



Rethinking Sketching Role in Nowadays Design Process

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Abstract. Since everybody is typing on computers and tablets, should we maybe focus upon typing rather than writing? Questions like these make explicit not only a change in culture but also how to deal with new technologies in a rapidly changing society. The question entails much more than typing versus handwriting. Learning how to write is learning how to organize and form thoughts and ideas on a sheet of paper, through a brain process. Handwriting connects thinking and doing which is an inherent part of mankind. We can raise similar questions regarding freehand drawing within design education. Once, physical drawing and sketching ruled all design curricula, because at that time there was no alternative. However, nowadays, with the several options new technologies can offer, we must reconsider the several functions of hand drawing within the design process. Designers conceive and develop solutions for problems that are of different nature. Sketching can be an operative support for problem solving and critical analyses during the design conceptual process. This research intends to investigate if the nowadays wide use of the new technologies does not invalidate the important role played by sketching as a stimulating instrument for generate new ideas and as a critical verification of the several hypotheses. Sketching survival facing new technologies is a main issue we want to discuss and investigate.

Keywords: Educational design · Drawing · New technologies · Design process

1 Introduction

The conceptual process of most designers is usually based on sketches. There is a deep relationship between design and sketching. The essential question of determining if sketches can be the key of the design process constitutes the starting point for a postdoctoral research project about the relevance of the use of hand drawing in the design practice. In this paper, we present the first stages of this research.

Given that sketching has been traditionally used over the centuries is sometimes seen as an outdated method for design. Tradition is often presumed to be ancient, unalterable; sketching is sometimes considered in this sense, but in reality, its use has evolved and expanded. Nowadays is widely used by various areas of knowledge and

professional practice, surpassing the previous and restricted use only by areas linked to the fine arts and the project such as architecture, engineering and design.

This research aims to stimulate reflection and bring new perspectives on the nowadays use of sketching, underlining sketching survival and relevance facing the new technologies growing importance.

2 Sketching

The word Sketch, deriving from the Italian Schizzo, has its origin from the Latin Schemium, which derives from the Greek Skhedios, both meaning done extempore: done without preparation, improvised [1].

According to the Oxford English Dictionary [2], the word Sketch means: “a rough or unfinished version of any creative work” and to the Cambridge English Dictionary: “a simple, quickly-made drawing that does not have many details”.

Therefore, the word Sketch describes a quickly made drawing and its intention is to give a general overview or the guidelines of something, in relation to the intended final shape or figure, a rough drawing representing the chief features of an object and often made as a preliminary study.

People have been sketching for a long time, but, with the advent of digital drawing tools, Hayden Mills [3] tries to answer why some people still prefer to sketch with a pen, or a pencil on a paper. He concludes that, in the first place, sketching gives a place to start: many creative professionals begin with a pen and paper. The process of thinking through sketching helps them getting their creativity flowing. Besides, it helps everyone to document the process. Early design process ideas come and go, sketching forces to shift the ideas into paper, helping to document those ideas in real-time as they arise in few seconds (Figs. 1 and 2).

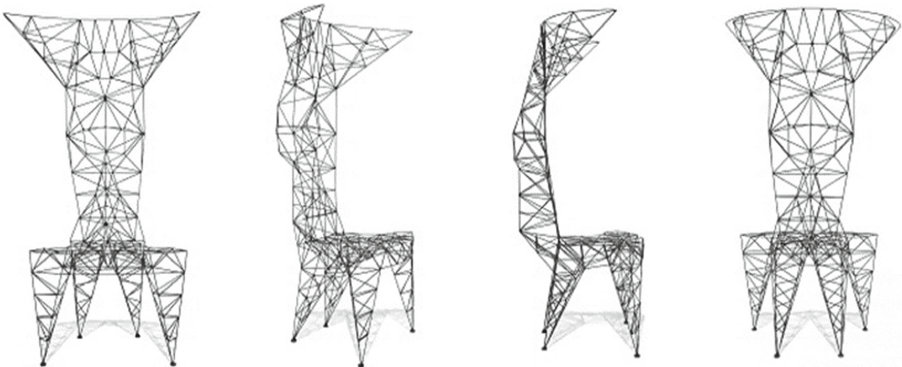


Fig. 1. Tom Dixon’s Pylon chair sketches (1995). Source: [<https://www.switchmodern.com/product/tom-dixon-pylon-chair/>]

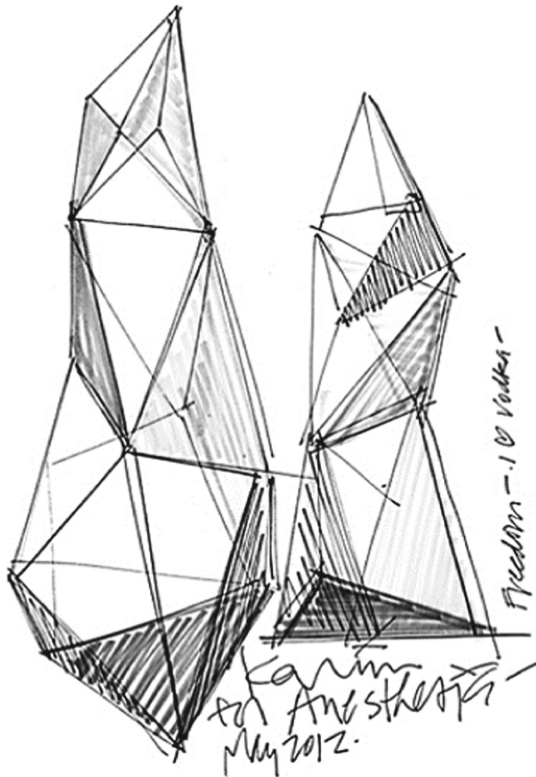


Fig. 2. First conceptual sketches for a vodka bottle by Karim Rashid (2012). Source: [<https://www.dezeen.com/2013/10/18/vodka-bottle-by-karim-rashid-for-anestasia/>].

Several authors' statements about the relevance of sketching consider it as an essential tool in design creative processes.

Gabriela Goldschmidt's studies [4] point out to drawing as an integral and inseparable part of design thinking. The author argues that the act of sketching is broader than a technique or phase, representing the way designers reflect through visual exploration. This way of facing drawing as reflective practice is similar to Donald Schön's arguments [5].

According to Van Der Lugt [6], sketching is a valuable tool in creative teams, validating brainstorming, materializing concepts, externalizing the various ideas that float in different work teams. It acquired a more comprehensive and broad meaning, but one of its basic principles remains: to communicate and to develop ideas. For this author, the visual language triggered by sketching is part of the designer's communication process and can be defined in four guidelines: investigate, explore, explain and persuade.

As Kevin Henry argues, sketching continues to be the most direct and quick method for designers to explain and explore ideas [7] (Fig. 3).

which hand drawing can explain and describe the intangible. In this article, Tilley concludes that this development in the form we face drawing might be considered at the heart of a change in the perception of the drawings growing relevance, and why by 2000, drawing had become to the new millennium what digital media was to the nineties – an exciting and innovative force widely acknowledged for its infinite possibilities. Nowadays, we are still trying to define what drawing really is, and, imagine what it might become in the future.

For Hamilton [11], through the process of sketching we can continuously express and create, linking together new ideas with technical expertise, increased by the assistance and interaction with new technologies.

Domingos [12], in his book, *The Master Algorithm* writes about the great advances of Artificial Intelligence and its promising future, but he argues that Artificial Intelligence is not yet capable of creating something real new which is the unique and extraordinary capacity of Human Creativity.

Automatic Learning based on Artificial Intelligence can increase our data and generate numerous learning components and, therefore, can be very useful to generate creativity through knowledge; however, creativity is a special skill that, for now, it is a unique and intrinsic part of the Human Being. Machine Learning, however, can help to find more accurate foundations and research findings for the creative work [13].

For Mike Rohde [14] the use of sketches during the first stages of the design process is an excellent way to increase creativity, adding in the final stages of the project the useful application of software and hardware tools (Fig. 6).



Fig. 6. Cey Adams pencil sketches for a Google Doodle. (2017) Source: [<https://www.businessinsider.com/new-google-doodle-honors-hip-hops-history-2017>]

At Google, despite being a high technology company, artists typically use sketches to create a new Google Doodle.

Roome [15] states that the cross-pollination between traditional and digital platforms is extremely beneficial.

For Joshua Brewer, senior designer at Twitter and UX designer, the real value of sketching is that it allows exploring and refining ideas in a quick, iterative and visual

manner. Rapid ideation flow and interact, layout and hierarchy can be quickly established, rearranged or discarded, all of this without ever touching a computer [3].

3 Conclusions

This study demonstrates that sketching has been undergoing mutations, changing the vision and concept about the use of sketches, opening doors to rethinking sketching role in nowadays design process.

We can conclude that it is possible to combine the two main roles performed by sketching forming a more intertwined relationship. One perspective is ‘visual thinking’ about the reflection that the designer makes during the conversation with his own sketches. Another perspective is ‘visual communication’, exploring sketching as a means of communication with others during the creative process.

In creative teams, sketching is a valuable tool, validating brainstorming, materializing concepts, externalizing the various ideas that float in different work teams.

One of the main features of sketching is the speed and easiness of communication combined with its universality. Hand drawing is fast and easy, it gives freedom to explore ideas as quickly as they arise, it helps problem solving faster.

Sketching is a visual thinking tool and is a common language that can bring clarity to an idea. We all know that a simple drawing can be more clarifying than an explanation in words.

Nowadays, the wide use of sketches by designers during their creative process clearly shows the continuous importance of hand drawing, particularly in times dominated by new technologies.

We can also conclude that new technologies can be very useful for designers, saving much time, facilitating practice tasks, even becoming indispensable in some design process phases. However, they do not replace sketching, especially in the initial stage of recording the first ideas and during their subsequent development by incorporating a critical dimension in design’s creative process.

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