

# **SCULPTURAL CUBISM IN PRODUCT DESIGN: USING DESIGN HISTORY AS A CREATIVE TOOL**

**Augustine FRIMPONG ACHEAMPONG and Arild BERG**  
Oslo and Akershus University College of Applied Sciences

## **ABSTRACT**

In Jan Michl's "Taking down the Bauhaus Wall: Towards living design history as a tool for better design", he explains how the history of design can become a tool for future design practices. He emphasizes how the aesthetics of the past still exist in the present. Although there have been a great deal of studies on the history of design, not much emphasis has been placed on Cubism, which is a very important part of design history. Many designs of the past, such as in the field of architecture and jewellery design, took their inspiration from sculptural cubism.

The research question is therefore "How has sculptural Cubism influenced contemporary student product-design practices?" One research method used was the literature review, which was chosen to investigate what has been done in the past. Other methods used were interviews and focus groups, which were chosen to investigate what some contemporary design students knew about cubism. The researcher will also look to solicit knowledge from people outside the design community regarding designers and the work they do, as well as the general impression they have concerning design history and cubism. The concept of Cubism has been used in branding and as a marketing tool and in communication.

*Keywords: Design history, contemporary design practice, sculptural cubism, aesthetics.*

## **1 INTRODUCTION: CUBISM IN THE DESIGN PRACTICE**

In Jan Michl's "Taking down the Bauhaus Wall: Towards living design history as a tool for better design", he explains how the history of design can become a tool for future design practices. He emphasizes how the aesthetics of the past still exist in the present [1]. Although there have been many studies of the history of design, not much emphasis has been placed on Cubism, which is a very important part of design history [2]. Looking into the history of design from a cubist angle can help us to understand the nature of contemporary student practices in product design. Cubism has had a very large influence on the field of art and design [3]. Now, cubism not only influences drawing but also many other areas as well. For example, it is now used in interior, architectural and product design. The research will compare artefacts ranging from the early twentieth century to the present to demonstrate the influence of Cubism. This study will show how the design process has evolved over time and explain the various transitions during this period.

## **2 BACKGROUND**

With the emergence of new technologies like photography, the motor car, cinematography, and the airplane, artists felt the need for a more radical approach, a new way of seeing that would expand the possibilities of art, much like the new technologies were extending the limits of communication and travel [4]. Many factors influence student design practices, but sculptural cubism has played a significant role [5]. This study investigates why this is the case.

### **2.1 Design practice**

Design is a working process with a user perspective; its development is driven by customer needs or customer recommendations. Design has become a very important tool in our everyday lives. In the book *Journal Design*, the author explains how the role of the designer is changing from someone who works behind the scenes to develop products and brands into an integral member of a company [6]. Thus, the perceptions people have regarding the work of designers is changing over time. It is

becoming quite clear that people no longer see the designer as a person tasked with the "beautification of objects". The designer is now a problem solver who is able to work with companies, governmental agencies and organizations and society in general. The evolution of design practice has even become more visible as more companies and other institutions employ the services of designers.

This cycle of design history and the current nature of design are tremendously important to the future of the practice[7]. Design has a significant historical background in relation to art. Cubism forms a very important part of the history of design. Many design works, especially among product-design students, have taken their inspiration from cubism. However, not many product-design students are aware of this history and how it has influenced on their works. Knowing the history behind something is very important because it impacts your interpretation of information. It impacts the opinions you form and the decisions you make. Studying history is a very important because historical context can impact our understanding of design in a positive way.

## 2.2 Cubism

Cubism was a truly revolutionary style of modern art developed by Pablo Picasso and Georges Braque. Cubism derived its name from remarks that were made by the painter Henri Matisse and the critic Louis Vauxcelles, who derisively described Braque's 1908 work "Houses at L'Estaque" as being composed of cubes[8]. It was the first style of abstract art to evolve at the beginning of the twentieth century in response to a world that was changing with unprecedented speed. Cubism was an attempt on the part of artists to revitalize the tired traditions of Western art, which they believed had run their course. The Cubists challenged conventional forms of representation, such as perspective, which had been sacrosanct since the Renaissance. Cubism paved the way for geometric abstract art by placing an entirely new emphasis on the unity between the scene depicted in a picture and the surface of the canvas. Cubism is far from being an art movement confined to art history. Its legacy continues to inspire the work of many contemporary designers. Cubist imagery is regularly used commercially, and a significant number of contemporary designers draw on it stylistically and, more importantly, theoretically. Its innovations would be taken up by the likes of Piet Mondrian, who continued to explore its use of the grid, its abstract system of signs, and its shallow space [4].

Some cubist works are represented below:

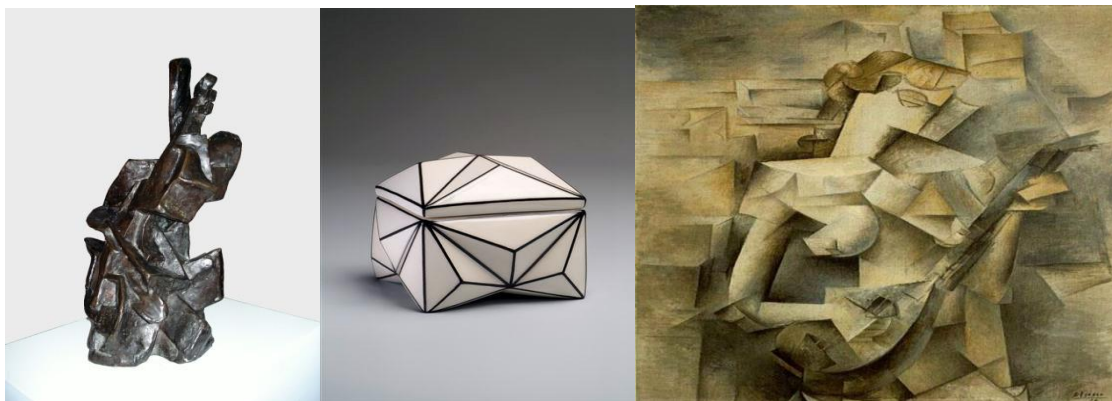


Figure 1. A B C A: Two view of the Large Horse (1914), by Raymond Duchamp-Villan. B: Ceramic Box (1912), by Bevel Janak C: Woman with Mandolin (1910), by Picasso

Images 1ABC represents some cubist works ranging from sculpture to painting, images 1AB are sculptures and 1C is a painting, it shows the role cubism played in different works. As in the artworks of famous Cubists, contemporary artists create designs with people, objects, and places, but not from a fixed point of view. Their art works often show many parts of the subject at the same time, but these parts are viewed from different angles and reconstructed into a composition of planes, colours and forms. The purpose of this feature, which is specific to Cubism, is to reconfigure space: the front, the back and the sides of the subject will become interchangeable elements in the design of the work [4]. The research question is therefore "How has sculptural cubism influenced contemporary student practices in product design?"

### **3 METHODS: LITERATURE REVIEW, CASE STUDY AND INTERVIEWS**

The research design for this project was a combination of three research methods [9]. The research question meant I had to dive into the design field and investigate both its past and present. Each of the methods selected played a very important role in this. Qualitative research methods were employed to gain insight into research question. I employed various ways to finding information, which ranged from searching the Internet to using my own work and the work of other students to interviewing other students. The study aimed to explore the opinions people in and outside the design community held about Cubism, as well as their encounters with it in their professional practices and elsewhere. The researcher employed the literature review [10]. to examine what had already been written in the past regarding the research question. This method involves looking for information in books and other journals to build up a solid foundation of support to support my answer to the research question. Using the case study [11] as a method allowed this research to focus on particular areas of interest, allowing me to focus on the most important aspects of my research question. As a case study researcher, I had to cite professional or scientific sources that could be used to develop a new idea in my research area. I also employed two different methods of conducting interviews: formal and semiformal.

### **4 RESULTS OF FINDINGS AND DOCUMENTATION OF RESEARCH**

#### **4.1 Findings from literature review: Cubism and design**

The first stage of this research project was the literature review. This stage was very important because it provided a solid basis for the preparation of the questions to be used in the interviews. At this stage, the researcher explored books and articles that were relevant to the research question. Some of the books reviewed at this stage included *Taking Down the Bauhaus Wall* [1], *Beyond Branding: From Abstraction to Cubism* [12], *Design Which Comes from Inside* [6], *Cartographies of Time: A History of the Timeline*, and *Design and Culture* [7]. These books discussed cubism and its relationship to design. Cubists proposed that one's image of an object was the sum of many different views and that one's memory of an object is not created from one angle, as in perspective, but from many angles that are selected by our sight and by movement. They also described the way in which cubism has influenced some contemporary design practices. Reviewing these books led me to a new insight regarding the research question. Some of the analysis described how Cubism had expanded the possibilities of art and design. The Cubist era had three stages, which were pre-cubism [13], analytic cubism [14], and synthetic cubism [15] which included asymmetrical compositions [16], transparency, the interpenetration of volumes and simultaneous perception from different points of view. Each were enshrined in the Modern Movement and played an important part in its evolution [4].

#### **4.2 Findings from a case study on Cubism in product design**

Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between the phenomenon and context are not clearly evident; multiple sources of evidence are used [11]. This stage of the research investigated Cubism in product design and how Cubism has affected the practice of contemporary product design. The researcher developed an account of the problem and considered the complexities that could be encountered [11]. The researcher emphasised the work that had already been done regarding the research problem [9]. As a qualitative research method, this stage involved examining contemporary real-life situations to provide the basis for the application of ideas. During this stage, the researcher also sampled design works from five product-design students to examine the Cubist elements present in them, including abstract elements and geometrical shapes. The case study [11] was also based on certain product designs that emphasise cubist elements. Figure 2 AB and C are student works that has been influenced by cubism.

Figure 2A is a jewellery box the concept for this box was influenced by nature, things in nature like leafs and the calabash which is a popular fruit in Africa influenced this jewellery box but was made in a more abstract form.

Figure 2B is piece of floor brick influenced by complicity of shape like the ceramic box by Bevel Janak , figure 1.

Figure 2C is the "Asanteman Lion" the cubism element in this piece is its abstract nature which is an integral part of cubist works.



Figure 2. A B C A: A Jewellery Box, by (Augustine A. Frimpong). B: Concrete tile, by (Kjersti Holjem) C: The "Asanteman lion", by (Augustine A Frimpong)

The images in Figure 2, ABC are part of the data collected in the case study; they show how some student designs have been influenced by cubism. The findings from this participatory design shows how this stage of the research examined how certain categories of people, that is, design students and people outside the design field, view the role of Cubism in design. The purpose of this was to involve all stakeholders in design, both people who design and those who use designed works. The outcome also showed that most design students had used cubism in their works but they not know, reasons ranged from not knowing what it was to reasons such as liking the complexity of cubist works. The images in Figures 3 and 4 are images from the participatory design stage of the research.

**Figure 3:** Made of beeswax, this African fertility doll is a symbolic sculpture piece that stands for fertility among African women. It represents procreation, or the continuation of the generative process through childbirth.

**Figure 4:** This lizard is also made of wax, was made from joining together different sizes of wax balls.



Figure 3. The African Fertility Doll

Figure 4. The lizard

#### 4.3 Findings from interviews with product-design students

The study showed that most product-design students are not aware of Cubism and the role it has played in the history of design. Knowledge and understanding of Cubism can help design students in creating more dynamic designs. Both past and present knowledge has revealed that Cubism has played an integral role in the design process. Some students in the interviews did not know anything about Cubism, but upon explaining it to them, they did admit that it was very interesting and that they like using Cubist ideas in their designs because it makes people want to turn their heads around a design piece to fully understand its concept. At this stage, the interviews served two purposes. They educated design students about Cubism and its role in the history of design, and they also solicited information



on how design students have used Cubism or been influenced by it. Figure five below shows the role cubism and the history of design in modern day design practice, on the right of the diagram is its influence on student design and the left side shows the influence in professional practice.

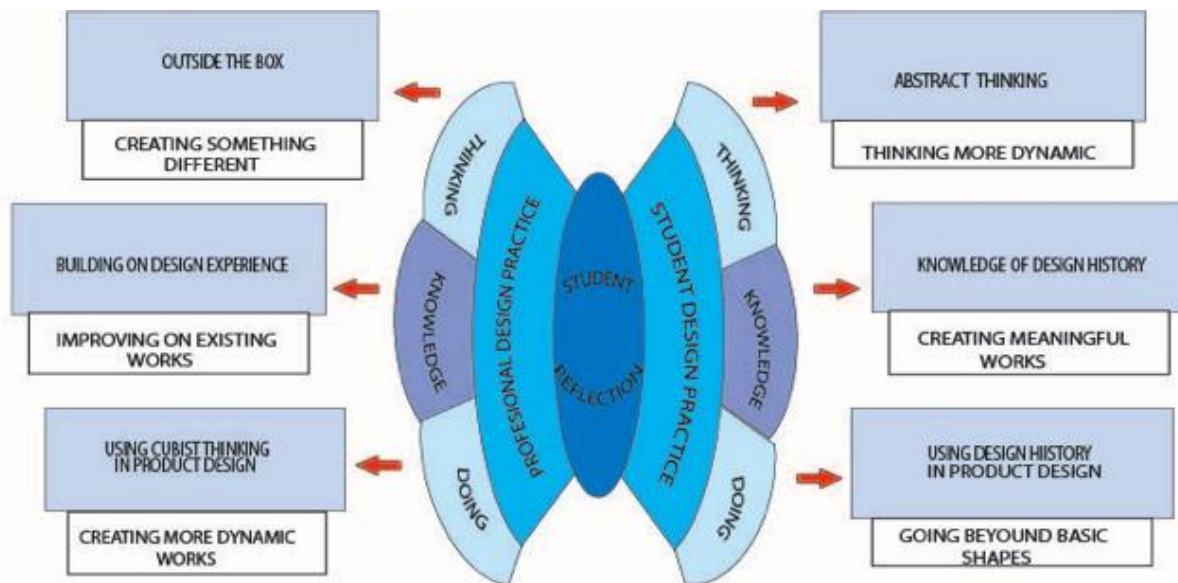


Figure 5. A visualization of learning outcomes identified in the study

## 5 DISCUSSION

The findings in relation to Figures 1 and 2 and the literature review show elements of cubism in some contemporary product-design students' works. They show that even though many design students are not aware of cubism, it is still present in their works. This stresses the point that there has not been much emphasis placed on the history of design [17] in design education. Though many of the students interviewed expressed their joy at working with abstract shapes and designs, they were not aware of their connection to cubism. Cubism has strong connection with contemporary product-design student works, and it will continue to play a very strong role in the future, hence the need for greater emphasis on design history in design education. This knowledge can help students understand the nature of the works they create. This leads to the conclusion of the study

The learning outcome of the various research methods is relevant to contemporary student product-design practice. Design students must learn more about the history of design. This knowledge can help them understand the meanings of the designs they create. It can also help them understand the stories of design works. Design students need to think deeply about design to create in an even more dynamic way. We should learn to see the artefacts of the pre-modernist past as a permanent presence. Because the somewhat forgotten design profession should take into account the preferences of consumers, design students should see design history as something that exists right. Considering design history in terms of the present rather than the past will turn the past into a living supply of stylistic inventions and discoveries [1].

## REFERENCES

- [1] Michl J. Taking Down the Bauhaus Wall: Towards Living Design History as a Tool for Better Design. *Design Journal, The*. 2014;17(3):445-53.
- [2] Gorman MJ. *The third culture*. Nature. 2014;510(7504):216.
- [3] Gulmanelli S. *Monaco House*. Domus. 2008(920):87-9.
- [4] Adriana M. *The Influence of Art History on Modern Design – Cubism*: Pixel77; 2010.
- [5] La collezione di Gamper./*The Gamper collection*. Abitare. 2014(538):25.
- [6] Laubstein I. Design, das von innen kommt. [Design which comes from inside.]. *Design Report*. 2014(4):8-9.

- [7] Riechers A. Cartographies of Time: A History of the Timeline. *Design and Culture*. 2011;3(2):267-9.
- [8] Bliss S. 'Cubistic claptrap'? Erik Magnussen's The Lights and Shadows of Manhattan of 1927. *Silver Studies: the Journal of the Silver Society*. 2006(21):113-9.
- [9] Lazar J, Feng JH, Hochheiser H. *Research methods in human-computer interaction*. Chichester: John Wiley; 2010.
- [10] Van den Bergh J, Beliën J, De Bruecker P, Demeulemeester E, De Boeck L. Personnel scheduling: A literature review. *European Journal of Operational Research*. 2013;226(3):367-85.
- [11] Yin RK. *Applications of case study research*. 3rd ed. ed. Los Angeles: SAGE; 2012.
- [12] Ind N. Beyond branding: from abstraction to cubism. *Journal of Product & Brand Management*. 2006;15(2):148-9.
- [13] Breal J. Museum of fine arts: Houston.(JORDAN'S PICK)(Concert review). 2007. p. 157.
- [14] Hughes R. Dali in 3-D.(Art). *Time*. 1972;99(20):90.
- [15] Arpa S, Bulbul A, Capin T, Ozguc B. Perceptual 3D rendering based on principles of analytical cubism. *Computers & Graphics*. 2012;36(8):991-1004.
- [16] Bashkoff T. From Picasso to Pollock: classics of modern art: highlighting the aesthetic vanguard from Cubism through Abstract Expressionism, this wide-ranging exhibition features works by some of the last century's most influential artists.(Museums Today). *USA Today (Magazine)*. 2003;132(2700):36.
- [17] Ferebee A, Byles J. *A history of design from the Victorian era to the present: a survey of the modern style in architecture, interior design, industrial design, graphic design and photography*. 2nd rev. ed. ed. New York: W. W. Norton; 2011.