

ANNO ACCADEMICO 2022/2023

Dipartimento di Architettura e Territorio -
dArTe

Corso di Studio in Architettura quinquennale
Classe LM-4

ANNO ACCADEMICO 2022/2023

CDL IN ARCHITETTURA

CORSO INTEGRATO DI DISEGNO E RILIEVO DELL'ARCHITETTURA

PROGRAMMA DELL'INSEGNAMENTO

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con

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TITOLO del CORSO:

IDEA AS MODEL

MICROCOSMI

"La base formale dell'Architettura"

1° semestre DISEGNO

[...] *Non si possono inventare gli elementi dell'arch. come non si può inventare la lingua ma è certo che il modo di usarla è inventivo e autobiografico, è la tua storia e il tuo futuro. Così l'arch. usa dei solidi geometrici, dai mattoni ai pannelli, dalle colonne ai pilastri e delle superfici. Ma queste sono una combinazione di geometria e storia e da qui gli elementi di progresso, magari scarsi e frammentari, e il significato sempre nuovo che essa può assumere.*

Aldo Rossi

Quaderni Azzurri n° 25

What makes the work of architects special is the process of translating thoughts and ideas into a concrete space. This is not determined by a flash of genius or a creative flash. A course like this that sees together in a year of work including both the discipline of DRAWING and that of ARCHITECTURAL SURVEY, It has the role of transmitting to students an elementary repertoire of basic notions and tools that draw on the tradition of a craft that by its nature investigates the laws of architectural design. In this regard it is important to underline that architecture not only has a notional character, but is determined in its figurative and functional essence also and above all by an emotional, imaginative and visionary sense.

At the basis of all this, **knowing TO BUILD AND REPRESENT A THOUGHT** is the goal that the course hopes to achieve

The tool used to read the architectures under consideration is ANALOG MODELING The main objective of the course is to create a STRUCTURE-LABORATORY aimed at experimenting and applying solid modelling techniques aimed at the knowledge and formal experimentation of architectures. These architectures represent the elementary formal basis to be revealed and represented analogically of the structure in progress of the "FORM" of Architecture in which the representation of it becomes a scientific approach through all its aspects of a methodological nature.

Keywords:**architecture model, houses typologies, modelling, morphological system, small houses****Premise**

The MEDI_TER Laboratory (<http://laboratorioofficinamediter.unirc.it>) of the Art Department of the Mediterranean University of Reggio Calabria, of which our group is part, deals with the design and survey of architectures through the study and understanding of the criteria adopted in the construction of elementary architectures in order to identify the cultural and architectural matrices.

The aim is to correctly grasp and evaluate the cultural meanings and spatial values that have characterized their formation and their progressive stratification to define the main characters, formal and functional that are the basis of their material connotation. The research is therefore based on the choice of significant examples whose objective is to highlight this complexity articulated according to a "*formal archetype*" and a *settlement principle that is the basis of their figurative essence*".

The relief, the drawing, the representation

The method used was to apply and verify a methodology of reading the architectures studied through the graphic analysis of the morphological configuration of their constituting as a significant architectural form. Starting from the analysis of the constitutive characters and the geometric-spatial relationships of the small morphologies chosen as case studies, identifying architectural and invariant elements. This is how the most significant identifying characters of each specific morphology or of each specific architectural model becomes "place" trying to identify, on the scale of the individual architectures, their distinctive characters. With reference not only to the morphology and the constructive characters, but also to the modes of use and therefore to their overall spatial and cultural significance in the overall morphological structure.

Elementary forms that represent the principle of growth of some urban forms becoming themselves hypothetical general forms of the city, intelligible and recognizable in the whole and in the parts. This will be possible through the study of the overall physical structure of the plant, (floor plan study); the study of volumes; the study of the overall shape de-building it in minimal units as a "*dynamic*" configuration of the total model analyzed. The starting point is to investigate the formal geometries of the sets, in order to bring them back to basic elementary forms.

The drawing analyzes this particular condition, through a careful approach to the work to its being real and evident in that given historical moment, and at the same time through the transformation of this knowledge in "document" which becomes such by measuring and returning the data that define the architectural spaces. making its construction process evident.

The objective to be achieved is to highlight the relationship that exists between the organization of the "form" base (the house) and its elements, identifying the connotative characters that at the end of the growth process "*build*" the image of architecture, in a continuous relationship between simple form and overall image.

The "code" of the drawing Brief description of the teaching and training objectives

This discipline (drawing in this first semester) has recently gained a leading role both in the historical-architectural culture and in the training and professional practice of the architect under the pressure of multiple factors:

- the growing need to protect the architectural heritage;
- the increasingly recognised educational value of the discipline;

It seems important to reiterate that with the term DRAWING is not only indicated the simple operation of graphical restitution of an artifact, but rather that complex of operations that through observation, The analysis and representation of all the components of architecture (from dimensional to geometric, from structural to constructive) allow us to grasp the intimate essence of the architectural element under study.

The focus will be on the design of a graphic, formal and conceptual representation of the proposed case studies. The topics that will be addressed concern the history of architectural drawing, methodology and techniques of graphic representation.

Field of action, for the implementation of these topics, will be a study of architecture sample of which we will give all the necessary information so that the student can consciously address the work required by the Docenza.

During the course each student (or group of students) will have to experiment with the various graphic and computer techniques in his possession, as well as apply, in a controlled form, the various procedures of building a digital model (2D) before and analog after that is the synthesis of the work done during the academic year.

The course lasts 60 hours, (6 credits)

Lessons will be held every Wednesday (until the end of the scheduled hours).

Attendance is compulsory.

The final assessment will be based on the results produced during the academic year and the learning of the contents expressed during the theoretical lessons.

It is necessary and absolutely essential to take the final exam and have awarded a grade, to present a complete work of all the papers required by the teacher.

Prerequisites

Mastery of methods of representation of descriptive geometry.

Appropriate use of drawing tools. (basic knowledge plus more specific knowledge to use specific software for 2D and 3D drawings).

Processing of raster images

Course title

IDEA AS MODEL/MICROCOSMS

"The formal basis of Architecture"

The Representation of Architecture as a trace of memory

The course aims to explore the theme of recognizability of the Form through the study of those characters that identify it as a model both virtual and analog that real.

Through drawing (analysis of measurements and recognition of FORM and a specific set of rules), we will proceed to analyze through theoretical and practical lessons the theme of form in architecture in order to describe and reveal the rules of settlement and construction "re-drawing", using the tool of "drawing" both manual and mechanical that will attribute to the cases studied a character of formal recognition as well as modelling.

The various models studied will start from "classic" elaborations (plans, elevations, sections, axonometrics), which will lead to the definition of a digital and analog "complex" model.

The communications will be supplemented by graphic exercises on the study of the case studies chosen.

The themes of the work will also be illustrated and all the indications on methods, tools, techniques and Representation necessary to understand the theme of the course.

Educational offer

The teaching offer should therefore be understood as an opportunity to learn the language of the architectural form, analyze its content in a specific context with the aim of proposing in appropriate locations a possible modification through the project.

The training course focuses on a program based on the main themes and the latest research in the field of representation aimed at understanding those processes that are profoundly changing the educational content, Design and communicative/ expressive of contemporary architectural thinking. The course takes place through a series of theoretical lessons, reviews and assisted thematic exercises.

In the course of the lessons will be illustrated the themes of work and provide all the indications on methods, tools and techniques of representation to be adopted.

Particular emphasis will be given to the elaboration of wooden models that will represent the material of an exhibition at the end of the course.

The procedures to be adopted can be summarised as follows:

- Identification of the morphological nature of a Form
- Analysis of the hierarchy of the most functionally and morphologically stable existing elements: "Identification of the "Form".

Finally, the "project" will be understood as a basic operation to be carried out through a series of consequential phases of work.

Additional modules with external experts are provided.

SOME REFLECTIONS that will guide the course:

" [...] TO BRING TO THE SURFACE ALL THOSE IMAGES THAT ARE LATENT OR HIDDEN IN THE ICONOGRAPHIC FOLDS OF A MODEL TO BE ANALYZED, TO REVEAL THE FORMS, THE FORMAL STRUCTURES THROUGH A NARRATION THAT HAS A PARTICULAR AESTHETIC CHARM IN PRACTICE:

Wooden models and photographic images will be produced which must show that the representation of images requires:

THE WEIGHT AND THICKNESS OF MATTER.

IN THEORY:

The represented components must convey the sense of the formal values that distinguish the model analyzed, while also soliciting a critical reflection on architecture understood as a peculiar and unitary work of art in its complex structure." [...] (Renato Rizzi)

Expected results and

Type of training activities

The lessons will be complemented by a series of graphic exercises on the study of representation and design of architecture.

The main purpose of the teaching is to provide students with stimulating cultural references and updated techniques of communication and representation, to critically understand the potential of contemporary architectural expression.

In this context, the course is a moment of study, a place of experimentation and verification;

Footnotes

The students' works will be written and presented through tables and representations In the classroom, with the help of the teachers' group.

Articulation

The course will be divided into two fundamental phases, in turn divided into two different moments : cognitive and application:

- The first phase involves the presentation of the contents and aims of the course with the commented illustration of the basic materials. (proposed case studies)
- the second phase involves the definition and completion of the papers and the organization of meetings and seminars which will aim to verify the analyses carried out on the sample models.

Delivery system of the teaching

The course uses ex cathedra lessons, experiments -also multimedia- on the computer, classroom exercises and workshops.

Student work

The composition of groups regarding the assigned work is required.

The activity of the groups will be coordinated by the teaching staff and each group will be assigned a specific elaborated to be carried out in time and with the modalities specified from time to time.

The student must study the texts indicated in the bibliography.

For the practical part each student will have to prepare all the graphics and not, for the intermediate checks and the final exam.

Recommended teaching material (see also bibliography)

Massimo Scolari, *Il disegno obliquo*, Marsilio, Venezia 2005

Vittorio Ugo, *Fondamenti della rappresentazione architettonica*, Progetto Leonardo, Bologna, 1997

Gregotti Vittorio, *Scale della rappresentazione*, "Casabella", n. 504, 1984

Gaetano Ginex, *Disegno e deCostruzione*, Jason, Reggio Calabria 1997

The bibliography will be continuously updated in relation to the topics covered in the communications and exercises.

The teaching material will consist of Elaborate products from the Teacher and delivered to the students as teaching material on which to experiment with the most advanced drawing techniques.
WORKSHOP

Workshops will be held in which a direct experiment of analog modeling will be carried out.

The location and theme of the workshops will be chosen according to the degree of maturity on the themes of architectural design achieved by the students.

It was signed last year also a Memorandum of Understanding for the implementation of joint activities between the Department of Art of the Mediterranean University of Reggio Calabria and the Institute of Higher Education "Priests-Frangipane" of Reggio Calabria in order to expand the educational offer, also through the provision of human and instrumental resources; but also provide (if the need arises) a contribution from the Secondary Education Institute "Preti- Frangipane" for the realization, within its laboratories, of services and equipment in time and in the ways that will be

established from time to time, Starting from the collaboration in the creation of wooden or multi-material models that can be used for exhibitions or thematic exhibitions.

In this perspective and in particular for the realization of the wooden models.

**For this purpose, reference will be made for the development of the course at the WORKSHOP WORKSHOP MEDI_TER to be used as a logistical base and functional to the specific activities of the Drawing Course.
(<http://laboratorioofficinamediter.unirc.it>)**

Stages of teaching

The procedures to be adopted can be summarised as follows:

- Analysis of the hierarchy of the most functionally and morphologically stable existing elements:
"Identification of the "Form".

- Particular attention will be paid to the development of the analogue model.

which will be understood as a basic and foundational operation of the Course to be carried out through a series of consequential phases of work.

Additional modules with external experts are provided.

Topics covered

The following topics will be extensively studied and some of them will be the subject of further study:

- Design: Statutes, methods and techniques.
- The instruments of drawing
- Outline of the forms of representation
- The design as given
- Graphic rendering using analogue "models".

The lessons will be complemented by a series of graphic exercises on the study of the representation of architecture.

The main purpose of teaching is to provide students with stimulating cultural references and updated communication techniques, to critically understand the potential of contemporary architectural expression.

In this context, the course is a moment of study, a place of experimentation and verification;

Exercises:

Methods and techniques for the detection of shape and size.

The conventional representations

The wooden model (implementation phases and executive drawings)

Preparation of examination papers

FINAL VERIFICATION AND CONCLUSION OF THE COURSE

Note: Lessons may be subject to title changes

References

reference text: [Atelier Bearth, Microcosmi, a cura di Mihail Amariei, Mendrisio Accademy Press 2012](#)

Bibliografia a carattere generale sul disegno

- Manlio Brusatin, *Storia delle linee*, ed. Einaudi, Torino 1993.
Manlio Brusatin, *Storia delle immagini*, ed. Einaudi, Torino 1995.
Rita Valenti, *Architettura e simulazione*, La Biblioteca del Cenide, Cannitello, 2003
Gaetano Ginex, *Luoghi della memoria*, Jason, Reggio Calabria 1997
Bruno Reichlin, *L'assonometria come progetto*, in Lotus n° 22, 1979
Vittorio Ugo, *Fondamenti della rappresentazione architettonica*, Progetto Leonardo, Bologna, 1997
Massimo Scolari, *L'idea di modello*, in EIDOS n° 2 Rivista di cultura 1988
MAQUETTE, Rassegna n° 32 1987
AA. VV. *Il disegno dell'architettura*, Documenti n° 5 Settembre 1997, Edizioni AACM

NOTE

The course lasts 60 hours, (6 credits)

**Lessons will be held every Wednesday (until the end of the scheduled hours) in Room L1 from
14.30 to 19.30**