



## A quarry and a zoo

Exposing the distorted  
view on nature

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## Abstract

The relationship between humans and nature in the Anthropocene could be described as one of displacement in many ways. Firstly, in the sense that our violence towards the environment is understood, but still neglected and displaced. In this way there is a discrepancy between our image of nature and our actions towards it. At the same time we displace nature in a literal sense with our growing consumption of land.

The quarry and the zoo exemplify this in relation to architecture. Both make the often neglected extractive character of architecture tangible. They live on the seizure and appropriation of nature, but are fascinating at the same time. Both make nature to a commodity and put the human in charge of managing nature. Furthermore quarries and zoos are connected in that both displace animals. Quarries by destroying their natural habitats and zoos by holding them captive in a staged version of their natural habitat.

In that sense my thesis takes the investigation of a quarry (context) and a zoo (program) as a starting point for a design that questions this paradox correlation between image and reality of nature and how this is embedded in architecture. The role design plays in the exploitation of nature is explored. The quarry is investigated as an example for the dependency of architecture on resource extraction. The scars left by the quarries make this impact clearly visible. The zoo is interesting in that it inherits a history of violence against animals, but inverts

this narrative by transfiguring the connection between humans and animals. The human thereby always remains at the centre of the discussion. How design creates the interaction between humans, animals and the animal enclosure in a zoo is analysed. An emphasis is put on the ways the zoo works with different viewing styles and shapes how we look at animals. Eventually through the clash of context and program a design is developed. The quarry is rehabilitated providing ones again a habitat for flora and fauna. The diverse climatic conditions of the quarry allow a variety of species to be introduced. Through a route and buildings along the route visitors are able to experience the quarry and different views are offered. A place is designed that is neither a zoo nor wild nature, that is neither fully staged nor fully authentic, where humans transition between being part of nature and the man-made, where they are “on the side” of the animal and then spy on it, a place that starts a discussion through such polarities about our paradox relationship with nature and the underlying challenges of nature conservation. In that way humans capability of destroying and saving nature is made tangible and is questioned. The problem of a purely human centred perspective is put forward by revealing our gaze through strategies of caricature. People alternate between being spectator and object. The design follows the idea that we care more about what we are aware of. It engages in that way with the potential of the zoo in making animals visible to promote conservation but also exposes our distorted view on nature.

## Thesis questions

How can a quarry be rehabilitated and a place designed that appropriates strategies of the zoo to start a discussion on our paradox relationship with nature? How can it reveal the distorted view on nature and encourage a shift of perspectives by moving beyond the human perspective?

## Delimitations

In the thesis a speculative design is proposed which doesn't fully consider the site specific conditions, and the challenges of rehabilitating a quarry.

## Aim

The aim is to explore the human view on nature.

## Method

The method for the thesis is based on research by design starting with an intense phase of research on the history, design and genealogy of zoos and a site visit to the quarry in Bårarp and to three different zoos. Based on the research I created a first position towards zoos and further explored the underlying philosophical discussions through readings. The design started from the idea of combining a quarry and a zoo and developed to a discussion tool for myself on how to approach the topic by constantly navigating between the original idea, the ethical discourse and the role of architecture in it. I used caricature and comic sketches as a tool to make the research and philosophical discourse obvious and approachable and continued exploring the way a caricature is able to draw a convincing but not complete image. Through exaggeration, distortion and humour a caricature is able to project an inner image of something. (Altshuler & Sedlock, pp. 162-163). The way we look at animals is explored and re-staged with strategies of the Diorama. According to Altshuler and Sedlock the Diorama can be seen as a way of inviting “human interaction and engagement with both live animals and creature-like architectural forms”. (p.163).

## Background

The Anthropocene is a proposed term for a geological epoch resulting from the huge impact humans have on the planet. The relationship between humans and nature especially in the Anthropocene is ambiguous. Different meanings of nature exist thereby simultaneously. Nature is for example a resource, place of longing, place of wonder and myth, hazardous and hostile or livelihood. There is a discrepancy between our image of nature and our actions towards it. For example the imaginary of the untouched and unspoiled nature in contrast to the urban is still very powerful, but actual wilderness becomes rare due to the continued exploitation of natural resources. These contrary meanings both real and fictional become very evident in architecture. It is heavily reliant on the extraction of resources but at the same time architecture embeds and shapes narratives of our relationship to nature.

Quarries are a manifestation of this dependency on resource extraction. The fact that building has not only implications on the immediate surroundings, but leaves traces and scars somewhere else, is often neglected. Through the refinement and processing of raw materials this relationship between resource extraction and building is further blurred. The visual impact of quarries make the extent of our alteration of the environment very tangible and easy to grasp. The exploitation of nature and destruction of habitats, which cause a loss of biodiversity, becomes evident.

The zoo can be seen as a mirror of the changing understanding of nature throughout history in western society. The idea of taming the wild and human superiority during colonialism was for example expressed in the zoos at that time. Today zoos are mostly understood as places of nature conservation but they still can't escape the inherited history of violence against animals. This narrative is inverted by transfiguring the connection between humans and animals in the zoo. Modern zoos place particular importance on the way this connection is designed. Animals are exhibited in a staged version of their natural habitat and an attempt is made to create the illusion of an authentic encounter with the wild. The human perception and our gaze on animals is thereby at the centre of the way zoos are designed.

Hence quarries and zoos both are an expression of the ambiguous relationship to nature. Both live on the seizure and appropriation of nature, but are fascinating at the same time. Both make nature to a commodity and put the human in charge of managing nature. They are an artificially created environment. Furthermore quarries and zoos are connected in that both displace animals. Quarries by destroying their natural habitats and zoos by holding them captive in a staged version of their natural habitat. They make the pressing issue of nature conservation and the discussion around it approachable and easy to relate to.



Fig. 1. Scandinavian Stone. Quarry in Bårarp.

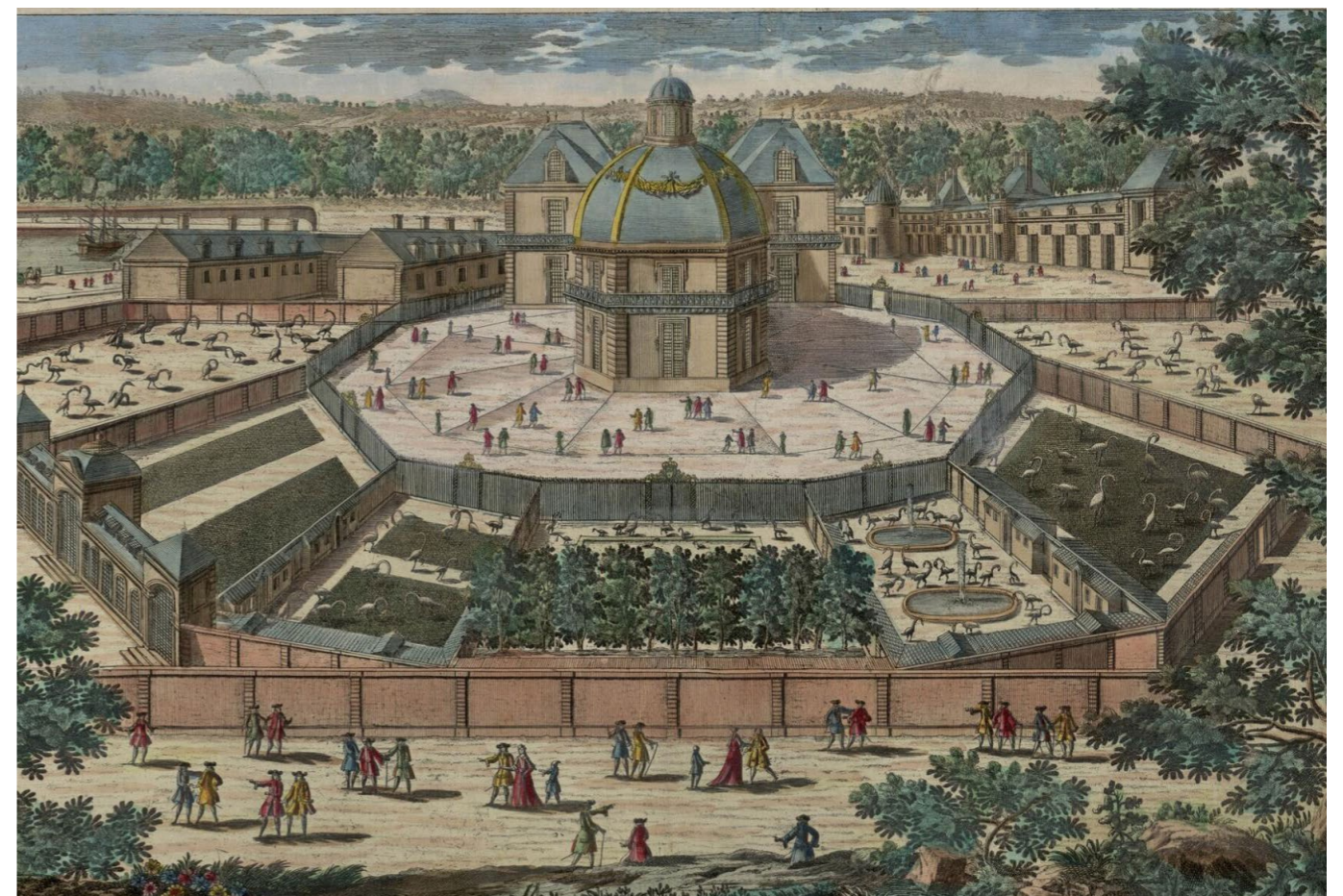


Fig. 2. Daumont, J. Veuë et Perspective du Salon de la Menagerie de Versailles. Copyright by château de Versailles.

## History of zoos

The idea of exhibiting the unusual and the exotic started with the cabinet of curiosities and the *Wunderkammer*. Natural and man-made wonders were displayed. According to Parker a shift happened “from the idea of collecting many particular wonderful items, to the collection of a series” (p. 607). He points out that “the Wunderkammer is the origin of a process which disenchant the world” (p.607) and that this led to the institutional display of collections in the museum and gallery which are based on “the dull principal of compare and contrast.” (p. 607).

The history of the zoo in the west starts with the menagerie which became a status symbol for the aristocracy. The Tower of London in 1204 is an early example of a western menagerie but Louis XIV menagerie in Versailles (1663/1664) led to its popularity. The menagerie of the 17th century was based on the panoptic structure. A building in the centre from where to look at the animals was surrounded by their radial cells. They were collected in close proximity to increase visibility. (Parker, p. 608). This panoptic structure was later applied to prisons and factories. In the panopticon the object is controlled through the gaze. Parker describes it as a “structuralist account of power, of the ways in which space and epistemology, Foucault’s power/knowledge, produce forms of domination” (p. 609).

In contrast to the aristocracy, ordinary people saw exotic animals only in fairs, shows and the circus in the 18th century. These relied on spectacle. According to Parker, “A good show would involve an animal demonstrating the characteristics of a human being or mythological creature, or a human being demonstrating inhuman qualities” (p. 610). These shows travelled through Europe and have led to “non-native animals [...] [being] already routinely understood to be objects of entertainment and spectacle by most ordinary people.” (Parker, p. 611).

The emerging zoological garden in the 19th century is described by Parker as “the product of the idea of the collection combined with the panoptic park” (p. 609). It was only available to the wealthy and “a new democratic institution for research, science for the people and not spectacle for royalty” (Robbins, p 213). According to Parker, the English style influenced the design of the zoological garden. The animals were distributed in a park landscape and now in the centre whereas the humans were looking from the outside. In that way the panoptic structure of the menagerie was reversed. (p. 611). Nevertheless, the Zoological Gardens increasingly relied on visitors paying an entrance fee. This increased the need for spectacle to attract visitors. The Zoological Garden in London, 1829, was at first only accessible for visitors signed in by a member but had to open for the public due to financial problems. (Parker, p. 612) According to

Parker, “most zoos could not afford to only be a zoo, so it was common to diversify into other leisure activities and services” (p.612) This shows how zoos were starting to be affected by capitalism.

The globalisation led to an international trade of animals, which was strongly connected to colonialism. The capturing and transportation of animals for zoos was brutal and it was estimated that “10 creatures would have perished in order that one could be displayed” (Baratay and Hardouin-Fugier, p. 118). The mortality rate of animals exhibited in zoos was very high, which is why Parker concludes that “the zoo can be understood to be a major cause of animals deaths.” (p. 613). Worth mentioning is Carl Hagenbeck (1844-1913), who became one of the biggest animal traders. He also established people shows. A Sami group with reindeer was the first that toured around Europe. (Parker, p. 614) People shows became increasingly popular. A famous example of a human displayed in a zoo was Ota Benga who was shown together with an Orang-Utan 1906 in the Bronx Zoo in New York. The zoo became a display of the magnitude of the colonial empires and the taming of the wild.

Carl Hagenbeck was also influential in the development of zoo design. His Stellingen Zoo was based on “the spatial structure of the zoological garden with the spectacle of the travelling show and the panorama” (Rothfels, p.

42). A further invention of him was the *Freianlage*. Fake nature, and “an arrangement of lakes and trenches disguised with artificial rocks”, were used to create “the illusion of animals apparently living together in harmony in naturalistic settings.” (Parker, p. 614) Parker writes, “Hagenbeck cultivated the idea that his zoos were an Ark.”(p. 614).

The idea of the zoo as an ark and the display of animals in a naturalistic setting was very influential in shaping the modern zoo. (Parker, p. 615). “It underpins a progressive narrative in which the cruel travelling menagerie is replaced by the civilized zoological gardens, which is in turn replaced by the sensitive biopark or conservation centre” (Garrett, p. 214; Hosey et al., p.14). Today most accredited zoos position themselves as an institution primarily for the conservation of endangered species, research and education purposes and secondarily for the entertainment of visitors. The success of zoos in conserving animals is debated, and for at least some animals, adequate keeping in captivity is considered impossible. The spectacle and the display of the exotic other is still needed in order to attract people and to create income. Parker concludes, “the spectre of the carnival still haunts the cages, because the contemporary zoo cannot escape its history.” (p. 616).



By elevating the path an unrestricted view on the tiger enclosure is provided. At the same time it reminds of an accessible prison wall.



By looking down from an elevated path on to the snow leopard the hierarchy between human and animals in zoos becomes obvious.



The characteristic rugged landscape of the Swedish west coast enables incidental looks on animals. Animals are not visible at first but must be spotted. In that way a sense of wilderness is created.

### Site visit Nordens Ark

Nordens Ark is a zoo located on Tjörn north of Gothenburg. The animals are displayed in the natural setting found on the Swedish west coast. Only animals found in colder climates are shown. The zoo is involved in breeding programs and nature conservation. Some of the animals I observed had behaviour disorders for example always walking the same path along the border of the enclosure. Most enclosures are designed in a way that the animals are able to hide from visitors.



The visual separation between animals and humans is reduced to a minimum to create a sense of closeness. The meerkats are displayed in a staged version of the natural habitat. The stone is for example made of concrete. Furthermore a lamp provides heat to attract the meerkats to a good viewing spot.



The moat functions as an invisible barrier. The enclosure is broken up into smaller niches. In that way the hippos are able to hide and a sense of casualness is created by not always enabling a look at the animals.

### Site visit Gaia Zoo

Gaia Zoo is located in the Netherlands in Kerkrade. It follows the concept of the immersion exhibit where animals are displayed in a natural context and the separation between animals and human is rendered invisible. The enclosures are staged versions of the animals natural habitats.



The moat functions as an invisible barrier to the outside enclosure of the monkeys. The landscape continues thereby to further reduce the visual separation. The holding area in the background blends into the landscape so it doesn't distract from the nature.



The picture shows how Hagenbeck's idea of the panorama is used. The enclosure of the ibex sits above the seal enclosure in the foreground to create a continuous landscape.



The monumental architecture of the elephant house makes them feel small. The elephants are always on display during the day and can't hide.



The picture shows the emptied polar bear enclosure. The natural habitat of the polar bear is mimicked with architecture. In contrast to the Nordens Ark and the Gaia Zoo the architecture remains clearly visible and a part of the design.



The glass turns the animal display into an image. The diorama-like display promotes an intimate look.



The penguin enclosure is a strange combination between architectural and faked natural elements. The way the animals are displayed reinforces the division between their world and ours.

## Site visit Zoo Wuppertal

The Wuppertal Zoo is located in Germany. The animals are displayed in a natural setting and as well as a part of architecture. The division between human and animals is thereby more clearly visible.



## Zoo research

### Zooland: The institution of captivity by Braveman, I.

The book gives an insight into contemporary zoos by investigating how animals are naturalized, classified, seen, named, registered, regulated and reproduced in the zoo. Drawing on interviews with zoo managers, zoo administrators and animal activists she makes the paradox of the way nature is represented in the zoos and how they are designed understandable.

### The genealogy of the zoo: Collection, park and carnival by Parker, M.

The text by Martin Parker explains the organization and genealogy of zoos throughout history and how the contemporary zoo inherited its history.

### Animal biographies toward a history of individuals by Baratay, É.

Éric Baratay explores the biographies of famous zoo animals and pets in history and invites the reader to leave the human perspective and to experience the life of the animals as being on their side.

### What is it like to be a bat? by Nagel, T.

Thomas Nagel writes in his paper about the limits of the human consciousness and about facts that lie outside of human perception by using a bat as a metaphor.

### The Dark Side of Zootopia by Siebert, C.

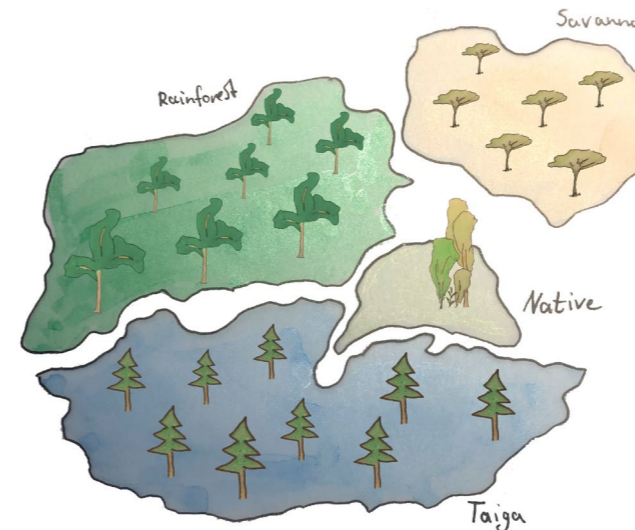
The article comments on Zootopia, a cage-free zoo planned by BIG, where humans can observe animals from hideouts without them noticing.

### Why look at animals? by Berger, J.

Berger criticizes the way we look at animals and argues that we alienated from animals with the start of the capitalism of the nineteenth century.

### Why look at animals? A close reading by Burton, J

Burton critically reviews the essay why look at animals by John Berger, and comes to a different conclusion than Berger by arguing that we need to look at animals even more to bring it back into the discourse.



### Organisation of zoos: The whole world - shrinking of time and space

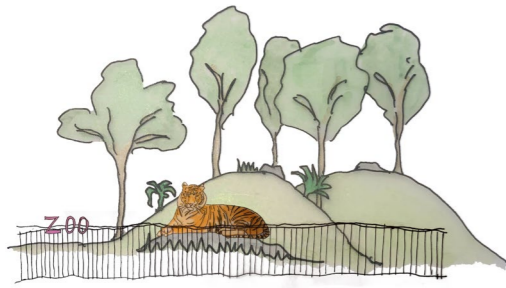
Braveman refers to plaster casts of the world's continents and oceans seen at the Great Exhibition of 1851 in London. She writes, "The spectacular power of such world representations stems from their design to afford a vantage point over a micro-world that claims to be representative of a larger totality. Within the walls of the average contemporary zoo, enormous distances of both space and time shrink, and the most profound variations in climate and landscape collapse, [...] [thus] the walk is necessary for establishing an authentic sense of difference between the geographic regions represented in the zoo's space." (p.32).

### Organisation of zoos: Institution of division

According to Parker, "the zoo brings things together in a particular place and then keeps them slightly apart." (p.604). The zoo is organized through the 'labour of division', which creates an inside and outside, us and them, organization and disorganization (Parker, p.607). It ensures the safety of visitors and animals and directs the flow of visitors and materials.

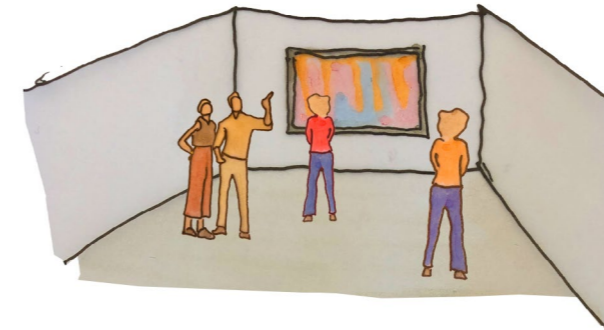
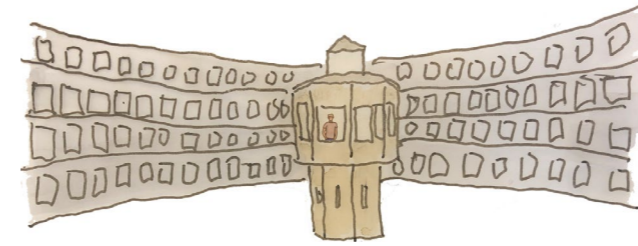
### Exotic other and the urban. Need for spectacle

Braveman writes, "Without the city, there would not be a zoo in the way we think about zoos, because we wouldn't need to bring the other to the urban". (p.30). The zoo is described as an institution that requires the exotic other, the mystery and wonder of nature and the idea of the 'human exceptionalism' in order to exist. (Parker, p.618). The spectacle is needed to attract visitors, thus staying solvent. According to Baratay and Hardouin-Fugier the zoo "must produce and contain the idea of the exotic, of beauties and monsters, of a spectacle that is frightening and wonderful, and of a strangeness that allows spectators 'to travel by means of thought alone'". (p.151). Parker points out the paradox foundation of the zoo, "The history of the present of the zoo shows that it is a form of organization that explicitly seeks to tame, but actually requires the production of the wild, of the unpredictable other." (p.618)

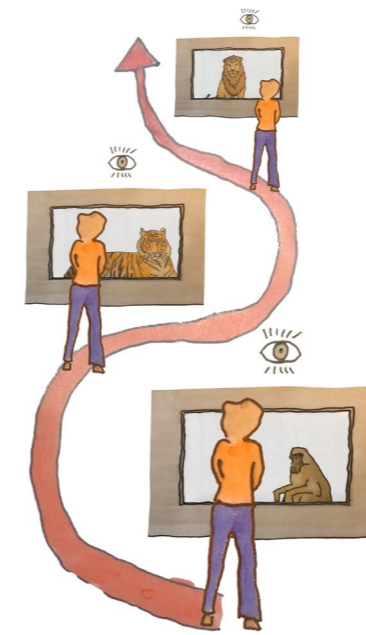


### First nature and second nature

In most zoos humans or human artefacts are not displayed. Firstly because of the cruel history of the human zoos and people shows, secondly to ensure that the settings the animals are displayed are received as natural, and lastly attention is paid to minimise the encounter with other zoogoers to avoid distraction from the natural context. Hence the human-free depiction reinforces the divide between first nature (pristine, untouched) and second nature (transformed by humans). (Braveman, p.29, pp.38-39). According to Braveman, "Nature in the zoos is interpreted as first nature. Hence it reinforces the idea of the "first nature" in the wild, which is unmodified by humans." (p.74).



**The panopticon and the exhibition: Control through the gaze**  
 Braveman quotes Foucault's description of the panopticon "one is totally seen, without ever seeing; in the central tower one sees everything without ever being seen." (p.87). In contrast the exhibition focuses on the observer and how those who gaze are influenced and disciplined. (Braveman, p.88). According to Braveman both gazes work simultaneously in the zoo, "First, the traditional Foucauldian (or panoptic) gaze focuses on the body of the animal for the purpose of governing it. At the same time, the gaze is also panoramic, reflecting back upon the human masses that visit the zoo." (p.88).



### The gaze of the human

The connection to animals in the zoo is based on sight as the only possible contact. According to Braveman sight is the "strongest, safest, and most sanitary of human senses" (p.71). The way animals are viewed in the zoo is similar to the museum or art gallery. The visitor moves on from cage to cage and spends only a short amount of time per animal. Nevertheless according to Berger, "the view [in the zoo] is always wrong. Like an image out of focus." (p.23).



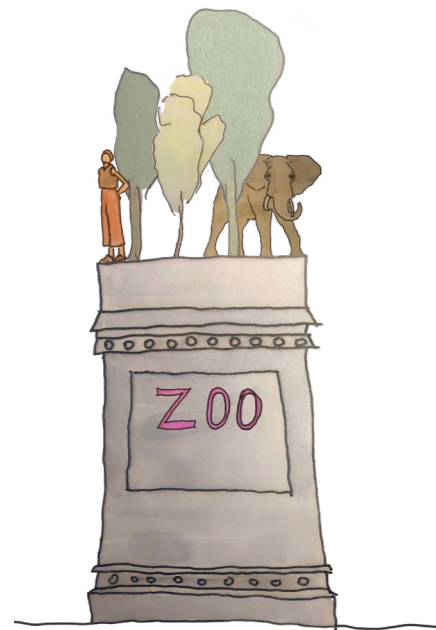
### The wild and the representation of the wild and spying on animals

In an article in the New York Times Magazine Sieberts comments on Zootopia, a cage-free zoo planned by BIG. He writes, "People commonly think of the capture and exhibiting of wild animals as a source of educational entertainment. But there is, too, behind the kidnapping and keeping, a subliminal urge to stay close to representatives of a wilderness of which we were once part." According to him, "Ultimately Zootopia is not a reinvention of the zoo as much as a prefigurement of its inhabitants' only possible future, at least on our relatively brief watch. That is, a wilderness with us lurking at its very heart, seated at open-air cafe tables, before we venture back out toward a dimly remembered past and steal our glimpses of it from discreet encampments designed to hide us not from the animals but from our own irrepressible need to spy on them. By the time its gates open circa 2020, Zootopia could well be one of the singular achievements of the anthropocene, a time when human representations of the wild threaten to become the wild's reality."



### The gaze of the animal

Berger writes about the gaze of the animal in the zoo. According to him, "nowhere in a zoo can a stranger encounter the look of an animal. At the most, the animal's gaze flickers and passes on. They look sideways. They look blindly beyond. They scan mechanically. They have been immunised to encounter, because nothing can any more occupy a central place in their attention." (p.28). The animals don't share the same life world with us. (Parker, p.617).



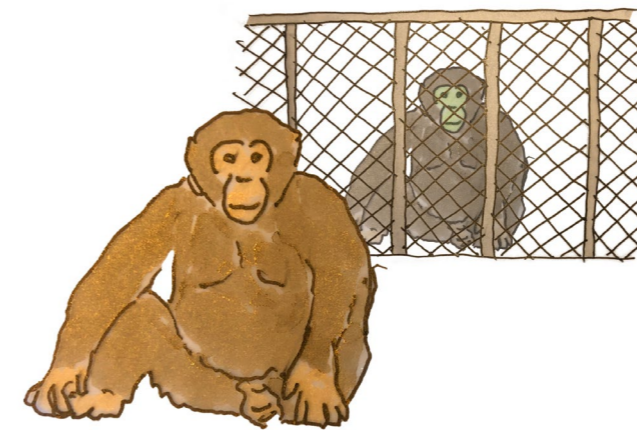
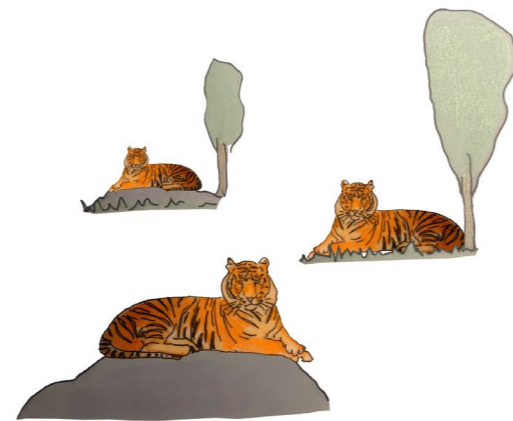
**Monument to the impossibility of encounter with the wild**

In the wild an encounter between humans and animals is rare. According to Braveman this leads to the design challenge of zoo designers to “bridge the inherent contradiction that the very act of seeing wild animals undermines their wildness”. (p.71). Berger describes the zoo, where people go to observe animals, as a “monument to the impossibility of such encounters.” (p.21).



**Humanized nature: Killing**

Nature shown in the zoo is humanized. Braveman writes, “You wouldn’t want your child to see a lion tear up a goat— it’s inhumane. They do eat animals here, but these animals are killed humanely.” (p.36). In that way the irony is that predators don’t hunt and kill, but eat animals that are raised in “factory farms” and killed by humans. (Braveman, pp.37-38).



**Humanized nature: Death, aging and sickness**

In the zoo a pleasant image of nature is constructed. “Even non-violent natural events such as sickness, aging, and death are rendered invisible at the zoo.” (Braveman, p.38).



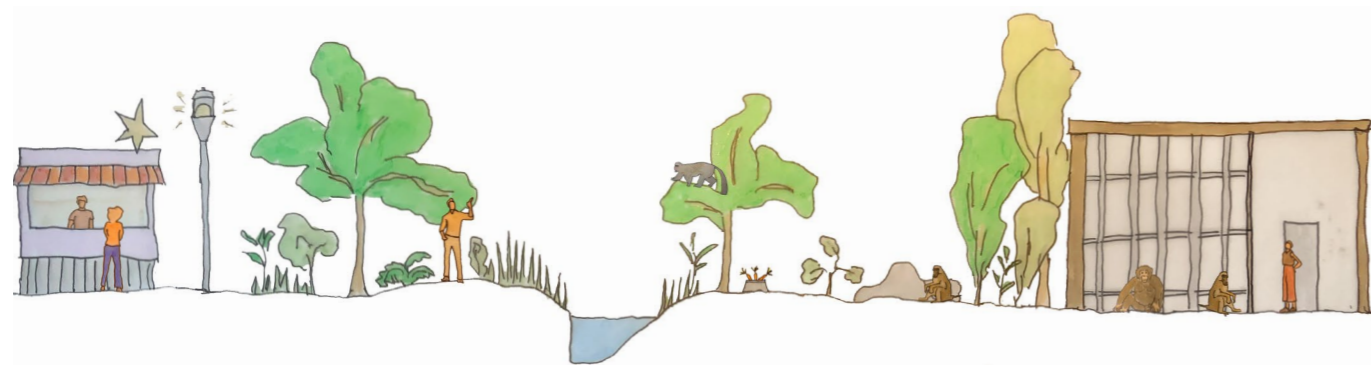
**The individual is sacrificed for the whole species**

According to Braveman, “The animals [in the zoo] are, in other words, subject to a collective form of incarceration: collective not in the usual sense, but in the sense that they are individually imprisoned in the name of their particular animal collective and for actions performed by another collective: humans. This form of sacrifice recalls the essential paradox of Foucault’s pastoral power: the shepherd who must mediate between the needs of the individual and those of the entire flock.” (pp.87-88).



**Violence of zoos**

Zoos have to kill for divers gen pool. Animals develop behaviour disorder in captivity e.g. always doing the same moves. Some animals are more likely to develop those.



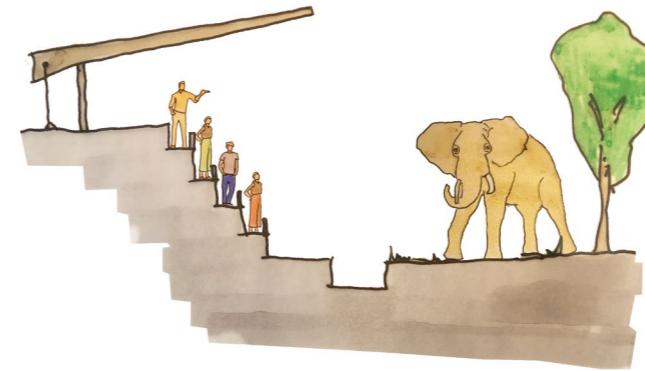
**Paradox of the immersion exhibit**

The idea of the immersion exhibit is to show animals in the context of nature and not architecture and to make people feel a part of nature. Zoo designers try to blur the line between the authentic and artificial. The irony is according to Braveman that a “great deal of human work must be invested to create nature amidst an urban landscape— and even more work must be invested to make such human work invisible.” (p.25). It comes to many paradox situations like putting a lot of effort in creating the illusion of being in the rainforest “only to interrupt the experience with the realities of a hot dog stand just outside the exhibit”. (Braveman, p.38) Furthermore the visible, cageless and natural outside areas stand in contrast to the invisible cage-like holding areas for the animals. (Braveman, p.72).



**Manipulating the gaze: e.g. Temperature-controlled places at good viewing spots**

Contemporary zoos try to create a convincing nature experience by exercising less control over the encounter of human and animal. Instead they try to manipulate the perception of the observer and the behaviour of the animal. According to Gwen Howard, “it’s really a kind of staged reality. You force them to do the thing they would naturally do, [but to do it] in a prime viewing spot.” (Braveman, p.77). Further spatial tricks used to manipulate the gaze are according to Jones and Jones architects for example, to provide only selected views, to “augment the sense of anticipation by sequential staging of approach views before the animals are actually seen” and to “screen out the cross-viewing of other people and exhibits.” (Braveman, p.76).



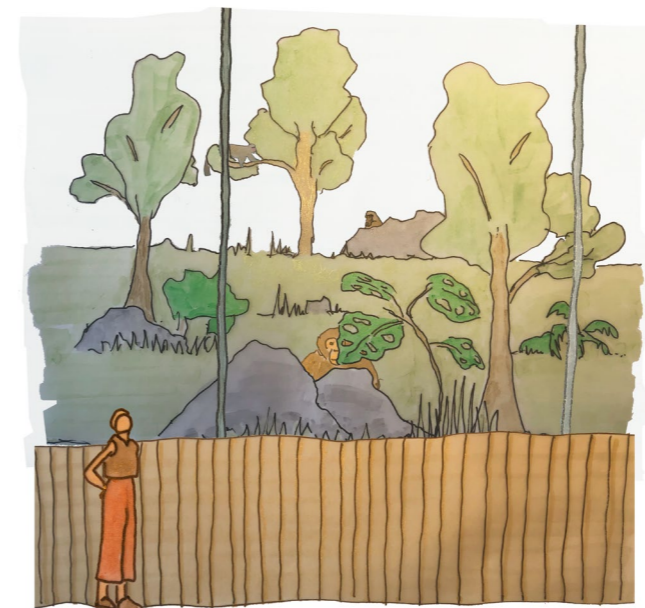
**First viewing style: Stadium view**

According to Braveman, “Stadiums for shows, by offering a spectacle for mass viewing, are the most efficient way to see zoo animals.” (p.76). They contradict the idea of the immersion exhibit.



**Second viewing style: Intimate view**

Braveman writes, “In contrast to the impersonal stadiums, museum-like displays and dioramas bring viewers up close and offer a controlled intimacy with the animal.” (p.76). Glass panels are used as “an internalization of the camera that turns animals into images. The glass lets humans see without having to touch or be touched, without having to smell or be smelled.” (Braveman, p.77).



**Third viewing style: Incidental look**

According to Braveman, “zoo designers often break up the landscape into small niches, creating a sense of casualness that enables what feel like incidental looks that relieve the organized gaze of the stadium.” (p.76). Often exhibits are designed with the aim of creating a sense of awe and respect towards the animals for example by making the zoogoer look upwards towards the animal. (Braveman, p.77)



**Zoo as theatre: Backstage and stage**

The organisation of the zoo has similarities to the theatre with a backstage and a stage. Braveman quotes designer Jon Coe, who explains: “Consider the theatre. The public isn’t allowed to see all the backstage activity because it distracts from the effectiveness of the story being told. Nor are the actors on view in their dressing rooms as they are being made up and costumed. I believe zoo animals also have a right to reduce the stress of the vast public gaze when they choose, including not having strangers invade their semi-private night quarters.”(p.82).



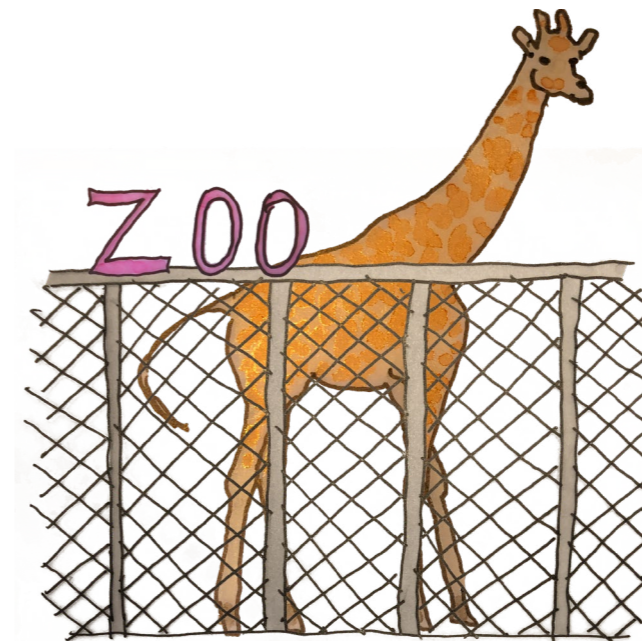
**Zoo as theatre: Passive actor without agency**

Parker writes, “for critics of zoos, their exhibits are cruel simulations of something that has never existed, ‘like dysfunctional theater productions in which the actors neither stir nor speak but pose mutely among inedible props’ (Spotte, p.100).”(p.615). In the same way Berger describes the animal in the zoo as passive with no agency. He writes, “What was central to their interest has been replaced by a passive waiting for a series of arbitrary outside interventions. [...] Nothing surrounds them except their own lethargy or hyperactivity. They have nothing to act upon [...].”(p.25).



**Zoo as theatre: No suspension of disbelief**

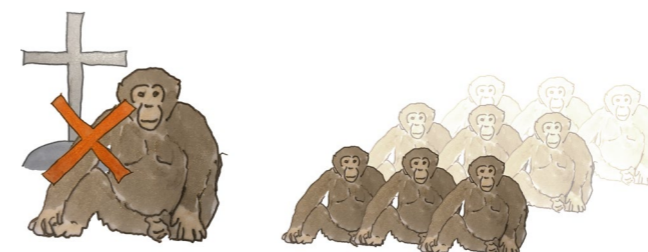
I would argue that the zoo just like the theatre manipulates the audience into a certain perception of what is seen. Unlike in the theatre, the observer is not willing to suspend the disbelief in the zoo. Once the staging of the zoo is admitted the zoo gets more and more disappointing no matter how good the staging is done. Siebert writes, “But whatever thrill is to be derived from staring at a captive tiger is quickly dispelled by the animal’s predicament. Awe gives way to abashment and then to a nearly inexpressible loneliness over being the only beast that does this to another.”



**Is it a real giraffe?**

In his essay on John Berger’s text “Why look at animals?” Burton discusses the difference between the visual and the linguistic animal and opposes Berger’s rejection of the image. He criticizes the idea that one can learn as much about an animal by reading about it than by looking at it and concludes that looking at animals is key to “recovering the animal in modernity.”(p.217). He introduces a text by Malamud and quotes, “on a visit to the zoo one would “not see what I consider to be a real giraffe, but rather a cultural stylisation, simplification, distillation, of a giraffe; a sample of giraffe; a (stinted) representation of giraffe”(Malamud, p.29)” (pp.213-214). Burton argues that by putting reading over seeing reading is made a morally superior act (p.214) and writes about Malamud, “In reaction to the zoo experience he celebrates the imaginary over the “real” by setting up a hierarchy of acceptable and unacceptable forms of spectacle and imagery.” (p.213).

Furthermore he argues that the zoo as an institution which is not rooted in modernity is not adequate to demonstrate our relationship with nature. He criticizes Berger’s and Malamud’s focus on the zoo as a representation of human failings in that they marginalise questions that have to do with animals per se. (p.214). Berger’s critique of our relationship with animals is in that way human centred and loses sight of more urgent and practical questions like the challenges of conservation.



**The death of the individual animal is denied. Disappearance of the species is emphasized.**

Burton discusses the focus on the disappearance of the species and not the death of the individual animal. In that way “death only matter when the species is under threat”. (p.215). He writes, “The idea of the animal that does not die, yet haunts the world through imagery, is specifically textual: “in the philosophical world, the figure of the animal moves undying from on corpus to another, one text to another.” (Lippit, p.34)” (p.215). He writes about the sacrifice of the animal, “But modernity questions the killing or sacrifice of animals. That’s why we can’t go back to Berger’s pre modern version of human-animal relations as a possible alternative to alienation and disappearance.” (p.210).

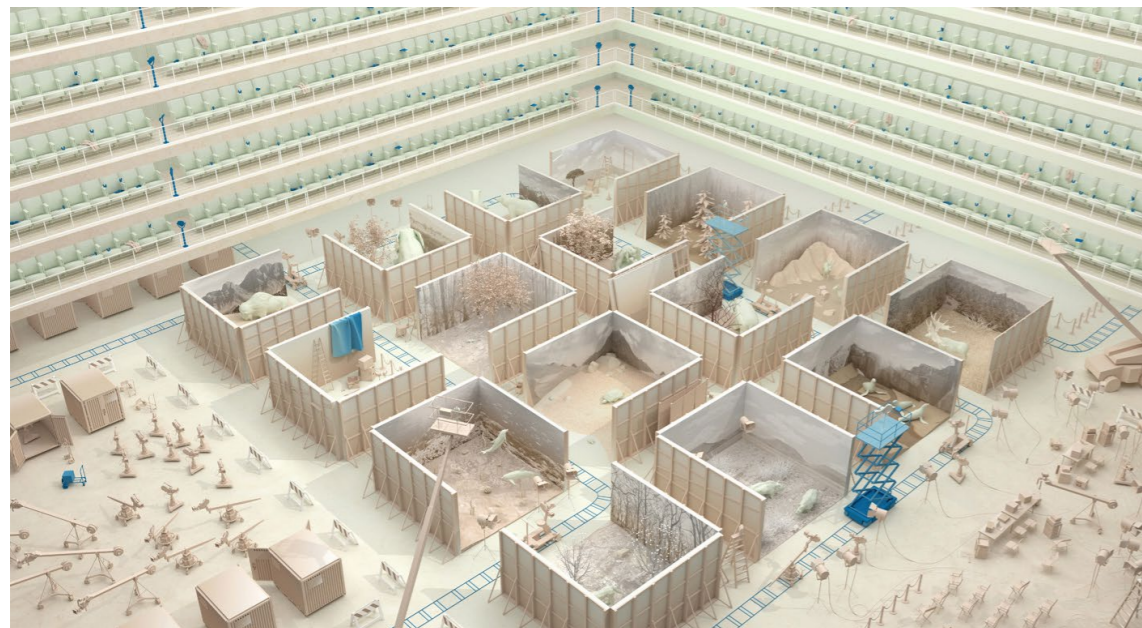


Fig. 3. NEMESTUDIO. Fake Earths: A Planetary Theater Play.

The Wonder Zoo by Neyran Turan shows staged enclosures of endangered species which are depicted as part of a film set. In that sense the constructiveness of our idea of nature which is also visible in the zoo is revealed.



Fig. 4. Richard Barnes. Man with Buffalo.

Richard Barnes created a series of photos from Dioramas in natural history museums which are in construction or maintenance. According to Turan, "Barnes's diorama photographs invite us to contemplate both the idea of nature and its image as a constructed assembly, or simply as matters in construction." (p.142). In my design proposal the pumping station creates a similar condition of nature being under maintenance.



Fig. 5. Jeff Wall. The Destroyed Room.

At first sight the photograph appears to be taken spontaneously. At a closer look the image indicates its artificiality. The photo studio is visible behind the wall of the room and the figure on top of the wardrobe is in contrast to the rest of the room unharmed. Jeff Wall questions the image and reveals the constructiveness of them. In my design proposal I'm working in a similar way with the view on nature which is distorted through our perception.



Fig. 6. Im Tierpark Hagenbeck. Wikipedia.

Hagenbeck developed in his zoo in Stellingen in Hamburg a new way of showing animals. The different animal enclosures are staggered in height. The human is always hidden to not distract from the view and the illusion of the wild. In my design proposal I'm using it in a reversed way. The topography of the quarry exposes the human instead of hiding it. People and the man-made become a part of the view .

## Bårarp quarry

The quarry in Bårarp, Halland, is operating since 1980. It is owned by Scandinavian Stone. It is the biggest open-pit quarry for ornamental stone in Sweden with approximately 75 hectare and consists of four different quarries. The gneiss extracted is unique and only found in the specific region. The next bigger city is Halmstad about 18km south. The quarry in Bårarp has currently 6 employees. The stone quarried in Bårarp is classified in different qualities. Most of the stone produced is used for monuments and gravestones, the lower quality is used as a building material and the lowest quality for example for stone paving. Usually the deeper levels of the quarry produce stone of better quality. Depending on the direction the stone is cut, it is more or less strong and used for different purposes. In the past the stone was extracted with explosives. Today elec-

tric diamond saws are used. Sawing is cheaper, more efficient and less harmful for the workers. Furthermore the quality of the stone can directly be evaluated on the cutting surface. The first block of a new row still needs to be blasted in order to get an angle. Then the stone is extracted with three cuts. The waste material is stored and used for example to reinforce harbours. Most of the stone is exported abroad, mainly to Poland. Every 25 years the permit for the quarry needs to be renewed, which requires for example the compliance with different environmental regulations and a rehabilitation plan for the quarry. The quarry fills up with water very quickly as soon as the pumping is stopped. The location of the quarry on top of a hill allows views on the surrounding as well to the sea.



Photo taken on site visit.



Photo taken on site visit.

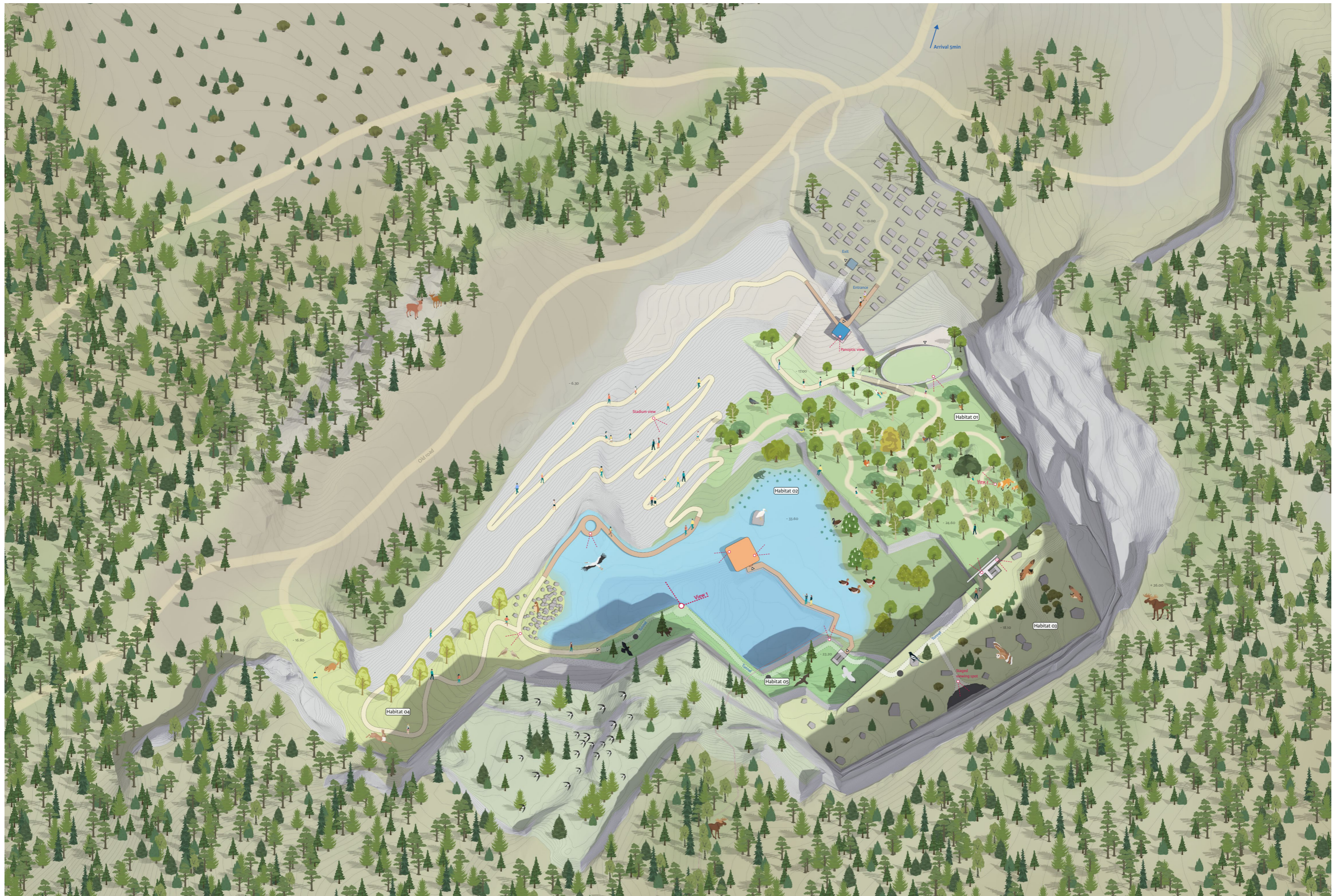


Photo taken on site visit.



Fig. 7. Satellite image of Bårarp quarry. SLU.





Site plan

## Legend

### The design

The quarry is rehabilitated providing ones again a habitat for flora and fauna. The divers climatic conditions of the quarry allow a variety of species to be introduced. Through a route and buildings a long the route visitors are able to experience the quarry. The quarry becomes an arena for the gaze on nature. Through different views the visitor changes between being spectator and object. A place is designed that is neither a zoo nor wild nature, that is neither fully staged nor fully authentic, where humans transition between being part of nature and the man-made, where they are “on the side” of the animal and then spy on it.

### Selected views

#### Panoptic view

From the top of the entrance structure visitors have an overview of the whole quarry. They have control over what is happening inside the quarry similar to the tower in the panopticon.

#### Stadium view

When descending into the quarry, people have a view like from the audience of a stadium. The basement of the quarry becomes a stage. The hidden tunnel system becomes the backstage area.

#### Staged viewing spot

An artificially created cave provides a perfect refuge for animals like bats. A tunnel leads to the cave and provides an opportunity to observe the animals.

#### View 1

Reversing Hagenbeck’s panorama by including people as part of the view and making a spectacle of people looking at animals.

#### View 2

Looking on the man-made through nature as being on the side of the animal and revealing the gaze of the human.

## Conceptual proposal of habitats inside the quarry

Like the zoo organizes animals often in geographic regions the animals in the quarry are divided by different habitats based on topography of the quarry. They provide divers climatic conditions for a variety of species. The humidity and amount of sun varies between the location inside the quarry and thus attracts different species. The walk is like in the zoo necessary to experience the difference between the habitats represented in the quarry.

### Habitat 01

Forest habitat | Middle level (- 24.60) | Medium humidity | Partly sunny



### Habitat 02

Lake habitat | Lowest level (- 33.60) | High humidity | Partly sunny



### Habitat 03

Shadow habitat | Middle level (- 18.10) | High humidity | No sun



### Habitat 04

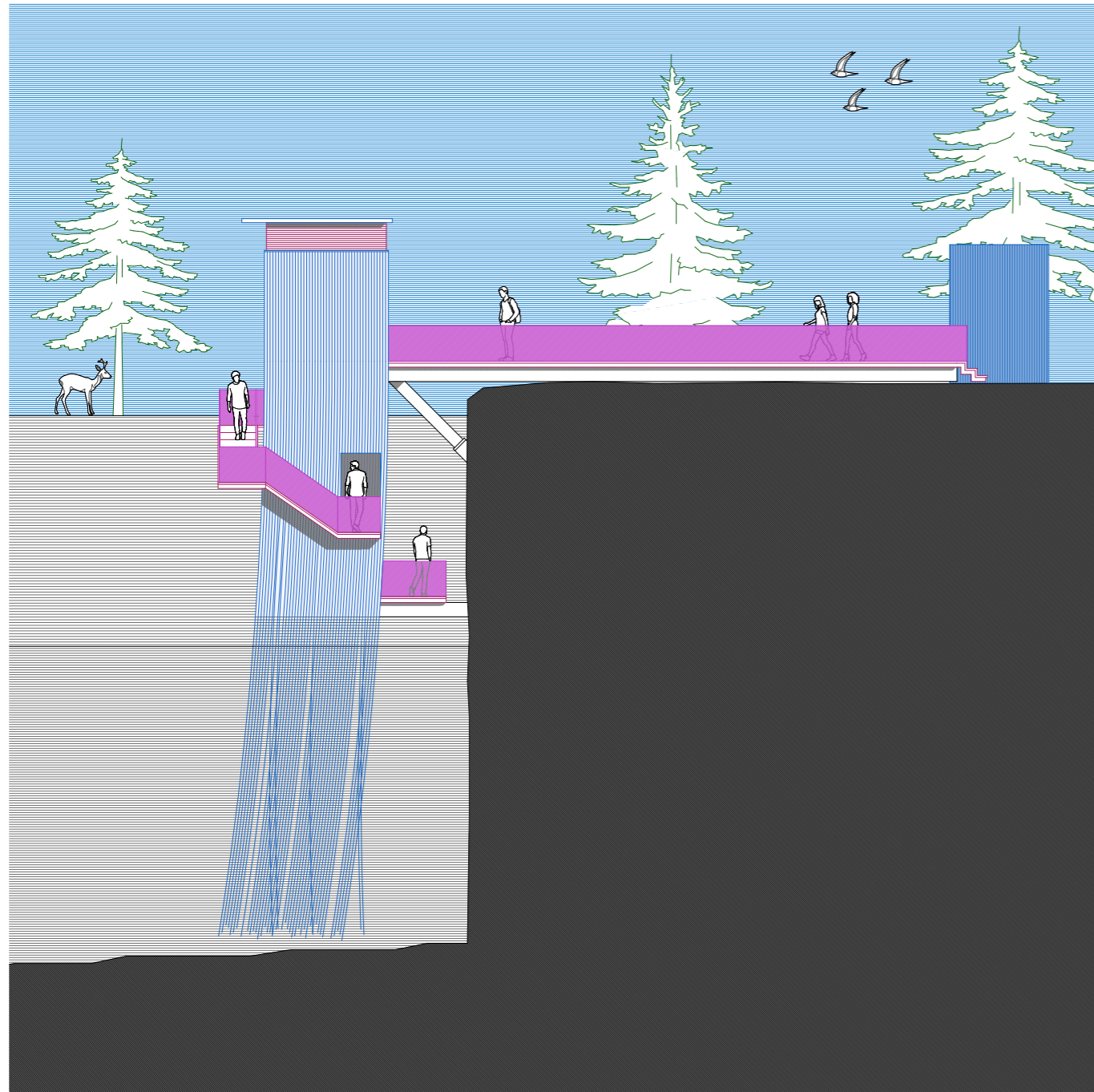
Park habitat | Slope (- 16.80 to -33.60) | Medium to high humidity | Little sun



### Habitat 05

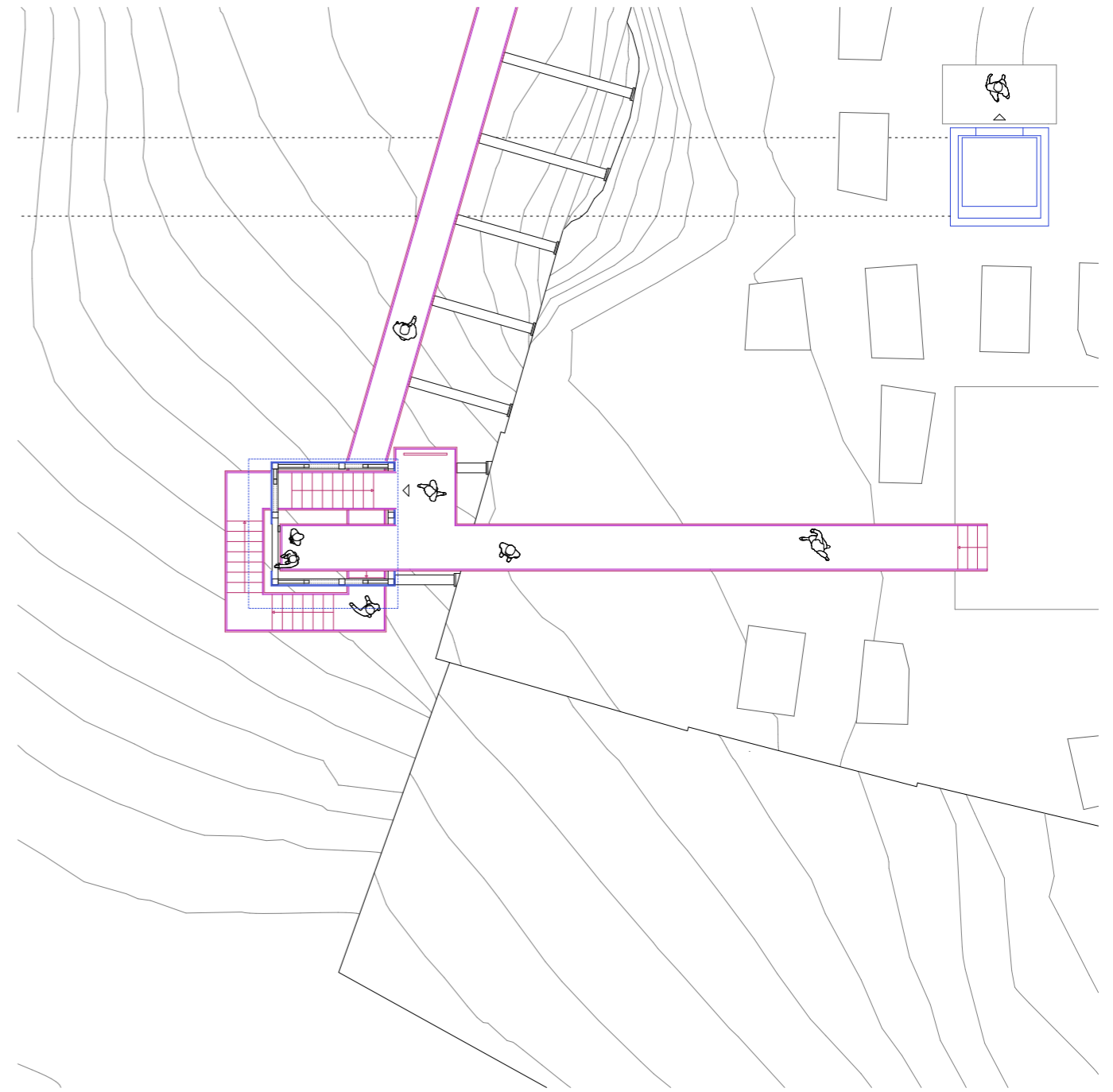
Cliff habitat | Middle level (- 23.20) | High humidity | Little sun

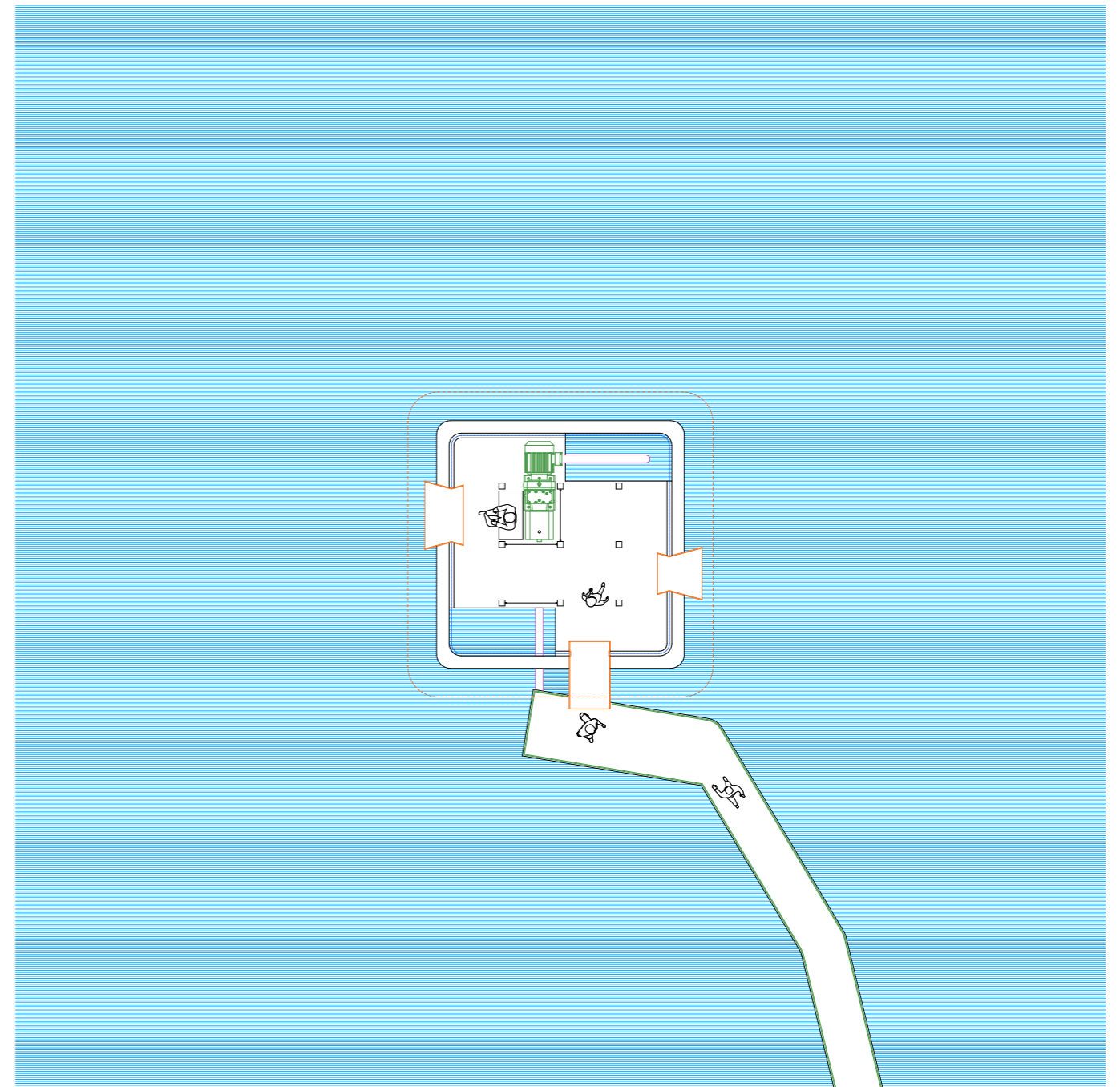
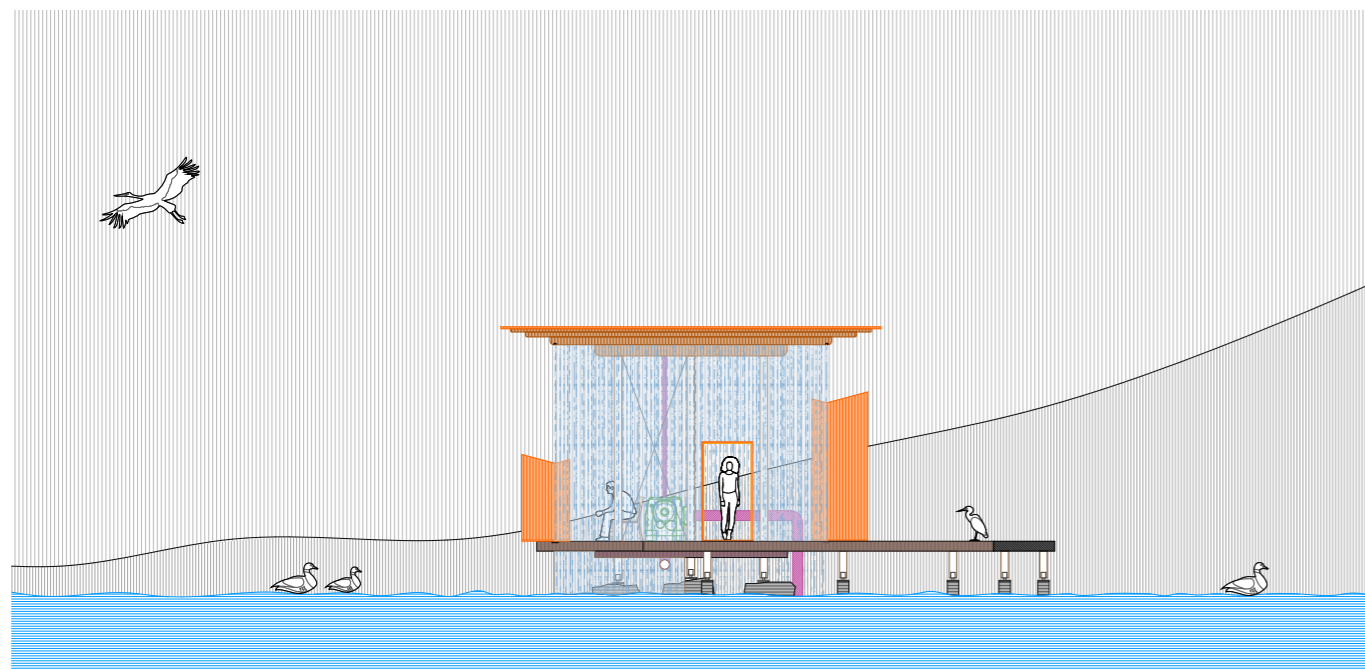
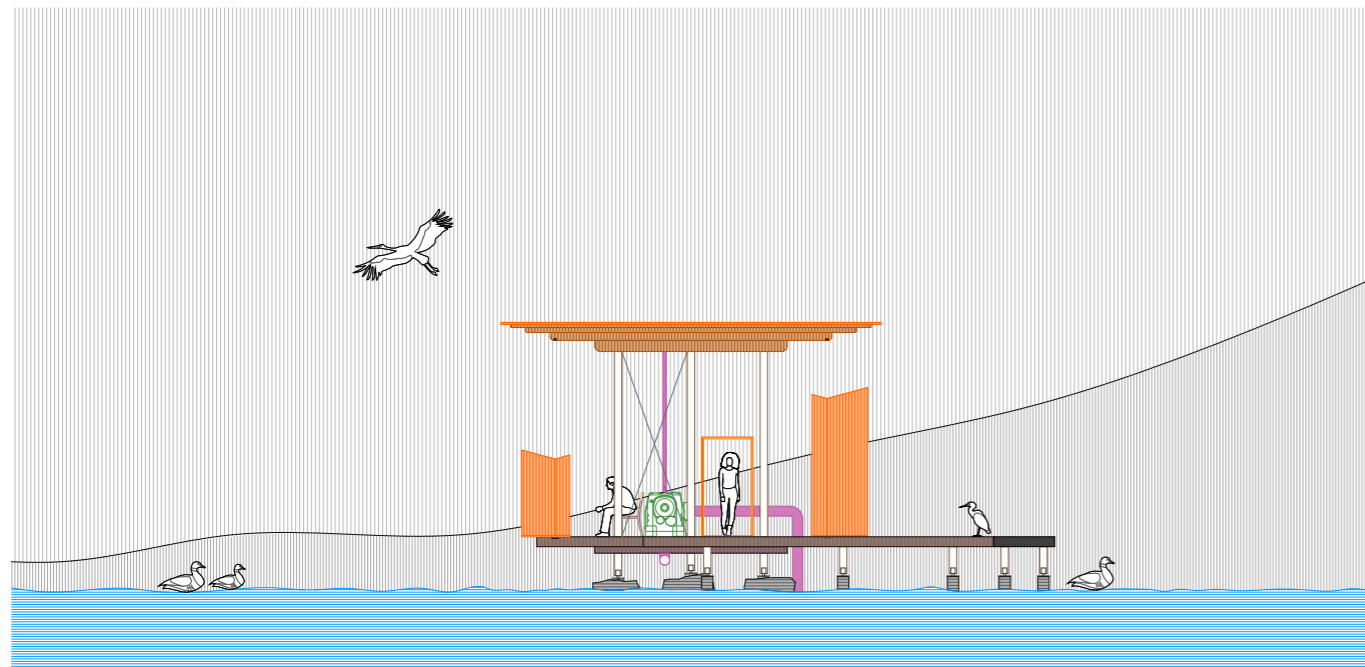




**The entrance structure**

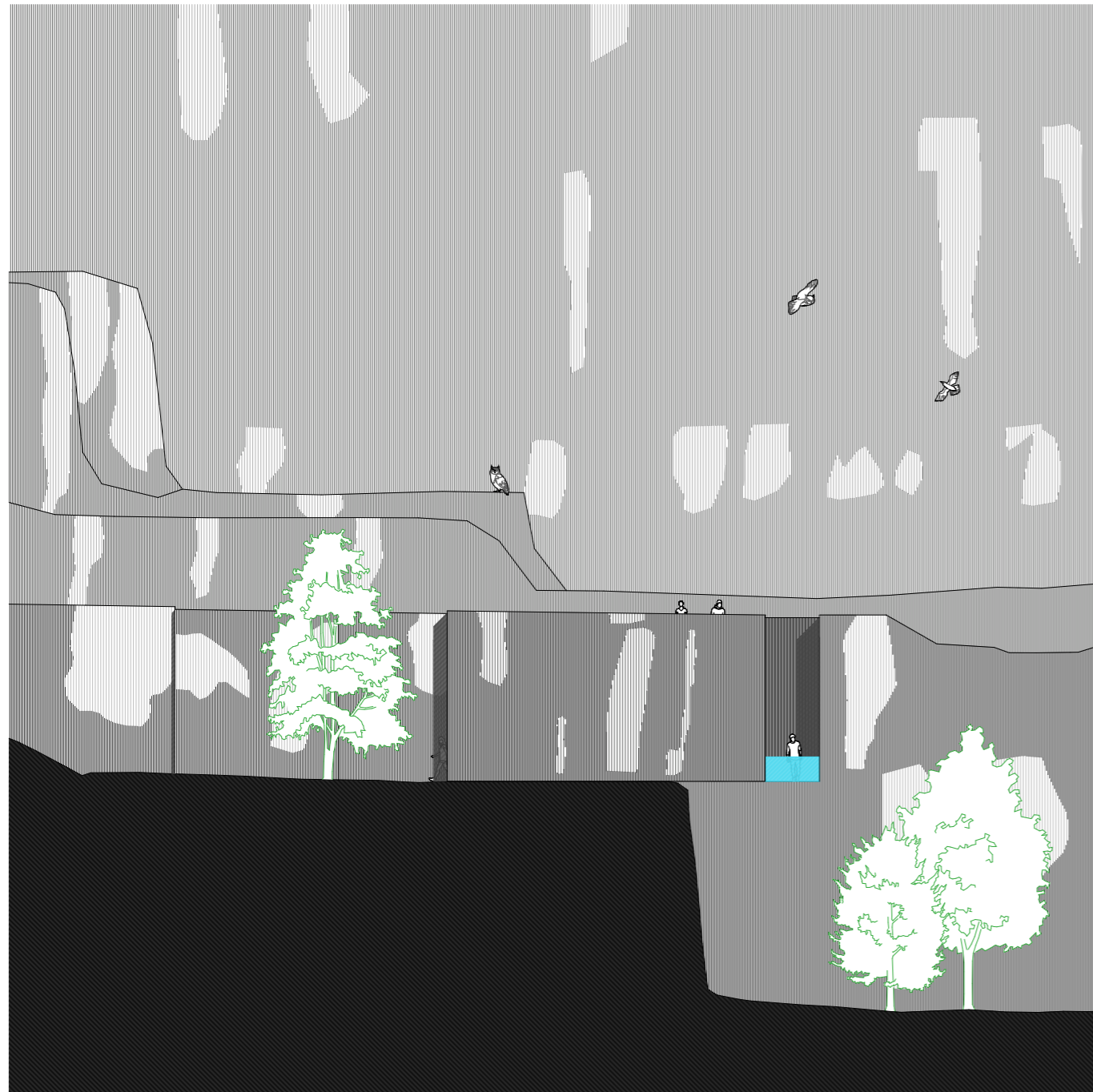
The entrance structure is the threshold for entering the quarry. When approaching it only the upper part is visible. A staircase inside the structure leads to an elevated path. From within the quarry in contrast the whole structure is visible. It attracts the gaze. The building offers an overview over the entire quarry from the top. Similar to the tower in the panopticon one can see without being seen. The structure performs like a control tower in disguise.





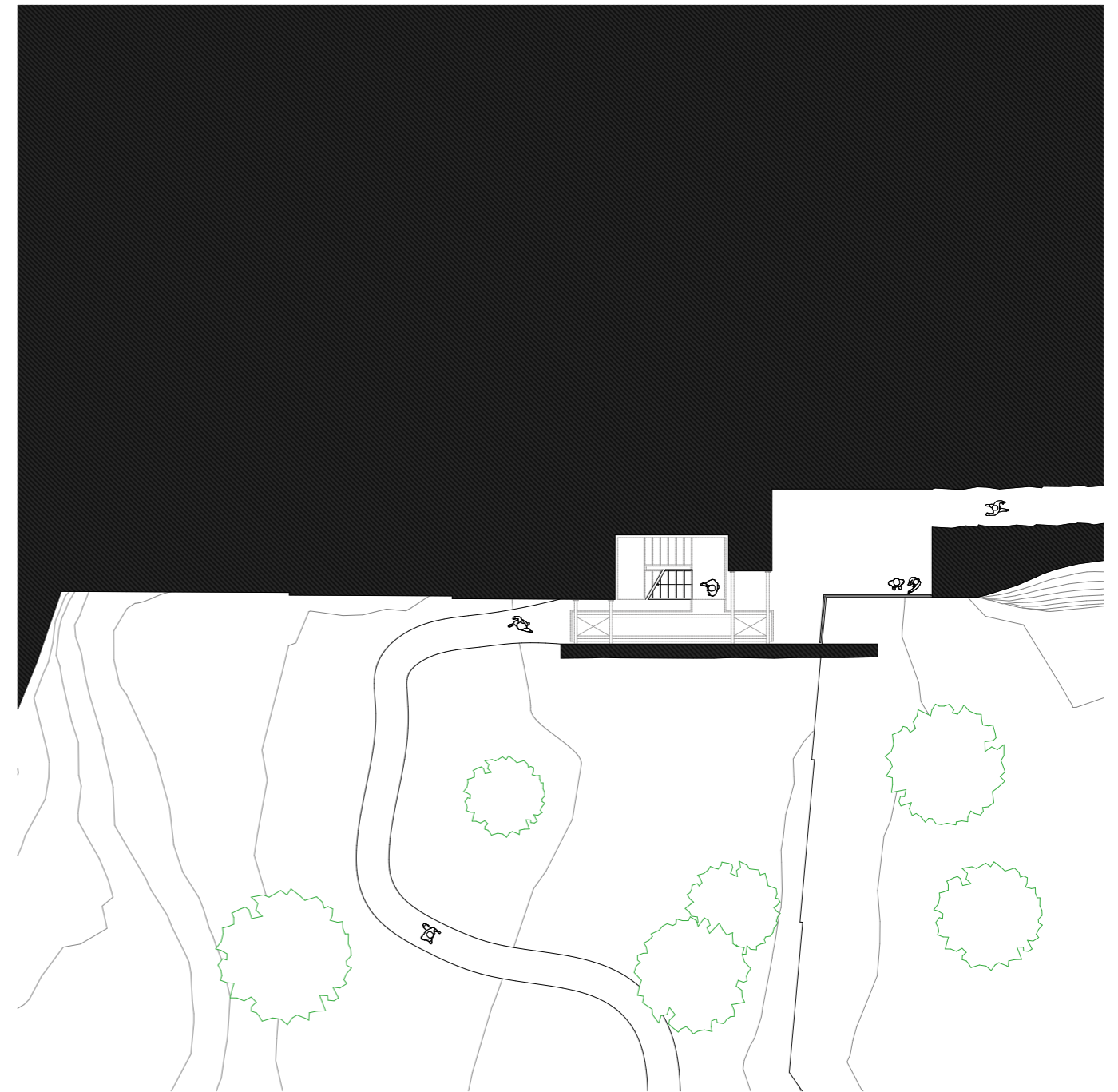
**The pumping station**

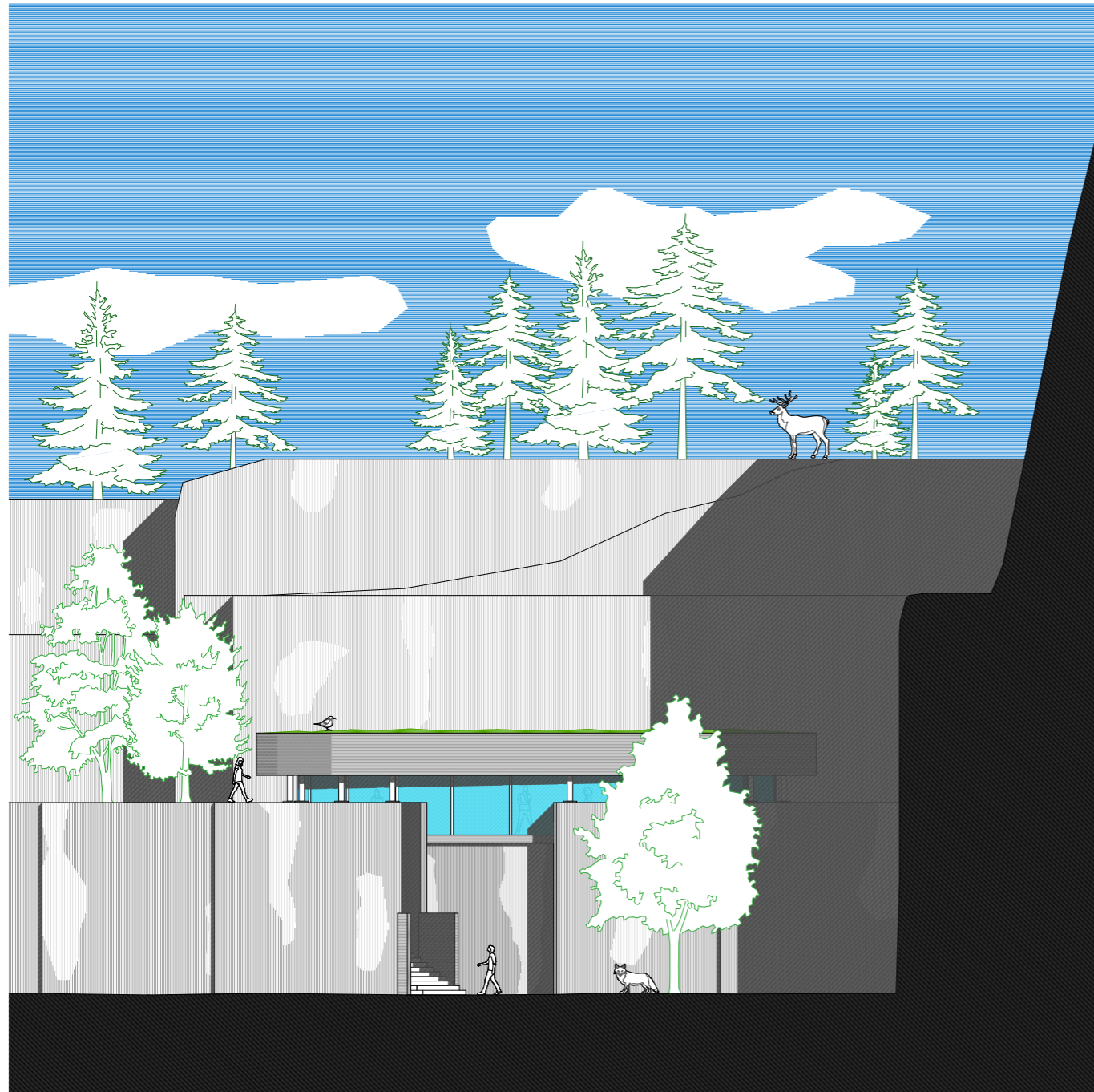
To prevent the quarry from filling up with water and thus destroying the reintroduced flora and fauna a pumping station is needed. In that way the idea of nature and animals being depended on humans and technology is put onto display. Nature is managed and shown under maintenance. Two conditions are created. When the pump is not used the structure consists of the single parts. Ones the pumping starts a water façade is created and the building becomes a whole. Then only the viewing frames offer undisturbed views on to the nature.



**The wall**

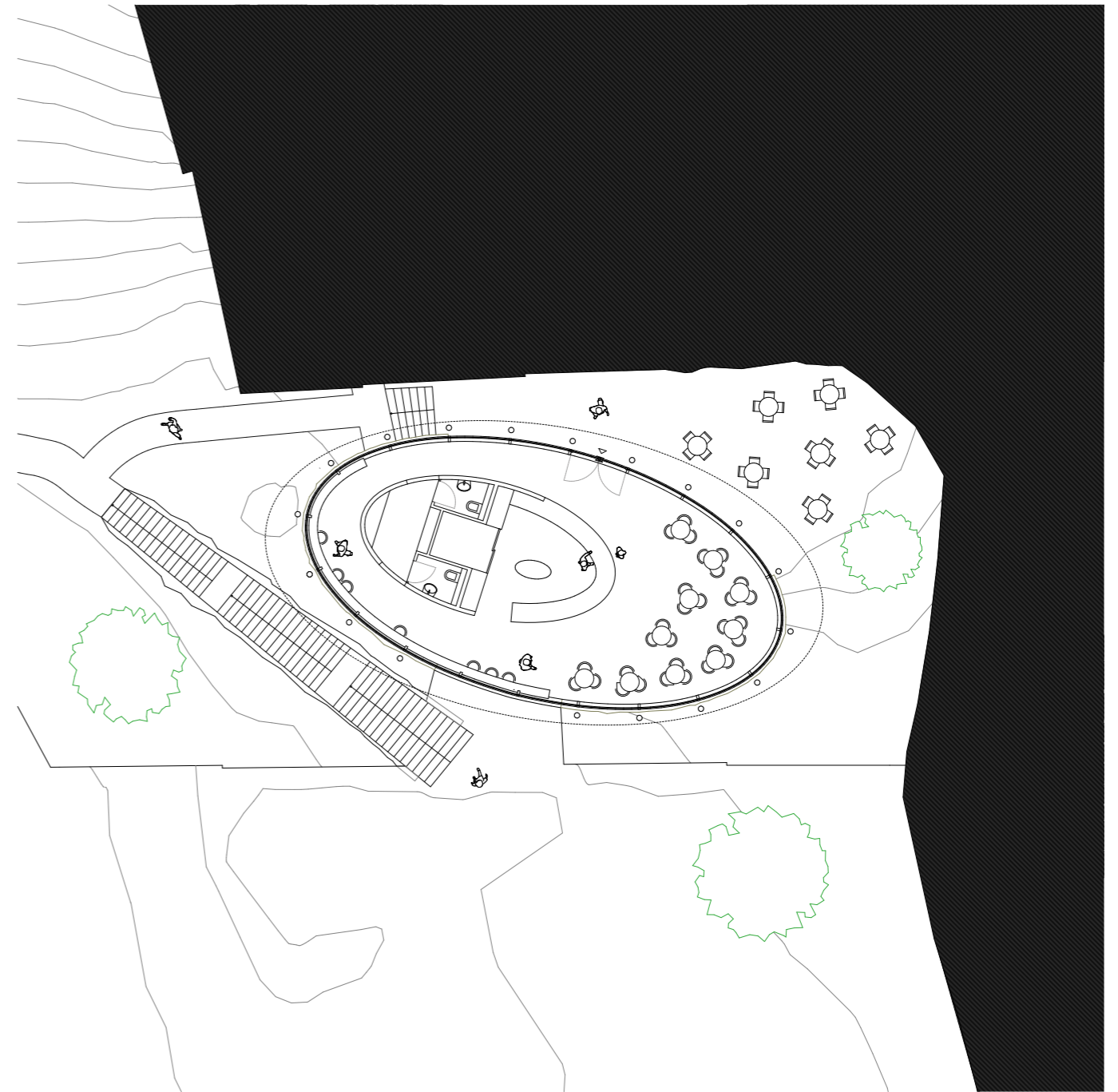
A stone wall is cut out from the quarry and moved forward. It camouflages the exit/entrance to the tunnel system and a viewing platform. The stone wall reveals its artificiality by extruding over the edge and thus contradicting the formal language of the quarry.





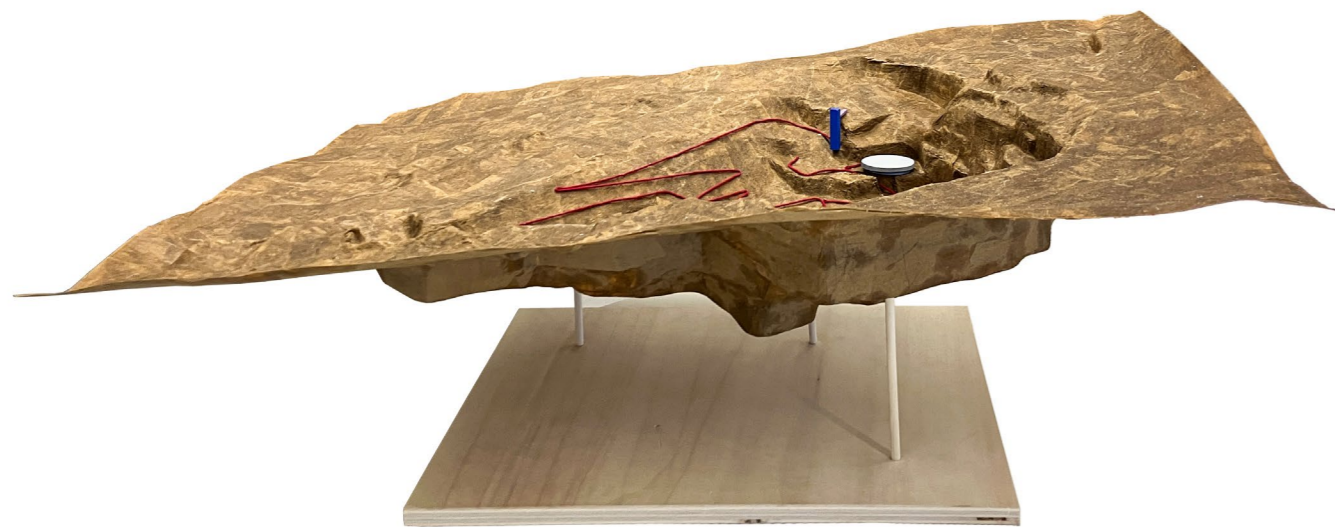
**The café**

The café is embedded in the stone. The ground floor is lowered. Therefore the view from inside the building is at ground level.





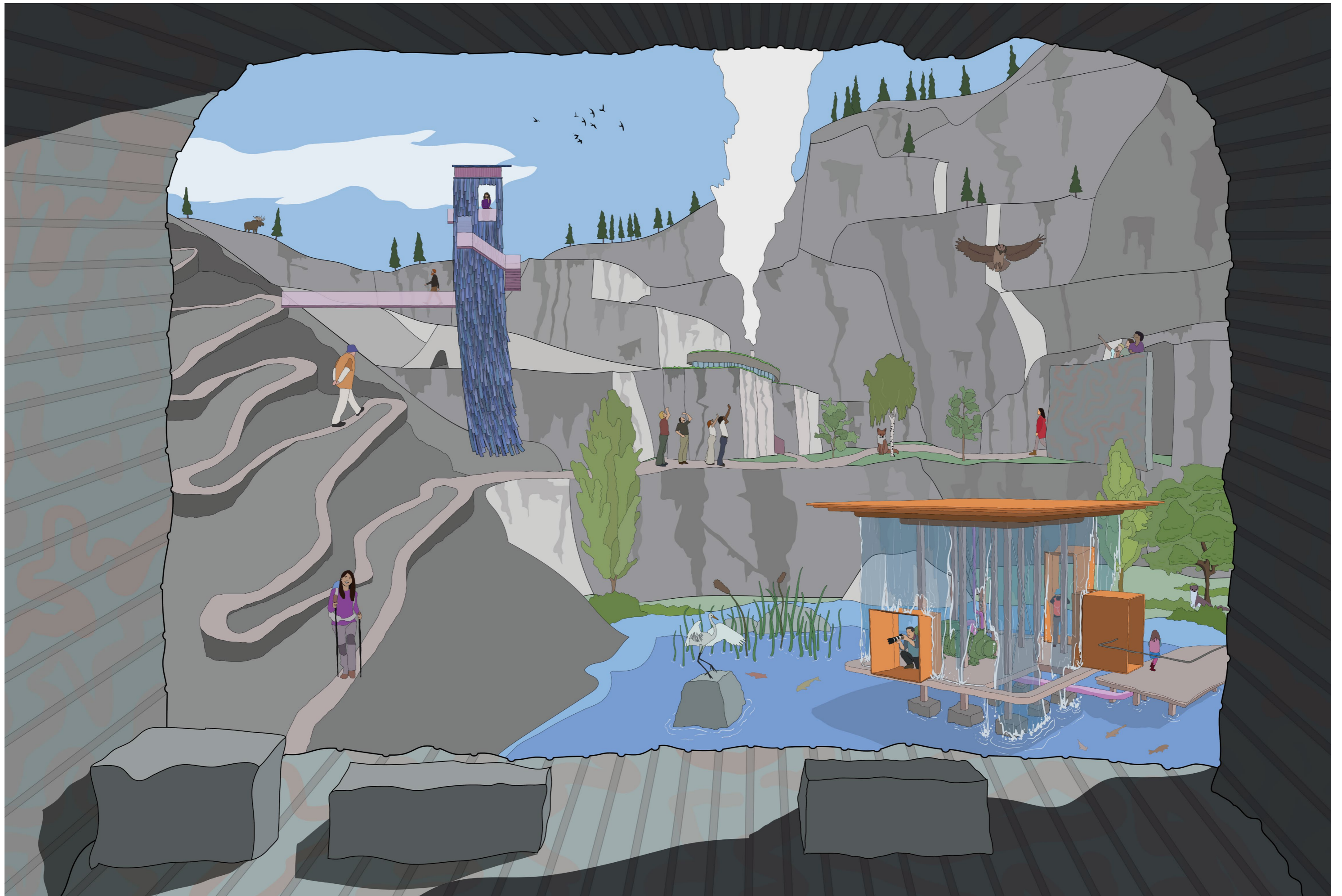
Model photo



Paper mache model



Model photo



View 1





View 1, 80cm x 60cm.

## Discussion

Starting with the idea of clashing a zoo and a quarry in a very literal sense I found myself quickly in the philosophical discussion about zoos. The potential of the contemporary zoo in making animals visible for nature conservation faces the dilemma of the inherited history of zoos. The captivity of animals, the need for spectacle and the human centred design is part of its DNA. The zoo is in a way an in-between, between the urban and the wild, between authentic and faked, and mediates between both worlds. It is an expression of our desire to take part of nature and showcases how sincere intentions, curiosity and violence can be intertwined. My thesis raises the question if we need these places that negotiate between the city and the wild and suggests an alternative. The quarry becomes an arena for the discussion in a literal sense. The discussion is put onto display in a satirical way and is designed as an experience. The rehabilitated quarry becomes a stage not only for animals that are too easily overlooked in everyday life but also for the spectacle of spying on them. Thereby awareness for the animals is created,

and the human gaze and human centred perspective is revealed. Éric Baratay describes in his book *Animal biographies toward a history of individuals* the life of famous zoo animals and pets as being on their side. He writes,

“Our obvious limits must not lead to the lazy declaration that the search for exterior realities is impossible – it should not lead us to wallow in human navel-gazing, obsessed with ourselves and our self. Our surrounding environment is not reducible to our perceptions; it exists even if our gaze is partial and relative, being always in perspective.”(p.12).

Moving beyond the human perception takes an effort but is key to improve our understanding of the world. It requires imagination and new ways of expression. In my thesis I'm building upon architectures capability of shaping imaginaries with the potential of making them real and thereby aiming to create awareness of the way we view nature at present.

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## Figures

Fig. 1. Scandinavian stone. Quarry in Bårarp [Photograph]. <https://www.scandinavianstone.com/about-us/our-quarries/bararp/>

Fig. 2. Daumont, J. (1676–1722). *Veuë et Perspective du Salon de la Menagerie de Versailles* [Estampe]. Château de Versailles, Versailles. <https://www.chateauversailles.fr/menagerie-royale#la-menagerie>

Fig. 3. NEMESTUDIO. (2018). *Fake Earths: A Planetary Theater Play*. <https://www.archpaper.com/2018/12/2018-best-of-design-awards-winners-representation-digital/>

Fig. 4. Richard Barnes. (2007). *Man with Buffalo* [Photograph]. <http://www.richardbarnes.net/projects#/animal-logic-1/>

Fig. 5. Jeff Wall. (1978). *The Destroyed Room* [Photograph]. National Gallery of Canada, Ottawa. <https://artlead.net/journal/modern-classics-jeff-wall-destroyed-room-1978/>

Fig. 6. Im Tierpark Hagenbeck. (2012). Wikipedia. [https://commons.wikimedia.org/wiki/File:Hagenbeck\\_2012\\_8332.jpg](https://commons.wikimedia.org/wiki/File:Hagenbeck_2012_8332.jpg)

Fig. 7. Satellite image of Bårarp quarry. Slu. <https://zeus.slu.se/get/?drop=get>

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