



SKETCHING AS DESIGN THINKING

Alma R. Hoffmann

ROUTLEDGE



SKETCHING AS DESIGN THINKING

This book argues for the importance of sketching as a mode of thinking, and the relevance of sketching in the design process, design education, and design practice.

Through a wide range of analysis and discussion, the book looks at the history of sketching as a resource throughout the design process and asks questions such as: where does sketching come from? When did sketching become something different to drawing and how did that happen? What does sketching look like in the present day? Alongside an in-depth case study of students, teachers, and practitioners, this book includes a fascinating range of interviews with designers from a wide variety of backgrounds, including fashion, user experience, and architecture.

Sketching as Design Thinking explains how drawing and sketching remain a prominent aspect in our learning and creative process, and provides a rich resource for students of visual art and design.

Alma R. Hoffmann teaches graphic design at the University of South Alabama. She is also a contributing editor at *Smashing Magazine*. She freelances and practices lettering and calligraphy. She has received several awards for her work, has written several articles, and presents her research on creativity and sketching at international and national conferences.



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Each accomplishment is the result of a net knitted by those whose hands and love support us. I dedicate this book to my children, Aramis and Marisol. Curiosity has been a door opener for me and that includes this book. May you never stop asking and wondering, what if I did...? To you, my mininos, because it is and it has always been about you. I love you to the moon and back and back again. To the man who supports me and loves me, Tyson, you are my home.



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INTRODUCTION

My fascination with sketching started years ago. After teaching at a junior high school for almost five years, I went back to college to study graphic design. At that time, the discipline was transforming itself from a completely analog process to a digital one. The adoption of the computer in design schools indeed revolutionized not only the education of a designer, it also changed the industry. I was a computer novice. My education in the fine arts was traditional: paper, pencil, acrylics, pastels, collages, photocopy, ink, pens, T-squares, and compasses. I felt lost in a world where the software was taking over. I resolved to use my strengths and slowly learn to use the computer while doing what I did best: researching, conceptualizing, and sketching. I learned that thinking skills are more powerful than software, but the software allows me to move faster. In this process, I became fascinated by my classmates' sketches as well as my own. Each one of us had a particular way to express our thoughts. Later on, as I started teaching at college, I observed that the strongest students in the class were those who would take the time to think through sketching. My fascination and intrigue with sketching grew through the years of teaching. Sketching can serve many purposes: communication, note taking, problem solving, diagrams, as preparation for a larger work, a study of specific parts, as is the case in figure drawing, or it can simply be an act of quick journaling of ideas. It can almost be called the kitchen of thoughts and ideas. Lines and shapes are in constant flux, creating and morphing to fulfill their creator's intentions and goals.

Though sketching is and has been a crucial and vital step in the design process, sketching is not usually taught at schools. There is no class titled "Sketching" that I know of. Rather, it is something that it is quickly demonstrated in a drawing and/or design class. Drawing, on the other hand, is not only taught everywhere,

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but there are several types of drawing classes: still life, figure drawing, landscape, etc. And yet, sketching requires less skill and commitment from the artist and/or designer than an elaborate drawing does. Some designers, such as architects, fashion designers, and industrial designers, share similar visual vocabulary among their disciplines. Graphic designers, unless we are designing a website for which there are templates called wireframes, don't necessarily have a shared visual vocabulary. Perhaps we do not have a shared visual vocabulary because we have not created a class dedicated to learning to sketch ideas. A visual vocabulary is necessary in order to move faster through the ideas, but I often saw myself struggling with developing one for myself.

Sketching can also be seen as the playground of ideas. But it is a playground of the ideas of many people. We do not have to be artists or designers to learn to sketch or to draw simple basic shapes to express an idea. However, we need to be willing to externalize those ideas visually. We need to be vulnerable. The reality is that we are all capable of designing. Perhaps not with all the same level of brilliance, but as members of the human race, we are thinkers, problem solvers, and creators. An idea is like the wind. It comes and goes. Without a record of it, it will be lost. At times the wind blows strong, almost demanding to be put down and captured. Other times it is a pleasant breeze that lingers in the mind. In either case, the idea will keep traveling until it finds a captor, an idea catcher, a net, and a refuge to flourish. That is what sketching does. It is the means through which we give an idea a passage into the physical world to live.

My own experience as a former student has helped me to appreciate sketching as a type of laboratory where ideas coalesce to become a reality. Some will be a good reality and others will be a not-so-good reality. Sketching as design thinking is simply the willingness to work out ideas and concepts with our hands and tools. Similarly, to what our ancestors once did on caves: through sketching we externalize our thoughts to the world, make connections, invent, formulate solutions, and improve our lives by making something that was not there before or improving on what was. Moreover, sketching is an essential component of design thinking. It is a vital step in a methodology of searching for solutions and applications in which aesthetics are important but so is smooth functionality for its intended audience. Sketching provides the designer a physical bridge between the intended goals, audience, and stakeholders.

In the art and design field, the act of sketching is ubiquitous. It is a common, if not daily, activity among designers and artists. Even amidst the digital revolution we are experiencing, sketching, as a form of drawing, maintains a position of importance as an efficient and cost-effective way to visually communicate with each other. In a way, the digital revolution has amplified the relevance of sketching by the introduction of devices that aim to close the gap between it and a pencil, a brush, a marker, and a sketchbook.

This book explores sketching as a conduit of thought or the channel through which our thoughts become a visual and physical reality. Because sketching allows

the designer to explore, even mistakes can be the catalyst for a new and unforeseen idea. Edward Hill, author of *The Language of Drawing*, says, “Consuming projects from small ambitions grow” (iii). After a year working on this book, I can see the truth of these words. One morning, I sat at my kitchen table and in a surge of inspiration outlined the entirety for the content for this book. Since then I have been researching as much as is related to sketching and drawing that I can. I still feel there is a lot more to read and understand about sketching. How does a humble and unpretentious activity like sketching have so much depth and scope? Sketching is in many ways a window to someone’s soul, to someone’s heart, to someone’s perspective, to someone’s values, and to someone’s mind. Studying a sketch is like reading the mind of the person who made it. I wanted to understand this process better.

Sketching as design thinking is to explore ideas on paper or a tablet with the audience’s needs in mind. Design thinking however, is not limited to sketching. Sketching is one step of a process that can be best defined as an unpredictably predictable series of actions to either solve a problem or communicate with others. That is, of course, more in tune with the applied arts or design fields: interior design, architecture, graphic design, etc. Fine artists also think through the process of sketching. There is a need to compensate for our limited memory capacity. Thus, ideas that are made visible and physical on a surface have greater likelihood to reside in our long-term memory, and therefore the sketch becomes a catalyst as well as a mnemonic device. This is what I intend to explore when I refer to sketching as design thinking.

In order to understand how sketching became such an important means of design thinking, we will briefly discuss the history of sketching and how and when the terms sketching and drawing acquired different meanings in Chapter 1. In Chapter 2, we will discuss the effects of sketching on our mind and how the brain processes visual information and its relationship to sketching. In Chapter 3, I share the interviews I had with 12 designers in different design fields: architecture, car design, fashion design and illustration, user experience, graphic design and graphic recording, and 3D design. The interviewees include Mike Rohde, known for coining the term sketchnoting and author of *The Sketchnote Handbook*; Eva-Lotta Lamm, user experience designer and well-known for her visual note-taking practice; a professor of animation from the University of South Alabama, where I work; and an architect and politician from North Carolina. Each interview offers significant insights into the mind of these designers who often share how they see sketching and visual thinking as a metaphor for life. In Chapter 4, I talk about the purposes, attributes, and types of sketching based on how I teach my students to sketch. Chapter 5 contains exercises to help us think in shapes as a way of abstracting what we see, and the tools I recommend practicing with. And last but not least, the report of the survey I conducted in 2017 titled, *Exploring Beliefs and Practices about Sketching in Higher Education and in the Design Profession*. I collected the responses of 320 participants from different parts of the world.

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The survey provided me with a clear picture of the state of sketching in general among design students, design educators, and design practitioners.

For me, this book is the beginning to understanding the relationship between the mind and sketching or drawing. Writing the book has made me hungrier to re-learn drawing and practice it more to become a better thinker. I hope this book inspires you, too: to become a design thinker who sketches.

1

SKETCHING

A short history

To understand the development of sketching as design thinking and how it is used today, we need to look back to the beginnings of graphic history, art, and design. Researching how sketching surfaced and became an idea generation tool is complex. In part because sketching has often been linked to doodling and other modes of record making such as writing, calligraphy, lettering, and scribbling. Thus, differentiating when sketching became distinct from drawing can be difficult. The definition of each term presents both advantages and disadvantages as some focus on the outcome of each mode instead of the process of making a mark and its source. Peter Medway, however, offers a definition that I find most helpful. He states:

Drawing covers a range of practices and products. The latter range from impressionistic sketches to finished pictorial renderings, used particularly for persuasive presentations to clients or competition judges; and from diagrams showing, for instance, the mechanics of a seal between a window and wall, to working drawings.

(Medway 1996: 35)

The beginning

The history of sketching is intrinsically linked to the history of drawing. Sketching, as a form of drawing, can be simple, detailed, and layered in order to explore, communicate, study, notate, record, think, and reflect on a subject. The designer's and/or artist's intentions would determine the style, purpose, and function of said drawings. These forms of drawings are known among designers and artists as a preliminary step in a design and/or construction of visual and physical artifacts that aim to communicate, provide, improve, and facilitate the manner in which we, as a society, live. Humankind, however, has been drawing

since the beginning of civilization: on caves, surfaces, tools for their daily life, etc., in order to communicate, connect, or record events. Before we, as a civilization, learned to write, we were drawing to communicate. Thus, we can suggest that sketching and/or drawing, as a visual representation of thought, is to art and design what writing is to language. If drawing has been a mode of language and representation of thought, how did these drawings become sketching, a preliminary step before a composition, a problem-solving tool, or a tool through which we designers think? Archeologist and paleoanthropologist Louis Leaky asks similar questions when he states the following:

How and why did it first occur to man to make images of parts of his world? Did plastic or graphic arts come first? The answers to these and kindred questions can, at best, be no more than guesses. Nevertheless, it is certain that the mere making of an image proclaims its maker human. Such an achievement is even farther from the powers of a pre-human animal than it's the shaping of a tool or articulate and purposeful speech.

(Leaky 1956: 144)

To borrow from the words of John Heskett (2005), the history of sketching is, like the history of design, a heavily layered process in which each step forward borrows from the previous one, adapts old tools, and invents new tools as needed. He defines design as an act that, “stripped to its essence, can be defined as the human capacity to shape and make our environment in ways without precedent in nature, to serve our needs and give meaning to our lives” (Heskett 2005: 5). And an inherent part of the design process is the act of sketching in order to think about the designs that will shape and make our environment, serve our needs, and give meaning to our lives. Henderson states that sketching is “the real heart of visual communication” and “essential to getting ideas across” (Henderson 1998: 27).

In early civilizations, as Heskett indicates, the most “crucial instrument was the human hand” and any tool (clam shell, claw, sticks, etc.) was simply an extension of the functions of the hand (Heskett 2005: 9). Eventually, in a process of trial and error, humans would improve on these simple tools. These tools would in time improve, or new ones would be created. Back then, this process probably relied on word of mouth as opposed to written and visual representations. In our day and age, new products, techniques, and improvements of an artifact rely on documentation—notes, drawings, sketches, etc.—to support the ideation and record of development. We are, after all, according to Heskett, not much different from our ancestors, facing similar human dilemmas: how to sustain our creative and thinking processes in order to improve our lives?

The terms “drawing” and “sketching”

The terms “drawing” and “sketching” have been used and continue to be used interchangeably in the literature of the history of art and design.