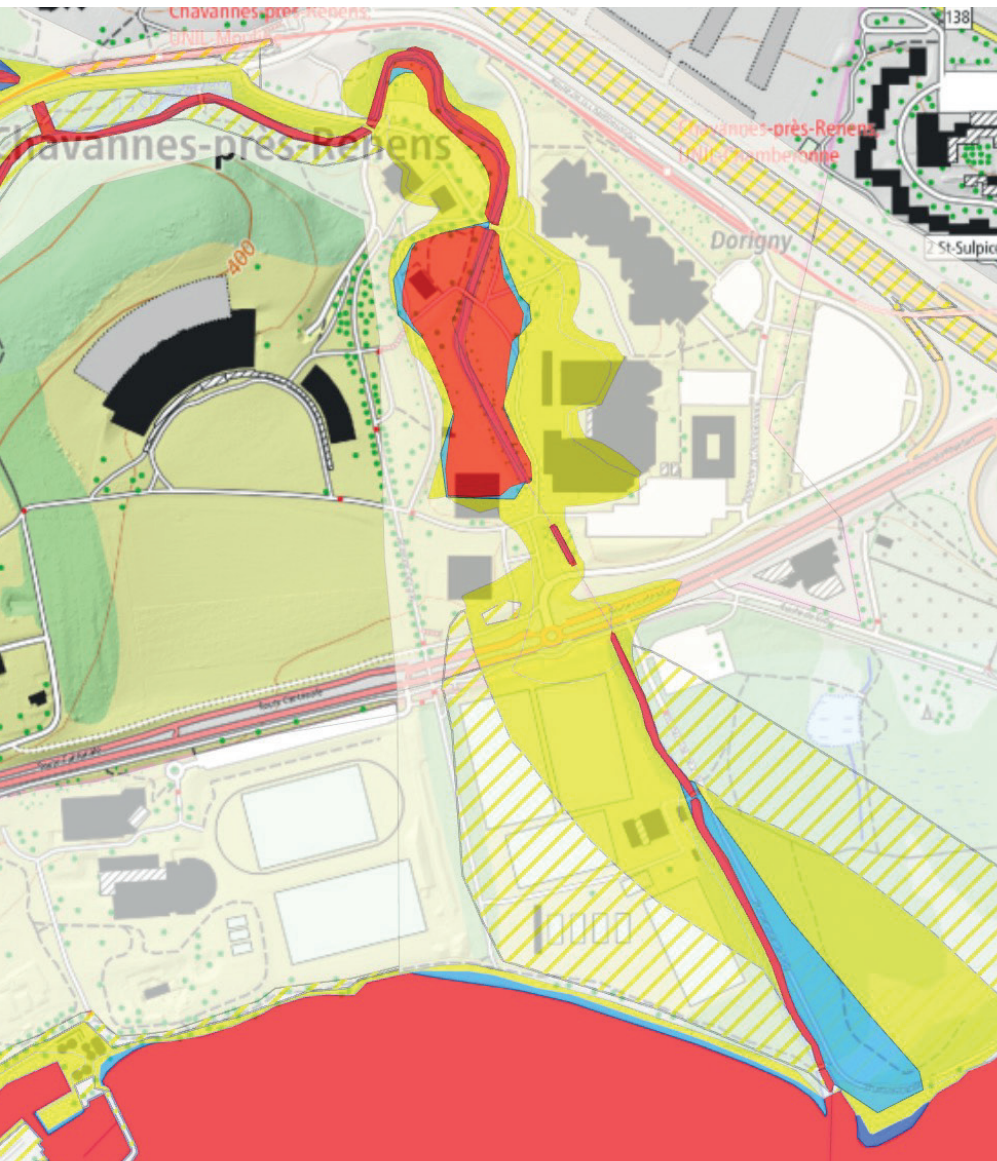
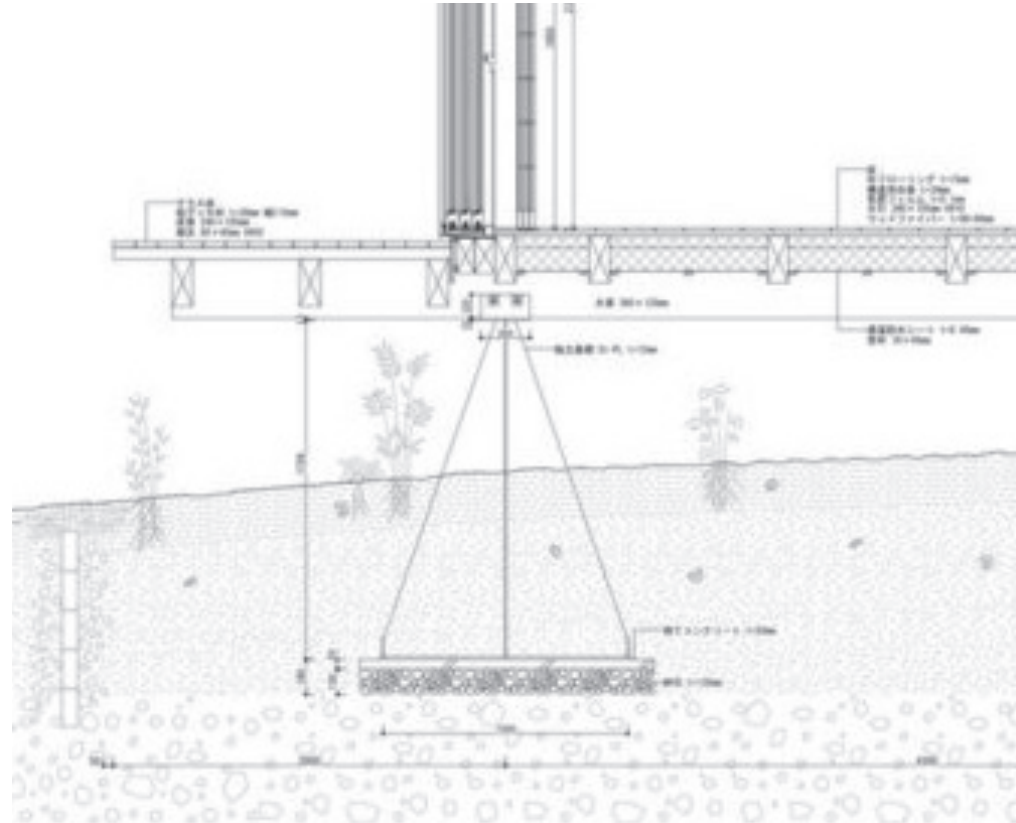




Guichet cartographique Canton de Vaud, Risk of inondation

Constrained

The river has been forced by human construction to go down a certain path. With global warming the risk of inondation in this area is becoming worrying, and the physical barriers that constrain it only make the possible damages worse.



Akeno Raised-Floor House Foundations, Fuminori Nousaku Architects

Meandering

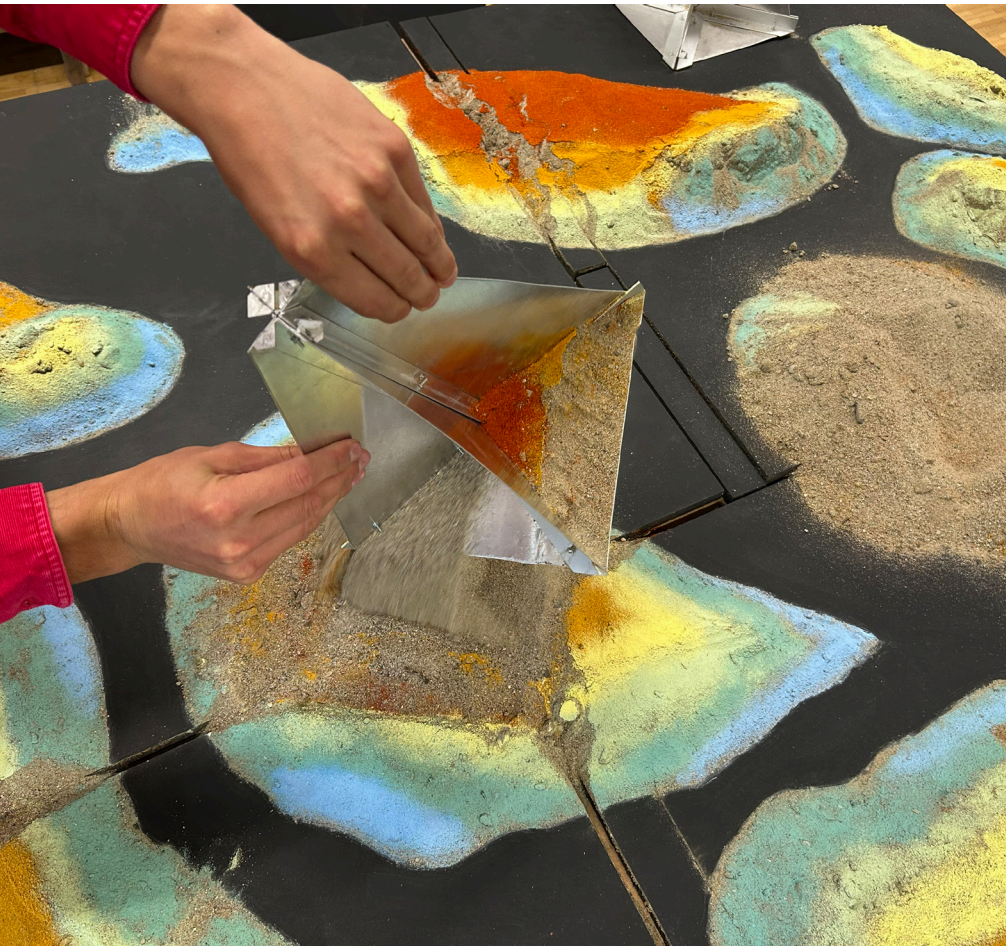
The river has a meandering nature, it naturally changes shape and creates new paths for its self. Placing metal structure that gather sediments behind them, we wish to guide it to new spaces it can invade limiting damage.



Harold Fisk's Meander Maps of the Mississippi River (1944)

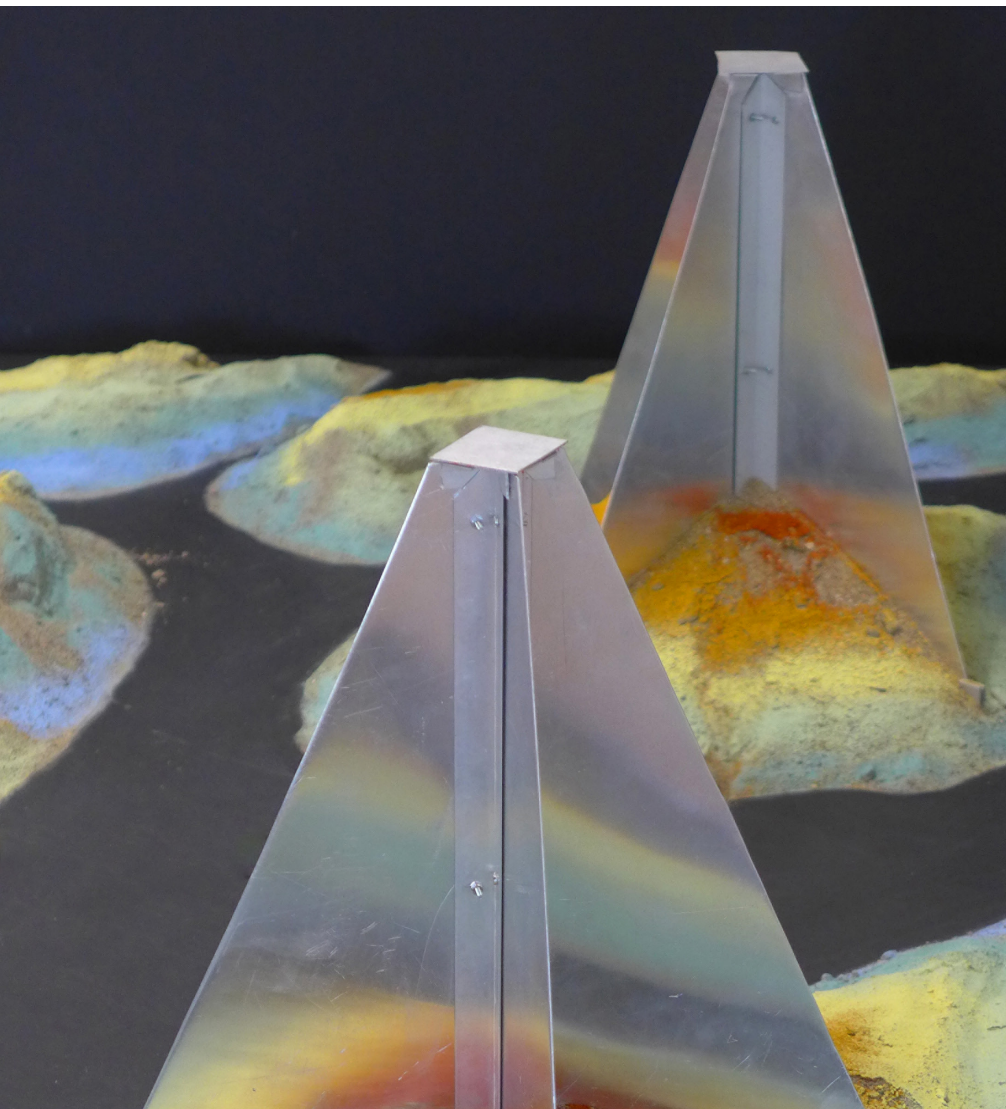
Sedimentation

River is constantly moving. The current continually bringing down what match his flow. Sediments are scratched off then being accumulated somewhere else. On a foundation.



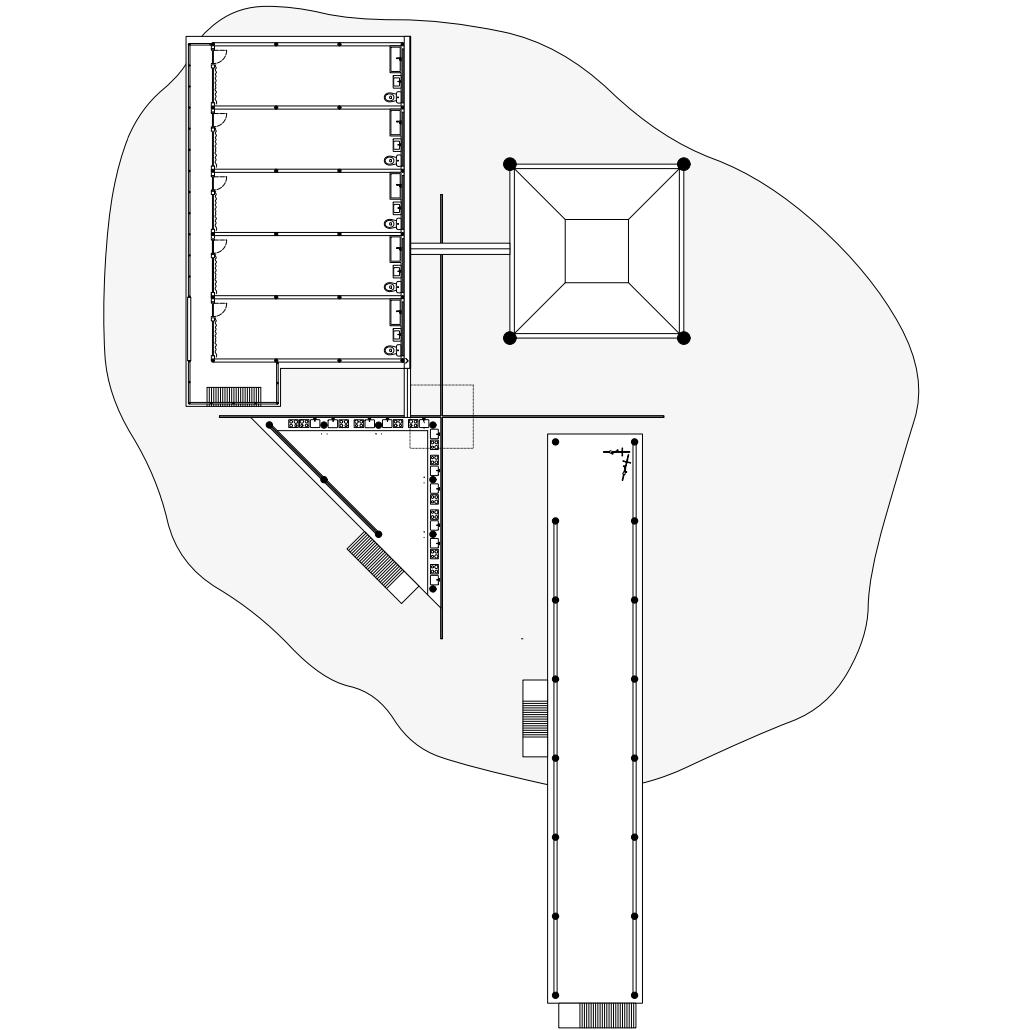
Stratification

From a solid anchor, one can accomodate the river constant variations due to weather actions. Another layer is brought once the space becomes out of reach of alluvial deposit. The foundation rises its head above sedimentation. Another space is made usable. Above the floods.



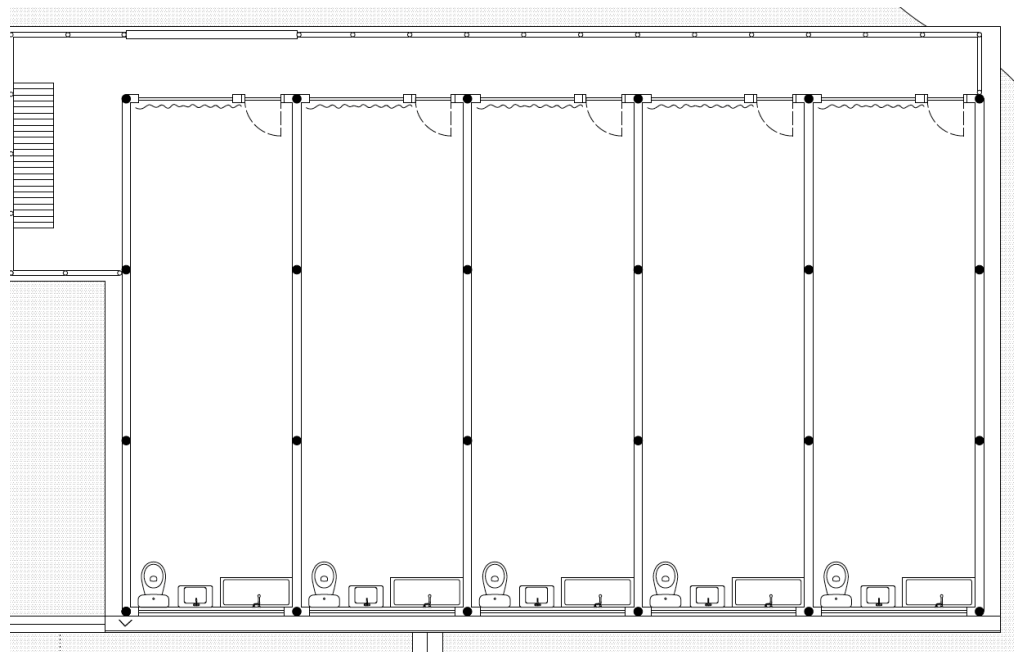
Metamorphosis

Moment of static challenge, the foundation becomes mast. Specifically here, a central pole thickens the layer where human housing can occure. Planes like sail provide shelter (from the wind, sun, rain) and view. The (river-) flow is fragmented into moments of intimacy, dots where life can persist. From roughly 10m above the first intervention, cables are put in tension and spread other foundations around, anchoring the structure deeper into the river bed and expanding the latter even more. On the other hand, those structures becomes independent, self-standing shapes that each have different spacial affinities. Some maintain a relation to the flowing water underneath, becoming accessible, a place to relax, a harbour... Others remain isolated, elevated platforms more likely to be affected by the wind. The core foundations blossom into a variety of type for human living.



Grid

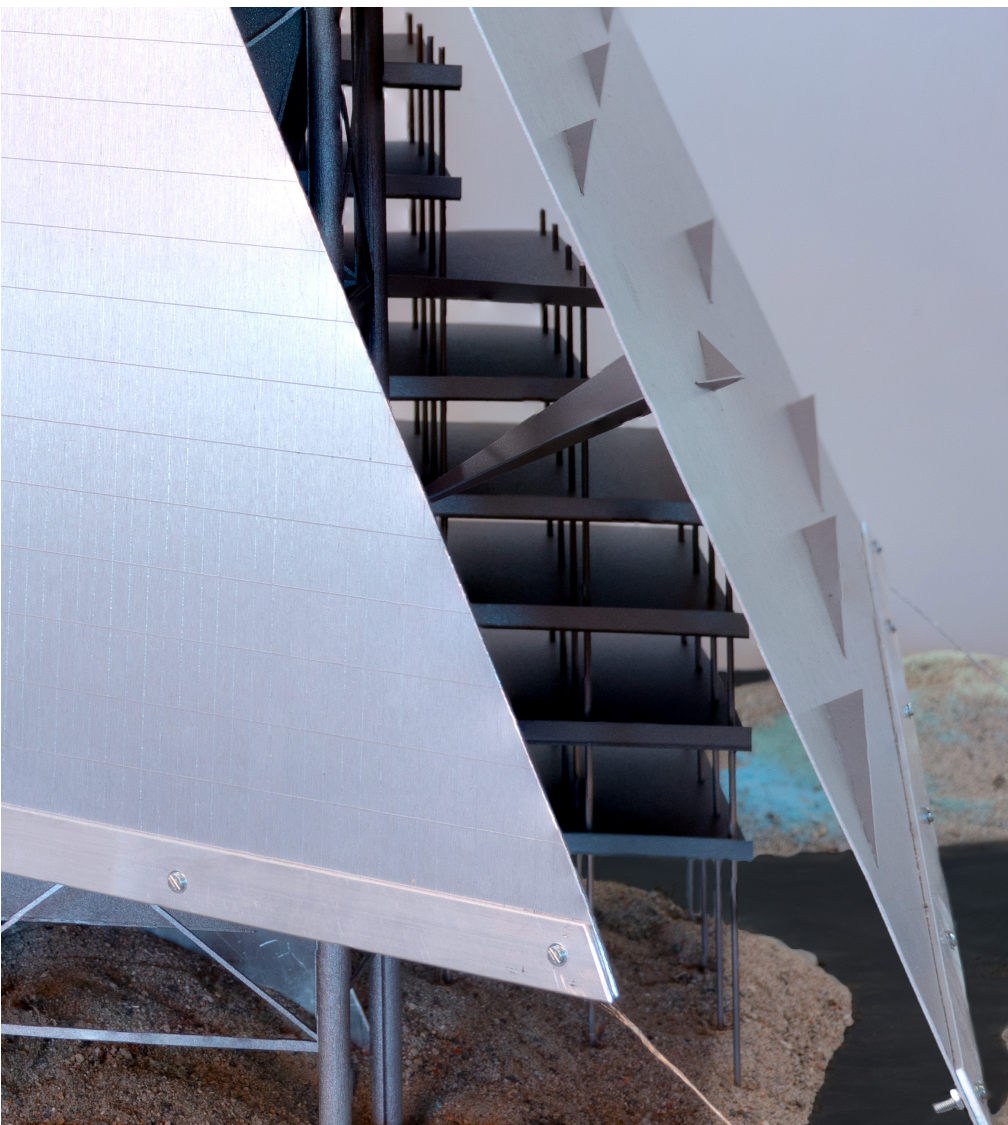
The project is based on a structural grid that is found in each section, giving coherence to the whole. The grid shapes the volumes, with the buildings emerging directly from this functional structure, which generates their geometry.



Architektur Basel - Heinrich Degelo Radikalsten Wohnhaus der Stadt

Bathroom

The dwellings follow the principle of minimalist design inspired by Heinrich Degelo's Erlenmatt Workshop Cooperative project. Only the bathrooms are furnished; the rest of the dwelling remains open plan, allowing residents to configure the space according to their needs.



Autonomy : water and electricity

Each element of the project has its own importance: the different sails are designed either to collect water or to generate electricity. By integrating solar panels on some surfaces and metal elements that guide water on others, an autonomous system is created. The project thus aims to achieve a form of self-sufficiency, with water supplied by a connection to a water tower and electricity provided by solar panels. The entire technical system contributes to the independent operation of the building.



Bernd, Hilla Becher Water Towers



Renaturalization of the Aire river, the chocolate plate morphologie, photo by Fabio Chironi

Rubbish barrier

While walking along the riverbank, we noticed that the Chambronne was not spared from pollution. According to study, 80% of plastic that ended up int the ocean come from the rivers. Most of the trash, especially plastic, are present in the first 50 centimeters belove de water surface.



Model picture

Renaturalization

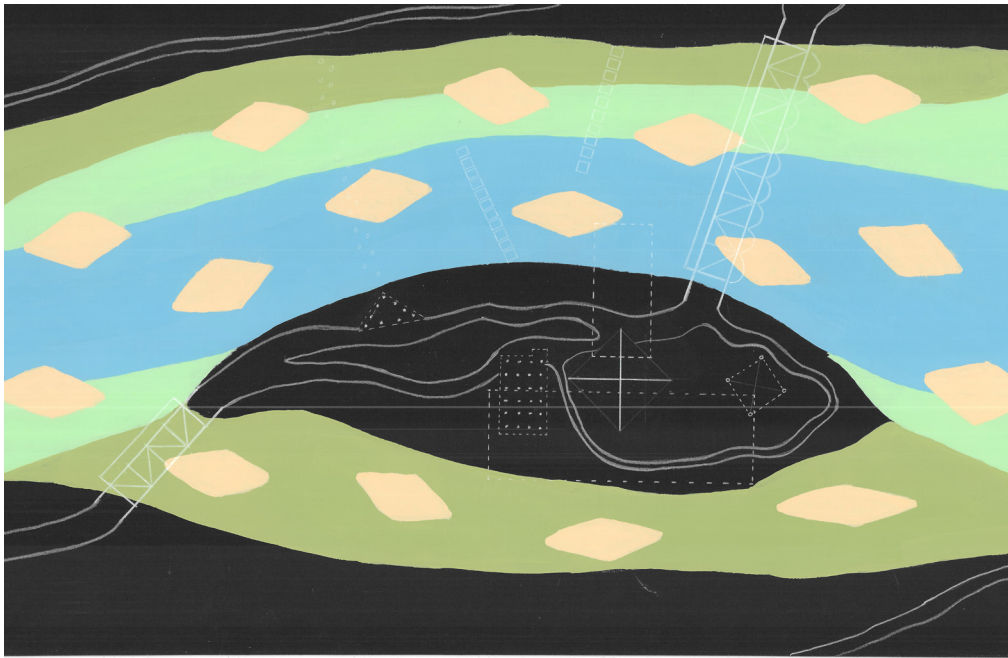
is a process that aims to restore space and return the river to its natural state. This is achieved through measures such as opening up canalised sections, widening the riverbed and creating flood expansion areas. These measures improve water quality and biodiversity. Some renaturation projects adopt different channel morphologies, such as the 'chocolate plate' shape. This allows the river to decide its own course and re-create varied environments that are favourable to fauna and flora.



Test instalation of a trash barrier on Timber river, SEADS

The machine of dorigny

The city of Lausanne has an ongoing project that aims to renaturalise the Chamberonne. We have joined this project and, using all this information, we have created a series of installations on the Dorigny site to stop and collect waste of all types and sizes. This waste will then be stored in a large library near the installations. Finally, we are using the 'chocolate plate' method to renaturalise the river.



Site plan hand drawing