

Section Sciences et Ingénierie de l'environnement Design Project 2016 (semestre de printemps)

Proposition n°25

Hill City – working and living under one roof Eco-friendly energy solutions for the city

Encadrant externe

Chiavi, Erich

Mattawaldstrasse 15 a, Davos-Dorf

Téléphone +4179 414 43 21

Institute of Applied Physiology

Mattawaldstrasse 15 a, Davos-Dorf

www.chiavi.ch

Encadrant EPFL

Prof. Christian Ludwig

EPFL ENAC IIE GR-LUD

CH B2 398 – Station 6

1015 Lausanne

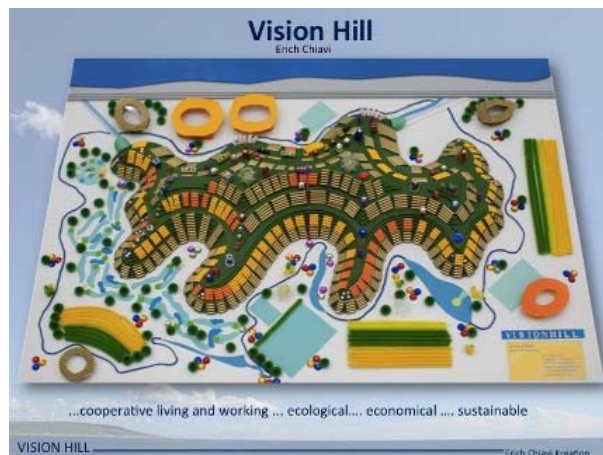
Tél: 021 693 76 78

Email:

christian.ludwig@epfl.ch

Descriptif du projet

Future living in "Hill City" created by Erich Chiavi



To guarantee sun light, quiet (no traffic), clean and safe living surroundings for every citizen was my vision when I started to develop the idea of future living.

"Hill City" is a city, built on an artificial (e.g. concrete) hill, where live about 50.000 inhabitants. The hill itself is about 150-200 meters high and 3,5 kilometres long. By building a hill, we save a lot of land and bring people together in safe surroundings. And by placing cars, garages, storages stocks etc. inside the hill we can offer convenient, quiet and bright living surroundings for all the citizens on the hill.

"Hill City" is a city where all the families can co-finance the housing and living. The housing can be re-selected according to the desired position. Modern building constructions will open new ways of living. The entire central ecology system is controlled and monitored.

"Hill City" in brief:

- It offers all: working stations, schools, convenient flats, gardens, shops, outdoor facilities, industrial areas for production, concert halls etc.
- Its benefits are among other things: social factors, sustainability, waste management, newest energy solutions, newest technical solutions, environmentally friendly, and short distances between homes and working stations/schools.
- "Hill City" brings people together – again! It helps in preventing the social exclusion.
- "Hill City" could be a practical solution for good living all over the world: in crowded areas with the lack of space and land, in nature disaster areas, where people have lost their homes etc.

Objectif

The main objective for the students in this "Design 2016 project" is to study eco-friendly solutions of the hill city from energy sources point of view.

Descriptif tâches

The students are supposed to find out the most ecological, most efficient and cleanest energy solutions for the hill city. In this work it is very important to take a notice of the hill construction, which offers special benefits (daylight, compact construction etc).

Divers

The creating process of the Hill City project needs many competences from different disciplines, such as civil engineering, structural engineering, electric engineering, logistic expertise, information technology. Also special expertise in aerodynamics, meteorology, biology and garden architecture, architecture, sociology, and ecology will be needed to implement such a visionary project. This Design Project is concentrating on energy solutions and is supposed to point out constructive facts and proposals to reach optimal solutions for the city.