Main Project II

Remstal – The Valley of the River

Enhancing Linear Landscapes Along Major Traffic Routes in the Urban Region of Stuttgart

INTERNATIONAL MASTER OF LANDSCAPE ARCHITECTURE

Main Project II - Trimester 3 /2011 The Valley of the River Rems

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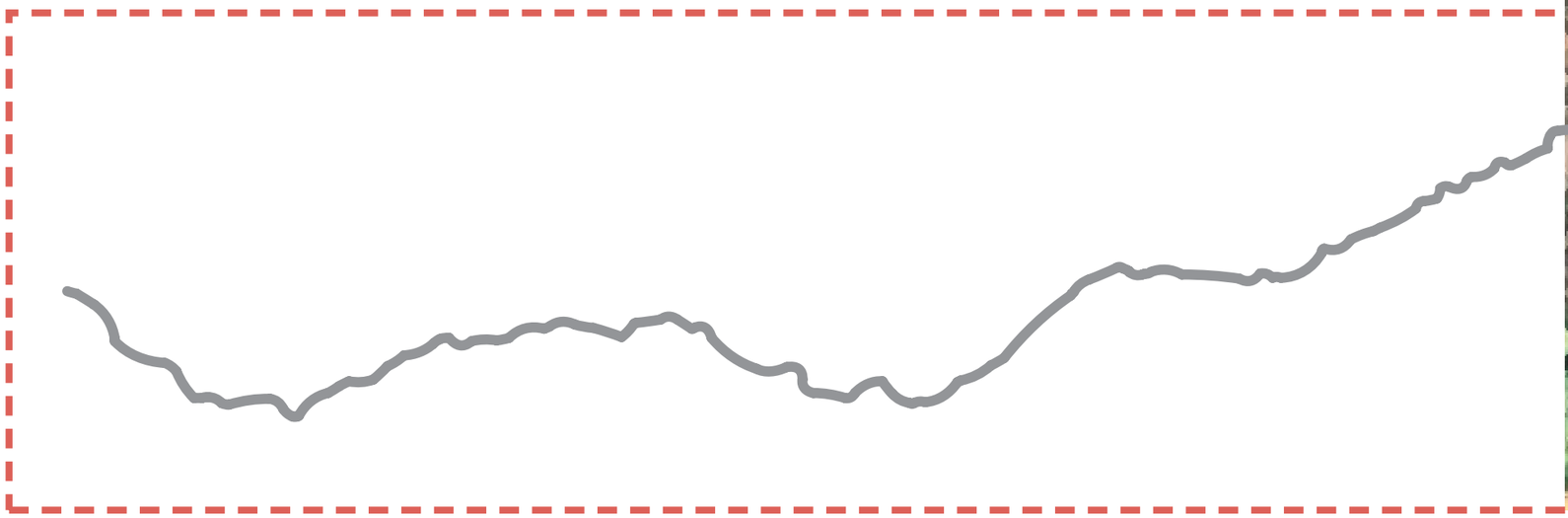

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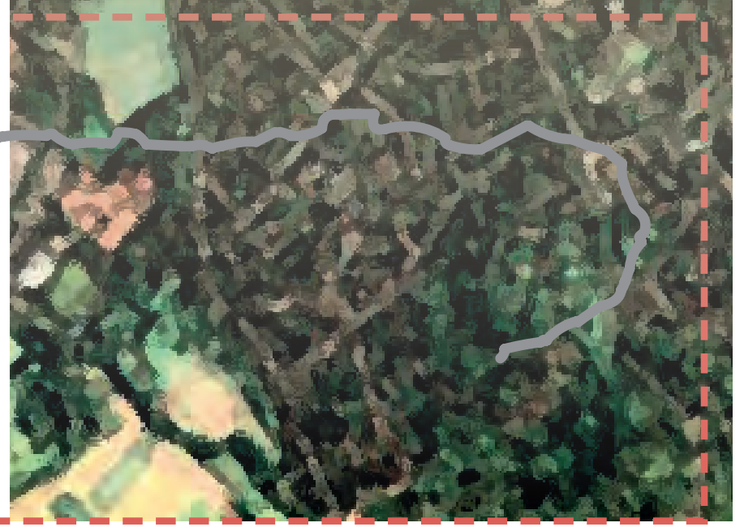


1. International Master in Landscape Architecture

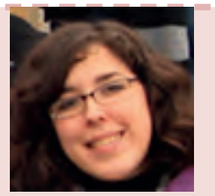
Nürtingen 2011

The 2011 IMLA study group started on March. The group composed of ten different nationalities worked intensively on the theory and project modules until the end of November. A year full of challenges, where the students worked together on interdisciplinary groups and European locations.

In their projects they were able to try out different planning instruments and management skills, bringing together methodological analysis and creative approaches. Plan and design on spaces for which traditional solutions do not exist. All to acquire solid methodological skills that and develop a personal style. In addition they benefit from the know-how and experience of the lecturers, and got to be in close touch with the latest developments in research and practice. The final results were satisfactory and fulfilled all the program requirements and expectations.

Beate Scharbach

Diana Santa Cruz



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2. Remstal – Project Outline
Introduction to the task

Supervision + Organisation:

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Prof. Sigurd Henne, Prof. Dr. Christian Küpfer
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Verband Region Stuttgart:
Thomas Kiwitt (Technical Director)
Silvia Weidenbacher (Scientific Officer Landscape Planning Unit)

Project Objectives and Approach

The IMLA project aims to reflect upon the role of landscape architecture in the context of communicating landscapes to the general public. Landscape communication strategies are an emerging field for the profession demanding for a broad set of skills and interdisciplinary cooperation. The Remstal case-study served as an experimental ground for exploring this future-oriented field and its potential for creating added value for the region. At present the Remstal valley can be considered as a potential recreation area for the urban region of Stuttgart. However, its landscape and cultural values are not yet fully exploited and appreciated.

Expected Outputs

Output 1: Landscape Awareness and Landscape Character Assessment

The first step was to identify and describe those elements that are defining the landscape character of the Rems valley. Specific attention was paid on the different ways of perceiving this landscape depending on the respective means of transport (train, car, bicycle or hiking). In addition, an individual, subjective perception – the sense of space – was fed into this analysis and became part of this output. On the functional level, the transition of people between train, bicycle paths and points of interest were be evaluated. During this analytical phase, images, video and GIS data were used in an integrated way.

An introduction to landscape character assessment and landscape semiotics were also given during excursions and supervision meetings

Output 2: Communication Concept and Scenarios

The communication concept is addressed to the general public. Its aim is to inform about the specific character of the Remstal valley as a whole. In addition, the concept should reflect upon those aspects that are currently preventing visitors and travellers from fully experiencing the valley. Furthermore, future changes in the landscape resulting from renewable energy production, stormwater management or mitigation measures (amongst others you may identify) are to be considered, simulated and evaluated.

This output contains simulations related to the impact of the driving forces and simulations representing an experimental design aiming to improve the perceptibility of the Rems valley.

3. The Valley of the Rems Introduction to the Area and Site Visit

Project Location, Background and Context

The area of study is defined by the river Rems itself. The river rises in the community of Essingen nearby Aalen and flows from East to West until the city of Waiblingen. From here, the flow direction turns to the North where the river Rems finally leads into the river Neckar. Its total length is approximately 72 kilometres and it passes natural, cultural, urban and peri-urban areas.

Waiblingen has been chosen as a starting point for this project because it is the place where the three major structure lines of the Rems valley initially meet: the river itself, the train line "Remsbahn" and the Bundestraße 29. From here, all lines continue more or less in parallel through the valley of the river Rems to the East.

With its role as traffic corridor the Rems valley is indeed affected by common negative environmental impacts such as urban sprawl and noise. However, the traffic lines also play a key role in accessing the area and thus help perceiving its landscape values.

A major milestone in this process has been the announcement of an intercommunal garden fair to be organised by all 15 riparian municipalities - the so-called Landschaftsschau Rems 2019. An important emphasis of the overall process is to raise the awareness and visibility of these landscape values among the general public. Our project aims to elaborate on exactly this theme.

Focus Areas

Sequence A: From Waiblingen to Beutelsbach
This sequence belongs to the closer urban agglomeration of Stuttgart and is characterised by suburban patterns.

Sequence B: From Beutelsbach to Plüderhausen
This area is affected by typical valley situations: high pressure of land uses in the small plain areas of the valley bottom where traffic, commercial areas, agriculture, flood prevention and housing are competing. The valley slopes are characterised by vineyard cultures.

Sequence C: From Plüderhausen to Essingen
The municipality of Plüderhausen marks the entrance to the more rural parts of the Remstal valley where the spatial influences of suburbanisation are less dominant.

Sequence A

Sequence B

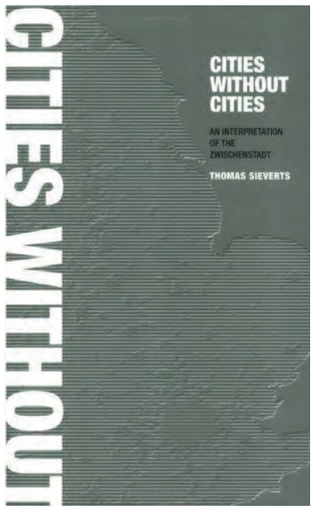
Sequence C

3. The Valley of the Rems Introduction to the Area and Site Visit

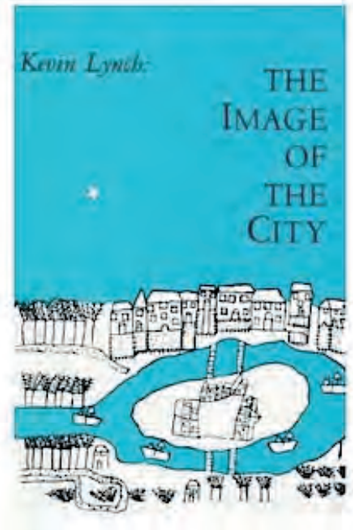
4 Theory input: Landscape Perception

Presentation of Readings

During the supervision meetings some relevant literature in the field of landscape perception were presented by pairs of students. Each pair prepared a specific reading, present the principal contents to the group reflecting upon principal theoretical relations to the project.



Sieverts, Thomas, Cities without Cities: An interpretation of the Zwischenstadt, 2000



Lynch, Kevin, The Image of the City, MIT Press, Cambridge MA 1960

Marc Augé, Non-Places: Introduction to an Anthropology of Supermodernity 1995

Negative Horizon: An Essay in Dromoscopy. London: Continuum, 2005

Further readings and links

European Dimension of Landscape Awareness
The European Landscape Convention, Council of Europe, 2000,
http://www.coe.int/t/dg4/cultureheritage/heritage/landscape/

Landscape Perception and Speed: Virilio, Paul: The Negative Horizon: An Essay in Dromoscopy, Continuum 2005 (English edition)

Girot, Christoph: Movism. Landscape and Scenography, Podcast ETH Zürich 2009:
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Girot, Christoph: Landscape and Scenography, Zürich : Institut für Landschaftsarchitektur, 2005

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Burckhardt, Lucius: Promenadologische Betrachtungen über die Wahrnehmung der Umwelt und die Aufgaben unserer Generation, 1996, in: Warum ist Landschaft schön? - Die Spaziergangswissenschaft, Markus Ritter / Martin Schmitz (Hrsg.), Berlin 2006.
http://www.luciusburckhardt.org/Texte/Lucius_Burckhardt.html

Lynch, Kevin: The image of the City, MIT 1960

Sieverts, Thomas: Cities without Cities: an interpretation of the Zwischenstadt, Spon Press, 2003

Spaziergangswissenschaft – Strollology
http://www.spaziergangswissenschaft.de

Communication Theory: Saussure, Ferdinand de. Course in General Linguistics. Eds. Charles Bally and Albert Sechehaye. Trans. Roy Harris. La Salle, Illinois: Open Court. 1983 ISBN 0-8126-9023-0

5. Group Projects

Moving Landscape
Analysis of the Visual Perception from the Train Line

Working Sequence: A

Fernando Bujaidar
Diana Santa Cruz
Gabriel Seah

INTRODUCCION

As we were traveling in the area for the field trip we raised up a question: Did you ever notice that the train in this region has no windows?

The common reaction to that question will be : what? There are windows in our trains!

But if you really look at the attitude of the people traveling inside these trains you will realize that they act as if there wouldn't have windows, because they are not looking outside.

… But WHY?

The answer of this question is what we intend to find and solve with this project.

TARGETS OF THE PROJECT

With this project we intend to:

Make people aware of what is BEYOND the train line, because there are things to see in the Rems valley, but are somehow hidden.

Benefit cities involved. When we are able to show people of the train what is really happening in the places they pass by, they might be interested in getting closer or stay in.

Change and enhance the perception of the landscape CHARACTER of the Rems valley from the train line, because when there is something to identify , it's easier to get a character.

STUDY AREA

The focus area of work is the A area, between Waiblingen and Beutelsbach, east to Stuttgart and with a more Urban-industrial character.

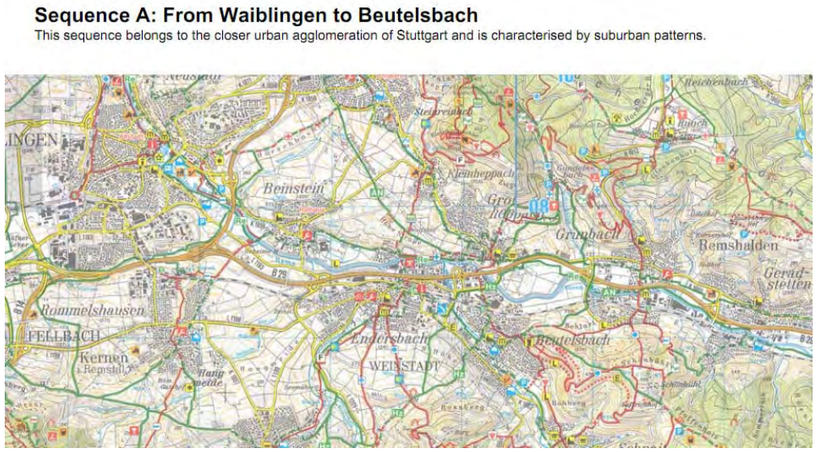


Figure 1. Project Area

METHOD

The CORE of the project is to draft some ideas for the visual enhancement of the people that is traveling inside the train. The idea started when we were traveling around the area.

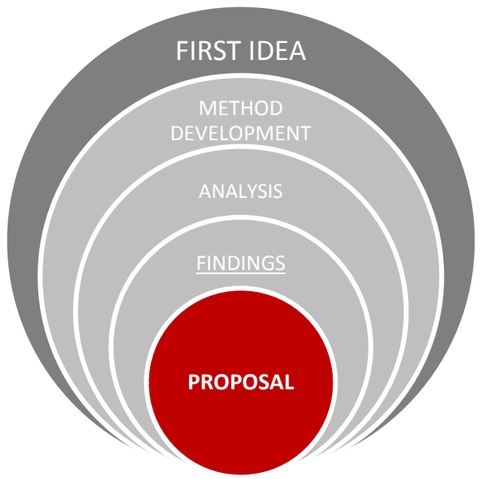


Figure 2. Working process.

After seeing what was happening outside the train we decided to ANALYZE what we see from the train, and with the FINDINGS of the analysis get some ideas to change and make better the actual state throughout a proposal.

The project is structured as it follows:

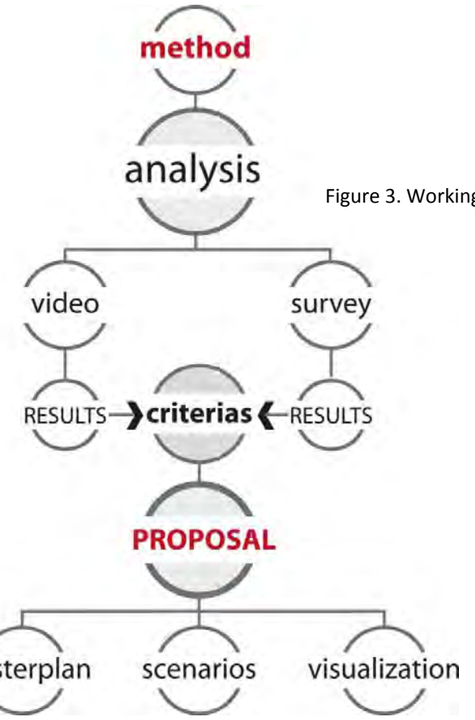


Figure 3. Working process.

First a draft method is figured, to have an idea on how and what to analyze.

Then we proceed into the analysis in two parts, the first part is based on our perception as external viewers. The second part of the analysis is from the point of view of the frequent travelers the people that live in the area with a survey.

With the outcome of this two analysis some criteria are outlined for giving value to the landscape and then proceed to make proposals that will be the foundation for a master plan , together with a scenarios and finally the visualization of the implementation of these ideas in a 3d video.

BASE OF THE ANALYSIS

There is beauty in the Rems valley to see, this is depicted very nicely in this landscape painting made by Silvia Lotter.
In this example as in any painting or picture, we can see many different elements, playing different roles in the composition. These elements are arranged in a certain hierarchy. The distances where the elements are placed in the perspective help to identify the importance them: Foreground, Middle ground and Background.
In a painting the main elements are generally found in the middle of the picture, DETAIL elements are found in the Foreground and finally as complement some shapes can be distinguished in the Background.
All paintings can be observed in a frame that gives the limits as we were looking through a window only what the painter want us to see.

Figure 4. Inspirational artwork, Remstal Landscape

Figure 5. Train window.

In the other hand we have the train window.

The window is a frame for a picture of the landscape, one that is constantly moving. The speed factor of the train changes the rules a little when we look at this picture:
Meanwhile in a static picture the foreground shows the details, in the train we don't have time for distinguish anything but colors and changes in rhythms.
The middle ground is easier to understand because the changes are happening in a slower pace so some detail can be perceived.
And finally the background is steadier and helps to get a fix point of reference.
Therefore, we decided to decompose the landscape as it follows in order to have a better understanding of how are the different elements of the Rems valley working when we see them from the train line:

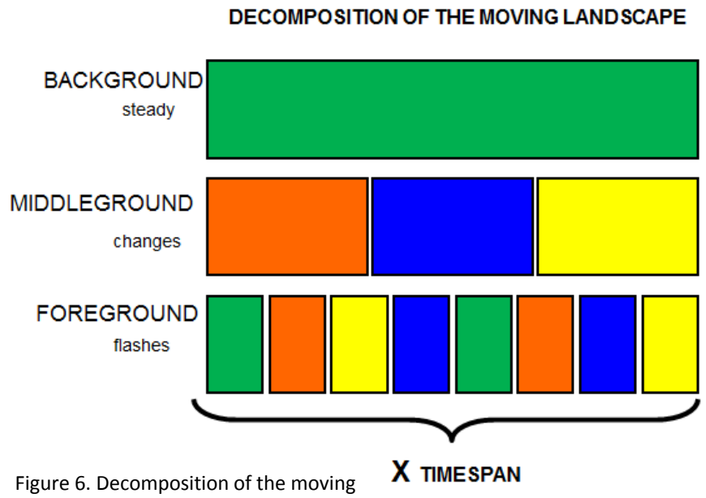


Figure 6. Decomposition of the moving landscape.

ANALYSIS

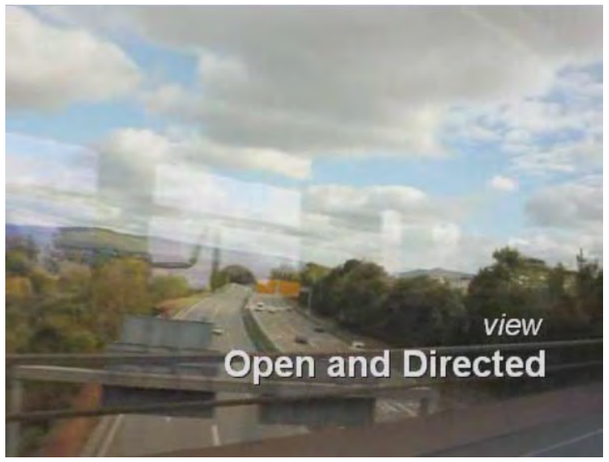
The analysis was divided into two parts, the first one through our point of view as landscape architects and as outsiders, and the second part to the point of view of the frequent travelers through a survey.

PART I: VISUAL ANALYSIS

To be exact about the visual analysis two video footages were taken in the train ride from both side views. After the video was revised and edited with the following results:

1. VIDEO

The video shows how view from the train line to landscape is in the present.
Playing with the speeds of different parts of the trip to emphasizes certain elements and sensations that we want to underline.
Please visit:
http://www.youtube.com/watch?v=7US_8fp6HI4
to have a complete view of the video .
Examples of the video analysis:



In principle, the entire trip was analyzed with the method explained before, observing what features appear in the different plans of the picture, the role they are playing and the visual effect that they have as the train is moving through.

2. IDENTIFICATION OF ELEMENTS; there were some elements in the different grounds that we recognized, many of those very characteristic and possible to find in several parts of the trip.

The next step was categorizing those elements and see how are they working together. For that purpose a reference table was created.

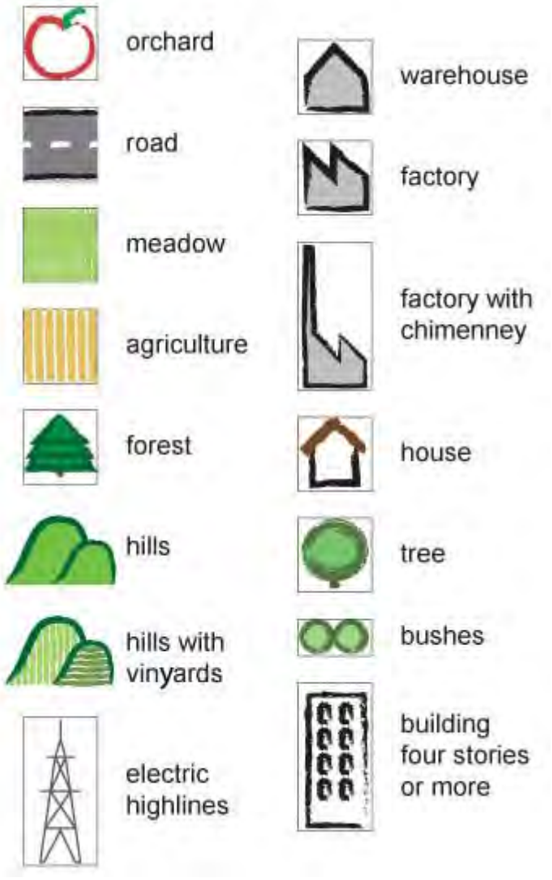


Figure 7.Elements of the landscape.

3. STORYBOARD

To have a view of the whole picture all the elements above were put together in a traveling storyboard that is based on the video footages taken from the train line. Every stripe represents a 5 seconds time span and the three grounds are considered. Whit this is very evident to see where and how much the views are enclosed, what is to see and what patterns and rhythms exist.

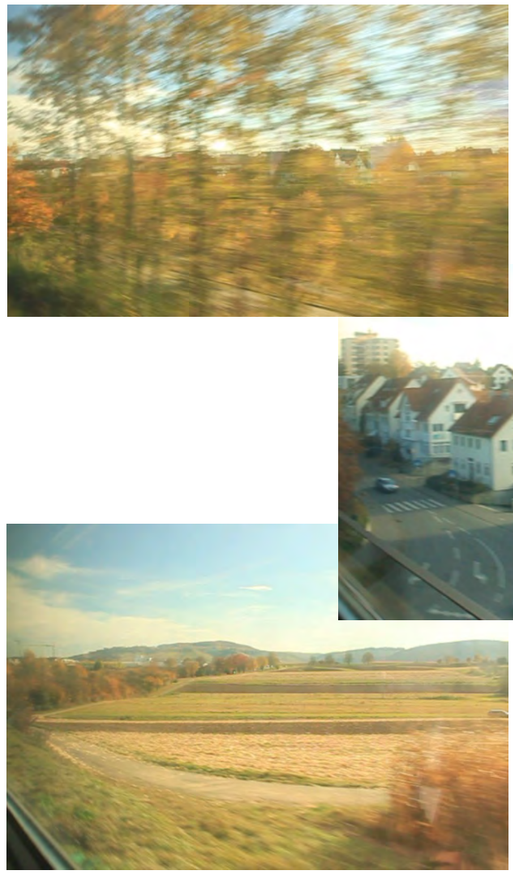
Figure 8.Traveling storyboard.

4. CONCLUSIONS

From all this overview we determined:

* The view is enclosed by vegetation or walls objects located in middle ground are easier to recognize.
* Urban areas followed by an enclosed view and then open agriculture make good contrast.
* Loss of interest to look out the window because of the enclosement.
* Industry with its high chimneys marks a different character.
* Lines perpendicular to the train line help to brake monotony.
* Lines parallel to the train line are boring.
* Opening need time to be perceived.

5. FINDINGS



Hochschule fuer Wirtschaft und Umwelt
Nuertingen-Geislingen
IMLA (International Master of Landscape Architecture)

Survey for Main Project-
Remstal: The Valley of River Rems

Focus: Train Journey from Waiblingen to Beutelsbach 04 Nov 2011

Questionnaire

Teil 1:

1. Wo kommen Sie her, und wo fahren Sie hin?

2. Fahren Sie die Strecke täglich? Wenn nicht, aus welchen Gründen fahren Sie diese Strecke?

3.- Gibt es in der Landschaft zwischen Waiblingen und Beutelsbach Elemente oder Strukturen, die Ihnen besonders auffallen?

4.- Sind ihrer Meinung nach diese Elemente oder Strukturen ästhetisch?

5.- Wüssten Sie wo sich diese Elemente oder Strukturen auf der Karte befinden? Bitte lokalisieren sie diese auf der Karte.

Fig. 9 Part 1 of Survey

SURVEY

In order to further understand the train traveler's perception of the landscape, a survey was conducted to examine what people actually see and remember after their journey. The survey is basically made up of two parts. The first part comprises of questionnaires which will conclude with a mental map of the area from Waiblingen to Beutelsbach (fig.9). The second part is supported by 12 images taken from the train within the region. This will result in the people's preferred landscape (fig.13). A total of 20 people participated in this survey.

The interviews were conducted at the station of Beutelsbach. The purpose of carrying out the survey at the station rather than within the train is to maintain the accuracy of the result. By doing so, people have no clue that they will be approached and thus, they were able to proceed with their normal routine without any interferences before the interview. The perception will be an honest one.

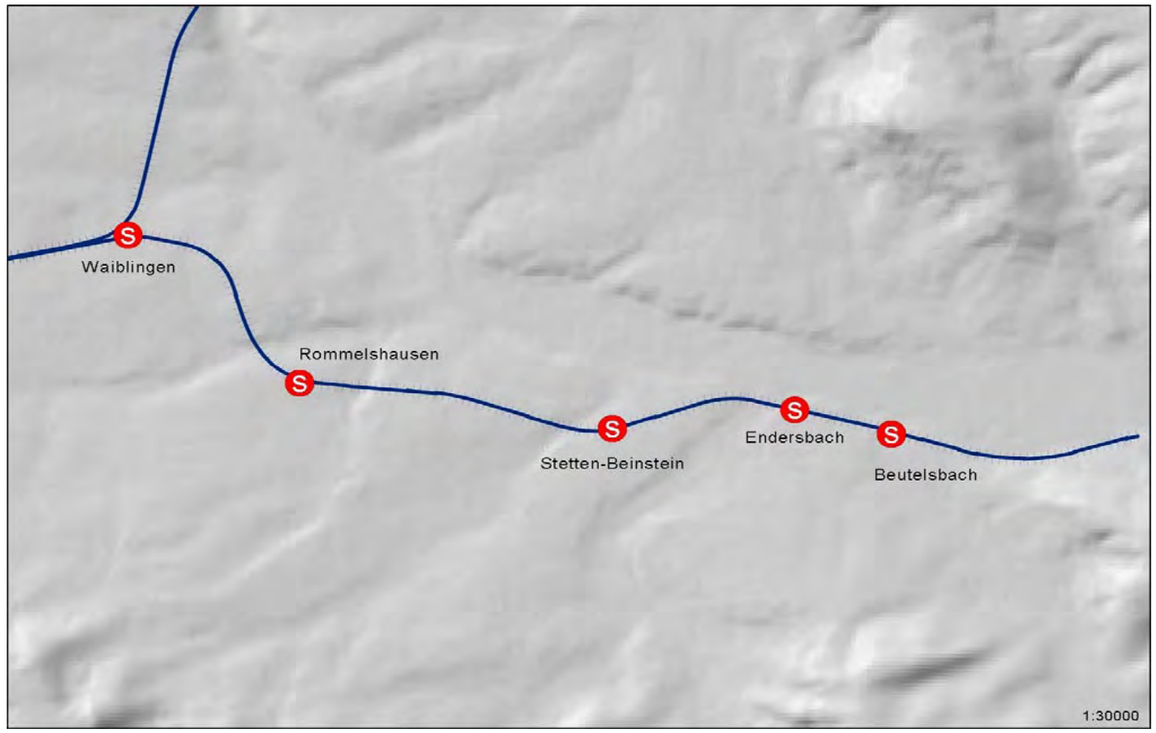


Fig. 10 Empty Map

Part 1

The first part of the survey comprises of 2 opening questions to cover the reason and frequency of travel. It is then followed by extracting the memories of traveler by simply asking what they remembered from the rain ride. Finally, the interviewees were asked to locate the location of the element they have in their memory on an empty map. The map used, consists of the rail line, train stations and light terrain shading (Fig.10). Figure 11 is the result of part 1. The map shown is the image people have from the train journey from Waiblingen to Beutelsbach.

The Findings

The elements that appear in the mind of the people comprise of several kinds, some were obviously aesthetically appealing but some can be considered unsightly. Aware that each element is remembered for a particular reason, a further analysis and evaluation is carried out on the result. The aim is to find out the reasons people remembered certain elements other than aesthetic quality.

The evaluation concluded with 5 explanations;

1.- Proximity to station
2.- Motion of train
3.- Elevation of rail
4.- Memories
5.- Openness

1. Proximity to station

The evaluation reveals that elements that are near to station are easily remembered, regardless of its positive quality. Examples of those are the industrial buildings. People do have a strong impression of these structures although they repeatedly mentioned that they are not visually appealing. These buildings, other than its manufacturing and processing usage have nothing in common in terms of forms and shape. The only similarity they have is their proximity to the station. The only place the train comes to a halt and also the only place offering a longer period of time to picture the surrounding.

2. Motion of Train

The speed of train is crucial. From the findings of 1, it is observed that when a train stops, more images can be digested mentally. This quality fades away with the increase speed of train, image of elements blurred away along with the motion. What remembered are elements that are really prominent, attractive and contrasting. During this stretch of the journey from Rommelshausen to Stetten-Beinstein, where the stations are situated furthest apart is also where the train is travelling at the fastest speed. That explained the reason for the limited elements remembered except for the really prominent vineyards and orchards.

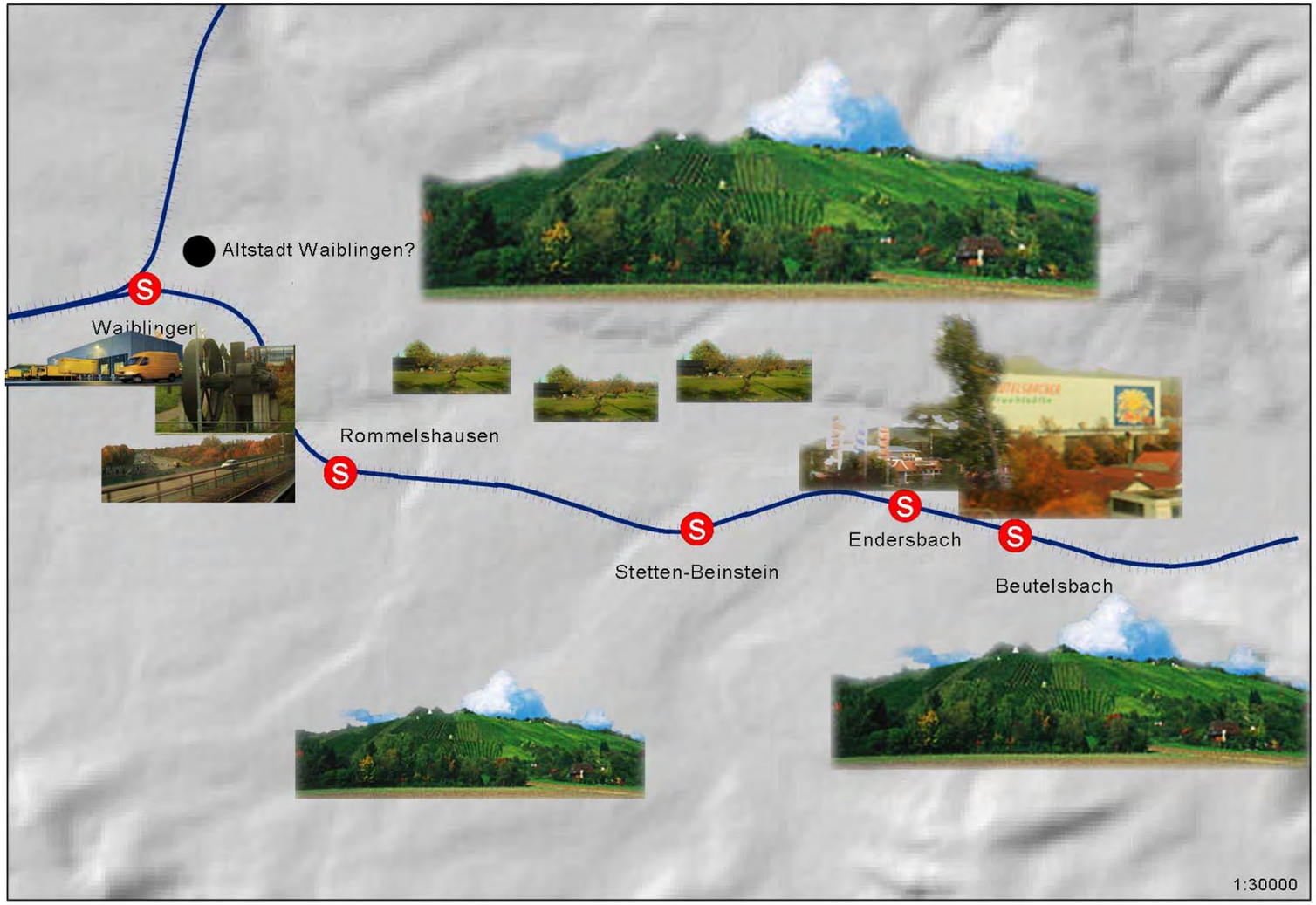


Fig 11. The Waiblingen to Beutelsbach people know

3. Elevation of Rail

Level of terrain in which the train travels also plays a significant role in how people perceive the landscape. In this linear from Waiblingen to Beutelsbach, there are three categories of rail levels, ground, below ground and over ground level (Fig.12). Ground level is where the rail is of the same level to its immediate surroundings. Below ground is when the rail is lower than immediate surrounding ground level and vistas are normally partially or fully blocked. Over ground is when the rail is on a higher terrain or bridge and have a clear overview of the surroundings. Of the three, over ground level track encompassed the best quality to experience the landscape. Similar to the stopping of train, the higher level offers people with better vistas and thus leading to the better remembrance of elements. Elements like the motorways (A) and commercial area (C) are located where the rail is at a higher elevation. Racing through ground and below ground level, remembrance calls for significantly prominent elements like vineyards (B).

4. Memories

Sometimes element need not be something that is of visibility. In this study, 2 people mentioned that they remembered Altstadt Waiblingen. Actually there is nothing unusual to having such prominent element in mind; however no elements from this old city can be seen from the train. What they knew was the great historical story and that it is in the city of Waiblingen. This narration is so intriguing that every time they passed or stopped at the station of Waiblingen, the image of the historical center just came to their mind even though its invisible form.

5. Openness

An unblocked view is the most important to perceiving the landscape. This relates to not only visibility but also a sense of openness. This can be refers to the composition of the elements, arranged in a form that complement each other forming a prefect picturesque landscape which comprises of 3 visible layers, foreground, middle ground and background.

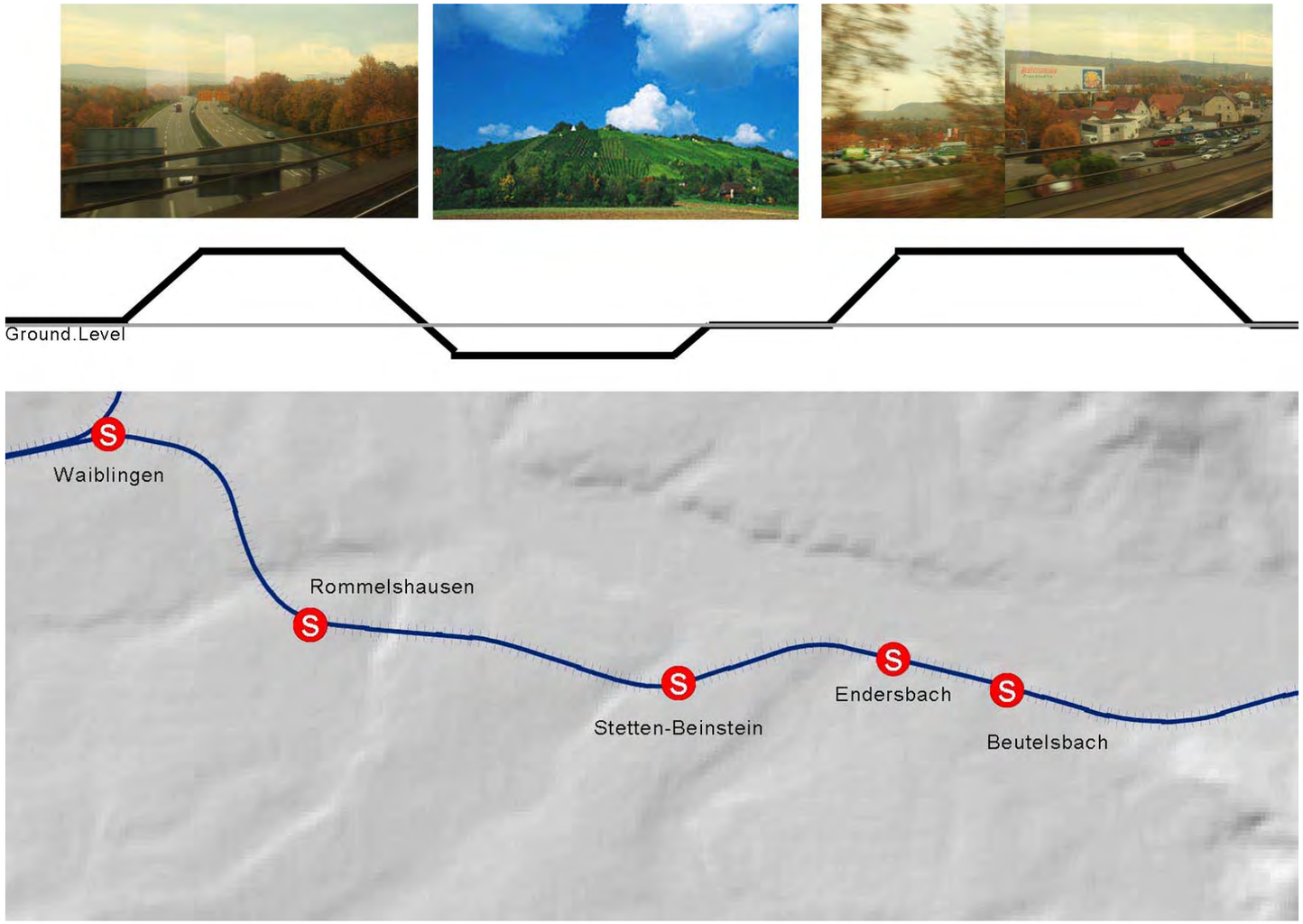


Fig.12 Elevation of Rail

Part 2

In part 2, a total of 12 images taken in between the train journey from Waiblingen to Beutelsbach were shown to the interviewees (Fig.14-16). They were asked to choose the ones which they find most appealing. These pictures comprises of industrial, residential, agricultural, historical and natural elements. The results are shown in (Fig.17).

Teil 2:

Ich gebe Ihnen nun ein Paar Bilder von der Strecke Waiblingen- Beutelsbach.

1. Könnten Sie mir bitte sagen welches Bild Ihnen am besten gefällt?

2. Gibt es außer der Ästhetik noch andere Gründe, weshalb Sie dieses Bild gewählt haben?

3. Möchten Sie während ihrer Zugfahrt mehrere solcher Landschaften sehen?

4. Was würden Sie, neben den Elemente auf den Bildern, noch gerne in der Landschaft sehen?

Fig.13 Part 2 of Survey

Fig. 14 Picture 1-4

Fig. 15 Picture 5-8

Fig.16 Picture 9-12

Top 3 Images

The 3 most popular pictures chosen are number 4, 9 and 1. These images are further analyzed by the foreground, middle ground and background method mentioned in the earlier part of this documentation (Page 3). The pictures were divided into three layers and these layers are then examined individually by comparing and finding their contrasts (Fig.18).

People who took part in the survey	Images number											
	1	2	3	4	5	6	7	8	9	10	11	12
1				X								
2	X		X	X	X				X	X		
3								X	X			
4	X			X					X			
5				X								
6				X								
7	X			X					X	X		
8		X	X		X			X		X		
9	X		X	X		X		X	X			
10	X		X					X	X	X		
11	X			X					X			
12	X		X	X				X	X			
13		X			X					X		
14	X		X					X	X			
15				X	X				X			
16	X			X	X	X		X	X			
17		X		X								
18	X							X	X			
19	X	X		X								
20												
Total No.	11	4	6	13	5	2	0	8	12	5	0	0

Fig. 17 Result in Matrix

Fig.18 Layer analysis of chosen images

The images all have almost similar compositions. All foregrounds are either clear of vegetation or unblocked, leading to possible viewing of the middle ground. The middle layers consist of agricultural land uses. They all encompass a sense of openness and are heavily textured with details or colors. In picture 4 and 1, the arrangement of the crops point toward the back, they are arranged in a way where vistas are directed toward the background elements.

Background of these photos can either by associated with big prominent elements like the vineyards, forested hills or unblocked infinite view.

Finally looking at these pictures as a whole again, they are closely associated to green and are of great contrast to the urban context.

To end the survey a last question aims at knowing what people would like to see in the landscape during their future train journey was asked. The result obtain is undisputed; nature is definitely the first choice of most people (Fig.19). The answer is however open-ended, as nature can be associated to various elements. In order to maintain a more specified outcome, people were also asked to describe the type of nature in mind.

Landscape Type	Mentioned Frequency							
Nature	7		Forest x 3	Meadow x 1	Animal x 2	River x 2	Sun x 1	Oasis x 1
Vineyard	1							
Fruit Orchard	1							
Historical Elements	3		Building x 1					
Modern Elements	1		Sculpture x 1					
Less Built Structures	2		Industrial x 1					
No Change	1							

Fig.19 Wished Elements of People

Conclusion

In reference to the findings of the survey, perception of train ride proved to depend on many circumstances. Some already mentioned and discovered in the survey whole other might require more complex level of examination. However, we are able to obtained valuable findings based on the result of the survey; they are summarized as followed;

1. Views comprise of the 3 layers, foreground, middle ground and background quality should be valued. People like openness. Great vast land without any obstruction is the preferred image of people.

2. Green is appealing to the majority. People like to see more green like plants and vegetation. However, tall and obstructing vegetation should not be in the foreground.

3. The speed of train is crucial. Certain elements are difficult to be perceived on fast speed. Speed of train should always be considered in parallel to prominence of elements.

4. Level is important. As mention in findings of part 1, the elevation of train can determined how much elements people are able to see. The more vistas the higher chances of lasting impression.

5. Elements of negative aesthetic quality. Though industrial buildings are often unsightly, people do remember them. Thus, these elements have significant orientation quality. They can provide directional information.

The question remains that what in reality people perceive as nature? Are agricultural fields and vineyards also being perceived as part of nature (Fig. 20 & 21)? There is a great chance that people do see these elements as nature and this would be an ideal area to research in continuation to this survey.

Are these also nature?

Fig. 20 Agricultural field

Fig.21 Vineyard

RESULT OF THE ANALYSIS

After having performed these analyses, now exists a base to setting the different areas of value in the landscape.

To show this, a Map of visual Values (Fig. 22) has been elaborated using GIS tools.

In the map its shown what are the highest areas of aesthetical value near the train line between Waiblingen and Beutelsbach, as descripted on the method section (Pag. 3), the landscape has also been separated in 3 different grounds, Foreground, Middle ground, and Background.

The Foreground will consist in whatever lies within 35m or less from the train line to either side.

The Middle Ground will be whatever lies between 35 and 400m to both sides of the train line.

Whatever is visible beyond 400m, will be the Background.

Since the project area is quite vast, the Foreground cannot be appreciated in the first map, however, it is shown in a second Value Map in a different scale (Fig. 23), marked with the tones of brown immediate to both sides of the train line.

The colors shown in the maps are, different tones of orange for the different land uses in the Background.

For Middle Ground, the land uses will vary from a range of greens.

And for the Foreground, as mentioned before, there will be different tones of white.

In each case, a darker tone will represent a higher aesthetical value of the land use. (Fig. 24)

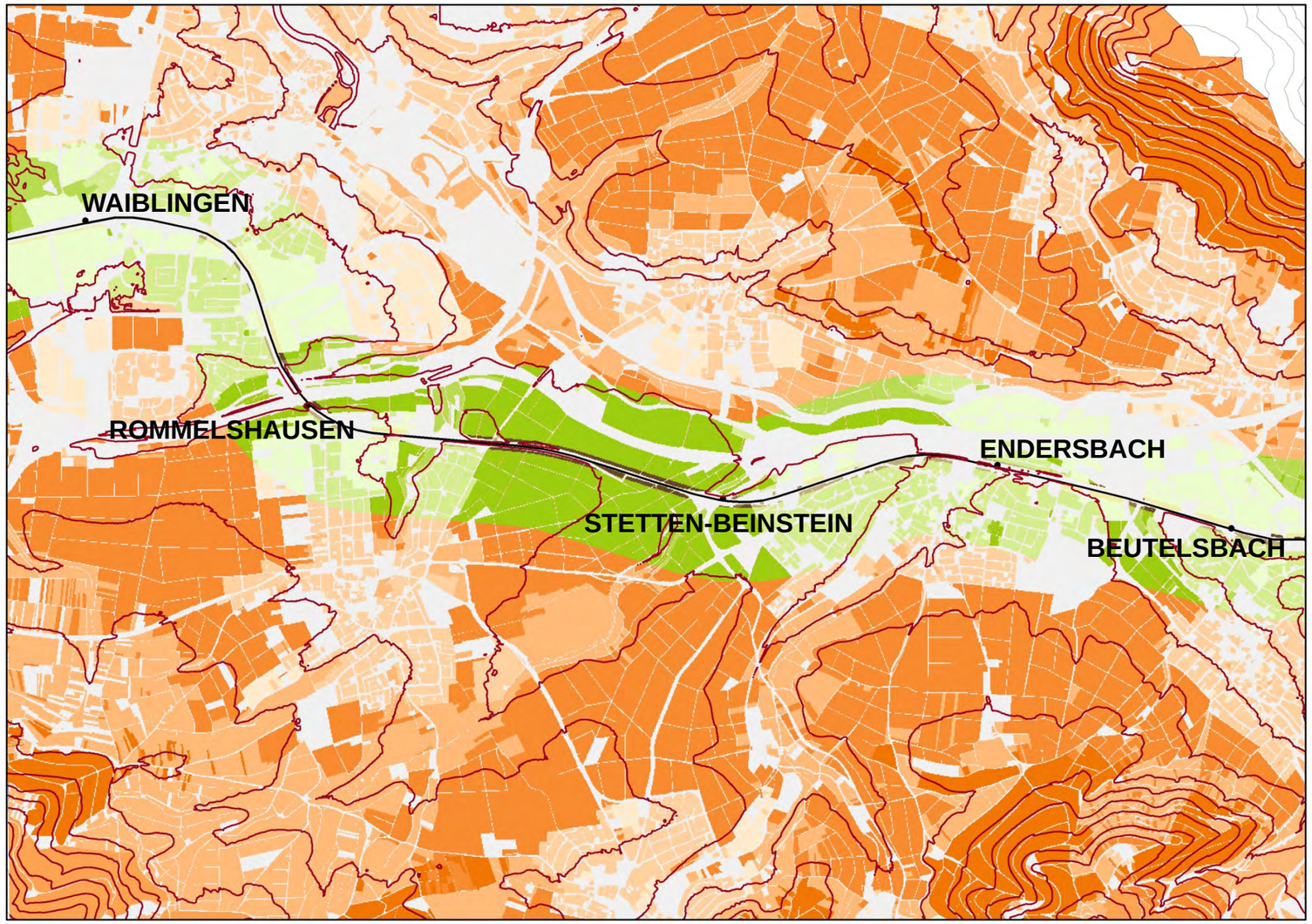


Fig. 22 Map of Visual Values

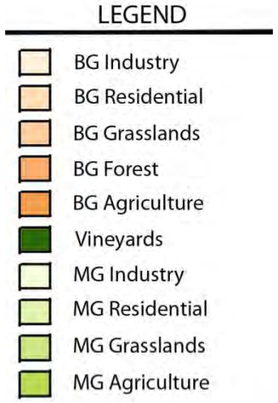


Fig. 24 Map of Visual Values

Fig. 23 Map of Visual Values with Foreground

CRITERIA FOR ENHANCEMENT

Before coming up with the final proposals, its important to have in mind the most important criteria to take into account, which have been found to be the most adequate for this specific project.
Having these criteria into mind will help to simplify the way in which the ideas for the proposals come to life.
The main three are:

LINES PARALLEL
When tree lines are parallel to the railway, they are not only boring to the eye, but obstruct the view from different elements of the landscape.

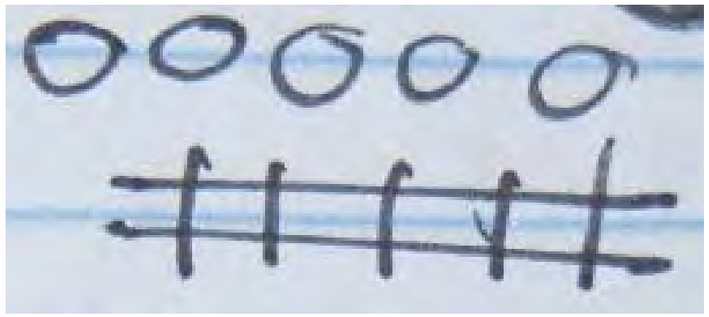


Fig. 25 Parallel lines

LINES PERPENDICULAR OR DIAGONAL
Help to guide the eye towards the most high value elements.

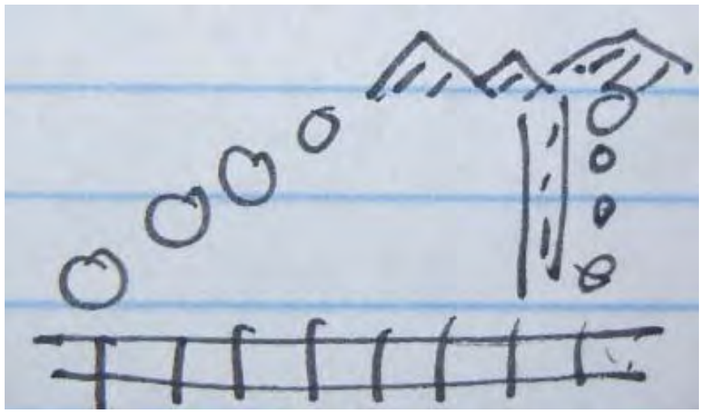


Fig. 26 Perpendicular and diagonal lines

MONUMENTAL ELEMENTS
Also can help to guide the eye towards the most valuable elements, besides of giving the spectator something to remember.

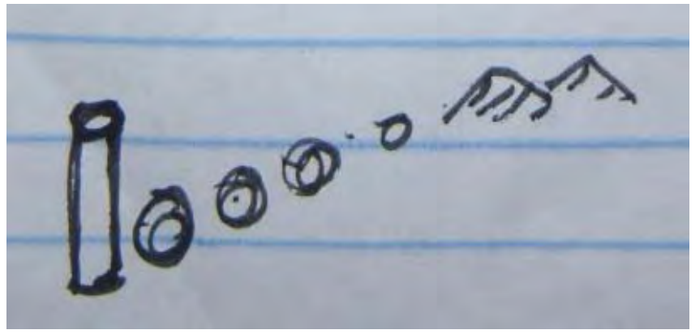


Fig. 27 Monumental elements

Having taken these 3 main criteria into account, we have come up with the following proposals for the improvement of the project area.

PROPOSALS
The proposals will be 3:

1. Creation of a more bio-diverse ecosystem in the slopes next to the train line, where the railway runs below the ground level, since in these areas there is no point in removing the existing tree lines, the proposal would be to plant a more diverse vegetation that helps the enrichment of the ecosystem. This would take place in 2 different areas, one between Waiblingen and Rommelshausen, and the other one between Rommelshausen and Stetten-Beinstein. Both surfaces are located in the Foreground in relation with the train line .

2. The second proposal consists in the clearing of the tree lines on the Foreground mainly in the route between Stetten-Beinstein and Endersbach, and in a more discrete way, between Endersbach and Beutelsbach. The reason for this, is that in this section of the way, there are some elements that would be better kept hidden.
The clearing of these trees will allow the expectator to behold very valuable elements that are now hidden behind.
New trees lines should be planted, in order to replace the ones removed, but this time, they will be pointing the for mentioned high value elements, which in this case are Vineyards and Agricultural fields.

3. Finally, the third proposal is to create some memorable elements along the way, give people something to remember, and also, something that leads the different axis that now run pointing towards the Vineyards.
First of all, the agricultural fields will be now plowed pointing towards the vineyards, and also, the crops will be alternated in order to produce the vision of stripes of different colors guiding people's eyes into the desired direction.
The color play will also extend to some of the industrial building's facades between Endersbach and Beutelsbach , and into a lesser extent, to the electric towers that stand on that same section.

MASTER PLAN

This plan (Fig. 28) was elaborated in order to illustrate graphically where will the proposals take place. The fuchsia stripes represent proposal number 1. The brown form represents the view clearing between ST-BT and EB. The purple form, stands for the intervention between EB and BB. Finally, the multicolored areas, represent the mixed crops and the direction of plowing of the agricultural fields.

Travelling Storyboard 2

After applying the proposals to the project area, the elements that are visible will change, to express this more clearly, a second Travelling Storyboard (Fig. 29) has been created, concerning visibility, the main changes can be seen in the section between Stetten-Beinstein and Endersbach, and also between Endersbach and Beutelsbach.

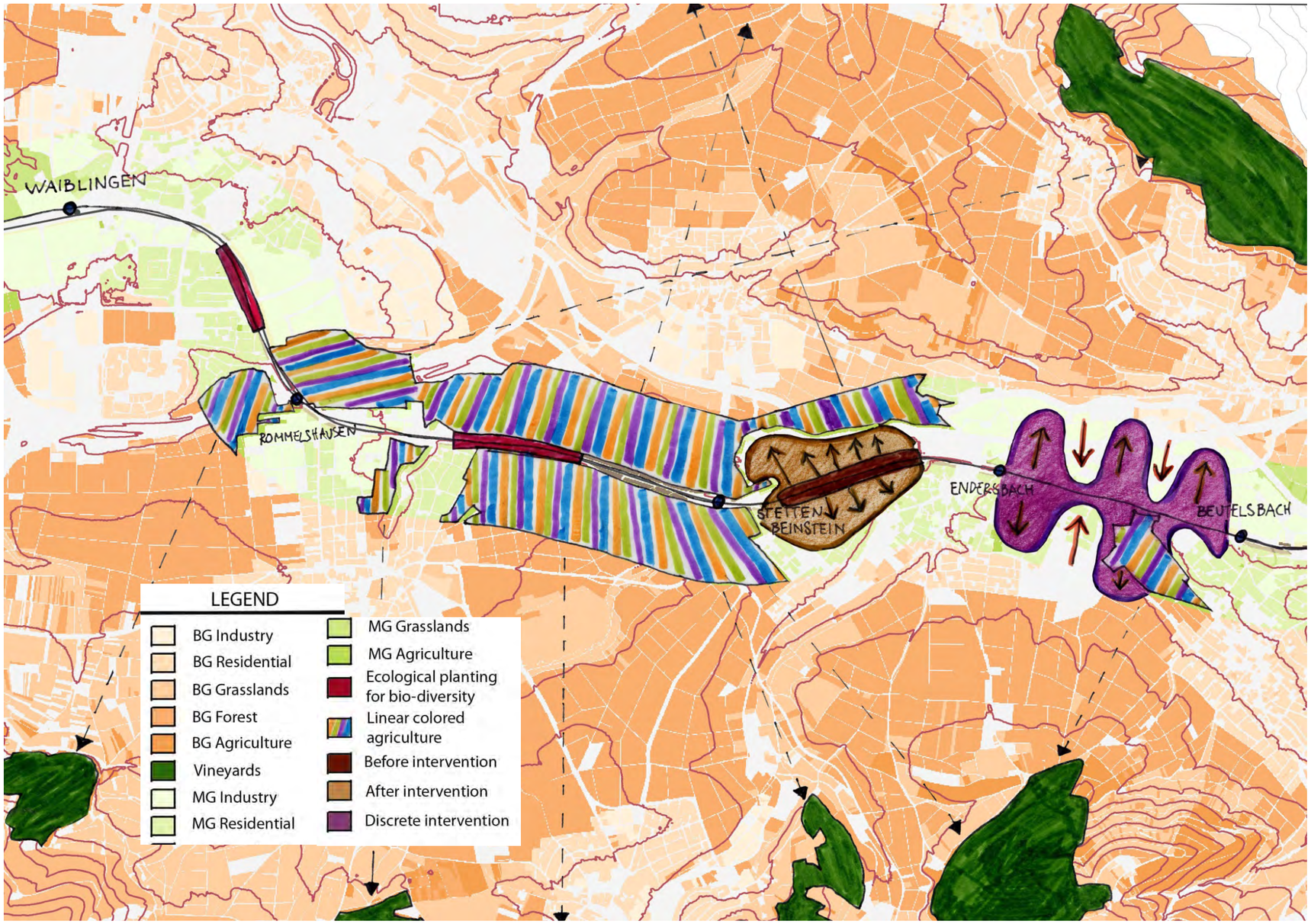


Fig. 28 Master Plan

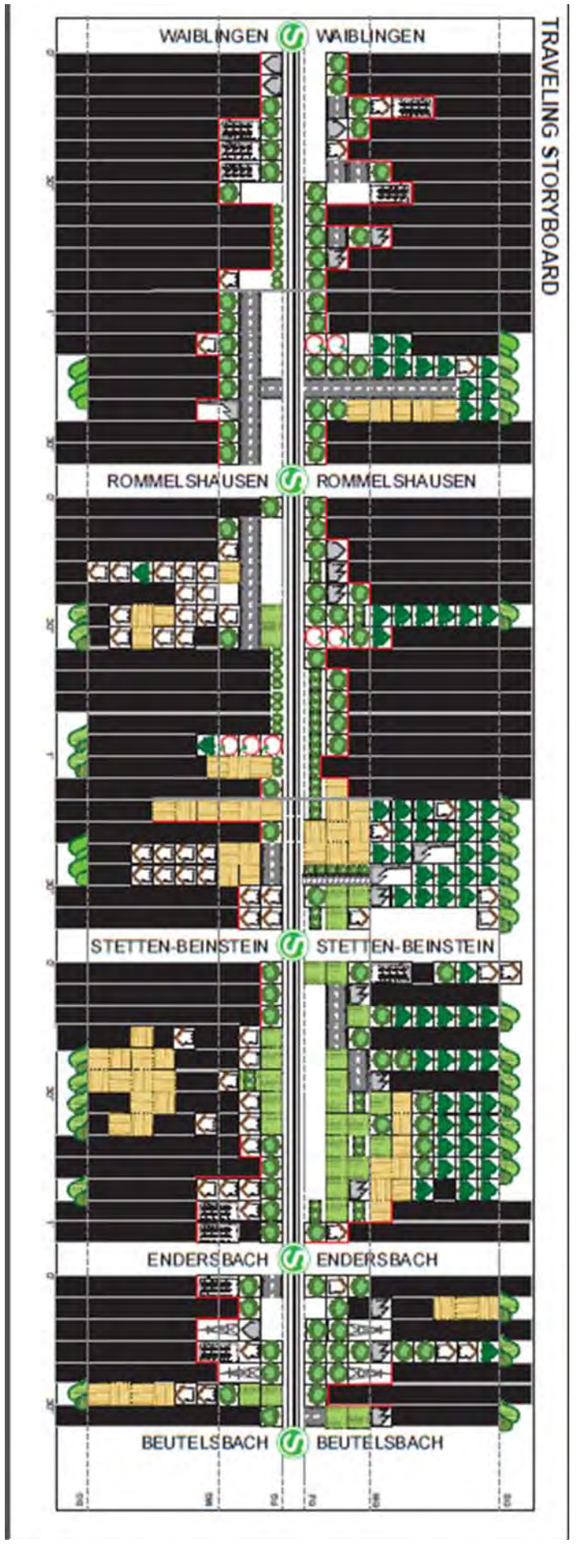


Fig. 29 Travelling Storyboard 2

Detail Area (2D VISUALIZATION)

PERSPECTIVE
In the following images (Fig. 30-35) it is shown how two of the proposals would work together, put into simple words, basically the aim is to clear the view, and then directed using different elements. (Tree lines, directed crops, electric towers, or painted facades of industrial buildings).

Fig. 30 Current Situation

Fig. 33 Vegetation pointing towards vineyards

CONCLUSIONS

At first view, these proposals might seem simple, and the truth is that they are, however, they have a huge amount of analyses to back up on, and there is where their main value resides, finding the best way to improve the landscape perception by just changing a few simple things that perhaps no one had ever noticed before, or at least not consciously.
Making small changes that affect the perception a lot, besides, being so discrete, these projects have a better chance of acceptance among the people and the municipalities.
The main goal was not to change the elements in the landscape drastically, but making people aware of those that are already there.

The next and final part of this document consists in the 3D Visualization information.

Fig. 31 Highlighted Vineyards

Fig. 34 Vegetation pointing towards vineyards and hiding unpleasant elements

Fig. 32 Vegetation interfering with desired effects

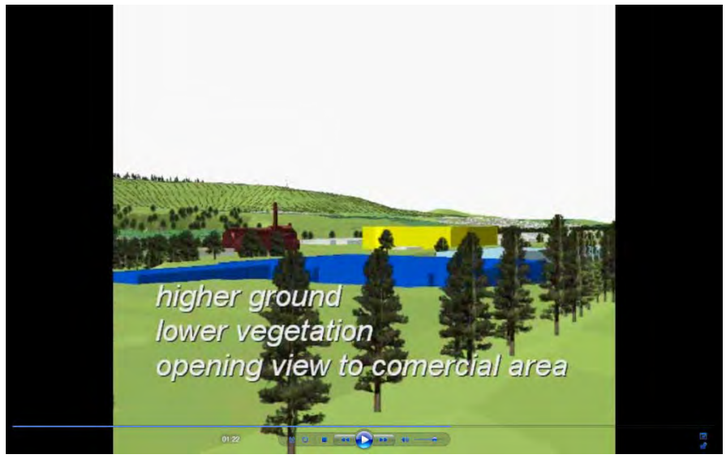
Fig. 34 Mixed crops pointing towards the vineyards

3D Visualization

A 3D animation was in ArcGIS (ArcScene) was created to communicate the design proposal and ideas. The main goal is to involve stakeholders in a participatory method, to allow them to have a visual awareness of the changes and invite them to a feedbacks and comments session.

The visualization shown in the video is a virtual reality of the train journey from Waiblingen to Beutelsbach. The audience will travel through the digital landscape in train. The train route remains but the landscape seen in the digital scene is changed according to the design proposal.

Screenshots



Conclusion

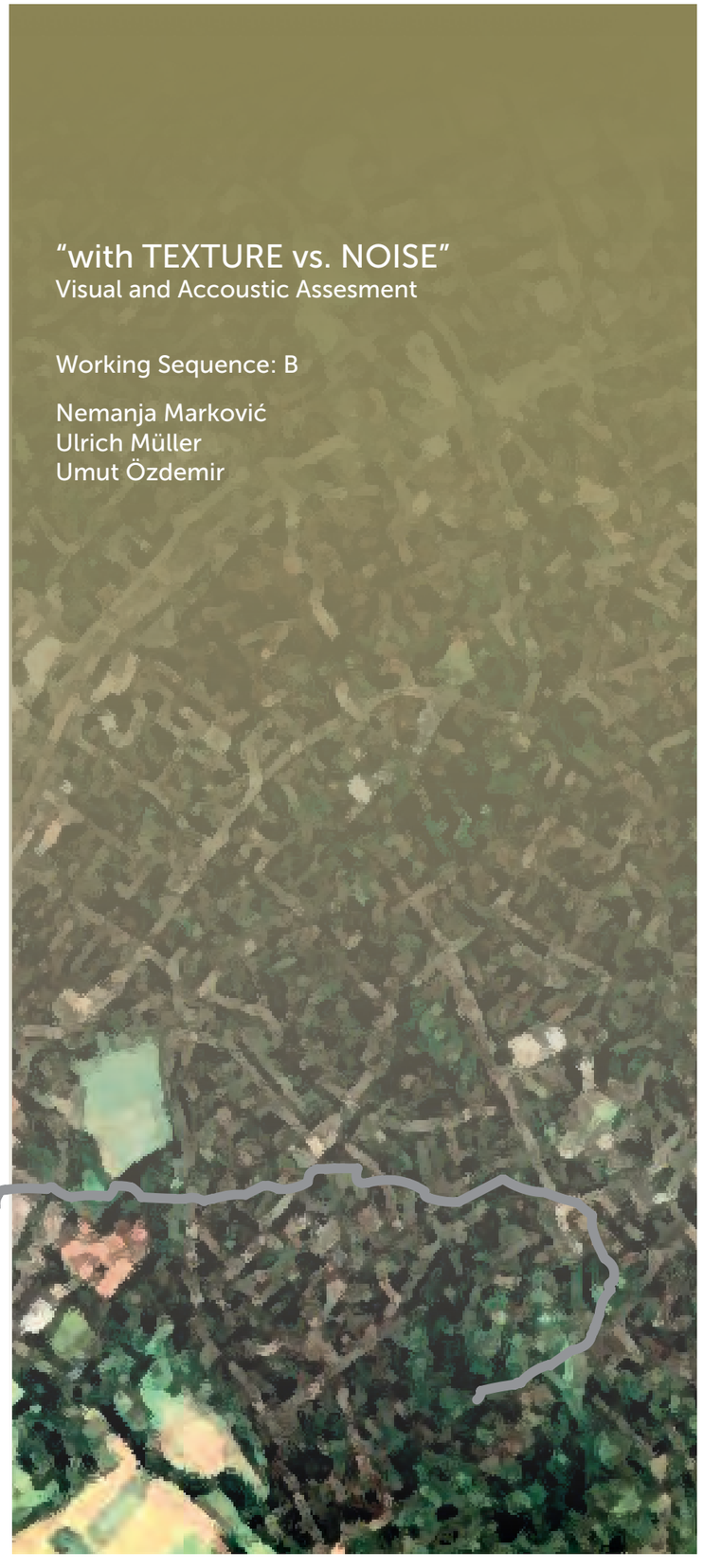
The 3d visualization is an important part to inform people of the changes and allow them to perceive the altered landscape in digital format. However due to the limitation of such visualization method, of the design proposal fell short of its expected quality. The main fallback is the terrain rendering, which have to be presentation in raw TIN graphic. This was a problem of the size of the project which proves to be too huge for normal computer to render in real raster image. Another unconvincing element is the texture of the vegetation. It is rather convincing when they are viewed from a distance but upon close up, they revealed their flat billboard qualities.

Despite the short comings, the 3d visualization was still able to communicate the main idea of the project proposal. The change of strategy in the vision impact is shifted from true life rendering to design form rendering. The elements have to be placed to represent the design as a group or whole and avoid being appreciated for its individual texture and form. This can be seen in the placement of trees as blocking and vistas leading element.

As a tool it is proven to be quite effective as the stakeholders were still able to perceive the differences and experience the landscape according to the implementations.

To watch the complete video, please go to:
http://www.youtube.com/watch?v=yLTb7sWbjCA&feature=youtu.be

5. Group Projects



CONTENTS

ABSTRACT

ANALYSIS - TEXTURE
- SOUND

METHOD / SYSTEM

PROPOSAL

CONCLUSION

ABSTRACT

///IDEA, GOALS, RESEARCH QUESTION

Our goal in this project was to improve landscape scenery in terms of visual and acoustic quality. When I say visual i mainly refer to a landscape texture. Our idea was to play and experiment with these two landscape features, trying to combine them, meagre them and see in which relation do they coexist in landscape. Our research question was to investigate what can we achieve by combaining these two landscape features, and to which extent?

///IMPRESSIONS

After wisting, beautiful orchards and the vineyards in this area we made very beautiful, natural, pastoral-looking photos, but in fact all of the areas we have wisted were heavily influenced with road noise. This was identified as a main problem in the area.

We were focusing on the area around Shoendorf as it turned out to be the most potent area according to out spatial analysis.

///WORK FLOW

Our work started with analysing sound and texture and trying to transferring them into landscape. Using GIS we have managed to map the sound pollution and texture diversity. After mapping these features we came out with the system/method how to combine them and this method helped us to asses the whole area and to chose the most potent one for our focus area. Finally we have visualized the landscape with the animated video and combined it with hand-drawn pictures. The video proposes different interventions in landscape all fallowed with both visual and acoustic scenarios.

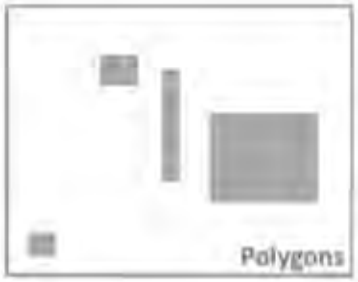
TEXTURE

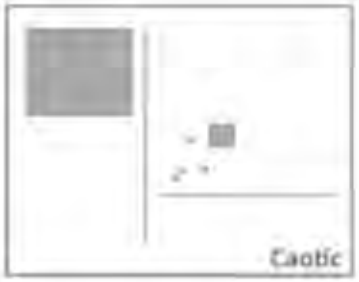
What do we refer when we talk about "texture" in our daily environments?

Texture in landscape is the different elements that make a spatial, virtual and harmonic unity in the environment.
It can be anything at any scale. But what we refer is the natural textures in our daily environments. Here in Remstal Valley for instance, orchards are one sample for traditional elements of the area, which is quite typically seen in a wide range.

1

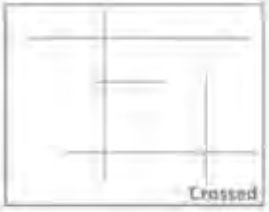
In our Project area which is close to Schondorf, when we are analysing the textures in our landscape,first of all we make a definition for the type of the textures: **Polygone,Line and Points**

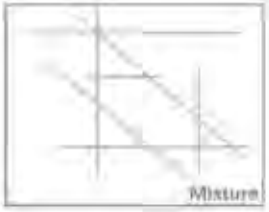




2

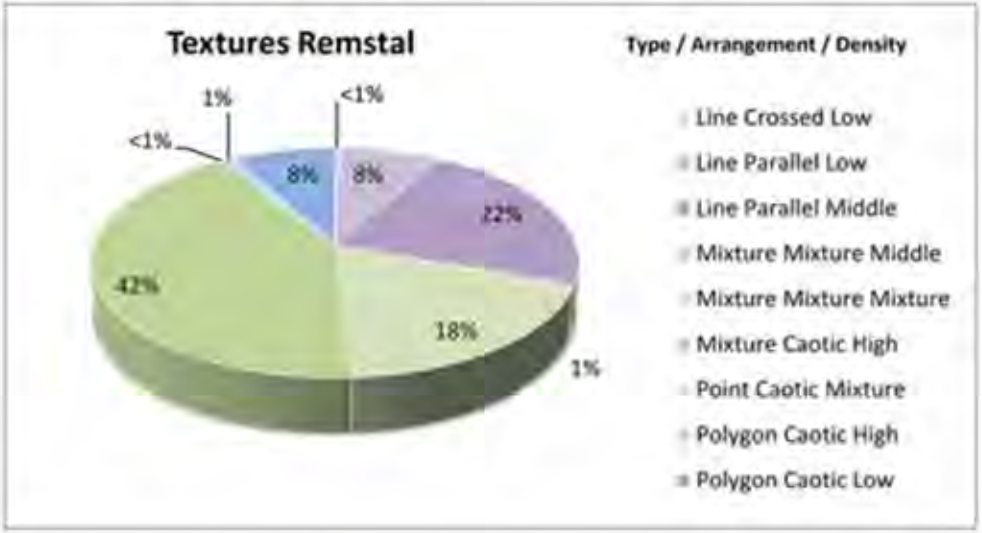
How they are arranged.

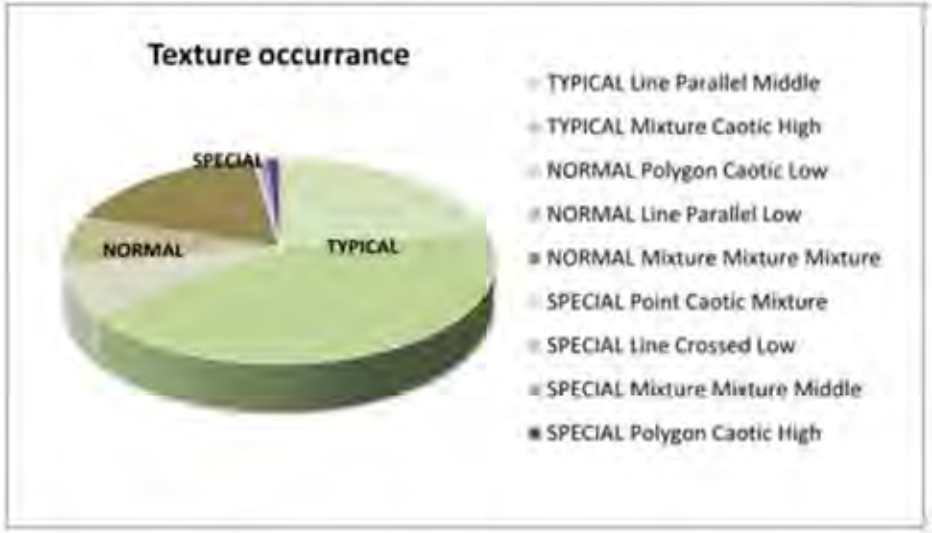




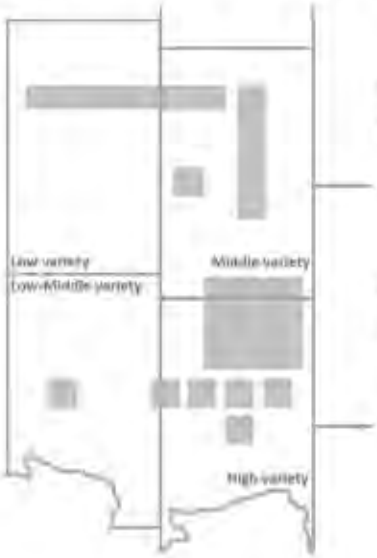
3

How dense they are located.





After making the first analysis about textural variation, we came up with these pie chart. the less theslice size is that uniuqe the texture is in the project area. For instance the biggest slice with % 42 has a micture caotic with high density texture,which is also very common in the project area,



We divided the project area into the equal grids in order to make a comparison at the end in terms of textural variety and their densities.

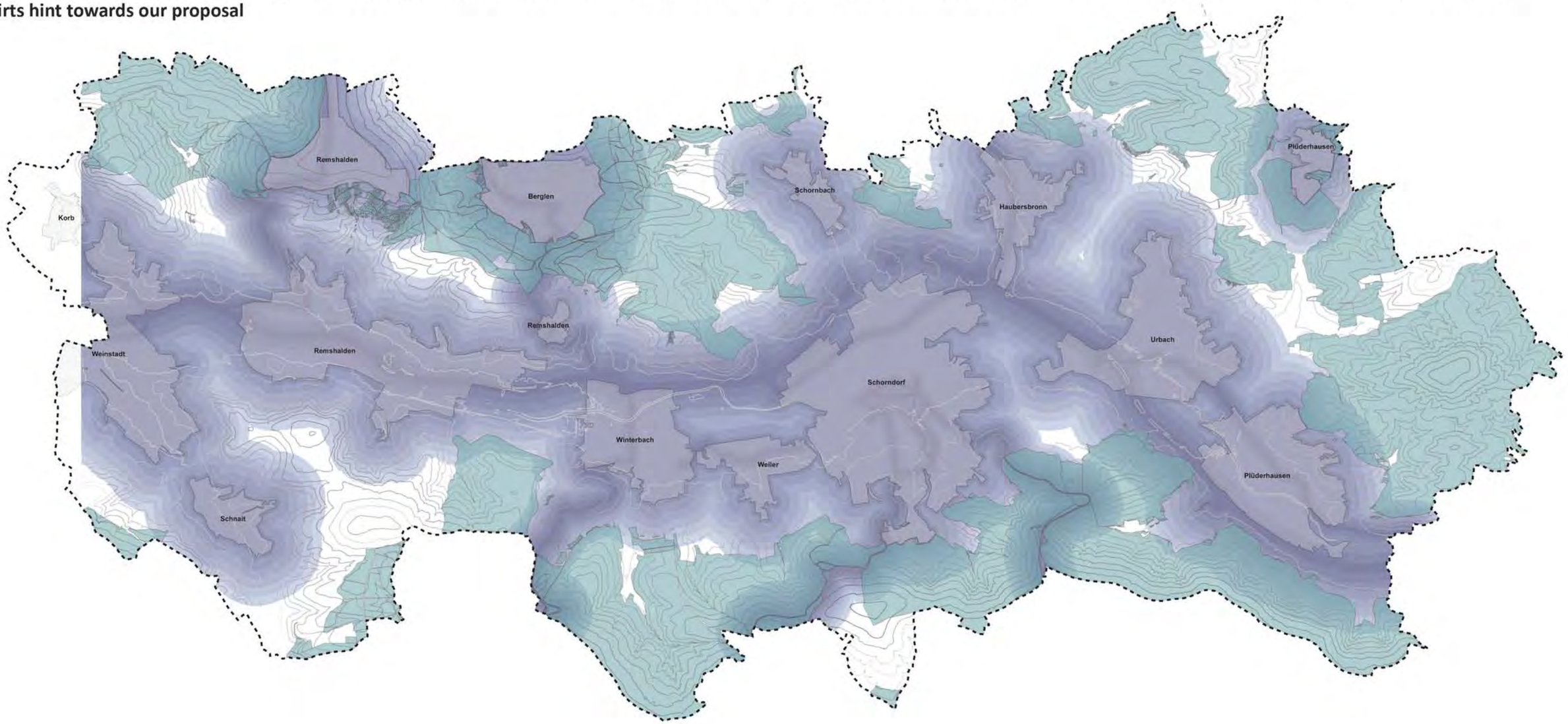
According to schema on the left side, the lowest righ hand side grid has the highest textural variation when two left hand side grids have a lower variation and density.

OCCUARANCE

GIS analysis above shows the occuarance of the texture in our project area. when the spots are in color red,the variety of the textures is low. when it gets to dark green, the textural variation and the occuarence of these textures are getting higher.

THE SOUND DISTURANCE MAP

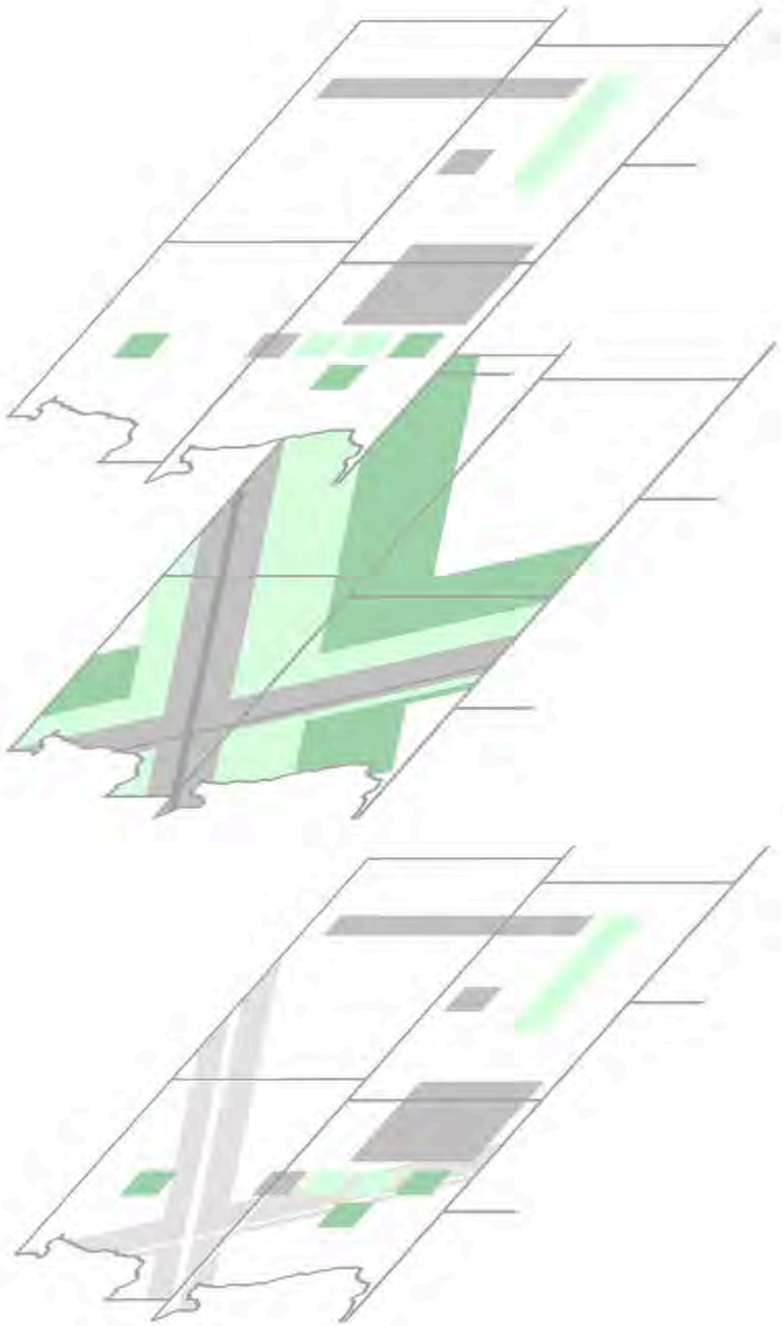
With this map we wanted to find out which areas are the most disturbed in terms of noise pollution. Also, we anted to find are there some areas which are not influenced with the sound of a road infrastructure. So, our work started with analising sound in landscpe, how it moves through out the air, what is the reduction per kilometer, gathering the data on the noise in dB for the road infrastructure and settlements. We have set the values for the noise sources, which are in this case:
road infrastructure (80dB) and
settlement areas, apart from the residential parts (55dB)
Using GIS analysis we estimated the area of influence as on the map. Every gradient layer is a reduction of 10 dB, so the white areas are undisturbed.
Now what you can see on this imaged are not only a sound sources but also a sound buffers. The green areas are the forests which additionally reduce the amount of noose. This is the firts hint towards our proposal



THE OVERLAY - HOW TO MERGE SOUND WITH TEXTURE

The texture is now assessed concerning to variety and occurrence, and the noise pollution is measured. The next step is to find out **where are the best pathes** with a good ballanced texture inventory of different types and low noise pollution. Be aware that you can't compare Noise and texture directly. If you do so, it would be like the famouse compare like apples with peares. So the image and text shows you the way how to compare right. **FIrst you classify the three terms** (variety, occurrence and noise) e. g. noise is arranged in hard-, middle- and no noise. The overlay was done with the matrix below. If you stand e. g. next to a highly freequented streed (hard noise), this area becomes red. On the other hand if there is a area where you can`t hear the streets anymore (no noise), and a good ballance in variety (>6), this place will graduaded with a light green.

In the end you get a map where you can see **4 colours which shows you very good, good, middle or bad areas for hiking and biking.**



TEXTURE

You use the output of the texture **VARIETY** and **OCCURRENCE** . Toghether with the path infrastructure it is possible to find good pathes which have a balanced inventory of different typeds of textures

+

NOISE

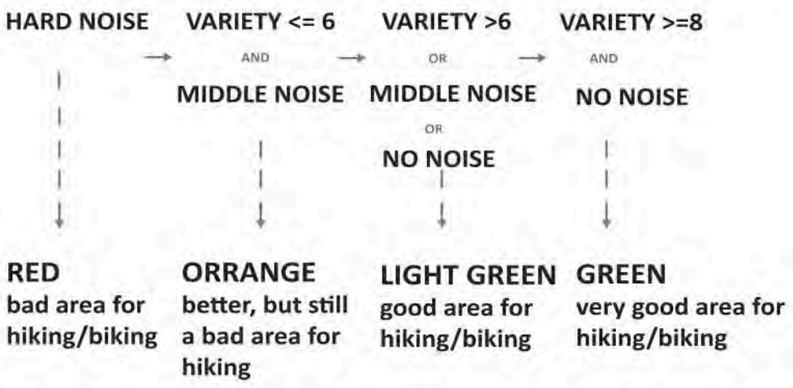
Noise pollution is in Germany well defined. This rules are picked up and flew in this method for the overlay:

HARD NOISE = 75-56 Db
MIDDLE NOISE = 55-1 Db
NO NOISE = 0 Db (you can't hear the streets anymore)

=

OVERLAY

The different values in this map are estimated in this way:



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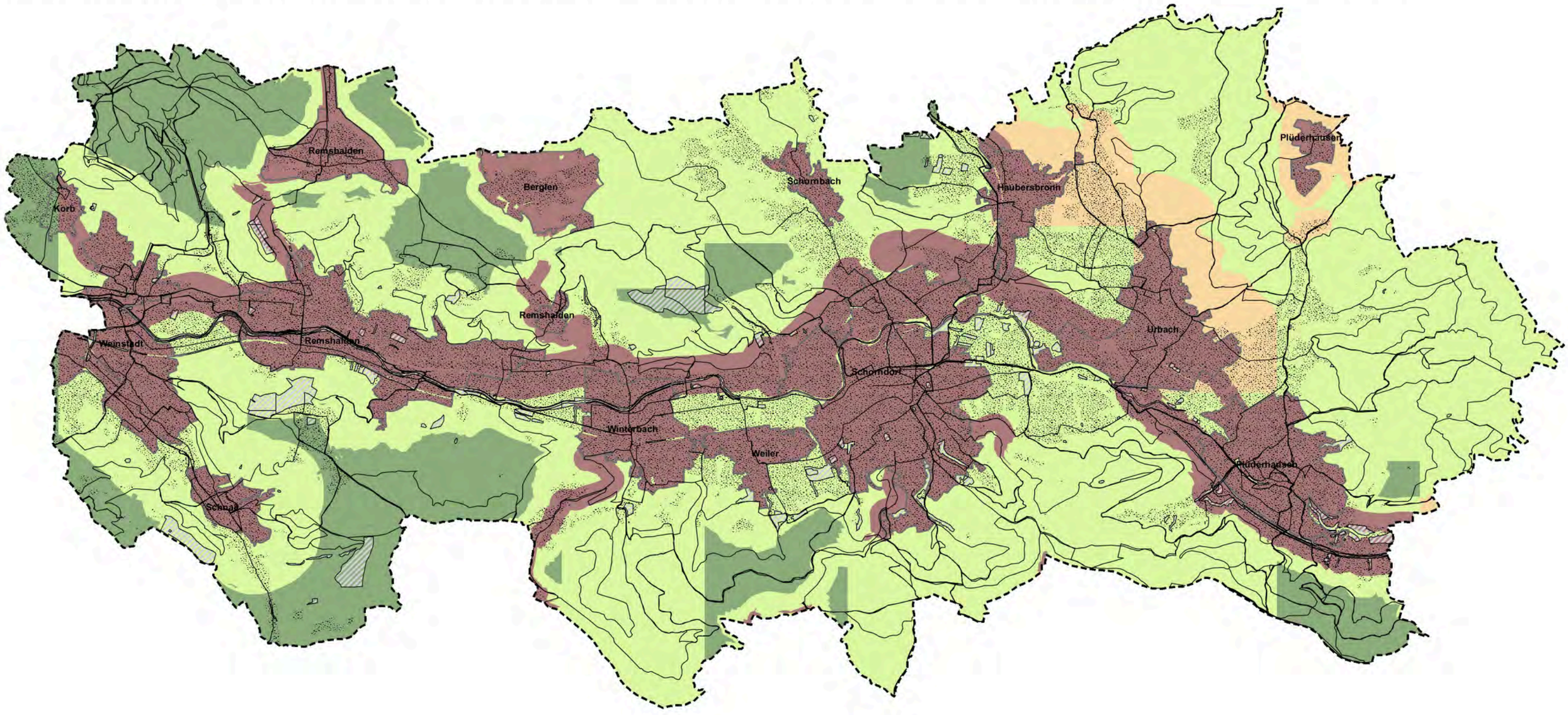
In the end you get a map where you can see 4 colours which shows you very good, good, middle or bad areas for hiking and biking. The dotted areas show you normal textures. line hatched areas show you special places and no hatch means typical textures. The map is out of scale.



THE LIBRARY - THE SOLUTION OF SOUND REDUKTION WITH TEXTURE

After the analysis of the texture and the impact-assessment of the sound in the area, how to continue? The idea is to strengthen the touristik infrastrukture, especially the hiking- and biking pathes. The task is to develope them in a way that there is a balance of typical - normal, and some highlightend special, textures. Also there is the try, to reduce the sound in some critical areas, for instance next to the highway. Here we use the fakt, that a visual barrier which hide the source of the noise, reduce the sound-impact in perception. On the other hand most textures have also a biological value. Every line-texture like a schrub, can be used to connect two forrest. This imroves the ecological network, which is a main target of the FFH-Guideline.

The following pictures show you two sequences of our example path. There are some implementations how this landscape could be developed, and which benefits the texture in terms of pysical reduction, visual reduction and öcological imrovement has.

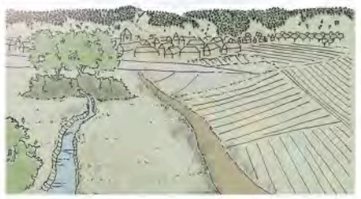
Pysical reduction (low) (high)

Visual reduction (low) (high)

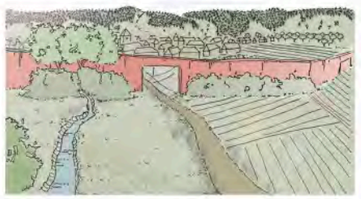
Öcological value (low) (high)

The more rectangles a picture has, the better is this in terms of its topic

SITUATION I



current situation



Noise-protection wall

alley

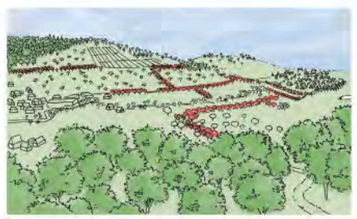
schrubs

forest

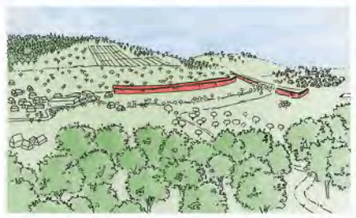
SITUATION II

current situation

schrubs



alley



Noise-protection wall

orchards

You can see two critical views in our chosen path. The pictures show you how to solve the problems with typical textures in this area. For more information take alook at the video of solution.

CONCLUSION

After making the sound assessment, we merged textural outputs and sound assessment in order to find out the most pleasant environments in the project area with highly textural variations and with less noise disturbance. In our project, we took the high ways as the major noise pollution source and we tried to calculate the reduction of this pollution with the increased distance and with some landscape textures. We found out that when we have some textural elements in the sound polluted areas like an orchard, the emulsion of the sound gets higher in comparison to an empty environment.
The behind our project was finding the richest places with less sound, and to try to protect it as it is.
Or if it is a highly disturbed area, we tried to find some proposals with natural texture elements from the regions so; we can reduce the sound pollution.

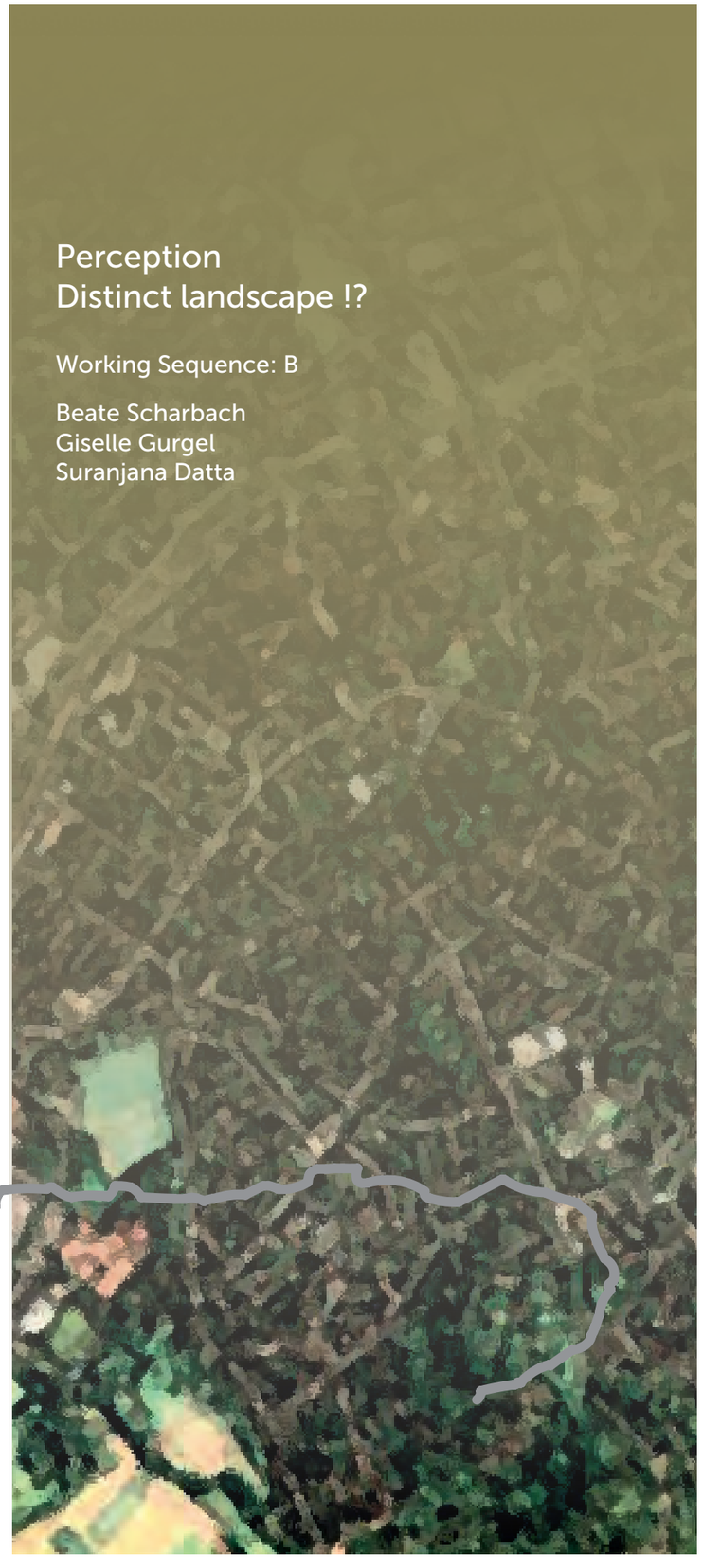
The behind our project was finding the richest places with less sound, and to try to protect it as it is.
Or if it is a highly disturbed area, we tried to find some proposals with natural texture elements from the regions so; we can reduce the sound pollution.
For the development of our project, our concept was quite abstract and we had great difficulties at first to define the term texture and make a reasonable method for it. But at the end we managed to create a common language for our project. Fir the first impression, our project could look not that functional and easily understandable with everyone. Nevertheless, we formed a good method that would help us to understand our everyday landscapes and would helps us to improve the quality of the landscape, transform and improve our landscape.

5. Group Projects

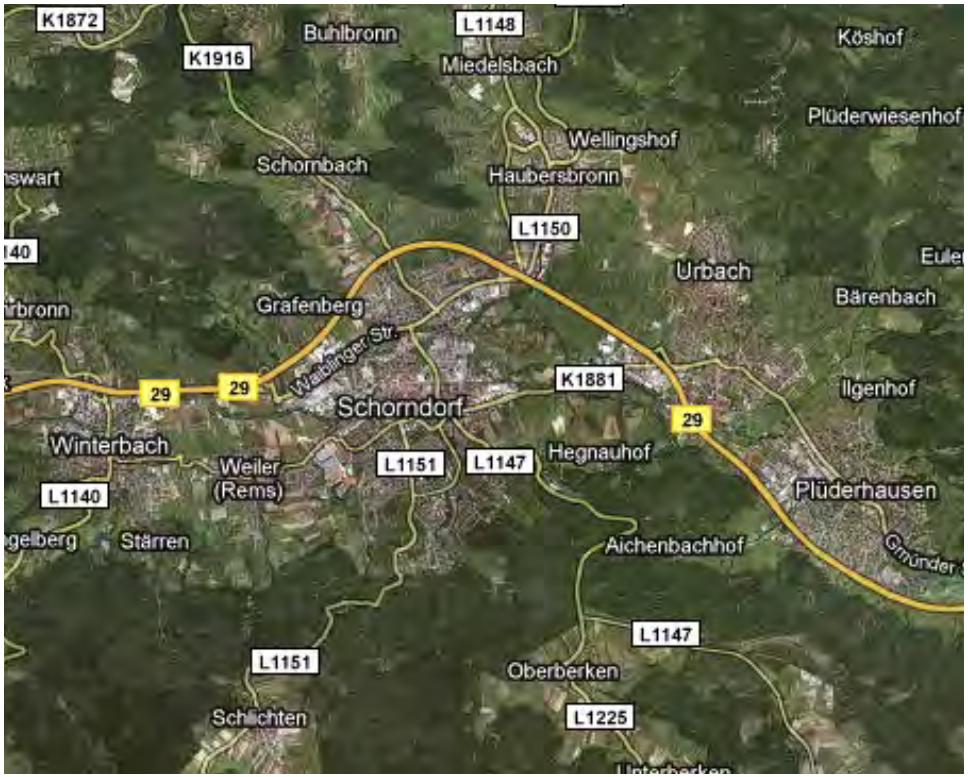
Perception
Distinct landscape !?

Working Sequence: B

Beate Scharbach
Giselle Gurgel
Suranjana Datta



Location



The study area of this project is defined by the Rems itself; the approximately 72 kms long river stretching from Essingen to Waiblingen, to the east of the greater area of Stuttgart. The valley of this river is characterised by natural, cultural, urban and semi urban areas.

We i.e. our group chose the area between Winterbach and Plüderhausen as the project area and emphasised on how the landscape of this area is perceived by bicycles. This area has big urban settlements like Schorndorf and the valley has both wide and narrow plains. Traffic, settlements, agriculture, forests and vineyard cultures are dominant elements in this region and in the narrow plains these land uses compete with each other. This part of the Remstal has a semi urban characteristic due to its mixed agglomeration.

Watch the video of the area impressions on http://www.youtube.com/watch?v=EdUopl-tPpk

Impressions

Visiting this area a couple of times by bicycles helped in developing an individual subjective perception; to identify and describe the landscape character of this part of the Remstal. These impressions can be summarised as follows :

•In the wider plains, where the mountains are distant, the valley character is not perceived.

•Though there are certain forms of landmarks in the villages in the micro scale, overall the villages look similar from outside.

•As seen in Plüderhausen, events on the river are already being done in some settlements.

•The villages are old and traditional and the distances between them are comfortable in terms of accessibility by bicycle or foot.

•The cycling paths are not so diverse and can be categorised as monotonous. The beauty of this region is not always physically and visually accessible from these paths.

•The Rems is hidden by dense vegetation at most of the places along it; in areas where it is visible appears not very interesting.

•In most urban areas, houses that face the river have the view blocked by vegetation.

•The traffic i.e. the highways and the train tracks are a visual and acoustic disturbance. It also fragments the area.

•Electricity towers in this area are as familiar and commonplace as they are in any other place.

•Industrial developments are regular but not very prominent and eye catching.

•Vineyards with its pure geometrical forms, natural looking forests and orchards are common land uses.

•The Terrace in between Urbach and Schorndorf is an interesting area close to the cycle path. It offers a different view of the valley and is one of its kind, which allows the valley to be seen with most of its elements and land uses.

Panoramic view of the terrace

Typology catalog


Plüderhausen


Schorndorf


Between Winterbach and Schorndorf


Future?

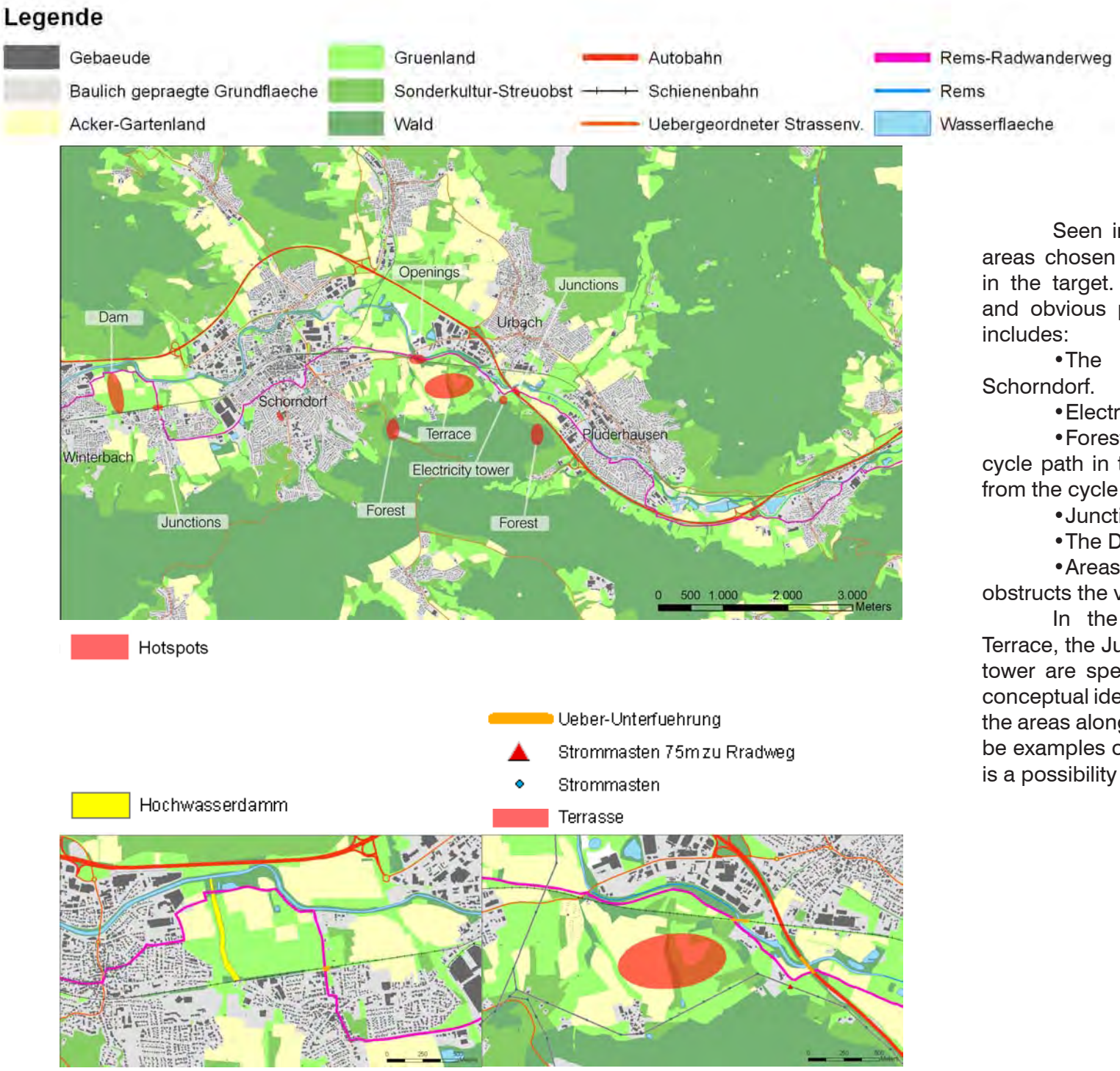
The Typology Catalogue is a physical model which was prepared for the different combinations of the landuses in this area. The base of this catalogue are the different forms of the terrain – wide valley, narrow valley, steep slopes, soft slopes and the different forms of the Rems – natural, channelised etc. The land uses of this area are assigned by different graphic symbols as seen in the Legend. Combining the terrain base and the graphical representations of the landuses, the different combinations of landuses which exist in reality in this area can be seen. The examples shown here are those of Plüderhausen, Schorndorf and the area in between Winterbach and Schorndorf. With this catalogue, it is also possible to see how different combinations can be worked out in the future.

The Typology Catalogue also pointed out the absence of prominent landmarks in this area.

Target

The target of this project is to create a distinct identity of this part of the Remstal. To emphasise on this identity, the landscape value is enhanced by highlighting its existing elements and improving at the macro level. While doing so, add more value to the region and improve the perceptibility of the Remstal by the general public.

Hot spots

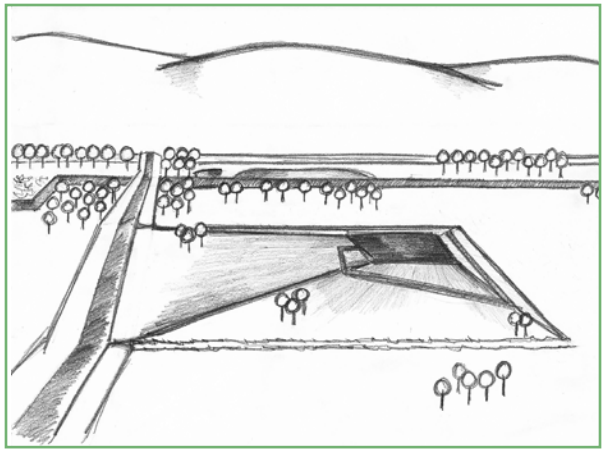


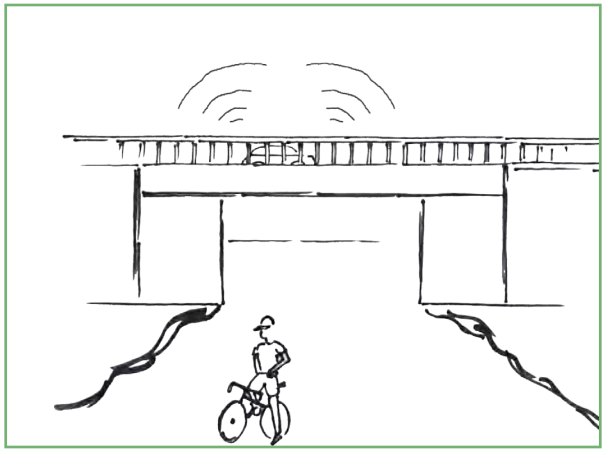
Seen in the map, the 'Hot Spots' are the areas chosen to realise the ideas, as mentioned in the target. These are some of the important and obvious physical entities in the region and includes:

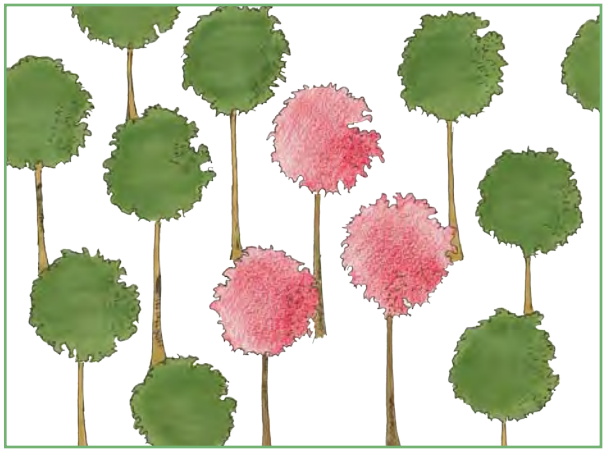
- The Terrace between Urbach and Schorndorf.
- Electricity towers close to the cycle path.
- Forest on the slopes; both close to the cycle path in the narrow valley and at a distance from the cycle path in the wide valley.
- Junctions or intersections of roads.
- The Dam to the east of Winterbach.
- Areas along the Rems where the vegetation obstructs the view.

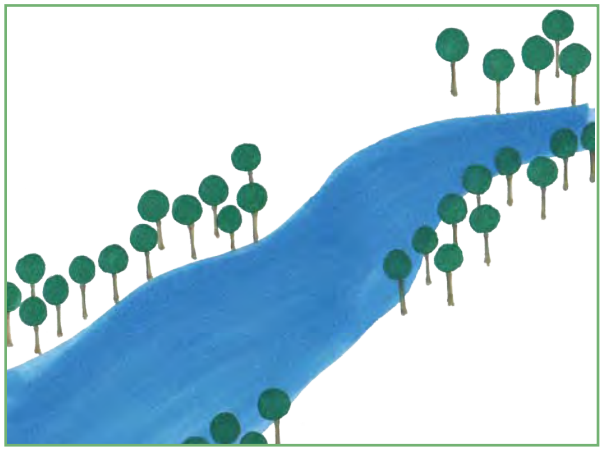
In the hotspots mentioned above, the Terrace, the Junctions, the Dam and the Electricity tower are specific areas in the valley, where the conceptual ideas are implemented. The forests and the areas along the river are general, and there can be examples of similar areas to these, where there is a possibility of execution of these concepts.

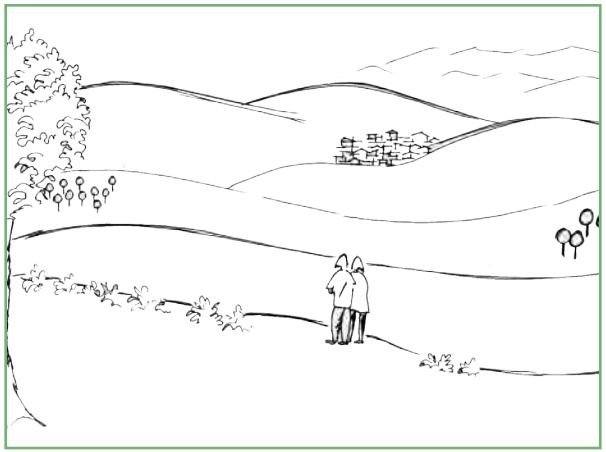
Concept

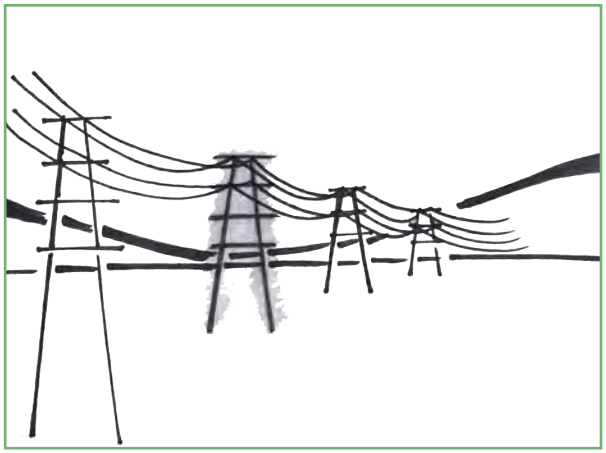












Six improvement areas

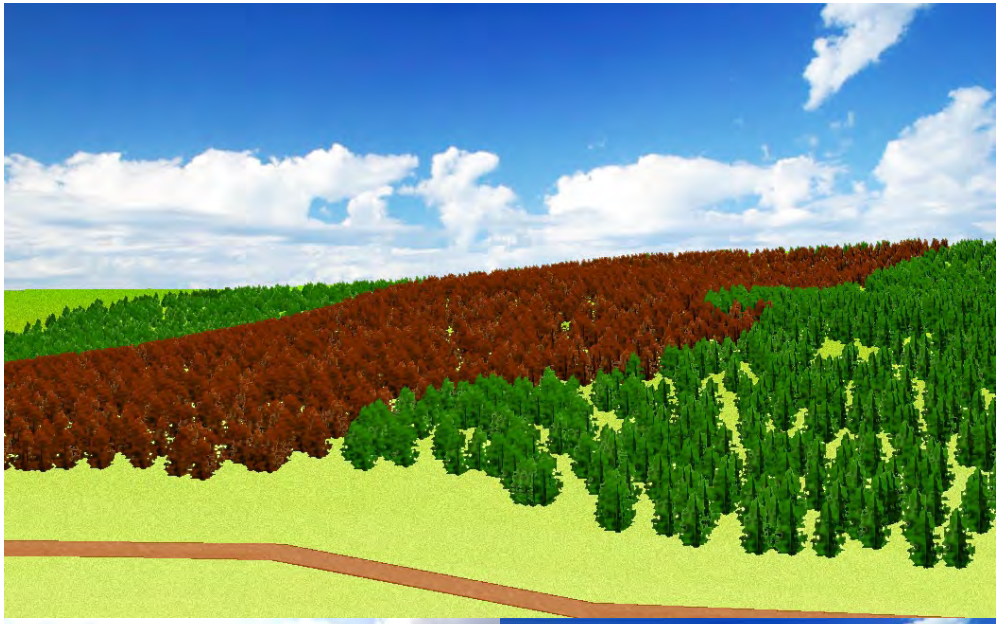
Dam

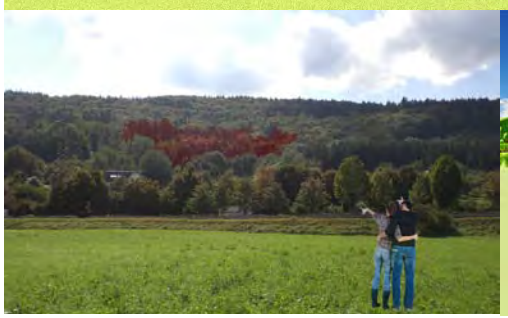
The Dam can be developed further on its eastern side in the form of an earth sculpture, which is accessible to the top by bicycle. This raised terrain, not only makes a prominent physical presence in between the settlements of Winterbach and Schorndorf, but also gives variety in terms of accessible higher levels in the region and provides a different view of the valley from its top.

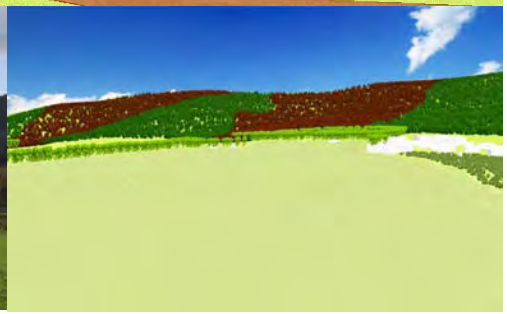
Junctions

While approaching the junctions, its most outstanding feature is the not so pleasant traffic sound. These junctions can have sound installations in the form of bird calls, waterfall, whale sounds to draw the attention of the passing by cyclists. These sound effects can be installed on certain junctions to make them different from the rest and not make it regular by installing it in every one of them. They will not only serve as place reminders for the visitors on bicycles but also as an alternate to the unpleasant traffic racket which is heard otherwise. Such installations also has the option of being temporary and can be changed according to seasons, different times of the year, events etc.

Watch the video on http://www.youtube.com/watch?v=EdUopl-tPpk







Forest

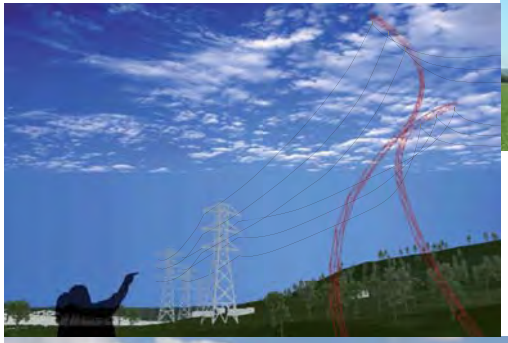
The preconceived image and notion of a forest is that it should be natural looking and green. But here, it is a well known fact that forests, like vineyards, are not natural and in fact man-made. So, even the forest does not necessarily have to be green and natural. Instead it can have patterns and colours and not look monotonous. These trees wit non green foliage can be induced in certain areas so as to make it special and not a regular feature in the region. As in the examples showed in the visualisations, the forest in the wide valley in Schorndorf can have coloured foliage trees and in Plüderhausen, this is how it may look like from the cycle path which is close to the forest in the narrow valley.

Openings

As mentioned before, there are areas along the Rems where the river is obstructed by dense vegetation and makes visual accessibility impossible. The river can be opened up in certain areas to allow its visibility from the bicycle path. And these openings can be done only at certain areas and not throughout, in order to make the viewing of the river not monotonous. These openings shall be diverse and some of them can be very interesting with sitting areas; visitors can sit, rest for some time and continue on their trip or they can sit longer and enjoy their view.

Terrace

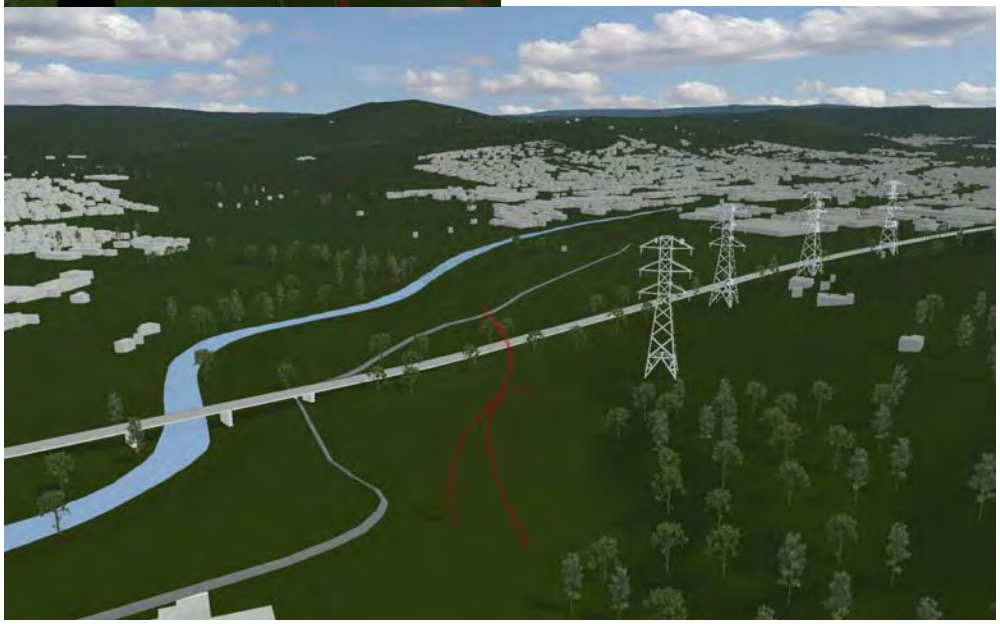
The terrace in between Urbach and Schorndorf offers a very interesting view of the whole valley. The accessibility to this terrace can be improved in terms of its cycling path and it can be made more visitor friendly with a few additions like sitting areas, information shield etc. It is worth mentioning that the aim is not to make any changes to the terrace, which already provides a worthy view, but to accentuate it in terms of its use.



View of the terrace

Electricity tower

The electricity towers are a common feature in the landscape. In this proposal we have picked up one of them, the closest to the cycle path and this can be made different and outstanding, regarding its colour and shape. The conceptual idea behind this is that this particular electricity tower does not have to look like a typical tower and its uniqueness will be a reason for it to stand out and be a place maker or a landmark.



Watch the video on http://www.youtube.com/watch?v=EdUopl-tPpk

5. Group Projects

Personal Perceptions and Connections to the Landscape

Working Sequence: C

Balázs Dukai
Carla Tosso

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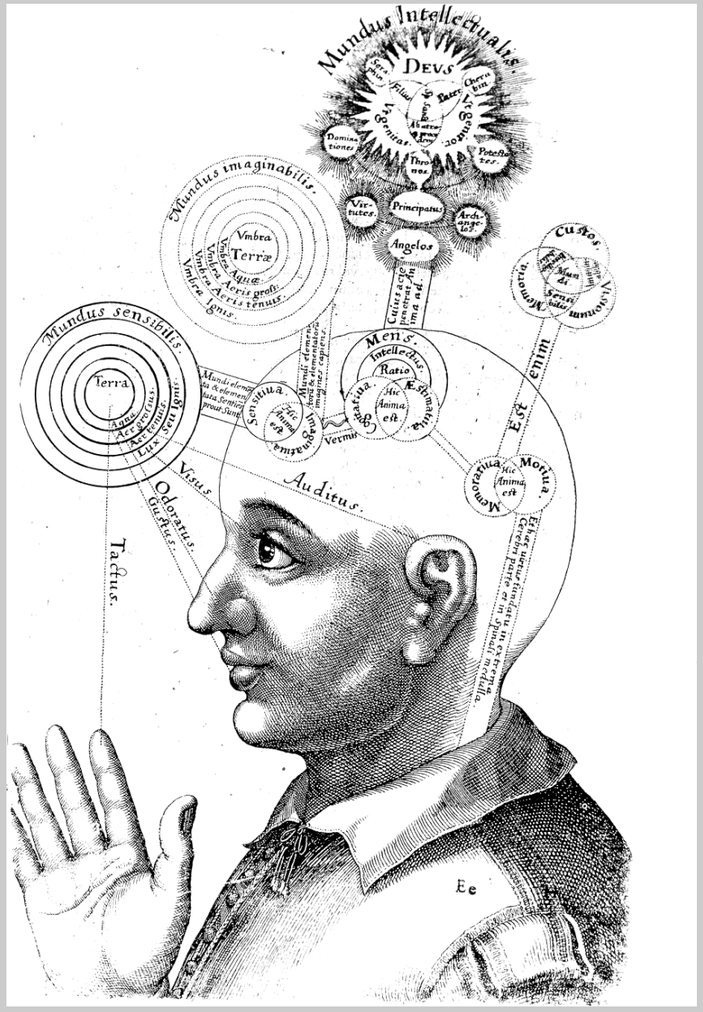
Personal perceptions and connections to the landscape

Human Perceptions
The human perception is very complex, they already knew it in the XVII. century.
The diagram of Robert Fudd from 1619 clearly shows this.
Basically it consists of three aspects:
Senses, this are seeing, smelling and hearing
Imagination that is unique for each human and the knowledge that each one of us acquire in their life time according to its experience.



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When we visited the area, proceeding from one place to another everything that we saw, felt, heard and smelled, were processed in the complex system of human perception, the result was that some places made stronger impression that the others. So we thought that listening to this perfectly designed system was a good way to start with our work.
We chose 3 different places in our study area,

a)The first place is between Moggingen and Bobingen
b)The second place is between Bobingen and Zimmern
c)The third place is in the outskirts of Lorch.

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Personal perceptions and connections to the landscape

Images
So, we thought listening to this perfectly designed system (our perception or mind) is a good way to start in this area. Actually, thats what people usually do, to listen to ourselves. Furthermore, we suppose that this is how the everyday man traveling through this area is going to create images of this landscape in his mind.

A visual approach with images and emotions
We took pictures as material for the analysis because the basic idea of the main project is related to human perception. Given that the image makes up a big portion the memory of perception of a place in the human mind, we thought that this visual approach is appropriate here.

When we went to the site, we gathered many kind of emotions, impressions and feelings like every human who is living there, traveling there. Besides images, feelings make up a big part of a person's memory, inner image of a place. To create order in the cloud of our feelings and to find out their source we decided to attach them to the elements in the landscape.
To easily understand what elements is a landscape made of, a good method is to decompose it to layers.

1. Mögglingen - Böbbingen

2. Böbingen - Zimmern

3. Lorch

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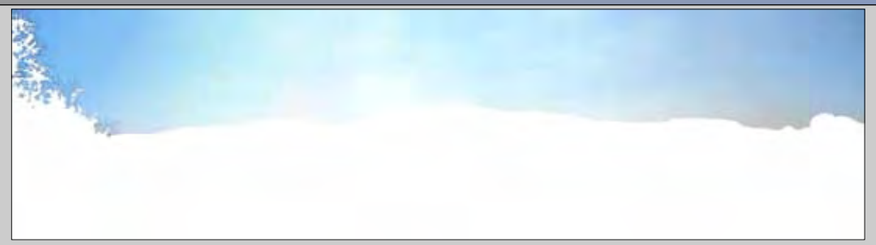
Personal perceptions and connections to the landscape



Sky

beautiful
open
blue
freedom

Mountain

clear background
freedom
beautiful

Trees

fresh
green
interesting
fresh
lush
idillyc
composed

Built elements

interrupted
danger

Meadows, ! elds

patches
open
beautiful
production
interesting
idillyc
composed

Complete picture

order, neat
a working society who maintaines the landscape
german landscape
peace

At ! rst we can see an open view, its very green, trees are in groups in several areas, also we can see bushes, ! elds and meadows. In the back there is a mountain that seems very far away, it is covered with trees, making it seem very wild and with no people can go there.
Even it gives the feeling we can see that in the bottom slopes there are some houses, meaning you have people levying there. We also see reads and train facilities. The meadows are green with patches of the soil colour ! elds.

In this area what I feel is freshness and open space, this is like liberty, that you have the whole space for yourself. You smell fresh air and fell completely in liberty.
The road made me feel that I had to pay attention to the road and be extra careful even with this the feelings are good and you can have a nice time biking there.

Mainly you hear the cars, they are not loud but depend on how many they are there. If you stand you hear the wind and the birds, there is a constant wind blowing in this area. The most prominent noises are the wind and the cars.

The space is an open space area with forests, meadows and ! elds. We can clearly see that the top is a very special area because it gives a view of the whole valley. From this point we can see all the features of the landscape like topography, vegetation and man made structures, each one of them have features on their own. Each element contributes to the landscape in a di" erent way, some are positive and some are negative, but all of them together makes a landscape that is interesting and the same time functional for the place is located.

The memories that I have are the ones of the landscape I have seen here before this doesn't remind me of my country at all. This landscape reminds me of the beauty and majesty size of the forest in europe.

The landscape is very di" erent, even though we have mountains too. The vegetation and the perception is di" erent. I think the type of topography and the culture in#uences the way people perceive the landscape and any mountain region.

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REMSTAL VALLEY

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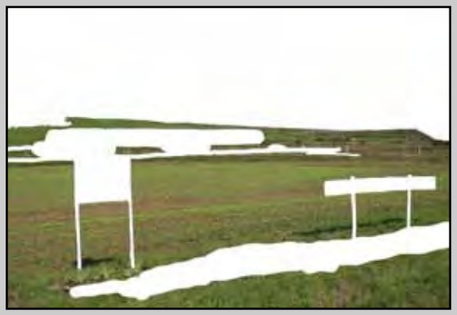
Personal perceptions and connections to the landscape

pleasant
air
mild
free

Sky

safety
narrow
valley
greenness
limited
important

Trees



order, neat
maintained landscape
greenness
free
e#ectivity
contrast
safeness

Meadows, ! elds

greenness

Bushes

history
special

Built elements

diversity
moving
human rule above nature
limited

Complete picture

In this area we can clearly see a forest that is the most noticeable feature of the area, a slow slope is located at the boarder of the forest, it is a soft slope that marks the boarder of the forest, the forest is very dense, it has some edges that are open, from the back we can see some spaces that are without vegetation and we can see trunks of trees.
Sporadical sheds are located before this area, after this we can see roads and train tracks around the road with bushes and some grasses, the road has an exchange of roads and some kind of tunnel.
In the ! rst view we can see some ! elds with signs and a part of the limes wall, in front of there is a ! eld that makes some space between this space and a road.

This area has a very open space, it has things that limit the feeling of free space like the road, the train tracks and the forest at the edge of the road. The space is very nice to stand and to look into the forest and even to the roads, to bike away from the roads makes us feel safe and that we can enjoy the landscape without worries.

Wind can be heard , but the most prominent noise in the area is the one of the cars, they are very strong because there is a lot of tra" c in this area, also the train makes noise but it doesn't pass by all the time, the time factor is involved.
Birds can be heard but very seldom.

The space is an open space area, the limits are set by the edge of the forest and the roads and tracks, the ! elds have no interest at all, the limes wall is a feature that is very interesting but is lost in the open space, the signs along the Limes are too small and faced to the road.
The topography is not aggressive, the slopes are very soft, the forest give the illusion on more pronounced topography, the vegetation is very important, the manmade structures are not so noticeable but they are really important, the tra" c structures divide the space in a way that you can clearly see.

Carla: Memories are really new, this type of landscape is new for me since is very di#erent in my country.
Balazs: For me its like being in a real size railway model that one can see in magazines.

Peru: The Peruvian perception is very di#erent, the forest, the topography, the density and the transportation system di#ers very much form the Peruvian reality, the scale is much bigger and the types of forest are di#erent.
I could compare the di#erences that are more than the similarities, the signs and features are important but sometimes not important.
Hungary: Coming from Eastern Europe the landscape looks somewhat familiar but its interesting to see that its ful! lling the cliches we know about the german neatness.

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REMSTAL VALLEY

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Personal perceptions and connections to the landscape

Sky

beautiful
open
in" nite
fresh

Mountain

big
de" ned
crowded

Orchard

beautiful
green
fresh

Built elements

interrupting
unnecessary
disturbing

Valley bottom

green
open
well maintained

Complete picture

In this area we see an an open space with a lot of green areas, " rst we see a mountain that dominates the back of the area, since it's not very high it gets a little lost in the background, a lot of vegetation dominates the place, a lot of trees, bushes and " elds dominate the area, even though the " elds feel a little compressed in its surroundings because of the quantity of trees. Next to the road the trees cover up the roads, making a nice area to bike or to walk, there are a lot of houses in the surroundings that area covered by the vegetation, this area has a lot of things to look at and it could be remembered as a nice view with a lot of vegetation.

In this area you can feel the space that protects you, the trees and the mountain come together to give a good environment in which the greenness of the space dominates the horizon, when biking through there you feel the fresh air and the quietness of the area, not a lot of cars come to this place so it's at peace.
The character of the trees and the size of them makes you feel a little bit small compared to the greatness of the landscape.

You can hear the birds and the wind, there is not a lot of tra# c in the area, the constant blowing of the wind makes have a constant sound, and it makes you feel safe and in peace, the occasional car doesn't disturb the character of peace of the area.

The area is very interesting, even its an open space, you cannot feel in complete freedom, the mountain and the amount of trees surrounding the area gives a limit to the space, the amount of trees and houses take away the complete rural character of the area. The space is nice to look at, the intersections of roads are interesting and it's an inviting place to be, the mountain is an important feature even that it doesn't dominate the space completely. The positive and negative elements in this area come together, it could be said that the positive elements outcome the negative, and overall it could be said that it has a lot of character and elements that can be pointed out.

The memories of this place are new, as the two previous areas, this doesn't remind me at my country; the elements are di! erent and the result was to make new memories of European forests and its own characteristics.

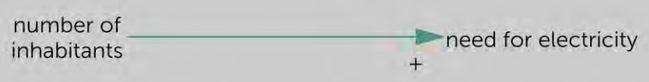
REMSTAL VALLEY

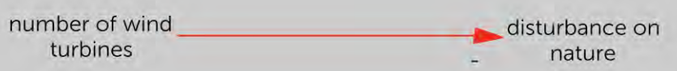
DUKAI_TOSSO

Personal perceptions and connections to the landscape

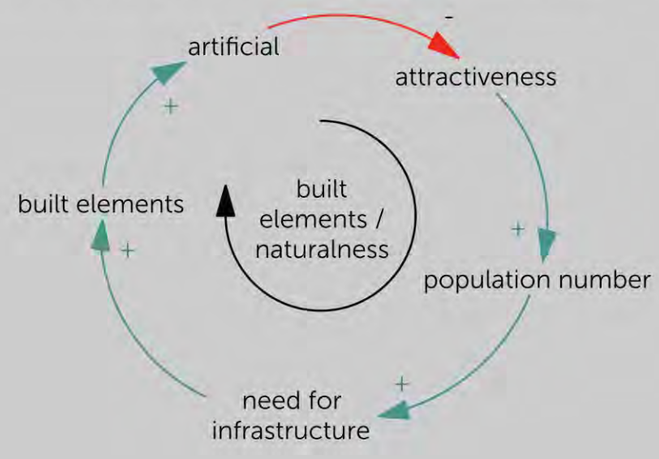
Landscape as a system
However, the landscape is a system and as a system, its more then the sum of its parts. To understand how this system operates, we had to look at the interconnections between the elements we described before. Because the scope of this work was concentrating on human perception, we set the boundaries of the system to include only the visual and emotional qualities of the chosen place.

Basics on systems theory
What is a system exactly?
System is an entity which maintains its existence through the mutual interaction of its parts.
In our case, the parts of the system were our emotions, the elements in the landscape, different policies etc. In the system there are two types of interaction between the elements: same directional (+) and opposite directional (-). To easily describe a system, we draw these interactions in a system diagram. The example below shows the the two basic interactions.





Furthermore, in a system it is very common that the effect of an information comes back to its source, hence creating loops that eiter reinforcing or balancing themselves. The example of a balancing loop is shown below.



The basic system priciples are:
- A system is more than the sum of its parts.
- Many of the interconnections in systems operate through the flow of information.
- System structure is the source of system behavior. System behavior reveals itself as a series of events over time.

Understanding how the emotions and the elements of the landscape working together
On the following pages we present the causal loop diagrams we developed to understand the system of emotions and specific lanscape elements.
We developed one diagram for each of the three places we analyzed and with the help of the diagrams we developed possible future scenarios. Then we indicaded the possible feedbacks of the scenarios in the diagrams.

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REMSTAL VALLEY

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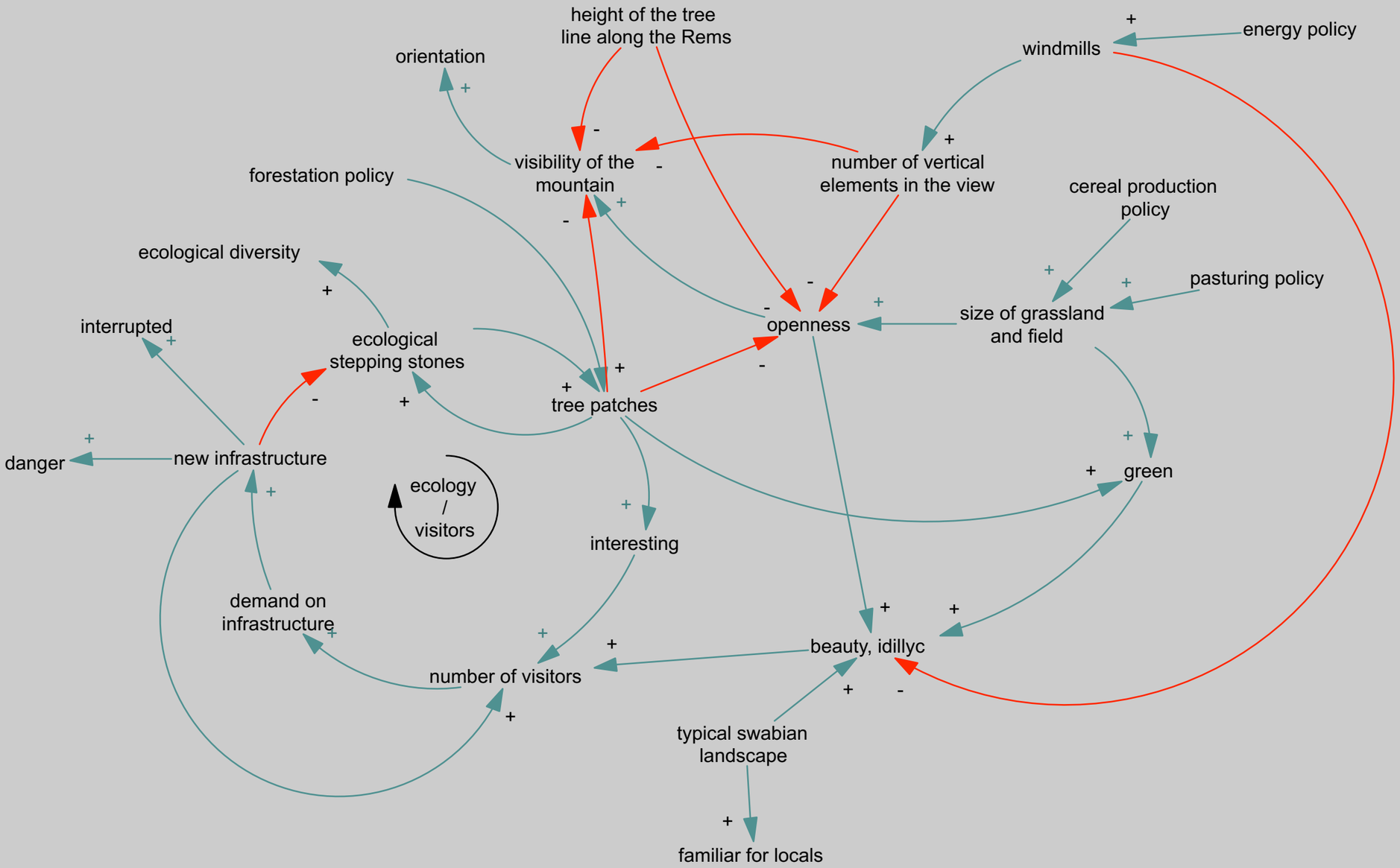
Personal perceptions and connections to the landscape

1. Mögglingen - Böbingen



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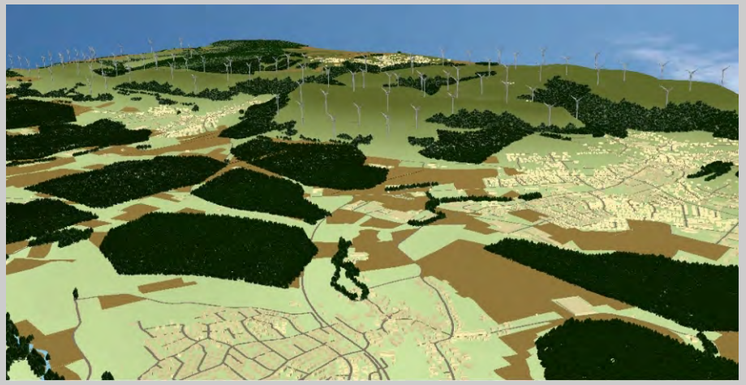
Personal perceptions and connections to the landscape

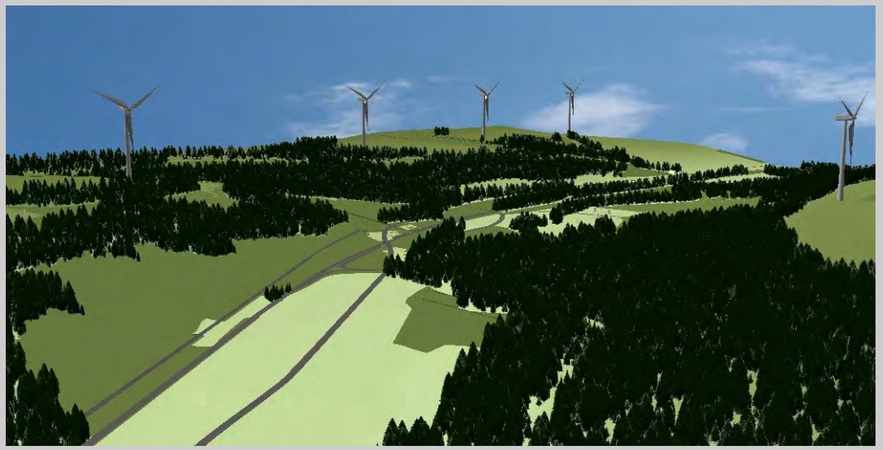
Scenario 1 - Wind Energy

Because of the shift in energy policy towards renewable resources, and the area's suitability for exploiting wind energy we considered a wind turbine scenario. Besides, The wind energy in Baden-Württemberg could cover up to 65% of the electricity need in the region if they use at least 2% of the wind turbine suitable areas in the region. (www.wind-energie.de)

In the first case only the most windy areas (6,0 - 7,5 m/s) are used, in the second case we considered the wind down to 5,25 m/s. The forest that had to be cut down because of the turbines is substituted in other areas.

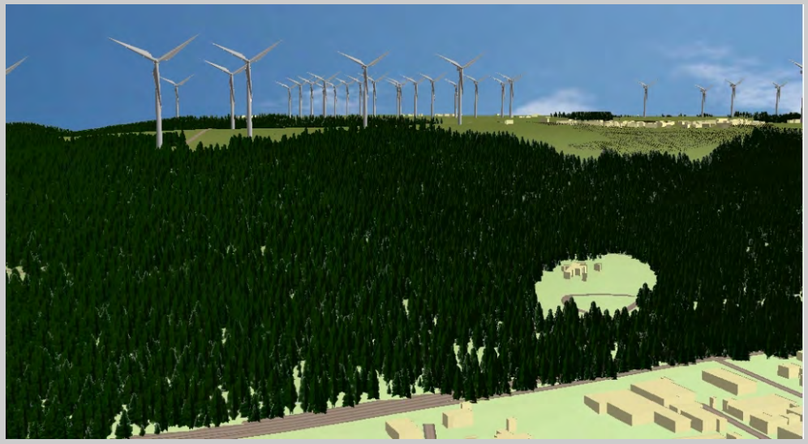
Wind Turbines- Area 1 Mögglingen - Böbingen



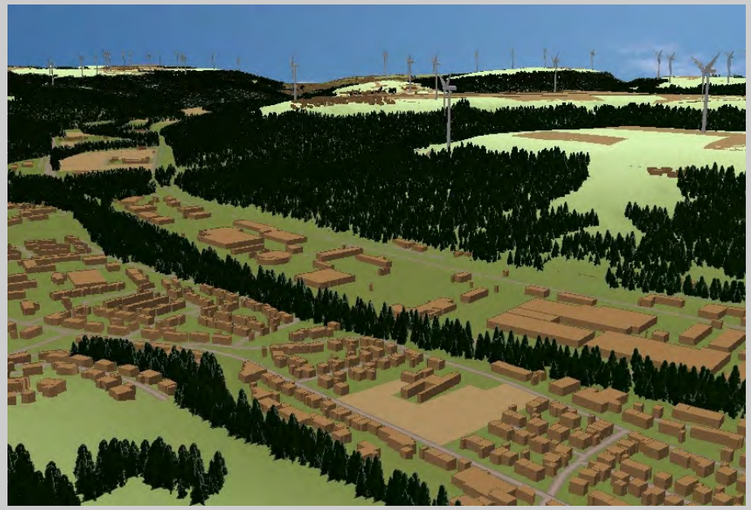


Wind Turbines- Area 2 Böbingen- Zimmern

In the 3 places that were chosen for the project there are good areas for wind turbines.
The overview of the turbines could be taken as interesting and disturbing, while it could be a hard landscape to accept, this could be the future of the landscape in a not very far away reality.
The repetition and size of the turbines could be also with time part of the normal landscape as is the forest now.
The small town could be affected by a more artificial landscape but with correct management of the forest and replacement of forest in other areas of not cutting the forest completely around the turbines could be a solution for not having a complete modified landscape.



Wind Turbines- Area 2 Outskirts of Lorch



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REMSTAL VALLEY

DUKAI_TOSSO

Personal perceptions and connections to the landscape

Mögglingen-Böbingen
Scenario Wind energy

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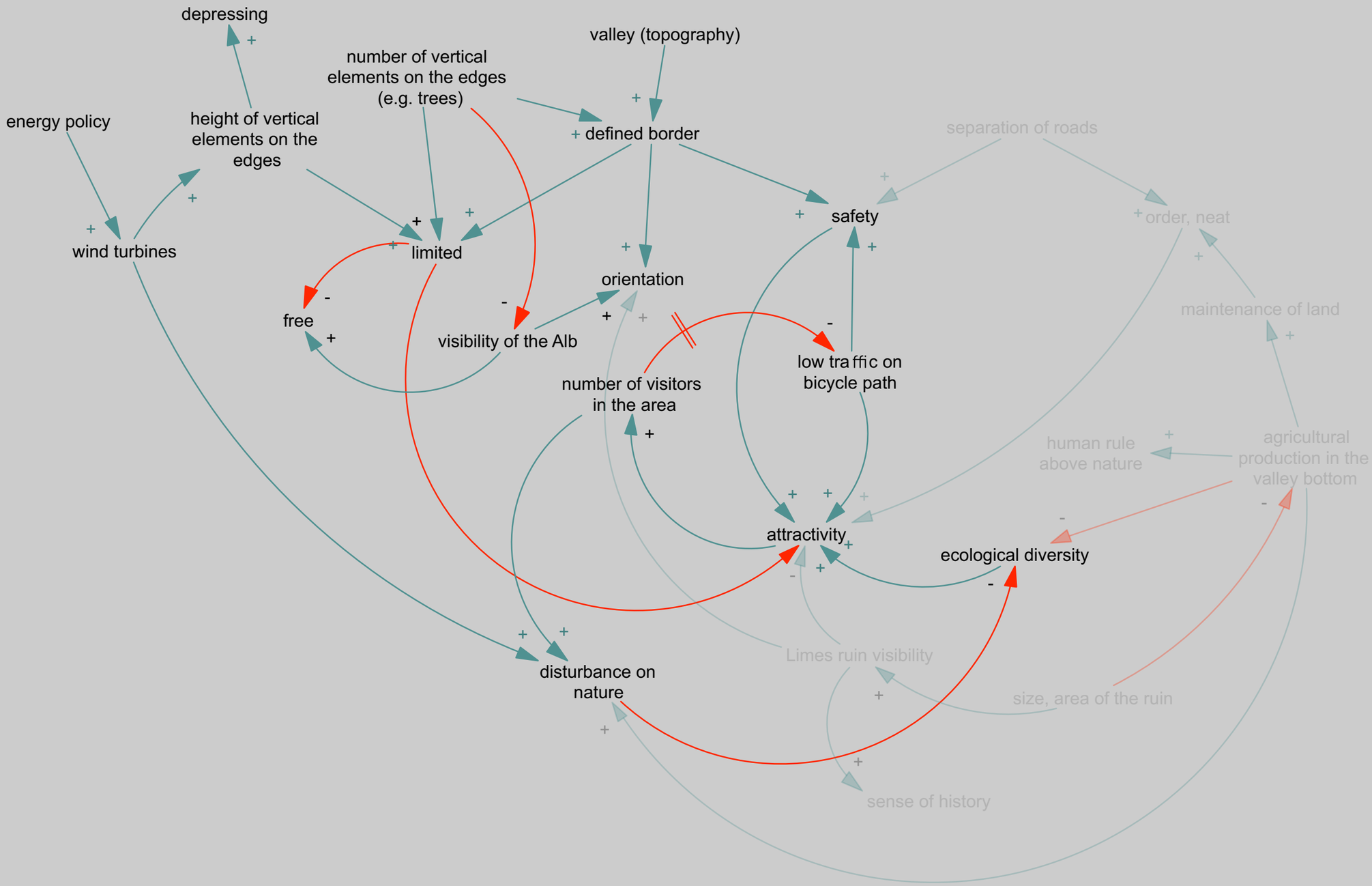
Personal perceptions and connections to the landscape

Böbingen-Zimmern
Scenario Wind energy



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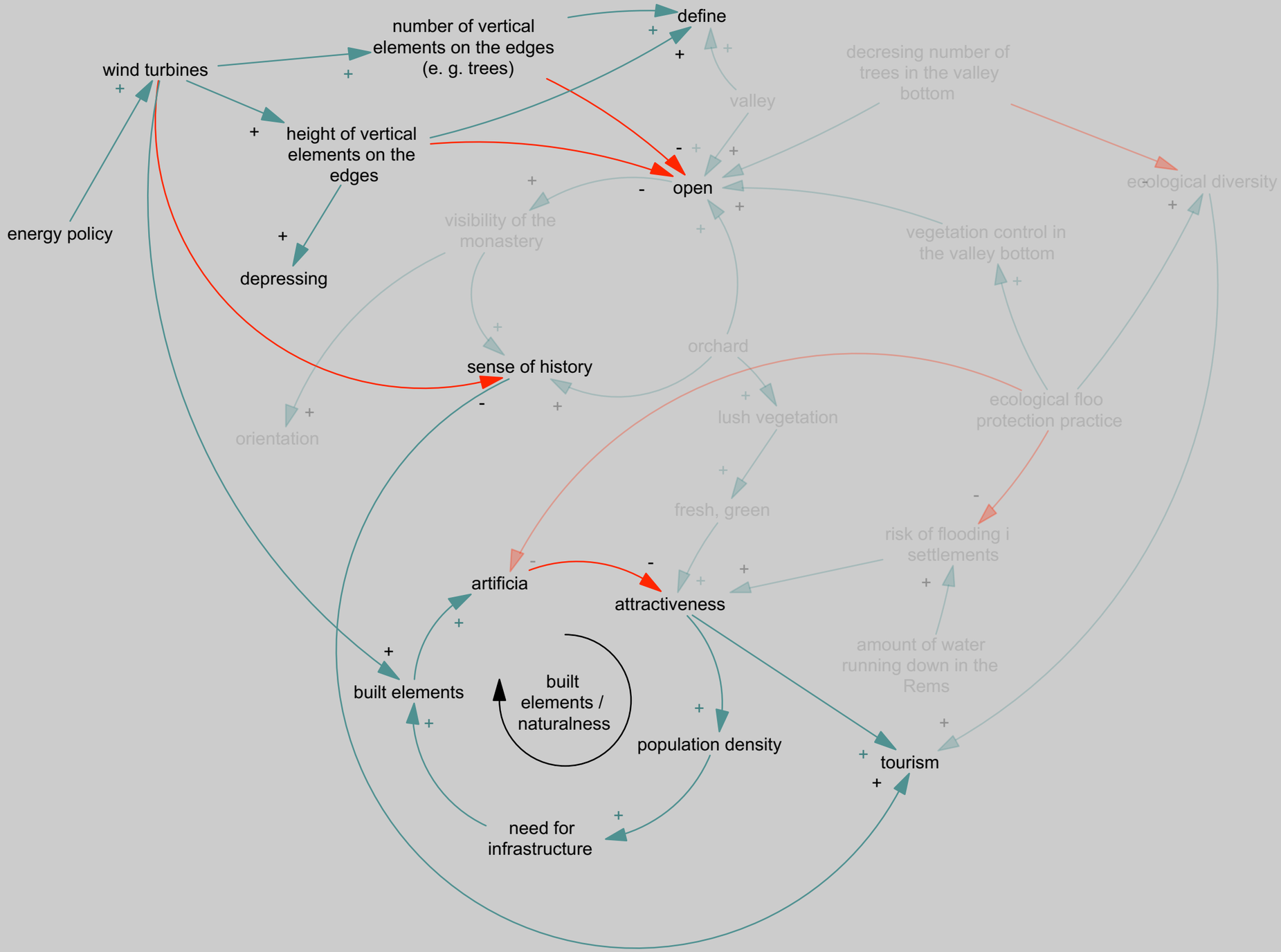
REMSTAL VALLEY

DUKAI_TOSSO

Personal perceptions and connections to the landscape

3.-Lorch
Scenario Wind Energy



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Scenario 2 - Forest Patches-Openess

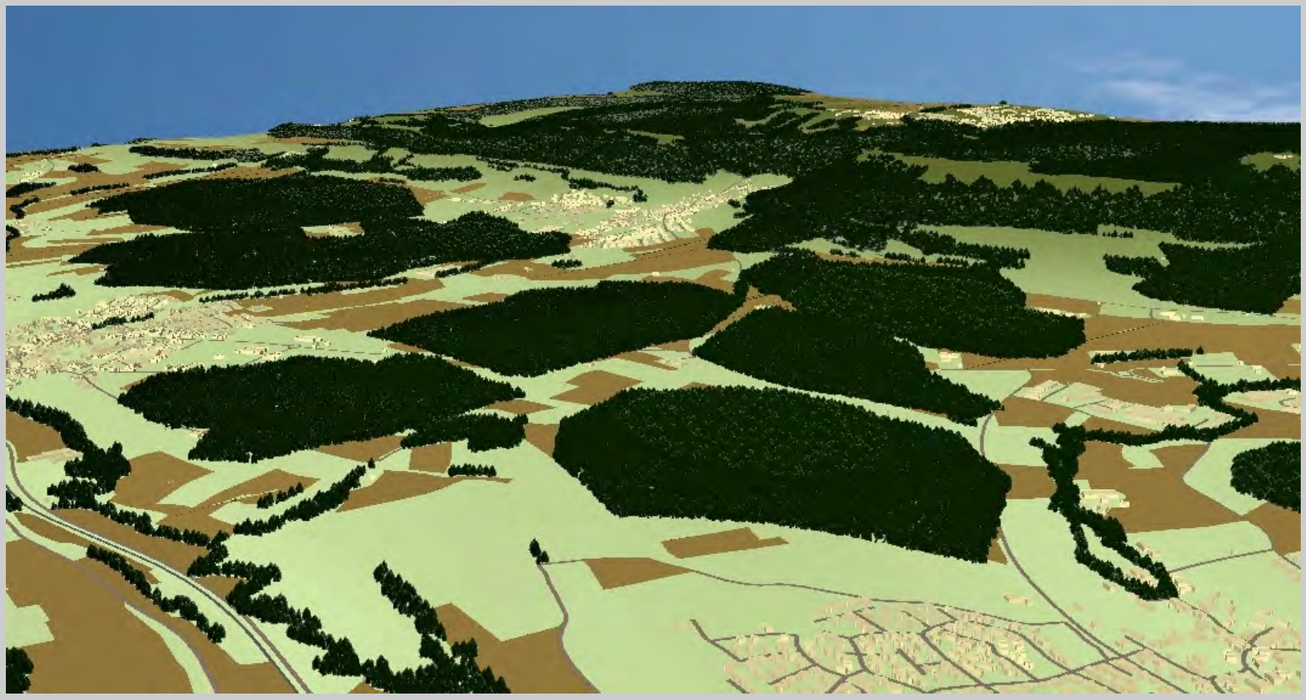
In the first area we defined it's openness as a high value and it is connected with the size and number of forest patches. In this scenario we took a look on what happens with the openness if we increase the size and number of forest patches.

If we start thinking of the value of this areas and the importance of towns it can be said that the existance of this extra forest patches can affect dramatically the way of living in this towns, with more forest surroundings the potential of more tourists and activities concerning nature go up.

The potential change of the ecosystems could be beneficial, but at the same time the negative impacts of this should be consider.

Area 1- with forest patches

The scenario of the forest patches has a lot to do with the area, the openness of the area is highly appreciated, so with the addition of forest patches this openness will be reduced, as well of the visibility of the mountain, on the other hand the benefits could be a lot, with more forest in the area the species could reproduce more easily and diversify inside this huge patch of forest.



Area 1- overview with extra forest patches

The forest patches scenario is a little utopic , with the necessities of space for growing towns , and high density territory , this scenario could not work on a future reference, the question is that is enough natural areas that already exist or should the forest patches have to replace the lost forest of the wind mills?
The idea of the forest patches are the one that what could happen to the territory in case this scenario is carried on.

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Mögglingen-Böbingen
Scenario Forest Patches

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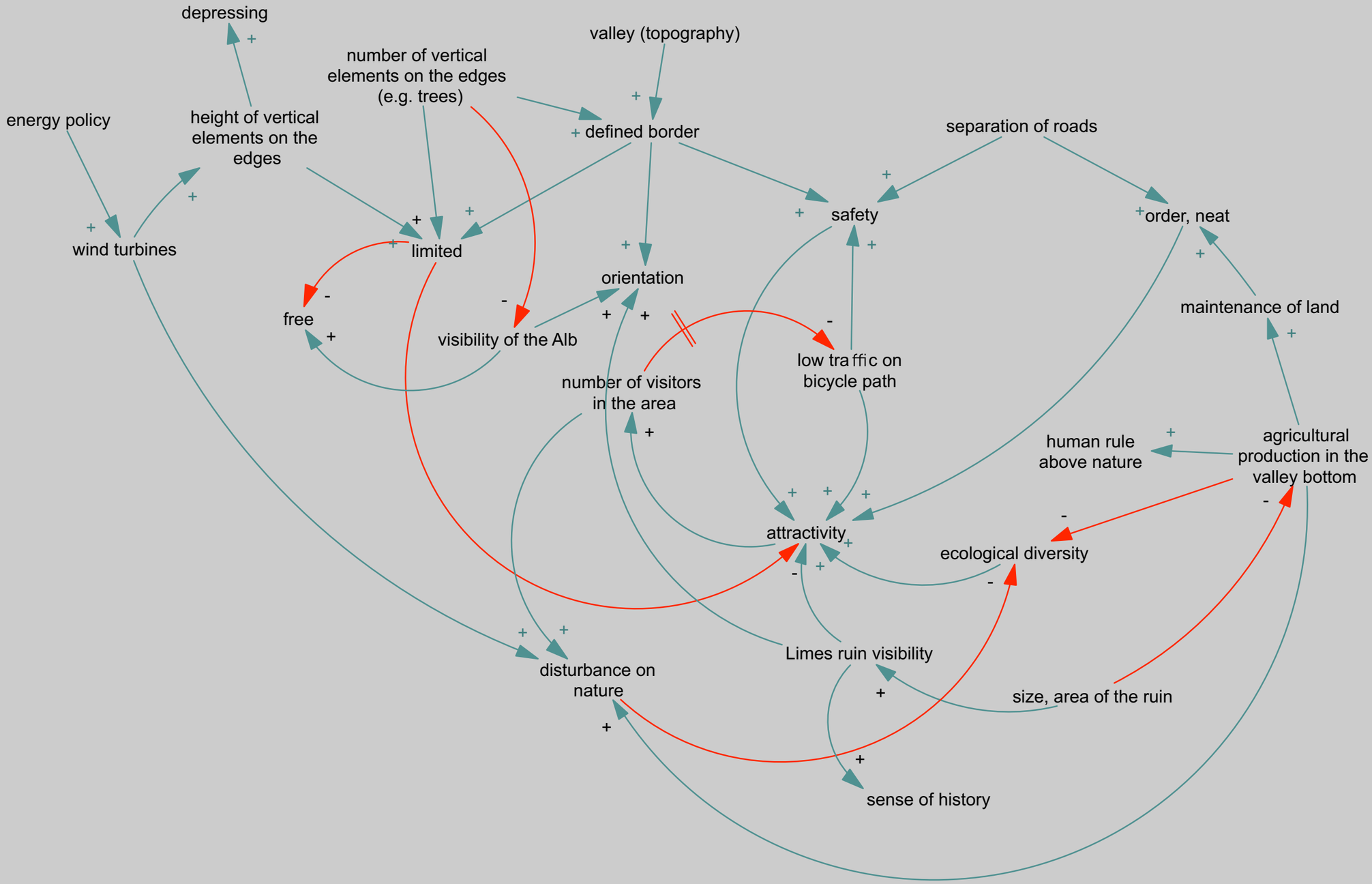
2. Böbingen - Zimmern



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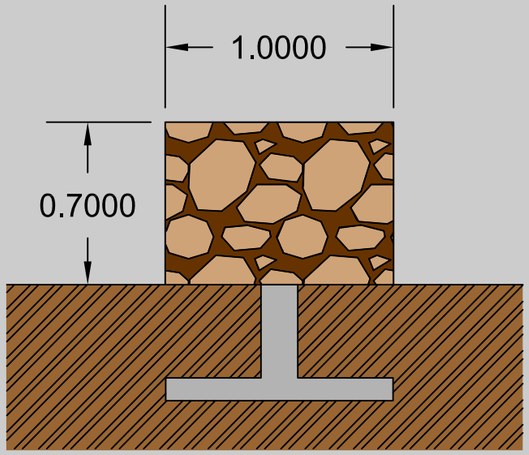
Personal perceptions and connections to the landscape

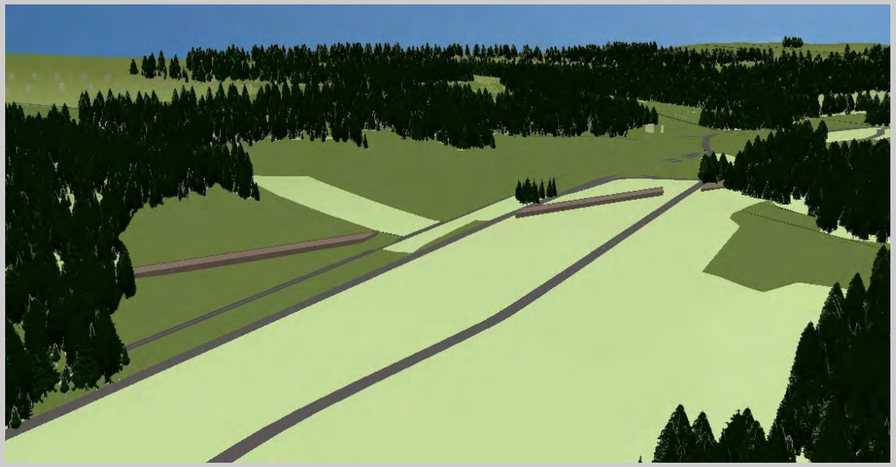
Scenario 3 - History and feelings
LIMES WALL

The sense of history in this areas is really important.
Therefore it was decided to emphasize this in the landscape.
In the 2. area from Böbingen - Zimmern the Limes wall is a feature of history and identity, with the reconstruction of a feature that reminds that it was once there, this could be done with the re-build of a small wall that doesn't disturb the landscape but it is big enough to remind people passing in the train or in car that it was one there.



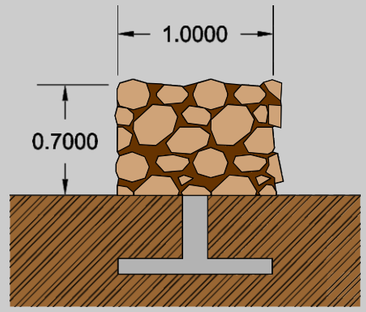
Section of the intended feature

Overview of the wall in the valley

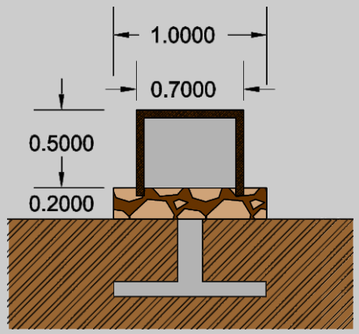


Detail of the wall in a closer look

The construction of the wall can be done in different ways, the most easy one is just as we show here, the other possibilities are in stone and wood, but for the character of the place and the modern techniques is better to do it just as a reminder of what was there is not intended to reconstruct as it was before because this will take a mayor archeological work that at the end will have the same effect in the end.



Wall reconstructed with natural stone



Wall reconstruction with stone and wood

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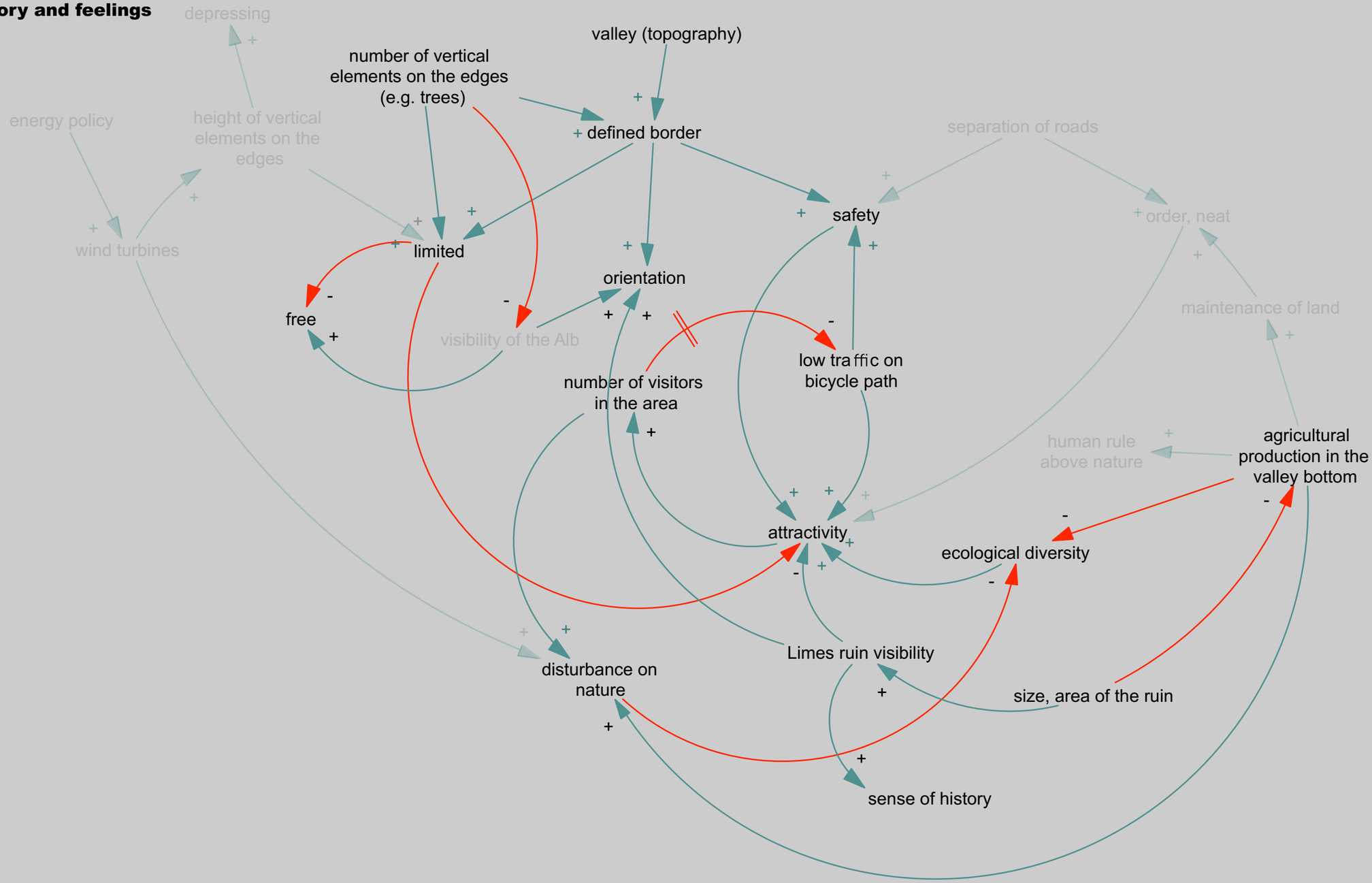
Personal perceptions and connections to the landscape

Böbingen-Zimmern
Scenario History and feelings



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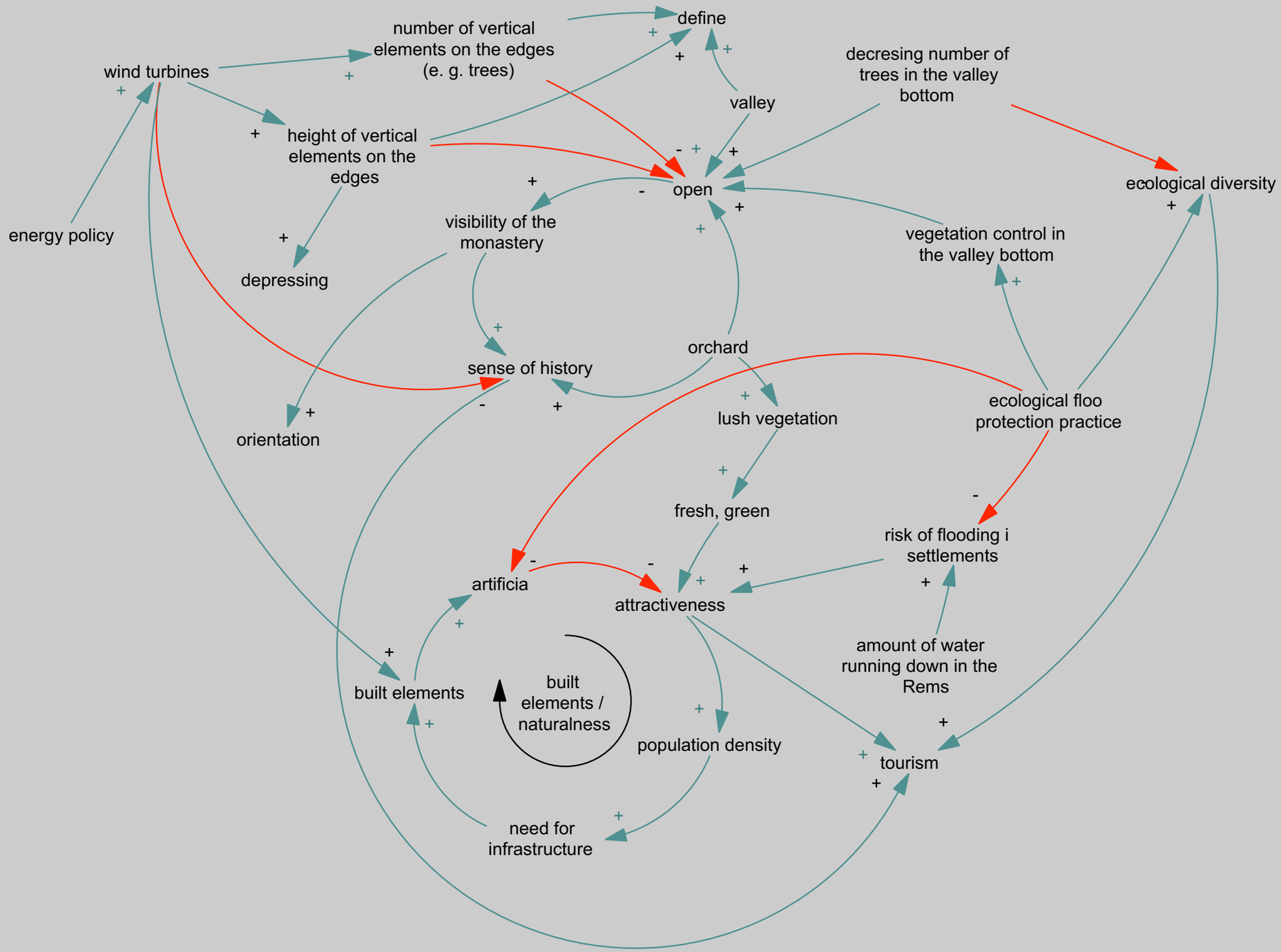
3. Lorch



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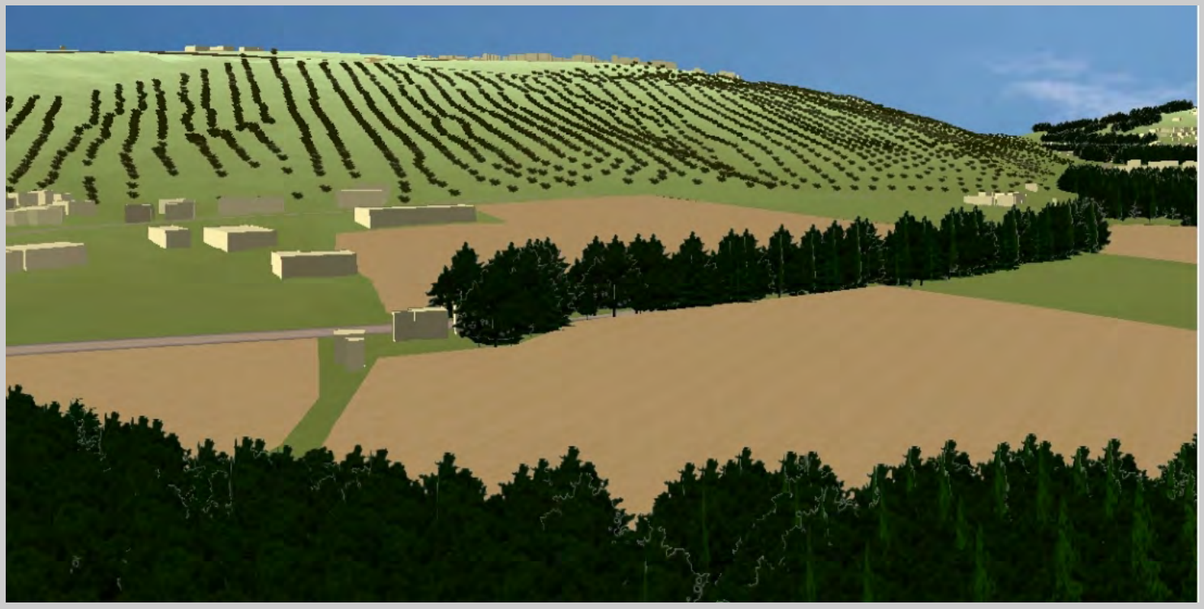
Scenario 3 - History and feelings
The orchards are a big part of the region, they have a feeling and sense of history that is very typical of this region, even though in this days the orchards are not a high economic value people still have a special part of them in their hearts.



Even the orchards could be a potential tourist focus, like the wine industry that attracts tourists this could be also important, with picking, producing and visits to this orchards this could be an interesting option, this area could be known by this activity and be noticed in the whole territory.

The other possibility for this region in feelings is to value the orchards as treasures, with less orchard in strategics places could be used as a showing of the traditional techniques of producing apples, at the end the possibilities are very big for this region.

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Lorch

Scenario History and feelings

6. Presentation Day

Contact

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