



## NEW ALPINE GROUNDS

PLANNING WITH TRANSFORMATED LANDSCAPES IN GLACIER FOREFIELDS  
MORTERATSCH GLACIER / PASTERZE / GEPA TSCHFERNER

Country / City	Germany / Hannover
University / School	Leibniz Universität Hannover
Academic year	2018/19
Title of the project	New Alpine Grounds
Authors	Johanna Großlümern

## TECHNICAL DOSSIER

Title of the project	New Alpine Grounds
Authors	Johanna Großlümern
Title of the course	Master Thesis
Academic year	2018/19
Teaching Staff	Prof. Dipl.-Ing. Katja Benfer, Prof. Dr.-Ing. Martin Prominski
Department/Section/Program of belonging	Fakultät für Architektur und Landschaft, Institut für Landschaftsarchitektur, Institut für Freiraumentwicklung
University/School	Leibniz Universität Hannover



### Written statement, short description of the project in English, no more than 250 words

This master's thesis is based on the impact of climate change on the glacial landscape in the alps. Due to global warming glaciers are receding rapidly, which leads to the growth of glacier forefields. The consequences of glacial melting and thawing permafrost involve hydrological changes such as flooding and dry phases of proglacial meltwater streams, soil genesis, ecological succession and increasing natural disasters like rockfall or mudflow. The transformation of the characteristic landscape concerns the tourist industry which plays an important economic role. The romantic landscape of white alps covered by glaciers is being displaced by a dreary landscape consisting of ground moraines and steep lateral moraines. Nevertheless, on closer inspection the development of glacier forefields proves to be versatile. A comparison of three site examples shows that different topographical situation, landscape elements and diverse dynamic processes require the location-based planning. The design assumes zoning especially a visit ban in the hazard zones, such as lateral moraines, which are vulnerable to erosion. A minimization of human interference supports nature conservation in protected areas. The individual experience of dynamic landscape is the main design topic, which include the characteristic water spaces and specific space sequences, such as rock formations or areas dominated by vegetation. Particular design strategies are developed to show how landscape architecture can react to the specific processes in glacier forefields. Landscape architecture could strengthen a planning which reacts to the continuous development of glacial landscape and is able to make the typical dynamics visible and experienceable.

For further information  
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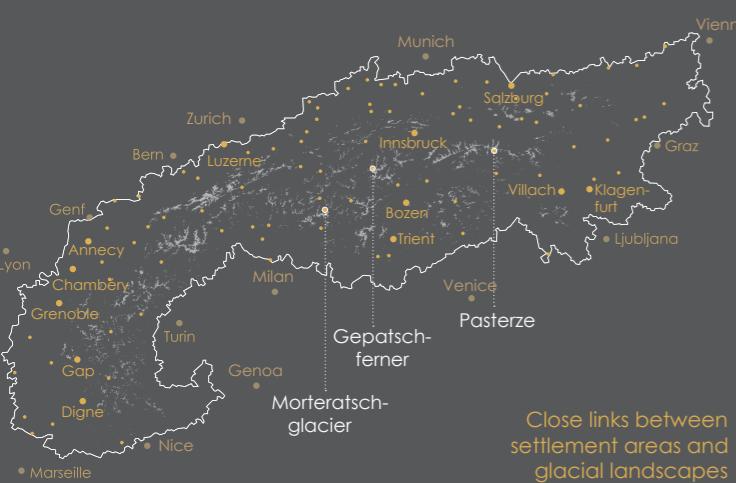
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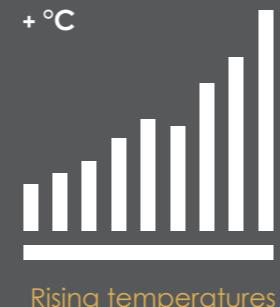
# CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020  
SCHOOL PRIZE

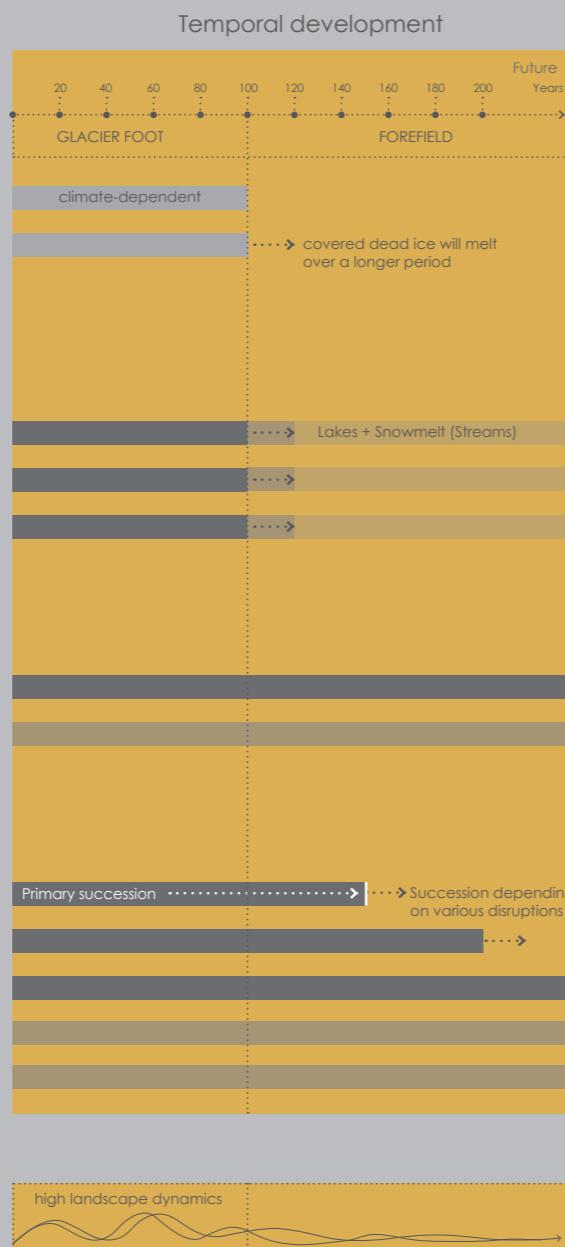
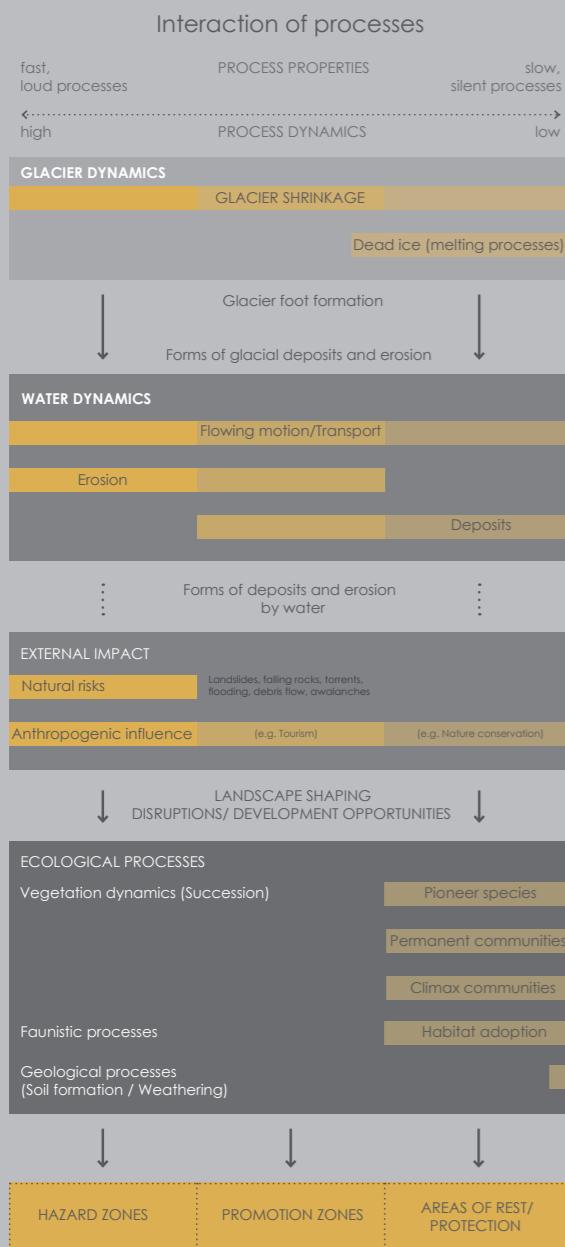


## BACKGROUND / PROBLEMS

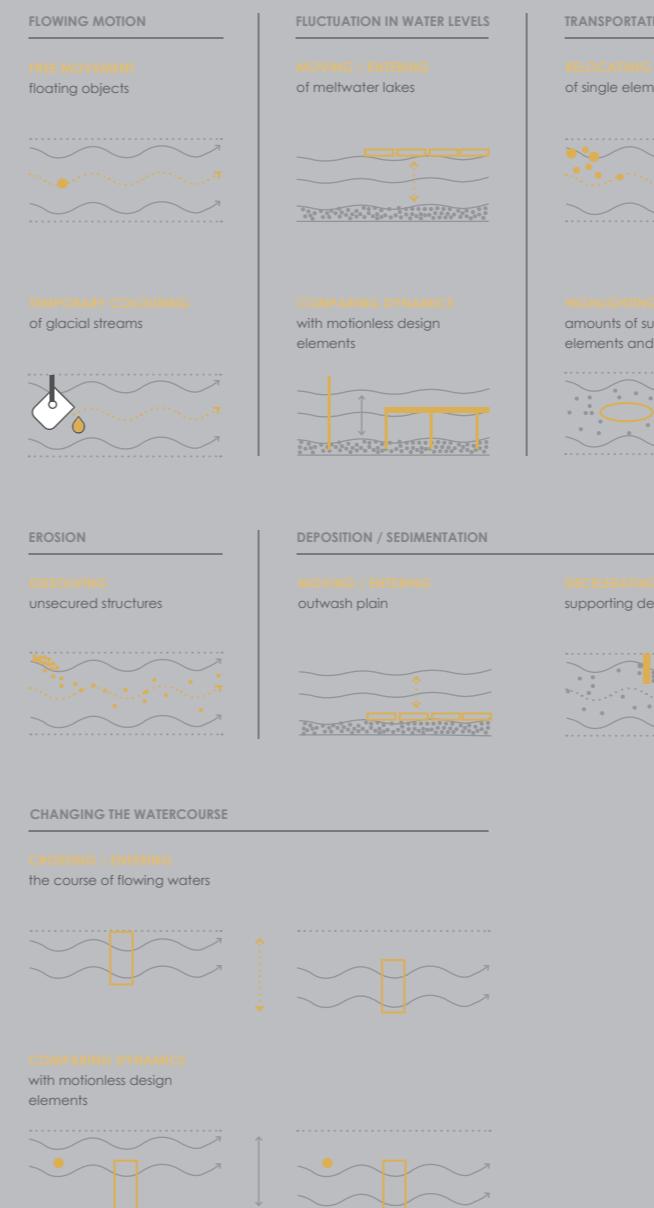


Glacier foot

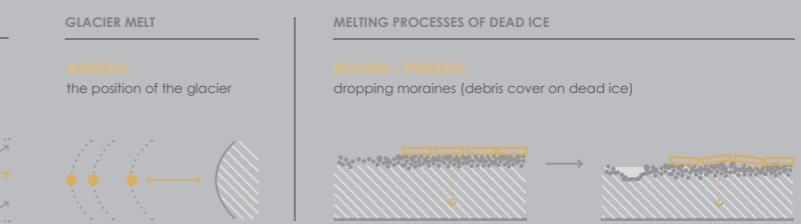
## COMPLEX GLACIER FOOT



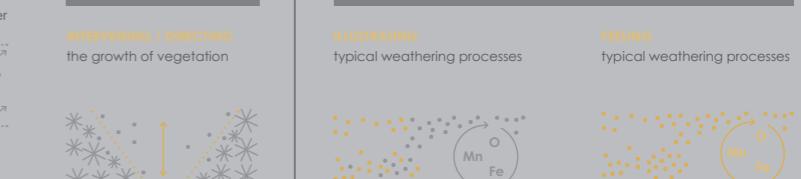
## WATER DYNAMICS



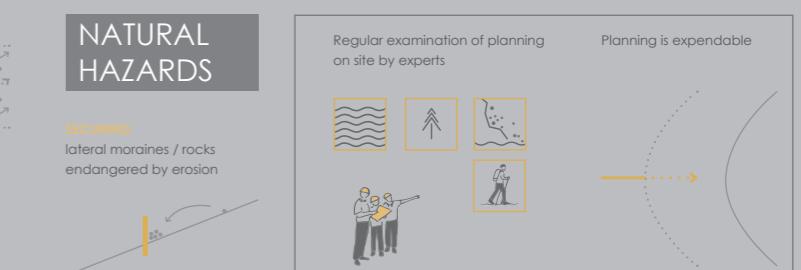
## GLACIER DYNAMICS



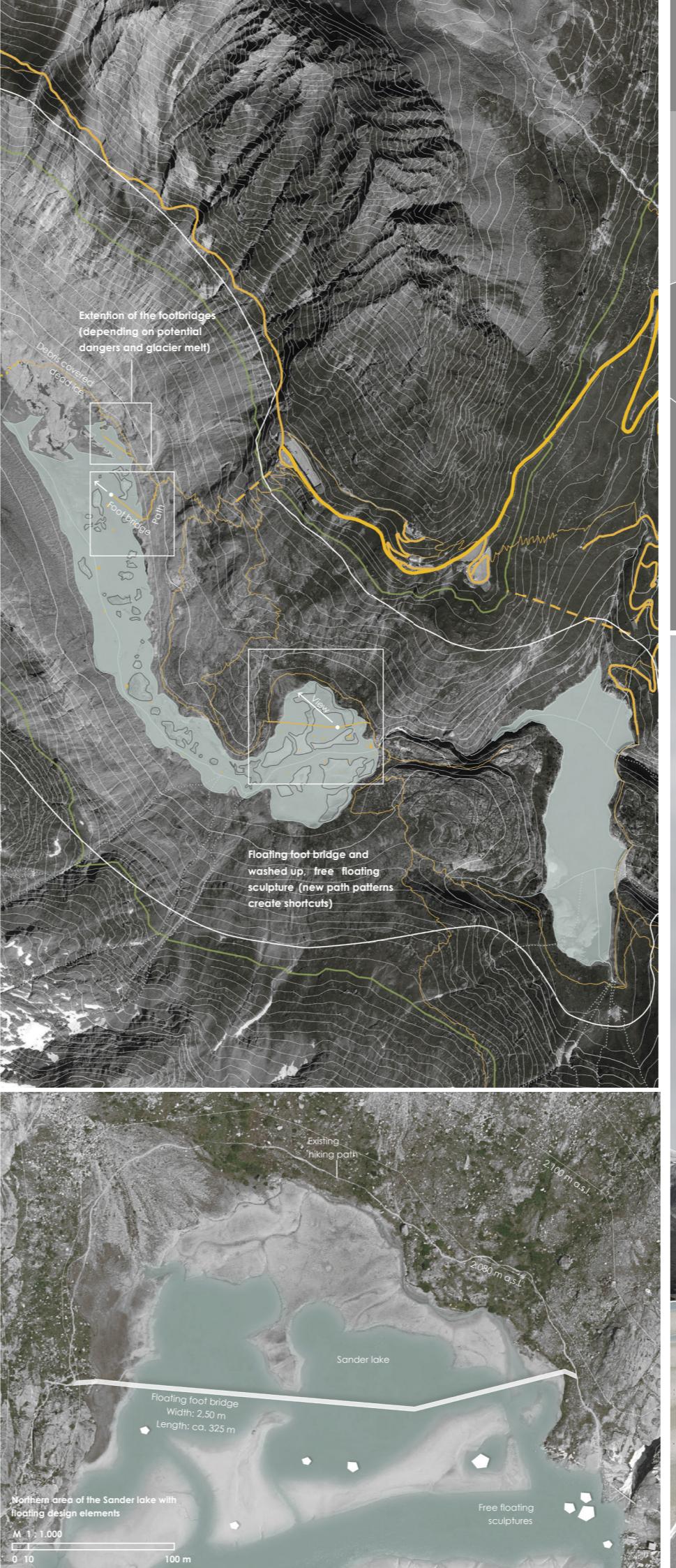
## SUCCESSION



## NATURAL HAZARDS



# PASTERZE / AUSTRIA



# GEPATSCHFERNER / AUSTRIA

