A Student's Project: Choices in Media for Communication and Presentation

Jan van der Does

Delft University of Technology, The Netherlands

Abstract

The Delft Faculty of Architecture is currently working with a new educational method called "Problem Based Learning". After teaching basic principles in free-hand drawing and theory of form in the new block system, the sector *Media* takes also part in the third and fourth year, mostly in the design disciplines. Communication and presentation techniques, so important for the future, that architects and townplanners were organized for further discussions in close cooperation between the three sections of the Media sector. It resulted in the creation of a media module.

Introduction

First, I would like to outline the new teaching method, the main subjects and the Department of History, Theory, Media and Information Science at the Faculty of Architecture of the Delft University of Technology. Secondly, I will describe the teaching methods of the Sector Media in the basic principles of studying forms, of freehand drawing, and of presentation techniques. I will also inform you of our contribution to the process of educational innovation, namely, how we developed a media project for the third year course.

Problem-based Learning at the Faculty of Architecture

The Faculty of Architecture provides education and carries out research in the field of building and the built environment. Some characteristics are:

- a five-year curriculum with a basic study of two years, the first of which is a foundation year; in the subsequent three years students opt for a specialization in a renewed course;

- an ample choice in main subjects;

- a renewed research program.

With more than 2,000 students our Faculty is the largest of the Delft University of Technology. For several years now, our student quotas have varied from 450 to 500. Owing to government decisions the Faculty has been obliged to realise its courses with less staff and in a shorter period of time. We are now using a new teaching method, called *problem-based learning*.

The most important objective of the Faculty is the study in design (chosen by 80% of the students), the focal point in the two basic years is the integration of knowledge, insight and skills. Groups consisting of 15 students discuss specifically prepared case studies, they formulate their line of approach on the basis of educational tools available in the study centre of the faculty; they also consult tutors who will help them find solutions to particular problems. In this method of self-tuition each student has to complete a so-called "study block" in seven weeks. Until now there have been 12 study blocks in the two basic years. As it has been decided that the Faculty is to offer a five-year course, we will schedule 10 study blocks in the basic years as from next week.

The Main Subjects

After having completed his basic study and before starting his third year, the student has to choose one of the following five main subjects: Architecture, Building Technology, Real Estate & Project Management, Urban Design, or Public Housing, each of which is organised by the respective Departments. History, Media, Theory and Information Science is the sixth Department of the Faculty and has its own supporting educational and research programs. Each main subject offers a selection of projects. The projects of the third and fourth years are organised within the framework of a module, as we call it. In these projects knowledge, insight and skills are also integrated. Evaluations are necessary, though, for it has turned out that this system can be improved. There are compulsory and optional modules, the latter combining elements from different main subjects. Furthermore, the departments together provide 11 differentiation modules from which students may freely choose. Students have to gain credits for the blocks and modules they attend. All compulsory and optional modules should be completed before students are given the green light to begin their final studies.

Department of History, Theory, Media and Information Science

As to the development of a laboratory in this department I shall confine myself to the main lines. As staff members of the four sectors of this department we discussed and agreed upon the necessity of a structural plan with a number of innovative laboratory facilities, to be used in some cases on a co-operative basis by the two sectors Media and Information Science, which now use a visualization and a CAD laboratory respectively. The sectors History and Theory are planning a laboratory containing prototypes which can be used in combination with the CAD laboratory for the selection of pictures, for viewing, and for copying as well as connecting data files by means of a computer program combined with photographic CD disks.

With these and possibly other combinations we are planning the development of Knowledge, Design and Communication systems in the coming years within the framework of our self-imposed tasks:

- a fundamental, methodological and theoretical task

- a supporting task, including services and facilities.

After the basic study of the first two years, the educational assignments offered by the Sector Media in the higher years are mainly geared to the design disciplines of Architecture, Urban Design, and Building Technology. In my Chair of Architectural Theory of Form and Media Application we do not distinguish a strict division between the components "theory of form", the application of study of forms, lessons in freehand sketching and the application of presentation techniques. The contents of these subjects is most clearly described in our teaching objectives.
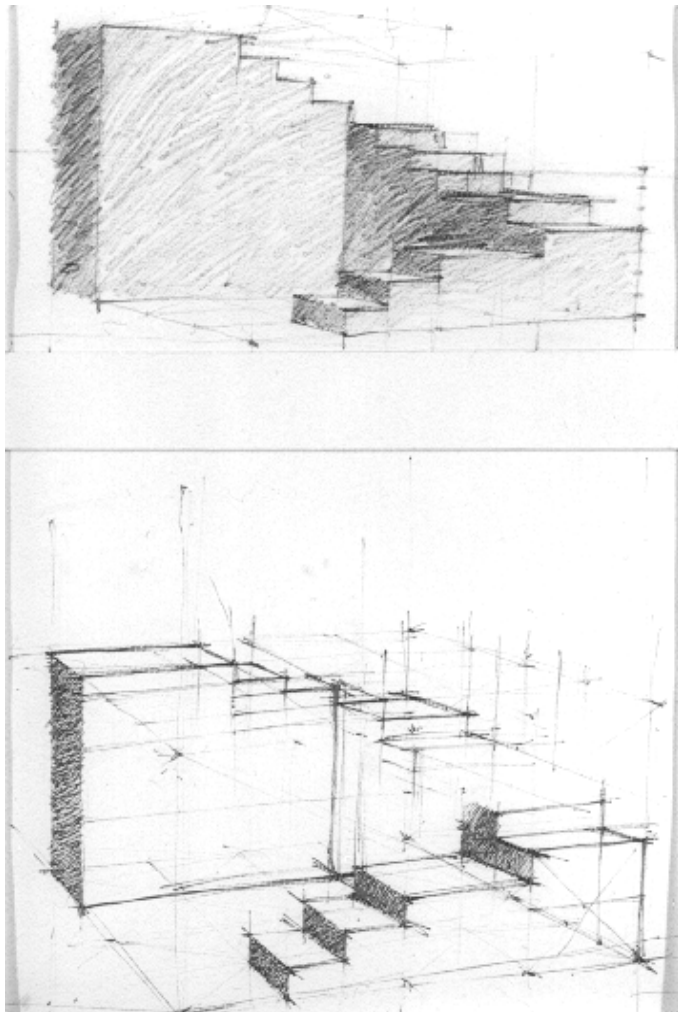

Fig. 1 Student's own observations in bird's
eye and eye level perspectives.

Teaching in the Foundation Course

In the foundation course the Section Freehand Drawing emphasizes the development of techniques which will enable a designer to put his ideas across lucidly, observe accurately and then reliably present these observations. The accent is on mastering the basic forms of perspective and tone in set exercises, as well as applying these skills in bird's eye and eye level perspectives, based on the student's own observations and on the ground plan and elevations of a given design. A very important component is acquiring skills at reproducing details of construction (which is especially useful in the study block "Building and Construction" of the first year). This shows that there are points of interest in Problem-based Learning. Not only is the didactic aspect of freehand drawing taken into account in the assignments of the various study blocks, but also the aspect of integrated application of the skills and insight acquired. Students are expected to gain knowledge and skills required to commit their ideas and spatial imagination to paper, and to observe and work in an analytical way. Variety and increasing complexity characterize the series of exercises. Many types of drawing are studied: linework, tone, documentary drawing, perspective construction from documents and by measuring, as well as perspective design.
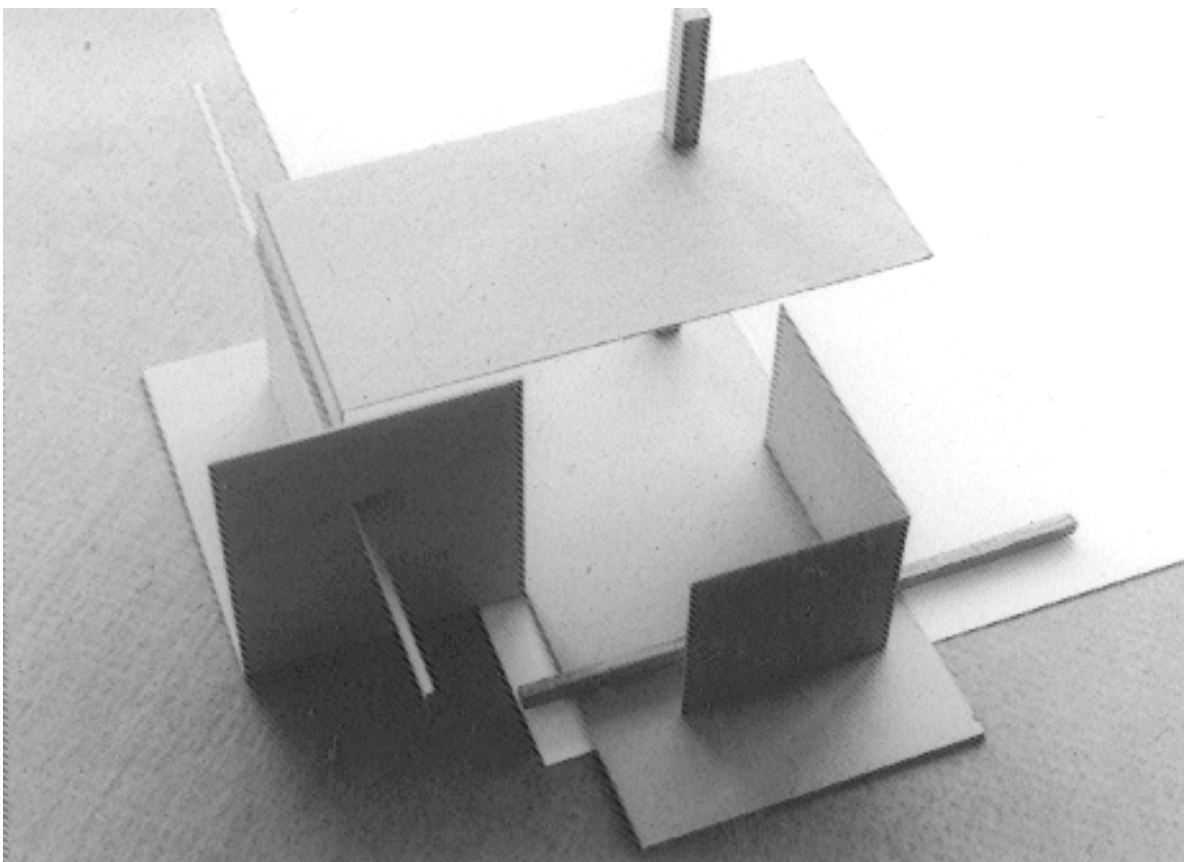

Fig. 2   Practical result during the foundation course in study of forms.

In the first year course the Section Study of Forms focuses on the explanation and development of formal concepts and definitions on the following problems: composition, plasticity, size and scale, texture, color and context. As these exercises deal with the theory of elementary forms, concepts and definitions are investigated as purely independent phenomena. The aim is to equip students with basic skills and spatial insight which will enable them to present their design and architectural projects with greater clarity. Assignments alternate between abstract and concrete. This method of teaching enhances the students' abilities to think in the abstract; insight thus gained can be adapted and applied to suit concrete situations.

Presentation Techniques is the third section of the Sector Media. In the third and fourth years students can choose from various assignments offered by the three Media Sections in different compulsory modules, the majority of which are geared to the design disciplines.
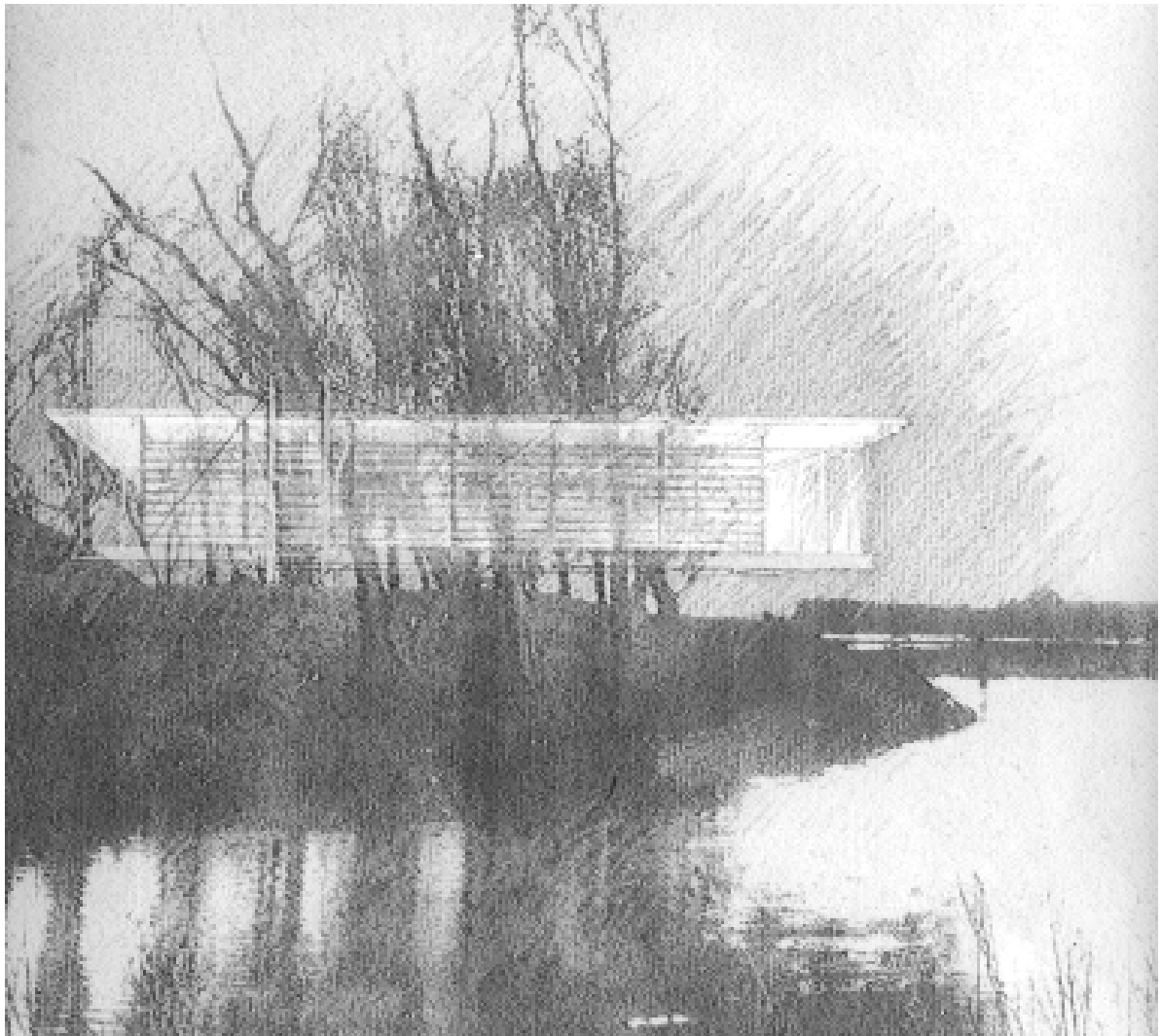

Fig. 3 Media-module: training in presentation techniques.

The Media Module

I have already mentioned that all the departments compose their own modules. Two years ago, when the first cohort of students passed the basic two-year study in line with the new teaching method of Problem-based Learning, the various departments were expected to have available all course elements in the third and fourth years, including the eleven optional differentiation modules. For the Sector Media this created the opportunity of realising a Media Module about communication in which students would learn to transfer their ideas, their designs to others. Future architects or town planners should have various means and methods at their disposal to perceive and clarify their projects. This module was to give students the opportunity of concentrating on the subject of communication for 6 weeks. We had to decide how to structure its contents if we were to offer integrated training in study of forms, in freehand drawing and in presentation techniques.

The Section Freehand Drawing aims at the following learning objectives in this module: increasing skills in spatial drawing, and acquiring skills required for the presentation of a final design. The two learning objectives in assignments set by the Section Study of Forms are: a concept-oriented objective, or creating ideas and images based on a spatial and formal problem, and a materials-oriented objective on the basis of a spatial and material problem. The Section Presentation Techniques was especially interested in the application of integrated media. The use of video may be approached in different ways, for example as a means of recording and presenting designs and the built-up environment. In addition, video has the advantage that it can record and show movement. An endoscope can capture from motion the use of architectural and urban spaces, traffic flows, as well as the perception and experience of the built-up environment.

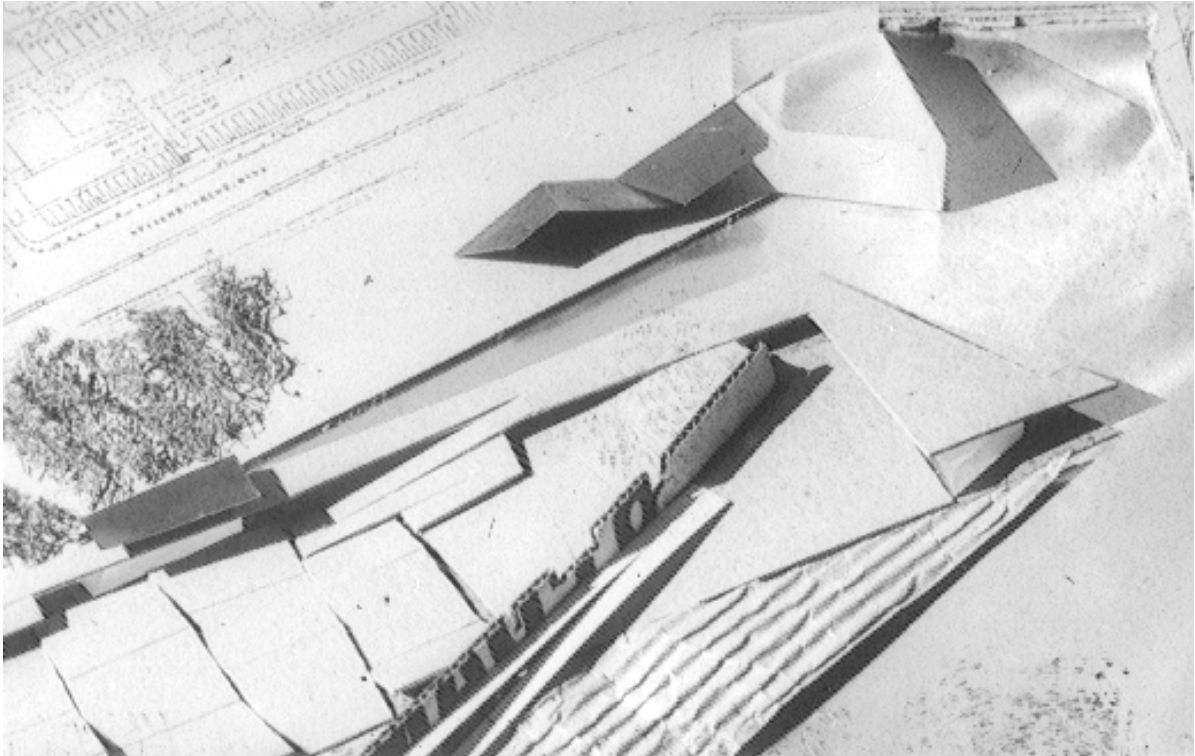Fig. 4 Media-module: video registration and editing.

Fig. 6 Media-module: the scale model of the architectural design.

We also had to consider what new developments in communication techniques were to be incorporated in the module; these techniques had been part of appropriate, optional media practicals before the introduction of Problem-based Learning. We have formulated the following learning objectives:

- gaining or enhancing skills in different methods and techniques of transference and presentation;

- optimizing final results through good cooperation, planning as well as an economic selection from and a purposeful use of the means of presentation resp. the strategy of presentation;

- relating plan, target group and presentation, which may involve feed-back from presentation to design;

- gaining information about and acquiring insight into presentations in practice;

- acquiring insight into the possibilities and limitations of various techniques;

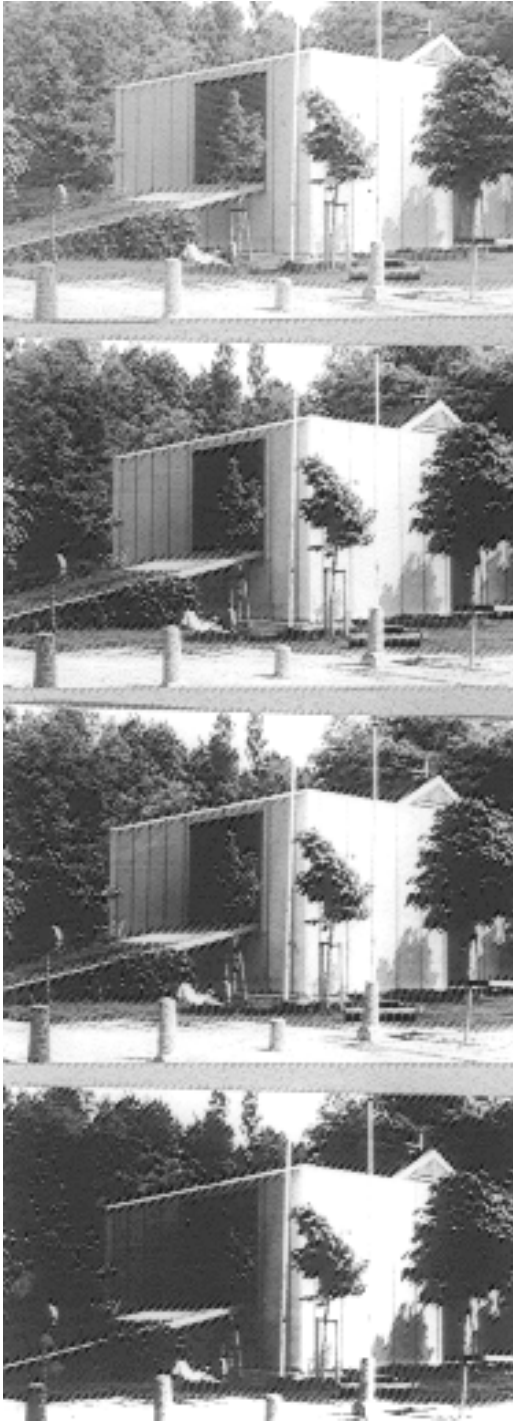- becoming aware of the importance of communication in the Media discipline.

Fig. 5 Photo processing during the practical, scheduled for twelve hours.

Structure of the Media Module

We have composed this module of three parts: staff guidance, practicals, lectures and talks:

- Staff Guidance
  The main theme of this module is that students work out a design of their own, which may be one made in another module, into a final presentation. During staff guidance hours they will be given particular help in deciding their strategy of presentation. There is time to reflect on the experience and knowledge gained during group discussions.

- Practicals
  Compulsory practicals such as presentation drawing, technique of scale modelling, computer visualization, study of form(s), photography, colour, and video. The practical Colour is a general introduction in relation to architecture. In the third week students are to choose from the practicals computer visualization, video or photography. The other practicals are directed towards gaining as much general knowledge of and experience in these techniques as possible.

- Talks and Lectures
  In each Media Module a series of talks has been scheduled in which architects, specialists in presentation and other experts engaged in presentations give their views.

Prescribed learning materials are the module book, the module reader and two syllabuses on photography and on basic techniques of presentation, respectively. Additional learning materials are available in the library.

A Retrospective View

In the past two years the *Media Module* has been offered twice a year, each attended by 45 students divided into groups of 15. In order to participate students have to register in advance. It has turned out that about 25% of the participants are students from abroad and that registration exceeds the available capacity. Although they have to work hard, students are enthusiastic about the module.

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