

Architectural Research between Arts, Technology and Practice. A Position Paper Sketch on Practise-Based/ Design-Driven Research at the NTNU, Trondheim, Norway

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The Faculty of Architecture and Design is one of nine faculties at the Norwegian University of Science and Technology (NTNU). It is Norway's oldest and largest institution for architecture education, which dates to the establishment of the Norwegian Institute of Technology in 1910. The four departments of the faculty are architecture and technology, architecture and planning, design and the Trondheim Academy of Art. Roughly around 500 students are involved in architecture, planning and visual arts studies, 60 doctoral and post-doctoral researchers and around 110 employees constitute the faculties employees. Approximately 55% of them are scientific staff. Doctoral studies represent an important part of each university. Right now, there are three different study-programs for PhD education at the faculty. The PhD program in architecture, the PhD program in design and the PhD program in artistic development. The latter one is shared between the Faculty for architecture and design and the Faculty of humanities.

The contemporary global societal and environmental challenges require new questions and answers as well as new ways to approach them. Knowledge production cannot be limited to one pre-defined study-program, method or approach. Still different periods of establishment, fragmented interests and the need for combined administration led to the existence of several different study programs. To approach the question on the faculty's position in practice-based/ design-driven research, first a short introduction to architecture related research programs.

The traditional PhD program in architecture is a research education lasting three years. Candidates address topics in architecture, planning, art and technology related to important and "traditional" research questions in our knowledge field. In our faculty the majority of PhD projects over the last decade have dealt with technical topics related to zero emission buildings. Three years ago, the first two architects (both with MA Arch from NTNU) were accepted as research fellows in the Norwegian Artistic Research Fellowship Program, which traditionally was attended only by candidates from music or the visual arts. The national program as such was replaced with study programs at the respective participating universities soon after, at the NTNU with the PhD program in artistic development established in January 2019, which is open for students from music, art, design and architecture.

The latest activity of the faculty's endeavors to answer steadily more complex contemporary research questions is the focus on practice-based/ design-driven research. In 2020, PhD candidates were employed at each department. The PhD candidates will follow the "traditional" PhD program

in architecture, but a revision of the PhD regulations at NTNU (December 2018) opens for submitting a thesis that consist of a written component in combination with a product or production documented in a permanent format.

This “product or production” can be a building, and object, a project or plan, a service, a work of art or other kinds of creative work. The “product or production” is in itself not regarded as research as such. In order to qualify as research, and not merely as practice, the PhDs must fulfil general requirements of “doctorateness”: Contextualization, critical reflection, theoretical framework, transparency and communicability is necessary. It is therefore required that the thesis contains a written part.

The thesis could be either a monography or a compilation of a body of work. In the last case, the contextualization, theoretical framework, reflection and summary of the new knowledge developed, will in most cases be presented in the “kappa” (comprehensive summary). The practical/creative work can be documented in models, drawings, video, photos, diagrams or digital media. Such material must be in a retrievable form. PhD candidates who submit a dissertation that includes a body of creative work may choose to arrange a presentation of this work, e.g. through an exhibition, allowing the assessment committee to view it prior to the defense. Practice based PhDs attain to the same overall criteria for “doctorateness” as other PhDs: significance, originality and contribution to knowledge. Even if the methodology and outcomes of the research may differ from more traditional PhDs, they are regarded as a version of scientific PhDs. This implies that the research should relate to, make use of or critically reflect upon established epistemological and scientific approaches and methods along with the more practical elements.

The particularities of this type of research, and what it means for knowledge production and study program content will have to be reflected upon along the process. This is valid also for mutual gains in between programs and research approaches and the possible interchange of theories, best practice examples and methods.

The fertile ground for this at the faculty is framed by a horizontal approach, combining different types of research and the explorative way of working towards new fields. Practice-based/ design-driven research at the faculty is not seen a replacement, but a supplement.