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SESSION 4
12:15 - 13:15

ROOM A - SALA DE PROYECCIONES

Cecilia De Marinis

**Experimentation in design
pedagogy: an open situated
and transformative research
method**

Experimentation in design pedagogy: an open situated and transformative research method.

In the rapidly changing landscape of today's world, design assumes a crucial role in questioning the present and imagining alternative futures. Design pedagogy has therefore the role and responsibility to train conscientious designers capable of navigating the complexity of evolving societal, technological, and environmental landscapes with critical and creative thinking.

Experimentation is a cornerstone in design pedagogy, serving as a vital learning and teaching method. It allows to explore, transform, and discover, providing a hands-on and exploratory approach to learning, and contributing to viewing design not only as a practice but also as a research field that focuses on envisioning the world as it could be. Through experimentation, students not only gain practical skills but also cultivate a mindset of curiosity, adaptability, and openness essential for navigating the complexity of an ever-changing world.

In this text I present the perspective and experience of the Master's in Design Research (MDR) at BAU, College of Arts and Design. The program, serving as a platform for "*reflection in action*", focuses on design research methods and experimental approaches encouraging students to envision and materialise alternative and more equitable futures.

The "*reflection in action*" approach emphasises an intertwined relationship among making, feeling, and thinking. It represents a pedagogical method that incorporates the experiential, social, and material dimensions of design, achieved through hands-on experimentation and trial-and-error processes. This approach aims to equip students with the skills to navigate the complex and uncertain terrain of the creative process, as described by Shön (1983) as the "swampy lowland."

In the MDR program, experimentation, situated alongside other design research methods, assumes a pivotal role in the process of imagining and prototyping alternative futures, constituting a foundational step in the experiential learning process.

In this context, experimentation transcends mere testing; it is considered as a dynamic tool for thinking and exploration, a realm where experiential knowledge evolves. In the experimentation process, thinking and making seamlessly converge into a unique and unified mode of thought, specific to design.

The emphasis on experimentation as a research method goes beyond conventional paradigms, portraying it as a means to learn the art of "*staying with the trouble*", as intended by philosopher Donna Haraway (2016), therefore learning how to navigate and embrace uncertainty and complexity, with an intention to focus not only on problem-solving but also on the ability to raise new questions. Hence, in this perspective, experimentation serves as a method to access the unknown, facilitating the unveiling of new knowledge and fostering continuous refinement and improvement, while becoming an intrinsic aspect of the iterative design process. The significance of experimentation extends to its application in diverse realms, encompassing materials, research methods, disciplines, and theories. It represents a dynamic tool for exploration and innovation within the multifaceted landscape of design research.

In the iterative process of making, testing, and prototyping, experimentation as a design pedagogy method, also values the importance of embracing failure as a learning opportunity, encouraging risk-taking, enabling students to explore new ideas and push boundaries, and making space for the unexpected and unpredictable. This openness to uncertainty and not-knowing as a method of inquiry requires students to learn how to inhabit uncertainty and ambiguity in the process. Such approach can be explained by and expanded to the idea of "*thinking diffractively*" (Haraway 2004/1992) as a way of going beyond the conventional and making space for the unforeseen, the interferences and differences. The metaphor of diffraction as a thinking mode broadens the scope of the "*reflection in action*" approach, to encompass concepts of interconnection and interference.

Furthermore, in the MDR program experimentation is understood as a "*situated method*", drawing on the concept of situated knowledge as conceptualised by Haraway (1988) which refers to the idea that knowledge is always situated and partial, contextualised within specific social, cultural, and historical contexts. Haraway argues against the idea of a universal, objective standpoint and emphasises that knowledge is always situated within perspectives and power dynamics. This concept challenges traditional notions of objectivity and encourages an understanding of knowledge production as inherently tied to the experiences and perspectives of those generating it.

Similarly, experimentation as a research method needs to be situated, acknowledging its partiality and temporality, and taking account of its specific context, time, and limitations.

To explain those reflections in a pedagogical and situated action, I present here the example of the final thesis project "*Bastard Soils. Becoming on the threshold*" (Tierras Bastardas. Devenir en el umbral) that embeds all the insights presented in this text. The project explores concepts like limbos, becoming, and transition through hands-on material research with raw clay. Emphasising the process of co-creation with matter, the project delves into the transformative nature of clay as a medium for exploration, challenging fixed categories. Drawing inspiration from Braidotti (1994), clay is interpreted as a nomadic subject, constantly transforming and reinventing itself. The material exploration takes place in the Badalona territory, incorporating various soils into the slow process of transforming clay into ceramics. The "*reflection in action*" approach is evident in the student's dialogue with the material, combining ideas with hands-on manipulation. The experiential research in pottery making delves into entanglements, sympoiesis, transformation, and hybridity. The material outcomes include clay artifacts that encapsulate the entire co-creation process, showcasing germination and firing traces, challenging the boundaries between mud and ceramics (Figure 1). This project exemplifies a pedagogical approach integrating experiential, social, and material aspects, intertwining making, feeling, and thinking.



To conclude, within the MDR, we consider experimentation not only as a teaching method but also as a broad approach to design pedagogy that challenges educators to incorporate diverse forms of knowledge production into their teaching methods. This poses a complex challenge, as design educators navigate the delicate balance of embracing uncertainty and not-knowing in the teaching process. Drawing on the pedagogical research developed by Professor Marta Camps (2019) we suggest understanding design pedagogy as a practice that accompanies students in their discovery processes rather than merely transferring knowledge. Camps proposes a pedagogy of “*knowledge in action*”, deviating from predefined learning objectives to be responsive to possibilities sparked by openness. This approach encourages growth and receptiveness, pushing educators to navigate discomfort and engage in situated experimentation, where judgment is suspended in favour of new possibilities. Rooted in experiential learning and the intertwined relationship between thinking and making, this pedagogical model advocates for a model of diffraction in action, moving beyond reflection.

Figure 1. Project: “Bastard Soils. Becoming on the threshold” 2023. Credits: Marina Muñoz and Rubén Aznar

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A short reflection on the importance and role of experimentation in the research project

Experimentation stands as the cornerstone in the research project, playing a pivotal role in steering through the intricacies of design and fostering innovation. In the dynamic landscape of contemporary design research, it is the driving force propelling projects forward.

Fundamentally, experimentation offers a hands-on approach to learning and discovery, going beyond conventional design boundaries. It contributes to position design not only as a practice but as a research field that focuses on envisioning the world as it could be.

Experimentation is foundational for imagining alternative futures. It is a dynamic tool, converging thinking and making into a unique and unified mode of thought, specific to design.

Emphasis lies not just on problem-solving but the ability to pose new questions, cultivating a mindset of curiosity, adaptability, and openness essential for navigating the complexity of an ever-changing world.

The significance of experimentation extends beyond materials and methods, representing a dynamic instrument for exploration and innovation within the multifaceted landscape of design research. The iterative process values embracing failure, encourages risk-taking, and explores novel ideas.

Experimentation can also be considered as a “situated method” acknowledging its partiality and temporality, and taking account of its specific context, time, and limitations. This approach challenges traditional notions, emphasising that knowledge production is tied to perspectives and power dynamics.

Experimentation in the research project is not just a method; it is a mindset, a tool for exploration, and a driving force for transformation and innovation in the ever-evolving landscape of our world.