

VISTA DA TRAFARIA — (Portugal)

Trafaria, 1900.

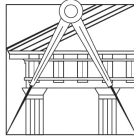
**Academic Year 2020 - 2021**  
**Integrated Master in Architecture**  
**4th Year**

**CURRICULAT UNITS**  
**Project Laboratory IV**  
**and**  
**Project Laboratory V**

**FAUL, September 2020**

**Coordination:** João Sousa Morais

**Professors:** João Sousa Morais, António S. Leite, Hugo L. Farias, Miguel Baptista-Bastos, Soledade Paiva de Sousa



**Academic Year 2020 – 2021**  
**Integrated Master in Architecture**  
**4th Year**

**Project Laboratory IV**  
**First Semester**  
**ARCHITECTURE AS URBAN PHENOMENON**

**Coordination:** João Sousa Morais

**Professors:** João Sousa Morais, António S. Leite, Hugo L. Farias, Miguel Baptista-Bastos, Soledade Paiva de Sousa

### **Study Subject**

*Architecture as an urban phenomenon* consists of Carlo Aymonino's understanding of the meaning of the Architecture of the City, referring to the Architectural Project the primary function of establishing a “new order”, new relationships, according to the pre-existing urban fabric, both in its temporal dimension and in its urban structure and form, through urban (re)design.

The first intervention, the INFOBOX, will represent a short-term reflective synthesis that will make explicit the skills acquired by the student. The development of the project will be the responsibility of the student, in relation to the disciplines of Structures II and Technological Innovation and New Materials, with the objective, in the construction framework, to verify the ability to handle ephemeral materials, in which the research component will have the support of the two disciplines of Construction Technologies.

In terms of the development of the Urban Study, supporting work will be developed in the Curricular Unit (CU) of Urban Sociology. The CU Geometric Modeling will accompany the phase of analysis and urban proposal, reflecting its exercises in the framework of the Project Laboratory. The CU Theory of Place will frame the diagnostic phase of the intervention proposal, focusing one of its exercises as a support of the project.

### **Study Area**

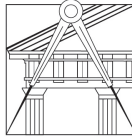
#### **Trafaria – South Expansion**

The study area corresponds to an urban intervention in the south of Trafaria, encompassing the old barracks, now deactivated, and the entire valley area, according to the delimitation in the attached plan.

The relationship between this new urban structure and the northern zone is intended, as well as the pre-existing accesses and connections from Trafaria to São João da Caparica, to Baterias da Raposeira and Mata do Alto da Raposeira, being essential the understanding of the urban settlement process and the recent transformation of the sociological framework of Trafaria.

### **First Exercise**

The first exercise, the **Infobox** project, will have the function of announcing the referred urban intervention.



Inspired by the ephemeral building designed and built for the reconstruction of Berlin, the **Infobox**, which is proposed as the 1st exercise, will aim to be a center for the prospective interpretation of the new urban (re)design of the study area that should support this year academic.

The project to be developed will be of short duration, having as a generic program the creation of an exhibition center, which should include a reception, a projection room for 40 people and a support of toilets. From a formal point of view, the **Infobox** should, due to its character as a promoter/presenter of the 'future' (re)design of the area under study, assume a significant presence.

It will be an ephemeral building, with a height of up to 9 meters, with a construction area of approximately 200 m<sup>2</sup>, supported by a metallic structure and built using new materials. The constructive and structural development of the project will be the responsibility of the curricular units Technological Innovation and New Materials and Structures II, corresponding to the subject of the students' evaluations in these disciplines, which will focus exclusively on this exercise.

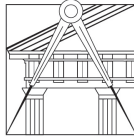
Scale of Reference: 1.100.

Exercise elaboration time: 3 weeks.

Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.



Figure 1: Plan of Trafaria with marking of the intervention area.



## Second Exercise

The second exercise will correspond to the urban (re)design of the area defined in the plan of Trafaria, with the absorption of pre-existing buildings, namely the old barracks, as well as the relations with the green area of the valley, which should be understood as a new and potential urban park.



Figure 2: Trafaria – Artillery Barracks 4, circa 1900.

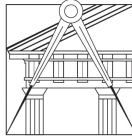
### 1st Phase of the exercise: Preliminary Urban Study

At this stage, the proposal will cover a larger area, seeking to define:

- . Spatial, formal and circulation connections with the surrounding area, allowing specific interventions to reinforce them.
- . The elaboration of an intervention program, resulting from the framework defined by the existing municipal plans and above all by the work to be carried out within the scope of the Urban Sociology CU.
- . The study should contain a complete set of drawings with the explicit intentions of the new order and relationships, namely the entire definition of the structure of public spaces and the urban garden to be proposed.

Scales of Reference: 1.5000 to 1.2000.

Exercise elaboration time: 4 weeks.



Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.

### 2nd Phase of the exercise: Urban Detail Study

At this stage, the proposal should include:

- . Definition and design of public spaces and equipment.
- . Housing areas with the definition of the dominant typology and definition of housing models.
- . Areas intended for other uses, namely services.
- . Design of the green structure (public garden) with sports or cultural equipment.

Scales of Reference: 1.2000 to 1.500.

Exercise elaboration time: 6 weeks.

Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.



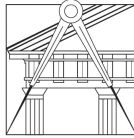
Figure 3: Aerial photograph of Trafaria with a view over the intervention area.

### **Methodology**

The curricular unit will be taught at two levels:

Theoretical classes with a frequency of every 2 weeks, embracing the topics covered, namely focusing on Urban History and the instruments of Urban Design: practice of urban building layout, normative, as well as ways of organizing the urban fabric.

Practical classes for systematic monitoring of the development of students' work, in an atelier regime.



## **General Bibliography**

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## **Project Laboratory V**

### **Second Semester**

#### **THE PUBLIC BUILDING AS AN URBAN FACT. The materiality of the Project.**

**Coordination:** João Sousa Morais

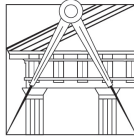
**Professors:** João Sousa Morais, António S. Leite, Hugo L. Farias, Miguel Baptista-Bastos, Soledade Paiva de Sousa

### **Study Subject**

In the Roman city, the public building, was an integral part of the “res publica”, and assumed urban disciplinary functions that regulated public spaces. Its image and subsequent language is the result of its design options, in which the design of the construction system and the detail of its vocabulary will guarantee the quality of the building project.

The path of the project laboratory will count on the essential articulation with the different curricular units of this semester, namely with regard to Restoration and Rehabilitation Technologies, which will focus on the analysis and the propositional value of the pre-existing building, in parallel with the CU Conservation and Restoration. The CU Economy of the Project will verify the economic value of the public building as well as the added value in the real estate market.

The public building to be projected will have an area of approximately 2000 m<sup>2</sup>, with all the functional requirements of the selected program.



## **Study Area**

The study area will result from the area defined in the 1st semester, in the southern expansion of Trafaria, being assumed as the development of the urban design carried out.

## PHASES OF THE EXERCISE

### 1st Phase

Corrections to the proposed Urban Design, based on the criticisms made in the previous evaluation, and the particular location and development of the public buildings.

Exercise elaboration time: 2 weeks.

Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.

### 2nd Phase: Preliminary Study of the Public Building

Exercise elaboration time: 2 weeks.

Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.

### 3rd Phase: Project of the Public Building

Exercise elaboration time: 4 weeks.

Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.

### 4th Phase: Constructive detailing and materialization

Project development, which should include:

- Definition of construction system
- Map of Finishings
- Constructive Detailing
- Definition of requirements for the inclusion of projects of different specialties.

Scales of reference: 1.50 to 1.20.

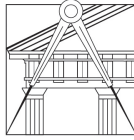
Exercise elaboration time: 4 weeks.

Pieces to be delivered: Plans, sections, elevations, 3D virtual model, study model.

## **General Bibliography**

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Trafaria, 2020.

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Lisbon, September 2020