EPFL / ENAC / IA / ALICE
atelier de la conception de l'espace
fall semester 2008
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In semester 3 of the academic year 2008/2009 the ALICE studio developed projects along the newly opened m2-metro-line in Lausanne. The guiding topic in the ALICE curriculum was altitude.

Altitude locates us in a relative position in respect to the surface of our planet. It therefore addresses fundamental questions such as ground and gravity and presents a precise framework for a conscious process of designing an architectural tectonic project.

The studio developed inhabitable structures upon increasing heights. In learning how the environment is changing along a scale ranging from depth to high altitude (e.g. the change of pressure), we investigated how such shifting conditions can inform and impact on the conception of a responsive architecture project. At the same time we measured those conditions against our bodies by introducing a singular program performing adaptively at various heights.

The investigations are conducted by the means of the traditional tools of the architect: model, plan, section, as well as through the parallel implementation of computational technologies (2d and 3d modeling software).

The first-semester course is designed to give an introduction into investigations addressing space, scale, materiality, geometry and program. Through the course of the semester, the class developed design proposals in groups of 2 for an inhabitable platform performing specifically at different heights.
GRAVITY AT WORK

3-D software is implemented as a tool for analysis of spatial conditions and transformations in time. The parallel construction of a physical model and its counterpart in the digital realm fosters an understanding of structures and forces at work.

ALTIMETER

In the first week, each group had to invent a physical device measuring altitude. This device was to measure height and/or depth both as a local condition as well as to register altitude as a relative position in reference to the surface of the earth.

At the same time the device was to be able to record, amplify, or – more generally speaking – react to pressure.
Altimeter
A bicycle transformed into a recording device, and the model derived from the data.
Danny Te Kloese,
Yousef Mezzour

Altimeter
Conceptual model translating a topographical condition: Lausanne Flon
Samuel Demeunthny,
Benjamin Melly

Altimeter
Site survey below Place de la Riponne, Lausanne
Fabian Roth, Simon Wälti
SECTIONAL RECORDINGS

The altimeter was used to record heights in a given site and to draw sections accordingly. Drawing here was introduced as an instrument of analysis. This study in the form of a sequence of sections (for example tomographic) was focusing on the performance of the altimeter rising from a specific depth to various heights and the sectional condition of the given site.
Altimeter
Hemispherical device
recording silhouette and angular conditions of contours
Vy Pham Thi Hoang,
Nicolas Fehl
While the drawing exploration was ongoing, the students were extracting in parallel working models from the drawing sequence: a physical model as a reinterpretation of the drawings in the form of a built section. Emphasis was put on the found data in the site in relation to data referring to the altimeter.

The program of passage was introduced to link different data and in both drawing and the 1/33 model.
ALICE - ALTITUDE
UNDERGROUND LIGHT

Cut aa 1:250
Cut bb 1:100
Cut cc 1:100
Cut dd 1:100

Flat Forms
Scalar operations introduce inhabitable space
Julian Prudhomme, Carole Westhoff
DESIGN PROPOSAL

In a first part focus was set on responding to the prototypical site, the program, and the responsive scale of the platform and speculate on how the public will interact with the proposed program.

In a second part we were elaborating on a comprehensive structural system and on an assembly of building systems and choices of materials.
### Project, Stage 1

**Climbing Wall at Lausanne Flon**
Samuel Maire, Olivier Di Giambattista

### Project, Stage 1

**A New Passage at Lausanne Flon**
Danny Te Kloese, Youcef Mezzour
FROM DESIGN DEVELOPMENT TO FABRICATION

The semester concluded with a three weeks charrette in which the proposed concepts and programs of the design proposal projects were revisited and articulated to become a comprehensive architectural project.
Final Project:
Museum Extension below Place de la Riponne
Fabian Roth, Simon Wälti
Real Project
Greenhouse Intervention
Augustin Clement,
Martin Lepoutre
Final Project
Inverted Pier at Lausanne Ouchy
Lionel Epiney
Adrian Llewelyn Meredith
team

acknowledgments

\textbf{alice students 2008/2009}
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