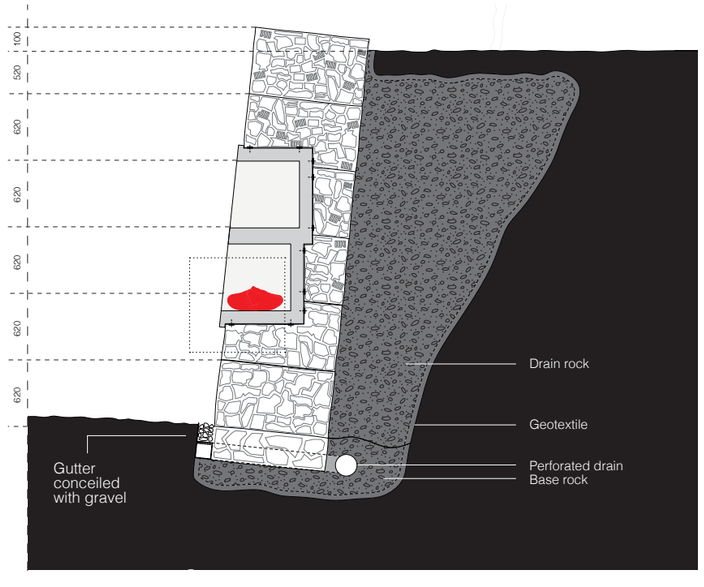
The architecture of death is **based on a standardized measurement system**



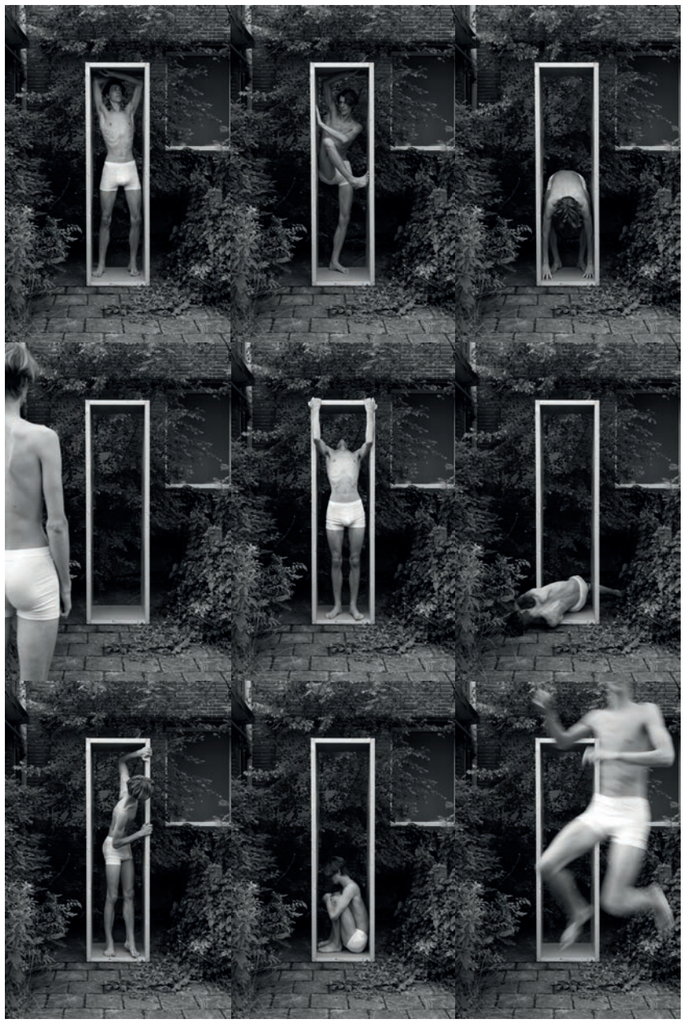
01 Detailing

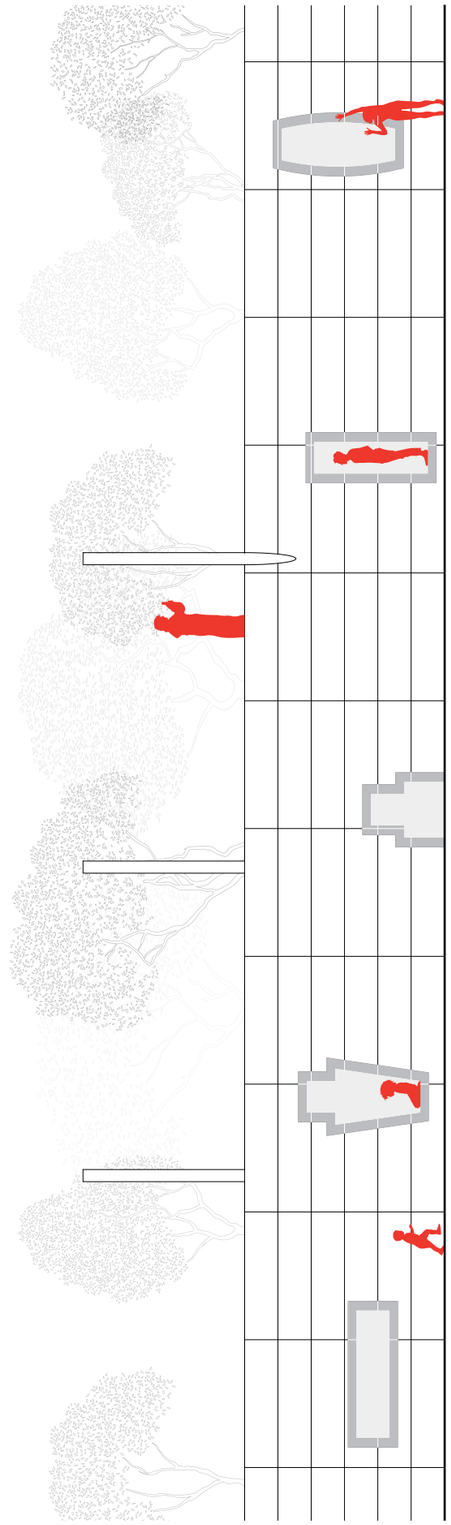


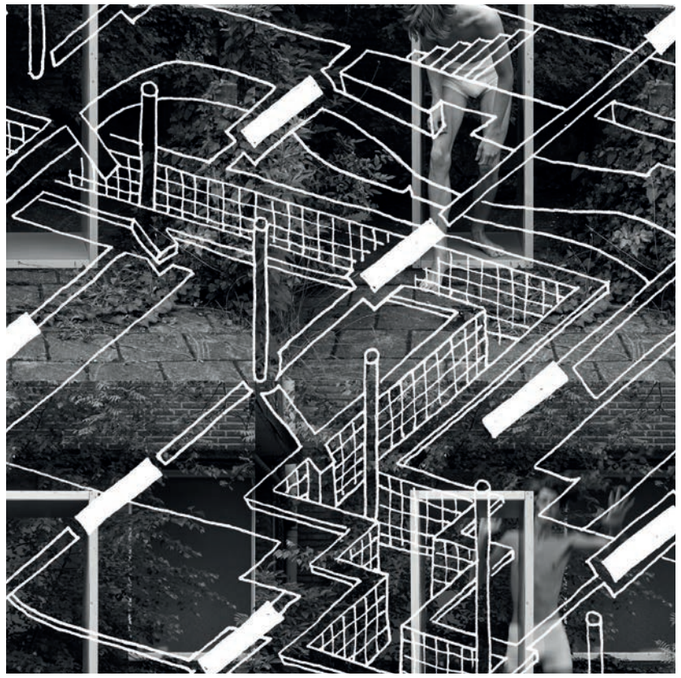




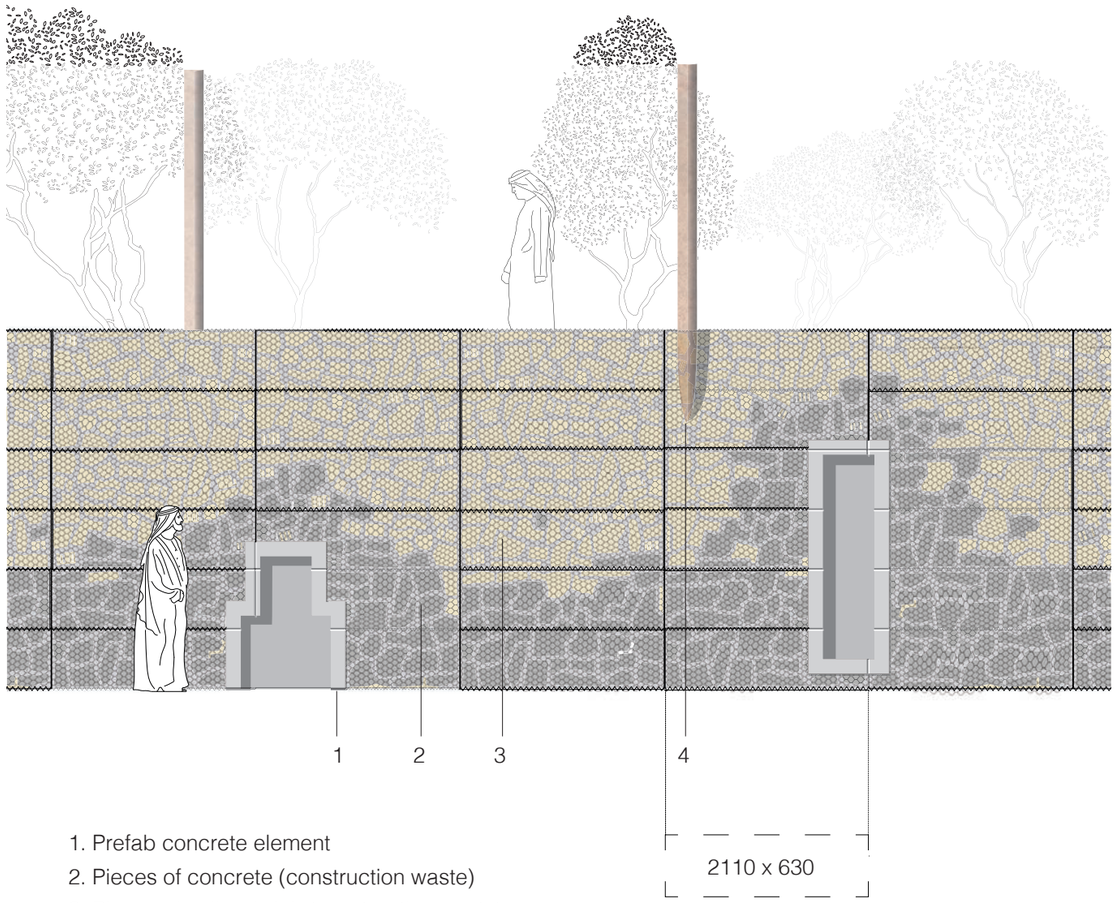
01 Gallery of measurements





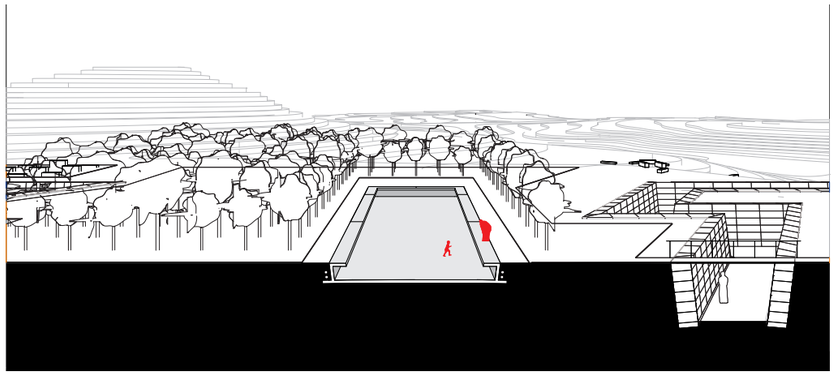


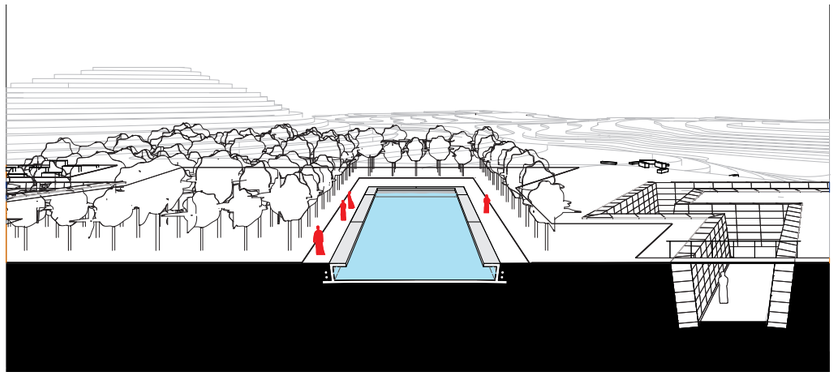
The architecture of death is **the framing of decay**

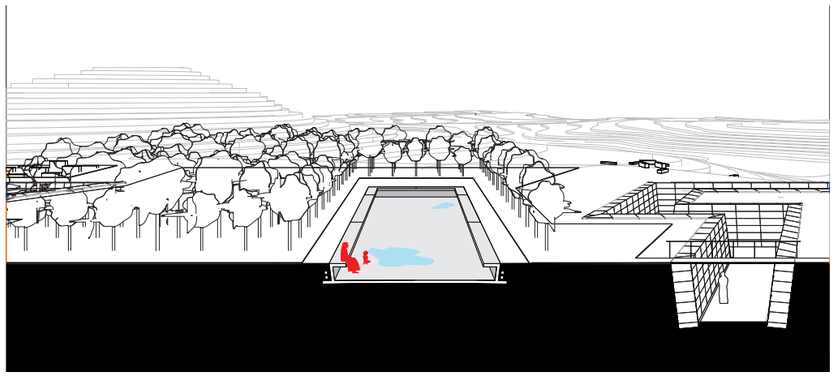


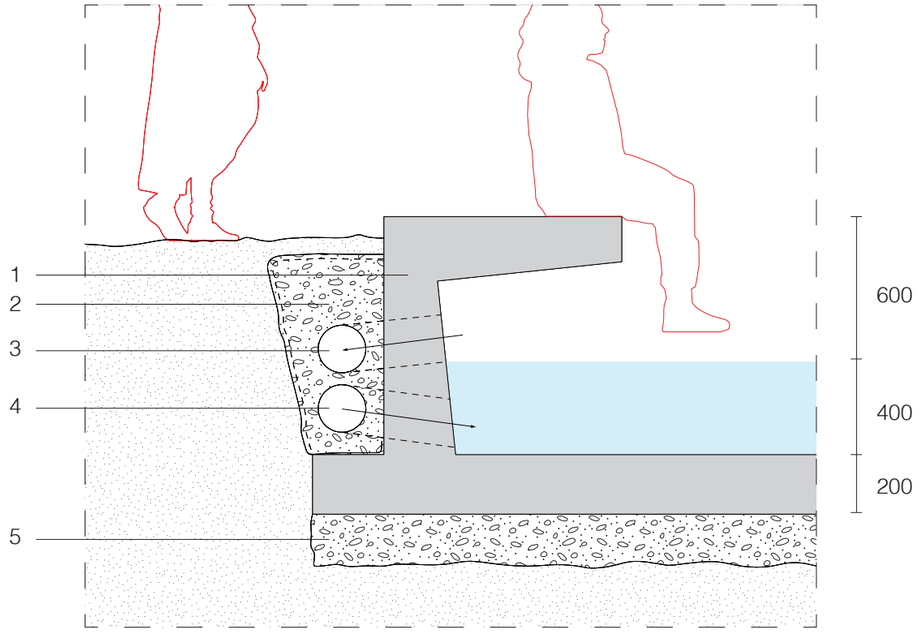
1. Prefab concrete element
2. Pieces of concrete (construction waste)
3. Pieces of yellow brick (construction waste)
4. Steel collumn

01 Framing of decay

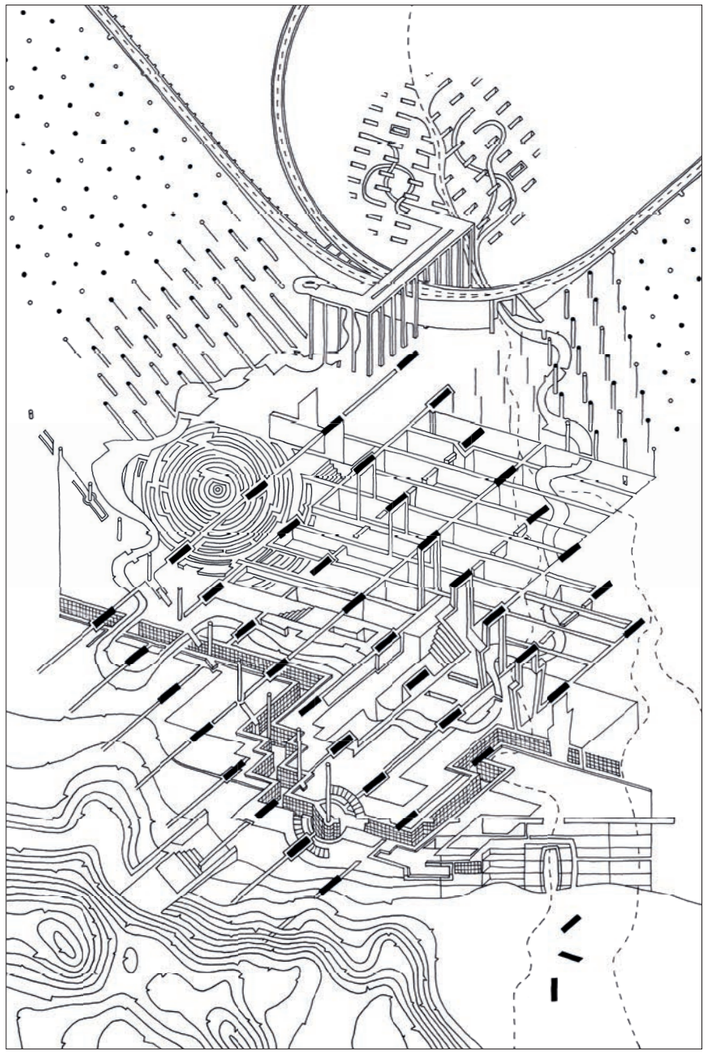


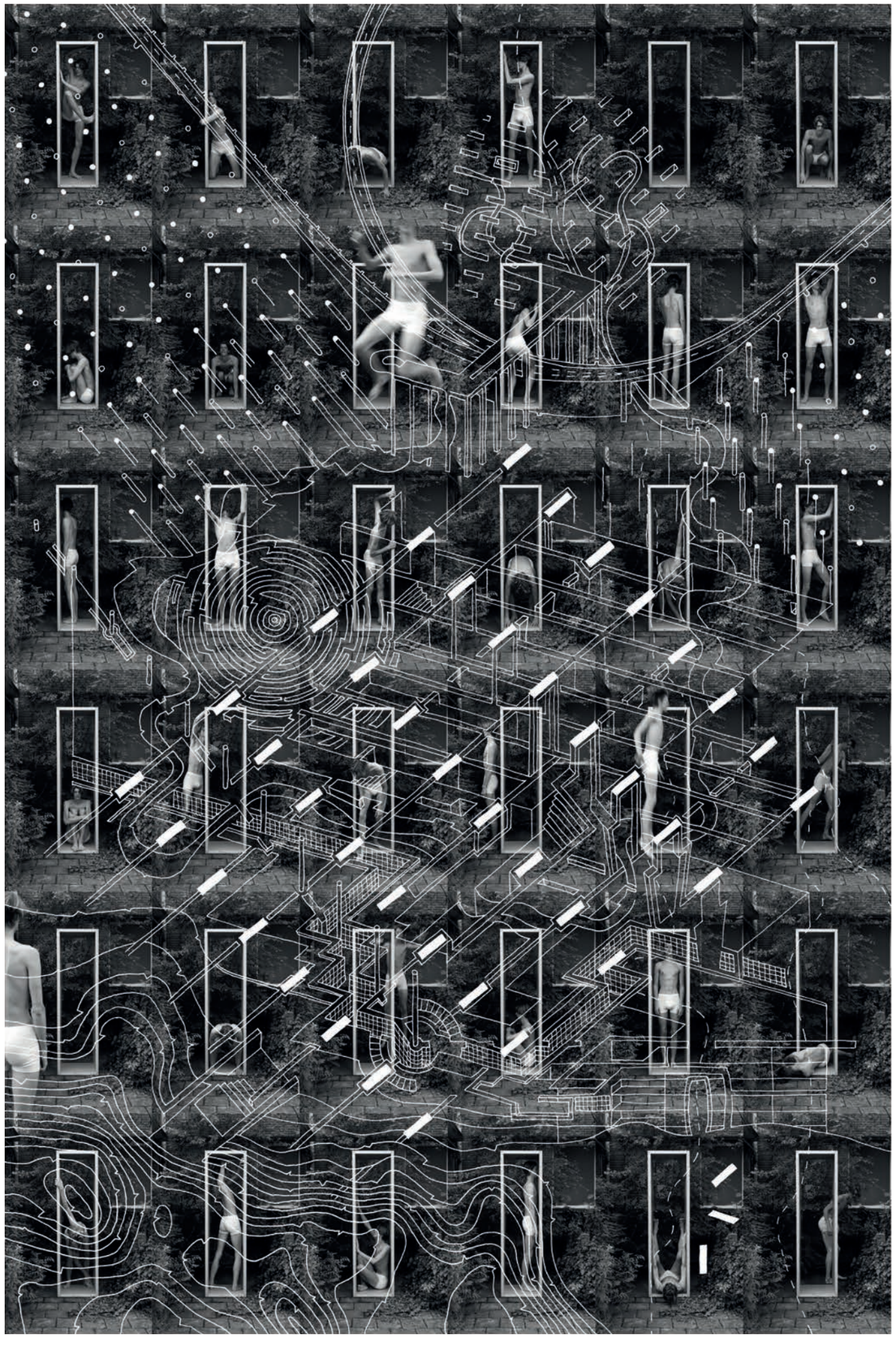






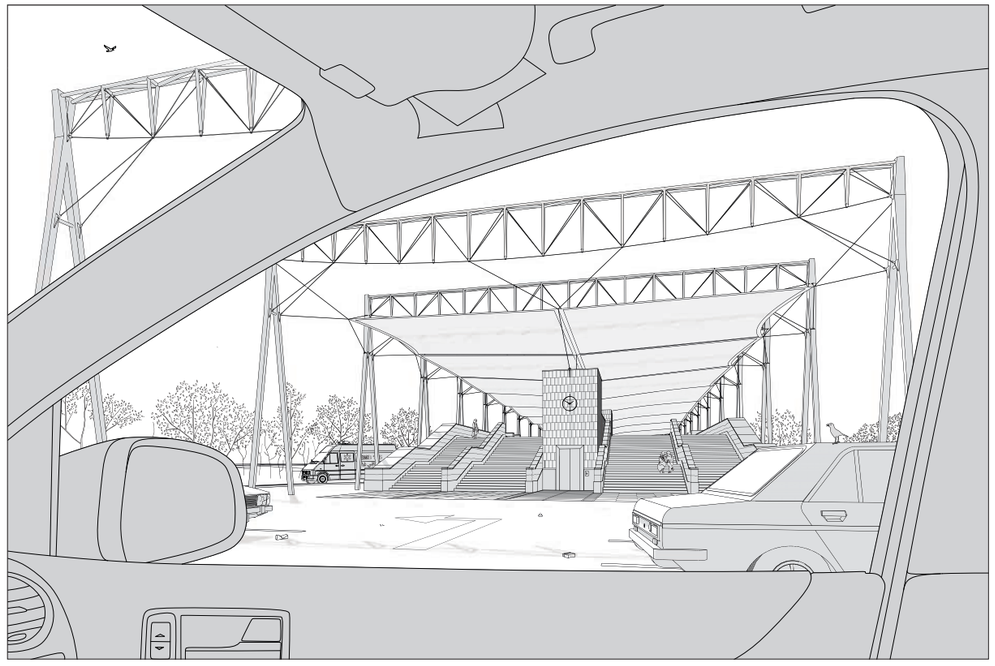
1. Prefab concrete element
2. Drainage rock
3. Non-Perforated drain pipe
4. Perforated drain pipe
5. Base rock



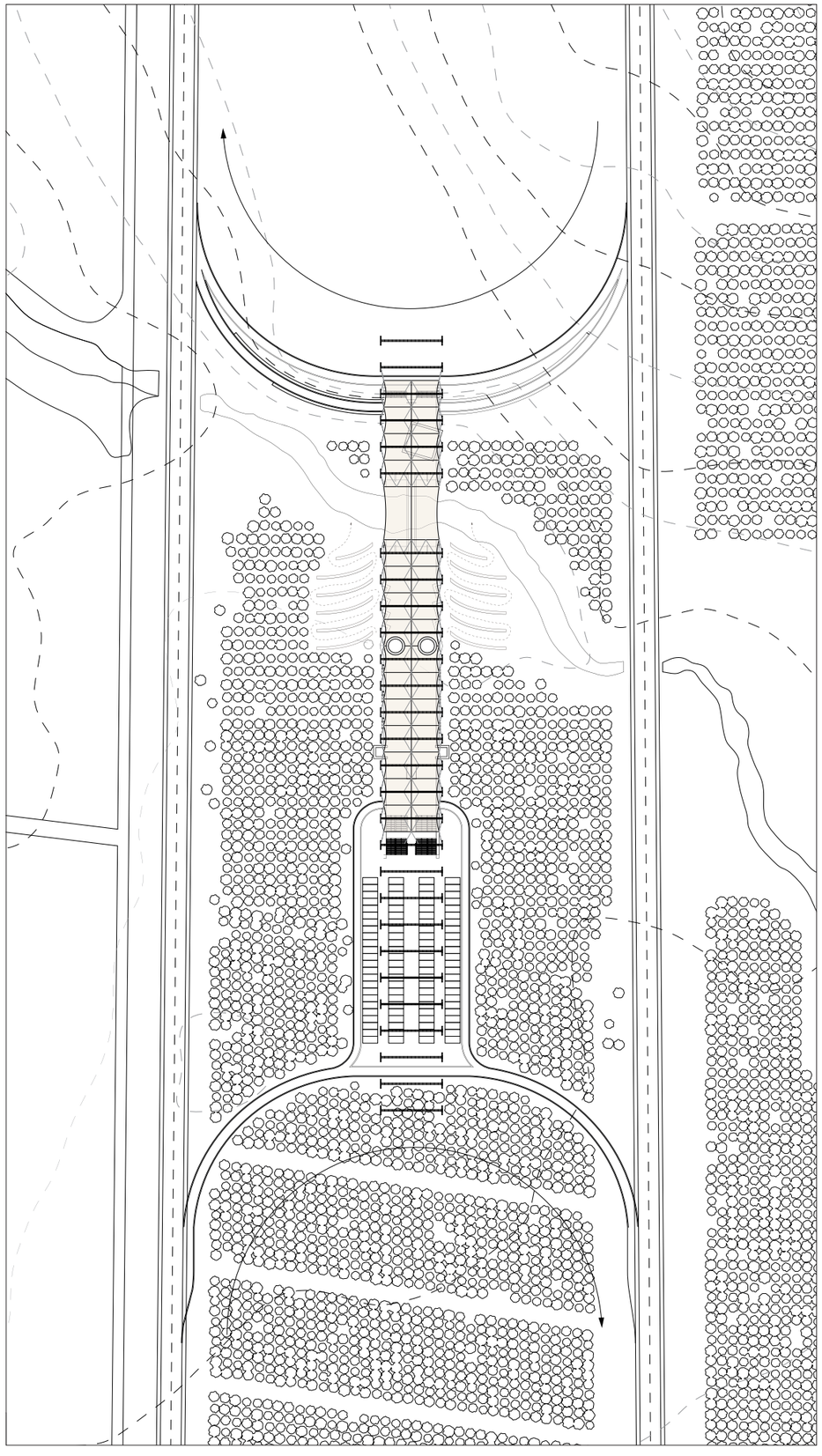


Reststop II - The washing station

02 Site & Impression



Entrance



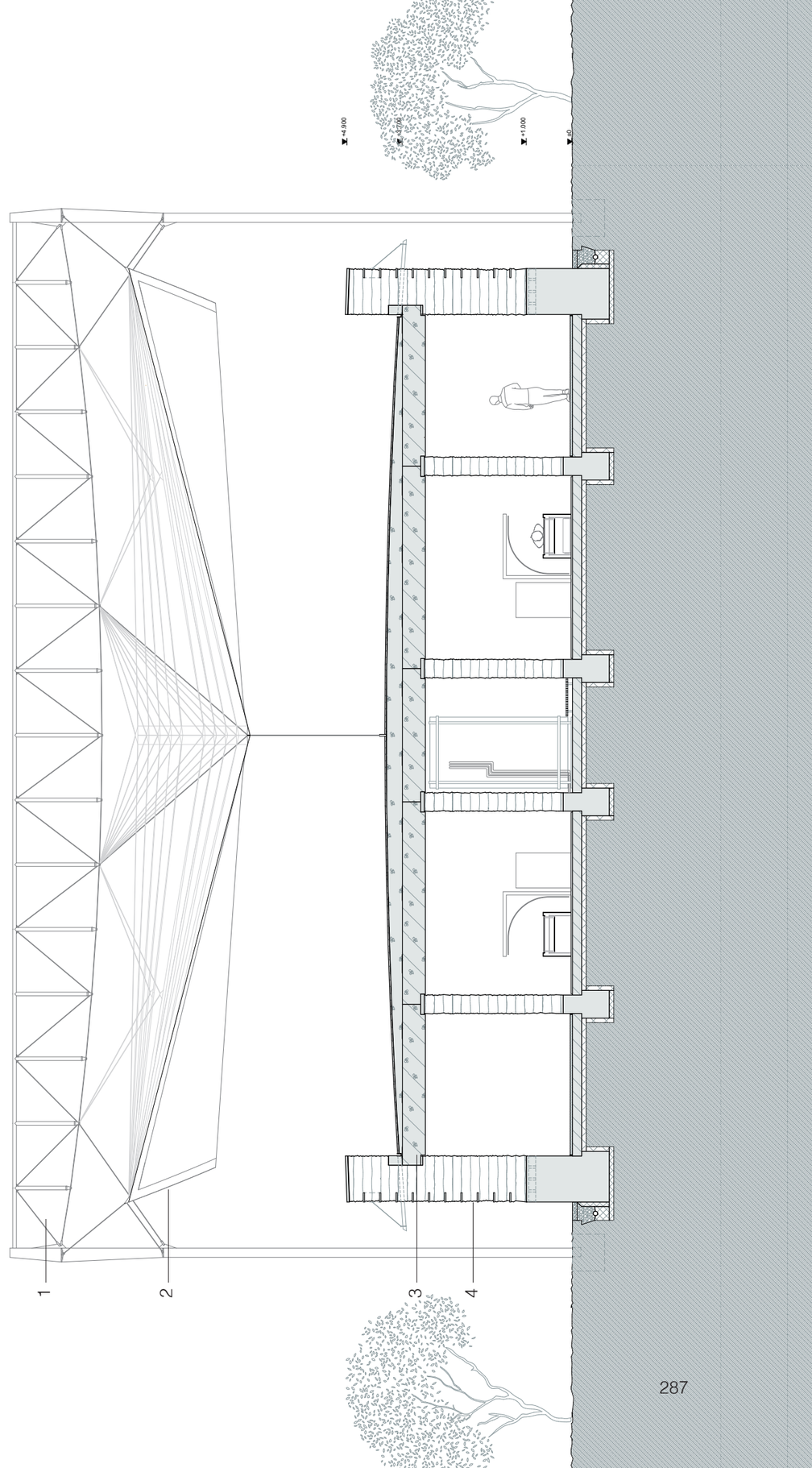
02 Impressions

Public roof with view over the agricultural fields

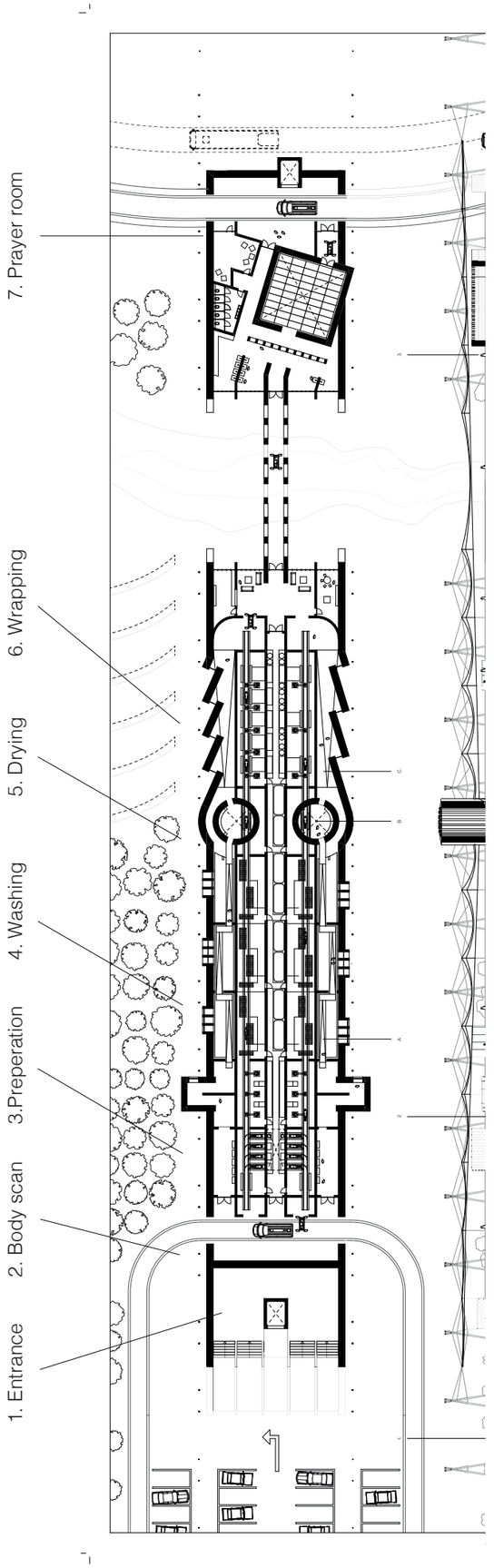
Point of transition - busterminal

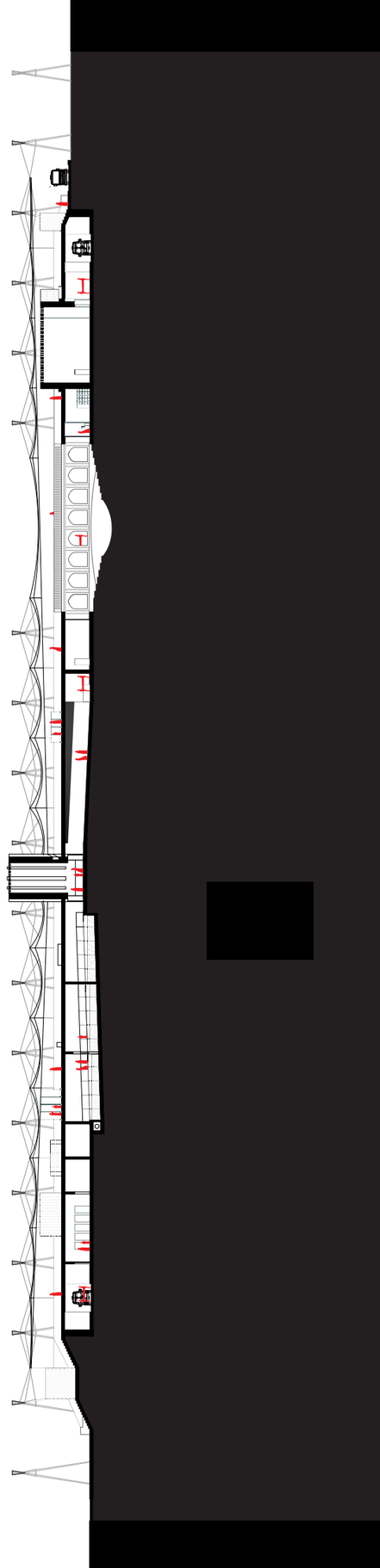
02 Blood-stabilized rammed earth

1. Steel tensile structure
2. Solartextile shading (271.524 kWh per year ~ 27 households)
3. Lightweight misopor concrete (insulates as it contains air)
4. Blood-stabilized rammed earth (thickness = 1000, insulates because of high thermal mass

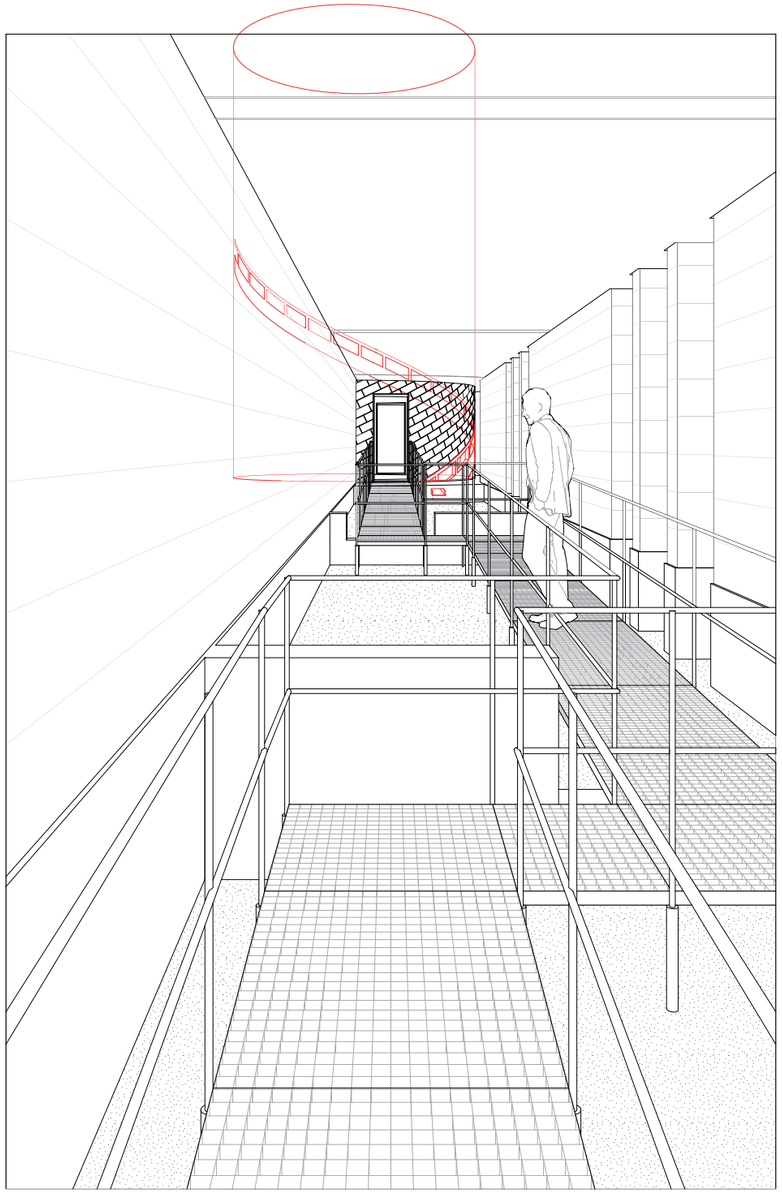


02 Elevation, plan, section

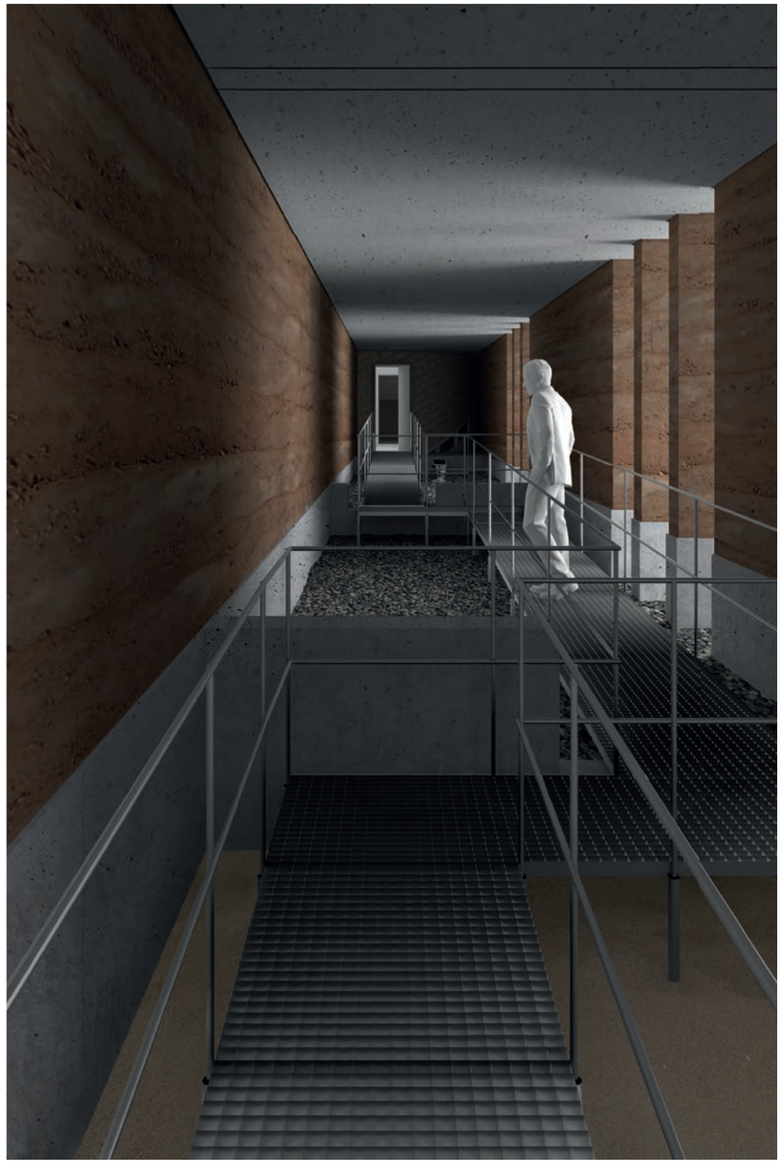




02 Water system

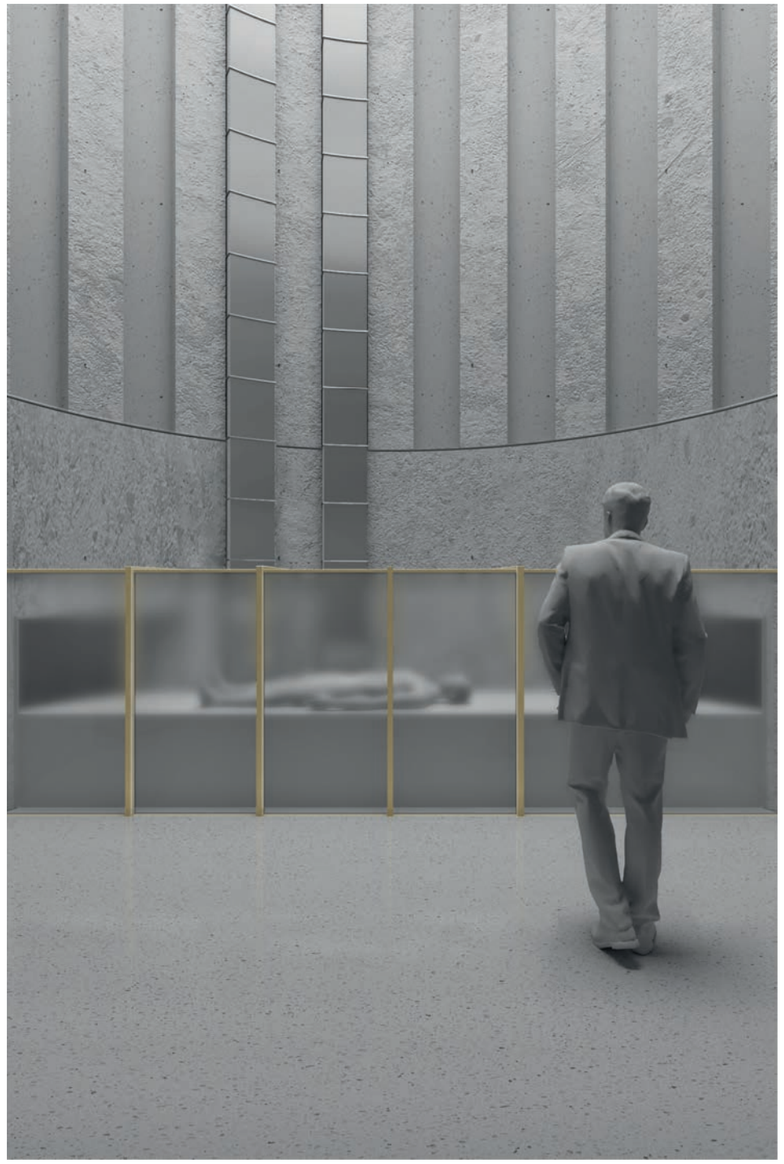


Interior impression

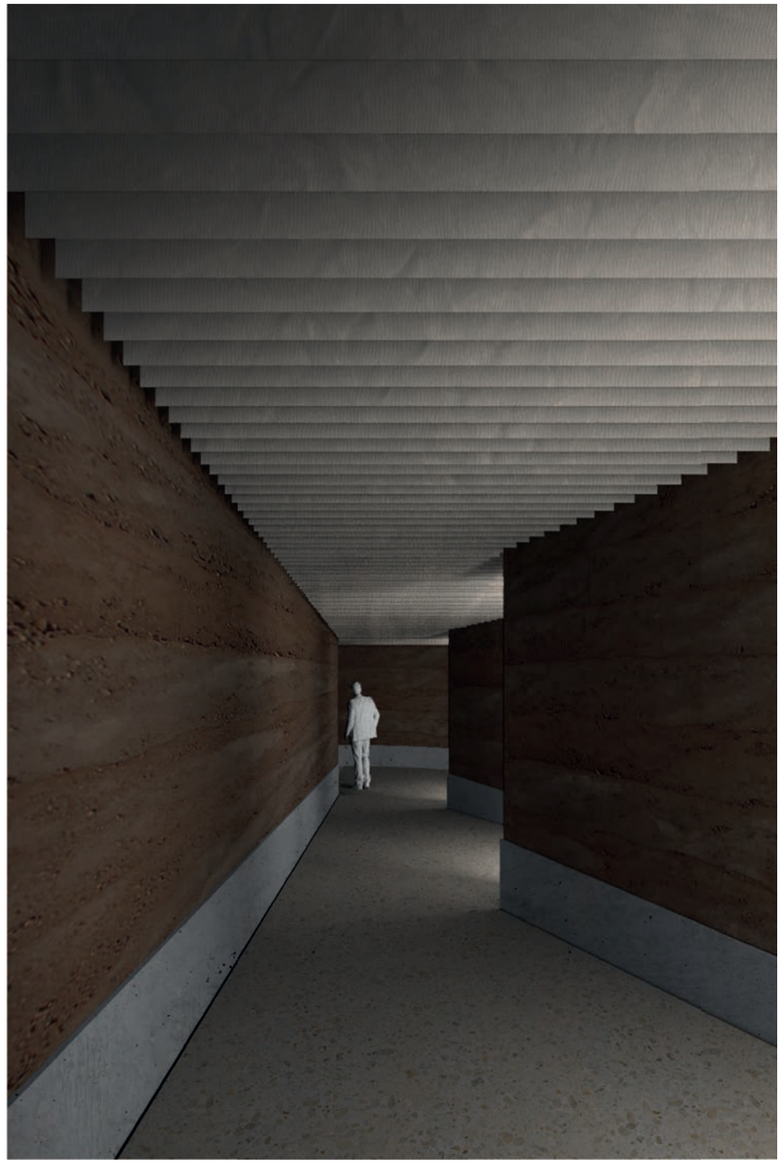


Active waiting room stage 4: Washing the body

02 Interior impression

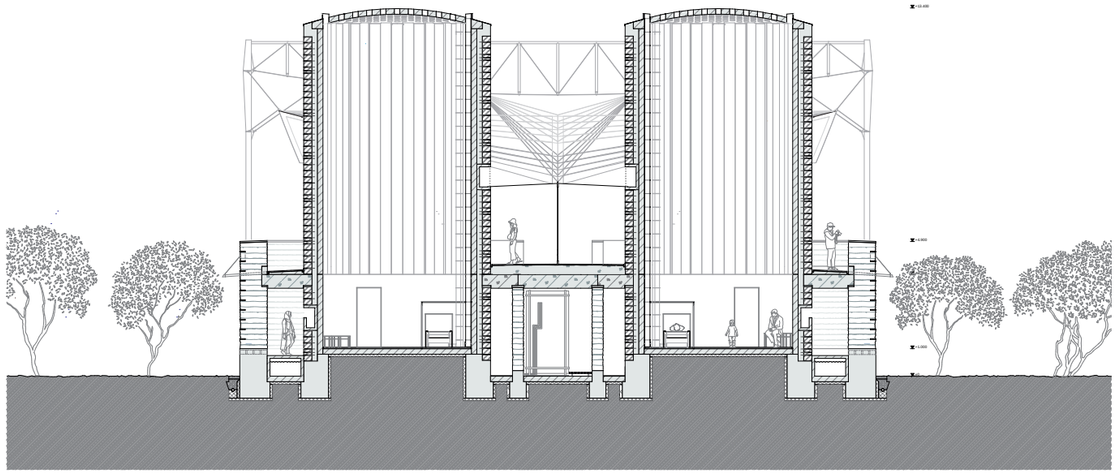


Active waiting room stage 5: The drying chamber

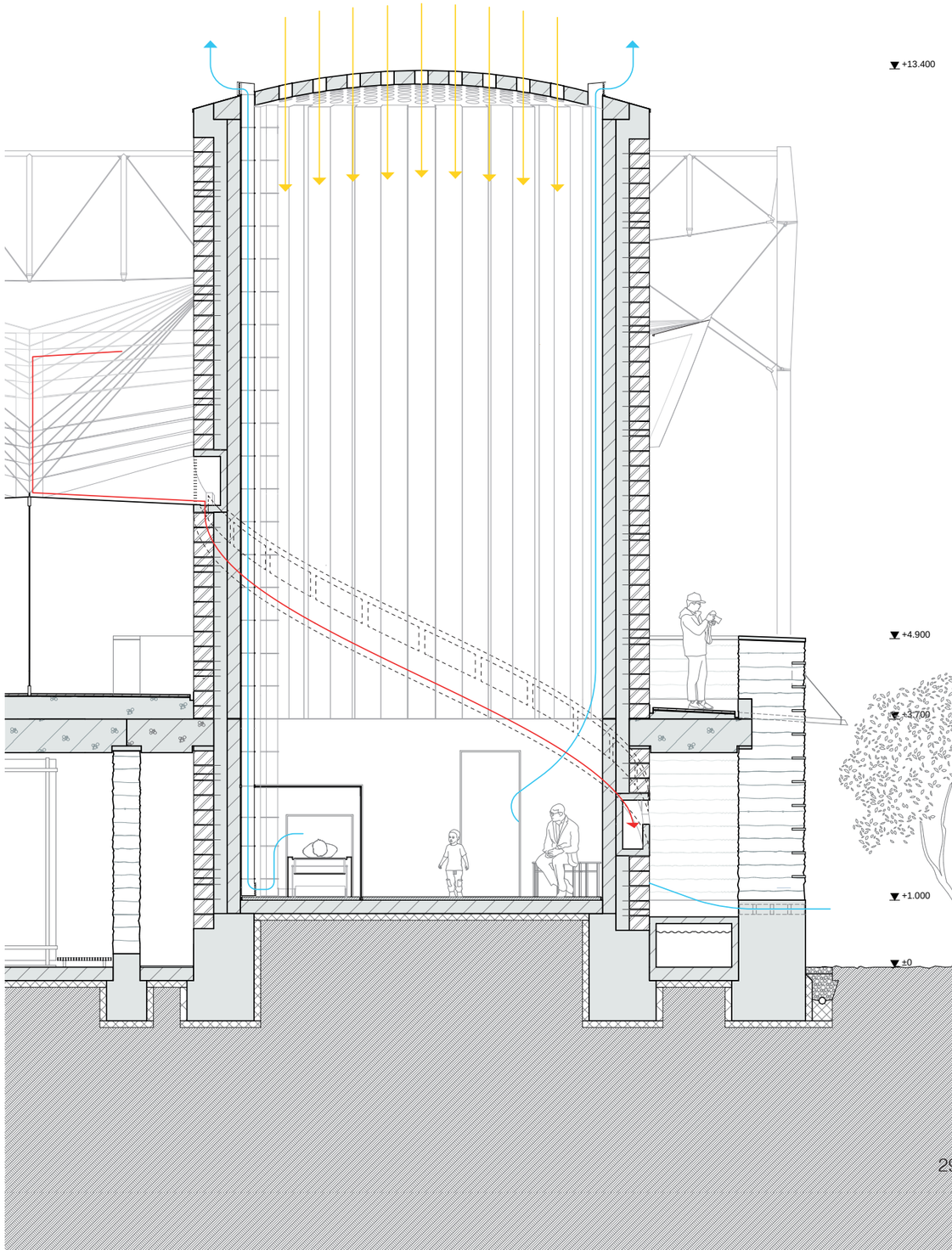


Active waiting room stage 6: Wrapping the body

02 Detail 1:20



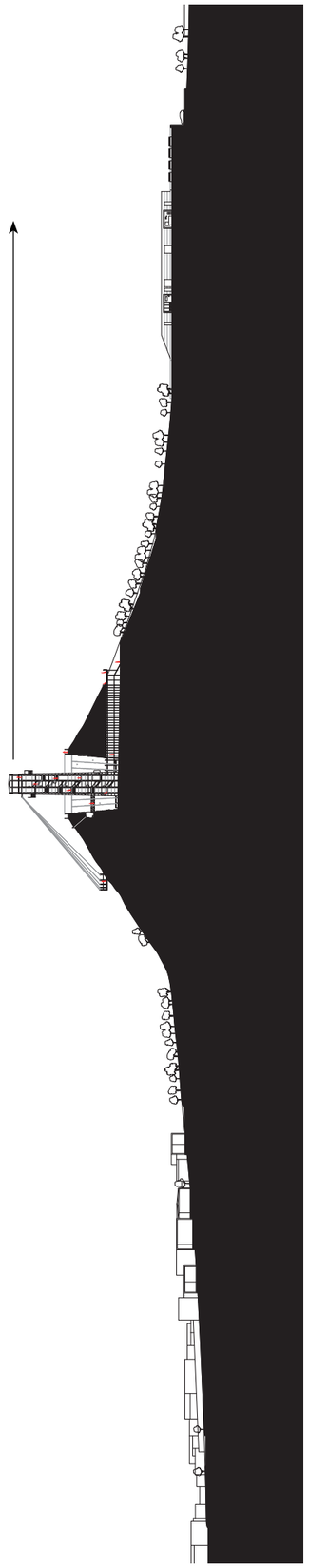
The ventilation chamber is a central point of the building.
The movement of light, air and water shapes the architecture of the cylinders that protrude through the roof.

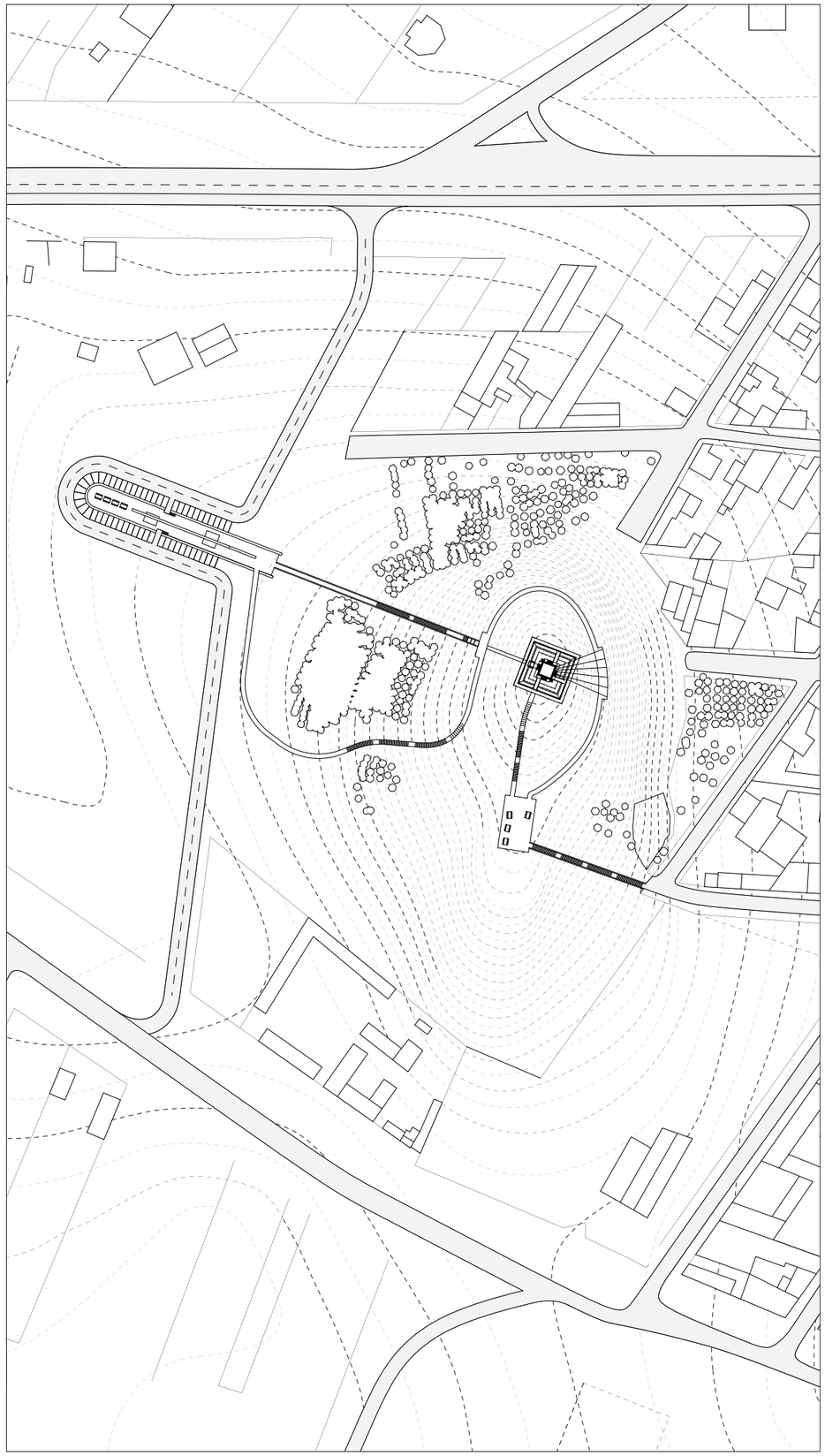


Reststop III - The watchtower

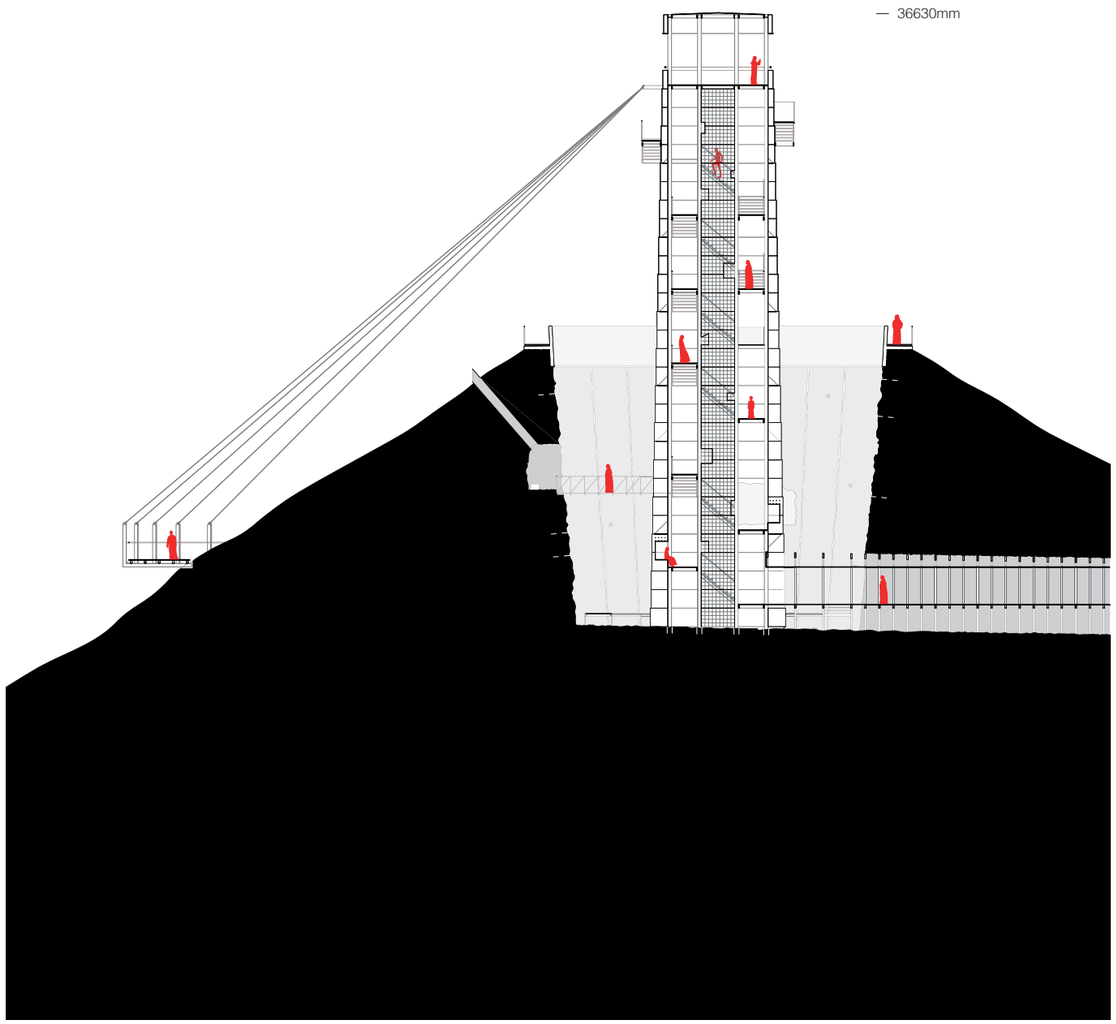
03 Section and site plan

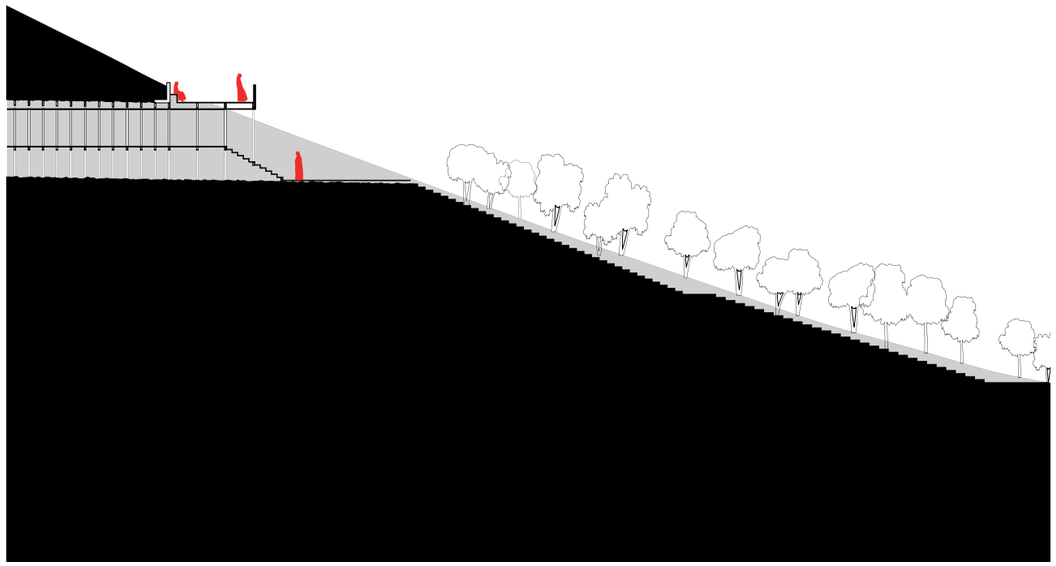
Section taken along sightline axis



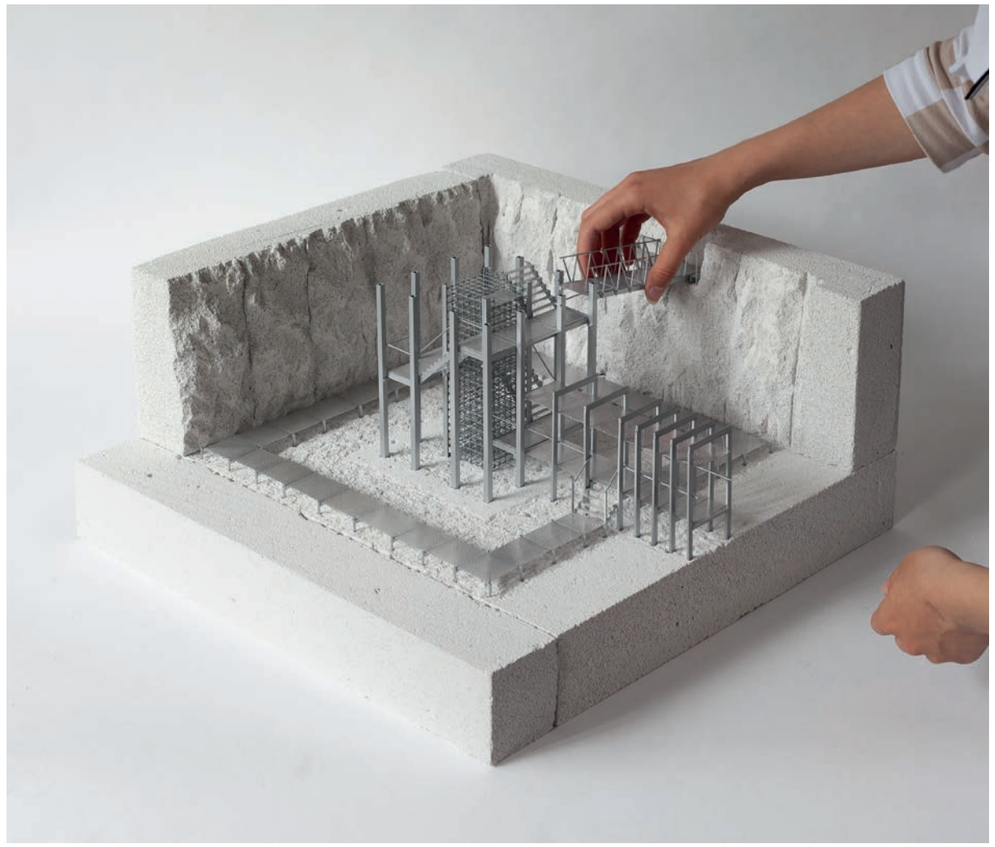


03 Section

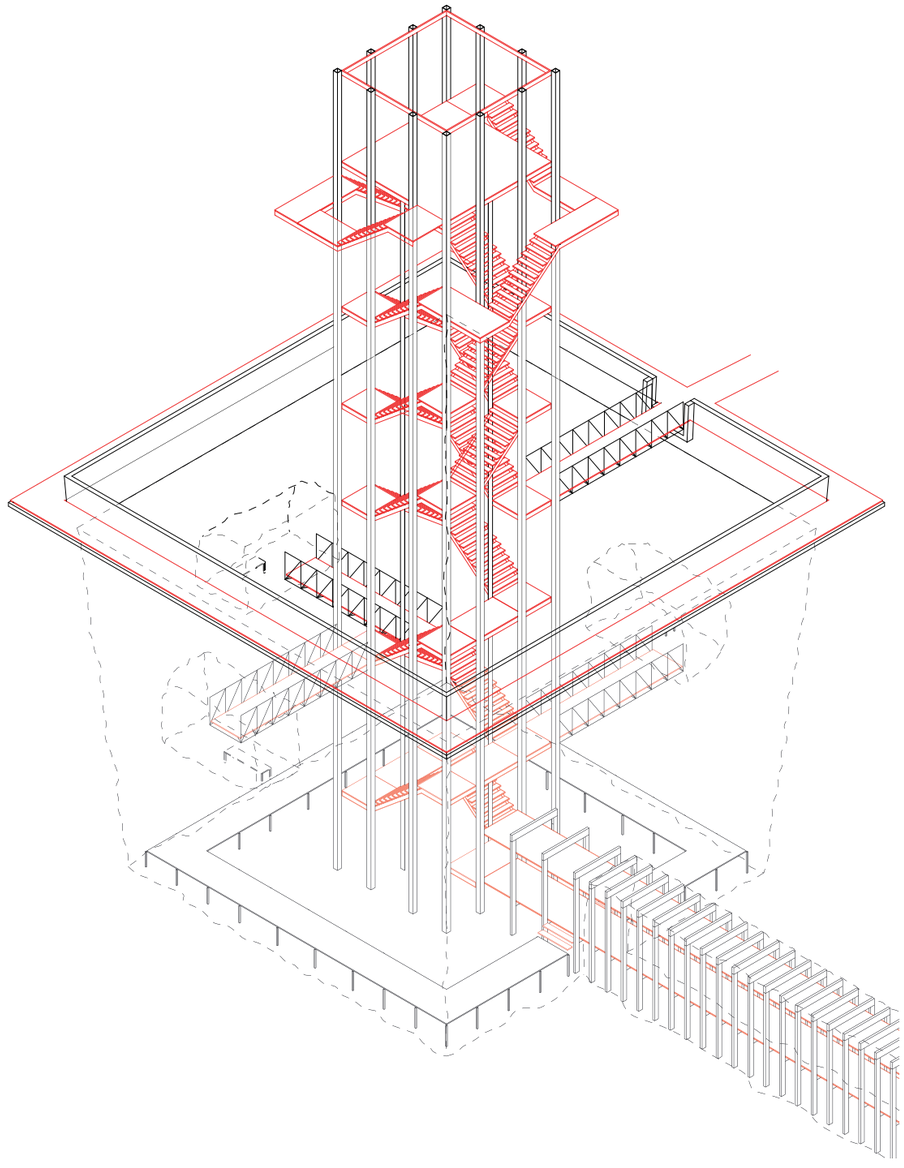


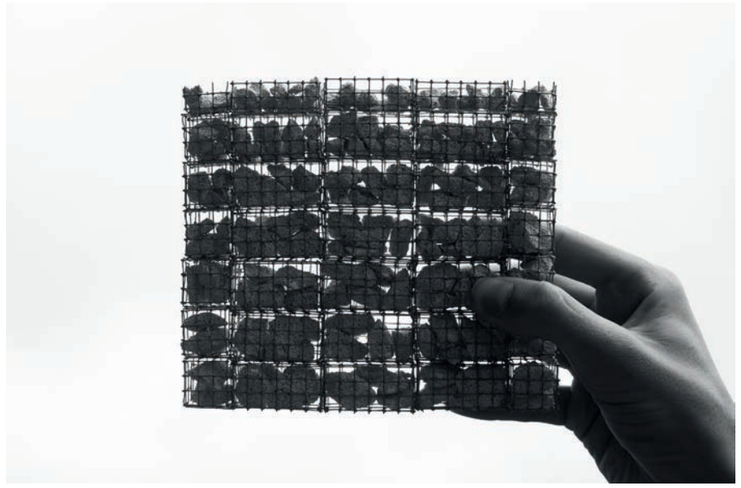


03 Structure

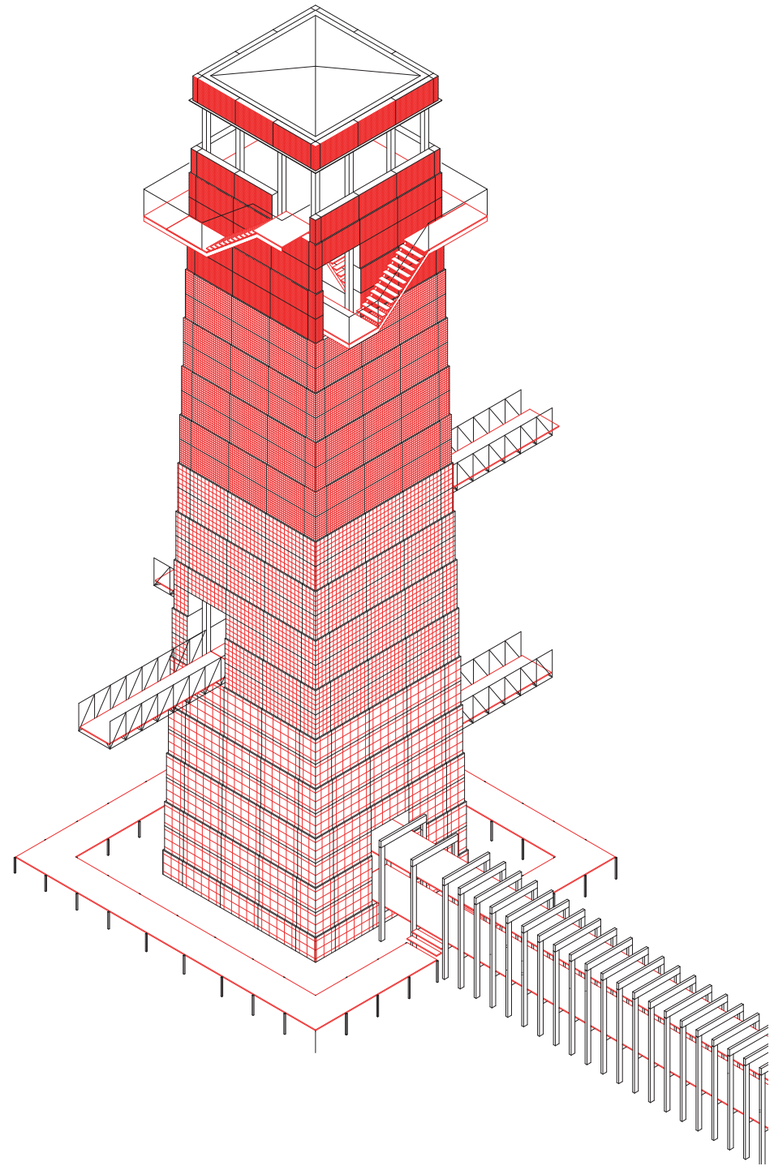


1:50 model, showing the rigid steel structure against the rough surface of the excavated hill.

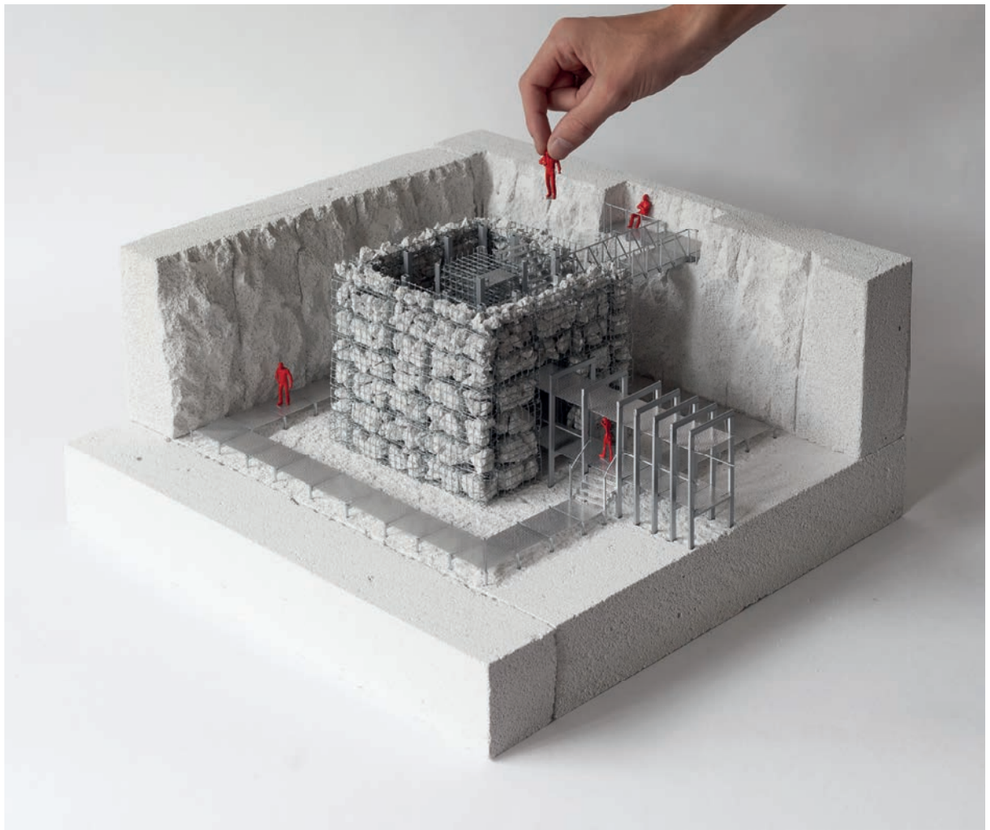


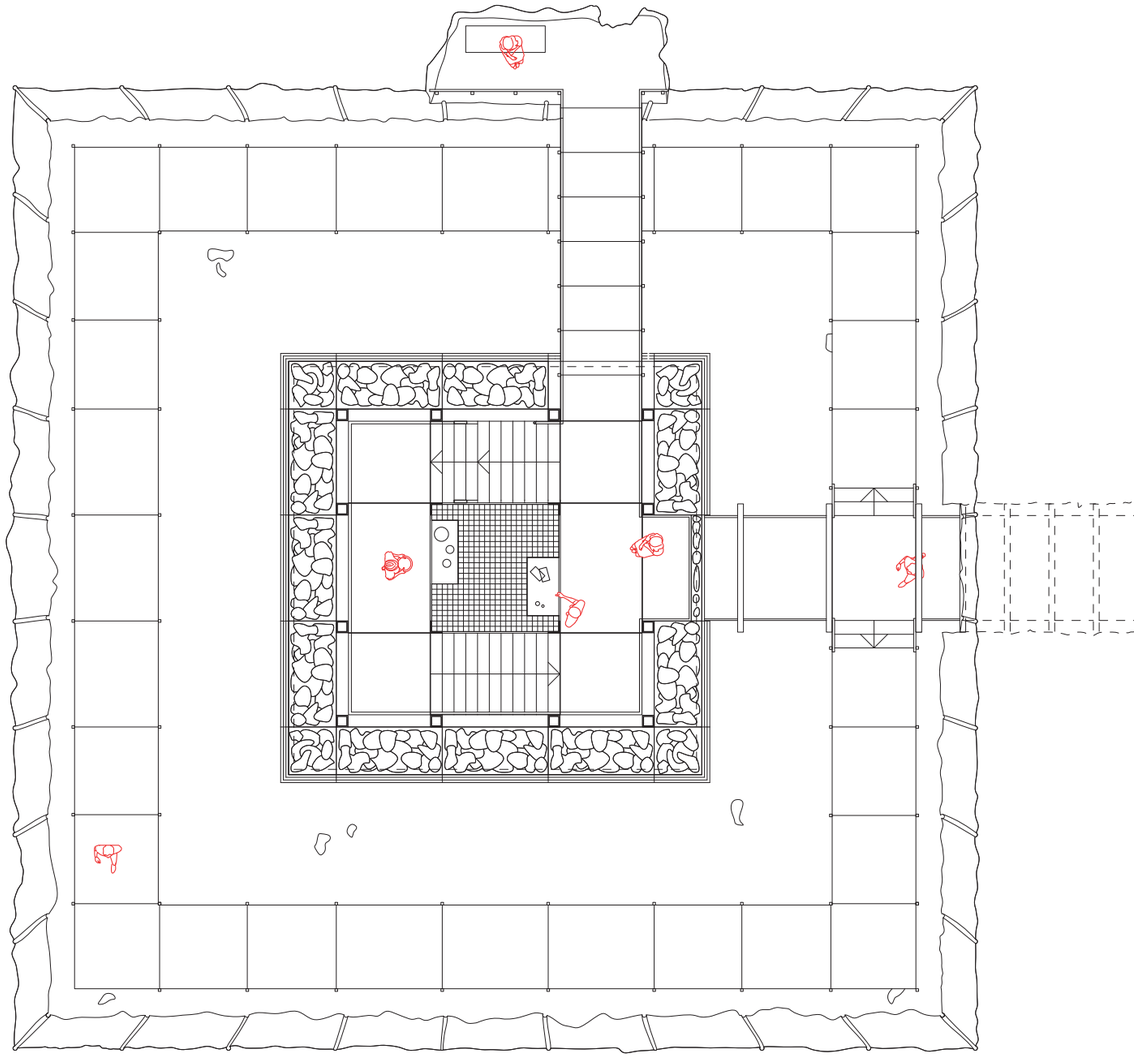


The facades are cladded with gabion walls, using the stones excavated from the hill. The stones are crushed and sorted by size. The higher up the tower, the smaller the stone and the steel mesh, allowing less and less light to come in untill one reaches the top.



03 Materialisation





03 Modelpictures

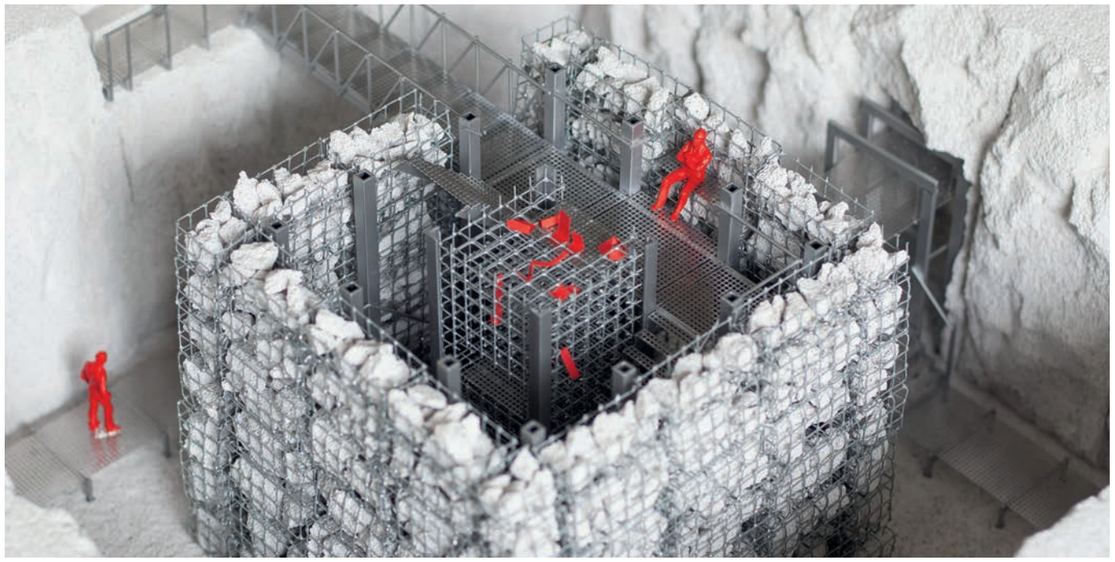
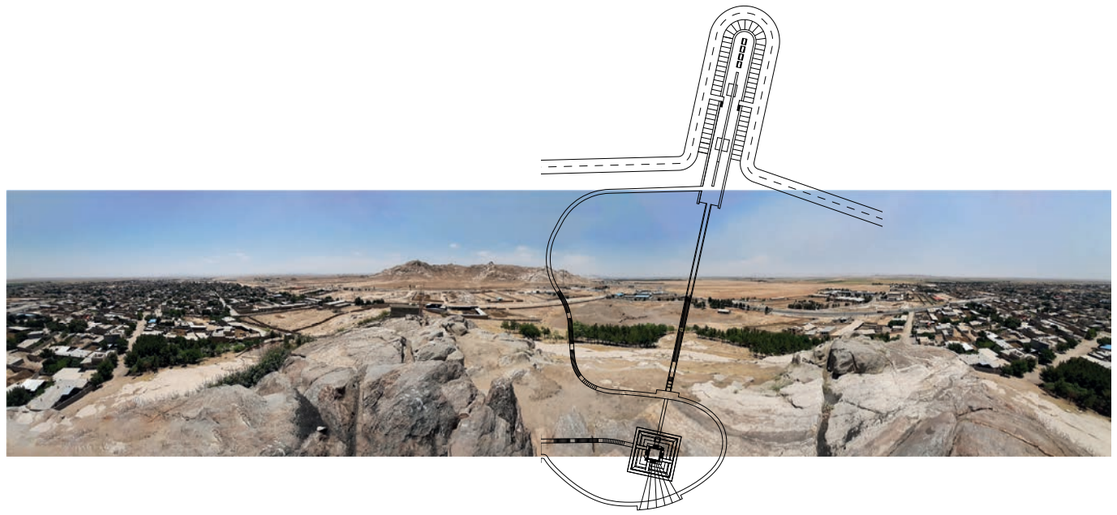
The entrance of the excavation

Walkway around the tower

Bridge towards space for contemplation

Space for contemplation

03 The act of leaving behind



The oore of the tower is a container of memories that the visitors left behind.