

# Sketch is part of design and Semiotics

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**Abstract:** This paper looked at the role of sketch in relation to design. It is found that sketch, is not only a tool for representing idea but also can be a link between creation and communication for developing idea, especially in the stage of ideas development.

An experiment of asking design students to transform from a figurative drawing of elephant to product design sketches was carryout. Data gained from the experiment was summarized and analyzed.

Major findings from this experiment include:

- (1) Sketch or drawing process of the transformation between signs, in this case is the figurative drawing of elephant and the abstract forms of designed product, is the main focus of the theory of Semiotics.
- (2) Sketching by lines is easier than by using coloring in initiating idea development.
- (3) Through sketching it is possible to transform the original meaning gained from figurative drawing to new meaning of the intended product design.

**Key words:** *Sketch, Drawing, Product design, Semiotics*

## 1. Introduction

Few designers would deny the importance of sketch in the professional discipline, especially when design needs to be communicated or to be presented. This research argued that, in addition to the communication value, sketch in design is an underlying process of creation, and is a system of making signs, in the aspect of semiotics.

## 2. Literature Review

Being originally defined as a discipline of studying the meaning of sign, contemporary semiotics has been developed as a field of studies of meaning of designed objects [3, 9]. The studies of meaning of designed objects initiated various focuses, such as the usage meanings [2, 5], the symbolic meanings [6, 7] and the appearance meanings [9]. In spite that there are different aspects to be addressed, the common approach of these aspects is

that the nature of design has to be seen as the signification model in terms of Semiotics: the designer is seen as the creator of the sign, the designed object seen as the sign, the user is seen as the receiver of the sign [4,11,12].

According to Pierce (1935) [10], a sign is a compound of a signifier and its signified. Signs can be classified in three groups, namely, the index, the icon, and the symbol. The indexical signs exist in direct or causal relationship between the signifier and the signified it stand for. For example, footprints are indexical signs of an earlier presence and smoke can be regarded as that of fire. Levers, wheels and knobs reveal the causal meanings of pulling, and turning; they can also be seen as indexical signs. The icon is a sign that bear a resemblance of the things it signifies. Therefore, the iconic signs have certain characteristics in common with the objects they signify. Some toilet signs use figures of man and woman to differentiate the toilet rooms for man or woman.

Unlike the icons, the symbolic signs represent an object not by resembling outline, but by applying agreed convention. A symbolic sign is also unlike an indexical sign; there is no direct or causal relationship between the signifier and signified. For example, the red color can signify various meanings in different cultural contexts.

Ashbin [1] claimed that drawing can be regarded as the system of making signs. A simple sketch of a light bulb is making an icon sign to signify what it is; a sketch of a handle is making an indexical sign to signify how it is operated; and a sketch of a logogram is making a symbolic sign to signify nature or originality of a company. Although Ashbin used functional aspect to investigate the outcome of various types of drawing or sketch in relation to design, however, empirical study of sketch in relation to the so called “making signs” had not yet been studied. Therefore, this study intended to look at how designers make their decisions in sketching and what would be affected when meanings are embodied by their sketch.

### **3. Method**

As mentioned, this study wanted to find out the meaning embodied product process and responses caused by sketching. The subjective study observation of experience rather than laboratory experiments was adopted.

Five third year students in the product design department of Asia University, who had matured skills of sketch and drawing, were invited to participate in the study. They were required to use color pencil to draw a figurative drawing of elephant and then use it to develop the forms of a product. The types or features of the product were not confined. Participants were encouraged to use inspiration or interpretation from their preferred forms of existed products when after making each of their figurative drawings.

The experiment was carried out in ten minutes every day, lasting for one week. The notes, verbal responses and works made by the participants were collected for further analysis.

### **4. The findings**

The significant finding from the experiment is that lines used in drawing or sketch play an important role on expressing iconic, indexical and symbolic meaning. When drawing or sketch is once initiated, the system of marking ideas through iconic, indexial and symbolic elements is started. The line, color, texture are commonly used ways in sketching. It is found the ways of sketch in their nature are containing marking signs. Using lines to sketch gives the students, in the experiment, much more inspiration of enhancing imagination. It is assumed (yet to be confirmed) that human started to draw by using line. This way of expression is accustomed. An accustomed way in attempt to express emotion will be easier than other ways (Fig. 1, Fig. 2, and Fig. 3).

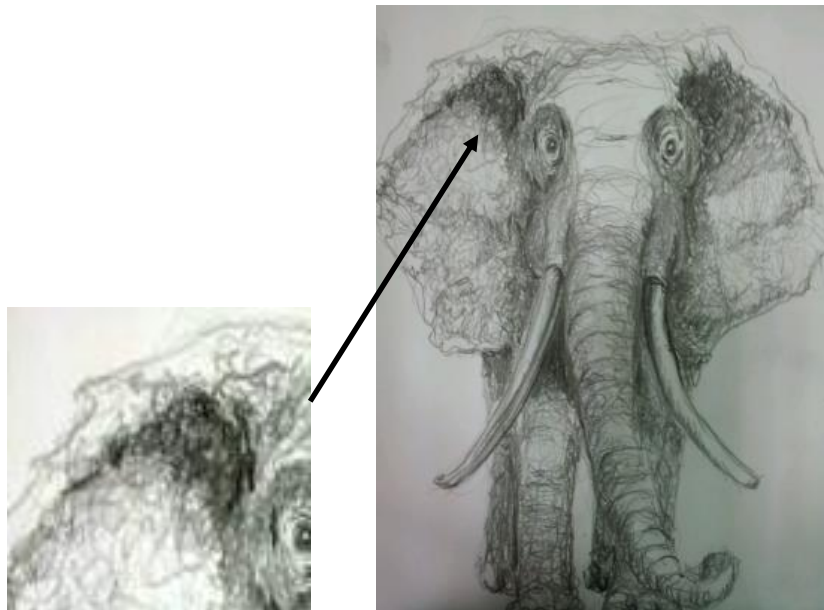


Figure.1 Using free circling lines to show the author's sense is focusing on the feeling of freedom and power of the elephant

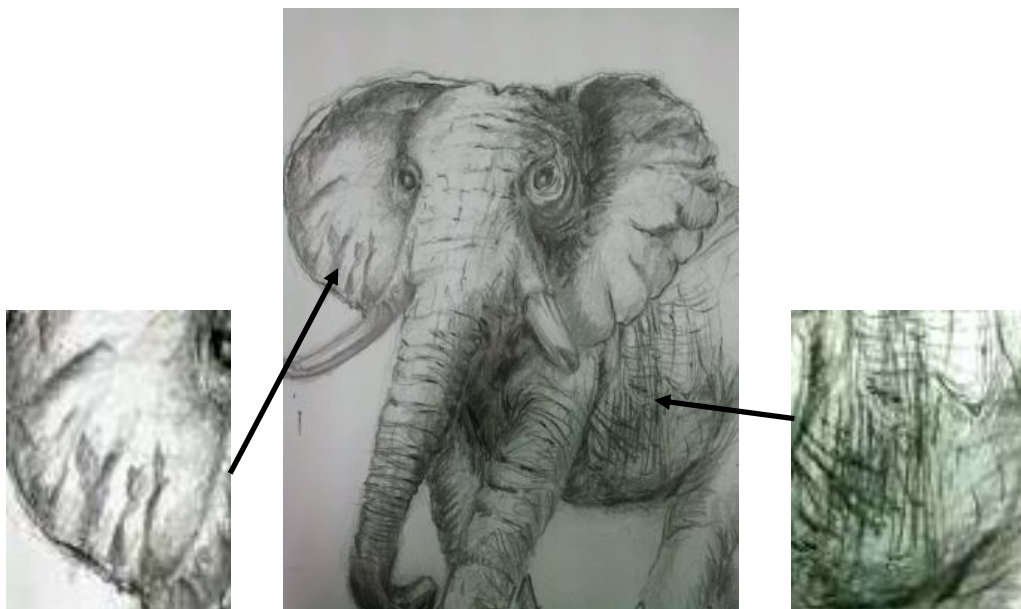


Figure.2 Focusing on the texture of the elephant skin wrinkle by using lines, the author intended to express the combined meanings of aging but health.

One of the students has shown that lines are effective elements of signifying two combined senses (elephant and cloud). With the iconic aspect in mind, the student used lines easily to express the resemble characteristics of lamp (flying elephant in balloon) to complete his transformation from a figurative elephant to an innovative or emotional design of a lamp (Fig. 3).

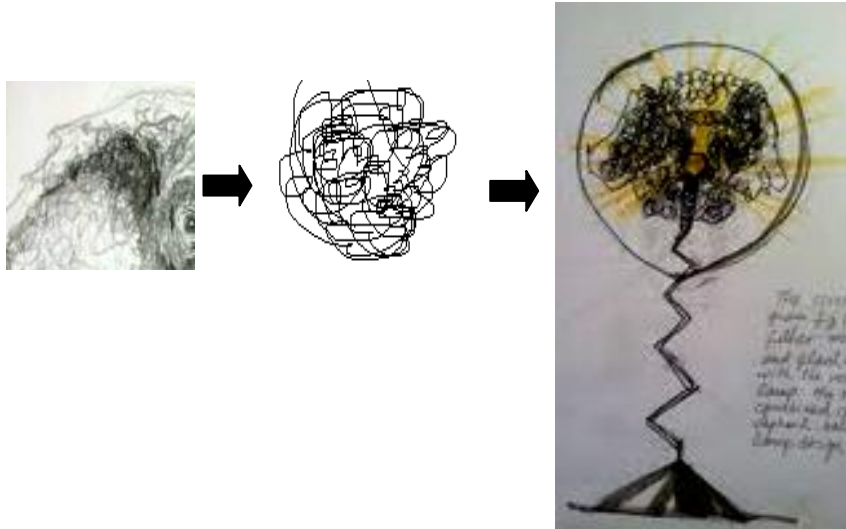


Figure.3 The circling lines transformed from Fig 1 further inspired the resemblance of cloud and floating elephant to form the new image of a lamp combining flying elephant with cloud touristic in balloon

The color can also play a role on expressing iconic and indexical meanings, but not so effective on expressing the symbolic meaning. However it does provide some special effects on product differentiation (developing various products with unique features). (Fig. 4)

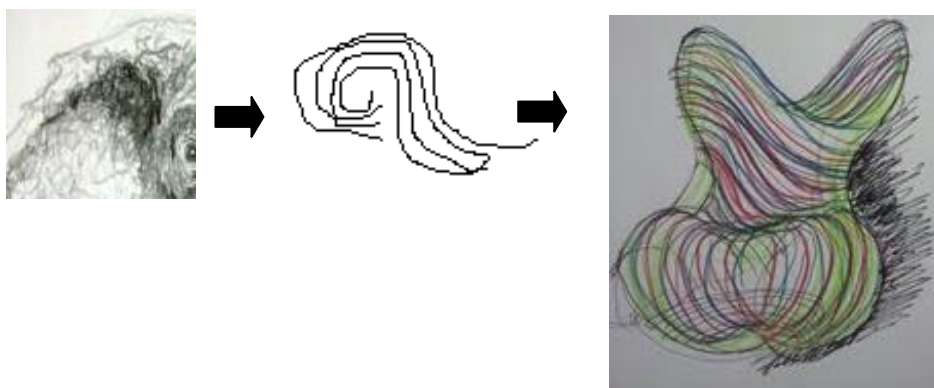


Figure.4 Stemmed from Fig. 1, the designer transformed the circle lines into curve to produce flow effects in the design of sofa

An appropriate way of using line can also produce the effects of signifying meaning of three-dimensional space. It can be considered as indexical signs for indicating or inspiring the not yet- existed form. Fig. 5 and Fig. 6 show

the lines used to express the different feeling caused by the different surface. The meanings model can be formed by the different ways of line expression.

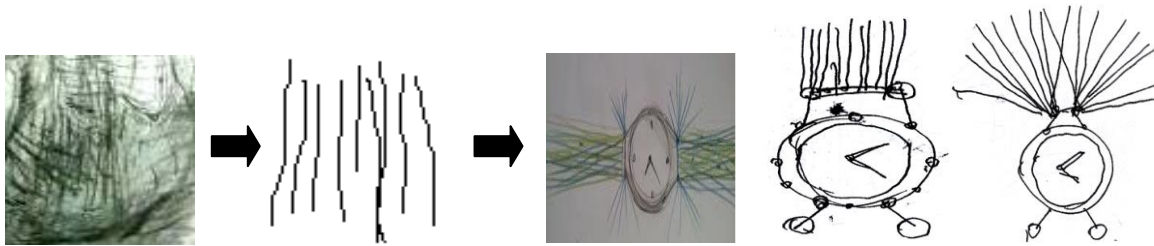


Figure.5 Stemmed from Fig 2: the designer further apply the texture of elephant skin to the idea of fiber-like watch belt

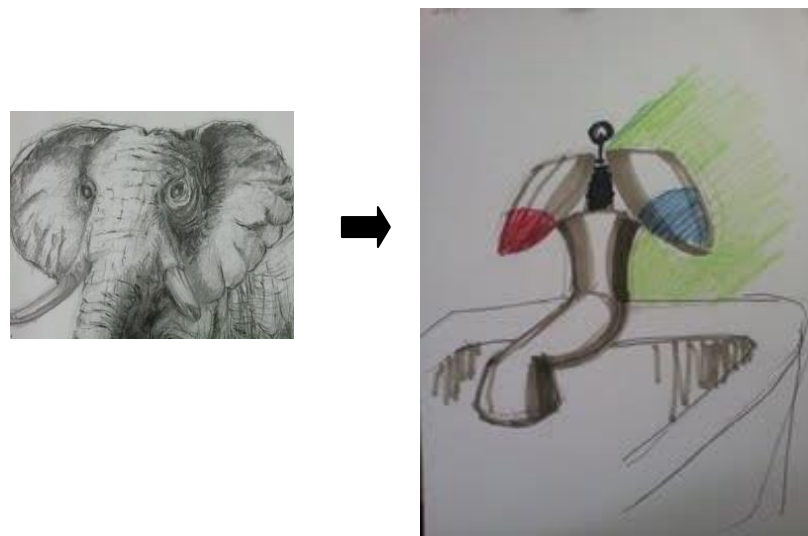


Figure.6 Using the iconic function of the ears and the nose of elephant to create the new design of water tap

Sketch for design can signify meanings or inspire emotion. However, it also deeply involves the creation and interpretation by the designers' arbitrary choice or extensive ideas. By comparison Fig. 1 and Fig. 2, we found that even at its beginning stage of drawing figurative elephant with the same tool (pencil), various interpretation were proposed with the same subject (elephant). Fig 1 shows the author's sketch focuses on expressing the nature of lines; Fig 2 shows more attentions have on the interpretation of the skin texture.

## 5. Discussion

This research indicates that sketch in relation to design is not only a tool for presentation or communication, but also, in its nature, is a link between images and imagination. Making sketches is making systems of signs' formulation, a process of transformation from basic ideas to adjusted ideas. However, it needs to be cautious that sketch or drawing involves many influential factors, such as : drawing material used (markers, water colors, pencils, or even computers), tones, strokes, shadows, light, perspectives, etc. These factors might also have their

influential power on making sketching as part of design thinking or creation, which are yet to be studied. This research is a starting point to do analytical study on sketch. Semiotics can be the crucial theoretical base for this kind study. It would be difficult to just apply one aspect of the concept of semiotics, an overall reviews on the theory and more data, cases or design works for analysis are needed.

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