

Christine SIMONIN-ADAM

Covering two regions, "Upper" and "Lower Normandy" and their five departments, the "Ecole d'Architecture de Normandie" is situated on the borders of the region of Ile-de-France, one hour from Paris.

Its site, a rehabilitated factory, an emblem of industrial architecture with a contemporary extension, its location and its potential deployment give EAN a special and remarkable territorial situation.

The studies are founded upon the apprenticeship of the disciplines of architecture (urban and architectural design, history) with an approach towards synthesis and creation unique to the school. As well as this, the disciplines for architecture (human and social sciences, sciences and representation techniques) can be put into a constructive and socio-cultural context.

The training is divided up into three cycles, each one lasting two years and with a diploma at the end of each cycle.

- **1<sup>st</sup> cycle:** consists of architecture and the acquisition of its fundamental tools.
- **2<sup>nd</sup> cycle:** consists of the mastering of the tools, methods, concepts of architectural design and urban projects.

During these four years, the training is set out in the form of a framework of projects, lessons, supervised work and practical work.

- **3<sup>rd</sup> cycle:** Leads to an "architecture degree issued by the government" (DPLG). It is a more in-depth cycle with more emphasis on professionalism. It consists of an in-depth training course on architectural projects and on urban projects, seminars aimed at deepening a set of themes, a thesis on the professional side of the training, a personal study (TPFE) and also a one-term training course that can be done in France or abroad, in an architectural practice, for a territorial community, an administrative body, or a company.

The Normandy School of Architecture also offers the possibility of doing an extra one-year degree (**DESS**) "The diagnosis and rehabilitation of everyday architecture" in partnership with the University of Le Havre. This scientific specialisation is centred on the analysis of old and contemporary building, architectural and technical rehabilitation projects.

The teaching team is made up of forty permanent teachers who train around six hundred students.

## What and Why

The Pleasure of Constructing

Pleasure gives the drive for learning: pleasure of experimenting, understanding, and of constructing.

Constructive thought is a very important and vital link to the basis of architecture. Practical exercises enable a correct approach to structure and material and prevent the accumulation of abstract formulas.

1<sup>st</sup> cycle: observation and manipulation

2<sup>nd</sup> cycle: comprehension

5<sup>th</sup> year: evaluation and invention

## Two Tempos of Teaching

Two pedagogical rhythms are superposed: The apprenticeship is structured by a fundamental teaching which acts as a foundation for constructive thinking. It is then doubled up by pedagogy of events, backed up by selective interventions echoing or dealing with the basic training.

- **A continual fundamental training:**

The identity and autonomy of the teaching of construction are centred on other disciplines. It is vital to value the importance of clear thought and the durability of constructive science and of placing them alongside architectural discipline.

- **Selective interventions:**

As a counterpoint to the fundamental training, activities overlapping over themes "interact" and question the linear lessons.

These are a mixture of conferences, practical exercises, visits to sites on precise themes, all chosen in relation to the basic lessons.

With a basic constant training from one year to another the selective interventions are renewed and highlight current lessons and at the same time involve other disciplines.

## How

A multidisciplinary team made up mainly of architects or people having two types of training.

The teaching team dealing with the construction field is made up of twelve multidisciplinary teachers. The average age being forty-five years old and the majority of them having followed architectural training also practise elsewhere in architect agencies or in planning offices.

- Architects: Bruno CARRE (Head of 1<sup>st</sup> year), Thomas NOVICZKY (Head of 5<sup>th</sup> year), Joel SOURY, Benoît FLIN ;
- Architect and designer: Jean-Pierre LEVASSEUR ;
- Architect and acoustic engineer: Christine SIMONIN-ADAM (Head of 2<sup>nd</sup> and 4<sup>th</sup> year);
- Engineer: Asle GONANO (Head of 3<sup>rd</sup> year);
- Historian in construction: Philippe POTIE.

The computer teachers are also part of the construction team and intervene during the 2<sup>nd</sup> year.

## Who

## When and to What Extent

### 1<sup>st</sup> cycle

#### Continual fundamental training

- 1st year

Initiation to construction:

Discovery of architectural forms and the putting together of the relationship of form, structure, and matter, three hours a week (96 hours a year) - lessons and supervised work: analysis and manipulation and fabrication of forms, sketching, and surveying sessions.

- 2nd year

Forms and materials:

Acquisition of fundamental notions of the resistance of materials, two hours a week (64 hours a year) - lessons and supervised work: exercises of reflection, experimenting and making of miniature models of small structures.

Atmosphere and materials:

Awareness of the fundamental notions of comfort (quality of sound, energy, light, and air). Definition of the architectural elements necessary for this, two hours a week (64 hours a year) lessons and supervised work: exercises corresponding to the four themes dealt with (acoustics, thermal, light, ventilation)

#### Specific interventions (2001-2002)

- Architecture/construction: technical focus on stairways using a housing project developed in the architecture workshops.
- History/construction: taking down of details of the local patrimony in order to illustrate a developed research passing through the ages of time.
- Modern art/construction: handling of materials and their ways of being joined (liquid, clipped, soldered materials...)
- Drawings/construction: representation of technical details (sketches - codes and conventions of standardised designs).

### 2<sup>nd</sup> cycle

#### Continual fundamental training

- 1st year

- Structures and materials:

Acquisition of the necessary means in order to establish a coherence in between constructive layouts and architectural expression, three hours a week (96 hours a year) - lessons and supervised work: two exercises (medium and large structures)

- The history of construction:

History lectures on building with emphasis on the history of materials and techniques, two hours a week (64 hours a year).

- 2nd year

- Anatomy of the outside appearance:

The development of a global approach of the materials used for the outside appearance of buildings with the analysis of the environmental

characteristics; The durability of the materials; The different ways of fabrication and of working with them (traditional and new), and of their other uses beside building ones. Initiation to European regulations with emphasis on pertinent solutions put forward by architects: two hours a week (64 hours a year) - lessons and supervised work. In-depth research on a type of material and model reconstruction (scale 1/10th) of the outside appearance of an example building.

### **Common options in the two years**

- Architecture and constructive science
- A more in-depth study of the technical dimension of a project, focusing on technical details of a project developed before in the architecture workshops
- Following of a building worksite  
Awareness of the construction techniques used.
- Wood in all its forms (in partnership with the National Centre of Wood)  
In-depth knowledge of the wood network and of its potentials in the architectural field.

### **Selective interventions (2001-2002)**

Conferences: "The constructive idea in architecture"

Important visits to the exhibition "BATIMAT", building industry fairs and shows

Visit to a factory that makes glued laminated timber frames

Visit to recent buildings with wooden frameworks.

## **5th year**

### **Continual fundamental training**

- Economy of construction :  
Initiation to the processing and finalising of technical files with the realisation of the project being carried out.

### **Selective interventions (2001-2002)**

Architecture/construction: technical focus on projects developed in an architecture workshop (structure and details on the outside appearance).

In France, the teaching of architecture incorporates two groups of disciplines:

- The teaching of architecture: History; theory and practise of the conception of architecture.
- The teaching for architecture: Construction is a part of this but is also what we aim at making operational while maintaining the independence of what it teaches.

The teaching of construction at the EAN has recently gone through a restructuring of its teaching methods in order to assert its identity and its autonomy amongst the other disciplines. The idea behind this new way of working can be explained, thus:

## **Virtual Reforms**

### **The foundation stones for a pedagogical project**

*Extract from the Normandy school of architecture newspaper N° 1 - September 2001*

At the beginning of the year, the construction field went through a process of reorganisation. The objective: to develop its importance within the School, and to have a better structured pedagogy. Having become in charge of this new way of teaching, I would now like to take the opportunity to plunge into the intimacy of constructive thinking, Gaston Bachelard talked about time in his essay on the imagination of matter, I quote "the showing of dynamic values gives to man the powers of a demiurge".

The traditional teaching of a project, and the one of construction looked upon before as having secondary importance, is now out of date and the main references quoted by the architecture teachers endeavour to prove this. When having experimented on bringing two teachings together has failed and in order to introduce constructive thinking into the basis of a project, the way of seeing this field of construction and the way of it being taught have to be modified. The pessimistic image of a hard physical reality associated to abstract forms and severe constraints, which is traditionally taught in lessons of construction, is too far opposed to the freedom of spaces explored in the sphere of project development. Construction, seen from this angle, does not allow any movement of thought; the imagination of the architectural student is imprisoned, and can only find a creative let out in a virtual world which is a part from this castrating materiality.

However physical reality can also be a source for pleasure. Using the charm and the poetry of matter, I quote "matter of pleasure" according to Marc Mimram. We must draw from its strengths, from its contrasts and from its multiplicity, and have the desire to understand how things are made and how they work. As Sigfried Giedon said "Grasp life as being one whole complex thing and do not allow any division... between the concept of art and the one of science".

The teaching of construction must enhance a rich sensual image of reality so that the student can fully develop his or her imagination. It is through this blossoming that constructive dimension will naturally find its place during the development of a project.

In order to reinforce this positive idea of reality we can use a pedagogical synthesis, using the example of a building, which can also on its own way draw out from its own environment the potential strong points that are present rather than attempting to extract or do away with them. This is more in an « environmental » vein that this kind of project is concerned with but remains nevertheless innovative. This is an intention claimed as being tempered or «well tempered» as said by Reyner Banham, a forerunner in environmental concepts, in reply to questions on architectural aesthetics. It is not a matter of questioning the different teachings, but a matter of attempting to define a new way of looking at the whole field of construction, that may bring out the strength of its reason for being, its richness and its possibilities.

This new approach, like all innovation, arouses both favourable and unfavourable reactions. It will naturally provoke a new debate on

construction and teaching, the fact of introducing constructive thinking into this new pedagogy is part of this intention.

"the pleasure of constructing" illustrates this new unifying way of looking at the field of construction. Supported by the acquisition of knowledge, experiments, and the constructive imagination of matter, and also its representation, the pedagogical objectives of the different cycles can be resumed as follows:

- 1st cycle : Materiality of architecture; development of the constructive imagination, introduction to the representation of matter;
- 2nd cycle : constructive choice; acquisition of reasoning, development of the means of representation;
- 5th year: Constructive elegance; from reasoning to intuition, elaboration of constructive detail.

The second cycle holds the keystone to this way of teaching. As here all the options are integrated and are aimed at deepening constructive scope. The history lessons on construction, recently introduced into the third year have the objective of involving the act of constructing in a socio-economic reality. In order to reinforce the dynamic value of exchanges within the process of construction, manufacturers of products and innovative processes of construction have also been added to the pedagogical project of the second cycle.

So many ingredients of which the object is to give certain savour to construction, and awaken in the students a desire to taste it, to arouse pleasure in them and **the pleasure of constructing.**

# Teaching of Construction

Workshop of Thessaloniki - mai 2002



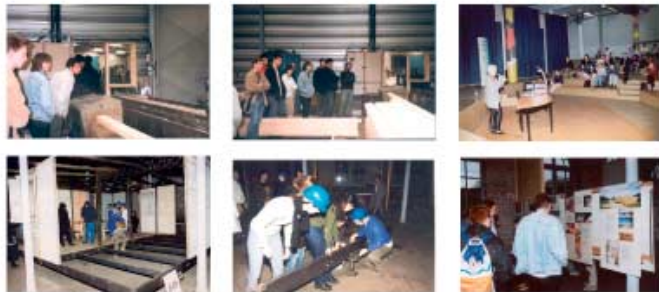
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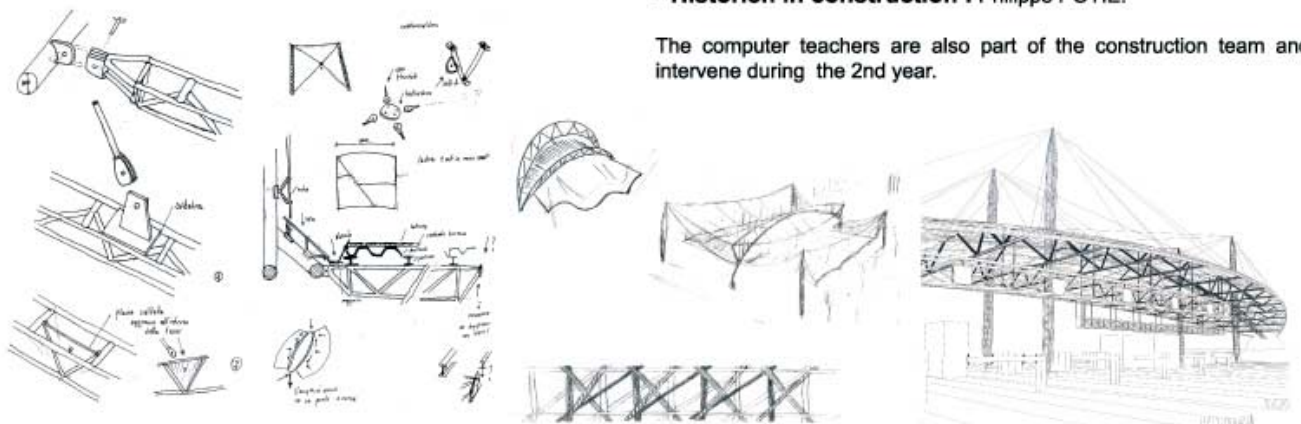
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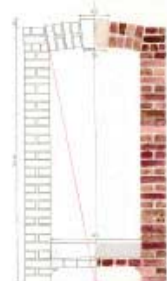
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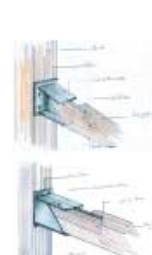
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