Living on the edge

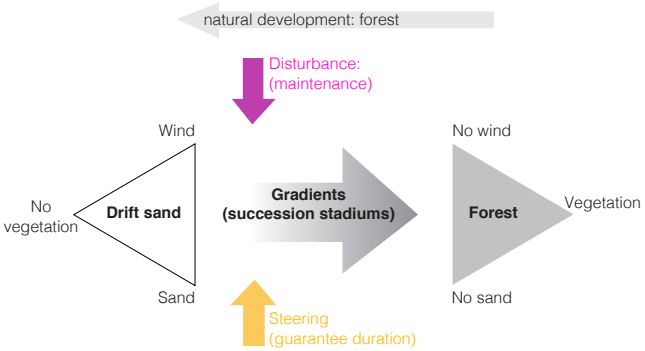
bio- and cultural diversity in Zuid-Limburg

Design Project by Jacoba Istel

My project is about enhancing and maintaining bio- and cultural diversity in Parkstad Limburg by designing a drift sand landscape as part of folk university.

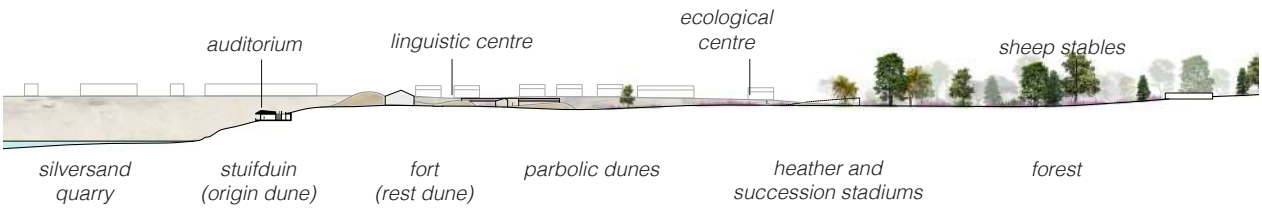
Local identity is still present in Limburg, and we typically notice this with their dialects. I want to utilize that mentality to create a stronger relation also to the natural local environment and at the same time preserve traditional local techniques of land use. A drift sand landscape is biodiverse because of its succession stadiums between sand dunes and gradually transforming into a forest. To keep all stadiums permanently the landscape, need human maintenance.

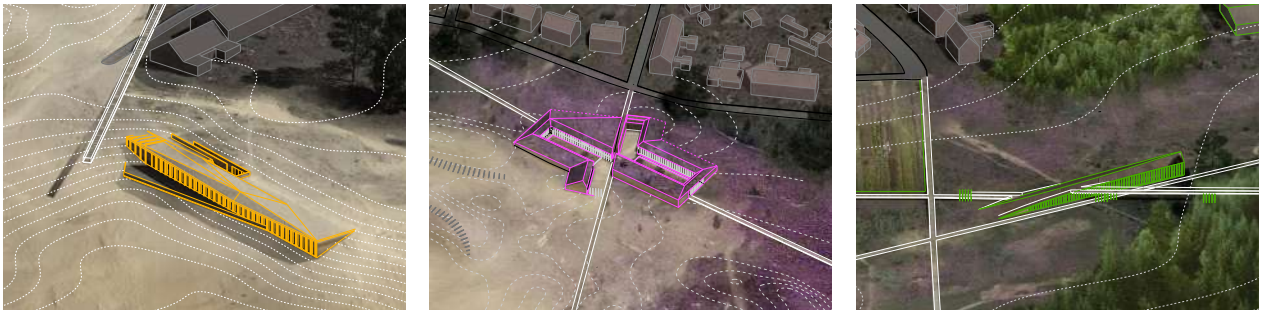
A former silver sand quarry can be used as drift sand source for a new landscape park connecting to the existing heather now blocked by infrastructure. Methods on how to preserve all succession stadiums of the drift sand landscape will be taught at the folk university.

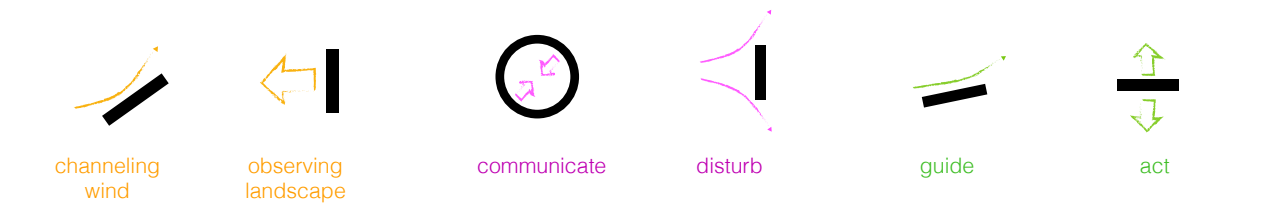


human shaping the landscape by steering and disturbing to guarantee duration and renewal of all succession stadiums

Architecture functions as tool to steer and to understand the landscape. Three buildings form the campus of the university. Buildings to observe, communicate and finally how to act on the environment in way that both us and the natural surroundings can profit from it.







Natural and social functions of the buildings

The correlation of bio- and cultural diversity in Zuid-Limburg

at the example of landuse and language

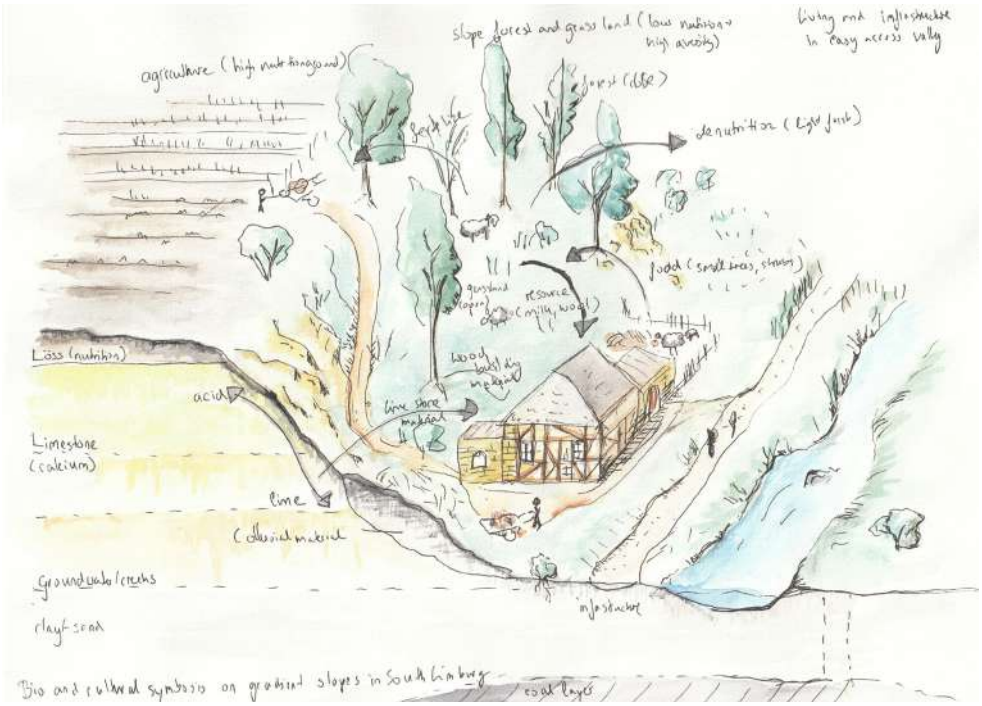
Research by Jacoba Istel

How can preservation of local culture help to conserve biodiversity and foster a better understanding of how humans can interact with the ecosystem at the example of Zuid-Limburg?

My research's goal is to raise awareness to the importance of cultural diversity and how it helps us to preserve biodiversity. The loss of cultural and ecological diversity is a danger to human survival. Both are crucial for the existence of a stable and resilient social and environmental system. Globalization, standardization, and the tendency towards monocultures are a threat to that. Looking at both the correlation of ecology and cultural development and how these two could benefit one another could offer new perspectives on preserving our planet.

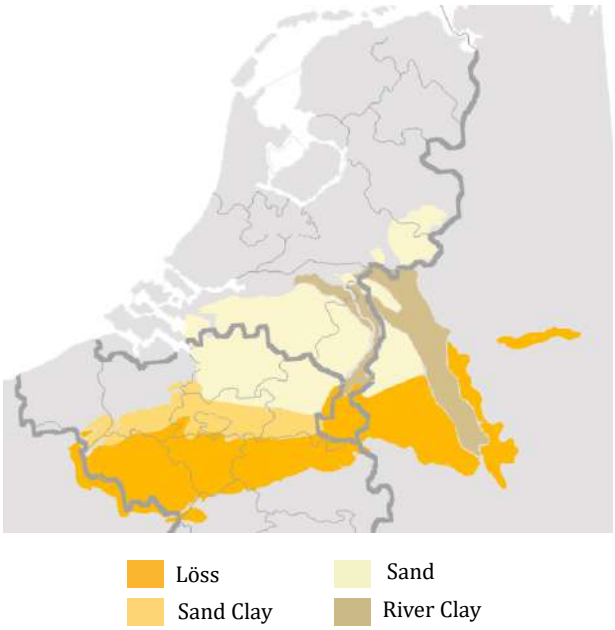
I researched into the culture of Zuid-Limburg and its development, which is still focused on the small local scale. The reason for the high variation of dialects for example is mainly due to isolation and the amount of environmental influence factors such as other languages. This also applies to ecological habitats with high species richness. With the traditional land use in heathers or the use of the grass slopes, biodiverse habitats can be even created by location specific cultivation of humans, which become then influence factor themselves in a positive way.

By understanding these principles, we can interact with the environment in the right way, and by that, I mean understanding and acknowledging the specific local natural habitats, we can not only maintain it but could also live in an almost symbiotic relationship with our environment and still foster growth of culture, economy, and ecology.



Section through a low nutrient grass slope landscape to illustrate the symbiotic relationship of ecosystem and human use of the land and its geology.

Distribution of the Limburgs dialect



Distribution of Löss and other types of ground

Dialect area	Official language	Dialect
Noord Limburgs	Ik (I)	Ik
Zuid Limburgs	Ik (I)	Ich

Difference dialect north to south

Dialect area	Official language	Dialect
Geuls (NL)	aardappel (potato)	aerappel
Heerlens (NL)	aardappel (potato)	irpel
Kerkraads (NL)	aardappel (potato)	eëpel
Solingen (GER)	Kartoffel (potato)	Erpel

Gradual transformation dialect west to east

1. Origin sand dune with no vegetation
2. Sand with 5 % grey hair grass (Corynephorus canescens)
3. Sand with hair moss(polytrichum)
4. Various lichen
5. Grass vegetation: sheep's fescue, large lichen, brown ben tgrass
6. Shrubs: common heather(struikhei)
7. Shrubs: Blackberry (kraaihei)
8. Solitary trees (oak,pine)
9. forest

Biodiverse succession stadiums of a drift sand

sheep grazing

„plaggen"
(remove nutritious soil)

„plaggenhut"

Advantage for people and ecosystem through maintenance