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CURRICULAR UNIT PROGRAM

PROJECT IV

OBJECTIVES

A unidade curricular de Projeto IV tem como objetivo aprofundar o "*entendimento da cultura urbano-arquitetónica e da praxis, mediante o desenvolvimento das capacidades cognitivas analíticas de ver, esquematizar e representar lugares e paradigmas, através do desenho à vista, do desenho técnico e da elaboração de modelos tridimensionais*". Para o efeito, desenvolve as "*capacidades conceptuais de imaginar e projetar através de esquissos, do desenho técnico e de maquetes a distintas escalas, com a transposição consciente dos conceitos teóricos*".

The Project IV course aims to deepen the "*understanding of urban-architectural culture and practice by developing cognitive and analytical skills to observe, conceptualize, and represent places and paradigms through freehand drawing, technical drawing, and the creation of three-dimensional models*". To achieve this, it fosters "*the ability to imagine and design through sketches, technical drawings, and models at various scales, ensuring a conscious translation of theoretical concepts into practice*".

It thus aims to develop critical architectural reflection and design skills with a view to:

- Explore the expression of materiality in constructing a spatial idea of individual experience.
- Compose an architectural concept based on an investigation of formative case studies within an architectural culture and the synthesis between site, compositional elements, materiality, and the fundamental human needs of communal living.
- Develop an architectural project that aligns with the expressive, spatial, and tectonic possibilities of materials – brick and concrete.
- Explore the relationship between the architectural object and the surrounding natural landscape and urban context, as well as the transitional relationships between interior and exterior and among the spaces created.
- Expand the scope of the design process, spatial thinking, and the ability to represent architectural ideas to slightly more complex objects.
- Introduce (gradually), at an advanced stage, indirect representation techniques for architectural and urban design (digital tools), ensuring continuity with prior direct manual experience. This approach aims to maintain spatial, dimensional, and expressive control over technical drawings and models.

By the end of the semester, the student should be able to demonstrate creative exploration of the programmatic, spatial, compositional, material, and built dimensions, in a coherent relationship between the whole and its parts, using accurate technical representation and adapting the expression to the presentation elements of the project.

PROGRAM / Syllabus

The listed objectives are pursued through the design of a meditation retreat, composed of a system of individual cells and communal living spaces, set within a convergence of nature and the city context. The program is developed in a sequence of 5 phases of a practical exercise, with specific pedagogical focuses, supported by a series of theoretical classes for contextual framing.

Theme: Materiality, the Cell, and the Courtyard [A Space for Meditation and Contemplation]

The theme of the Project IV course focuses on the development of a vital experiential unit (the cell, an individual space for meditation and contemplation) and its use in composing an architectural object through modular repetition

and integration with a system of communal spaces, defined by a structured typological-architectural lexicon (the courtyard).

Building upon the theme of the second year, the material (brick and concrete) becomes a foundation for the constitutive exploration of architecture, shaping environments, temperatures, rhythms, and language. In this semester, the use of material serves both to introduce the constructive and dimensional dimensions.

> *"Design demands that one understands the order. When you're designing in brick you must ask brick what it wants, or what it can do.*
>
> *And if you ask brick what it wants it'll say «well I'd like an arch».*
>
> *And then you'll say «but arches are difficult to make, they cost more money, I think you could use concrete across your opening equally as well»*
>
> *But the brick says «oh I know, I know you're right, but, you know, if you ask me what I'd like, I'd like an arch»*
>
> *And one says «well, why be so stubborn?»*
>
> *And the arch says «may I just make a little remark, do you realise you're talking about a beam, and a beam of brick is an arch.»*
>
> *That's knowing the order. It's knowing its nature. It's knowing what it can do. And respect that tremendously. If you're dealing with brick, don't just use it as another kind of secondary availability, or that it is cheaper. No! You've got to put it into absolute glory, and that is the only position that it deserves."*
>
> Louis Kahn (Transcribed from the 2003 documentary 'My Architect: A Son's Journey by Nathaniel Kahn'. Master class at Penn, 1971)

The exercise begins with a reflection on the individual and communal experiential spaces as temporary modes of being, associated with retreat, introspection, and meditation as moments of escape from the routines of contemporary society. It also considers its capacity for horizontal and vertical repetition, generating a compact building.

One of the foundational mythological explanations for architecture, dating back to Vitruvius, is based on the establishment of two ancestral shelter models – the cave and the hut – which gave rise to two types of spatial design, stemming from complementary construction technologies: one stereotomic (stone) and the other tectonic (wood). This bipolar classification, based on construction technology, also refers to two natural materials: stone and wood.

In his writing *In the Nature of Materials: A Philosophy*, Frank Lloyd Wright advocates for the use of materials according to their inherent nature, a constructive truth that leads to "integral ornament" (as opposed to superficial ornament), where the material's characteristics reveal the principles of its composition and, as a result, generate spaces, rhythms, proportions, and even their own meanings.

Building on this principle, the exercise uses brick and concrete as primary materials, each with inherent potential to be explored in an architectural composition based on integral ornament or a natural pattern defined by structure, surfaces, and connections.

The exploration of the individual, temporary spatial unit draws on the figure of the cell:

> "*I believe in living in one room. One empty room with just a bed, a tray, and a suitcase. You can do everything either from your bed or in your bed – eat, sleep, think, get exercise, smoke – and you would have a bathroom and a telephone right next to the bed.*"[1]
>
> Andy Warhol (1975: -)

The minimal experiential space, as a spiritual principle (introspective, moral, philosophical, or religious) or a necessity (economic, functional), is an idea that spans across time, emerging in various historical and geographical contexts, supported both by theoretical reflections and built realizations.

When associated with temporary existence, retreat, introspection, and meditation, as Pier Vittorio Aureli refers to in "Less is Enough", it is not about justifying a life without conditions but rather the possibility of imagining a life with the essentials, allowing for greater individual freedom. This possibility of individual freedom can be imagined through the idealization of a minimal individual experiential space that addresses the essential human needs of rest, reflection, and purification. A cell, evoking the idea of a monastic individual space, is modular, repeatable, yet adaptable and customizable within contemporary patterns.

[1] WARHOL, Andy (1975) The Philosophy of Andy Warhol (From A to B & back again), New York: Harcourt Brace Jovanovich.

The composition of the architectural object draws upon the metaphor of the organism:

> "*What we're looking for is a zone that falls between two excessive forms:*
> *– an excessively negative form: solitude, eremitism.*
> *– an excessively assimilative form: the (secular or nonsecular) coenobium.*
> *– a median, utopian, Edenic, idyllic form: idiorrhythmy*."[2]
> Roland Barthes (2013: 9)

Life in community is part of the human condition, involving rules and forms of control. It is proposed that the aggregation of individual cells be accompanied by communal spaces, which fulfill common needs and moments of sharing. In fact, it is these spaces that anchor the design, allowing the collective cells to remain cohesive.

Thus, the student is invited to imagine the form that accommodates the different communal temporalities of the building, drawing on architectural archetypes: courtyard and tank (water), chimney (fire, verticality), and table (gathering and dining).

Context: Viewpoint and adjacent spaces in the Alvito Neighborhood

The Alvito Neighborhood Viewpoint, in Monsanto, and the adjacent space to the north occupy a privileged location, with eastern and southern exposure and access from Estrada Estrangeira to the west. The viewpoint itself is characterized by an impermeable ground occupation, while the adjacent northern area is occupied by private access uses, including precarious constructions and small allotment gardens.

The development of a built retreat space will give new meaning to this privileged site, seeking to establish a relationship with the neighborhood and with the public function of a qualified viewpoint, with southern and eastern views, which it should continue to ensure—potentially associated with access to the building.

The system of paths, both for crossing and for approaching the site, also constitutes a key reference element of the place.

Methodology

The architectural composition exercise is an act of synthesis, supported by critical reflection that articulates a response to program, material, architectural culture, and place. It is based on a sequence of 5 phases of interpretation and design:

Phase 1 – The cell and the material: This phase involves the interpretation of exemplary reference cases for both themes (1 week).

Phase 2 – The site: This phase consists on the approach to the place (0.5 weeks).

Phase 3 – The cell, body and mind: Design of a modular living unit developed from a tectonic-spatial experiment and exploration of its capacity for horizontal and vertical repetition (4.5 weeks).

Phase 4 – From the site to the cell, organism and aggregation: This phase consists of the design experiment for the aggregation of a specified number of cells and the spatial definition of the meditation and contemplation complex, using compositional elements of the communal parts: courtyard/tank, chimney/fire, and table (5 weeks).

Phase 5 – From the cell to the communal space: This phase focuses on the deepening and synthesis of the design, along with the production of deliverables for the final submission and exam presentation (2 weeks).

The constraints of each phase of the exercise are described in the briefs throughout the design process. However, they require each student to build the rules of their architectural project as a reflection and response to the challenge posed: contextual relationships, principles of formal and spatial composition, and metrics and rhythms resulting from the material itself.

Theoretical Component:

[2] BARTHES, Roland (2013 [2002]): How to Live Together: Novelistic Simulations of Some Everyday Spaces, trans. Kate Briggs, New York: Columbia University Press. p. 9.

A package of theoretical lectures is planned, designed to complement the development of practical exercises. These lectures will introduce and explore key themes of the semester, providing essential context and discussion, and will be delivered at the beginning of each workweek.

Complementary Teaching Activities:

The course encourages the cultural and disciplinary growth of students through regular participation in exhibitions and conferences at the FA/ULisboa facilities or within the city of Lisbon. A reading scheme and study of architectural works are proposed, fostering a deeper understanding of architecture. These complementary teaching activities are documented throughout the work process.

SKILLS TO BE ACQUIRED BY THE STUDENT

The competencies to be acquired or deepened by the student are:

- Develop cognitive, analytical, interpretive, and extrapolative skills related to the place and architectural object.
- Foster creative capacity by integrating various experiential elements into architectural composition.
- Associate the act of design with a cultural architectural reference, constructing a narrative, investigating an architectural language, and developing intentional plastic expression.
- Control the transposition of scales and their respective content.
- Integrate composition systems with material support issues in medium-sized buildings.
- Master the design process and the tools for conceptualization and synthesis, including three-dimensional sketching and exploration of planimetric solutions, technical drawing at different stages of work and presentation, and model-making.
- Address the issues of materiality and construction.
- Master basic digital representation tools for architectural and urban design.

EVALUATION

The evaluation of the curricular unit follows the terms of the FA/ULisboa Student Achievement Assessment Regulation. The final evaluation presupposes the existence of a continuous evaluation, and is determined in an exam, with mandatory attendance, facing a jury appointed by the Pedagogical Council.

Continuous evaluation is carried out throughout the exercises, depending on the delivery phases. The evaluation process results from the critical monitoring and corrections to work (individually and for the class as a whole), and from measuring the learning objectives and the result achieved by each student, at each stage of the work (intermediate assessments), resulting in a classification prior to the exam. This assessment considers the student's process and the evolution throughout the various individual and group moments, the work phases and the student's commitment and performance, with the following weighting:

- Phase 1 – 5%
- Phase 2 – 5%
- Phase 3 – 25%
- Phase 4 – 25%
- Phase 5 – 30%
- Participation, attendance, and performance in class – 10%

For continuous positive assessment, it is mandatory to obtain a positive evaluation in all five work phases.

The final evaluation of the semester is carried out by the examination jury, integrating all the professors of the curricular unit. The designed pieces respect the layout defined for each exercise, are delivered in advance, and discussed in an oral exam, together with the models, the complete work process of the semester and the logbook.

Evaluation criteria:

The evaluation criteria align with the learning objectives of the course and are assessed through both the work process and final presentations in the practical exercises:

C1 - Creativity and ability to conceive and explore spatial, architectural, and urban design.

C2 - Ability to create a cultural synthesis in the project, expressed through the architectural and urban reading in the project, and through the adoption of an architectural language and a qualified, referenced plastic expression.

C3 - Ability to translate an idea into an architectural object, ensuring the understanding of architectural appropriateness (aesthetic-formal, organizational-functional, experiential, technical-constructive, ecological-environmental, landscape, and urban-contextual).

C4 - Ability to explore the materiality and construction in defining the space and architectural expression.

C5 - Mastery of architectural expression and representation through sketches, technical drawings, and three-dimensional models.

C6 - Quality of the work process and its alignment with the course's workload and schedule.

C7 - Attendance, interest, and active participation in class, demonstrating critical and self-reflective thinking.

Specific evaluation parameters for each exercise are detailed in their respective briefs.

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