

*Between control and „laisser-faire“*



Country /City .....  
University / School .....  
Academic year .....  
Title of the project .....  
Authors .....

Switzerland / Zurich  
ETH Zurich  
2021 - 2022  
Cumin Protectzium  
Michael Mohr, Salome Weiss



## TECHNICAL DOSSIER

<b>Title of the project</b>	Cumin Protecziun
<b>Authors</b>	Michael Mohr, Salome Weiss
<b>Title of the course</b>	cinétique, climate-change adaptation to natural hazards
<b>Academic year</b>	2021 - 2022
<b>Teaching Staff</b>	Martina Voser, Coralie Berchtold, Yann Junod, Sofia Prifti
<b>Department / Section / Program of belonging</b>	D-ARCH Department of Architecture / Landscape Architecture / Studio Voser
<b>University / School</b>	ETH Zurich



### " Between control and `laisser-faire` "

It has already been proven that in Graubünden, as well as in other alpine regions in Switzerland, there will be, in the future, increased threats to inhabitants and villages from natural forces such as avalanches, debris flows and rockfalls. The permafrost is increasingly thawing due to rising temperatures, unleashing unpredictable and incalculable energies and forces. Taking a closer look at the Engadin valley, numerous protective structures with a significant impact on the landscape can be observed. The current response to such natural events primarily involves purely monofunctional, technical engineering structures. While protective structures are necessary, the question that arises is how can they be designed in a non-monofunctional manner. How can we design along with the danger rather than against it? "Cumin Protecziun" responds to natural hazards in a site-specific way, taking into consideration both the natural and built environment and offering added value to both. Protective structures, constructed with local, natural materials and with minimal impact on the landscape, can be inhabited and utilized by people. Through thoughtful placement and arrangement, these structures can generate a diverse range of landscape forms. Samedan was selected as the location for this pilot project due to its strategic position in the valley, in terms of public transportation and its advantageous sunny slope.

For further information

**Máster d'Arquitectura del Paisatge - UPC**

Contact via email at:  
master.paisatge.comunicacio@gmail.com

biennal.paisatge@upc.edu

**Máster d'Arquitectura del Paisatge - UPC**

Sede ETSAB - Universitat Politècnica de Catalunya

Calle Jordi Girona, 15. Edificio Omega 1-3  
08034 Barcelona - Spain

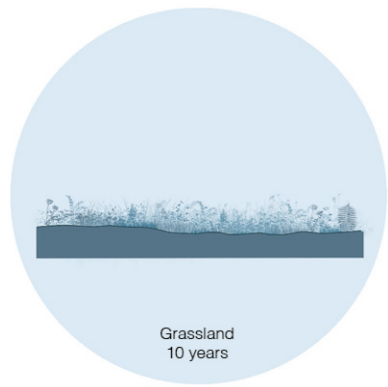
COAC - Colegi oficial d'Arquitectes de Catalunya

Carrer Arcs, 1-3  
08002 Barcelona - Spain

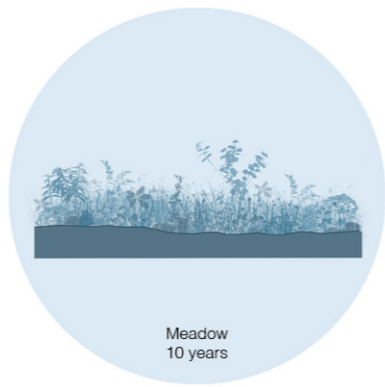
12th International Biennial Landscape Barcelona

Barcelona October 2023

**SCHOOL PRIZE**



Grassland  
10 years

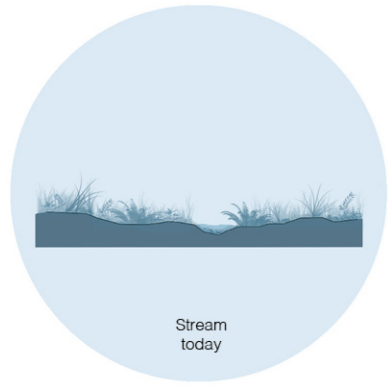


Meadow  
10 years

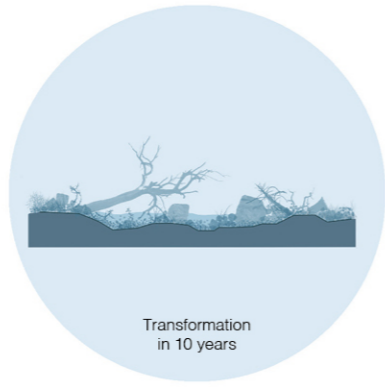


Enduring hedges  
10 years

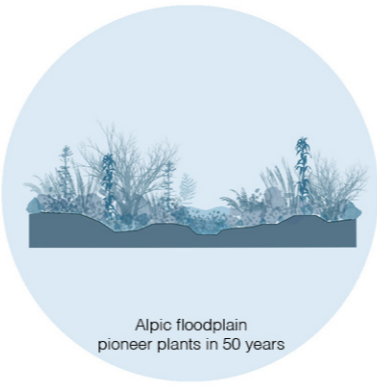
Transformation of the cultivation land



Stream  
today



Transformation  
in 10 years



Alpic floodplain  
pioneer plants in 50 years

Evolution into an alpic floodplain landscape



Existing  
today



New  
initial planting in 10 years

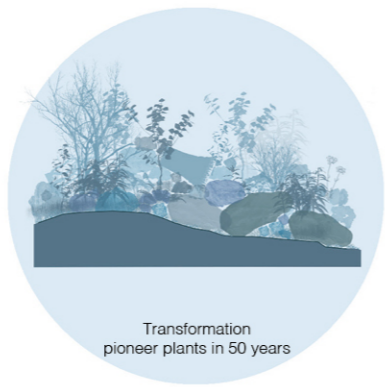


Transformation  
in 50 years

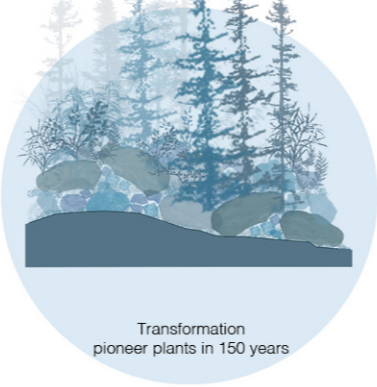
Evolution of the protection forests



In 10 years

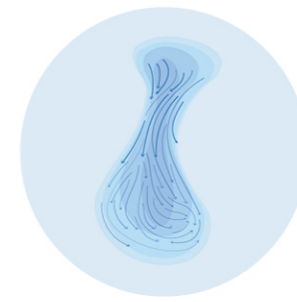


Transformation  
pioneer plants in 50 years

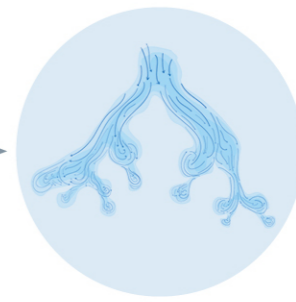


Transformation  
pioneer plants in 150 years

Evolution of the deposition areas



Avalanches today  
100% force / energy  
100% rockslide



Avalanches in the future  
Reduction of force / energy  
rockslide material distribution



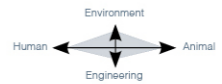
Objective \_ steering natural forces



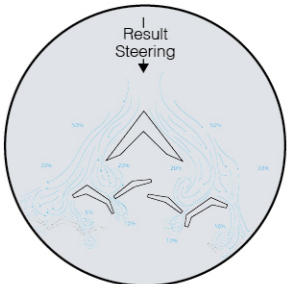
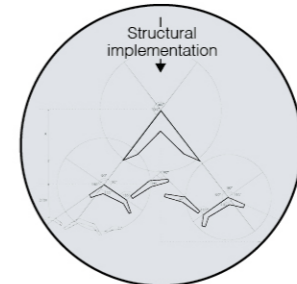
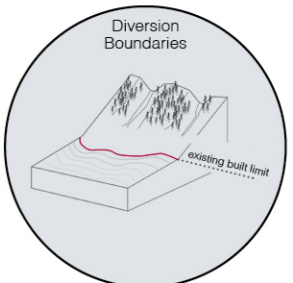
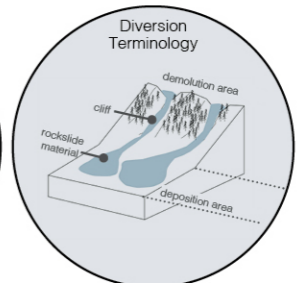
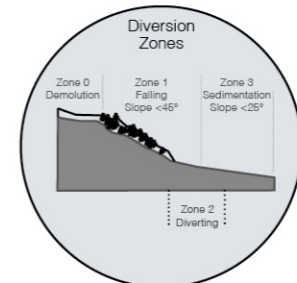
Protective structures today  
monofunctional / technical  
animals, environment and humans  
not considered



Protective structures  
in the future  
added layers



Objective \_ protective structures as added value



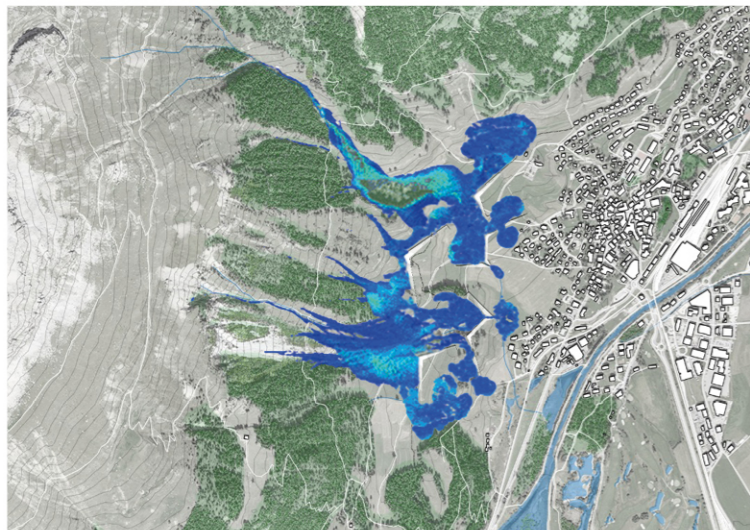
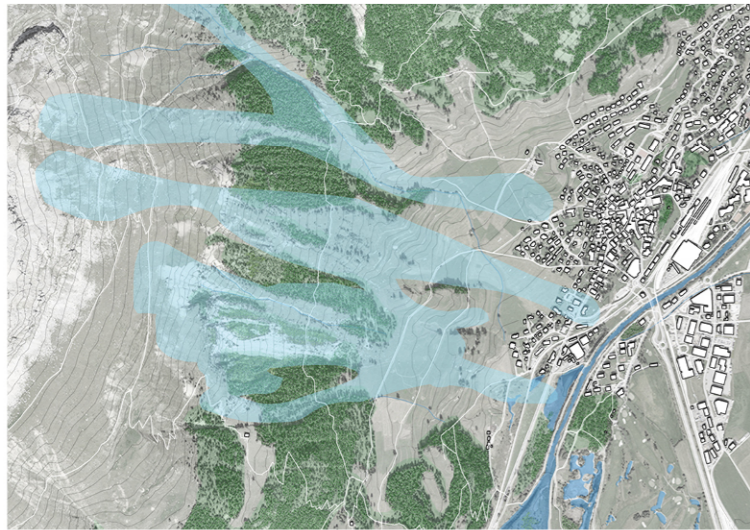
Implementation of the protective structures



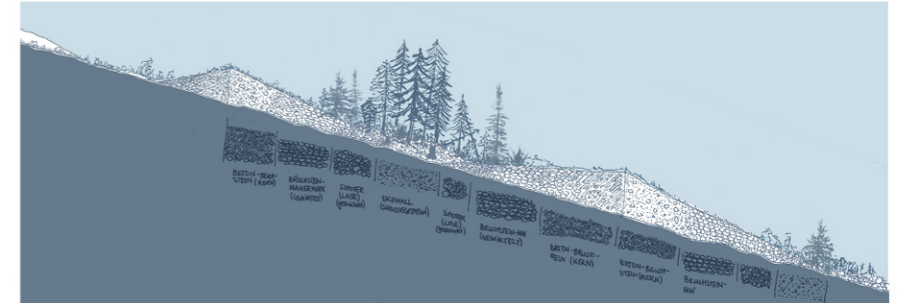
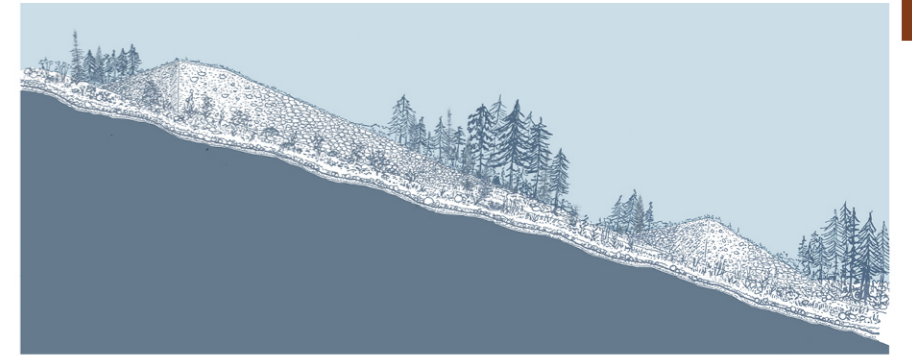
Engadin \_ climate-change adaptation to natural hazards



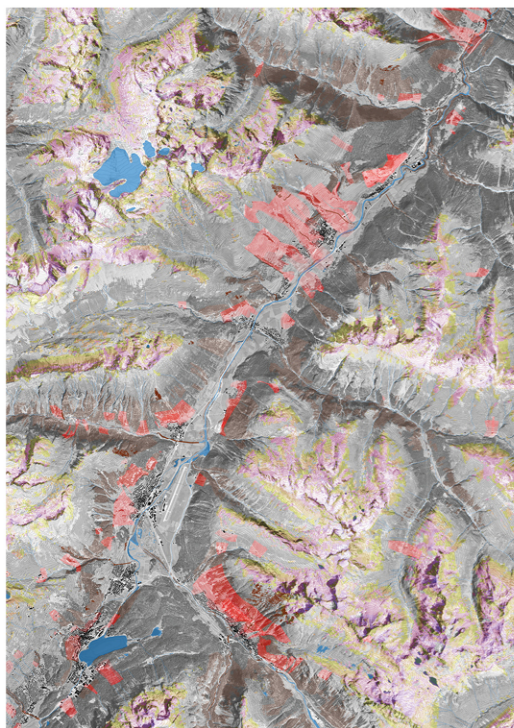
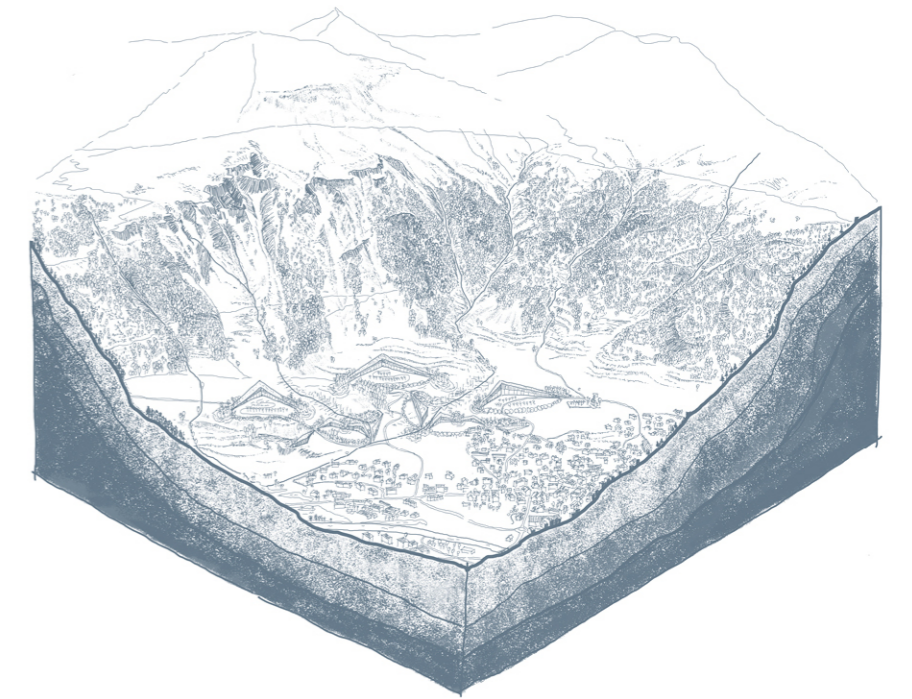




Samedan case \_ natural forces reacting to the new protective structures



Materiality of the protective structures and vegetation



Analysis map of the natural danges in the Engadin valley



Guiding forces \_ model experimenttation





