

# Relazioni Talks

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## Why Are Designers Not Comfortable in Talking About Their Design Process? Exploration of Students' Perception of Their Design Experience

### Perché i progettisti hanno difficoltà a spiegare il loro processo di progettazione? Studio sulla percezione dell'esperienza di progettazione da parte degli studenti

**Keywords:** DESIGN STUDIO, DESIGN PROCESS, DESIGN EDUCATION, DESIGN EXPERIENCE, REFLEXIVITY.

**Parole chiave:** LABORATORIO DI PROGETTAZIONE, PROCESSO DI PROGETTAZIONE, EDUCAZIONE ALLA PROGETTAZIONE, ESPERIENZA DI PROGETTAZIONE, RIFLESSIVITÀ.

Professional education programs in environmental design disciplines aim to create ready-to-work designers to introduce in the world of practice. Studio courses are the places where students learn how to perform the professional tasks of design. Education in the studios has a practice-oriented focus, and students usually engage forms of experiential learning, focusing on the performance of final products rather than reflecting on the process. Forms of reflection on the design process do not seem to be part of the tradition of such courses. Students are not taught to do that, so this is also why they find difficult to convey what is in their mind when they are designing. The purpose of this talk is to start a discussion about the type of education instructors offer in design studio courses. In the text, I presents a qualitative research process where I have observed a course class in the Master program of Landscape Architecture at the Swedish University of Agricultural Sciences in Uppsala. Students' voices captured during the final workshop in this course show how they reflect on their design process and how they perceive their design experience.

*I corsi di laurea professionali nelle discipline di progettazione ambientale mirano alla formazione di progettisti pronti a entrare nel mondo della professione. I laboratori di progettazione costituiscono la base degli insegnamenti dove gli studenti imparano a svolgere l'attività progettuale delle rispettive professioni. I contenuti formativi dei laboratori sono orientati alla pratica progettuale. In questo modo gli studenti si impegnano in forme di apprendimento esperienziale, concentrandosi sulla presentazione di progetti finali, e trascurando la riflessione sul processo. Forme di riflessione sul processo di progettazione non sembrano far parte della tradizione di tali laboratori. I corsi omettono questa parte di insegnamento ed è anche per questo che gli studenti hanno difficoltà a esprimere cosa avviene nella loro mente mentre progettano. Lo scopo di questo contributo è favorire una discussione sull'offerta formativa dei laboratori di progettazione. Di seguito è presentato uno studio qualitativo in cui sono stati osservati gli studenti di un corso all'interno del Master in Architettura del Paesaggio presso l'università svedese di scienze agrarie di Uppsala – SLU. Le opinioni degli studenti durante il workshop conclusivo del corso mostrano la loro capacità di riflettere sul proprio processo di progettazione, e la percezione che hanno della propria esperienza di progettazione.*



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## INTRODUCTION

Consider a situation in which designers have to explain their last project in front of an assembly. Imagine people asking questions about their approaches to the project, about their ideas and experiences during the process.

The answers are usually not quite exciting as the projects themselves. Descriptions of their design processes have quite poor argumentations, and some of them even lack reasons. In some cases, they delight the audience in showing brilliant and clear sketches of their original ideas, expressly made up for the presentation. It is common that expert designers are not always experts in describing what they do when they work.

Practicing design seems easier than explaining how to do it, at least for established design professionals. In this talk, I argue that this situation has to do with their training and education in academia.

Professional education programs in environmental design disciplines aim to create ready-to-work designers to introduce in the world of profession. Studio courses are the places where students learn how to perform the professional tasks of design. Design education in the studio usually engages forms of experiential learning, namely, learning through the experience of doing. In my experience as a design student and teaching assistant, during the first weeks of studio, instructors introduce students to design methods and tools.

For the rest of the course, students endeavour to learn how to apply the methods and the tools. At the end of the course, students present their projects to a jury in a final review. The final projects will determine in a large part students' final grading. Due to its practice-oriented focus, this approach to design education affects students' evaluation, focusing on the assessment of final products, rather than students' improvement over the design process. As Rivka Oxman suggests, this approach misses to evaluate students' learning experiences in terms of "cognitive learning increment".<sup>1</sup> During the 1970s, the discussion about design shifted from an interest on design as a product, to design as a process. The research on design moved into trying to understand designers' mind in action

and their approach to design.<sup>2</sup> There was also an interest in understanding how design practitioners think at work and, as Donald Schön described it, how they "reflect-in-action" during the design process.<sup>3</sup> In a similar way, Schön introduced the concept of "reflection-in-action" to the practice of the design studio. According to this concept, the training of students in the studio can take the form of a "reflective conversation with the situation", where students could consciously reflect on their design process.<sup>4</sup>

Nonetheless, these aspects of research on design were not integrated into design curricula in any systematic way. Instructors of the studio are commonly design practitioners who received little to no training in design pedagogy. The average design studio course focuses on the professional side of design, providing future practitioners with skills and competence of IT-tools, and leaving no time for reflecting on what they are doing. I became aware of this situation when I asked students to talk about their design process. I was surprised to see how hard it was for them to describe their design experience. With this talk, I question the practice of the design studio, investigating how students reflect on their design process and how they perceive their design experience. I present the results of a qualitative research process where I have observed a course class in the Master program of Landscape Architecture at the Swedish University of Agricultural Sciences – SLU, in Uppsala. As the course focused on fieldwork methods, I took in consideration the early stage of the design process, in order to understand students' experience during fieldwork analysis and during the generation of moments of insight.

## DESCRIPTION OF THE COURSE

The in-class observation involved the course LK0313 – History, Theory and Practice of Landscape Architecture. The course is in the fourth year of the Master's program in Landscape Architecture. The arrangement of the course is a field- and studio-based design laboratory and despite it takes place in a studio setting, it is not product oriented.

During the course, students had to

carry out a series of exercises and assignments, mostly on a weekly basis, aimed to foster their capacity to reflect over design methods. The assignments focused on the early stages of the design process, such as fieldwork and site analysis. No final design project was required at the end of the course. The observation involved both the students and the instructors. The class had students from the five-year Master in Landscape Architecture program, as well as from the two-year Master in Landscape Architecture and Sustainable Urbanisation program.

## METHOD

Once a week over the course term, I carried out a non-participating observation of both students and instructors during the in-class hours, mainly during the reviews of the weekly assignments.<sup>5</sup> To perform the data collection, I took notes and sketches in a journal-diary – an A4 notebook, that I also used for reviewing the notes after each observation (Fig. 1). At the end of the course, I facilitated a workshop with the students.

With the workshop, I wanted to grasp students' understanding of their training about the design process and their experience during the generation of moments of insight and of design ideas. In the first part of the workshop, I divided students in groups, six to eight people each, and gave them the first of two surveys (Fig. 2). After having read the survey, they had to discuss it in group, and then individually answer the closed-ended statements. The first survey employed a Likert scale grading with a range scale between one – totally useless, and ten – very useful. Students had to rank various activities according to the role they played in shaping their most significant moments of insight during the course. For example, the activities included statements such as "*being in the field during the assignment, talking with the instructors, talking with fellow students, reading the course literature*", etc. After this survey, I asked each group to share their discussions within the whole class. In the second part of the workshop, I gave the students a second survey, which had three open-ended questions. I asked the students

to describe their experience during moments of insight. The first question asked them to describe *what* idea they generated. The second one, to describe the situation, *when* and *where* they got it. The third, to describe their approach to the method – fieldwork mode, they were using (Fig. 3).

#### STUDENTS' VOICES FROM THE WORKSHOP

Data analysis of the first survey revealed no clear patterns in students' answers. Nonetheless, when students had to share within the whole class during the workshop, they expressed their scepticism about the type of survey I had chosen. They showed their struggle to abide by the survey rules – Likert scale questions, mentioning the necessity to motivate each answer. The second part of the workshop, the survey with three open ended questions about the idea generation process, seemed to have a different effect on students. On one hand, during the sharing part they seemed to be at ease, at least more than in the first survey, in explaining what was in their minds when they got their most interesting moments of insight. Describing the situation in which they got their ideas and evaluating the method they were using seemed to be more liberating than checking boxes on a Likert scale grading. On the other hand, in the description of their moments of insight, students showed different types of sensibility and awareness of their own thinking. When reading students' answer from the second survey, I found various points of view among the students, so that diversity among the points of view constituted a trend itself. Moreover, I also found that students had a certain resistance in writing about their processes. For instance, there were students showing hesitations in answering the questions, or in using elusive terms. In some cases, students even contradicted themselves in their explanations. In the first open-ended question I asked students to describe their most interesting moments of insight.

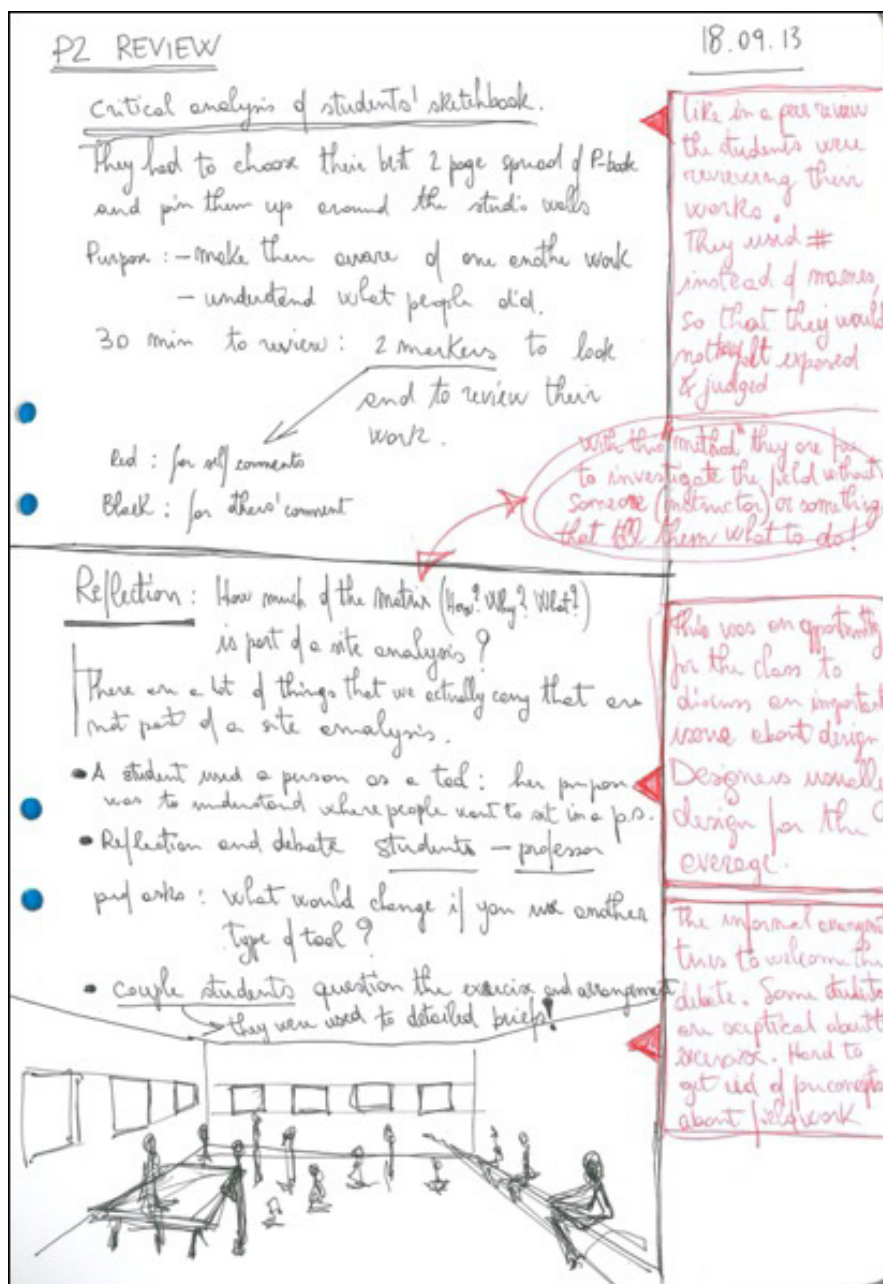
The answers to this question mainly concerned reflections about the design process and the ways they usually work. One of the students, Robin<sup>6</sup>, in speaking about the method wrote that limitations during the process generate inspiration: *"The limitation made me creative"*. Lydia claimed *"the need to be very specific and realistic when pursuing a certain goal"*. Jennie also confirmed that the way she likes to work prohibits her to create freely: *"My comfort zone – the way I like to work – prohibits me to create freely"*. Other students instead, showed that limitations generate discomfort in their work. They described anxiety as part of their design process. For example, Susan wrote: *"I feel more self-conscious now, which is good, but I have a feeling of unease to my work"*. There were students who qualified their processes with adjectives such as *"comfortable"*, and *"free"*. Emma in describing the method wrote: *"It made me feel comfortable and free"*. Helen also said: *"Trusting my instinct is good"*. In other cases, instead, concepts such as *"chaos"* and *"messiness"* became even meaningful for their processes. Ariel wrote: *"It is important not to think about the product. Just let myself be free and take time to think. It is easy, in the beginning let it be messy"*. John also wrote: *"It is always chaos in the beginning, it should be chaos"*. In the second open-ended question I asked the students to describe *when* and *where* they got their moments of insight. Students had their ideas at different times and in different places of course, but they also had different approaches in describing their situations. It is possible to identify two categories of answers according to the time they spent in developing the idea and the context in which they got it. On one hand, there were students writing about their idea as an intuition, occurred at a specific time during the course. Robin wrote: *"Most of my insights hit me when I was watching a movie or reading a book"*. Carl: *"I was in the shower"*. Jessica: *"I was working with the assignment number 6 at home on my sofa"*. On the other hand, students described the idea as developed over

time, in a constant reflection. Kate wrote: *"My insight developed during the entire course, but especially during the assignments"*. Sue: *"It is a reflection which I have done over the course of time so it is hard to mention one specific moment"*. In describing the context in which they got their moments of insight, there were students who referred to an active situation of *doing*, for example an activity connected with the course such as reading the course literature, or reflecting over an assignment. Julia wrote: *"I was reading my P-book"*. More than one third of the students had their ideas when working on the assignments. Nonetheless, there were students who described their idea happening in a context of *not-doing*. For example, Ariel wrote: *"... just let myself being in the moment and first just think about nothing"*. Susan also wrote: *"More free time reflections. On a commuter train, when doing nothing"*. In the third open-ended question I asked them to describe how they felt about using their methods. Differences in students' answers showed different capacities and levels of comfort in thinking about their design process, but conflicts also appeared when they evaluated the method – fieldwork mode – they used in their assignments. Some students found the method *"fun"*<sup>7</sup> and *"enlightening"*.<sup>8</sup> Jennie wrote: *"It challenged me to do things I usually don't do, and act in a way I am usually uncomfortable with. The mode pushed me out of my comfort zone and by doing so, it enlightened me"*. On the other side, there were critiques that showed scepticism in understanding the purpose of using that method for the generation of design ideas. For example, Kate wrote: *"Sometimes I felt childish and I could not see why I was doing what I did"*. Scepticism sometimes turned into difficulty to approach the method. Joey wrote: *"It was confusing!... The assignments were a pain!"* Elvin also said: *"I was pushed to use the mode... It became more about the mode instead of the analysis of the landscape"*. In some cases, students used words that open up to several interpretations. For

example, Lindsey wrote: "I felt a bit not scientific, and I do not know how I would use this again in a studio course". Perhaps, qualifying the design activity with the word "scientific" suggests more questions than answers. For example, what does she mean by "not scientific"? And why does she think that the design activity should be scientific? Maybe, she means that her approach was not scientific, or that she did not feel like

a scientist. Perhaps, she did not know how to express her thoughts. Or maybe, she is missing a language to describe it, because nobody asked her to reflect on her design method before. Sometimes, divergent thinking is visible when comparing the three answers from the same student. For example, Robin (as reported above) stated that limitations had stimulated her creativity. Later on, she wrote about the method: "I think it

was a little unnatural to work with that. I had to push it, I was forced... Maybe this could be done in another way?" In a similar manner, Jessica described that in one of the assignments she had "the most interesting moment of insight". She stated: "I found my creativity". Later, when she described the method, she seemed to change her position: "I feel that the method is kind of difficult to use... it made me feel locked, it made the assignments difficult to do". Clearly, these answers highlight students' character and personality, but also reflect their capacity to think on their own methods.



#### VIEWS ON STUDENTS' VOICES

When analysing students' answers, patterns of conflicts start emerging from their discourse. One source of conflict interests the approaches that students have toward their design processes. On one side, there are students claiming for a necessity to be "free" and to "free their ideas" in order to carry out the process. Three of them clearly stated the need to feel "comfortable and free" in order to express their ideas and to be creative. Though, they do not clarify further their explanation. For instance, Ariel wrote: "Just let myself be free and take time to think". Carl also said: "Don't worry about doing something buildable, just free my ideas to explore things and feelings...". When I read these answers, I found myself asking what they mean by "being free". The term *per se* is really vague, and they do not further discuss it in their answers. How did she let herself be free? How did he free his ideas? Perhaps, they refer to a state of mind, or a necessity to have either a flexible method or a flexible outcome. On the other side, there are students who think that limitations and constraints are essential qualities for stimulating one's design creativity. They refer to the need to be pushed out of their "comfort zone" during the process. They think that the method needs to challenge them and that limitations force them to be creative throughout the process. Conflicts also emerge when considering students' expectations for the design

Figure 1: Raw data. One page of notes from the journal-diary.



process. There are students who felt being *"not-scientific"* during the design process. Speculating on this statement, this may represent students' need for a more rational and systematic approach to the process. Or instead, it might refer to the expectation of being scientific that students have toward the design process. Also, there are students who think that the design process, especially in the first phases, should be *"messy"* and *"chaotic"*. The same students talk about being *"comfortable"* with the situation and to *"trust yourself"* during the process. They seem to be at ease with their design process, showing awareness of their own design approaches. Though,

they resist to give a better explanation of their concepts. The reader of this study might draw the conclusion that students experience these conflicts because they are still learning how to design. The process of learning inevitably requires time, and maybe they simply have to grow.<sup>9</sup> Conflicts and divergent thinking in students' answers reveal a status of uncertainty toward students' understanding of their design process. Established professionals, with several years of experience in the field of design, have learnt how to cope with uncertainty during their design processes. They are used to messiness and chaos, adapting to anxiety, and following their intuitions.

Instead, students who experience the design studio for the first few times do not really know how they should feel about their design process. They do not know what the perceptions of the design process should be. But how would you – reader – describe your design experience? Would you do it *better* than the students I discuss here? Were you even asked the kinds of questions that I asked these students? Perhaps, time is just an aspect that influence students' ability to cope with their design processes.

Nonetheless for designers, being able to cope with the design process does not necessarily mean being also able to fully understand and to describe it. Considering students' answers in the workshop, in many cases they do not clarify their explanations. Sometimes, they trivialise their descriptions with clichés and jargon. For example, they do not justify the use of certain terms, or concepts. Among the others, Carl did not explain how he was able to *"free"* his ideas. John did not clarify why the design process *"should be chaotic"* in the beginning. Some of the students show hesitations and gaps in their answers. Lindsey felt *"a bit not scientific"* in using her method and she did not know if it was useful, but she thought it was a *"fun change"*. Nic said that he got his best moment of insight when he was not *"trying to be smart"*. He referred to the need to *"relax and rely on your own"* in order to stimulate ideas. Kate felt *"childish"* and could not see why she was doing what she did, but she also said that it was *"good"* to reflect on the process. Robin explained how the *"limitations"* made her *"creative"*, but she also thought that it was *"unnatural"* to work in that way, and that she was *"forced"*. Unspoken explanations and contradictions, reveal that students experienced a certain discomfort in writing about their design process. Students resisted to conceptualize their uncertainty and ambiguity toward their process. Hence, there seems to be a lack of language for explaining one's experience of the design process. This

**9 + 1 statements to reflect on the idea generation process**

Please rank each of the following activities (on a scale of importance from 1 to 10) for the role they played in shaping the (2-3) most significant moments of insight you experienced during this course.

1. Being in the field during the assignment	1 2 3 4 5 6 7 8 9 10
2. Reading the course literature/bibliography	1 2 3 4 5 6 7 8 9 10
3. Reading other literature	1 2 3 4 5 6 7 8 9 10
4. Talking with my fellow students	1 2 3 4 5 6 7 8 9 10
5. Talking with my partner in this course	1 2 3 4 5 6 7 8 9 10
6. Talking with the instructors	1 2 3 4 5 6 7 8 9 10
7. Previous background (previous courses, Bachelor's degree, etc.)	1 2 3 4 5 6 7 8 9 10
8. Using the "fieldwork mode" (What? How? Why?...you carry)	1 2 3 4 5 6 7 8 9 10
9. Introducing unexpected variables in the process (e.g. make changes in the "fieldwork mode" during the exercise, tools, etc.)	1 2 3 4 5 6 7 8 9 10
10. _____	1 2 3 4 5 6 7 8 9 10

Figure 2: Survey number 1: 9+1 statements to reflect on the idea generation process.

***Idea generation process***

a) What was in your opinion, your most interesting idea or most interesting moment of insight during this course? (either for any of the assignments or for the essay)

b) When and where did you get it? (please describe the situation. What were you doing? Was it an ordinary day? Was it during an assignment? Were you using a specific tool or a "fieldwork mode"? if yes, which one?)

c) How useful did you find the "fieldwork mode" framework for your assignments?

studio courses, so this is also why they do not have a language to convey what is in their mind when they are designing. In this talk, I reflected only about the students of this course, so this does not represent a complete picture. It was the first time in the program that the students attended such course focusing on design processes and reflecting over the practices normally carried out in studio courses. Thus, I wonder if what I observed represents a general tendency among students of design. With a more systematic experiment, I intend to test students in other courses, but also within other design disciplines. Design studios of environmental design disciplines will be the focus of the next steps of research. The reflections I presented here took in consideration only students' perspective. In order to enrich the argument, there is of course a need to include the teachers of design studios in the discussion. Including their points of view in the discourse will probably bring a different perspective in the results.

As per students' point of view, during the workshop and the final assessment of the course several of them expressed the need to bring forward in their education topics such as reflexivity on the design process. One of them, Sue, wrote in her answer: *"It was meaningful to focus on the process. Previously all courses have been about the product"*.

lack of language is also visible with some established professionals when attempting to explain their experience of the design process to others. If this lack is common both in students and professional practitioners, then it might be related to the only thing they share: education. Indeed, I argue that the lack of language is related to the way they were taught and the characteristics of the design studio. The activity of designing in the studio aims to generate solutions to design problems. The outcome of the design process is the answer to the design problem – the project. Reflecting on the design process does not mean finding answers to the design problem.

Instead, it means trying to understand where the problem comes from, and also trying to understand the experience of the design process as distinct from the products that come out of it. I think that the habit of talking and reflecting over the process of designing is not yet considered a common practice in the studio. Most of the training happens with tacit learning-by-doing approaches. In so doing, students focus on doing their projects, but without spending time on thinking what happens while they are designing. Forms of reflection on the design process do not seem to be part of the tradition of the design studio. Students are not taught to do that in

Figure 3: Survey number 2: 3 open questions to reflect on the idea generation process.

## Note

### Footnotes

- 1 Rivka Oxman, *Educating the Designerly Thinker*, *Design Studies* 20, no. 2 (March 1999): 105–22, [https://doi.org/10.1016/S0142-694X\(98\)00029-5](https://doi.org/10.1016/S0142-694X(98)00029-5)
- 2 Bryan Lawson, *How Designers Think*, Paperback ed. (London: Architectural Press, 1983).
- 3 Donald A. Schön, *The Reflective Practitioner: How Professionals Think in Action*, Repr. (Aldershot: Ashgate, 1983).
- 4 Donald A. Schön, *The Design Studio: An Exploration of Its Traditions and Potentials* (Riba-Publ., 1985).
- 5 During the observations I sat in the room among the students, in a position that allowed me to watch the class, both students and instructors, at the same time. The students were aware of being observed, and there was no interaction with them during this phase.
- 6 The names of the students are pseudonyms. Names have been randomized in order to preserve the gender distribution of the class.
- 7 Sheila and Lindsey.
- 8 Jennie.
- 9 The sample consisted of students from the fourth and the fifth year of the program, so they had experienced several design studios before this course.

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