# BRIDGING THE PAST AND THE FUTURE:

a new palimpsest layer for the heritage landscape of Hof te Dieren

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# **ABSTRACT**

Heritage landscape as a dynamic system that bridges the past and the future, on the one hand tells the history of an area and contributes to the identity of local people, and on the other hand need to meet the contemporary demand and deal with future challenges. In that case, apart from traditional strategy of isolating cultural heritages from urbanisation for protection, is there a new perspective to view heritage landscapes and a new approach to tackle them?

Hof te Dieren is an estate located in Gelderland province. With rich cultural-historical value lying in the land not fully recognised by people, it is simultaneously facing a series of challenges that are common in other Gelderland estates. This thesis studies Hof te Dieren as a case and uses palimpsest as an approach to read the historical traces in the site and to design new development.

Keywords: heritage landscape, estate, palimpsest, layer, landscape biographies

# 1.INTRODUCTION

#### 1.1. Fascination

I chose the graduation lab Garden of Gelderland based on my personal interest on heritage landscape. I was born and raised in a coastal Chinese city named Shenzhen, which is always considered as only having 40 years of history. Within 40 years Shenzhen grew from 'nothing' to a metropolitan city, as people said. However, the territory of Shenzhen had been occupied and intervened by humans long before the urbanisation, though hardly mentioned by written historical materials. During my study in TU Delft, I got to know the idea that landscape could be understood as multilayered and dynamic system, continuously being shaped by processes(Graduation Guide 2019-2020). I wonder how landscape is shaped by the processes and how do landscape represents the stories in itself.

I got fascinated by the evolution of perspectives towards the conservation of heritages in the Netherlands. As introduced by Professor Eric Luiten in a lecture, Dutch heritage-related policies were first made for the purpose of protecting cultural heritages from urbanisation. This idea reminds me of the 'purple line' in Chinese urban planning, which is the boundary of cultural heritage in urban area. Historical elements inside of this 'purple line' are specially protected while the external is urbanised rapidly. This lead to isolation and vacancy of protected area as well as the homogenisation of the outer. In the Netherlands some new perspectives on the role of heritage in spatial planning have emerged during recent several decades, so I would like to learn from them about how can a designer approach a design incorporating existing qualities of the heritage and connecting it to the contemporary context.

#### 1.2. Problem statement and research questions

Heritage landscapes carry physical traces of history and individual memories, and thus contribute to cultural identification. This is certainly true for the Gelderland heritage estates landscape. At the same time, most of our heritage landscapes are facing serious environmental and economic challenges. Hence it is necessary to rethink the perspectives through which we look at, and design with these heritage landscapes, among others our ways of interpreting the historical traces when designing for a new development.

This research by design explores ways of looking at and ways of reframing a heritage landscape in the context of these contemporary challenges, with a focus on Hof te Dieren. To be more specific, the main question relates to the following subquestions:

- 1. how to understand a heritage landscape and its relationship with the region;
- 2. what approach is suitable for reading the historical traces in the landscape and designing new interventions for a heritage landscape;
- 3. what traces of historical events or processes can be found in Hof te Dieren;
- while designing new developments for Hof te Dieren, how to make the historical traces more visible and how to respond to contemporary challenges and demands.

## 1.3.Choice of study area

Hof te Dieren is of special importance in telling the story of the region and the country, because the site relates to a number of historical processes and events in Dutch history. Once owned by the Teutonic Order, the royal family and a noble family, Hof te Dieren carries lots of clues and stories of many historical processes and events such as the World War II in it. All in all, Hof te Dieren has a rich culturalhistorical value, which is not yet fully recognised by people. At the same time, Hof te Dieren is facing a series of challenges that are common in other Gelderland estates such as spatial fragmentation, water shortage, loss of land and income, disappeared building.

The study of Hof te Dieren could act as an example for this region of how heritage landscapes could be transformed to deal with contemporary challenges and demands, as well as how to make the history more visible. From a larger scope, it is also worth considering how can Hof te Dieren contribute to the area and to the lives of local people.



## 1.4. Research approach

**First stage** – Analysing the basic conditions of the site (topographical, ecological, societal, etc), gathering information about local history, reading literatures to adopt position

- Literature study on the evolution of definition of heritage and landscape; on different perspectives on the role of heritage in spatial planning; on the notion of palimpsest, on the relationship between people and landscape
- Document reading for understanding the conditions and challenges of the Gelderland region and the estate of Hof te Dieren;
- Map and historical photos collecting to compare the past and the present; to find historical transformations of the site

**Second stage** – Interpreting the existing landscape traces on the site

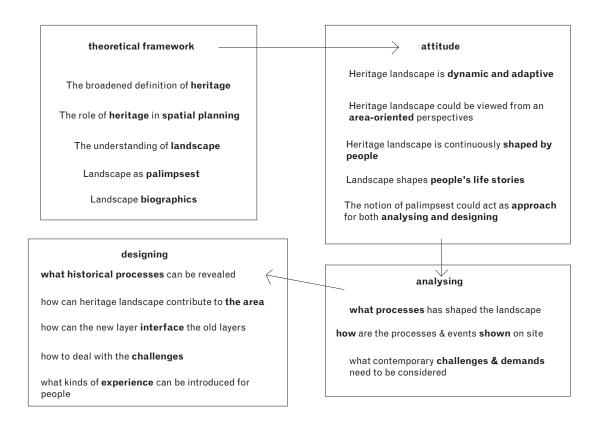
- Site visiting to identify clues of history and collect on-site spatial experience;
- Map overlaying to infer how processes shaped the site;
- Evaluating on historical values of different elements of the site to decide what to emphasise;

**Third stage** – Exploring design interventions to add a new layer to the land; to deal with challenges, and to enhance cultural value

- Extracting principles and characteristics as design vocabularies;
- Comparing on which strategies and programmes are suitable for the site;

#### Forth stage - Reflecting on the project

 Reflecting on the relation to the 'Flowscape' studio and the 'Garden of Gelderland' lab; on the possibility to generalise the results and on the social relevance



The main concern of my thesis and design is how to regard and tackle heritage landscape. I start constructing the theoretical framework by researching on the understanding of heritage landscape. The broadening international scope of heritage and the evolution of perspectives of heritage conservation in the Netherlands indicates a trend in the field of heritage to emphasise human intervention. Similarly, the understanding of landscape has developed into landscape as the results of human intervention by 2000, implying the necessity for landscape to be connected to the general public. These studies then relate to the concept of palimpsest landscapes overwritten by natural and cultural processes. While designing, the contemporary demands from the public and challenges the site need to consider are to be integrated, relating this project to the theory of landscape biographies.

# 2.THEORETICAL FRAMEWORK

The theoretical study provided me with a background knowledge of heritage landscape, from which I gradually developed my attitudes and framed my analytical and design approach. The trends observed in the field of heritage and the theory of landscape biographies inspire me that heritage landscape could be viewed from an area-oriented perspectives, and that landscape and humans are continuously shaping each other. The notion of palimpsest acts as an overall approach in the case of Hof te Dieren to analyse historical layers and to develop a new layer for the landscape. Considering heritage landscape as a dynamic and adaptive system that bridges the past and the future, I believe heritage landscape can be transformed into a socially vital and environmentally more resilient place by offering a better knowledge of the past.

#### The broadened definition of heritage

From a series of international documents on heritage, it can be known that the scope of heritage has experienced a process of broadening. Within several decades, the scope has been broadened from individual physical elements - historic monuments and buildings - to physical heritages and ensembles -groups of buildings, historic urban and rural centres, historic gardens- and to non-physical heritage including environments, social factors and intangible values (Y. Ahmad, 2006).

In the Venice Charter 1964, principles in conservation and restoration indicates that the main concern of heritage was to keep the heritages from being changed or threatened: as claimed in the Charter, the intention of conserving and restoring monuments is to 'safeguard them no less as works of arts than as historical evidence' (the Venice Charter, 1964). The definitions of 'monuments', 'groups of buildings' and 'sites' by UNESCO in 1972 show that the focus of cultural heritage was still on tangible objects, and the transformation and change in their environment was regarded as threats (UNESCO, 1972). The including of historic gardens (ICOMOS, 1982) and historic towns and urban areas(ICOMOS, 1987) as cultural heritage shows that the dynamic characteristic of heritage is gradually realised. In 2003 the intangible heritage - practices, representations, expressions, knowledge, skills – is added as a new category, which means the recognition of the role of people in shaping and interacting with heritage. (UNESCO, 2003)

By the first decade of the twenty-first century, the dynamic characteristic of heritage has been recognised by many scholars. Janssen et al.(2017) define heritage as 'a highly malleable concept that is constantly in flux and whose substance and meaning are continuously being redefined by society.' Fatiguso et al.(2017), focusing on historic built heritage, conceive it as 'a responsive and adaptive system to the environmental surroundings'. Paul Meurs (2016) tends to regard heritage as a performance of the past: 'Heritage is about the presence of the past in contemporary life. It often says more about the present than about the past.' G. Verschuure-Stuip (2016) addresses the role of human perception: heritage is 'what a specific group of people considers as (historically) valuable at a specific moment in time. 'They all identify the dynamic characteristic of heritages and the relations between heritages and its ever-changing context.

The broadened definition of heritage gave me a background understanding about the positions I can take on what level of intervention should be allowed when dealing with heritage: should heritage be treated as a static monument to safeguard? Should it give the way to urbanisation and other developments? Or a balance between the qualities from the past and the demands for the future need to be achieved? As a landscape student, I tend to believe heritage (landscape) can be altered based on contemporary needs, but it is important to integrate and strengthen existing cultural value when designing new developments.

## The evolution of Dutch heritage conservation perspectives

Corresponding with the succession in international definition of heritage, the views on principles for heritage conservation in the Netherlands has also experienced a transformation. When the value of heritage was first recognised, the focus was put on the conservation and re-use of individual buildings. (Janssen et al., 2017) However, through time, people gradually notify the great impact that a heritage building has on its surrounding buildings and environment, as a 'placemaker'. Later, by the end of twentieth century, the influence by heritages on people and communities are also recognised in terms of cultural identity and collective memories (Meurs, 2016).

In 1875, under the background of Industrialisation, the department Kunsten en Wetenschap (Arts & Sciences) was founded and it later developed into the Cultural Heritage Agency of the Netherlands (Rijksdienst voor het Cultureel Erfgoed, as RCE in short). It functions as a an official bureaucracy that documents and lists historical buildings, landscapes and archaeological sites as 'monuments', and provide subsidies for conservation and restoration. With same intention heritage conservation has been integrated into laws and regulations for spatial planning since 1961, when the 'Monumentenwet' was put forth.

The Belvedere Note issued in 1999, though not with a status of law, has had great impact on Dutch heritage policy. As an elaboration of intentions of Cultural Policy Document 1997-2000, it points out the significance of heritages in shaping regional identity and proposes the concept of 'conservation through development', indicating that new usage of old landscapes and structures should be encouraged. More importantly, the Belvedere Note suggests that cultural-historical heritage could function as the leading element in spatial planning (Nota Belvedere,1999).

Janssen et al., focusing on spatial planning approach, notice a shift in role and purpose of heritage conservation in planning and identify three perspectives: heritage as 'sector', 'factor 'and 'vector'. 'Heritage as sector' is the traditional opinion of viewing the social-economic and spatial dynamics as a threat and protecting heritages from possible losses. The notion of 'heritage as factor', first developed in late 1970s, regards heritage as an asset or stimulus that contributes to the urban or rural regeneration. From the 1990s, especially after the introduction of 'intangible heritage' category to UNESCO cultural heritage in 2003, the perspectives of 'heritage as vector' developed. It emphasises the shaping role of human activities, the interaction between people and heritage and the narratives of a region revealed by heritage. It proposes that heritage could determine the direction of spatial projects and developments. These three perspectives, though developed with a sequence in time, coexist in heritage practices up to date (Janssen et al., 2017).

Paul Meurs (2016) also notices that Dutch heritage policy is becoming increasingly connected to spatial planning and development issues. In the book *Heritage-based design*, he mentions some trends in the focus of heritage such as 'from monument to heritage', 'from objects to areas', 'from conservation to development', 'from matter to story', etc. Unlike 'monuments' which is a 'stamp collection' of buildings, 'heritage' is all-embracing, including 'loose objects (movable heritage), buildings (built heritage), urban structures, landscapes, archaeology, traditions and stories (intangible heritage)'. Area-oriented heritage care aims to achieve 'a living environment with a clear identity and spatial quality, where the old and the new will blend'. The result of these trends is a fast growing importance of design for heritage.

The evolution of Dutch heritage conservation perspectives shows a trend in the relationship between heritage and its environment: from isolating to interrelating. Heritage is, not only a dynamic system in itself, but also a part of a larger system from a larger perspective, for instance the regional scale or the national scale. The impact heritage might have on the larger system can be viewed from spatial, economic, cultural and social aspects. This provides the designing of the case Hof te Dieren with an angle: how can the heritage landscape of Hof te Dieren contribute to the region?



Historical Town, Dieren-Zuid

## The understanding of landscape

The meaning of the word 'landschap' in Dutch was associated to a type of painting emerged in the seventeenth century. This kind of painting describes rural, agricultural, or natural scene, often with elements like ruins, mills, distant church spires, local inhabitants or elite spectators. The painting genre was on speculation for anonymous consumers in mercantile centres at the time. Hence the term landscape was 'tied to the rise of a merchant class with the power and leisure to cast their controlling and organising gaze from the city out onto the countryside'. (Groth & Wilson, 2003; Renes & Kolen, 2015) The aesthetics developed from the landscape painting later had great impact on the English landscape style garden.

The term landscape was also used to describe a style of garden. When the Florence Charter introduced historic gardens into 'living monuments' in 1982, there was a definition of historic gardens as 'whether formal or landscaped' (ICOMOS, 1982). The term 'landscaped' here refers to a type of garden prevalent in Western Europe, especially in Britain since the early 1700s. The aesthetics of picturesque landscape painters was employed in the estates of landowners to create a pleasing view or a panorama in seemingly wild or untouched nature. (Groth & Wilson, 2003) The landscaped garden became a fashion in the Netherlands from the second quarter of the 18th century, with the character of curved paths, winding ditches, irregularly shaped ponds, artificially raised hills and open meadows with solitary and connected groups of trees. (de Jong, 2015)

However, by the end of the twentieth century, the understanding of landscape has shifted to emphasising the role of the human perceptions and social relations in landscape. Kenneth R. Olwig argues that landscape 'need not be understood as being either territory or scenery; it can also be conceived as a nexus of community, justice, nature, and environmental equity, a contested territory' (Olwig, 1996). In 2000, Landscape was defined by the European Landscape Convention as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (European Council, 2000). As indicated by the concept, landscape is not merely the physical environment people are living in. The perception of landscape by people depending on their own life experiences and cultural backgrounds, and the shaping effect on landscape by human action are considered as significant.

Related to the case of Hof te Dieren, it can also be interpreted by the clues on the site as a result of a series of historical natural and cultural processes. For example, the garden part in the centre of Hof te Dieren, once as a property of a noble family, was designed with the principle of creating beautiful, pleasing scenes that can be observed from the building. The paths in the garden were also intended for picturesque views that includes the building and its environment with a sense of nature (de Jong, 2015). In the contemporary context the meaning and perception of Hof te Dieren can move from a property of a small group of people, to a collective memory to the region. The demands from the general public and the importance of human interactions should come into the sight and it is reasonable to consider a way to design further developments aiming to contribute to the cultural identity of the general public.

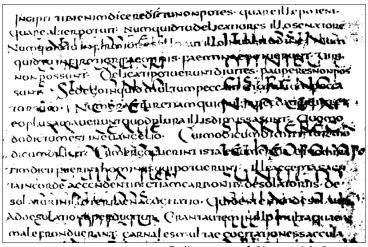


Pond in Hof te Dieren

#### Palimpsest as an overall approach

As mentioned above, heritage landscape is dynamic, being shaped continuously, so it is interesting and necessary to look into how has the landscape developed into its current performance. In this, the concept of landscape as palimpsest -landscapes overwritten by natural and cultural processes- works well. André Corboz describes the traces of human intervention as palimpsest, adding new layers to the land while erasing older layers, in his publication 'the land as palimpsest(1983)'.

According to the Oxford English Dictionary, the word 'palimpsest' initially describes 'a manuscript or piece of writing material on which later writing has been superimposed on effaced earlier writing'. After being extended, the essential meaning of palimpsest is defined as 'something reused or altered but still bearing visible traces of its earlier form'.



Palimpsest of Cicero, 4th Century

The concept of 'palimpsest' is accompanied by the notion of layers. When overwriting, the old layer is partly erased and covered by the new layer. In the essential context of palimpsest, the layers refer to tangible texts only. However, in the context of landscape-related disciplines, layers are applied with both physical and cultural concept. In the process of landscape being altered by humans, physical traces of history accumulated and the interpretations of the land keeps shifting. The surface, though over-written several times, still remains the text of older layers visible. (K. Doevendans et al, 2007)

In some landscape-related disciplines, the notion of palimpsest is also used. The elaborations of palimpsest concept from other fields can act as references to help better understanding of this concept and provide inspiration for its application in landscape.

In a paper on time perspectives in Archaeology, Geoff Bailey (2007) introduces the concept of palimpsest and categorizes five different kinds of palimpsest: true palimpsests, accumulative palimpsests, spatial palimpsests, temporal palimpsests and palimpse-ts of meaning. A true palimpsest refers to a site where only the last layer remains discernible. An accumulative palimpsest is comprised of superimposed historical layers of different times. A spatial palimpsest consists of remains from different layers distributed over the territory. A temporal palimpsest takes the sequence of time as the key, refers to the features added to the site. A palimpsest of meaning is the succession of meanings of something, with the process that it is used differently and attached different associations. The classifying of palimpsest by Bailey takes the scale of space and time as critical factors, and includes both tangible and intangible layers in definition. The elaboration of palimpsest concept within archaeology can be used as a method of landscape analysis.

In the field of Urban Morphology, the palimpsest concept can be used to describe the successive layers of human activities, gradually over-writing land use and built structure on the surface. Focusing on Roman street Via Tiburtina, Bjur and Santillo Frizell (2009) proposes an approach to 'tackle Rome as a palimpsest'. 'We have adopted the palimpsest concept, on the one hand in order to read the hidden layers per se and to discuss their contexts, and on the other hand to reflect upon their meaning in sequential urban layers. We wanted to look upon the urbanism as being composed of different more or less distinct layers originating in different times of development or decline.' This approach points out several significant procedures when reading palimpsest: examining the individual layers, relate layers to their context, and view the meaning of layers from the scope of urbanism process as a whole.

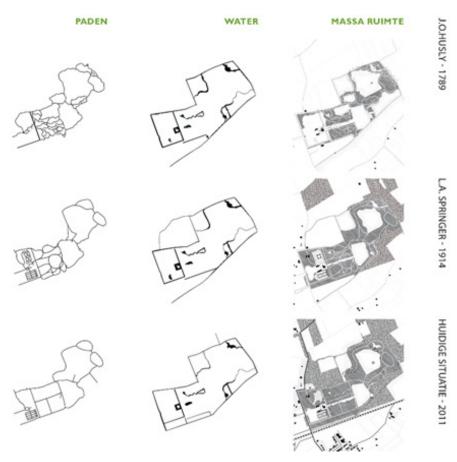
Related to landscape, the concept of palimpsest is often associated with cultural landscape. Palimpsest as described by Corboz, is the traces of human interventions adding new layers to the land while erasing older layers, close to the original meaning of palimpsest. He further claims that the new development added to the surface need to integrate the shape of land into the design and make the traces and layers visible again to meet the requirements of new functions in the new context. In a paper on conceptual framework for interpreting cultural landscape, Richard Schein (1997) uses palimpsest concept to stress the impacts on landscape by individual activities and cultural ideals. 'It might be more useful to begin by viewing the landscape as a palimpsest rather than cultural strata - an analogy that at least provides the possibility for erasure and over-writing and the co-existence of several different scripts, implying not just different historical eras, but several historical and contemporary actors as well. (Schein, 1997)' These views point out that in addition to being used as a tool of analysing, the concept of palimpsest can also apply to the designing of new development. While designing, the designers are allowed to choose his/her 'handwriting' to incorporate the old and the new, deciding what to erase and what to add.

# Palimpsest as an overall approach - case study

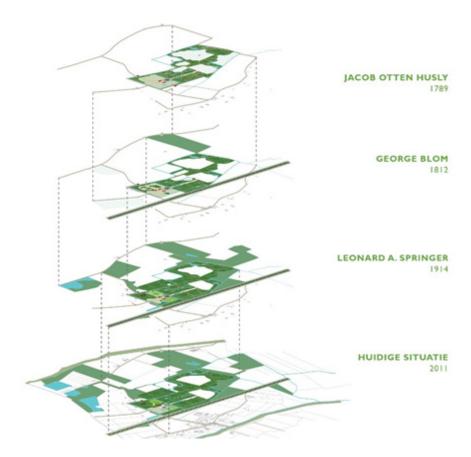
# Landgoed Windesheim, Zwolle

In order to understand the idea of palimpsest as a tool to read and design the site, I studied Landgoed Windesheim as a case.

Landgoed Windesheim is a historical country estate that dates back to 18th century. After the construction of the house and the garden, the layout had been changed several times by landscape architects commissioned by different owners. It was inhabited by noble family until the both houses in it were bombed by British Royal Airforce in 1944 during the WW2. A series of small-scale restoration started from 1980s. After the death of its last owner, it was handed over to Landes Windesheim foundation, which is responsible for taking care of the estate.

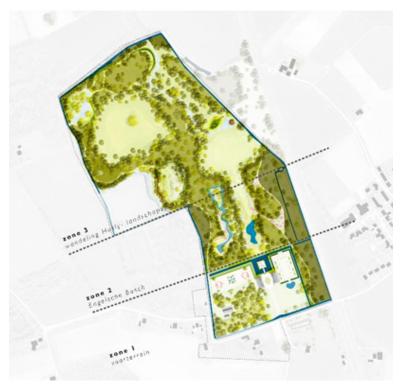


source: http://www.hnsland.nl



source: http://www.hnsland.nl

The renewal of Landgoed Windesheim by H+N+S landscape architects gives me an inspiration on how to understand the site well before designing. They go through the history of Weindesheim and interpret the spatial development with a number of time layers that represent a striking change in the estate. The estate is categorised into sub-areas according to which time layer is dominant, and new design for each sub-area is made corresponding with principles drawn from that layer. To respond with the recreational needs from the visitors, a new entrance and parking lot are introduced to the estate to make the estate more accessible to the public, as requested by the Landes Windesheim foundation. The different sub-areas, though with their own time layer, merge well together and give form to a continuous overall layout.



source: http://www.hnsland.nl

The palimpsest concept can act as an suitable overall approach, both to analyse the historical evolution process, and to design further development. Similar to a manuscript over-written many times, the heritage landscape has been and still is being shaped by various processes. The elaboration of palimpsest in different landscape-related fields provide me with some inspirations about how to apply the palimpsest approach to the site Hof te Dieren. The 'palimpsests of meaning' by Bailey reminds that the perception succession of landscape –from the scenery for the landowners to the shared environment of the public in the case of Hof te Dierenis also an aspect worth considering, relating to the session 'the understanding of landscape'. The idea from Urban Morphology that individual layers need to be examined from larger scope resonates with the session 'the evolution of Dutch heritage conservation perspectives'. Either when analysing or when designing, it is important to take the spatial and temporal context into account. The views and the case from cultural landscape field, indicates that designers have certain level of freedom to decide the way to incorporate the old and the new, as long as the design can keep the cultural qualities and meet the contemporary demands.

#### Landscape biographies

Landscape biography, with a 'double historical perspective', refers to both the histories of places themselves (biographies of landscape) and to the history of memories and practices (landscape biographies). 'Landscapes can be understood to have a biography that has accumulated across centuries, or aggregated over millennia.' The way people use, order and experience a place keeping changing and thus continuously 'reshaping' the landscape. In 1990s, some theories have similar views, claiming landscape as social and symbolic constructions, co-produced by various social, economic and demographic development processes. However, landscape biography goes beyond this one-way shaping effect, but notices an ongoing dialectical movement between people and their life worlds, in which people develop their memories and practices. 'landscapes as life worlds, in a sense – as the dwelt-in world of people and other animals and actors who co-create this world while living together.' The biographies of the dwellers -human and animals, plants and trees, objects and structures- can be considered as individualised biographical subjects. (Kolen & Renes, 2015)

Landscape biographical research not only focuses on the history, but aims to offer new possibilities for narratice, experience, collaboration and design. 'From a societal perspective, landscape biography aims at a better integration of historical landscape research with urban planning, landscape design, and public participation in local and regional developments.'

In the analysing part of this project of Hof te Dieren, I use similar approach as 'biographies of landscape', drawing out the natural and cultural processes that have shaped the landscape. Landscape biograghy also gives me inspirations on how to design further development for Hof te Dieren: 'to bring insights into historical processes, historical narratives and memories to the relevant actors, so that old landscapes can be transformed from vulnerable landscapes into socially vital and resilient landscapes'. In the hope of Hof te Dieren better contributing to the cultural identification of local people, I try to uncover the historical traces in the landscape to offer better knowledge of the past.

#### Conclusion

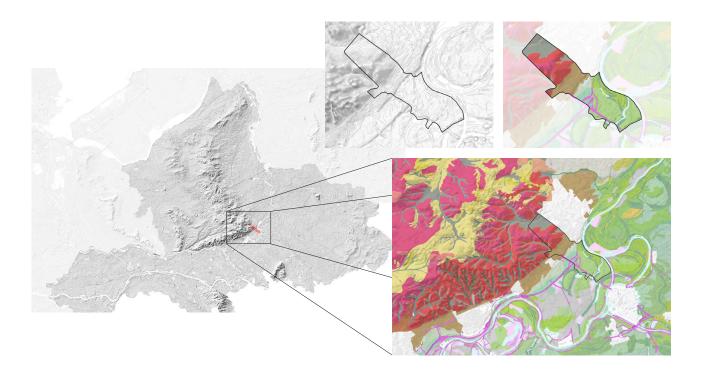
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# 4. SITE ANALYSES

To get a grip on the site Hof te Dieren, it is necessary to look into how it developed into the current performance, including: what natural and cultural processes or events has taken part in shaping the heritage landscape? How are they associated with the current situation of the site?

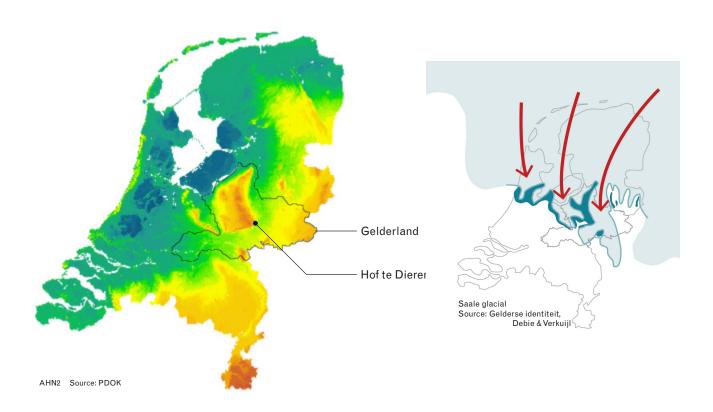
# Introduction - natural & cultural processes

Considering landscape as palimpsest, I start to analyse the site with what processes has taken part in shaping of the landscape. The geomorphological map is a conclusive proof of the combined effect of natural and cultural processes, which I will go through in the following elaborations.



#### Natural processes - glacial movement

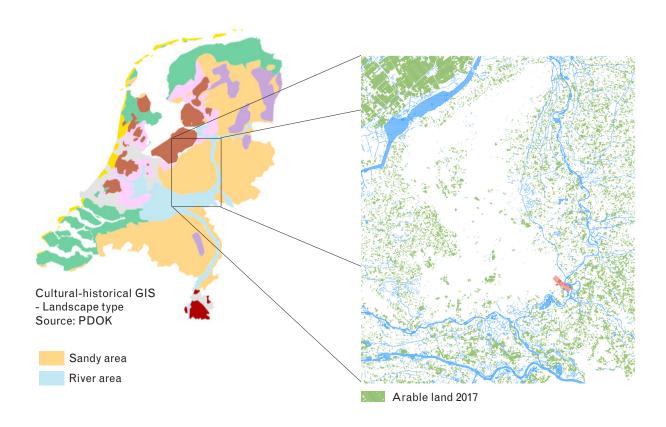
The oldest layer is shaped by natural processes that form the base of the land that humans are interacting with. The general character of Dutch landscape is low in elevation and flat in topography. However, in the elevation map of the whole country, a very obvious hill can be recognised in the middle of a flat region. That is a moraine hill named Veluwe formed by the pushing effort from the north by the Saale glacial around 200,000 years ago. The dramatic gradient in elevation, especially on the south and east sides, is a significant characteristic of this area. The site of this project, located at the southeast corner, covers a part of this gradient area from the moraine hill to the flood plain.





#### **Cultural processes - agriculture development**

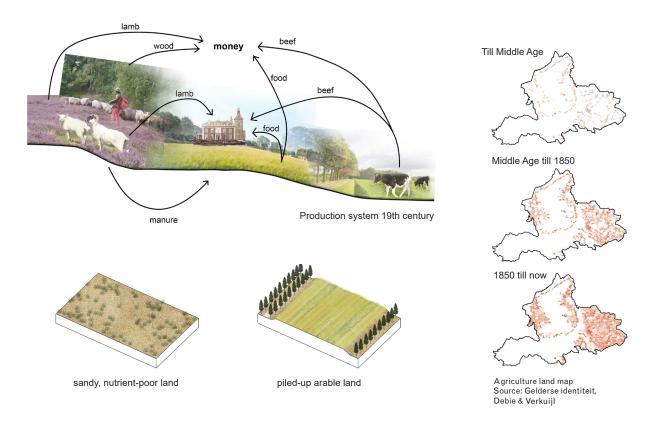
Accompanied with the settlement of human, the intervention on the land happened for agricultural purpose. Developed mainly from deposits of the rivers, the soil of this region is sandy, which means it is difficult for the soil to hold water and nutrient. The sandy characteristic of the soil requires much human effort to maintain the farm land, resulting in a very discrete distribution of small-scale farm land over the region.





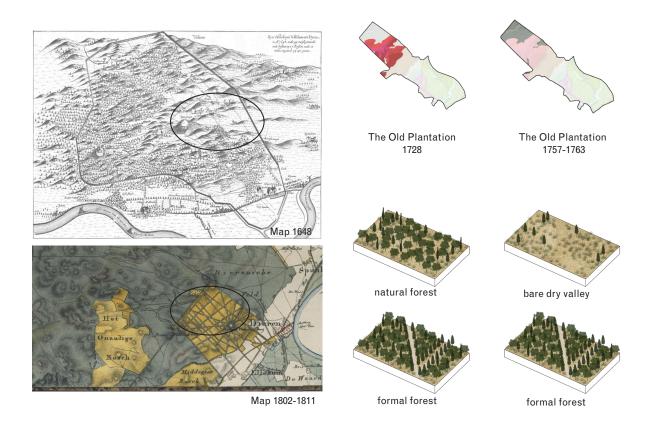
#### **Cultural processes - agriculture development**

The production system that local farmers developed through centuries on this sandy barren land is quite delicate and it has left the land with visible traces. It is a complex system making use of farm land, forest, meadow and heather area. Cattles are grazed in the meadow and sheep are grazed in heather area, after which their manure is taken to the farm land to fertilise the farm land. In this way the farm land keeps productive and sustainable, and the landowner can gain income from the crops, meat and wood. After centuries, the farm land is piled up with the manure, showing a recognisable height difference. However, the arise of chemical fertiliser around 1850 brought about the intensification of agricultural production. The agricultural production centre has shifted from the transition area around Veluwe to the flat deck area Achterhoek on the east. (Debie & Verkuijl, 2015)



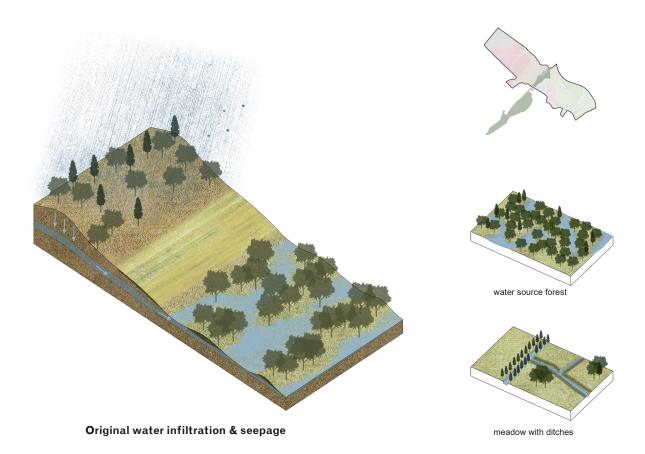
#### **Cultural processes - forest plantation**

The production forest of Hof te Dieren is apparently organised by human but it is not obvious that it covers two geomorphological types formed by moraine. The part in the north is a dry valley with loamy fine sand, eroded by the meltwater that could not infiltrate into the frozen soil. The hilly part, with the mother material of gravel-rich coarse sand, is stowed up by the pushing force of moraine. (SB4 Bureau, 2017) As shown in the map of 1648, only the hilly part was covered by forest and the dry valley was kept with openness. However, by 1763 the New Plantation had covered the open area on the initiative of Princess Anne, who named the two hills in the forest after her two children (rhedenopdekaart.nl). By then the topographical and geomorphological differences of the forest surface have been covered up by the striking, unified formal path system.



#### **Cultural processes - water system intervention - seepage**

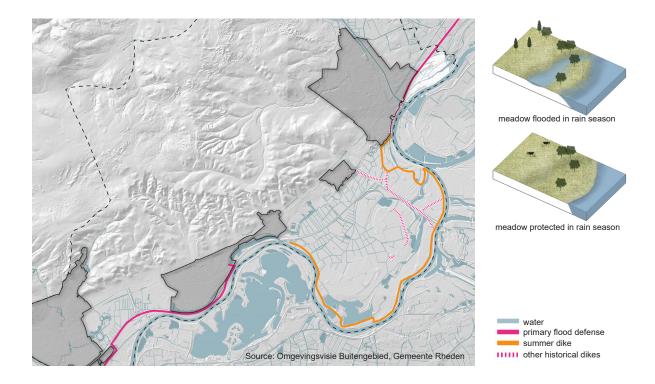
The landscape between the garden of Hof te Dieren and the town Ellecom, though seems 'natural', is in fact shaped by human intervention on water system. According to the geomorphology map and the soil map, next to the garden there used to be a wetland forest habitat nourished by groundwater. Based on the still-existing water source forest around the Middachten Castle, the water mechanism of this area is: when the rain falls on the sandy soil surface of Veluwe, the water infiltrates into the surface and joins the water-bearing stratum underground, which comes out at the foot of the transition area, forming seepage water. However, with alterations of water system, this land has been transformed into meadow with ditches.





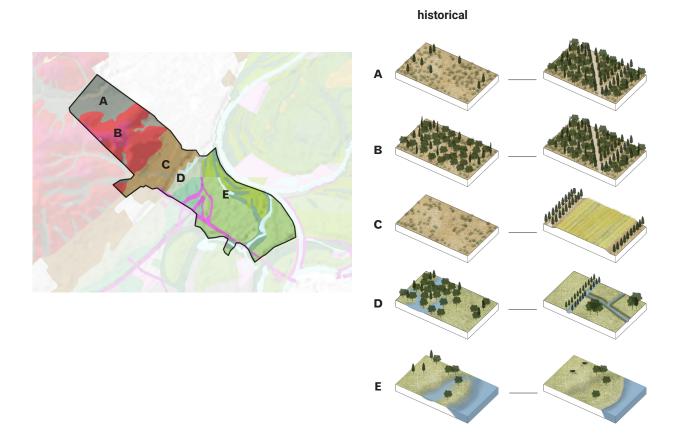
#### **Cultural processes - water system intervention - floodplain**

The manipulation of water has also happened on the floodplain, where a series of flood defence system has been constructed. From this map it can be known that there are some historical dikes taken place by a relatively new system consisting of primary flood defence and summer dikes. Protected by a series of dikes constructed through time, the river foreland topography has a differentiated flooding aspect, though with similar appearance.



#### Conclusion

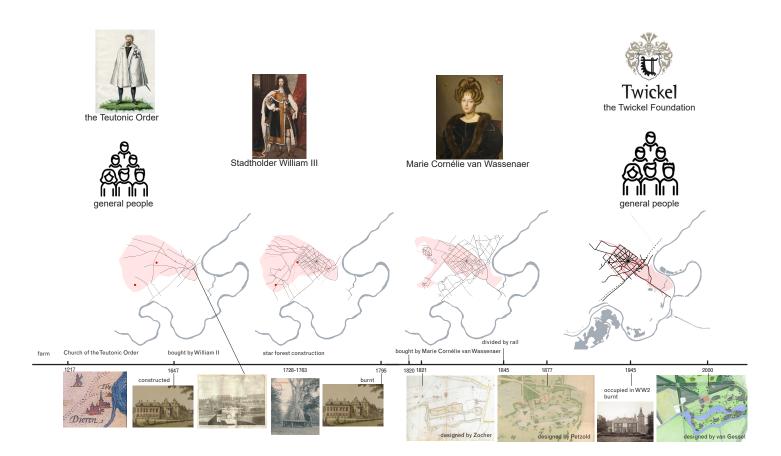
As shown in the geomorphological map, the land of Hof te Dieren can be categorised into different sub-areas shaped by various natural and cultural processes, which are not fully visible to people. For instance, the formal path structure in production forest covers up the differences between hill and dry valley and hides the exotic species introduced by people. They can be design potentials.



# The evolution of perception of Hof te Dieren

#### Societal & cultural transformation

Apart from the processes that have shaped the appearance of landscape, another noticeable process is the societal and cultural transformation that alters the perception of landscape of Hof te Dieren. After being donated by its former landowner to the Teutonic Order in 1217, the place where the garden of Hof te Dieren is situated was perceived as the religious centre of the area due to the presence of church, which means it was closely connected to the daily lives of local people. However, during the 17th to 20th century, either owned by the royal family or the noble family, Hof te Dieren only related to a small group of people. The royal or noble owners casted their own wills or aesthetics on the landscape: formal layout as the representation of royal power; picturesque scenery designs as fashion of elite class. Currently the estate is managed by the Twickel Foundation and is open to the public, with exception of a small part. The estate has become a part of the public outdoor space, again connected to the general people.



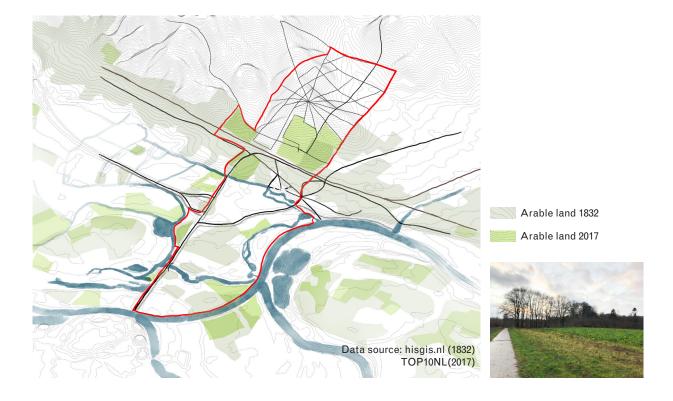
#### **Introduction - current composition**

Currently, Hof te Dieren consists of forests, farm land, meadow, garden and vinyard and is production-oriented. The forests is freely accessible and is used daily by local people to walk their dogs or go jogging. The farm land is surrounded by wire fence, probably to keep out of wildlifes. Seven farms are located in the meadow. The garden, is normally closed and only allows visitors on the Monument Day each year.



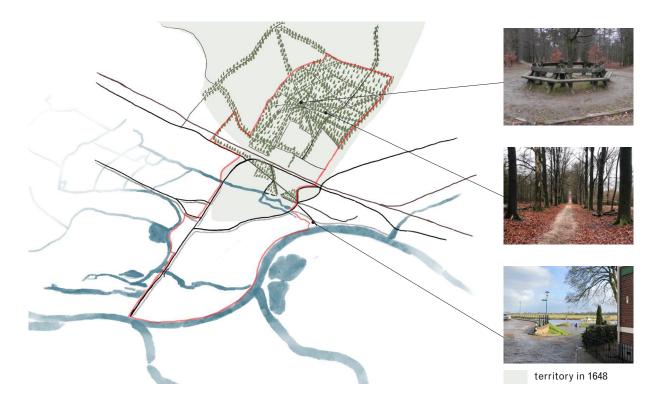
#### Arable land in transition area

The following section is about what traces left on site by different historical processes or events and how are they shown. As mentioned above, the agricultural intensification on the east resulted in a decrease of arable land in the transitional area around Veluwe. The farm land belt in the vicinity of Hof te Dieren is no more continuous, but there are still some traditional farm land stay in place inside Hof te Dieren, though not accessible to the public.



## Production forest today - Royal hunting field and garden(1647-1795)

By the end of the Eighty Years' War, the land was bought by Willam II as royal hunting place. The subsequent royal members gradually constructed a production forest with star-like path system, which is a striking dominating feature still in land. The tree species in the production forests includes both native species (Fagus sylvatica, Castanea sativa, etc) and exotic ones (Prunus serotina, Pseudotsuga menziesii, Larix kaempferi, etc).(SB4 Bureau, 2017) Additionally, the ferry port of Dieren on the IJssel River also dates back to the Oranje times and is still in use.(de Jong, 2015)



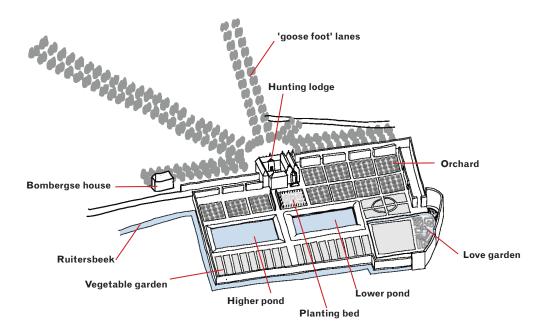
#### Garden today - Royal hunting field and garden(1647-1795)

Additionally, around the hunting lodge the royal family used to own a formal garden with rectangular ponds, channels and a water labyrinth. A series of drawings by Petrus Schenk around 1700 depicts the formal garden. There are still some hints of that times in the garden, for example the remains of the goose foot avenues (A), the pit left by burnt building (B), the Bombergse House (C) and the garden wall (D).

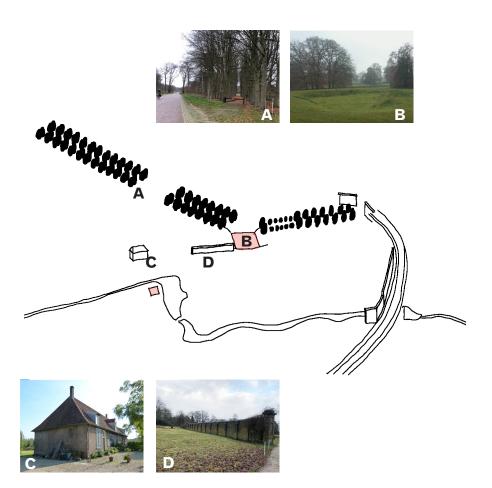


Drawings by Petrus Schenk, circa 1700. source: gelderlandinbeeld.nl (cited from SB4 Bureau, 2017)

Map: Caarte van Dieren, 1728. source: Gelders Archief (cited from SB4 Bureau, 2017)



Formal garden around 1723



Traces of the Royal times

#### Tree clumps & hawthorn hedges - Country house of the noble (1821-1945)

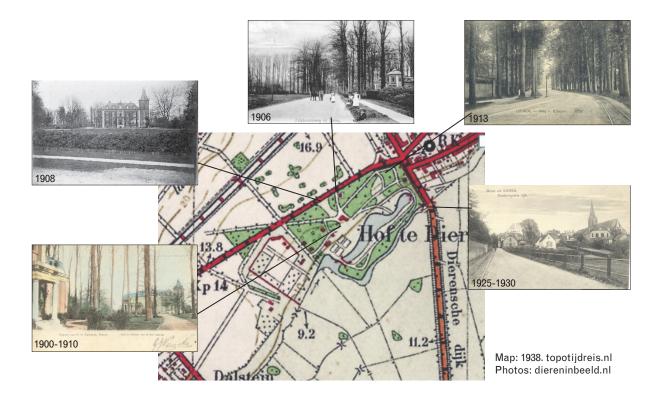
After the hunting lodge was burnt by French in 1795, a countess Marie Cornélie van Wassenaer bought Hof te Dieren in 1820. The land her family owned was smaller than the previous phase, and they did not make big changes to the forest part. Instead, the central part around the garden was manipulated in 1877 to extend the visual axis from the new house. The hawthorn hedges to the south of the garden, is a traditional way of local farmers marking the parcellation of meadow(de Jong, 2015)

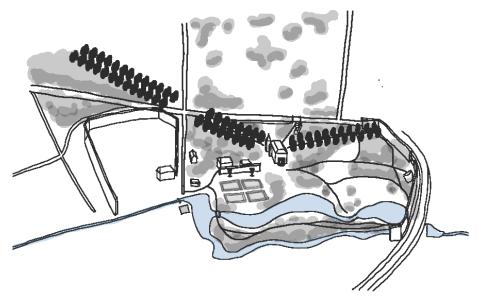


# How are historical processes & events shown on the site

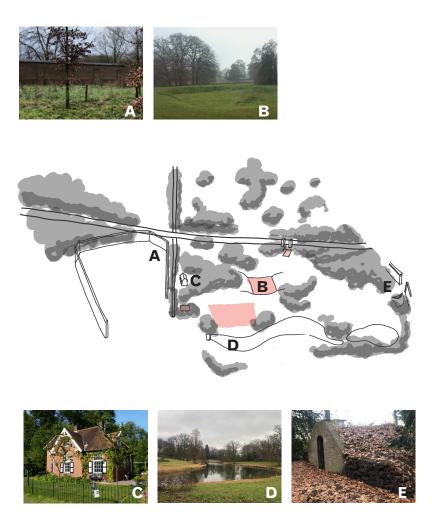
### Garden today - Country house of the noble (1821-1945)

The garden was re-designed in 1821 into a English-styled garden with the idea of having beautiful scenes from and to the house. This kind of garden, with curved paths, winding ditches, irregularly shaped ponds and artificially raised hills, was a fashion among the elite class at the time. The noble family used Hof te Dieren as a country estate until the house was burnt in 1945. The current layout and plantation structure of English landscaped garden was set in this phase, which is the dominating time layer of the garden part. Many remains of this period can be found in the garden.





Landscaped garden around 1938



Traces of the Noble garden times

# How are historical processes & events shown on the site

# Relationship between park and city - Urbanisation after the World War II

For the period after the World War II, the major change is in the relationship between the estate and the city. The town Dieren expanded rapidly to the north of the main road. Groundwater extraction for drinking has begun on the slope, leading to further water shortage in the transitional area (van der Veen et al., 2007). A small design intervention was introduced to the farm land in 2000. With exception of a small part (garden), most land of Hof te Dieren has become a part of the public outdoor space accessible.



# How are historical processes & events shown on the site

### Small interventions on garden - Change in ownership

Since the death of the last owner from the noble family in 1975, Hof te Dieren has been managed by the Twickel Foundation till now. With talking to the archivist I got to know they plan to construct a residential building for the rich in the well of the last owner, but it is yet difficult to achieve. In addition, a preliminary excavation of where the planned building might affect shows there are some remains of walls underground (Verhoeven et al., 2005). Other than clearing the ruins of the burnt house in 1965, the interventions done so far after WW2 is quite subtle, leaving only small elements in the garden.









1: the remnants of the country house, circa 1960. source: gelderland-inbeeld. nl. 10721. (cited from SB4 Bureau, 2017)

<sup>2:</sup> the planned new building, source: diereninbeeld.nl

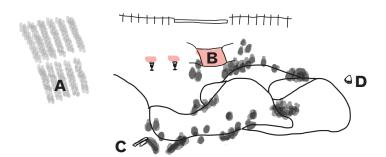
<sup>3 &</sup>amp; 4: excavation photo, (Verhoeven et al., 2005)



Current garden



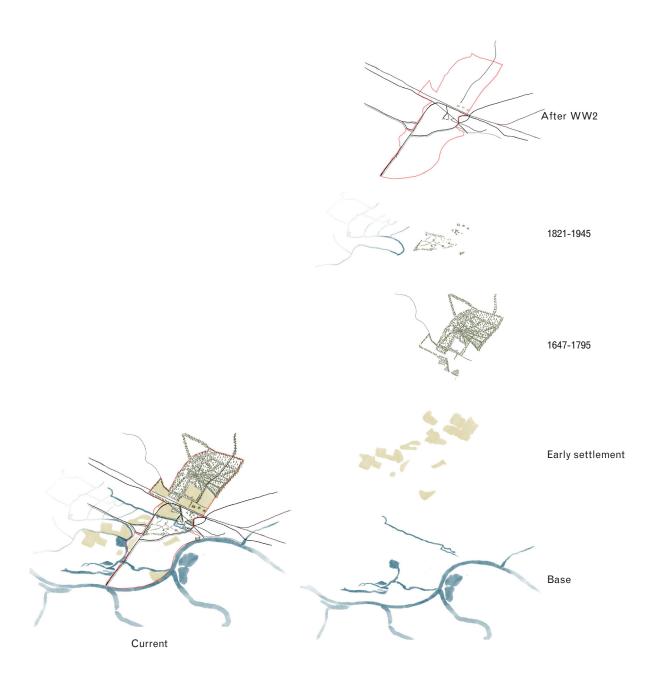








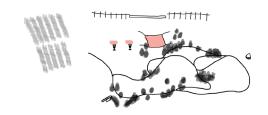
Traces after the World War II



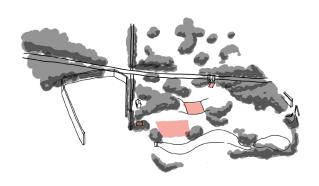
How are historical processes & events shown on the site

### Conclusion

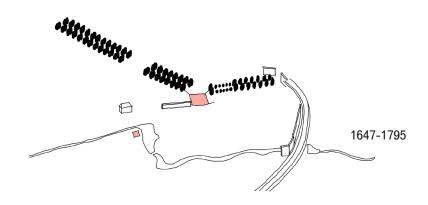
By comparing historical territories of Hof te Dieren and overlapping the historical traces, the land can be categorised into several sub-areas according to the dominating time layer of different parts. The production forest is with valuable feature of the House of Orange times, and the central part around the garden mainly keeps the remains of the noble estate phase. The traditional arable land reminds of the early human intervention on the sandy land. The floodplain meadow, as newly added to Hof te Dieren, allows more intervention. The garden is the part with most condensed historical traces from different time layers co-existing. Based on this, the design further explores how the added new layer can be an interface with the old ones.

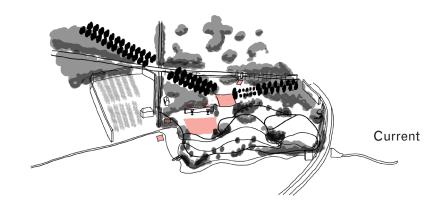


# After WW2



1821-1945





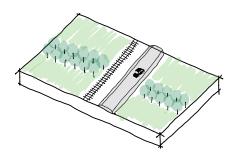
# 5. APPLICATION

What contemporary challenges and demands the site is dealing with

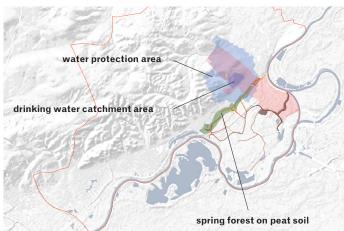
### Challenges

To design future development, it is important to tackle with the challenges the estate is facing with as well as the demands from the general public. Hof te Dieren is a case with many common problems of estates in Gelderland. The estate is fragmented by both railways and highways. With the main building burnt during the World War II, the estate is not possible to make money by historical building. As the main building was designed as the centre, the garden has lost its orientation. The agricultural production in the estate is less profitable after agricultural intensification, especially when it is prohibited to use fertilisers due to the drinking water catchment area in the estate. For the same reason, the shortage of water is made worse.



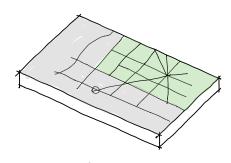


**Spatial fragmentation** 



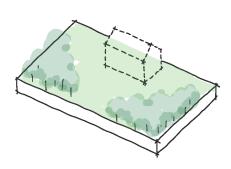


subsidy cover 50-60% restoration food beef



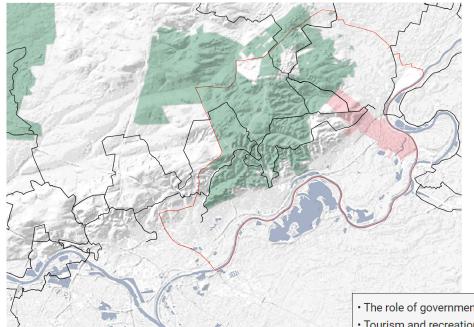
Loss of land and income





Loss of orientation

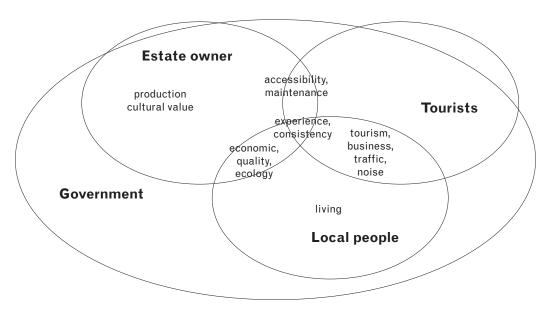
What contemporary challenges and demands the site is dealing with <b>Demands</b>
However, only dealing with the challenges is not enough. In the contemporary context, the importance of the integration of heritage landscape with its environment and the contribution of heritage landscape to cultural identity has been realised. Hence the coordination of the interests of different stakeholders and are significant in designing further development.
In a spatial planning of the municipality of Rheden, I found some notes of the issues frequently mentioned in the communicating meetings among local residents, workers, entrepreneurs and the government. Based on that the interests of different stakeholders can be inferred. Among these it is worth mentioning that they are aware that Rheden has become a tourist attraction and would like to keep that. Some local people expressed their hope to run business associated with that. Combined with the perspectives of 'landscape as vector', the potential effect of Hof te Dieren on the area is worth taken into account.(Gemeente Rheden, 2018)



National park and recreational routes. source:PDOK

- The role of government (361)
- Tourism and recreation (325)
- Experience (254)
- Qualities and values (202)
- · Consistency (123)
- Agriculture (97)
- Economy (80)
- Traffic (78)
- Water (75)
- Land properties (41)
- Living (32)
- Sustainability / climate (29)
- Social themes (26)

Most concerned issues in Rheden collective meeting. source: Omgevingsvisie Buitengebied, Gemeente Rheden



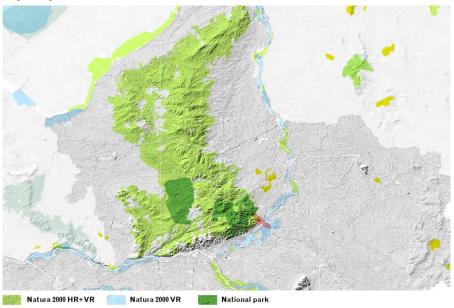
How can heritage landscape contribute to the area

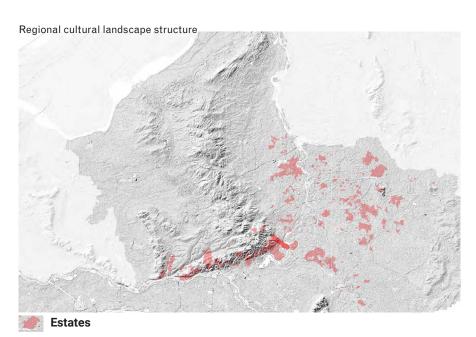
### **Potentials**

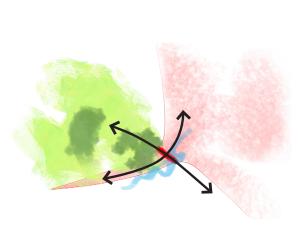
From an area-oriented perspective, Hof te Dieren can be considered as a node that both connects the green & blue structure in north-south direction and connects the cultural landscape structure in east-west direction. Hof te Dieren itself stretches from north on the Veluwe to the floodplain of the IJssel River, indicating the potential to guide people's movement. The fact that the train station Dieren is a transferring station and Dieren South has been specified as Historical Town shows the potential of Hof te Dieren to attract visitors. Local people are aware of this potential and support this. (Gemeente Rheden, 2019)

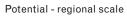


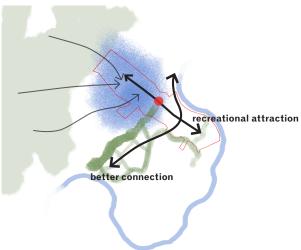
Regional green & blue structure









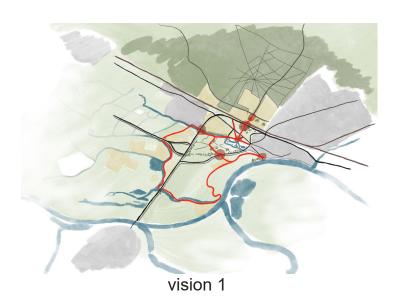


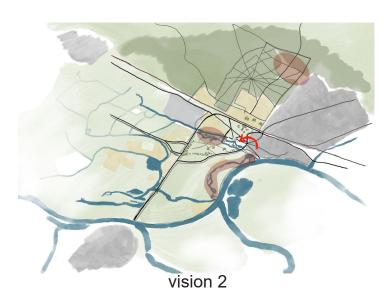
Potential - local scale

# How can the new layer interface the old layers

### **Visions**

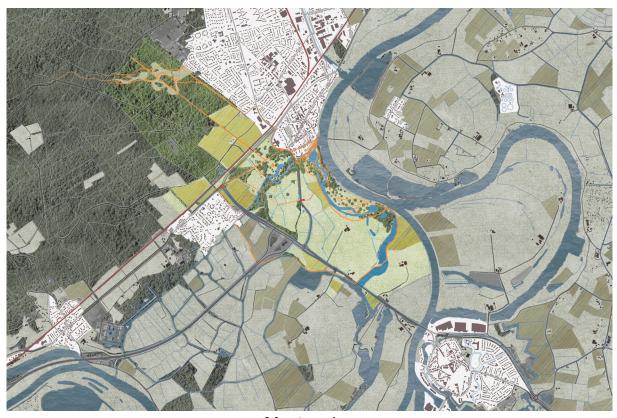
While exploring literatures and cases to learn from, I got inspired by two different opinions on how to deal with heritage landscapes. One is more conservative and cautious, tending to improve the landscape narratives by small interventions such as reorganising routings, while the other one believes more substantive interventions are supposed to be introduced, as long as they bring improvements to the heritage landscape. They provide contrasting but interesting perspectives. Based on these two opinions, I explore two visions: vision 1 is about connecting key nodes where the layering is most visible and revealing the palimpsest layers by displaying; vision 2 is really intervening the surface to create landscape characteristics of their geomorphological type and to deal with more practical challenges.





# Design

Combing the two visions, I develop a master planning for the estate Hof te Dieren. It consists of three zones: the dry valley (I), the garden and spring forest (II) and the floodplain (III). With some openness, the route via dry valley will be brought back as a new entrance to the National Park, and exotic species introduced in history are highlighted. The recovered spring forest brings back the mysterious atmosphere and is accessible by boardwalks. In the garden, plants mark the historical layout of the gone buildings on the surface. In front of dike, introduced wetland and water retention provides extra water supply for the ponds in the garden and offers activated waterfront possible for recreation use. Ideas taken from Vision 1 are: improving the accessibility and continuity with the use of bridges and tunnels and displaying the layering of cultural valuable site with least interference. With inspirations from Vision 2, design principles are concluded from the features of the historical traces and used as tools to uncover historical traces.

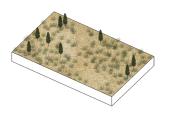


Master plan



before



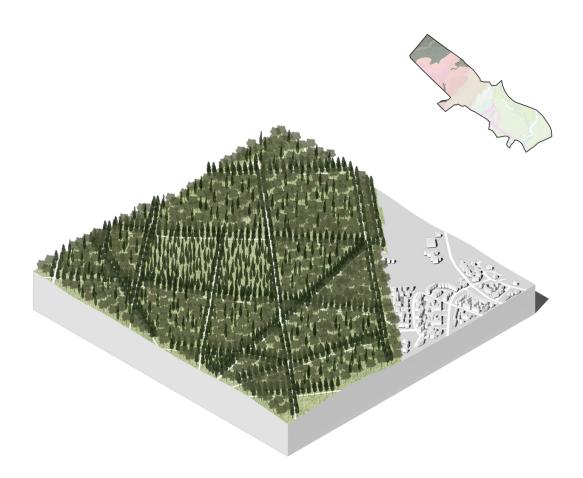




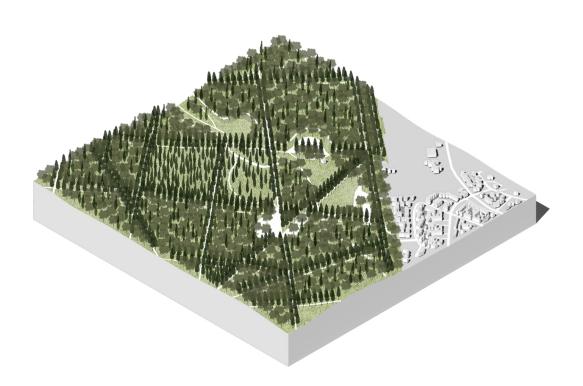
# I. The dry valley in forest

As mentioned above, the production forest covers two different geomorphology types. In history, the dry valley was used as routes that stretches into the heart of Veluwe and it was not covered with trees until the New Plantation took place. Inspired by Vision 2, I decide to bring back some openness to the dry valley, which can be used as entrance to the Veluwezoom National Park from the Dieren town. The route via dry valley is also a local tradition, so the re-introducing can also be a part of Vision 1 - completing the narratives of history.





Current situation

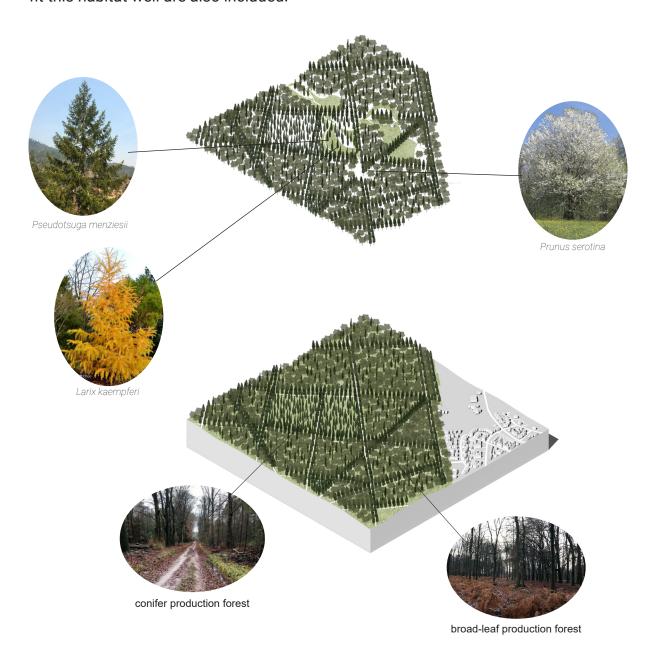


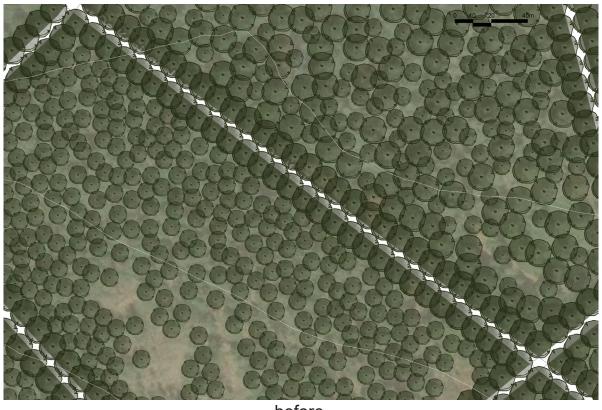
Zone I

# The second secon

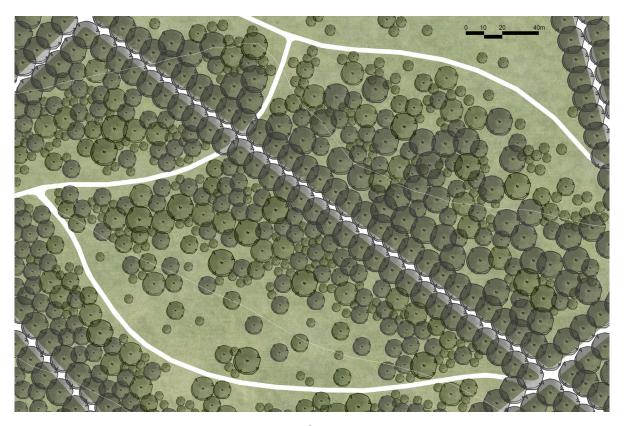
### Site A

Since the forest was cultivated by human, some exotic species can be found in it, but they are not always recognised because they have been naturalised. Using these exotic species as materials resonates with the idea of Vision 1 - displaying history. Some of the trees have admiring seasonal aspects, for example Larix kaempferi turns yellow in fall as a conifer and a full tree of Prunus serotina in spring is delightful. Apart from these species found on site, some other naturalised exotic species that fit this habitat well are also included.

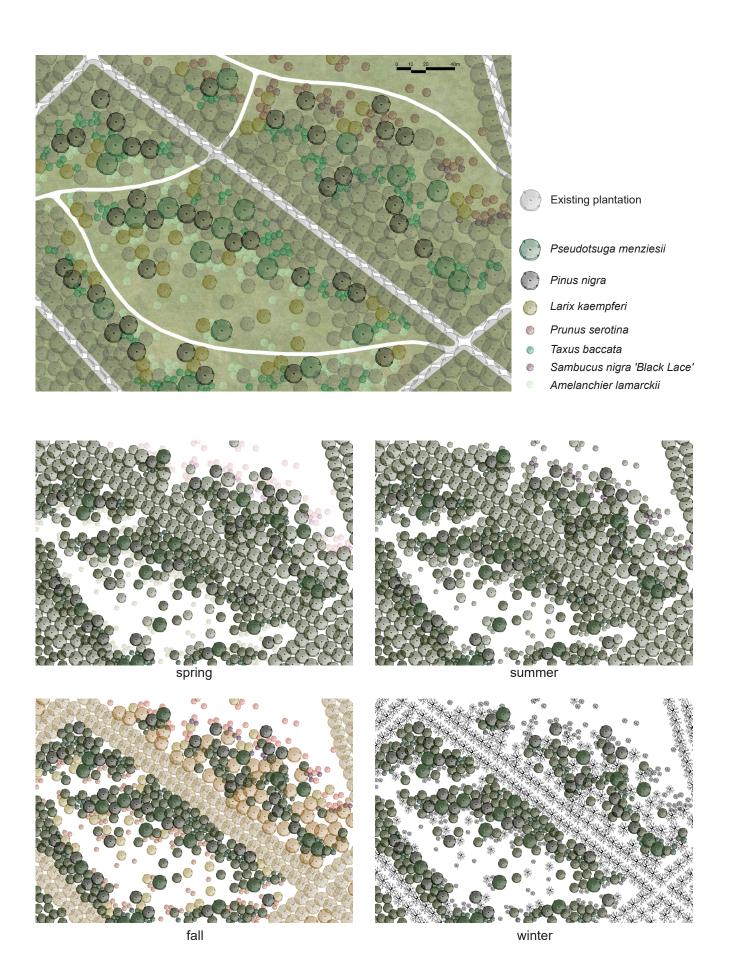




before



after



### Site B

The existing interface of the park and the town Dieren seems not very welcoming - the shrubs are blocking the view and hiding the access. To stimulate interactions with people, the entrance will open up towards the town, and a parking lot will be introduced. Calluna vulgaris, the common plant species in heath habitat is planted near the entrance to give visitors a hint that the park is connecting to the Veluwezoom National Park, where heathland can be found. Castanea sativa add some fun of picking chestnut to the autumn. Public spaces with various experiences are created, aiming to contribute to people's life stories and in turn further shape the landscape.







before

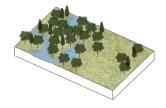


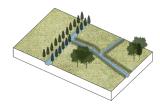
after











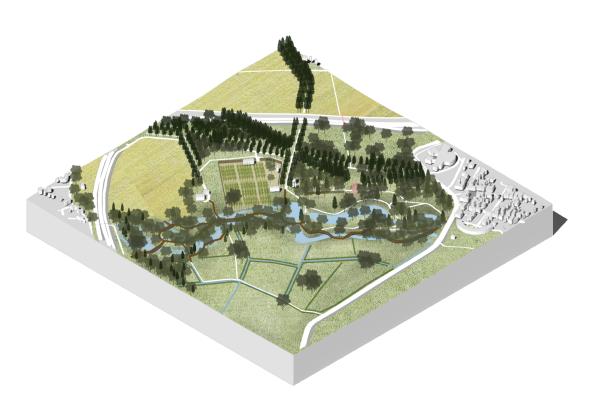
## II. The garden & spring forest

The garden, according to the analyses of historical traces, is the part with most condensed historical traces. Just as palimpsest, the garden, especially the location of former building, was erased and overwritten with different layers of information, which is inspiring for people. For this reason I chose to mark the surface with plants following the layout of building according to the archeological excavation result. Apart from that, the lost spring forest will be restored, allowing people to walk in it.





Current situation



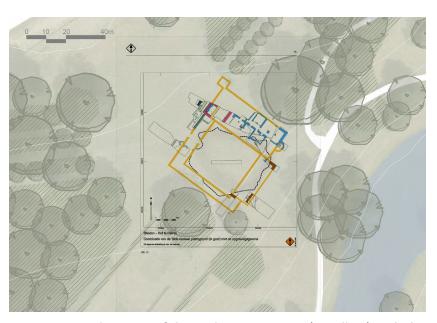
Zone II

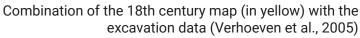


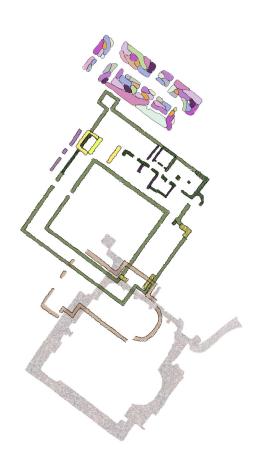
### Site C

The site where the buildings used to be situated corresponds to the idea of landscape as palimpsest very well. After the hunting lodge burnt, at the same location the country house of the noble owner was constructed, which was also destoryed. According to a preliminary excavation of a small part of the site, a series of remains of walls are found. They are categorised into different times based on the size of bricks(Verhoeven et al., 2005). Based on this result, I try to reveal the historical layer of the gone buildings with least harm to the remains unexcavated under the surface, with the use of plants. Both actual excavation findings and assumed outline of the royal times are included. Shrubs and hedges are used to build the 'walls' of the building, while perennials fill up the 'rooms'. The possible outline I inferred from historical photos is marked with Miscanthus, indicating the layer of the noble times. The rest part is covered with gravels as 'corridors'. The main season of flowering is set as summer.









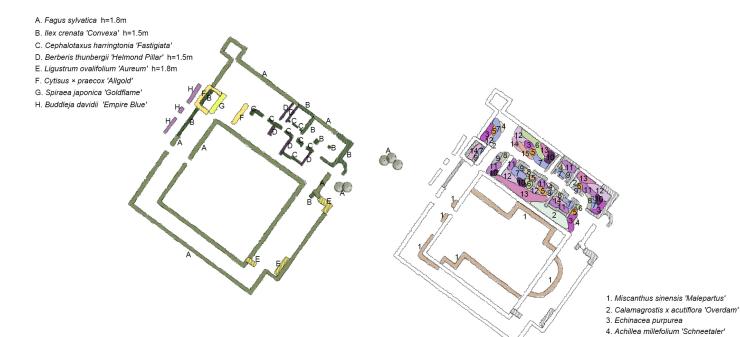
Rudbeckia fulgida

8. Salvia argentea
9. Penstemon 'Sour Grapes'
10. Agastache 'Black Adder'
11. Salvia nemorosa 'Amethyst'
12. Phlox paniculata 'Lavendelwolke'

13. Lythrum salicaria

Stipa capillata
 Scabiosa columbaria 'Butterfly Blue'

Salvia microphylla 'Pink Beauty'
 Hemerocallis 'Pink Charm'





before



after



### Site D

Next to the garden there used to be a wetland forest habitat nourished by groundwater, which has been transformed into meadow with ditches. This kind of habitat is rare and valuable -whether for landscape or for ecology- in the Netherlands, so it would be good if the same habitat can be brought back to site. However, designing biotope is complicated and might neglect important species, so the better way to do so is setting conditions and letting nature take over. At early stages, planting some shrubs like *Prunus padus* and *Ribes rubrum* can attract birds to bring seeds of other species. The key to this habitat is sufficient water amount (van der Veen et al.,2007), so a water retention area is introduced to riverfront area to supply the garden of Hof te Dieren, so that the alkaline water flows through the planned wetland forest can be retained there.





before



2 years later



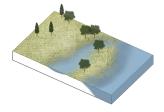


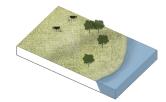
Prunus padus

Ribes rubrum



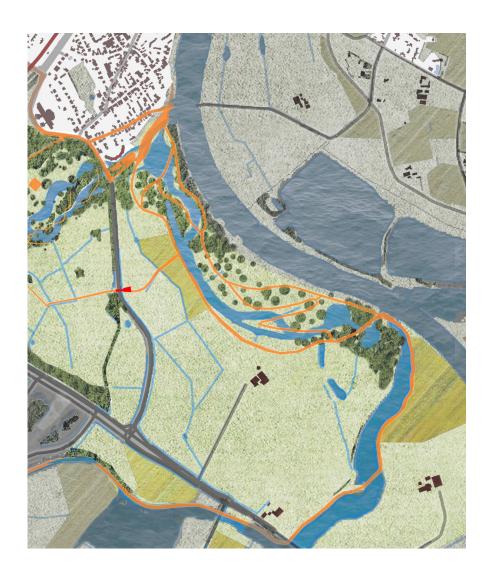
10 years (paths and boardwalks added)

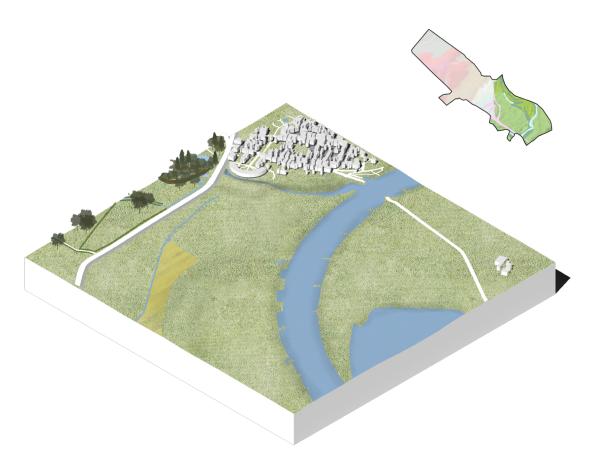




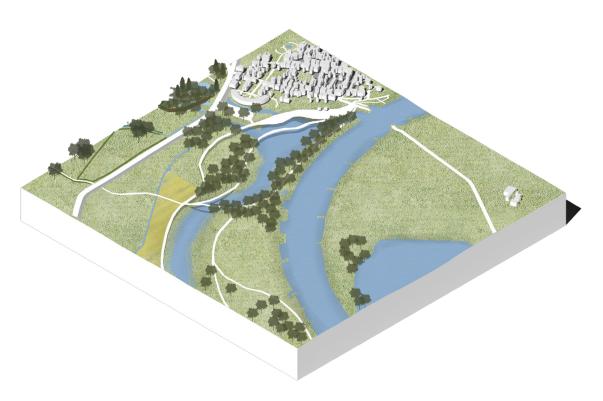
### III. The waterfront

This zone is with most substantive design interventions on the surface. As mentioned, wetland and water retention area are intended to deal with water shortage problem by supplying extra water. Apart from that, the meadow next to the historical Dieren is to be transformed into a waterfront recreational area, so that both the owner of Hof te Dieren and local people could make money from commercial activities. In addition, this area contributes to the connection between Hof te Dieren and the historical town Dieren and the historical ferry port dating back to Willam II, improving the landscape narratives.





Current situation



Zone III

### Site E

The waterfront area can be ideal place to have some recreational activities that has financial benefits. As public space it can be easily accessible from the port on foot or from the road on dike by car. A parking lot is placed next to the dike to avoid inteference on traffics inside the town. Some temporary constructions can be situated on the platform to carry out commercial activities. Tree species used here are mainly those prefer wet habitat such as *Polulus* and *Salix*. Some ornamental trees are also used here.



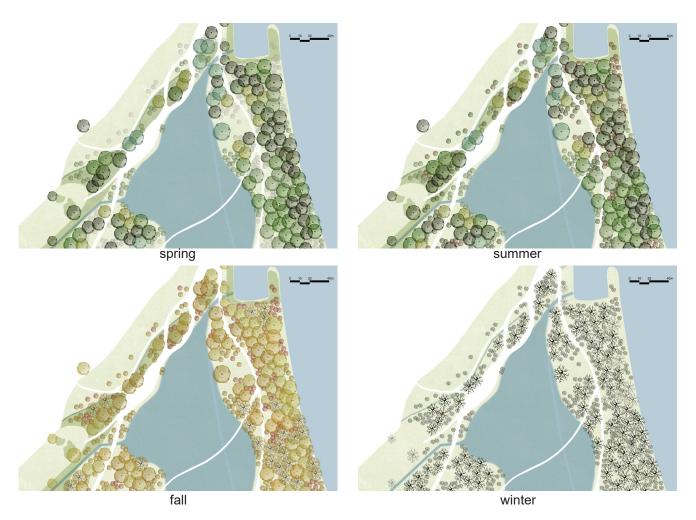


before



after

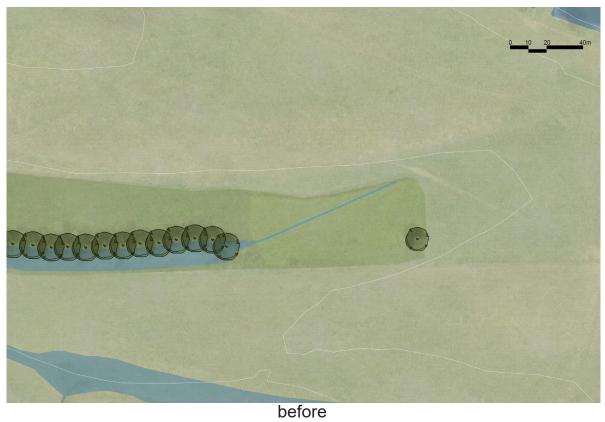


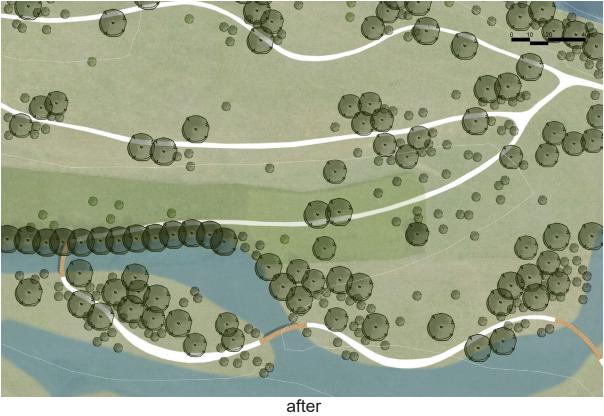


#### Site F

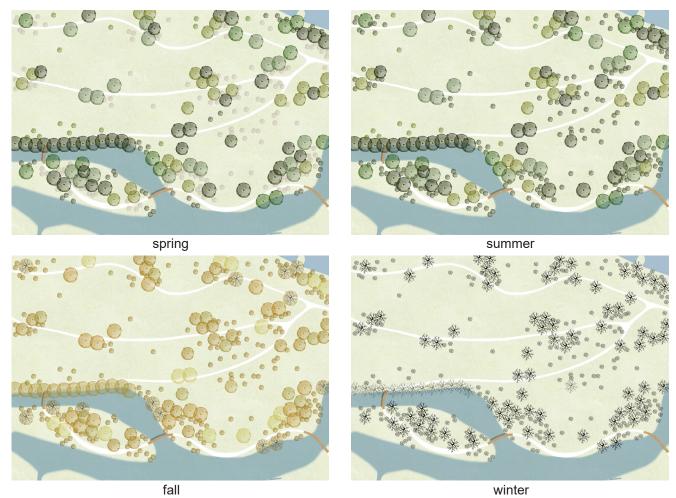
In front of dike, introduced wetland and water retention provides extra water supply for the ponds in the garden. The water intaken from the river goes through a shallow and wide river branch, where it can be purified by hygrophilous plants like *Phragmites australis* and *Typha latifolia*, and then be retained near the town. When needed, the water can be pumbed to the garden of Hof te Dieren, to ensure enough water in the planned wetland forest on the west of the garden. The river branch is also accessible via boardwalks and meandering footpaths. The atmosphere of this area is open, with dispersed trees and shrubs. *Prunus spinosa* offers beaufiful bloom in spring and provides food for birds.



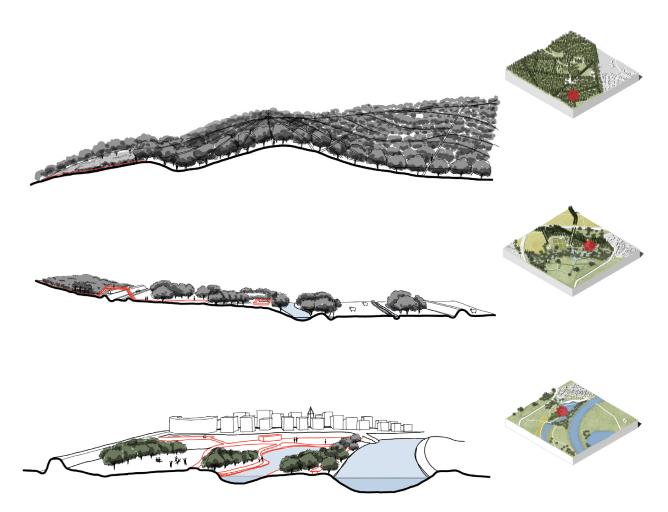


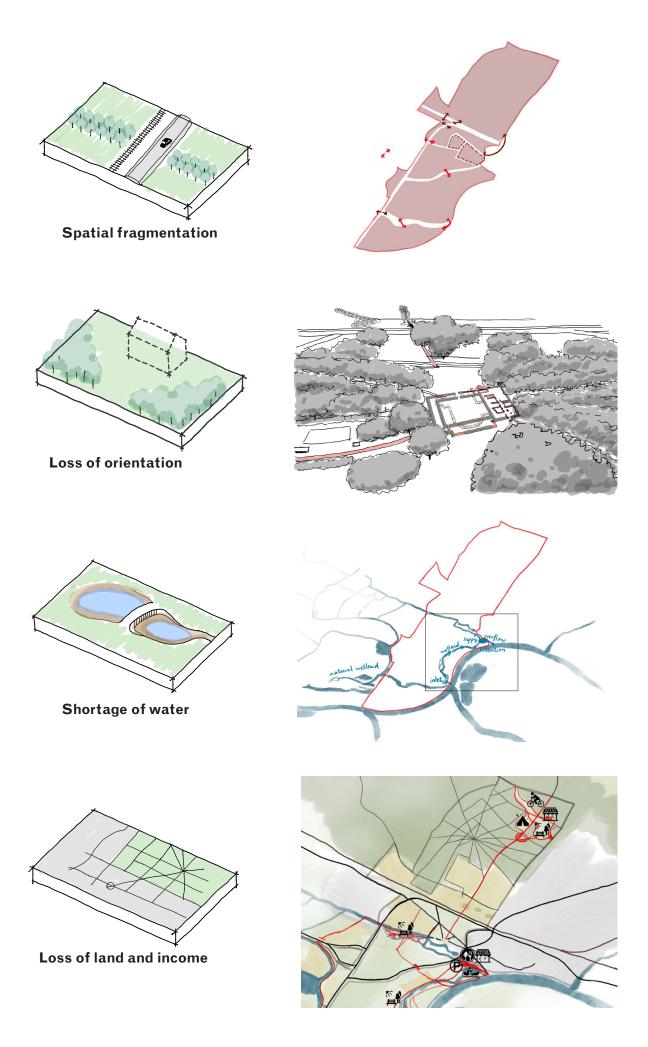


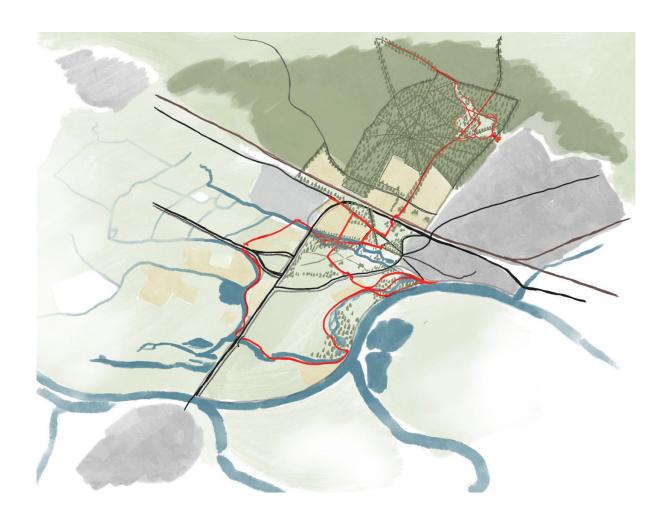




In general, aiming to uncover the historical traces in the landscape to offer better knowledge of the past, the design is a combination of 'displaying the history layer with least intervention' and 'intervening the surface to perform historical values'. The impressive path system in the production forest is kept and interwoven with the introduced openness to dry valley. A road cuts through the farm land to invite visiters to feel the human-cultivated height difference, also to recover part of the lost goose road structure in royal times. For the middle part, bridges and tunnels are made to reconnect the fragments. The architectural effect of the disappeared historical buildings is displayed by plants, which make up the loss of orientation of the garden. The land in front of Doesburgsedijk is transformed into a lively waterfront with wetland and water retention area that provides the pond in the garden with extra water supply when necessary. The waterfront area can be ideal place to have some recreational activities that has financial benefits. The design gives response to the contemporary challenges, while strengthening cultural-historical value.







# 6. REFLECTION

Reflection on the topic of the Flowscapes studio and to the lab

According to the Graduation Guide 2019-2020, the landscape architecture graduation studio 'Flowscapes' seeks for a better understanding of the dynamic between landscape processes and typo-morphological aspects. With the use of design research and research-by-design approaches, the studio explores designs with a multi-layered understanding of the landscape: its spatial structure or visual landscape, history, context, or relational system and involve the underlying of the ecological, economic and social processes.

Focusing on Gelderland's landscape system of castles and historic country estates, the lab 'Garden of Gelderland' explores future-proof landscape architecture principles for sensitive water management, landscape coherence, ecological development, recreation and energy transition at multiple scale levels via research-through-design.

The perspectives towards heritage landscape and approaches adopted in this graduation project resonates with the ideas of landscape from the 'Flowscapes' studio and the 'Garden of Gelderland' lab described above. The graduation project on Hof te Dieren as a case, understands heritage landscape as a dynamic system that bridges the past and the future. The present landscape is regarded as an outcome shaped by various processes, including both natural and cultural ones. By on-desk analyses and fieldwork, the analysis of what kinds of processes have taken part in the shaping and how they are associated with the current situation is carried, as a part of design research. The designing of the site, taking account of the contemporary demand from people, adopts the approach of palimpsest to add a new layer to the land with regard of the heritage resilience from socio-cultural, socio-economic and ecological aspects. The design explorations serve as research-by-design and the project on Hof te Dieren could be considered as a case for design practice of palimpsest approach.

### A description of the societal relevance

Heritage landscape is of great cultural value to the society. As a record of historical and ongoing processes, it contains physical traces of history and carries history and collective memories, and thus contributes to place attachment and identity of local people. However, many of the estates are not fully accessible to the public because they are still owned as private properties or run by foundations that aim to keep them 'authentic'. This situation raises questions: Should heritage (landscape) be designed targeting at the owners or the public? How to balance the interest of different stakeholders? How can the heritage (landscape) fit in the contemporary context while keeping its existing qualities?

The site Hof te Dieren is of special importance in telling the story of the region or even the country. The constructing and destroying of Hof te Dieren relates to a number of significant historical events in Dutch history, such as the World War II. The estate can be read by people as a living history book about how this region or country develops into the current situation. In addition, Hof te Dieren has experienced and is experiencing the change in the relationship between the heritage landscape and people. Through time it developed from production land with church to estate of the elite, and then to a park partially accessible to the public. Correspondingly the connection between general local people and Hof te Dieren, transformed from close to loose, and then back to close. In that case, with regard of the idea of 'landscape as social construct' and 'landscape as infrastructure', I tend to consider creating spaces and experiences for local people as key impetus for intervention.

A discussion of possibilities to generalise the results of the research

From my perspective as a Chinese landscape student, there are two possible ways to generalise the results of the research.

As I mentioned in the Fascination section, the land where city is built upon is often regarded as 'blank sheet'. However, the landscape should have certain physical historical traces and/or intangible values like stories and traditions attached to it. Currently, instead of carefully investigating on the cultural values in landscape before implementing, designers tend to represent and symbolise the history of the area in his/her own way. Of course this is one way of designing, and most of the time an efficient way, but as long as the new design is implemented, the valuable historical traces are wiped out. With this consideration, the palimpsest approach can be introduced to the analysing of the site, to evaluate what is valuable and should be integrated into the design.

As for the landscape that has already been widely recognised as cultural heritage, the palimpsest approach can be applied to carefully add a new layer to it. Either protecting heritage landscape as a monument or commercialise it as a tourist attraction can lead to a broken link between landscape and local people, resulting in the loss of cultural value and the decrease in the life quality and in the identity of local people. If the local daily use and activities can be involved in the design and the interest of developing recreational tourism and preserving cultural value can be balanced, the heritage landscape will remain resilient and lively.

Difficulties to visit the site, digital mentoring and other issues related to the Corona-crisis

The year of 2020 is a special year, for people all over the world encounter the threat from a newly discovered virus, which causes tremendous influences to our life and work. As for me, this situation has led to a distraction and interruption of my working on graduation project. Staying in the Netherlands, I has noticed and kept watching on the outbreak of virus in China by the end of January, and was worried about the health of my families and friends. I have to admit that taking all kinds of information flooding from media and social media has had a long-lasting effect on me, making it difficult for me to concentrate. By the end of February, the Corona Virus started to spread in the Netherlands, so I have been taking self-isolation since then. The isolating, though helps with the physical health and cutting the contagion, is not good for the mental health. I encountered issues of anxiety and stress. Other than that, I planned to visit the site for a third time to gain a better understanding of the space and to take some photos, but I have to cancel the trip due to the virus. Luckily I still have the previous two trips to the site to base on. The closing of our faculty building and library at TU Delft leads to the online teaching, which is not as efficient as face-to-face communicating but is the best option in this situation. Here I would like to thank my mentors for their patience, comfort and encouragement.

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