



Lund University

ABVN01 18 hp (project) + ABVN05 (theoretical part) 6 credits, Spring Term 2011
MODERN MOVEMENT, -transformation, conservation and development

“THE CONNECTION”

University Plaza & the Design Centre - the School of Architecture.

Abstract (keywords): modern movement, conservation, adoptive reuse, upgrading, architecture analysis, creative infill, new architecture meet old architecture, energy saving, accessibility, details

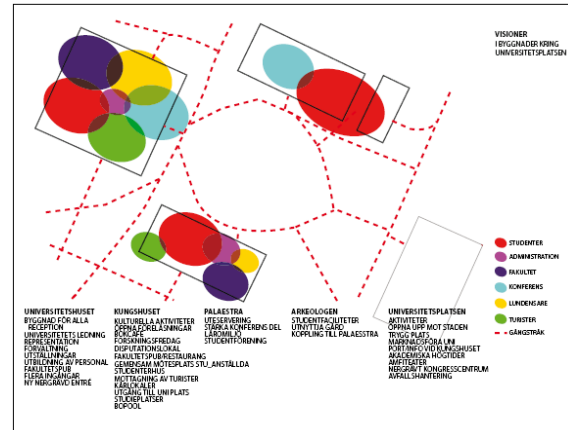
Two objects

Transformation studies spring 2011 will develop university **CONNECTIONS** in the main University Plaza and between LTH Design School and the School of Architecture, -two optional objects.

- The Lund University Rector has launched an important development of the main University Square: The objective is to activate the plaza as an exciting place for students, teacher and guests to the University. This calls for new architecture, developing existing buildings and creative infill in the heritage context. The site is programmed for a main hall with 1000 seats, a university information & exhibition space, a bistro, improved accessibility, seminar halls and improved connections between buildings at in the University Square.
- 2011 we return to our School of Architecture, rebuilt, redeveloped and fresh. However the messy connection between the school and the Design Centre (IKDC) are not changed. The confusing link with a disturbing lack of architectural design calls for a creative development. Defined as a new main Design school entrance the connection will serve in the future as an important hub. The site is programmed for a new welcoming entrance hall, a library, students' exhibition space, a conference theatre for 200 students, and study space for students and a better connection between Design Centre and the School of Architecture.



Rector calls for the development of the University Plaza.



New functions and new architecture will activate the Plaza



Create LTH Design School Hub connecting the Design Centre and the School of Architecture with creative architecture.

Theme and teaching tools

The existing architecture includes significant architecture with sustainable and heritage qualities. How do we take care of this legacy, upgrade and transform the architecture for modern use and modern demands? How do we add, change, develop and connect these values with new architecture as excellent as the original one?

This studio develops existing architecture, spaces and context to make it valuable for future life. We use different teaching tools:

- individual study contract*
- distinguished Scandinavian architects and censors involved*
- reviews step by step*
- site-analysis studies with modern tools, 3D-scanner etc*
- “ontour-lectures” to New York, Denmark Germany*
- charette together with students in Florida School of Architecture*
- a conference on “streamline architecture”*
- presentations in VR-studio*



Zaha Hadid Maxxi museum 2010, Rome communicates dynamic streamline in an existing architectural context.

Questions

What are the significant values in an existing architecture and how can we define the problems? What do we want to save, change and why? How can existing architecture qualities be restored and adopted for modern use, needs and facilities with respect for originality and with creativity? How can new architecture be inserted and connected in order to improve total architectural qualities and give a new trade mark to the University and to the School of Architecture and Design? How can today's need for transparency and flow etc be implemented with quality? How can a new content be inserted in a significant recent past architecture? How can we use modern technology to improve energy use and accessibility? How can the new architecture be a valuable addition reflecting our age in the continuity of the buildings?

After an introduction and a visit to the two objects, you will choose one of the sites for individual studies throughout the semester. The studio encourages cooperative work in the first parts of the project. A “study contract” will be established at the beginning together with teachers.

In-depth study fostering the practice of architecture

We investigate and analyse the site, sketching and shaping new additions to the old buildings. We transform a neglected, dilapidated architectural environment with insight, precision and a distinct individuality. The close creative study of materials, colour and detailing is an important part of this work. We study traditional building techniques, inspect damages, experiment with materials, and prepare detailed drawings and blueprints. We discuss approaches and conservation ethics in the encounter between new and old architecture.

Excursions

This year's conservation project works in a international platform with excursion, international workshop/charette together with students from Florida University.

The main excursion will go to New York and our co-partner Colombia University and Florida University. During this field trip we explore significant architecture in New York; the post second

world war modern movement by Frank Lloyd Wright, Diller, Scofidio+Renfro/Lincoln centre & Julliard school, Jean Nouvel, Renzo Piano, Mies van der Rohe, Philip Stark etc.

An early fieldtrip infill-architecture in Denmark/Germany inspires the development of ideas. Florida University bring in students in early May to make a charette workshop. During the semester we will invite to a conference on flow in architecture "Streamline architecture". New York flight- and excursion entrance tickets will be free of charge considering the number of participants.

The challenges in the project work are:

- *to investigate and analyse the quality of existing architecture by modern methods,*
- *to analyse changing and new functions and the needs for preservation/conservation, needs for changes, additions and upgrading of the site,*
- *to plan objectives and in detail the architectural conservation, alteration and enlargement for new activity in significant modern architecture setting,*
- *to shape detailed solutions for the encounter between new and old architecture,*
- *to apply good repair techniques and to meet energy conservation and accessibility requirements in existing buildings,*
- *to describe construction and material repair,*
- *to apply various presentation techniques at different stages of the project.*

Main subject items

The work of the architect in connection with conservation calls for painstaking pilot studies and a high level of detailing. Assessment of the sustainability of the initiative, its life expectancy and management will be at the centre of this project. The architectural processing calls for sustainable planning and design transcending the trends and tendencies of the moment.

The advanced study course comprises the following main subject items:

- *Site-studies with 3D scanning techniques, damage inspection, capacity and historical evaluation.*
- *Programme sketches and reference studies (excursions).*
- *Project development, proposals for action.*
- *Detailed study, building description, experiments with constructions, colours and materials.*
- *Presentation using modern planning methodology, CAD modelling, Maya, Rhinoceros, Archi-Cad, VR presentation.*

The conservation/redevelopment processes differ greatly from new construction. Knowledge of this subject facilitates the architect's task of guiding the process and developing and pleading for good solutions at different stages.

The existing building and settlement require comprehensive study, investigation and analysis. At the investigation stage we employ modern techniques. You will learn 3D scanning, GPS measurement, contextual analysis, colour examination etc. At the planning stage will be studying conservation ethics, the international code and various approaches to the modern architectural heritage. We will build CAD models and study traditional building materials and techniques in depth. The theoretical course, comprising inspirational lectures/seminars and presentations of relevant conservation projects, theory, methods and techniques, will be ongoing throughout the project and will include contributions from qualified Swedish and international visiting lecturers.

Detailed design and materials treatment are a particularly important aspect of conservation, and we will therefore be preparing detailed drawings and working descriptions of complex encounters in the building you design. This work needs to be logically related to your general choice of solutions, approaches and options. We emphasise the value of using different methods at different stages to present the development of the project, i.e. sketching/drawing as a working procedure at early stages, analytical diagrams and goal descriptions at an intermediate stage and CAD models and VR studio in the final presentation. Teaching will concentrate on developing the student's individual possibilities of presentation.



Working plan

Programmes/rebuild proposals for the indoor and outdoor environment will be developed in collaboration with the “client” and prospective users. The project begins with a site study and architectural and historical analysis. A rapid sketch will be prepared for the alterations and additions, heightening the target focus at the inventory stage and concentrating the on-site analysis of the settlement. The study of the buildings and their context will serve to describe their architectural structure, spatial and functional organisation, structure and technology. Analyses of the possibilities, capacity, damage panorama and structural status of the dwelling area will provide a starting point for in-depth study. We will study how user requirements can be accommodated, how heritage values are affected and how new principles of design contribute new qualities to the site. The project phases:

Introduction: The buildings, their condition and structure

Field studies with 3D-scanner and manual measurement, and with on-site building and damage analyses. Study of the architectural history of the site.

Working base: small groups.

Phase 1: Preliminary study, target definition and programming

Field inventory, building status, quality and capacity analyses will be compiled. Ideas will be put into target programmes in small study groups and assessed in Interim Review I.

Working base: small groups.

Workshop/excursion; to Denmark/Germany

Visits to significant architecture and conservation sites in Denmark/Germany

Phase 2: Logistics, function, measurements and requirements

Individual sketching work on one of the objects will be based on Sketching Phase 1. Planning, descriptions and CAD of physical modelling will be carried out. We will visit ongoing and completed conservation projects and discuss preservation, renewal and working methods.

Working base: small groups.

Workshop/excursion; New York

Excursion and lectures on site in New York. We will visit architecture offices and building sites. Ten years experience from touring in New York gives a special opportunity of interesting studies in the Apple city.

Working base: small mixed groups.

Phase 3: Structure and materials

In collaboration with a structural engineer, structural solutions will be devised and presented by CAD or physical modelling. The importance and properties of the building materials will be studied in the laboratory and in the context of production processes.

Working base: individual.

Phase 4: Streamline conference/ charette

A week study on the flow in architecture including a charette together with Florida university students.

Working base: small mixed groups.

Phase 5: The detail, building description/manual, planning and presentation

Drawing studies of detailing and descriptions of workmanship will be compiled. A final presentation will be prepared, processed and submitted using modern presentation tools, VR lab etc.

Working base: individual.

The timetable includes both theoretical lectures and practical sections to provide all course participants with a solid platform. Questions concerning materials have a crucial bearing on the encounter between old and new and accordingly are given great prominence in this project. In the final presentation of work, therefore, great importance will be attached to modelling and material presentations over and above a complete set of drawings. The final presentation will be made using the Virtual Reality Lab in IKDC, the overall aim being to articulate the project while at the same time presenting a well-organised body of drawings and material specimens.



We will visit architecture offices, significant infills and new projects in New York.

Interim reviews, final presentation, assessment

Each working phase will be followed by an interim review to facilitate mastery of the different sections of study and to give all students the opportunity of concrete feedback on their study projects from visiting lecturers, teachers and property managers. In the final review an assessment will be made of the project exercise outcome and implementation and of study tasks submitted, of active participation in the drawing office during the term and of the working process as a whole. Awards obtainable: Pass, Fail.

Course teaching staff (preliminary)

Mats Edström, Professor, Course Leader

Morris Hylton III, Professor Florida University

Norman Weiss, Professor Columbia University, New York

Dorte Mandrup, incoming guest professor

Håkon Vigsnaes, incoming guest professor

Laine Montelin, B.Sc. (Eng.), structural engineer

Ingela Pålsson-Skarin, Ark MAA, Tekn. Lic., Principal Assistant/Co-ordinator

Guest censors (preliminary)

Hakon Vigsnes, Ark MNAL and Dorte Mandrup, Ark MAA

Required reading

(A definitive reading list will be presented at the commencement of the course in January)

ICOMOS, Charters, www.icomos.com (2010-10-24)

World Heritage Convention, www.whc.unesco.org (2010-10-24).