





A L I C E

altitude

EPFL / ENAC / IA / ALICE

atelier de la conception de l'espace

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altitude

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.

terre

meuble

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.

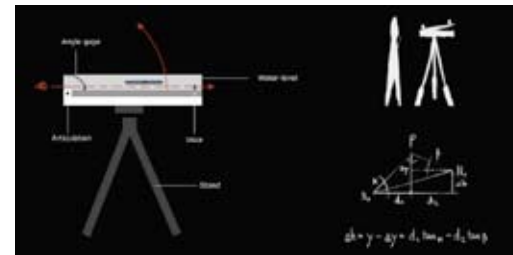
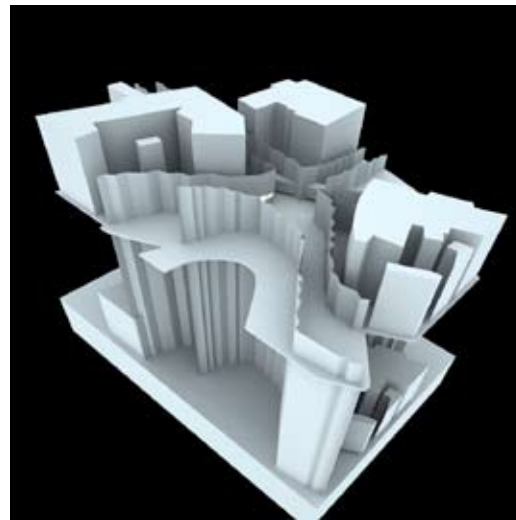
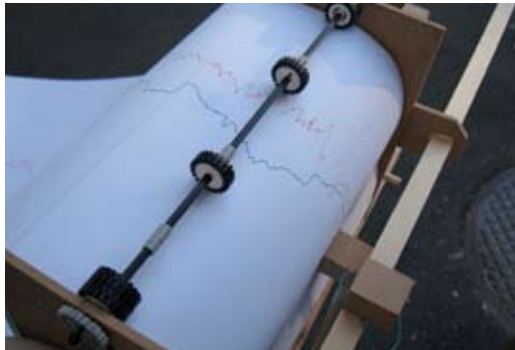




Altimeter

A bicycle transformed in a recording device, and the model derived from the data

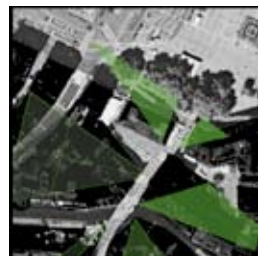
Danny Te Kloese,
Yucef Mezzour



Altimeter

Site survey below Place de la Riponne, Lausanne

Fabian Roth, Simon Wälti



Altimeter

Conceptual model translating a topographical condition: Lausanne Flon

Samuel Devanthery,
Benjamin Mely

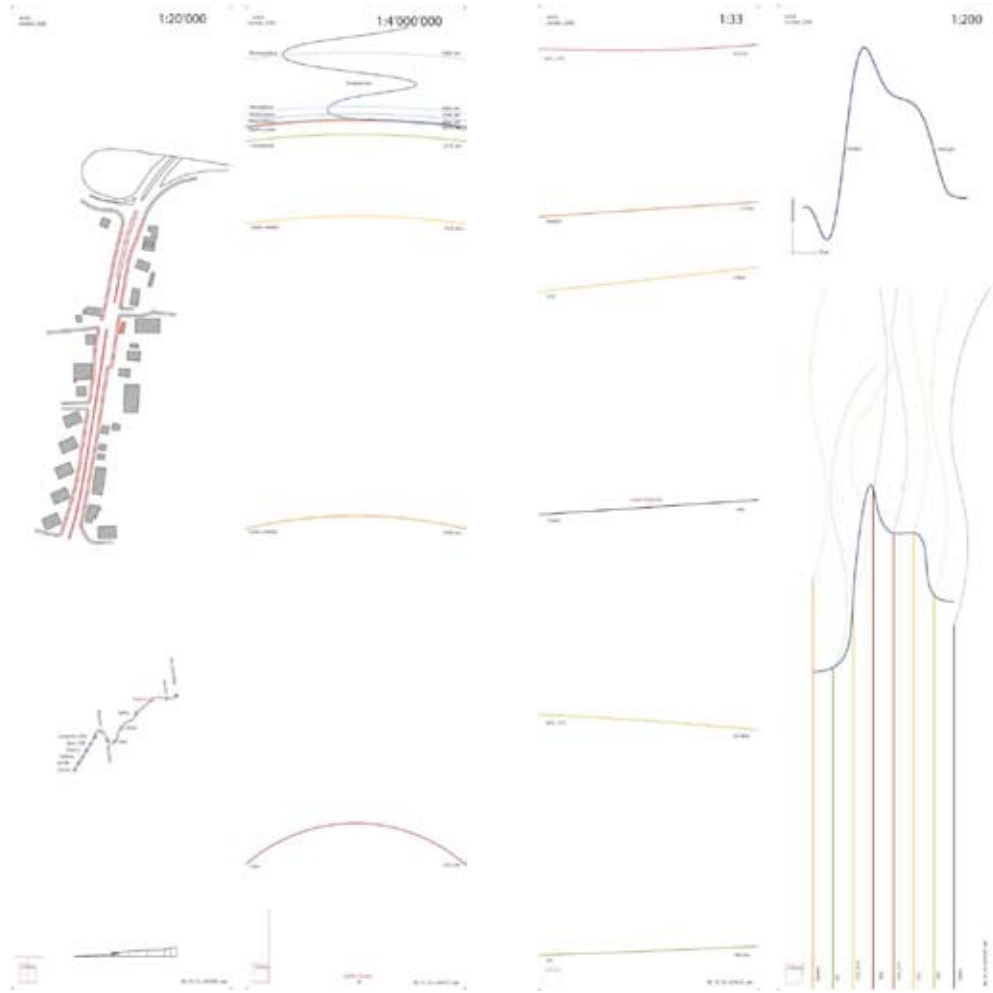
Cart for recording devices,
data derived from surveys

Augustin Clement,
Martin Lepoutre



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.

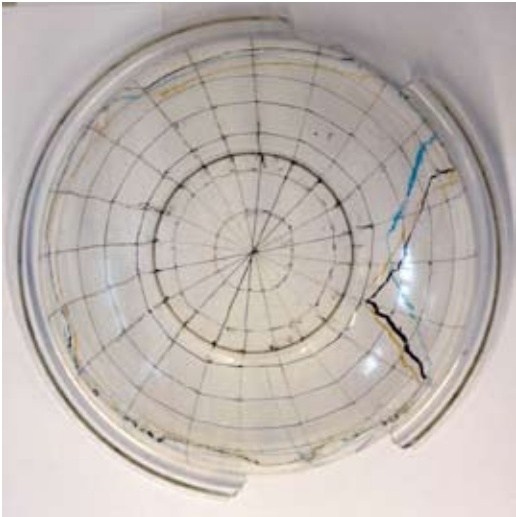


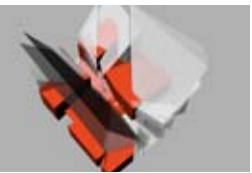


Altimeter

Hemispherical device
recording silhouettes and
angular conditions of contours

Vy Pham Thi Hoang,
Nicolas Feihl





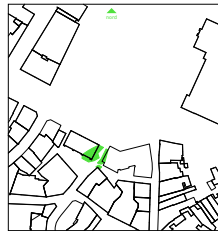
BUILT SECTION

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.

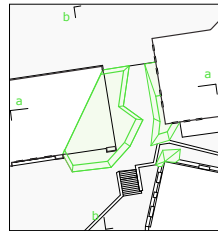
The program of passage was introduced to link different data and in both drawing and the 1/33 model.

atelier alice altitude
Alice Roth & Simon Wälti

site plan 1:500



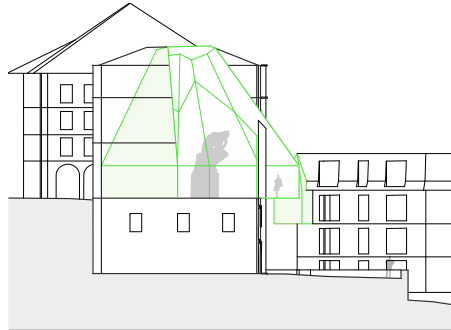
project plan 1:100



section aa 1:50

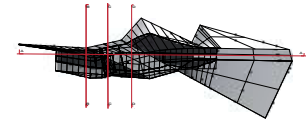


section bb 1:50

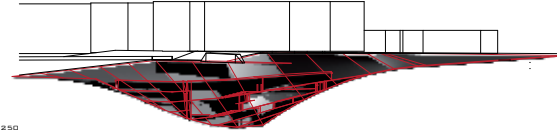


Built Section
Sectional drawing, 3d-model,
physical model, below Place de la
Riponne
Fabian Roth, Simon Wälti

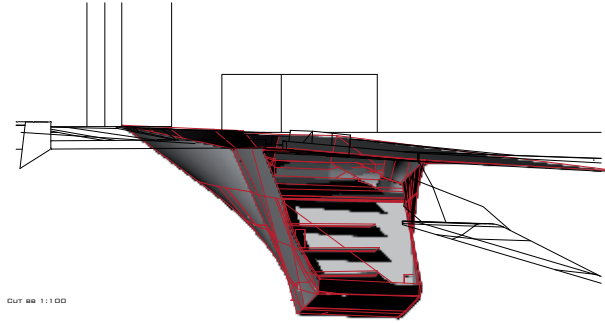
ALICE - ALTITUDE
UNDERGROUND LIGHT



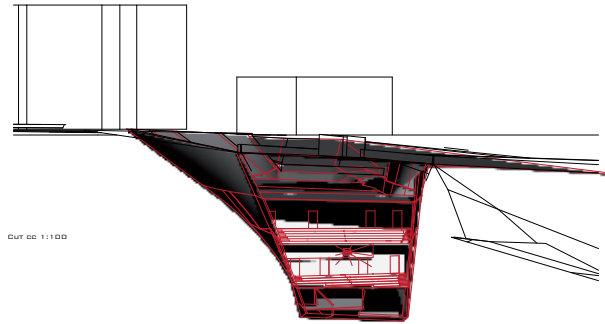
PLAN 1:500



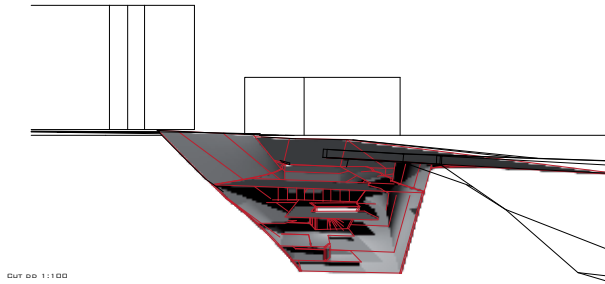
CUT AA 1:250



CUT BB 1:100



CUT CC 1:100



CUT DD 1:100

Flat Forms

Scalar operations introduce
inhabitable space

Julian Prudhomme,
Carole Westhoff



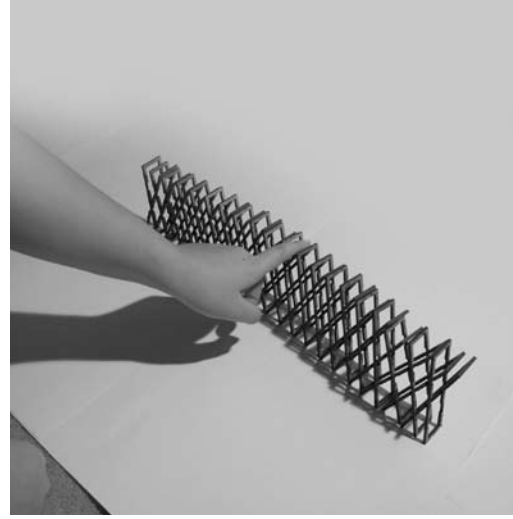
flat forms

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.

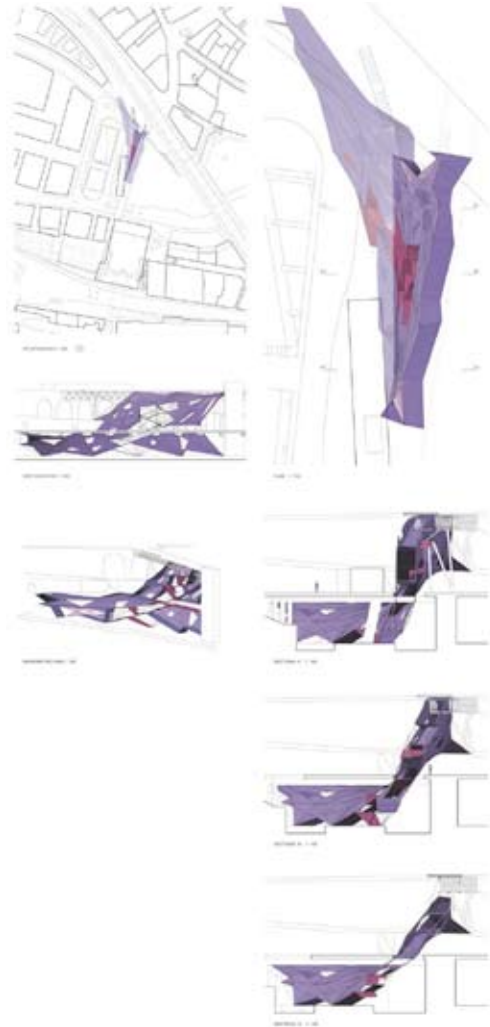
In a second part we were elaborating on a comprehensive structural system and on an assembly of building systems and choices of materials.





Project, Stage 1
A New Passage at Lausanne
Ours

Danny Te Kloese,
Youcef Mezzour



Project, Stage 1
Climbing Wall at Lausanne Flon
Samuel Maire,
Olivier Di Giambattista

visible world

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

atelier alice altitude
 Fabian Roth & Simon Wälti

site plan 1:500

section aa 1:100

altimeter progress

altitude affects our view in three ways. Our eyes are able to capture heights in a precise but very particular way, as the impact of height is directly related with our position.

Describe the impression of height changes according to the observer position.

altimeter device

altimeter how to

1. Measure horizontal angles

2. Measure vertical angles

3. Report data

4. Render the measured data and make plans on the site

5. Compare all recorded values from different points of view to see what's under the roof

plan museum 1:200

1st floor

2nd floor

3rd floor

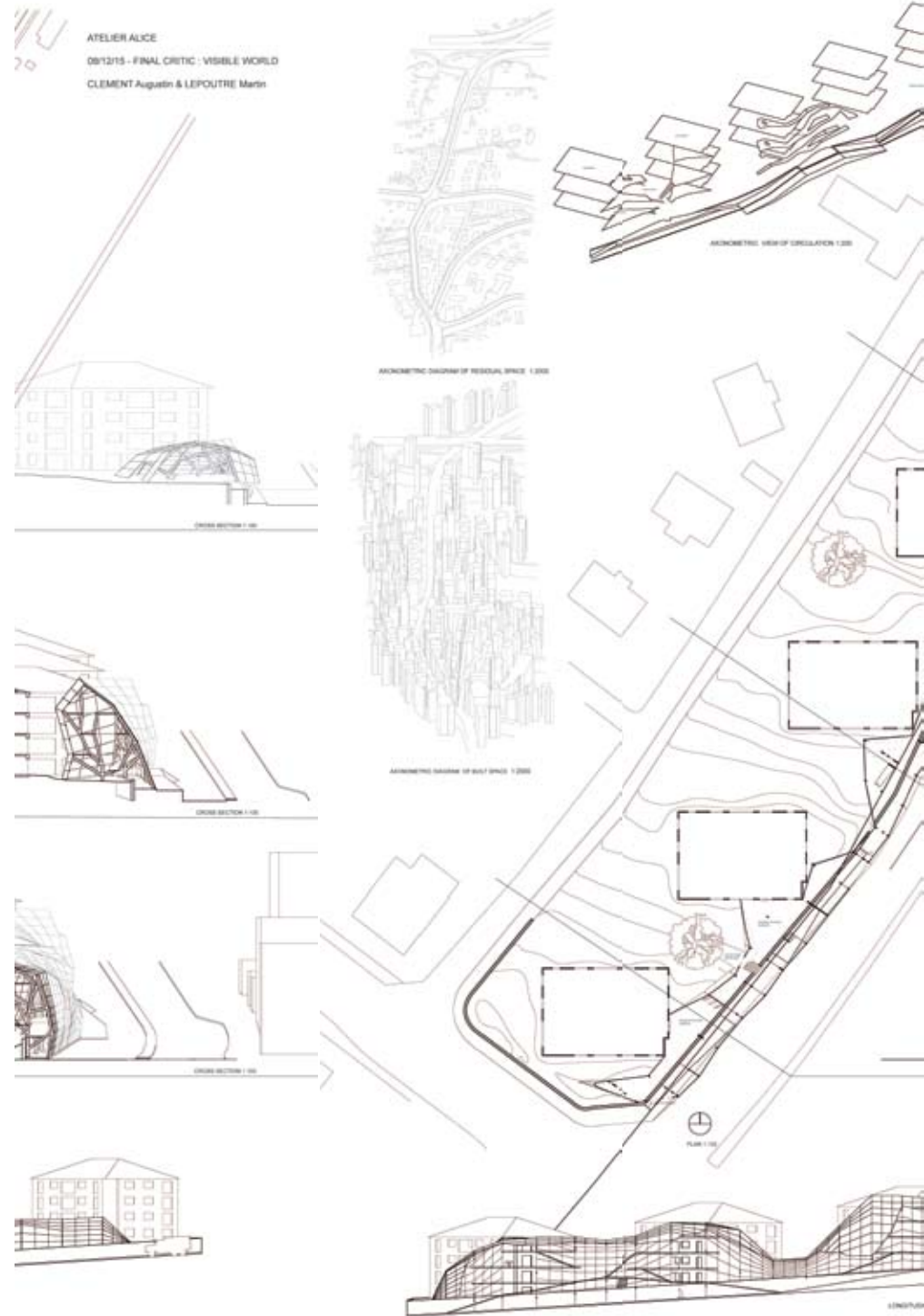
4th floor

section bb 1:100

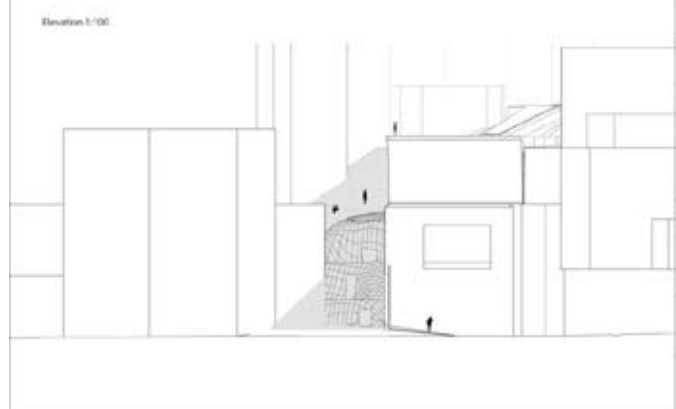
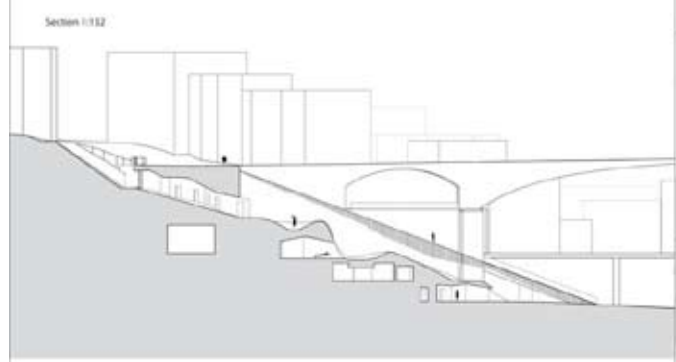
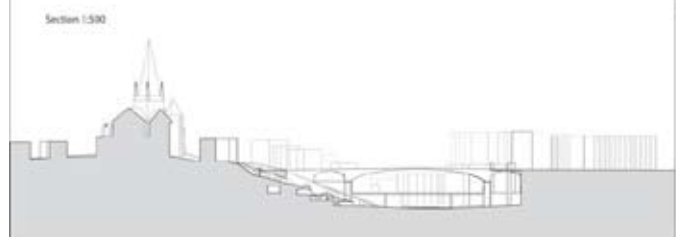
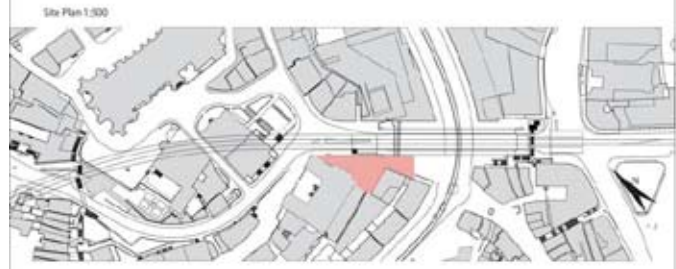
plan 1:100

exploded axonometry 1:100

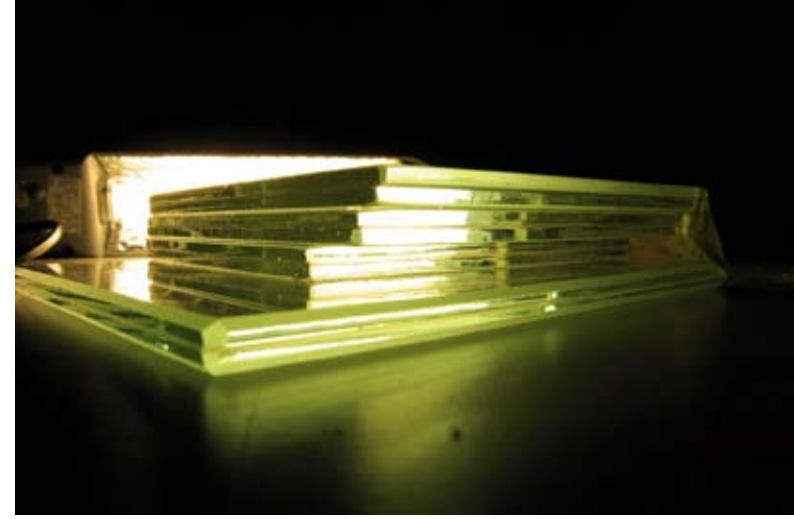
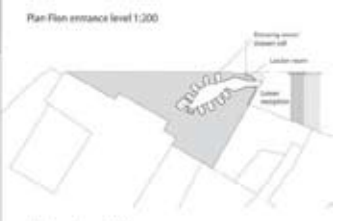
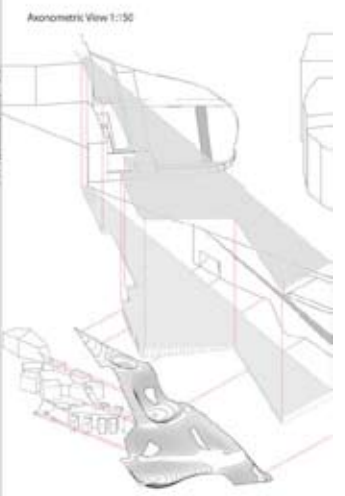
elevation 1:100



ALICE0809 Final Presentation: a spa at Bessières, Lausanne



ALICE0809 Final Presentation



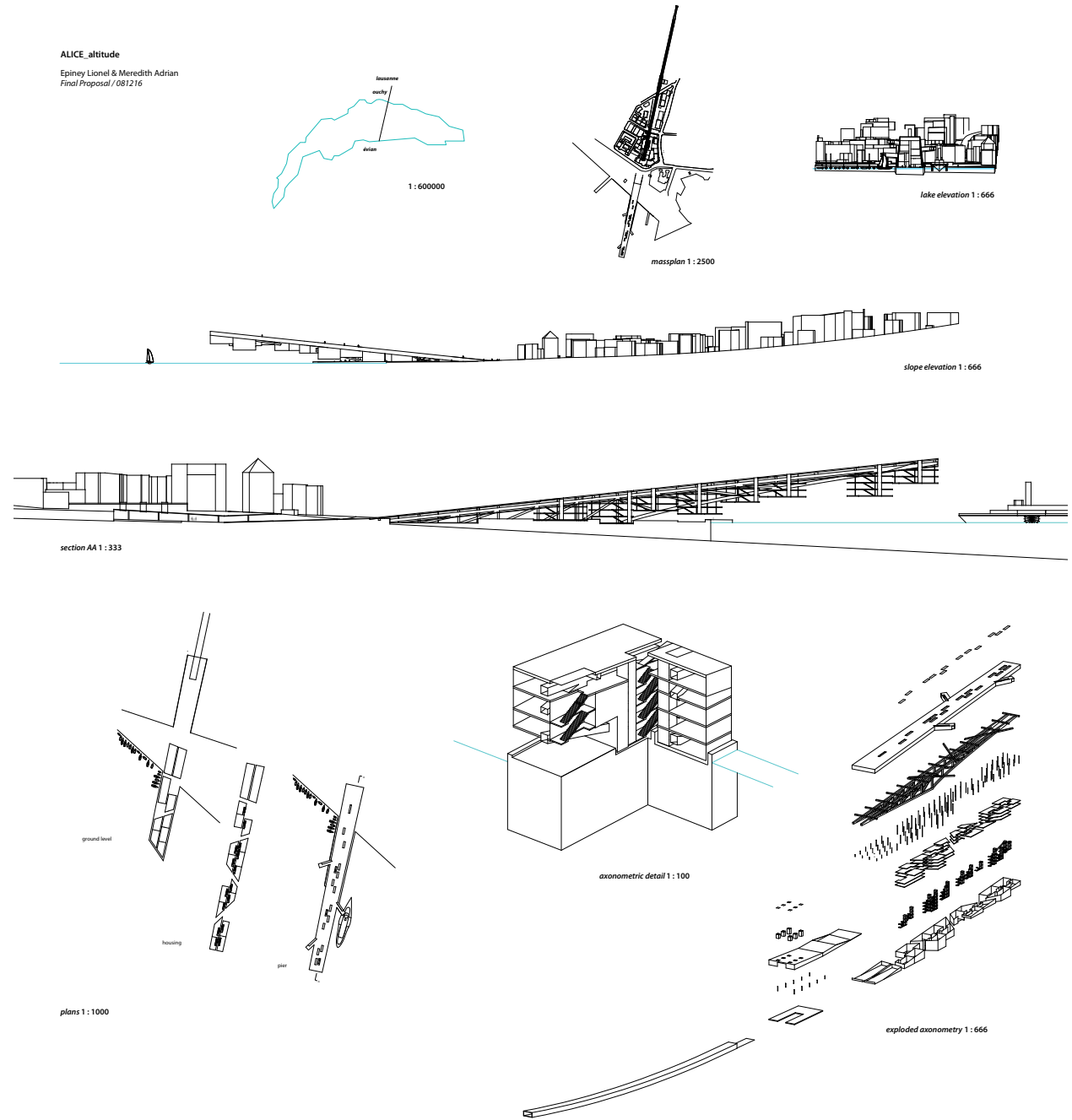
Final Project
Maurice Béjart Spa
Alexandria Ming Aerni
Ahmed Belkhdja





Final Project
Inverted Pier at Lausanne
Ouchy
Lionel Epiney,
Adrian Llewelyn Meredith

ALICE_altitude
Epiney Lionel & Meredith Adrian
Final Proposal / 081216



team

acknowledgments

alice students 2008/ 2009

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<http://alice.epfl.ch/>

