

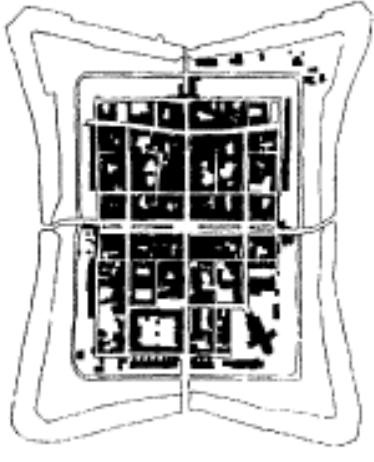
THIRD TRIMESTER, FIRST EXERCISE.
4 Weeks, 2 days a week.

The objective of the third trimester is to emphasise the relation between architectural design and city planning.

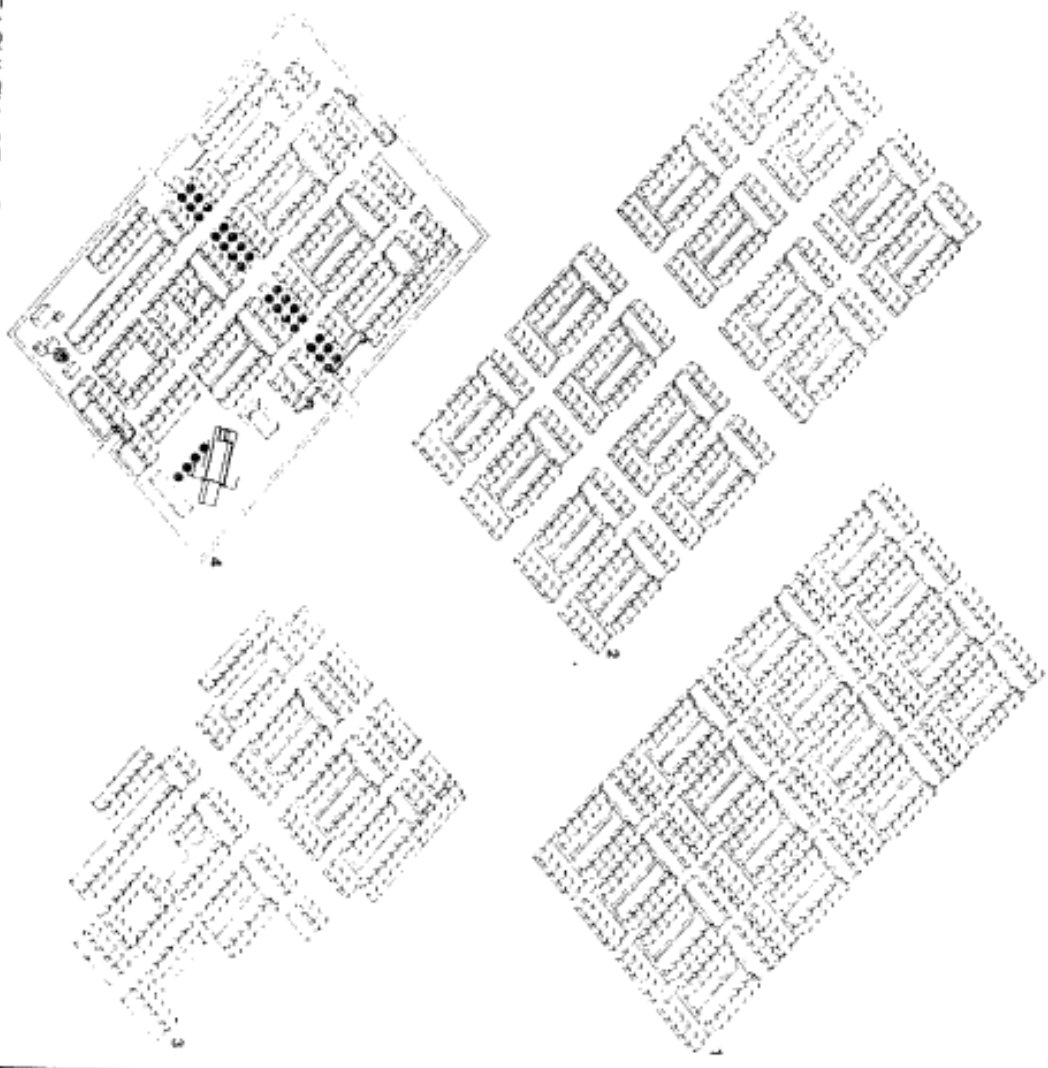
During the first part of the trimester the student is given an urban tissue model of an old Dutch village of the "Basilde" type. This computer model is presented to the student in the uniform configuration as show on illustration number 1 on this panel. Also a detailed map of the village is given.

Students are asked to manipulate the computer model in a number of consecutive steps in such a way that the original village is constructed. Students must take the following steps.

- Construct the linear urban spaces, (primary and secondary streets) by moving the thematic urban tissue units. (fig 2)
- construct the non-thematic concentric spaces by erasing dwellings. (fig 3)
- Construct the non-thematic physical elements, like the town hall and the church, the fragments of the city wall, the gate-buildings and main trees) by drawing 3D objects. (fig 4)



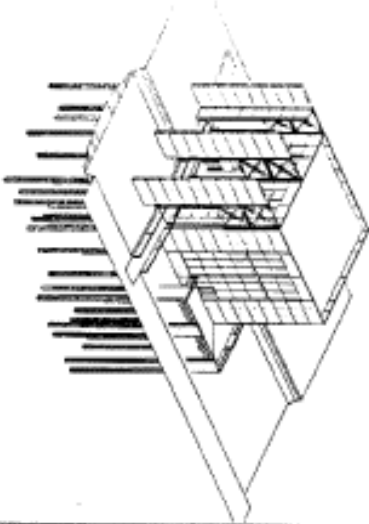
DESIGN STUDIO FIRST YEAR



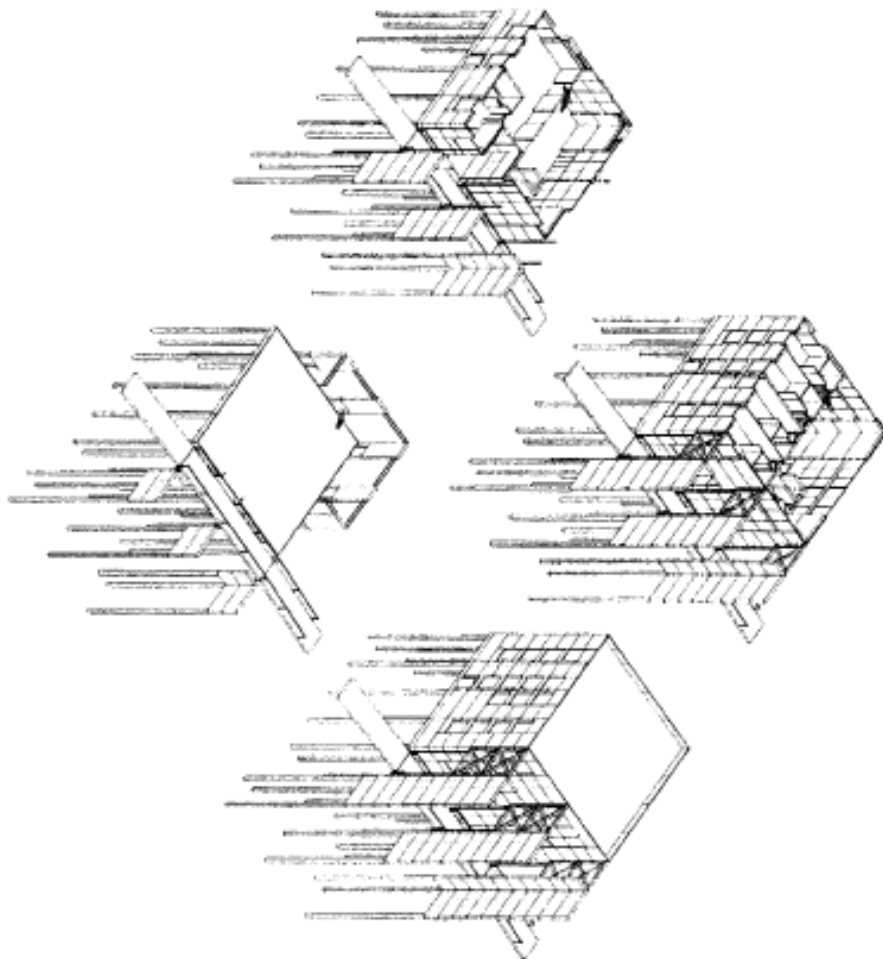
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SECOND TRIMESTER.
9 Weeks, 2 days a week

The illustration shows another design made during the second trimester by a first year student.



DESIGN STUDIO FIRST YEAR



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5

FIRST TRIMESTER. SECOND EXERCISE.

5 Weeks, 2 days a week.

The main objective of the second exercise is to confront the students with the basic design operations and confront them with the trial and error character of a design process.

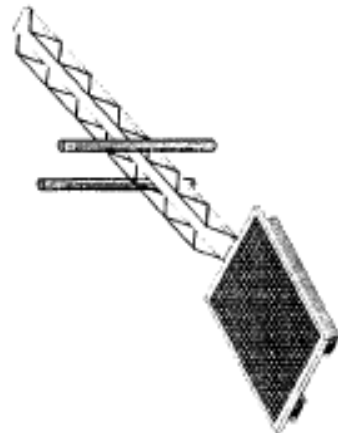
A second goal however is to show them that a building can express more than only the functional aspects of use.

Therefore they are asked to design a room for a museum-director who has a special interest in certain artists or collect certain items. Students must express in the interior and the exterior of the building the hobby of the director. So they have to design a room for a director who collects flags, is interested in the painter Dali, the pop-art artist Warhol, etc.

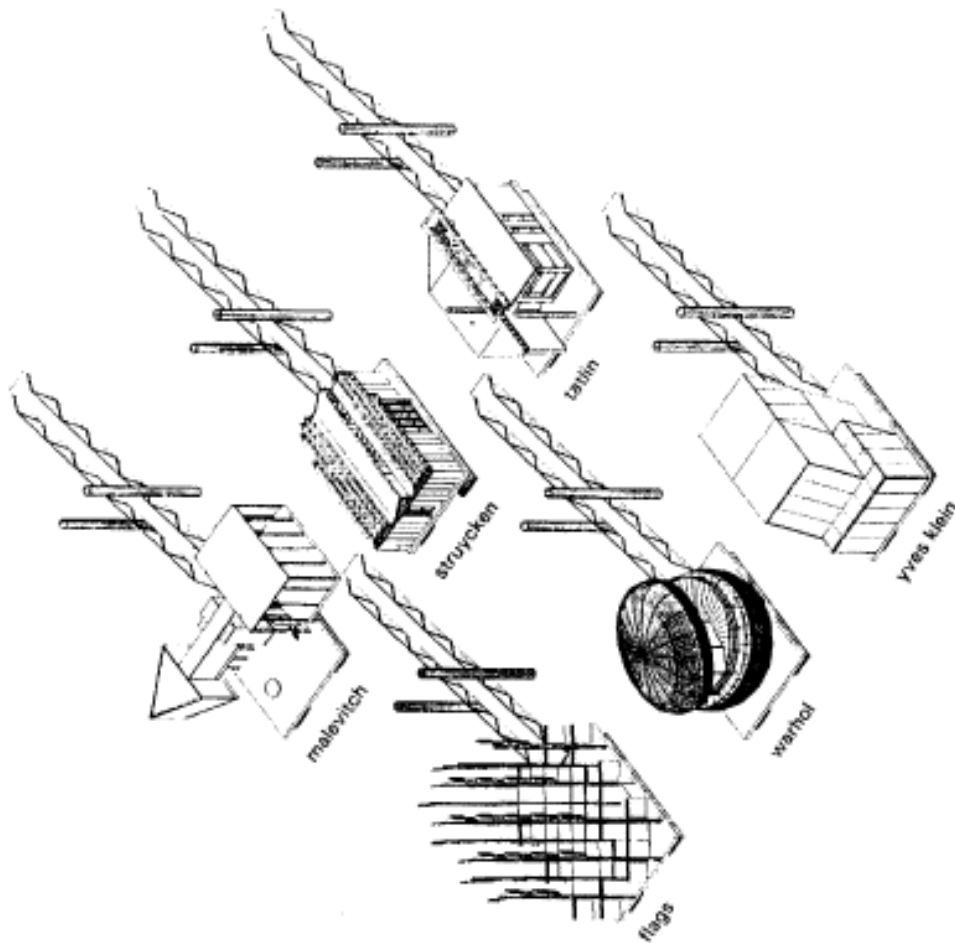
The room is situated on a floating platform in the river bordering the museum which is connected to the main building by a ramp.

The illustration shows the designs made by six students.

During this exercise they are taught to draw all kinds of 3D elements.



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SECOND TRIMESTER.
9 Weeks, 2 days a week.

The objective of the second trimester is to focus on the relation between architectural and structural design.

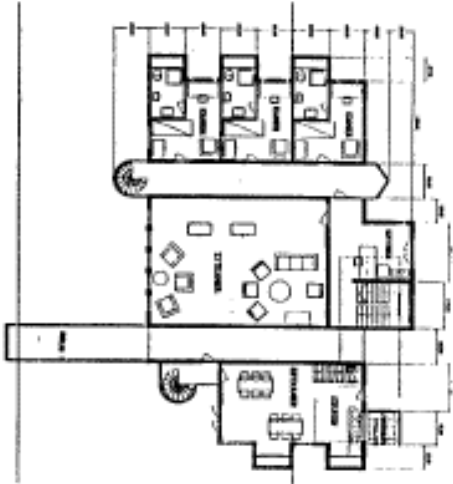
Students are asked to design a student-hotel situated over a river, being a hotel and a bridge at the same time.

Every student is presented information on the construction and manufacturing aspects of four different building systems. Before starting the design process every student has to choose one specific building system.

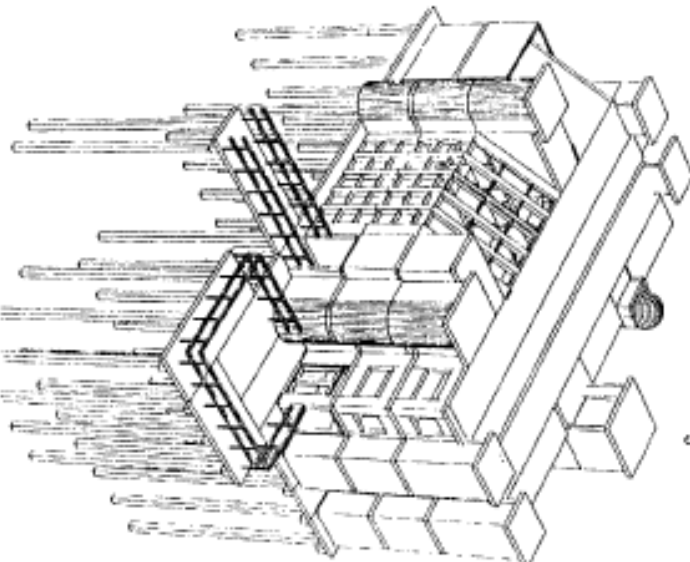
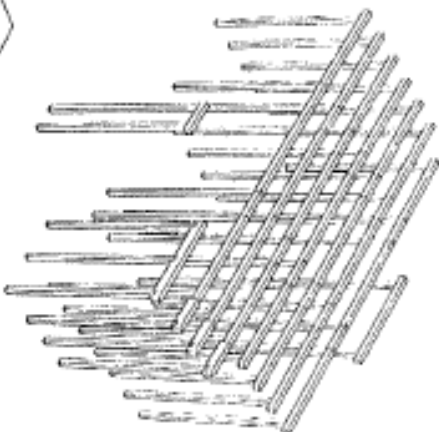
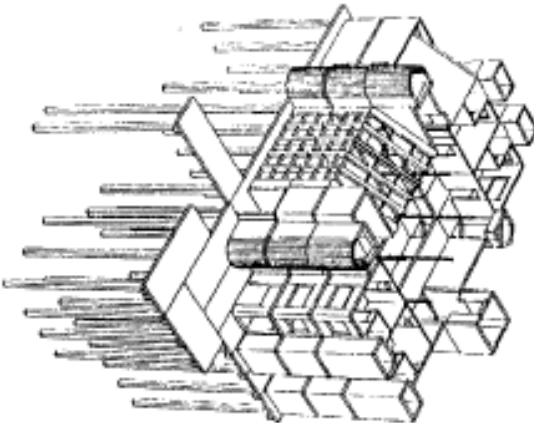
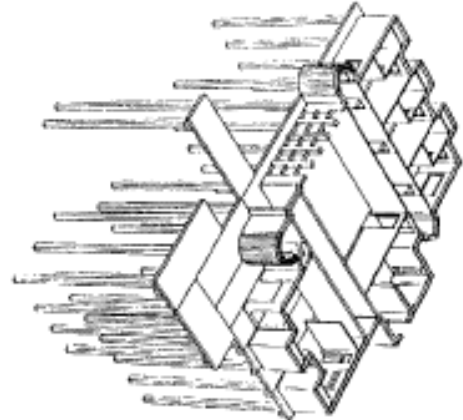
Students have to present 2D floorplans and facades drawn in the way they want and also a series of 3D computer models of the building showing the different stages of the composition of the building.

Students are allowed to draw the building elements as simple orthogonal shapes.

This illustration shows a series of 3D computer models made by one student.



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DESIGN STUDIO FIRST YEAR.

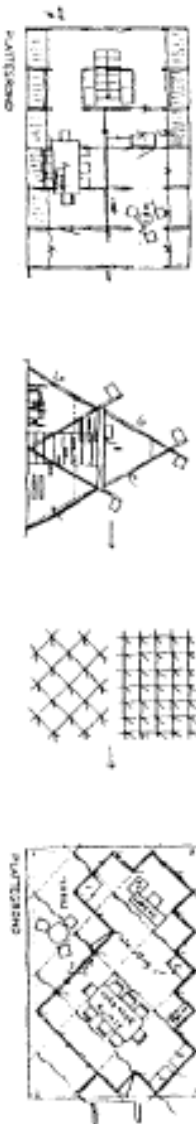
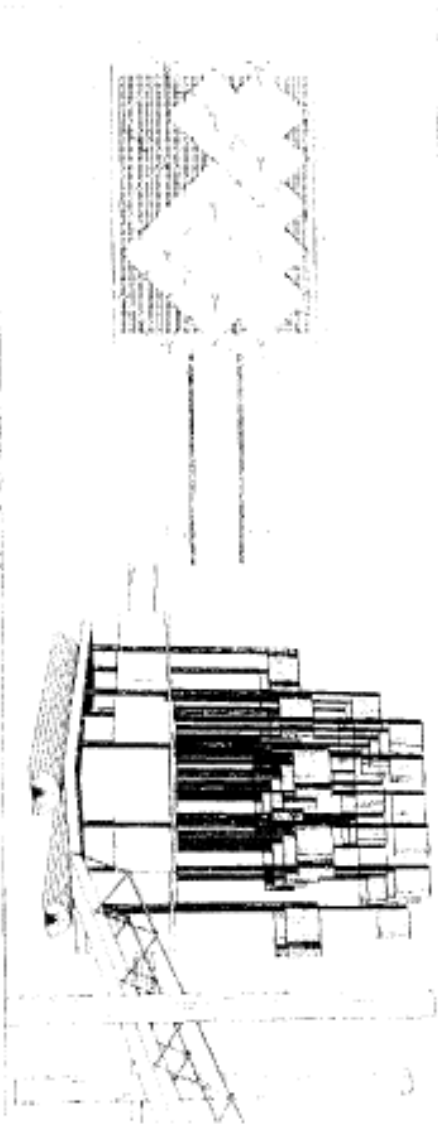
These illustrations are showing the way the computer was used in one of the first year studios during the year 1992/1993. During three trimesters the computer drawing system "Autocad" was used instead of the drawing board. Next to the development of computer skills, free hand sketching was taught. During the design process it was emphasized that free hand sketching and computer drawing should be used in alternating sequences. The illustration shows a computer-drawing and related freehand sketches made during the first design exercise.

The Autocad system was only partly used as a two dimensional drawing system. Mainly it was used as a three dimensional modelling kit trying to simulate real building as much as possible. 3D drawing was taught, 2D drawing was learnt during the 3D modelling work. The first thing students did learn was to draw and manipulate (erase, move, rotate, scale, copy, etc) 3D elements. During the first design exercise students were asked mainly to use orthogonal elements, which can be made by only using the "polyline" command. Next, the students learned to view the design in isometric and eye-level perspective. Later they learned how to draw other 3D objects, like domes, cones, pyramids, etc.

First year design-projects are executed during three trimesters of nine weeks each. Students worked on the projects for two days a week. During this trimesters the following subjects were emphasized:

- First Trimester: Basic hand and computer drawing skills, Basic design skills.
- Second Trimester: Architectural design in relation to structural design.
- Third Trimester: Architectural design in relation to city planning.

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FIRST TRIMESTER. FIRST EXERCISE.

4 Weeks, 2 days a week.

The objective of the first exercise is to learn students to use the Autocad system as a 3D modelling kit. Students are taught to execute a very limited number of Autocad commands. Also they are stimulated to use intensively the help function of the Autocad system.

The site is a piece of land bordered on two sides by a wall and on the other two sides by a road and a canal.

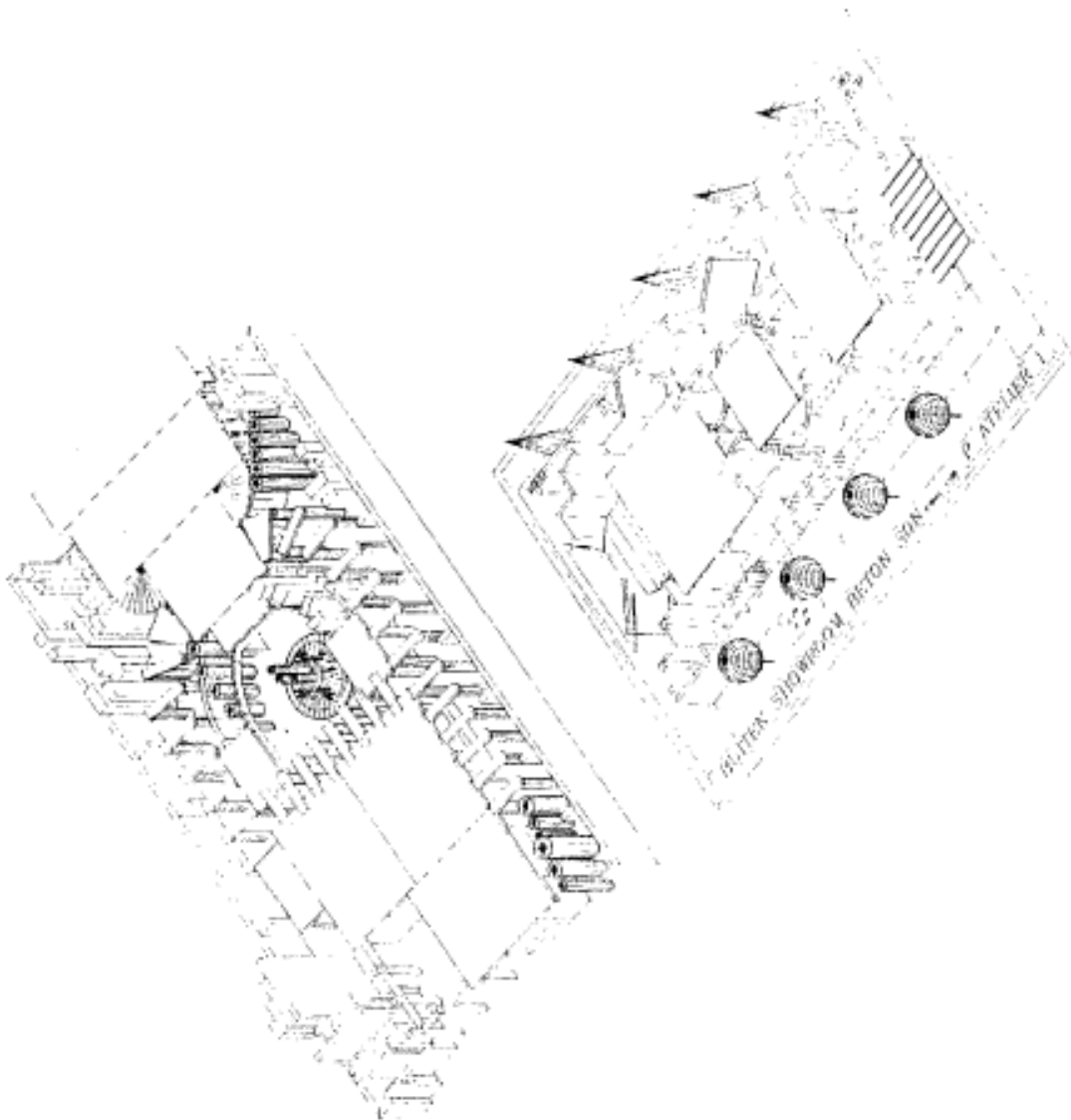
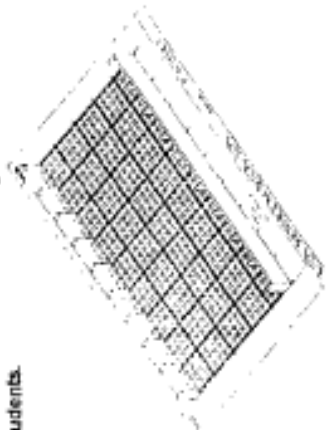
Students are asked to design a showroom for a factory which produces concrete elements like floorslabs, piles and blocks, etc.

During the exercise students are stimulated to draw variants by altering drawn solutions.

Students who produce symmetrical placed pavilions are for instance stimulated to rotate or to shift these pavilions inside the two parallel border-walls. Also they are asked to draw eye-level perspectives from both solutions. This drawings are used to discuss the perceptual qualities of the designs.

Finally the drawings are only evaluated by the teacher on criteria concerning computer drawing skills.

The illustration shows designs made by two students.



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THIRD TRIMESTER, SECOND EXERCISE.

5 Weeks, 2 days a week.

During the second exercise a group of three students is asked to analyse an interesting existing urban tissue. Based on this analysis an urban tissue model must be drawn and described showing the typology of the tissue. (The arrangement of buildings and urban space).

Next students must view the model from a modern point of view and alter it in such a way that it is adapted to present and future standards of living.

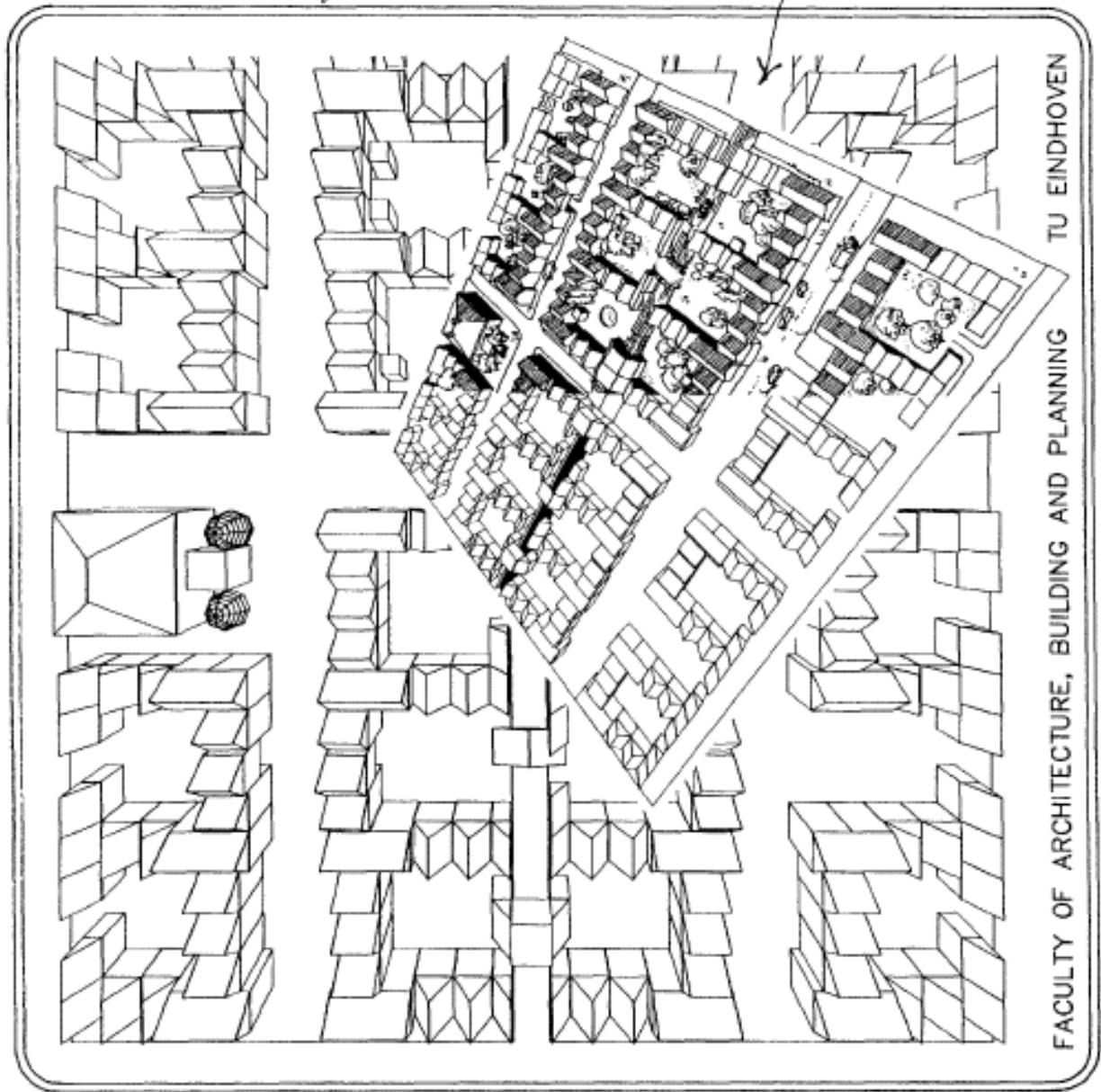
After this study every individual student has to design a plan for a modern infill or layout of part of the city.

Students are asked to use computer drawings as an expedient for producing free hand drawings showing the liveliness of the city.

The illustration shows this study based on the urban tissue of part of the Dutch city of 's Hertogenbosch where a small river is sneaking through the city.



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EVALUATION FIRST YEAR DESIGN PROJECTS.

During the first year students are taught that it is important to learn to evaluate their projects themselves.

Therefore a checklist is introduced and explained over the year which can be used by the students to formulate their criteria, evaluation scales and weighting factors.

The main aspects that are evaluated are **utility, structural and manufacturing aspects.** Only little attention during the first year is given to legal and economical aspects.

Main goal is to develop a systematic and integrated approach towards the evaluation of design projects.

The evaluation of the student is compared with the judgement of the teacher. Final marks are given by the teacher.

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DESIGN STUDIO FIRST YEAR

UTILITY ASPECTS.

PHYSICAL ASPECTS.

Can people move well in the designed spaces?

PHYSIOLOGICAL ASPECTS.

Will the physiological processes of people not be disturbed by the forms of material elements or the climate of spaces?

PSYCHOLOGICAL ASPECTS.

Is travelling through spaces of the project an interesting experience?
Can people orientate themselves in the project?

Has the project a symbolic or cultural meaning?

Has the project aesthetical values?

STRUCTURAL ASPECTS.

STRENGTH.

Is the structure of the building strong enough?

RIGIDITY.

Is the structure of the building rigid enough?

STABILITY.

Is the structure of the building stable?

MANUFACTURING ASPECTS.

PREFABRICATING.

Can building elements be prefabricated well?
TRANSPORTATION.

Can building elements be transported well?

ASSEMBLING.

Can building elements be mounted in the right order?

CHECKLIST DESIGN PROJECTS FIRST YEAR STUDIO.

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