



Creative Thinking as Part of Aesthetic Considerations in the Context of Procedural Theory

By Petra Thorpert, Asrar Emad Muhanad, Lilli Ly, Merel Smit, Rebecca Kjersem Larsen, Ida Stangnes, Majda Kadrić, Molly Karlsson, Anna Klerer, Julia Christell, Rexhina Hyka, Sonja Niedermaier, Carolina Sandberg, Emma Toth & Fanny Hejdström

Introduction

This factsheet is the product of the students' work with procedural theory in the course *Urban Landscape Design* during the spring term of 2025. The aim of the assignment is to reflect on and communicate urban landscape design working processes, by studies of creative thinking in the context of procedural theory. The transformation during the various phases in a design process may move from a broad context to detailed facts. According to Cross (2018), a frequent shift in attention or activity mood may influence the quality and overall result. By moving between rational/critical thinking and a flow of creative and intuitive flux, an essential give-and-take approach for a successful creative design process arises (Murphy, 2016).

The course *Urban Landscape Design* (LK0400) is an independent bachelor's level course focusing on design of urban green spaces, offered at the Swedish University of Agricultural Sciences, and run by the Department of Landscape Architecture, Planning and Management (LTV faculty). The course considers elements that, in various ways, affect the interaction between analysis and development of methods and concepts through studies of design theory, from sketching and doodling to the final design proposal. Landscape visualisation is an important theme throughout the course, and helps to increase the student's awareness of the interplay between contextual relations and concept development. The students are encouraged to apply experimental approaches, where analyses and evaluation are mixed with theoretical reasoning. The main aim of the course is to use different ways of working with design in the urban environment, and – supported by design theory and good examples – apply, document, and present design processes, both individual-ly and in group work.

The following abstracts and poster presentations present the students' thoughts and reflections through visualisations and descriptive text, and show attempts to verbalise

the sketching and doodling steps/phases and related mental activity during the design process. The assumptions made and described in this factsheet are based on literature studies of procedural theory, as well as on the students' previous experiences of the design process and through individual and group reflections and discussions.

The Animal Office – Navigating chaos to find clarity

By Asrar Emad Muhanad, Lilli Ly, Merel Smit & Rebecca Kjersem Larsen



The animals in the office are discussing how to design a city park. Each one brings different qualities to the project, and they get to know each other better. Afterwards, they analyse and research independently, exploring the problem from unique angles. This reflection, guided by research and personal experiences, deepens creativity and allows new ideas to emerge, strengthening the overall design (Daley, 1984). During the meeting the animals discover that the process is chaotic, they miss structure. They decide to do some fun team building by playing games. In that way, they make the work environment feel safer, which helps build trust, spark emotion, and inspire creative thinking (Daley, 1984; Lawson, 2005; Milburne & Brown, 2003). After that, they redefine and discuss the assignment and set clear goals for the project (Cross, 2018).

They continue the creative process with more clarity. They will be applying lateral thinking (solving problems using an indirect and creative approach via reasoning that is not immediately obvious; Lawson, 2005), make mind maps, do role-storming (wearing different hats), talk to locals, and do some rapid sketching. They are trying new ideas, looking at problems in new ways, and are being flexible after redefining (Lawson, 2005; Cross, 2018). They mix structure, curiosity and creativity, which leads to the creative breakthrough.

Testing ensures that ideas work, by turning concepts into solutions through different methods (Cross, 2018; Milburne & Brown, 2003). There has to be an openness to feedback, to transform good ideas into great ones (Murphy, 2016). The animals go outside to test their concept, and after some trial and error, they find their design solution. The tasks are divided up, and they work together and individually on the design. The creative process continues in this stage of the project and eventually they finish the project and present the final design.

Supportive references: Cross (2018); Daley (1984); Lawson (2005); Milburne and Brown (2003); Murphy (2016)

The Creativity Loop

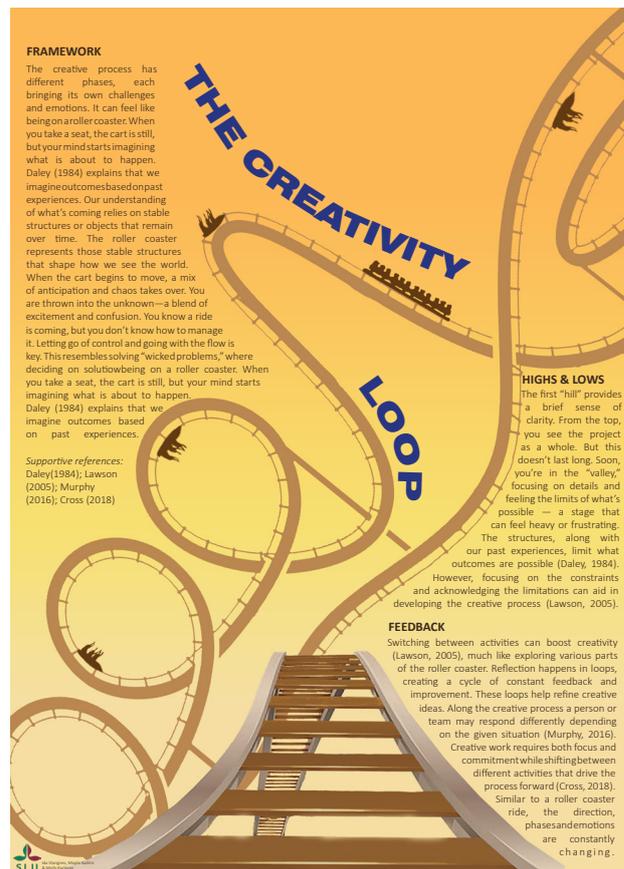
By *Ida Stangnes, Majda Kadrić & Molly Karlsson*

The Structure

The creative process has different phases, each bringing its own challenges and emotions. It can feel like being on a roller coaster. When you take a seat, the cart is still, but your mind starts imagining what is about to happen. Daley (1984) explains that we imagine outcomes based on past experiences. Our understanding of what's coming relies on stable structures or objects that remain constant over time. The roller coaster represents those stable structures that shape how we see the world. When the cart begins to move, a mix of anticipation and chaos takes over. You are thrown into the unknown—a blend of excitement and confusion. You know a ride is coming, but you don't know how to manage it. Letting go of control and going with the flow is key. This resembles solving "wicked problems," where deciding on solutions too early can lead to overlooking possible alternatives (Lawson, 2005).

Highs and lows

The first "hill" provides a brief sense of clarity. From the top, you see the project as a whole. But this doesn't last long. Soon, you're in the "valley," focusing on details



and feeling the limits of what's possible — a stage that can feel heavy or frustrating. The structures, along with our past experiences, limit what outcomes are possible (Daley, 1984). However, focusing on the constraints and acknowledging the limitations can aid in developing the creative process (Lawson, 2005).

Feedback

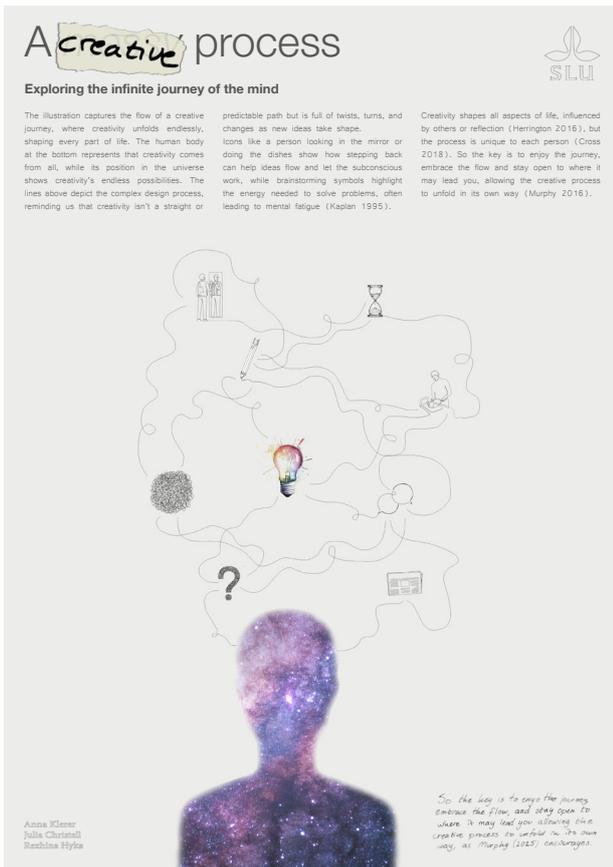
Switching between activities can boost creativity (Lawson, 2005), much like exploring various parts of the roller coaster. Reflection happens in loops, creating a cycle of constant feedback and improvement. These loops help refine creative ideas. Along the creative process a person or team may respond differently depending on the given situation (Murphy, 2016). Creative work requires both focus and commitment while shifting between different activities that drive the process forward (Cross, 2018). Similar to a roller coaster ride, the direction, phases and emotions are constantly changing.

Supportive references: Daley (1984); Lawson (2005); Murphy (2016); Cross (2018)

A Creative Process – Exploring the infinite journey of the mind

By *Anna Klerer, Julia Christell & Rexhina Hyka*

The illustration invites us to experience the flow of a creative journey, showing how creativity evolves without an end and how it shapes every part of our lives. The human body at the bottom represents the idea that creativity comes from each and every individual. The lines extended from the head are curving and connecting, to demonstrate the complex and ongoing nature of the design process, reminding us that creativity isn't a straight or predictable path but is full of twists, turns, and changes as new ideas take shape. Positioned within the vast uni-



verse, the body emphasises that creativity has no boundaries and that it can be inspired by anything, anywhere, and is deeply influenced by both the mind and emotions.

The icons in the poster symbolise different activities or stages. The “messy ball,” symbolising brainstorming, showcases the mental effort that is required to solve problems. This direct attention can lead to mental tiredness or burnout (Kaplan 1995), which is why the person doing the dishes is included to emphasise taking a step back and letting the subconscious mind work. The person looking in the mirror reflects the person evaluating decisions and letting new insights unfold.

Creativity, while powerful, can also be draining when we push ourselves too hard. Creativity is an important part of every aspect of our lives, shaped not only by our own thoughts, but also by interactions with others or through quiet reflection (Herrington 2016). The creative process is unique to each individual, with different approaches working for different people (Cross 2018), but also we need to remind ourselves that everyone can be creative (Hoffmann 2019). So the key is to enjoy the journey, embrace the flow, and keep an open mind about where it may lead you, allowing the creative process to unfold in its own way (Murphy 2016).

Supportive references: Cross (2018); Herrington (2016); Hoffman (2019); Murphy (2016); Kaplan (1995)

Creative Thinking – Building your design process

By *Sonja Niedermaier, Carolina Sandberg, Emma Toth & Fanny Hejdström*

“To have no method is bad. To adhere strictly to a method is worse still”

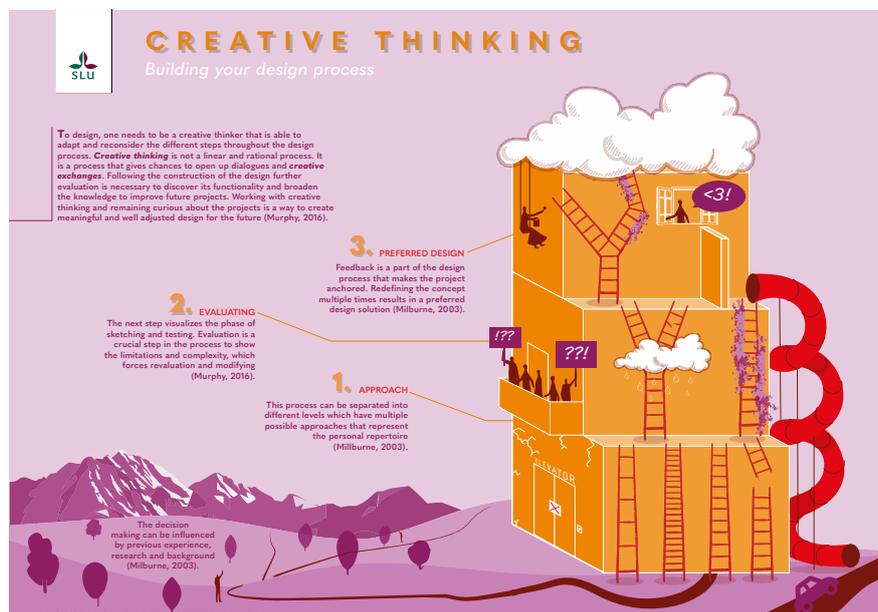
–Lao Tzu¹

This quote points out how difficult, if not impossible, it is to describe the correct process of designing. The designer needs to be a creative thinker who is able to adapt and reconsider the different steps throughout the design process. Creative thinking is not a linear and rational process. It is a process that gives chances to open up dialogues and creative exchanges (Murphy, 2016). The design process is dependent on gathering information about the site to ensure a well-considered approach. This process can be separated into different levels with multiple possible approaches that represent the personal repertoire. The decision making can be influenced by previous experience, research and background (Milburne, 2003). After coming up with different ideas, the next step visualises the phase of sketching, testing and evaluating while using creative thinking. Evaluation is a crucial step in the process, showing the limitations and complexity, which forces reevaluation and modifying (Murphy, 2016).

Establishing willingness towards different alternatives, and keeping an open mind, ensures a holistic perspective that allows the designer to reach the next step of the creative thinking process (Lawson, 2005). Even though it might seem like a step back, feedback is a part of the design process that anchors the project. Redefining the concept multiple times results in a preferred design solution (Milburne, 2003). Following the construction of the design, further evaluation is necessary to discover its functionality and broaden the knowledge to improve future projects. Working with creative thinking and remaining curious about the projects is a way to create meaningful and well-adjusted design for the future (Murphy, 2016).

Supportive references: Milburne and Brown (2003); Lawson (2005); Murphy (2016)

¹Chinese philosopher, 6th century BC



Conclusion

All the students' suggestions regarding the design flow underline to some extent creative thinking as a crucial mindset in the search for aesthetic considerations and design solutions. The role and importance of being creative as an investigative and communicative tool permeates the students' attempts to describe selected aspects of the design process. In this context, the design process facilitates testing, evaluation and clarification of the creative development (Hoffman 2019).

The presented works in this factsheet show different ways of describing complicated mental processes in which students emphasise ways to promote creativity and personal expression. According to Lawson (2005), changing direction of thoughts and adapting mental tricks during the design process can yield astonishing design results. Trying to describe the design process in clear steps can create false hopes for a clearly functioning model. All missions and locations are unique and require partly different processes. Using mental tricks as fundamental principles as part of the design process is often seen among successful designers (Lawson, 2005).

The abstracts and posters presented in this factsheet emphasise the importance of creative thinking and sketching in the design process, and discuss various ways of identifying the design problems and their connection with the design goals. As teachers on the course and practising landscape architects, we would also like to take the opportunity to thank the students for interesting and fruitful discussions about identifying design problems and their connection with accomplishing design goals. From the perspective of group activity and the task of working with a personalised process, the students have

performed well and been successful in demonstrating the ability to extract the principal ideas of Procedural Theory. Our expectation is that the theories and a critical examination through reflections and discussions in the groups have given all the participants buoyancy in their own assumptions or new signposts in the search for their own personal method.

For further information about the course

Urban Landscape Design, see

<https://www.slu.se/en/education/programmes-courses/course/LK0400/30239.2122/Urban-Landscape-Design/>

References:

- Cross, N. (2018). *Design Thinking: Understanding How Designers Think and Work*. London: Bloomsbury Academic.
- Herrington, S. (2016). *Landscape Theory in Design*. London: Taylor & Francis Ltd.
- Hoffmann, A.R. (2019). *Sketching as Design Thinking*. London: Routledge.
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology* 15 (3): pp. 169-182.
- Lawson, B. (2005). How Designers Think. *Architectural Press*, 200-2019.
- Milburne, L-A., Brown, R.D. (2003). The relationship between research and design in landscape architecture. *Landscape and Urban Planning*, 64, 47-66.
- Murphy, M. (2016). *Landscape Architecture Theory*. Washington, DC, USA: Island Press.

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