

Industrial and Service Park in Angyalföld
Architecture of Workplaces 2
1st semester 2013/2014.

COURSE DESCRIPTION

In an advanced society the world of labour is synonymous with order and being well-arranged. The aim of this one-semester course is to acquaint students with this world that not only suggests but also requires a lot of organizing and planning. The complexity of the topic manifests itself in the buildings designed to house certain activities with the attached architectural content such as space, structure, and fabric as well as in the questions regarding the architectural formation of the surroundings by this world.

As **Architecture of Workplaces 2** is the main design course in the fifth semester, it has a significant position and task among the Bsc courses. It gives a chance to summarize the acquired architectural-technical knowledge at the midpoint of the education in the form of a last challenge right before the Global Design exam. This complex challenge foreshadows the desire of a real and complicated architectural thinking since it aims to create an equilibrium between the aesthetic and technical constituents of planning of a building.

This task of the semester is an organic part of the students' studies and is designed to be a realistic challenge for them regarding their age and level of professional knowledge. The task involves real architectural programs that contain building sites that are based on actual spots, thus the plans are ought to be highly commensurable resulting in a fair and matter-of-fact grading. In this way individual works shall be easy to be ordered, judged, and graded. Grades should help the formation of a healthy self-esteem and should reflect a proper measuring of the level of knowledge at the given time period.

Regarding the building sites we have chosen the area on the outskirts of District 13th of Budapest since the development plan here is based on actual demands and its profile well fits our educational plan and the methodology of our course. Angyalföld is a traditional labour district. It is not hard to see the signs of this, since the area is proudly keeps its valuable and identity-making heritage alive. However, infrastructural developments have reached a level where services and industrial operations located in the inner parts start to disturb the tranquillity of the living areas. Detecting this problem the development plan aims to move these industrial functions to the outskirts of the district close to Újpest ("New Pest") where they may be grouped by the type and nature of their activities. The infrastructural capabilities regarding utilities, roads that lead downtown, accessibility etc. of the plots in the area are excellent. The whole development area is made to welcome different functions thus creating a lot of possibilities for various developments. The area has a valid regulation that will be accessible on our website. The knowledge of this plan is crucial to meet the expectations of this course and to have a successful semester.

The tasks' nature

All tasks contain a kind of representative function (foyer, exhibition area etc.), a hall or hall-like space of bigger span and smaller cell-like spaces. During the semester one has to create a composition of volume, a building while solving aesthetical, technical questions arising from assembling volumes of different kinds.

The architectural programs have an equal ground floor area of 6-700 square meters and contain list of rooms, functional schemes, and short technological descriptions to help planning. One tutor may guide 3 programs at a maximum. We have designed 7 programs for the course. Even distribution will be checked by the course leader.

Selection of architectural programs

1. Fashion and costume design studio
2. Audio and video recording studio
3. Cartoon and animation film studio
4. Bakery with a shop for the products
5. Wine bottling facility
6. Medicine wholesale depot
7. Consignment stores – firm headquarters

Progress throughout the semester

The course will be held in a workshop style. Students will work as a team of an architectural studio with the help of the department's consultants. The semester starts with the architectural guidelines of the master plan (site plan) which informs the students about the selective, economical, rational, up-to-date, and eco-conscious policy of designing our environment. Being economical and well-planned are the keys of an organic and self-sustaining development. By emphasizing the forming of the surroundings we are keen to highlight that no matter what the architectural task is, site plan has a constructive significance, which – if paired up with individual ingenuity – may be capable of creating true value. Following this step come the more traditional designing phases such as the concept design, the preliminary design, and the final design. Although the course lays the main emphasis on individual work, students have to complete their tasks as *members of a team*. At the end of each phase, students have to give a presentation on their achievements in front of the studio. The seminars not only give space to collective consultations and student plan presentations but also contain the consultant's phase-specific presentations that may help the development of the work.

The design phases of the semester form a hierarchical system. The phases are presented by the students in the form of open presentations during the seminars. These presentations are immediately evaluated by the consultants who discuss the work openly. The finishing task is creating a final design.

Parts of the project to be completed:

1. Concept design, complex study
2. Preliminary design
3. Final design

Detailed description of the design phases:

1. First design phase: the creation of a concept design (site plan) 1st mid-term presentation

The concept design of the building has to be completed on the base of the architectural studies, design sketches. The aim is to form the architectural concept of the building to design.

Work phases to be done:

1.1. Preparatory complex study

Having chosen the site and the task, the design process begins with preparing a complex study. In the beginning of the semester the students have to make a research for examples connected to the program, than to present them with an evaluation, explanation. Students have to creatively observe and record the site via all means possible (exploring, taking photos, making drawings, street-views). So the study has to contain the presentation of the design site, the evaluation of the surroundings thus helping the correct choose of the design concept.

As part of the complex study students have also to present having got familiar with the chosen program. A 1:500 scale functional scheme is to be completed (of each floor plan)

as part of the study. This will be helped by the detailed room list and the functional diagram.

The study has to be presented due to the time schedule, but the preparation of the study doesn't end with this! Going on with the design process, any kind of examinations, ideals can be a part of the arising architectural, structural, detail forming questions.

The form of the complex study A/4 pages are recommended, printed or written, uniform paper-bound with a cover.

1.2. Site plan m=1:2000 on 1 page, with the representation of:

- a./ the immediate surroundings of the plot, with the neighbouring buildings
- b./ the height relations, contour lines
- c./ the allocation of the designed establishments with names, number of floors, height, main dimensions and top view
- d./ the allocation of the subsidiary establishments
- e./ road network, the circulation of vehicles, transportation, people with different signs, with parking, loading ramps, the proposal for outer road connections of the plot
- f./ the inner roads for the personal and clients
- g./ marking the entrances, gates
- h./ the boundaries
- i./ the cardinal points
- j./ the green surfaces
- k./ the regulations of the site and the parameters of the building in a comparative table on the site plan.

1.3. Disposition floor plan(s) m=1:500 on 1 page, with the representation of:

- a./ the distribution of main rooms due to the function pattern/ flow diagram
- b./ the internal connection system of the building
- c./ the vertical connections
- d./ the entrances.

1.4. Schematic section(s) m=1:500

1.5. Study model m=1:500 on a base sheet bigger than the plot in order to represent the neighbouring buildings, with the representation of:

- a./ the boundaries
- b./ the inner and outer road network
- c./ the volume of the building.

The concept design should be presented with the above content on two A/2 laminated sheets at a maximum with a uniform graphical concept, due to formal requirements (title, format etc.).

The design phase must be submitted/ presented on time due to the time schedule. Failed concept design must be replaced / repeated within 1 week time. **In case of missing the repeated mid-term submission deadline the credits of the subject cannot be obtained!**

After the common evaluation of the concept design (site plan) students receive a grade.

The revised concept design and site plan form the base of the further phases for the individual work and group consultations.

2. Second design phase: the creation of the preliminary design, 2nd mid-term presentation

The aim of the preliminary design is to show the ongoing of the design process and to be the starting point of the final design, of the preparation of details (structural part of the task). Possible mistakes can be corrected.

Work phases to be done:

2.1. Site plan m=1:500 with the same content as in concept design

2.2. Floor plan(s) m=1:200 of each different levels, with the representation of:

- a./ the cardinal points
- b./ the structural system
- c./ the load bearing structures and walls
- d./ the main measures, (outer dimensions, axis of columns, height dates etc.)
- e./ the doors, windows, gates, skylights
- f./ constant fixtures and installations necessary for understanding (built-in equipment, shelves, dressing room equipment)
- g./ the names and measures of the rooms
- h./ the inner circulation of people and transportation
- i./ elements around the building
- j./ all other textual information.

Only the main structural dimensions should be indicated on the floor plans.

2.3. Section(s) m=1:200 with an elaboration corresponding with the plans necessary for understanding – at least 2 sections perpendicular to each other are necessary, it is recommended across the stairs, containing:

- a./ marking the bearing structures and space separating structures
- b./ the structural system
- c./ the typical height measures
- d./ the names of the structures and materials
- e./ all other textual information.

Only the main structural dimensions and heights should be indicated on the sections.

2.4. Elevations m=1:200 at least 4 sides, with the representation of:

- a./ the characteristic articulation of the elevation
- b./ the plasticity of the elevation
- c./ the colour of the elevation
- d./ the position and character of the doors, windows, gates, skylights
- e./ the names of the materials
- f./ all other textual information.

2.5. Perspective view

The perspective view should be a compiled, or freehand drawing representing the appearance and surroundings of the building.

2.6. Scale model m=1:500 with the same content as in concept design – same scale as the site plan, marking the close surroundings and the slope conditions of the terrain

The preliminary design should be presented with the above content on four A/2 laminated sheets at a maximum with a uniform graphical concept, due to formal requirements (title, format etc.).

The design phase must be submitted/ presented on time due to the time schedule. Failed preliminary design must be replaced / repeated within 1 week time. **In case of missing the repeated mid-term submission deadline the credits of the subject cannot be obtained!**

After the common evaluation of the preliminary design students receive a grade. The revised preliminary design plans form the base of the further phases for the individual work and group consultations.

3. Third design phase: the creation of the final design

On the base of the preliminary design's evaluation the task must be improved, modified. The final architectural and technical solutions will be elaborated.

By the final submission all previous preliminary presentations must be handed in.

Work phases to be done:

3.1. Site plan m=1:500 on 1 page, with the representation of:

- a./ the immediate surroundings of the plot, with the neighbouring buildings
- b./ the height relations, contour lines
- c./ the allocation of the designed establishments with names, number of floors, height, main dimensions and top view
- d./ roof heights, levels of entrances, connecting floors and terrain
- e./ the allocation of the subsidiary establishments
- f./ road network, the circulation of vehicles, transportation, people with different signs, with parking, loading ramps, the proposal for outer road connections of the plot
- g./ the inner roads for the personal and clients
- h./ marking the entrances, gates
- i./ the boundaries
- j./ the cardinal points
- k./ the green surfaces
- l./ the regulations of the site and the parameters of the building in a comparative table on the site plan.

3.2. Floor plan(s) m=1:100 of each different levels, with the representation of:

- a./ the cardinal points
- b./ the structural system
- c./ the load bearing structures and walls
- d./ beyond the main dimensions contain the measures of each room
- e./ the doors, windows, gates, skylights (doors with opening direction, windows with parapet heights, subdivisions)
- f./ the names, measures and floor finishes of the rooms
- g./ constant fixtures and installations necessary for understanding (built-in equipment, shelves, dressing room equipment)
- h./ marking the functional necessary installation of offices, meeting rooms, kitchenettes...
- i./ the inner circulation of people and transportation
- j./ elements around the building
- k./ the name of used materials and colours
- l./ all other textual information.

- 3.3. **Section(s) m=1:100** with an elaboration corresponding with the plans necessary for understanding – at least 2 sections perpendicular to each other are necessary, it is recommended across the stairs, containing:
- a./ marking the bearing structures and space separating structures with layers and the order of layers
 - b./ the structural system
 - c./ the typical height measures
 - d./ the forming of walls of the rooms in the section
 - e./ the names of the structures and materials
 - f./ the main equipments with greater need of space
 - g./ the connecting outer constructions, levels, sidewalks, retaining walls...
 - h./ the name of used materials and colours
 - i./ all other textual information.

Only the main structural dimensions and heights should be indicated on the sections.

- 3.4. **Elevations m=1:100** at least 4 sides, with the representation of:
- a./ the characteristic articulation of the elevation
 - b./ the plasticity of the elevation
 - c./ the colour of the elevation
 - d./ the position and character of the doors, windows, gates, skylights
 - e./ all elements, constructions mounted on the elevation
 - f./ the names of the materials
 - g./ all other textual information.

Two of the elevations should be made with colour graphic in order to represent the chosen materials, colours.

3.5. **Axonometric projection of the structure**

Axonometric 3-dimensional rendering of the structural system. The spatial view of the **primary** load bearing structure of the building checked by the consultant.

3.6. **Perspective view**

The perspective view should be a compiled, or freehand drawing representing the appearance and surroundings of the building. An alternative to the perspective views can be the scale model of the building m=1:200, 1:250.

3.7. **Scale model m=1:200, 1:250**

3.8. **Technical descriptions**

Architectural description of the building containing first of all the design concept, but should mention the information, dates important for understanding not visible on the plans as well. Extent about 4 A4 pages.

The final design should be presented with the above content on five A/2 laminated sheets at a maximum with a uniform graphical concept, due to formal requirements (title, format etc.).

The design phase must be submitted/ presented on time due to the time schedule. Failed preliminary design must be replaced / repeated until the delayed submission due to the time schedule. **In case of missing the repeated submission deadline the credits of the subject cannot be obtained!**

CAD drawings, plans should be submitted by the end submission in PDF, JPG, format on CD, or DVD. Hand drawing should be digitalized as well!

The presentations of the individual phases have to be made along pre-agreed **formal requirements**, bearing in mind the defined quantitative and qualitative parameters regarding the format, number, content, graphical details etc. of the sheets. This may introduce the methodology of the architectural design competitions to the students as well as it may give them a chance to cast their eyes upon the significance of conscious sheet-designing. We have made a package regarding the formal requirements as follows:

General formal requirements, technical presentation

During the semester the plans should be presented in a compact way, with aesthetic architectural elaboration, essential technical information suiting the scale of each planning phase according to the following points.

All drawings (mid-term presentation and final project) can be traditional hand- or CAD drawings or any other optional official scaled printed technique. The clear and correct technical presentation is important.

By all design phases the name of the task should be marked uniformly:

„Industrial and Service Park in Angyalföld, Architecture of Workplaces 2 1st semester 2013/2014“
Furthermore **the actual design phase, date and the name of the author** (without the name of the consultant) has to be marked in the heading on each plan.

For the mid-term and final plans, drawings A/3-A/2 sheets are recommended, the sheets can be at biggest 60x80 cm. A stable cover due to the plans dimensions with index is necessary. The name of the author has to be marked on each plan, cover, model and box.

26th August 2013.

Bartók István DLA
assistant professor
course leader

Dobai János DLA
associate professor
head of department