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Representation in a Reflective Culture of Landscape Architecture: Observation and Critical Thinking

Daniele Stefàno
Sapienza University of Rome, Italy

Abstract: Representation is more than a way to inform and design; it is a personal opportunity to think, which involves the whole mental and emotional activity. Considering that the interest in representation in the overall education system seems to be declining, the exposition has the intention to reflect on drawing as a tool for observation, interpretation, and critical thinking. All the more so in a period of significant social and environmental changes. Why is representation a unique opportunity to reflect? How does it make landscape architects particular observers of reality?

Key words: landscape architecture, representation, language, critical thinking, teaching

1. Introduction

In 1820, the German illustrator Ludwig Richter was in Tivoli, painting outdoors with some artists. He noticed that his friends' paintings all reflected their different dispositions of mind, even if they represented the same subject. After this, in his autobiography, he argued that individual interpretation is inevitable [1]. So why is representation a unique opportunity to reflect? How does it make each of us a unique observer of reality?

In the practice of representation, many processes occur. First, we can say that when we represent, we see reality in order to understand it. Since the time of Leonardo da Vinci, representation has been a way to investigate natural phenomena; it is an approach that characterized the design attitude in the modern age. Second, by drawing and sketching, we acknowledge things we usually would not. Many architects, such as Viollet-le Duc, Le Corbusier, and Jellicoe, among many others, realized a considerable quantity of sketches, especially during their travels. In this case, representation is also an intellectual and emotional elaboration of physical and cultural contents [2].

Moreover, in the practice of drawing, we improve critical and individual interpretations of reality. Jean Piaget claimed that the representation of space, since childhood, is an act of intervention and signification. Instead of reading object properties, the intuition of space is an action exerted on them.

Then, Rudolph Arnheim has shown the cognitive process that occurs through drawing from the psychology of perception. In his theory, perception is identified with thinking, as it makes us consider representation as a particular way of reasoning [3].

We know as well that sketching has constituted the culture of landscape architecture since the beginning. As William Gilpin stated, "The art of sketching is to the picturesque traveller what the art of writing is to the scholar. Each is equally necessary to fix and communicate its respective ideas. [4]" Let us also consider Humphry Repton and his Red Books with numerous handwritten sketches and illustrations.

The value of representation is evident in landscape architecture in acquiring notions and details personally. The knowledge that landscape architects create in this

Corresponding author: Daniele Stefàno, Ph.D. Candidate; research area: landscape and environment. E-mail: daniele.stefano@uniroma1.it.

sense comes from the intention to experience cultural and ecological phenomena in a new possible trend. We have a clear demonstration of that in the work of Jacques Simon. Simon thought the sketch an integral part of the project, and it was, for him, accurate reading and synthesis of reality, which allows us to retain more than what simple observation allows [5].

2. Material and Methods

This text intends to understand the evolution of contemporary languages of representation applied to landscape design and its consequences on teaching. This is considered a field of investigation full of possibilities for experimentation, so it is worth investigating and understanding which directions to invest the time of research (Fig. 1). Above all, we try to understand which direction teaching should be oriented to support students in a conscious use of visual languages.

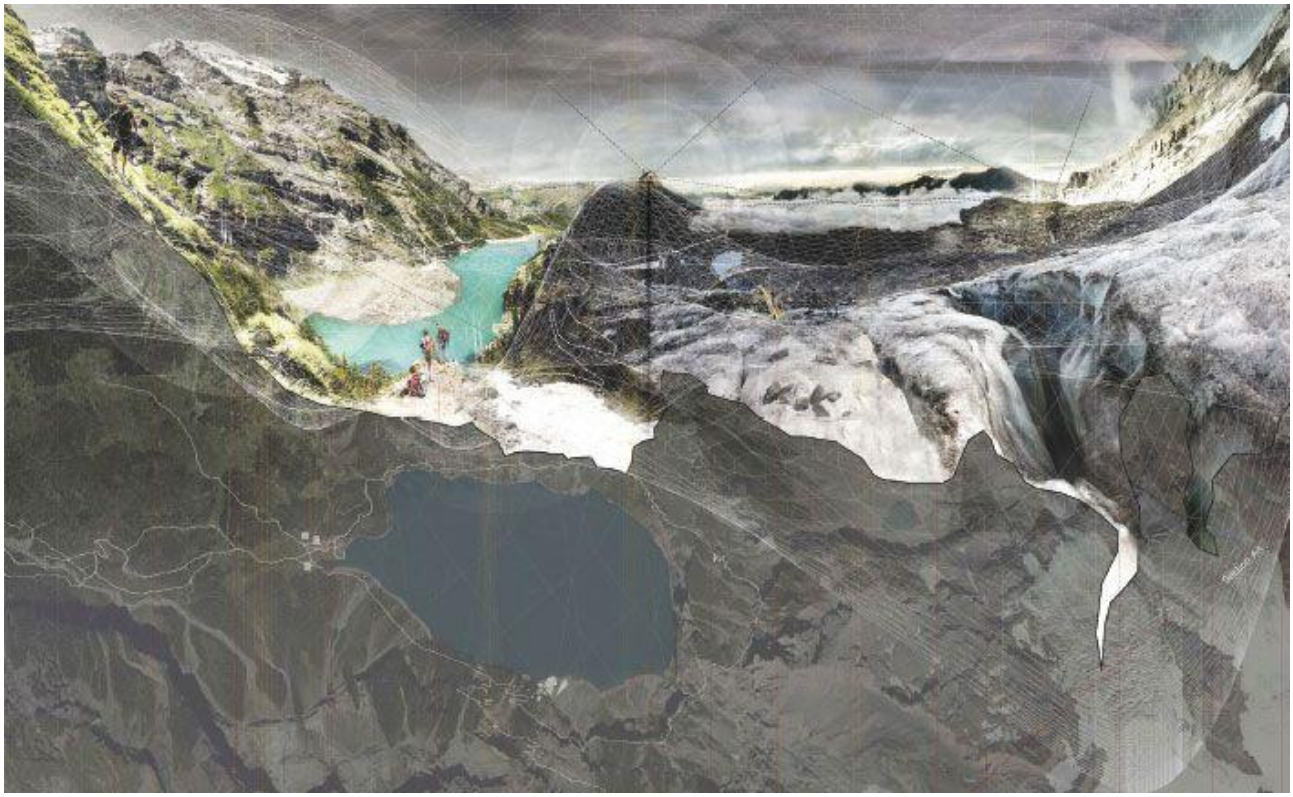

Fig. 1 Jessica Luscher, "The radiographic section".

The visual approach in conceiving the landscape and designing it cannot be based only on the mere observation of a beautiful view and the understanding of its aesthetic value. This, in turn, inspires a semiotic discourse, that is, a visual language that uses the signs of the territory to compose scenarios that, in this way, become meaningful.

Consequently, the article aims to analyze several recent studies carried out in the field of representation and education in order to understand their relationships and to be able to define them as crucial in teaching. The examination will allow us to connect the potential of experimentation in landscape architecture to a theoretical basis on cognitive processes related to teaching.

Therefore, in such a vast field, it seems appropriate to question ourselves in order to provide landscape architecture students and young professionals with orientations and not only tools. Considering this, it seems appropriate to convey the attention of research and teaching in developing tools that allow the full development of the skills necessary for the discipline.

How can we, therefore, implement interest and attention towards representation to continue to structure this relevance within a holistic vision that aims to understand the world's phenomena and consciously interpret them in the landscape project?

3. Results and Discussion

Today, it seems that sketching remains the best and most direct way for designers to portray their ideas, as it can provide immediate visualization of ideas as they are conceived and convey information much more efficiently than language. Therefore, qualitative studies in which designers were working on a visualization design problem were conducted to understand how the effects of sketching support design creativity, showed that sketching supports critical steps in the design process.

Tom Page of Nottingham Trent University investigated the preferred method of representation of design students and examined the relationship between effective communication and the use of manual and digital sketching. The study concludes that senior year students currently prefer manual over digital representation as an essential part of the design process [6].

In addition to that, the study conducted by Euisuk Sung, Todd R. Kelley, and Jung Han, *Influence of Sketching Instruction on Elementary Students' Design Cognition: a Study of Three Sketching Approaches* (2019), is worth mentioning. It shows the importance of sketching as a critical element of design thinking in the design instruction phase, as it facilitates the connection of hands and minds. In the study, the authors make relevant observations about teaching sketching. For example, the results showed that teaching young students the strategic use of schematic symbols helped generate high-quality design sketches and effective communication. The group that used sketching techniques also produced quality work with more varied design strategies than the others [7].

However, teaching often focuses heavily on technical drawing rather than strategic drawing. In *What Is the Role of Observational Drawing in Contemporary Art & Design Curricula?* (2011) Michelle Fava notes a decline in interest concerning drawing in teaching. Indeed, drawing for conventional purposes seems to be no longer essential. It seems that there is less importance and attention to these processes and visual education in teaching today [8]. Again, Michelle Fava, in *A Decline in Drawing Ability?* (2019) demonstrates how the teaching of drawing has changed over the past generation and is based on the experiences of students, teachers, and examiners [9].

The research is interesting because it examines students' and educators' attitudes and values and reveals that in the United Kingdom, for instance, drawing skills are considered to be in gradual decline. Nevertheless, drawing as a means of visual recording, representation, and communication remains valued, although it is not as essential as it once was.

She explains that drawing to facilitate the thought process is increasingly recognized as a skill that brings innovation, but this is rarely taught. Instead, this process relies on skills that many teachers fear will be left out.

The increasing value must be placed on drawing as a process, as dispositions move toward individualized instruction, requiring students to work independently. Fava's study reframes the problem as an imbalance between creative achievement and creative process, with a disparity between schools and universities. It also places a renewed emphasis on drawing as a process for college and considers the fundamental skills underlying drawing as a thinking tool.

From this point of view, interesting is the research *Drawing Connections: New Directions in Drawing and Cognition Research* (2013), conducted by Brew, Kantrowitz, and Fava, on how our understanding of the interactions between drawing and cognition is expanding and how this defines new directions in drawing research and development. The article - a

research activity related to the *Thinking through Drawing* symposium (2011/2012) — examines the emerging field of drawing and cognition studies, outlining its current scope and summarizing key research elements and their relationships [10].

This is just a tiny quantity of studies, between many others. However, the growing understanding of the cognitive function of drawing is producing relevant knowledge and practical results. In particular, we will consider the educational applications of this new knowledge, which go beyond the development of general cognitive skills.

We can assume that representation involves a highly complex cognitive process that fulfills the functions of a language. We recall what has been demonstrated by Howard Riley, a contemporary perception theorist, who points out that the designer selects and combines different elements to communicate experience by drawing documents and consolidating information. Again, that representation fulfills the functions of a language [11].

A picture, a sheet of paper, should not be thought of as a two-dimensional, flat, aestheticizing, and superficial replica of reality but as an opportunity for human beings to understand, control, and shape something enormously vast and uncontrollable. As Ásthildur Jónsdóttir suggests, representation must be conceived as the window that interprets the world [12].

If studies in design pedagogy have shown that students' progress improves through the development of artistic activities, it is incredible to glimpse a reflection and mirroring of the representation's finest emotional and intellectual qualities. This is why current research has not stopped at the first gestalt theories developed in the twentieth century, which were also innovative, but has continued to analyze the links with neuroscience and educational theory. The window that interprets the world allows for the intimacy of self-reflection and expression. This is enough to make us consider representation with greater attention, where the holistic approach considers the disciplines in the relationships between the individual components and as a whole. It would be desirable for these themes to be taken into account more and more often in teaching.

Today, representation plays a crucial role in conceiving the world and its complex and articulated transformations (Fig. 2). The most interesting current challenge is precisely represented by the contamination with the digital world and what representations and illustrations can produce. Thanks to this, it is possible to glimpse a landscape architecture that manages and controls a greater quantity of data, giving it a greater possibility to transform reality in a consistently precise and effective way.

In particular, representation allows us to understand and critically reason about aspects of reality in landscape architecture. As a result, drawing, sketching, and illustration become fundamental tools of awareness. This interactive component mediated by the sheet and the sketch also emerges as a fundamental process for contemporary authors and designers (Fig. 3).

Fig. 2 Ponnapa Prakkamakul, Graphic palette to illustrate varying light scenarios of the same place.

Fig. 3 Erik Jensen. Illustrative plan demonstrating a possible future melded with a map of the present.

4. Conclusion

One of the crucial aspects to consider is the role of representation as an element of self-assertion for students, who can develop sufficient critical independence in understanding phenomena and communicating personal ideas. Moreover, since, in most cases, students find employment in fields where representation and visualization of projects are crucial steps, the expressive and communicative aspects remain where it seems most necessary to bring study and innovation.

In particular, communication is the most important skill to focus on in teaching, and it can relate to project communication and interpersonal communication. As said, in such a vast field, it seems appropriate to question ourselves so as to provide landscape architecture students and young professionals with orientations and not only tools. In considering this, it seems appropriate to convey the attention of research and teaching in elaborating tools that fully develop the skills necessary for the discipline. Furthermore, it means spreading a culture of landscape design, communicating its values and possibilities, and reaching large segments of the population.

In conclusion, in the discipline of landscape architecture, representation allows for recognition, understanding, and critical reasoning about aspects, and therefore drawing, sketching, and illustration becomes a fundamental tool of awareness. This interactive component mediated by the sketch also emerges as an essential process for contemporary students and designers.

It is essential to refer to the concept expressed in Caroline Lavoi's research that representation is an awareness tool applied to understanding landscape phenomena:

"Drawing in the landscape creates an awareness of the place, a distinct form of information gathering and understanding the landscape setting. [...] The act of awareness in drawing involves our imaginative perception of space, as reflected in our cultural identity and with our physical senses. For instance, the perception of space, framing a view, and defining its boundaries are critical dimensions in design. However, drawing is also just as much a response to our cultural identity. Thus, each drawing is a unique reconstruction of one's perception of space, a critical aspect of how one proceeds with visual research. [13]"

That is why representation is a unique opportunity to think and reflect, making landscape architects particular observers and interpreters of reality.

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