

# REFLEXION ABOUT DRAWING AS A DDDR TOOL

EDITE ROSA

UNIVERSITY LUSÓFONA OF PORTO

The R&D center and the Architecture Doctoral Program of the Lusófona University of Porto aims to ensure Third Cycle Studies qualified training having architectural design as central, as its title “Design Branch” and written intentions illustrate. “The expressed objectives (...) aim to satisfy the need for innovative and creative training, in the country and in the Lusophone Community, in its area of specialty Architecture. In this sense, the thesis to be carried out by those enrolled in the doctorate studies may be of a theoretical or theoretical-practical nature centered on the architectural design project.”

The structure of the first curricular year in different units, comprise common teaching-learning scope in the field of architecture of advanced knowledge of theory and methodology. The following two years include seminars and the preparation of the thesis. The development of the thesis work is monitored individually through tutorial framework and training.

The central Units reveal the design based orientation, namely “Architectural Conception”, “Architectural Design Conception”, “Constructive Methods I and II” and “Research Methods in Architecture”. These units taught, “Architectural Design Conception” and “Research Methods in Architecture” deepen specific issues of the design practice as of art, culture, politics, sociology, science, mathematics, philosophy, history and drawing, contributing to the definition of a multidisciplinary field that sustain design research.

However, the focus on this text is upon a research technique that we use in these units, drawings as a research tool. This use is due to drawing as a common element used in practice and in these third cycle unit. In this process, we may inquire its pertinence as a DDDR tool.

The “Architectural Design Conception, Theory and Practice: Designing Space and its Forms” unit aims to research within the conceptual and operative scopes of design, starting from the idea, problems, processes, solutions and techniques from which its disciplinary implications, theoretical and practical, are deduced.

The study support itself on the theme of space and its forms inquiring upon its design options. The definition of spatial devices, as well as the selection of tools, inherent to design processes is based on the assumption of consistency between the visual form objectives until their materiality resolutions through the design-project - making process. The analyses and syntheses are carried out mainly through drawing being graphic demonstrations as the preferential tools of research. The drawing has the ambition of searching the practice to theorize effectively in the understanding of design conceptions, their productive processes, as well as their supporting references. These units aim to build a vocabulary in the conceptual, formal, spatial and of materiality scope that allows the doctoral student to be able to interpret solutions both from theoretical knowledge as from their empirical and practical support.

The “*Architecture Methodologies - Research in Design: Theory and Practices.*” unit studies through the themes of Research in design: Theory and Practices. Students study its main methodological design mechanism, through the comprehension of design theory and of design practices and simultaneously the ability to use its basic methods, the analysis and synthesis, inherent to both.

The design practices is used as forms of making in architecture, which produces the craft expressive body of an era embodied in the act of drawing and in the knowledge of building. For the students this implies a synthetic and critical reflection and the domains of disciplinary representation.

The design theory is the “soul” of the ancestral craft body in continuous (re) questioning that can only be built at the expense of an ongoing critical reflection upon its body making. It involves the student’s domain of disciplinary methods, of design thought, analysis and synthetic criticism and its transdisciplinary communication, writing and graphic.

This Research in Design methodologies in theory and practices in architecture implies that doctoral students question the creative processes underlying the act of designing and its results. In this sense, students use the analytic methods inherent

to the theories combined with several process and technique of the practice and its character of selective synthesis as support for architectural thinking in research.

Students' assignments start from the architectural practices process as design driven research methods supported in drawing as research techniques. These tools and methods consist of: several types of drawing as survey, recording or speculative (to question or create architectural problems); the search for options and hypotheses drawn and written for structuring or deconstruction of examples; a trial-error method in the search for partial solutions; the analyses and syntheses through drawing and its various aspects of investigation; as well as graphic experiences in the relations between design conceptualization and construction with the theory and history of architecture.

The classes take place in the form of discussion groups. The focus is to relate the disciplinary contents the systematization and originality of the studies and the relevance of the topics covered in terms of research in design, theories and practices, the use of drawing as relevant support tool for the proposed or raised problems and the methodologies used in each individual research. These students use drawings in their studies in diverse possibilities of use accordingly to its purpose.

In this sense, in their design research some students use survey drawings for determine or measure existing elements (structures, buildings and land), as accurate elements a basis for research working process, for example in the field. Other student use observation drawings to elect existing elements, an analytic but also syntactic drawing selection, of what seems more relevant, an initial process for research theme or object study election. All of them are encouraged to use, as a speculative method, experimental drawing, through simultaneous two types, sketches or diagrams, that are useful to research design method validity. Students explore these speculative drawings are as a rough design research question or a particular design problem or object studying and used to develop research principles of a design, a trial-error or speculative hypotheses. All students also use as a support method, analytic record working drawings in order to understand or document the existing architecture.

Sometimes student use record working drawings to document the course of a construction other to document the research process for analyses of specify case-study or even creating new drawings (for example to compare architectural entities such as typologies, creating a new research bases design, et al.).

We can see, in the third cycles of studies units, the uses of the drawing as tool of design research showing diverse levers of approach from the abstract to the real, meaning drawings acting as research tool and instrumental method.