
Researching the Process

Thesis 1

Dealing with practical aspects of the architectural-design creative process demands a broad approach and consideration of practice as a heterogenous field of activity without strict rules that would finalize in detail every creative motive. It is necessary to understand the contemporary moment where the field of research is insufficiently developed, but nevertheless very present as a topic. In this way, we open a new set of possibilities in forming various methodological approaches for research and practical work. Experience in researching practical work in architecture design are modest compared to the experiences held in natural and social sciences, both of which have a tradition of considering their own efforts and established methodological approaches to the problem. The visual arts have also successfully implemented methodologies, over time implemented in practice, treating the creative process freely, rather than scientifically, but still in accordance with theoretical premises and findings.

Studies looking at and examining a variety in approach to practice bring new insights into possibilities that must be evaluated and assessed. The actualization of problems and the development of theoretical discourses in practice are important for the evolution of process as the elementary indicator of progress of the relation of the author and the set task. Personal interpretation of various methodological suggestions and experiences is decisive for the formation of personal practical principles that define an open system within which one works.

Stempfle and Badke-Schaub¹ define three basic schools of thought of practical activity and the creative process in design. Classified by nature and application, these are: normative, empirical and artistic.

The Normative School of Thought

It suggests a strict methodology in design, systematic approach to work with view to optimal results through rational analysis of the design task. Research of methodologies of the normative school of thought is often documented in the form of educational guidebooks. One of the accepted methodologies in the normative school of thought is Pahl-Beitz² methodology, which can be reduced to four basic phases:

- planning and elucidation of the task
- formation of concepts
- elaboration of concepts
- execution of details

The Empirical School of Thought

Findings of research in the field of the empirical school of thought indicate that authors rarely follow specific methodologies in their work. They claim an impossibility of grounding any given methodology in design, as positive results outside of controlled environments are in practice impossible.³ This begs the question whether methodology is at all necessary and whether its framework would ignore specific factors that appear in the course of work.

¹ Stempfle, J. Badke-Schaub, P. (2002) *Thinking in design teams - an analysis of team communication*, Design Studies, Volume 23 (5), Elsevier

² Pahl, G. Beitz, W. (1984, 1995) *Engineering design*, Springer, London

³ Gunther, J. Ehrlenspiel, K. (1999) *Comparing designers from practise and designers with systematic design education*, Design Studies Vol 20 No 5 439–452

Artistic School of Thought

The application of methodologies of artistic creation in design puts the author-designer in the role of artist. Adopting certain artistic tools allows the broadening of working limits and new possibilities of final outcome. According to the theorist Schön,⁴ the creative process in design can in no way be encompassed by a given methodology, but various artistic methods can be used, through flexible application and constant assessment and analysis of one's own work.

Gray and Malins⁵ point out a lack of appropriate methodologies in practical research of design and art, leading to the adoption of principles from science, to a large extent unsuccessfully so. In the application of these principles, there are three possible outcomes:

- the method has been modified and adapted to the needs of the author,
- the method has been appropriated without change and the process is adapted to the methodological framework, and
- definition of new, esoteric methodological tools

The scenario of adapting methods to the process is described as the most certain path to a positive outcome, while adapting the process to the methodological framework endangers the entire research endeavor. Defining new tools could be too focused on a specific project, and thus not useful in further work, but is a worthwhile effort that can bring new experiences and tools in studying process and practice.

These theoretical premises and schools of thought in studying process offer recommendations according to which it is not possible to define specific elements of the personal creative process in design and architecture. **Accepting any theory as a framework according to which a project is executed or an artifact produced is not possible because the limit of the field of acting does not allow free and open systems, ready to accept all the changes and particularities of solving specific problems.** Depending on the project task and its interpretation, different methods could be applied in given segments of work, regardless of formally belonging to a theoretical school of thought. In specific cases, it is possible to apply the methods of each of the three schools of thought in various phases of the process.

Thesis 2

Reflective Practice

One of the aims of this research is to place the position of the author and their relationship to individual creative process in focus. It is therefore necessary to consider the model and principle of Reflective Practice, that is, critical reflection. Reflective Practice can be defined as a specific kind of learning, where the individual accepts knowledge acquisition as a personal, internal process, based on previous experience.¹ The onus is on the way in which individuals process their own experience, in particular, through critical reflection on it. Learning is a cycle beginning with experience, continuing through reflection, which further leads to action.² This action, in turn, becomes new experience.³ Reflective Practice assumes continuous learning and persistent commitment to a critical review of personal positions and decisions made in the course of the creative process.

Donald Schön defines two basic models of Reflective Practice – Reflection in Action and Reflection on Action.⁴

Reflection in Action

Reflection in Action refers to a series of activities that unfold in the process of solving a given problem, and can be understood as a personal experiment that leads to a satisfactory solution and new experience. Activities in the course of Reflection in Action are planned and conscious, and they are employed in situations when in the course of solving a problem there is an unforeseen obstacle that slows down or completely halts work. In that case, the individual detects the unforeseen circumstance and analyzes the reasons, conditions and events that caused the change.

¹ Säljö, Roger. *Learning in the learner's perspective: I. Some common-sense conceptions*. Reports from the Institute of Education. University of Gothenberg, 76. as summarized in *Psychology: Theory and Application*, 1979.

² The term *action* here refers to solving problems and differs from the term *action* as defined by Hannah Arendt

³ Rogers, Alan. *Teaching Adults* (2nd Edition). Buckingham: Open University Press, 1996.

⁴ Schön, Donald. *The reflective practitioner - how professionals think in action*. New York: Basic Books, 1983.

Reflection on Action

Reflection on Action refers to activities that unfold in the period upon solving a problem. The aim of these activities is the analysis and critical evaluation of the course of problem-solving and the various circumstances that influenced the individual and the course of work. Such activities can be understood as the last step in solving the problem, since evaluation defines all the particularities contained in previous steps.

By introducing the principles and models of Reflective Practice into the research of the creative process, there is a significant expansion of the field of research. The principles of Reflective Practice must be taken into account when examining and acquiring the experience of an individual, the active participant in architectural practice. **If we take into consideration the various and variable conditions of the work environment in which the creative process takes place, the nature of this process must be open to adjustment, correction, addition, amendment or reconfiguration during the process itself, in relation to the dynamic and sequence of particular phases.** In order for the nature of the creative process to be as open and flexible as possible, there is a need for considering various activities that take place in the author himself in the process of creation and solving a specific problem, as well as the relationship of these activities.⁵ The term openness in this research should be understood as a characteristic of the creative process that determines the critical relation of the individual to her own efforts in the creative process, as well as to previous experiences acquired through action.

Thesis 3

⁵ Edwards, Betty. *Drawing on the Artist Within*. New York: Touchstone, 1986.

Experiment

The broad field of architecture practice comprises two characteristic domains within the architectural profession:

- the research and education, that is, the art and education
- professional practice

The aforementioned domains of practice are mutually conditioned and inextricable parts of a common whole, and their relationship is one of constant interlacing and activity, understanding and consequence.

Given this relationship, the educational domain is positioned at the base of exceptional potential for the development of critical review and auto-analysis of personal views and decisions made during the process. A successful application of individually particular methodological tools to the practice of the educational domain is certain, because the conditions can be set in advance through planned activities in accordance with the curriculum. In this case, given that the process is conducted in laboratory conditions and within a previously defined methodological framework, influence is efficiently controlled.

A study group was formed as part of the experimental research on teaching practice at the Faculty of Architecture of the University of Belgrade. The work of the group required controlled, laboratory conditions for the teacher-student relation, with active mentor oversight. By initiating academic communication and emphasizing a personal approach in relation to a phenomenon or task, there was a specific mentor-student relationship, whereby the unidirectional method of knowledge transmission