

Mendrisio, October 8, 2008

So, as my Italian is not as fluent as I would like it to be,
this lecture will be in English,
in a somewhat limited English, with a strong French accent, which I hope will make it
easier for you to understand.

So this lecture is about Lausanne, and about some questions related to the way
architects look at cities.

This, I hope, will lead to a better understanding,

- of Lausanne, on one hand,
- and those questions on the other hand, questions that we can ask to Lausanne, as well as to other cities.

Botta

Let me start with those drawings made by Mario Botta, in 1976, when he was teaching a
studio at the Ecole Polytechnique in Lausanne

Those drawings show the city in its site, and its growth, as I guess you have learned last
week through the lecture of Sylvain Malfroy.

So, with this assumption that you have already some understanding of the history, I would
like to proceed with two questions, that will guide us in our approach.

0.1 drawing

The first point that I would like to develop, deals with the act of drawing.

0.1 drawing

One could say that drawing, today,
is a choice,

in this time of digital flood,
with websites like Google Earth that document the world like never before,
in this time of digital deluge,
with photoshop images that we see today in all project presentations.

drawing, is a choice,
an act of faith,
if not an act of resistance.

And, as it is **not**, of course, nostalgia,
It is not nostalgia
what are the specific qualities of a drawing for an architect ?
And what kind of knowledge can it produce ?

Drawings do not, of course, suppose, or imply any kind of neutrality.
Let us look at some drawings.

LC

This drawing of the Acropole by Le Corbusier is concerned
with territorial implications,
with the grounds and the horizon,
and with a dramatic assemblage - *le jeu savant, correct et magnifique des volumes
assemblés sous la lumière*

Kahn

This drawing of the Acropole by Kahn is concerned
with the sky,
the sky being received into architecture

This drawing is concerned with hollow matters.

So we see through those examples that the same Acropole leads to different interpretations of its presence, of its relevance.

So drawing is an interpretation, and can therefore clarify

- the structure of the site,
- and our way to look at structures,
- and our way to look at sites.

Let us discuss furthermore this question of drawing, before I present drawings made by ours students at the Ecole polytechnique of Lausanne.

Merleau Ponty

We can continue with a citation that I always fond inspiring. It comes from the book *L'oeil et l'esprit* by Merleau Ponty. We have here a consideration, quite obvious, and at the same time quite surprising, in which we notice that architects or sculptors do beautiful drawings.

Great football players do not play great tennis, great violinists do not play trumpets. But it seems that great architects, or great painters, or sculptors make beautiful drawings.

Giacometti

This reminds me of an exhibition that was organised in Zurich, of works by Giacometti and by Cartier Bresson.

- Giacometti, mainly known for his paintings, and for his sculptures,
- and Cartier Bresson, mainly known for his photographs.

Giacometti

Lets us admire this drawing by Giacometti, and this quote : *One must stick exclusively to drawing. If one dominates drawing even a little bit then everything else becomes possible.*

Cartier Bresson

Lets us admire this drawing by Cartier Bresson,
Same subject,

and this quote : *Photography is an immediate act ; drawing, a meditation*

Rossi

Lets us continue with another text, the *scientific biography* of Aldo Rossi.

Obviously I cannot pretend to understand every nuance of the text, but I am quite interested with this issue of *limitation*,
this issue of a drawings that accepts,
accepts or even explores this concern with limitation.

Peut-être le projet n'est-il que cela: un espace où les analogies, en s'identifiant aux choses, atteignent de nouveau le silence. Les rapports sont comme un cercle jamais fermé; seul un fou pourrait songer à ajouter la partie manquante ou à changer le sens du cercle. Ce n'est pas dans le purisme mais dans la contaminatio illimitée des choses, des correspondances, que s'opère le retour au silence; le dessin peut sans doute suggérer et, tandis qu'il se limite, s'ouvrir à la mémoire, aux objets, aux occurrences.

Mons 1

Let us look at this plan of the city of Mons, in Belgium.
A lot of lines, too many to understand something.

What I propose, is to choose some lines of this drawing. Not to invent any lines, just to choose some lines.

Mons 2

This drawing tells us the importance of centrality in medieval cities.

Let us choose other lines, from the first drawing, one more time, just to choose, carefully, and not to invent any line.

Mons 3

Those lines carefully chosen reveal the presence of a river, that has structured the city in the past.

LC

We can take another example, and study the *carnets du Voyage d'Orient* of Le Corbusier, that document quite precisely his journey of 1911.

p.46-47

Here is the page 47 of the 4th carnet, Le Corbusier is in Pompei and draws the plan of the Forum, with the colonnades, the Temple, the arches, different objects, bases and pedestals statues.

A note here at the lower part of the drawing is the witness of an intuition :

L'irrégularité des 2 arcs de triomphe détermine 1 rythme et 1 équilibre correspondant
The irregularity of the 2 triumphal arches determine a rhythm and an equilibrium.

We can understand this note in the following way :

- if the 2 arches were aligned with the front of the temple, this would establish a spatial structure in which the temple is an element constituting the limit of the Forum,
- and if the 2 arches were aligned with the rear of the temple, this would establish a spatial structure in which the temple is an object projected in the Forum.

The observation that it is neither one nor the other, as one arch is aligned with the front, and the other one with the rear of the Temple, establishes a discussion of the Temple as a possible object, and at the same time a limit. This might depend on other elements, and we see that new lines were added by Le Corbusier : stairs, pedestals,...

And suddenly Le Corbusier draws a line around this, and declare it *mauvais* incorrect, maybe when he realises that some imprecision, some correspondences in the drawing that do not correspond to the reality.

Mauvais, not as a whole, but as a lack of precision regarding the question that the drawing has raised.

p.48

Then Le Corbusier does another drawing on the following page of his carnet.

On this drawing, you see few elements, much less than the one Le Corbusier drew on his first drawing. But all the elements he draws are concerned with this question of limits, on the articulations of the Temple as a limit of the space, and as an object in the space.

What I find here of particular interest is that we can see this drawing as a specific category.

It has a totally objectify, and at the same time a complete subjectivity.

Let us explain.

Total objectivity, as it does not depend on the person who did it. If you as a surveyor to do a measured drawing of this space, you will have a certain result, with dimensions, alignments, number of windows,...

If you ask ten surveyors, you get ten times the same drawing, the same dimensions, the same number of windows.

Here, in this second drawing of Le Corbusier, every line is at the correct position. I tested it, printing this on a transparent sheet, and I placed it above the plan that you can find in books on history of architecture, and the two drawings match with an incredible precision.

So we can say that this plan is in a way totally objective.

But this plan is also totally subjective, as the few elements you see have been chosen by Le Corbusier, as elements of observation related to the questions he raised.

Let us therefore insist on the specific quality of this kind of drawing, dealing at the same time with precision and interpretation, with objective precision and subjective interpretation, at the same time.

In that sense, we can propose that this specific quality is relevant in the work of an architect, relevant and inspiring.

p.?

(L'intérieur amène l'extérieur : commenter)

0.2 infrastructures

After this first point focussed on the act of drawing, the second point I would like to make in this introduction is about infrastructures.

Manhattan

Infrastructure, as a way to bring together elements of different scales.

A few years ago, Galfetti was in a jury in Belgium, and a student was describing his project, insisting over and over, on *human scale*.

Then Galfetti explained that men construct tables and chairs, and build houses, but also bridges and cathedrals, and that we should avoid the confusion between human and domestic scale, and accept that architecture deals with different scales, some domestic, some territorial.

Canals

In this discussion, I like very much this illustration of a canal and of a system of houses, each one related to a lock,

In this illustration, we see the encounter of domestic and territorial scale.

Jodoigne 1

On this illustration of a specific agricultural landscape in Belgium, we see rows of trees bordering the roads, establishing large partitions of the landscapes.

Jodoigne 2

Rows of trees, at the territorial scale, establishing positions for domestic interventions.

Rows of trees – we should keep this in mind as we will come back to this later, with some reflections on Lausanne.

Namur

Or another illustration, here of the bank of the Sambre river in Namur,
- with elements at the scale of the connection between two river basins,
- and partition walls at the domestic scale of for row houses.

In this illustration, we can obviously insist on the precision of some relation, and the interest of a system and of its articulations (doors)

This kind of consideration will help us to see Lausanne in a different way, and to detect unexpected relations.

Lausanne

Domestic and territorial.

This has little to do with *composition* : it is the simple co-existence of different scales.

Lausanne dog

I find this image quite funny, it is the place where you have a complete opening from the station to the lake,

due to a specific infrastructure, a small railroad.

It is an important place in the city, and it is quite surprising that the lady, and the dog, are not interested in this element of urban structure.

Coca Cola

So, it is quite inspiring in Lausanne to observe those unlikely encounters of different scales,
the domestic scale
and the territorial scale.

This question of scales obviously has to do with infrastructures. This point is highly relevant in Lausanne.

Pont

In some cases, infrastructures have to do with the multiplication of grounds. This is also important in Lausanne, and to some extent, a way to address the issue of Modernity.

LC 3M

In that sense, we can mention the 1923 project of Le Corbusier for a city of 3 millions inhabitants, with the abandon of the uniqueness of a ground as the unique element of reference.

The abandon of the idea of a natural ground that pre-exists our intervention.

The superposition of different grounds is of course a characteristic of modernity, and one cannot avoid to see a strong convergence in all those illustrations dating from a single decade, the nineteen twenties, with for instance the Lingotto in Torino, as presented here in *Vers une Architecture*,

Rockfeller

and also the Rockfeller Center with its connection to the subway, public spaces, large auditorium, and other public spaces at the top of the towers.

One more time, this helps us to see Lausanne in a different way, paying in this case more attention to

Tour Bel Air

the tour Bel Air,

with its different levels including theatre, shops, public spaces and a tower,

In that sense, the tour Bel Air in Lausanne is our proud and modest Rockfeller Center.

1.

Lausanne 1

Along the *Lac Lemman*, the Lake Geneva as it is translated,
and as it is often the case on shore lines,
most cities are situated along the lake, and engage a close relationship with a river. It is the case for cities nearby Lausanne like Morges, Vevvey or Montreux.

The situation is quite different in Lausanne, constructed on a rock at a certain distance of the lake, a rock emerging between by two rivers that converge.

But those rivers, after their connection, cannot reach the lake directly because of the presence of a particular geological situation, with another rock barrier parallel to the lake.

Lausanne 2

In the case of nearby cities like Morges or Vevvey. The position of the railroad lines has a certain evidence, at the rear of the city, on its side opposite to the lake.

The train station, as always, is on the city side.

Hopefully, in Morges, Vevvey or Montreux, the slope towards the lake can make it possible for the station, and the public space in front of the station, to engage a relationship with the lake.

In Lausanne, the topography made it very difficult for the rails to pass on the side opposed to the lake, and the rails were logically constructed between the city and the lake. This was not felt as a barrier as the city did not have a strong relationship with the lake.

This imposed the digging of the rocks, like the Panama canal (different ambition), or the Suez canal, so that the rails which on the West are far from the lake, can come between the lake and the city.

So, in Lausanne, the public space in front of the station is turned, as always, toward the city and does not have a relation with the lake. The relation comes only when we are on the platforms, waiting for the train, or arriving in the city.

On the drawing, we can see a connection between the lake, the station, and the industrial zone in the Flon valley, through a small train passing in a tunnel.

This topography makes it possible, for particular buildings, or public spaces, situated on the hill, and far from the railroad tracks, to engage a double relationship, with the city and with the lake.

This drawing shows also a particular location, articulated with the geometry on the trains coming from the West, the opening in the rock leading to the lake. This particular location is occupied by an important building for the trains.

Student drawings

This particular relationship between infrastructures and topography, is at the same time rational and quite inspiring, as we can see on those drawings made by our students at Lausanne.

2. bridge

The comparison between those two images is quite fascinating.

On the left, you see the Grand Pont after its construction, with a double system of superposed arches.

On the right, you see it later, with just one layer of arches.

It is obviously the result of the partial filling of the valley.

wall

Retaining wall

Here you can see the progress of this filling, and the contention wall.

Gare flon

It is a complete industrial development in the Flon valley, connected to the main railroad lines, and to the station and the lake by a small train passing in a tunnel, as we have already noticed on a previous drawing.

This development was made by plots, with a constant height, and a slightly curved central space.

Most of those buildings were abandoned in the eighties, but the area is now in complete resurrection.

We can propose some explanation to that, and appreciate that we observe here the conjunction of the three qualities that define urbanity, as it was stated by Bernard Huet :

- mixed uses,
- continuity,
- density.

We could add two characteristics to explain this resurrection:

- accessibility as a node of transportation is being implanted there,
- and the fact that the whole district is in the hand of a single owner, which can explain successful consideration for a long time strategy.

But we can also be interested in the specific character of this district.

First, we can notice that it is a specific system :

- not the medieval bloc, putting emphasis on the definition of the street, and allowing the deformation of the buildings, considered as a mass in which the public space is carved
- nor the isolated object, concerned with its own rationality, and rarely concerned with the shaping of the public space.

Here, we have a strange constellation of objects that nevertheless make an urban fabric, with characteristics of

- autonomy,
- coherence,
- and diversity.

Those characteristics have to do with

- a common height,
- with the geometry, slightly curved of the main axis (which is not obvious, and even sometimes forgotten by plans that are too schematics)

curve

But it is real, and important.

What makes this district unique? To answer this question, we have to look at plans, but also at sections.

At one scale, we will notice the uniform height, a common data which is very rare in cities.

But we should change scale

sidewalks

and observe the sidewalks.

The construction of the ground is the first infrastructure.

Around the district you have streets, and sidewalks.

Within the district you have no sidewalks.

"quais"

And this observation can be much more inspiring if we pay attention to the way buildings meet the ground, in a very specific way here, that has to do with its industrial past, and the concern to unload trains or trucks.

pedestrian bridge

The construction of the ground is the first infrastructure

drawings

This helps us to understand important characteristics of Lausanne, and find qualities in specific articulations.

3.

limits

We can discuss now some questions of limits. For instance limits of the valleys.

drawings

The limit of the Flon valley seems quite clear in this drawing : the edge of the city is made by the Bel Air tower, and this fact, or at least this interpretation, is confirmed by the bridge, and its arch that finishes on this alignment.

picture

Well, if we pay more attention to this fact, we see that it is not what we expected, and the arch of the bridge goes further than this alignment.

Let us explore the implications of this observation.

schema 1

So this could correspond to a configuration such as the one we described before :

- a valley,
- a bridge,
- and a specific building, the Bel Air tower, that punctuates the edge of the old city. In this case, the tower could be, and maybe should be, on the corner of its bloc.

But, as we saw, this is not correct, as

- the bridge does is not aligned with this point,
- the Bel Air tower is not in the corner but in the centre of its bloc.

schema 2 The configuration is therefore different, and could be drawn like this :

certain phenomenon of limits could be here,
 and a specific layer with a certain autonomy occupies the distance between this limit and the Flon valley.
 The bridge goes from here to there,
 The bloc with the Bel Air tower occupies this layer, and gives consistence.
 In this interpretation,
 - it is clear that the tower should be in the middle of its bloc,
 - it is important to achieve some kind of transparency, so that the complete thickness of this layer can be measured.

This drawing let us read the importance of other elements, such as those dots punctuating the continuation of the curve that marks one of the limit of the valley.

aerial
 drawing Aerial photographs confirm this interpretation,
 drawing which is to some extent anticipated in this drawing that detaches the bloc of the Bel Air tower from the edge of the city
 drawing or in this one that pushes the bloc of the Bel Air tower in the valley.
 photograph The interpretation that we proposed in our second scheme is comforted with the observation of passages perpendicular to the valley, through the whole thickness of the Bel Air bloc.

Boston street Those dots that we saw on the second scheme are individual buildings, small towers in contrast with the continuity of the linear buildings constructed at the lower level.

The questions of the slopes, and of the limits of the valley, is obviously quite inspiring in Lausanne.

4.
 Baudour This 18th Century project for a square in Brussels, whose form is given only by alignment of trees, is quite explicit of the power of alignments to reveal limits and propose articulations.

square This is a project for the top of the hill between the Flon valley and the slope going down to the lake.
 We see alignments of trees, as limits, articulations, enclosure.
 Elements of reference.
 Elements of intimacy, and opening with views to the old city and to the lake.

plan We are here, it seems very clear on the plan.

(commenter parallèle au lac alors que les vues sont erpendiculaires, vers a cathédrale et vers le lac)
 (éventuellement – plus loin?- commenter le fait que la cathédrale est parallèle au lac et pas dans l'axe de l'éperon. Orientation religieuse vers l'Est? Réflexion de Marc Collomb qui explique qu'une rue passait à travers la cathédrale)

But our insistence on this row of trees makes us aware of another row of trees, of the other side of the St François church.

Obviously, at the time of this plan, the two systems were not unified, as we can see that the church had important developments on its southern side.
But we know that the situation has changed through history, and that those buildings were destroyed later on.

photograph

Here is the sequence made of large openings, then spaces somewhat more narrow, to lead us toward the southern side of the St François church, and finally to the second row of trees that marks the edge of a second square.

And this is the same relation, seen from the other side.

ancient 1

Obviously relation did not have any pertinence at the time those structure were organised, as we can see in this old photograph, where we see that one side the relation was blocked by the building of the Post,

ancient 2

and on the other side by a Casino.

photo

But nevertheless, spaces in those cases had a direction, and a position coordinated with the lines of the topography,

plan

and it is not therefore a surprise that they connect when the continuity of the topography is revealed by the destruction of some buildings.

conclusion

So what have we discussed ?

figure ground

We tried to stay in complex status of objectivity and subjectivity that we discussed in the beginning of this lecture.

We have seen drawings as openings, that do not express what we can think, but, on the contrary, reveals articulations that we cannot think before we draw them,

and other drawings, again and again, to establish the consistence of specific questions, concerned with spatial structures.

perspective

We have seen drawings of infrastructures,
- drawings of perception, confronting different scales,

plan & section

- drawings questioning articulations in plan, in section, understanding the importance of certain alignments.

ground

Talking about infrastructures, we have seen that the construction of the ground is the first infrastructure.

stairs

We have limits, we have seen continuities.

lines

limits of valleys that have some continuity, or articulate autonomous places

section

we have seen perspectives, plans,

and sections,
we have discussed sidewalks
lakes and mountains.

Let me finish by thanking

- Valerie Ortlieb, who made, for me, the connection between Lausanne and Mendrisio,
- and also for her participation in our common work in Lausanne,

by thanking Marc Collomb,

- for his participation in our jury in Lausanne,
- and for this invitation to Mendrisio,

and by thanking the students of Lausanne who did some of the drawings that I showed today.

Sidewalks, railroads, lakes and mountains.

Lausanne.