

Concept and quality criteria July 2th, 2025

Organization and Execution

Prof. Ralf Pasel, TU Berlin
Prof. Jürgen Weidinger, TU Berlin
Prof. Dr. Ignacio Borrego, TU Berlin
Prof. Dr. Matthias Ballestrem, TU Dortmund
Prof. Johanna Meyer-Grohbrügge, TU Darmstadt
Prof. Elke Reichel, TU Darmstadt
Prof. Felix Waechter, TU Darmstadt
Prof. Wolfgang Lorch, TU Darmstadt

Speaker

Prof. Ralf Pasel, Prof. Jürgen Weidinger, Prof. Johanna Meyer-Grohbrügge

1. Objective

The design disciplines of architecture and landscape architecture at the universities have a long academic tradition, including doctorates. Today, the proportion of design-relevant topics and design-based methods in the total number of doctoral theses is low. Engineering, historical or social science topics and methods are dominating.

For this reason, PEP (Programm Entwurfsbasierte Promotion – program for design-based doctorate) aims to promote design within the framework of research in architecture and landscape architecture. This is implemented as an innovative form of doctoral supervision that incorporates design results and uses design as an epistemic tool to develop relevant knowledge contributions for the design disciplines. PEP offers suitable research methods and criteria for design-based research within the framework of doctoral studies.

PEP is suitable for candidates of design disciplines who have developed very good skills in design and have already found and worked on new topics through their individual design activities. PEP understands design as a process that produces spatial solutions. Spatial solutions represent complex and indissoluble penetrations of aesthetic, ethical, social and technical aspects as a holistic spatial presence and therefore cannot be adequately described by text and numerical values. Problem-solving procedures without spatial and design-based deepening, such as area planning or management and moderation processes, are not suitable for participation in PEP. In PEP, projects are an indispensable part of design-based scientific work.

2. Involved Professors

The PEP is an initiative of professors and not of universities. The PEP was founded at TU Berlin in 2016 by the professors Prof. Ralf Pasel, Prof. Jürgen Weidinger and Prof. Dr. Ignacio Borrego by Prof. Dr. Matthias Ballestrem and Prof. Donatella Fioretti. From 2024, the PEP will be offered in cooperation with TU Darmstadt, where it will be led by Prof. Johanna Meyer-Grohbrügge, Prof. Elke Reichel, Prof. Felix Waechter and Prof. Wolfgang Lorch.

The PEP proposes a first supervisor to each doctoral candidate who confirms the supervision of the doctoral thesis. If Prof. Ralf Pasel, Prof. Jürgen Weidinger or Prof. Dr. Ignacio Borrego are recommended as the first supervisor for the doctoral procedure, the doctoral procedure will be registered at the TU Berlin. If Prof. Dr. Matthias Ballestrem is recommended as the first supervisor, the doctoral procedure will

be registered at TU Dortmund University. If Prof. Johanna Meyer-Grohbrügge, Prof. Elke Reichel, Prof. Felix Waechter or Prof. Wolfgang Lorch is recommended as the first supervisor, the doctoral procedure will be registered at TU Darmstadt.

Depending on the assignment, the doctoral regulations of the respective university are decisive. All doctoral candidates in the PEP undertake to observe the respective doctoral degree regulations.

3. Methodological Framework for Design-Based Research in PEP

Design-based research serves to tap new areas of knowledge of the design disciplines and to qualify this knowledge also through inter- and transdisciplinary scientific discourses. To this end, design itself is applied as a method and the design results are understood and described as scientific findings.

Design-based research is about developing and lifting new knowledge from your own design results. The knowledge contained in the projects is made explicit and accessible through critical examination. This takes place through an iterative process of designing, reflecting on the design results, explaining and re-integrating the results of the research into new designs. By comparing their own contribution to the discourse with related and relevant knowledge of the design disciplines, doctoral candidates position their own contribution in the discourse, make the newly acquired knowledge available to their own discipline and at the same time create connecting points to other disciplines.

Doctoral candidates must have already produced a body of work, i.e. a sufficient number of very good designs or very good realized projects. A design-based doctoral project within the framework of PEP consists of two intertwined and interdependent parts, i.e. a design part and a written part. The design components of the design part are not only illustrative, but represent independent research results.

4. Structure of the supervision of the doctoral studies in PEP

All requirements for a doctorate are regulated in the respective doctoral regulations.

For design-based research, PEP has formulated a procedure that structures the process of extraction of knowledge from design practice, makes it comprehensible and assessable. The doctoral candidates must pass through the following steps, i.e. presentations with specific objectives:

- **Letter of application**
- **PEP 0 Application presentation**
- **PEP 1 to 4 presentations**
- **PEP 5 Milestone presentation**
- **PEP 6 Completion of the promotion and exhibition concept**
- **Submission of the Dissertation**
- **Defense and Exhibition**

After a successful PEP 0 application presentation, at least 6 further PEP presentations will take place as part of a joint colloquium of all participants held every six months.

In order to ensure the consistency of the work and supervision, at most one presentation can be suspended. A PEP presentation can only be repeated once. It is possible to extend the processing time after the PEP 5 presentation in individual cases in consultation with the supervisors.

The objectives of presentations PEP 1-6 build on each other and provide a methodological framework. Doctoral students are obliged to present artifacts of their design work in the PEP colloquia. After each PEP presentation, doctoral students receive advice and criticism on the status of their doctoral project. The colloquia are held in English and German.

One of the PEP 2-4 presentations can be replaced by participation in a Ca2re or Ca2re+ conference by prior arrangement.

Letter of application

The letter of application should include

1. project portfolio as description of own practice, i.e. presentation and sorting of own design work of the content (for group projects, proof of the own contribution to the projects must be provided)
2. exposé as a sketch of the doctoral project

- a. Leading interest (lines in the body of work) and research question
 - b. Expected results
 - c. Planned methodical procedure
3. A separate representative illustration that summarizes the project
4. curriculum vitae: academic and professional background

Points 2 and 3 are to be presented on one page DIN A4 each

In the letter of application, the relationship between your own practice and the outlined doctoral project must be explained. The professors of the PEP will evaluate the incoming applications and invite the best applicants to the PEP 0 presentation.

PEP 0: Application presentation

During a 20-minute presentation, the applicants present the outline of their proposed doctoral studies. After questions and discussion, a decision is made on whether to confirm participation in PEP or to request a repeat of PEP 0 or to reject the application. The PEP 0 presentation can only be repeated once.

PEP 1: Design projects, leading interest, outline of the research question and corresponding methodological approach

The doctoral candidate present the deepening of the doctoral studies. It should be shown how and which new projects are employed to answer the research question. Criteria for investigating the research question are being elaborated.

PEP 2: Specification of the research question by old and new projects

New projects contribute to the clarification of the research question. Reflections on the new projects sharpen the argumentation and form the basis for those questions that will be investigated through the next projects.

Immediately after the PEP 2 presentation, doctoral candidates are required to register their doctorate with the respective university. Registration is a prerequisite for participation in the subsequent PEP presentations. The registration procedures are regulated in the currently valid doctoral regulations.

PEP 3: Clarification of the argumentation by old and new projects and initial comparison of the found results with existing knowledge stocks on the research topic

New projects contribute to the clarification of the research question. Reflections on the new projects and initial comparisons of the found results with existing knowledge stocks on the research topic sharpen the argumentation and form the basis for future studies.

PEP 4: Further specification of the argumentation by old and new projects and in-depth comparison of the found results with existing knowledge stocks on the research topic, draft of a structured presentation of the entire investigation

More projects, repeated reflection on the projects and an in-depth comparison with related knowledge stocks to sharpen the candidate's own results. In preparation for PEP 5, a structured presentation of the entire study is to be prepared.

PEP 5: Presentation of the entire study as a milestone presentation

Candidates have to obtain the consent for the completion of the doctorate. This is done through the milestone presentation in the PEP presentation. It is necessary that approx. 75 % of the doctoral studies are presented. The following structure must be adhered to:

1. preliminary studies through the candidate's own body of work
2. working out the topic of the doctorate = research question
3. examination of the doctoral topic by means of at least three projects developed in the process of the doctoral studies and reflection on the projects until the research question has been clarified
4. comparison of the results with related positions of the discourse in theory and practice

The core group gives the go-ahead for the final further processing (green light), recommends a revision (yellow light) or decides that the milestone presentation must be repeated (red light). If no green light is given after the repetition of the milestone presentation, the candidate is advised to discontinue the doctoral studies within PEP and no further supervision is possible within PEP. The recommendation is made as a joint vote of the core group of PEP. In the event of a different assessment, a simple majority of the individual votes counts. This recommendation does not affect the possibility of submitting the work for review in accordance with the respective doctoral regulations of the participating universities. This will then be done outside the PEP. This decision lies with the candidate.

PEP 6: Completion of the doctorate and exhibition concept

By PEP 6, the research work is essentially complete and has undergone initial editing and a plagiarism check, which must be submitted by the candidate. PEP 6 presents the entire research and submits a concrete exhibition concept, which must be developed at least on a test basis. It shows how the written part of the work comes together with the practice-based part of the exhibition to form a holistic statement. The last PEP serves as a dress rehearsal for the scientific debate. At PEP 6, the written part of the doctorate can be handed over to the respective reviewers before the final thesis is officially submitted to the respective faculty by the candidate.

Submission of the Dissertation

In addition to the illustrations of the own designs, the volume should include 80 to 100 pages of text in German or English, which corresponds to 30,000 to 40,000 words, not including illustrations and figures. The structure and weighting of the work will be developed in correspondence with the supervisors during the course of the doctorate. An example of a possible structure is:

Introduction, approx. 20%

1. motivation
2. brief description of the preliminary work: own designs and projects as a basis
3. description of the leading interest embodied in the projects
4. derivation of the doctoral topic

Main part, approx. 70%

1. examination of the doctoral subject by several (mostly three) projects relevant to the doctoral thesis and developed within the framework of the doctoral thesis, reflection on the projects and presentation of the results
2. comparing the results with related positions of the discourse in theory and practice and pointing out the differences to the current state of the discourse, the own contribution must be clearly worked out

Final assessment, approx. 10 %

1. summary
2. formulation of continuative questions and outlook

Scientific defense including an exhibition

The academic debate is subject to the requirements of the respective doctoral degree regulations.

In addition, the combination of the academic debate with an

exhibition is required, which includes the preliminary work and those draft results that have made significant contributions to the knowledge gained. The publicly accessible exhibition must include all drafts relevant to the doctoral topic that were created as part of the doctoral project and which demonstrate the design-based development of the work.

To ensure legibility and comparability, a presentation in paper form is required for each exhibition, the size of which should be at least 20 sheets of DIN A1 format. Other formats refer to the specified area, e.g. 10 x DIN A0, 40 x DIN A2. Models and design artifacts are expressly desired and are generally required. All other media and supplementary exhibition components can be used. Depending on the specific characteristics of the doctoral project, this can be deviated from in individual cases by arrangement.

Final publication of the doctorate

The obligation to publish, which is regulated in the doctoral degree regulations, includes both the reflective-textual and the design-based, practice-based part of the work.

Please direct requests for participation to:

r.pasel@code.tu-berlin.de