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Aesthetics of Visual Deception in Modern and Advanced Printmaking

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Abstract

Objectives: This research explores the concept of modern and advanced printmaking and its use in enhancing the aesthetic values of optical illusion techniques.

Methods: The method involves a descriptive-analytical approach to analyze printed artworks that feature optical illusion techniques, selecting eight examples from the early 20th century (1900) to the present.

Results: The results indicate that multimedia printmaking techniques play a significant role in enriching the aesthetic values of optical illusions. Additionally, the use of optical illusion in printmaking enhances the sensory perceptions of the viewer, contributing to effective communication.

Conclusions: The research concludes with a recommendation for further studies in modern and advanced printmaking, emphasizing the exploration of optical illusion aesthetics to study geometric and abstract aspects across various art forms.

Keywords: Aesthetics; art; deception; modern; printmaking.

جماليات الخداع البصري في الطباعة الفنية المستحدثة والمتقدمة

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ملخّص

الأهداف: يتناول هذا البحث مفهوم الطباعة الفنية الحديثة والمتطورة، واستخداماتها في إثراء القيم الجمالية لتقنية الخداع البصري.

المنهجية: تتضمن المنهجية استخدام المنهج الوصفي التحليلي، وتحليل الأعمال الفنية المطبوعة التي تناولت تقنية الخداع البصري، مع اختيار (8) نماذج للخداع البصري خلال الفترة من أوائل القرن العشرين (1900) وحتى العصر الحالي.

النتائج: أشارت النتائج أن تقنية الوسائط المتعددة للطباعة الفنية لها دور مهم في إثراء القيم الجمالية للخداع البصري. كما أظهرت النتائج أن توظيف تقنية الخداع البصري في الطباعة الفنية يؤدي إلى تعزيز الإدراكات الحسية للمتلقي، مما يساهم في فعالية الاتصال.

الخلاصة: يختتم البحث بالتوصية بإجراء المزيد من الدراسات في مجال الطباعة الفنية الحديثة والمتطورة، والاستفادة من قدراتها المتقدمة، فضلاً عن التركيز على الاستفادة من جماليات الخداع البصري لدراسة الجوانب الهندسية والتجريدية في مختلف مجالات الفن.

الكلمات الدالة: الجماليات، الفن، الخداع، الحداثة، الطباعة.

1. Introduction

The present age has seen many technological developments that have affected every aspect of life. Artists have recently sought to benefit from technological developments. Their technical use to create innovative entries led to the development of many artistic trends as visual deception, as it is one of the most important contemporary arts that contribute to the enrichment of printmaking.

Visual deception is considered one of the artistic trends that are interested in visual sensations and impact in the eye of the beholder (Al-Ghammaz et al., 2024). The philosophy of visual deception depends on Gestalt psychological and cognitive theories confirming that the sensation in forms is made through the logical system for different images and sensory organs and is wholly and partly realized (Samaher, 2008). The artist has worked to develop old printing through technological development to produce artwork quality sponsored. The artist can use a printmaking visual deception that allows a field of wide artistic and achieves significant impact on printmaking's outcome to suit the direction of modern arts (Nur-Eddine & Al-Sarwi, 2016).

Accordingly, visual deception always depicts to the viewer a visual image other than its reality, at least in common sense, creating a deceptive or misleading vision. The information collected by the naked eye and processed by the brain gives a result that does not match the source or the visual element. Traditional deceptions assume that there are physiological deceptions that occur naturally and cognitively in addition to deceptions that can be demonstrated through special visual tricks. It is worth noting that there is something more fundamental about how human perception systems work. Also, visual deceptions are images deliberately made to appear to the viewer in a certain way when they are not (Grossberg & Pinna, 2012).

The remainder of the paper is structured as follows: Section two provides an overview of the literature review, while section three shows the research problem. The conceptual framework adopted in this paper is given in section four. Section five offers theoretical framework indicators, while section six presents the method. Section seven presents a discussion and analysis, while section eight shows the results. Subsequently, section nine makes concluding remarks, while section ten provides recommendations.

2. Literature Review

Research work documented the value of visual deception in modern arts. However, they have varied according to the research objectives included in these studies. Nicholas (2013) indicated that visual deception creates an impression in the brain of the representation of what cannot be provided, as the dimensions of depth and movement are missing from the graphic image, adding provides all kinds of possible ambiguity. It is also found that art is an exploration of the missing link between image and object, along with illustrating the projective characteristics of the actor's body.

Looking at the visual deception from a different lens, Ritschel (2016) used simulated visual illusions and perceptual anomalies to convey dynamic range. The result showed that introduction of visual distortions can be useful for dynamic range transmission. Moreover, Javier & Jesus (2020) referred to how impossible objects with curved surfaces can be made possible through computer-assisted geometric design, where the main deception strategy can be achieved in violation of specific rules of public opinion, misunderstanding of depth thanks to visual distortion and spectator deception.

Likewise, Hussein (2021) examined the contemporary design trends for silk-screen printing on lighting units using the visual values of optical deception art. The results indicated the utilization of the visual deception art cosmetic values to form contemporary designs for silk-screen printing on lighting units. On the other hand, Vittori (2023) adopted criteria for the use of optical deception in interior design to study the art of optical deception and its criteria and employing them in solving design problems for the interior space of the residence and furniture.

Additionally, Xinrui and Keheng (2023) investigated tourism visual deception in "check-in tourism" as a value co-creation and co-destruction perspectives. The results showed that social media has changed the way information is produced from tourism visual deception. Besides, Shanjita (2024) explored deception detection using machine learning and deep learning techniques as a systematic review, where an in-depth understanding of trick detection techniques, design and development of three-dimension systems is provided, and how these tricky methods play an important role. Given the

previous research work, the current research paper has taken advantage of the previous studies in constructing the conceptual framework of this research. What makes this work new is that it showed the aesthetics of visual deception in the modern and advanced printmaking industry through the descriptive and analytical approach of some of the artworks of famous artists since 1900.

3. Research Problem

Visual deception dates to ancient Greece, where the ancient Greeks used visual deception in their geometric and various arts. The oldest applications of visual deceptions were found in the roofs of Greek homes, as the roofs were built in an inclined manner, but they appear to the viewer to be confusingly curved. Some argue that the origin of visual deception is that the eye is responsible for the visual deception, while others believe that the mind is responsible for it. For example, a Greek philosopher named Epicharmus took a shot to explain visual deception and assumed that human brains are infallible and can perceive images.

Visual deception is defined as the deceptive vision that the viewer sees, making him believe that he is seeing things other than what is there. That is, the viewer sees the image in front of him in a way that is not what it is. Accordingly, the significance of the research paper is reflected in highlighting the aesthetic values of visual deception through modern and advanced printmaking. This paper is also of high significance as it analyzes some artworks by contemporary artists who used visual deception through modern and advanced printmaking. The scope of this paper is limited to the period from the early twentieth century "1900" to the current age.

Importantly, this paper is limited to studying aesthetic values of visual deception through modern and advanced printmaking, along with an analysis of the artworks of artists of the modern era. Given the detailed introduction, the research problem lies in answering the following questions: How can modern and advanced printmaking be used to enrich the aesthetic values of visual deception?

4. Conceptual Framework

In this section, several key concepts relating to visual deception, modern and advanced printmaking, and aesthetics of visual deception in modern and advanced printmaking are discussed in detail due to their relevance to the research problem raised in this research work.

4.1 Visual Deception

Undoubtedly, visual deception is one of the modern artistic trends that depend on phantom visual phenomena that affect perceptions through a dialectical relationship between the artist's composition of fictitious designs and the visual cognition of the viewer, using chromatic contrasts, pace or spaces, and angles of vision. This proves that visual deception is one of the branches of geometric directions, stemming from abstract art, so-called "The Responsive Eye" because it attacks quickly the retina by passing several mental images in a way that warrants confusion to explain the foreseeable scene (Melanie, 2004).

The art of visual deception is defined as a state in the mind manipulated to see things that are not there, where we deceive the mind by seeing it as something that doesn't exist, and it does imagine it in fact, but he envisages its presence (Samaher, 2008). Visual deception depends on the mechanisms to sense in cognitive process, and the vibrations resulting therefrom. The artist also uses visual deception to describe the interior of the mind, enabling him to make the geometric effects to find aesthetic values that appear between balance and contradiction and depth, lines, colors, spaces, and angles, and depends on the delusion of movement, depth or both (Khalid, 2011).

With the utilization of visual deception, the artist can impact the beholder, as it depends on the viewer's vision and judgment of the artwork to express a case of readiness. For example, when watching the artwork, the viewer may feel a movement of the artwork or a color change when putting two adjacent colors (Al-Hussein, 2021). The follower of the history of visual deception finds that it was first shown in 1930, when a group of school members "Bauhaus" conducted experiments in visual phenomena for producing models. Their experiments are based on some sensory tricks in the process

of visual perception by exploiting the visual quality signal system of visuals displayed on the visual channel to influence the competitive dynamics within the quality and versatility of host species (Alessandro et al., 2015).

By 1950, visual deception was considered an art of modern art, when call it art "Op Art", or "Visual Art" by the French artist "Victor Vasarely", (1906 - 1997) where he held Gallery "The Responsive Eye", as well as the Venezuelan artist "Rafael Soto", (1923- 2005), as shown in Figure (1) (Samaher, 2008).

Figure 1: Artist Victor Vazarelli, zebra, Responsive Eyes Exhibition, Museum of Modern Art (MoMA), New York (1965)

Visual deception is mainly interested in building artistic ideas from the philosophical framework associated with the overall perceptions resulting from the Gestalt theory used to refer to holistic ideas that do not focus on their partial elements, and that all can be reached to colleges through the elements organized of partial from the artwork (Samah, 2013). Psychologists have come up with some rules for regulating the constituent elements of artwork, such as convergence, contiguity, similarity, shape, surface, angles, and repetition (Samaher, 2008), as shown in Figure (2).

Of note, visual deception also depends on the connection of human perception between fictitious visual stimuli, analysis of the kidney shape of these stimuli within the viewer's mind, and results in a state of oscillation and tension that has interpreted movement interpretation as an aesthetic value in contemporary artwork.

Figure 2: Hans George Rauch Men Stuck on the Internet, 1978 55.9 × 38.1 cm

4.2 Modern and Advanced Printmaking

Modern Modern and advanced printmaking is defined as the process of creating artwork by the printer and reproducing it on paper or otherwise to create artwork and be part of preparatory studies (Mansour, 2006). It is also known as the composition of artworks through the transfer of letters, shapes, and pictures from flat printed processing to another flat, using material such as inks or color dyes (Al-Wafi, 2023).

Printing also refers to the process of making artwork using a template or hollow container with liquid that the material is poured to adjust or cool in the desired shape, and this process can produce multiples of the same pieces (Mursyidah et al., 2013). Therefore, printmaking is a contemporary art that depends on the creation of artworks through the art of visual deception and moves to printed materials in modern ways, methods, and techniques to shape aesthetic values of fictitious imagery.

In the 20th century, printing played a particularly important role in the eradication of mass illiteracy, through the transfer of ideas and traditions. Printing has also evolved from manual work on paper, wood, metal, or stone to the proliferation done by visual mechanical methods. Thus, in the scope and quality of visual media, the art of printing added many influences and variables in their manufacture which expanded the scope of printmaking and enriched the visual language of the artist, as it is applied in the artwork to various ores of fabrics, textiles, metals, plastics and so on (Mursyidah et al., 2013). The tracker of the history of printmaking finds that it existed throughout the ages, and has worked to copy science, symbols, and forms of civilizations. It is also one of the oldest tools practiced by ancient man to convey what he wanted to express through printing on cave walls with handprint, coal colors, and blood, as shown in Figure (3). Later, printmaking moved to successive civilizations to record their science and arts, as printmaking has proven that it has the merit of preserving its entity in an artistic way throughout previous ages, as well as being able to correspond with and benefit from many modern technologies, as well as to express all modern issues in sophisticated ways (Al-Wafi, 2023).

Printmaking and its techniques have gone through different stages between traditional and advanced methods on one hand. On the other hand, traditional manual printmaking is based on the characteristic of contact between the template or the printing instrument and the printing surface, including prominent printing, invisible printing, standard printing, porous printing, and mono printing (Al-Siyud & Mohad, 2019). Modern and advanced printmaking is based on the capabilities of sophisticated computer software, as modern printing equipment feature design transfer without contact - (on-line) - between the printing machine and the printing surface, including digital printing, 3D printing, and interactive printing (Al-Siyud & M ohad, 2019).

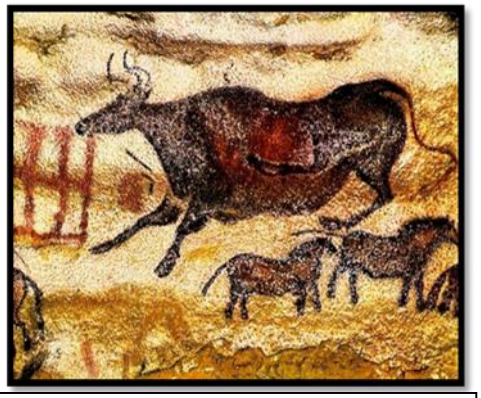


Figure 3: Thor, Paintings on the Walls of Lasco Caves, France

Likewise, the talented artist's computer software has provided multiple and different opportunities to complete the creative process since the beginning of the design and the formation and production of the artwork, where artwork is transferred from the virtual world to the real world. The computer also helps the artist to get his work at high speed (Abed, 2002). Computer software also provides the artist with multiple capabilities for shapes, colors, grades, light, shade and size, and can perform various processes such as deletion and addition, as well as the work of repetitions, tilts, elongations and others (Al-Hussein, 2021).

Given the previous review, modern and advanced technical printmaking has many features such as the speed of production of designs the modern and advanced printmaking, flexibility of layout design and continuous experimentation, design view on computer screen before application, storage capacity is large, production of designs with efficient and high quality, and high-performance potential of computer software and advanced printing machines (Al-Hussein, 2021). Therefore, the use of modern and advanced printmaking helps the artist produce functional designs and deliver new and varied aesthetic solutions and provide him with many infinite alternatives that have enriched the artwork in modern times.

4.3 Aesthetics of Visual Deception in Modern and Advanced Printmaking

Unquestionably, the aesthetic aptitude of the visual text depends on the activation of the intellectual vision of the artist, and the activation of the new meanings hidden by the artistic picture in the eyes of the viewer. Thus, the beauty represents the close link between the fundamental aspects of the creative process: The artist, the viewer, and the artwork. The aesthetic aptitude forms an integral part of the creative process, whether in content, or in form, as it isn't completely trivial for the artist's senses, from images, colors, and tones. It is also a profound and a proprioception for all aesthetic appearances: physical and moral to become part of the artist's fabric internal: psychological and mental (Rabi, 2022).

Besides, beauty, triggering multiple senses, usually drives the viewer to enjoy and the artwork is based on embodying reality through the artist's open-minded view, so that the scenes taste it for aesthetic pleasure (Al-Rabi, 2022). The value of visual deception lies in printmaking through the dual result of the creation of interactive values and coding, which involves a multi-participatory process for the employer (Xinrui & Keheng, 2023). Accordingly, aesthetic values of visual deception using modern and advanced printmaking include the following:

4.3.1 Movement Deception

Movement is the essence of visual deception, which aims to create changing perceptions in one image by regulating shapes, what we see is stationary at one moment, and what we see moves in another (Samaher, 2008). Movement deception depends on properties composition of shapes and its supernatural effect on the retina, where severe retinal stress occurs due to the brain's inability about the significantly visual consistency, as shown in Figure (4).

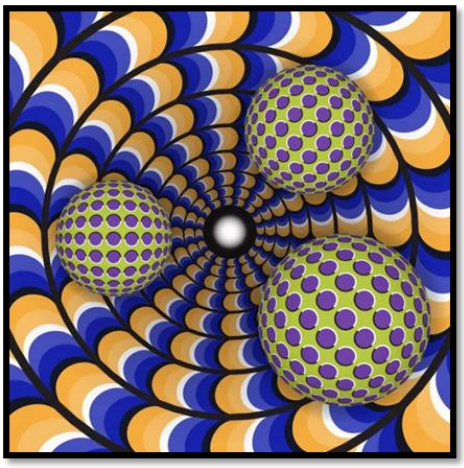


Figure 4: Stripping the Visual Deception in a Surreal Style, inspired by the Work of the Artist Akiyoshi Kitaoka, Composing the Electronic Shopping Label Shutterstock - Graphic Programmer

https://www.livescience.com/58320-psychiatrist-guide-to-distorted-reality.html?utm_source=facebook&utm_medium=social

4.3.2 Color Deception

According to (Zirmba, 2000), colors have a psychological impact that shows dimensions zoom and enlargement, as we find warm colors show dent in short distance between them and the beholder and thus narrows the space, while cold colors show of space widens, as shown in Figure (5). Also, maintains that because of differentiated color reproduction, it causes visual deception to occur and gives a sense of movement, as shown in Figure (6).

Figure 5: Artist Gazbery Blu - Emergency Escape Plan
https://www.jazzberryblue.com/

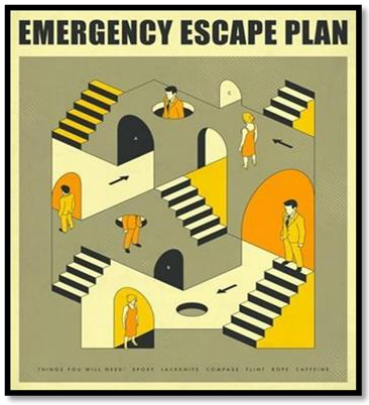


Figure 6: Mandala Drug, 1969 - Larie Semart
https://www.meisterdrucke.ie/fine-art-prints/Larry-Smart/629208/Psychedelic-Mandala,-1969.html

4.3.3 Linear Deception

Each line has a thickness and sense that expresses its direction. Al-Kashif (2000) states that when an artist uses different lines through thickness, length and breadth, they give continuity, use of lines from one central point of pervasiveness, and the divergence and convergence between distances lead to tempered view, as shown in Figure (7 - 8).

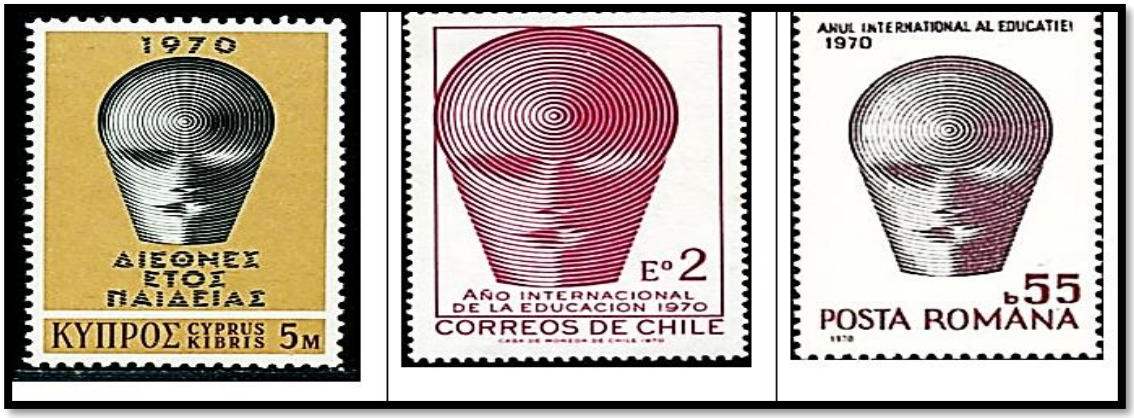


Figure 7: Artist Victor Vasarelli, Moscow, Russia, Printed Stamps in Romania Dedicated to the International Year of Education, 1970

https://www.dreamstime.com/moscow-russia-march-postage-stamp-printed-romania-devoted-to-international-year-education-serie-circa-international-year-image150406157

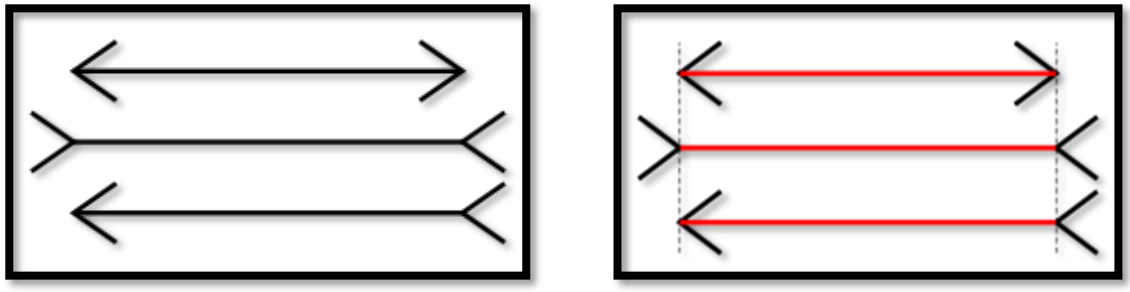


Figure 8: Mueller Layer in 1889, German Artist Franz Carl Müller-Layer (1857-1916)

https://fr.wikipedia.org/wiki/Deception_de_M%C3%BCller-Lyer

4.3.4 Impossible Deception

The artist can form visual deception through work impossible geometric configurations. All forms of this type are related to 3D art in a flat surface, which the eye fails from its perception because of the discrepancies in the information provided by the image to the eye, such as the Penrose triangle attributed to the mathematician Roger Penrose's views published in the British newspaper 1958, as shown in Figure (9-10) (Khalid, 2011).

Figure 9: Artist Roger Penrose, Penrose Triangle, 1934

https://www.sciencephoto.com/keyword/impossible-shape

Figure 10: Victor Vassarelli, Coloring Pens of the Stamps of the State of Belgium Released in 2014

https://colnect.com/en/stamps/stamp/502805-Visual_Deceptions_count_the_crayons-Visual_Deceptions-Belgium

It is emphasized that the color, movement, lines, angles and space have a great impact on visual deception, and the continuous artistic development has led to a merger of technology and art, leading to great opportunities for the artist to develop a new aesthetic of visual deception through modern and advanced printmaking.

5. Theoretical Framework Indicators

Given the previous analysis, theoretical framework indicators show that visual deception is one of the modern artistic trends that emerged in the 1950s. Later, it became a significant art in the United States and Europe when it was called "Visual Art" by French artist "Victor Vazarelli". Visual deception's style is based on the geometric character by employing abstract patterns of lines, shapes, spaces, as the first is the deception of the beholder with kinetic vibrations and visual flashes. Visual deception is a process by which the visual and mental system of a human being is influenced by deception is by things that seem unreal, imagining that shapes move and rotate through specific rules.

Other key theoretical framework indicators are that the artists' work was influenced by a new aesthetic starting point through visual deception with endless and diminishing movement in size, spaces, lines, time and voids, giving the advantage of continuity and development. The artist also carries out visual deception works in the present era with modern and advanced techniques and materials commensurate with the technological innovations of the 21st century. The artist also can produce art printing designs quickly, with flexibility in design and experimentation as well as to produce multiple designs efficiently and with high quality.

6. Method

6.1 Research Approach

The methodology involves using the descriptive-analytical approach for study models depending on describing models of visual deception artists, identifying the objective of the artist, and how artistic models work, tracking and analyzing a phenomenon of visual deception in study models, and illustrating their own artistic aesthetics to reach the results required for use in modern artistic printing.

Descriptive analyses are the most applicable approach to this research because they are based on data collection, observation and analysis, allowing us to convert complex data into meaningful and insightful applied representations, in addition to helping to ascertain study assumptions.

6.2 Research Population

The research population consists of 20 works by visual deception artists representing the entire research population.

6.3 Research Sample

The research sample comprises (8) model of visual deception, according to the following criteria:

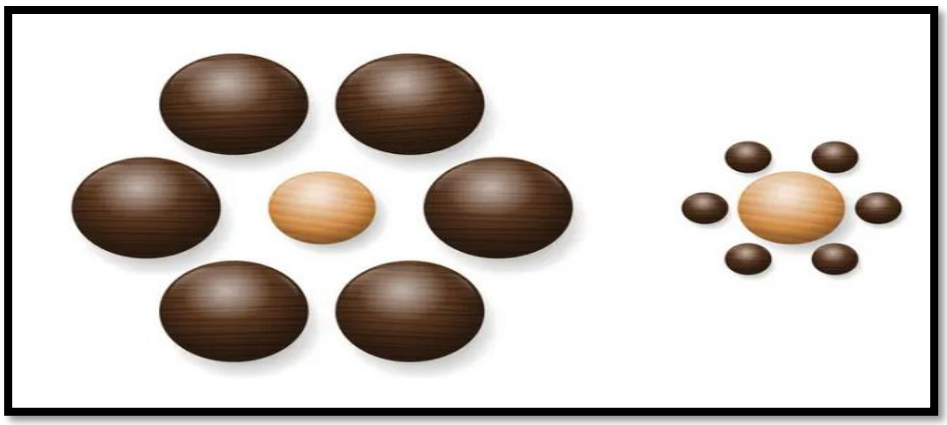
- Selected samples of artists influence visual deception
- Selected samples in modern times are between (1900) and (2020)
- Selected artworks are famous and accurately documented.
- The variety of technical trends of visual deception represented by the research sample.
- Selected samples are not repeated except when carrying new content.

6.4 Research Instrument

The sample analysis is selected as a research instrument based on the results of the research's theoretical framework indicators.

7. Discussion and Analysis of Research Models

Model 1: *Action: Deception of Ebenghouse "Balls of Two Colors"*



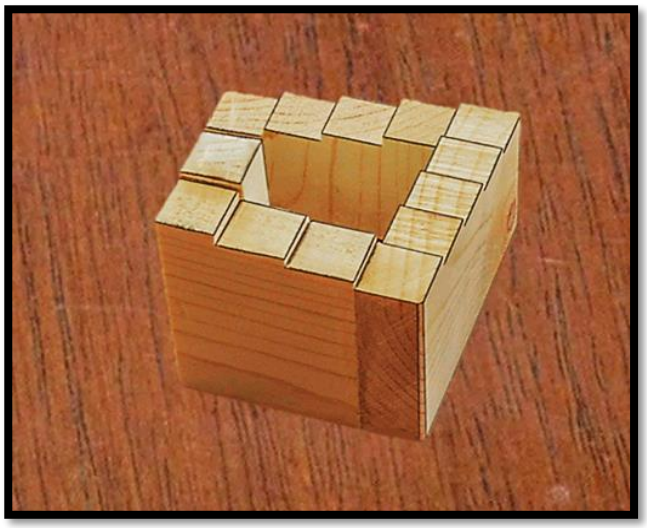
Artist: Herman Ebenghouse (1850-1909) Date: 1901 Source: https://deceptionsindex.org/ZTCctZV/mataeology606539/16f8EhC1

7.1 Analysis of Artwork

This work by the artist "Herman Ebenghouse" (1850-1909) indicates that when two similar-sized circles are placed close to each other, one surrounded by large circles while the other is surrounded by small circles because of adjacent circles. A visual trick shows that the central circle surrounded by large circles appears smaller than the central circle surrounded by small circles. The artist was interested in visual deception to realize the relative size, the two golden spheres in the middle having the same size, which on the right looks bigger than the left disc, but in fact the two central pirates are identical in size.

According to the researcher, the work has been characterized by aesthetics of visual deception through a visual deception by contextual integration to infer the size of objects, using light that falls on the retina, as it can originate from a large, distant body or a small adjacent object. The brain in this work depends on the rules of perspective and preconceived expectations about the typical size of an object. The work indicates that there are two other critical factors in the perception of this deception, namely the distance of circles surrounding the central circle and the completeness of the loop. Thus, the deception of Ebenghouse is an example of contextual information and the size and proximity of similar discs, which affects the perception of the size of the shape.

Model 2:*Action: Penrose Stairs, Artist: Lionel Penrose and son Roger Penrose, Date: 1959*



Source: https://www.instructables.com/Impossible-Staircase/

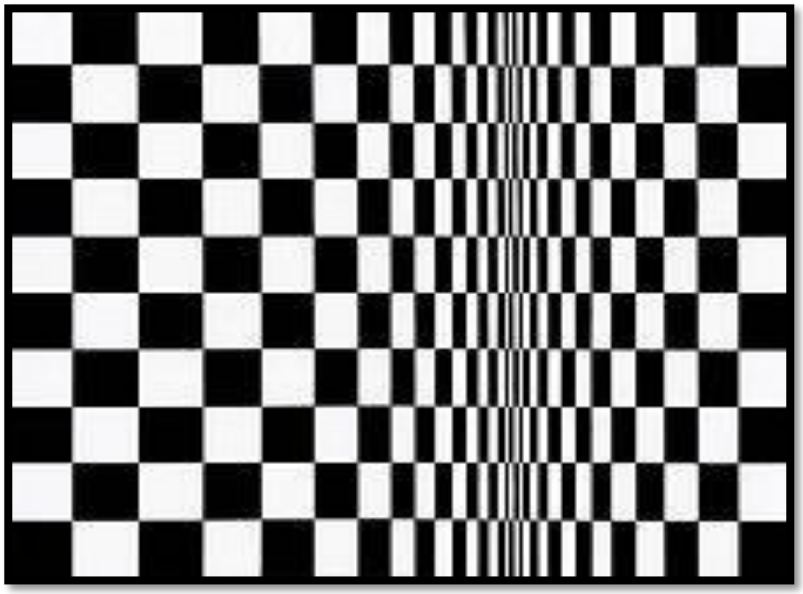
7.2 Analysis of Artwork

The Swedish artist Oscar Reuterzvard is the first to design it in 1937, and then Lionel Penrose and his son Roger Penrose reprise his idea independently, in an article in the British Journal of Psychology, 1959, which he called "Impossible peace", or "continuous journey of steps" and then M.C. Eicher developed the topic further in his publication Waterval, which appeared in 1961. The Penrose staircase is a type of optical deception different from the Penrose triangle, where it is a two-dimensional image of a staircase consisting of four conversions and the formation of a 90-degree continuous loop to climb or descend. It is noted that each part of the structure is accepted as representing a set of grades, but the connections of the image are inconsistent, the grades constantly descend clockwise

The impossible staircase seems ambiguous at first glance unbelievable, it is an extraordinary and amazing design. A person will rise constantly if it continues in one direction. At the same time, it will certainly reach the starting point when it overcomes four flights of stairs. Or you can just move endlessly. And if he chooses a different direction of movement, he'll have to go down all the time. And again, he'll be able to be at the starting point. However, it can be understood by the logic, then the body will remain understandable and familiar, by choosing the right angle to observe this work, or by determining the dimensions and distances between the stairs and the length and width of the degree, so, it can be drawn in the right perspective: each degree is higher or lower than before.

According to the researcher, the work was characterized by the aesthetics of visual deception through the work of contemporary visual abstraction. The main trick of the image is to create a deceptive view of the subject, where the human brain adapts to the information received when it sees the image of the Penrose stairs, does not notice a discrepancy in the set of structural elements, but constitutes a false integrated image, and this incorrect perception leads to visual deception, and achieves this paradox through a distorted perspective. The artist demonstrated the aesthetic values of visual deception with the recipient's participation when narrating the two-dimensional work as a three-dimensional trick using a trick made up of a set of stairs that can only go up or down from it depending on the way you see it. The stairs form a closed circular construction, much like a snake biting its tail, a unique creative idea that inspired a new aesthetic feel for the viewer, and direct contact with the subconscious.

Model 3: *Action: Movement in the Fields: Artist: Bridget Riley: Date: 1961*

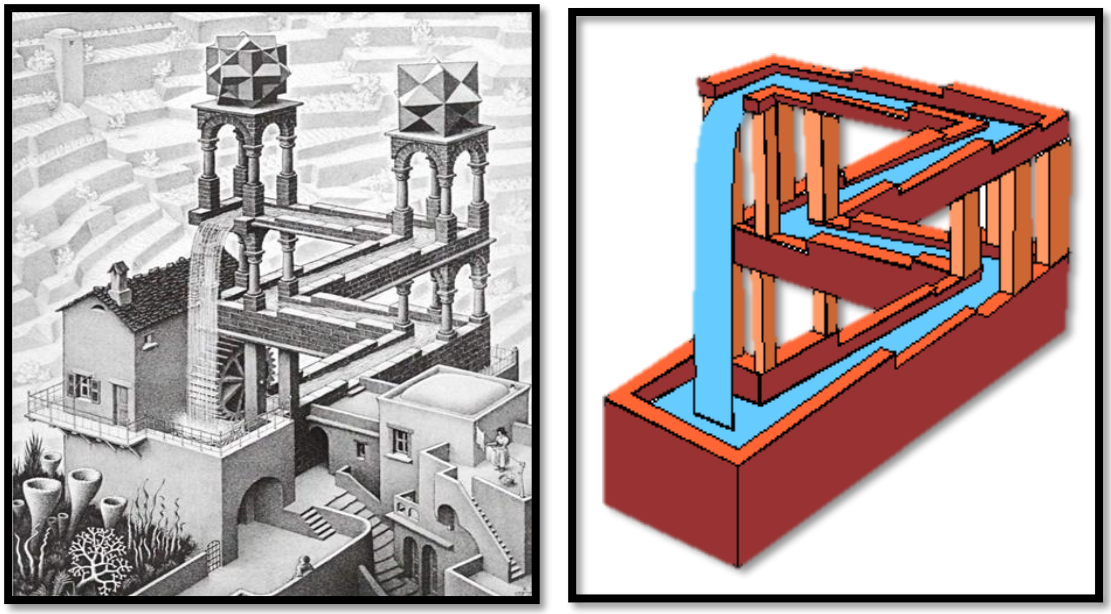


Source: https://www.postzegelblog.nl

7.3 Analysis of Artwork

This is a work by Bridget Riley, one of England's most famous artists known for her paintings using visual deception to create a sense of motion. 1960s, this work is mainly carried in black and white and showed wavy lines that looked like rippling or changing as the beholder moved like a waterfall coming down to meet another waterfall. Thus, the artist's work aims to create confusing effects such as flashing, vibration or counterfeiting for those receiving it. According to the researcher, the work has been distinguished by aesthetics of visual deception through the movement of silent nature in the painting using the overall perception of the work as well as the reduction and magnification of the geometric forms resulting in continuity in the motor deception, working on the interaction of the beholder in the interpretation of the work even if he describes his feeling of dizziness in the prolonged view of the artwork.

Model 4: *Action: Impossible waterfall (original and model), Artist: M. C. Escher, Date: 1961*



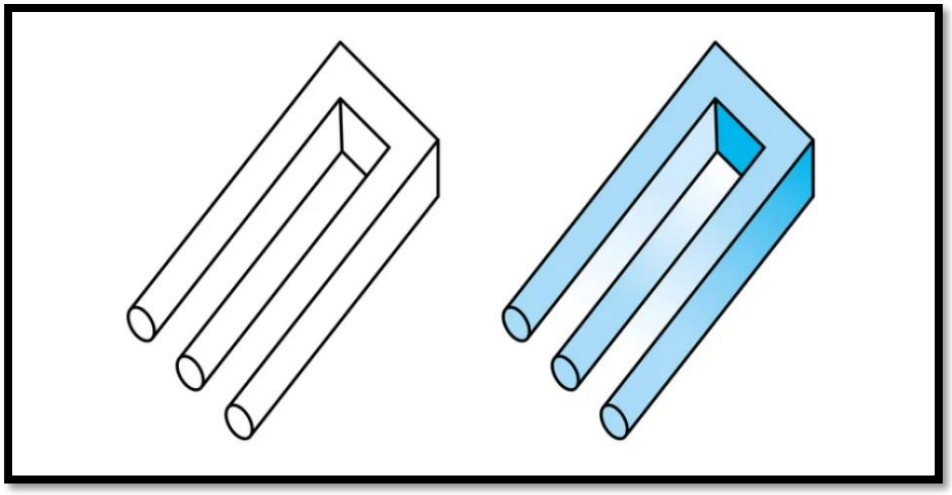
Source: https://www.mathorama.com/geom/lessons/impossible.html

7.4 Analysis of Artwork

The waterfall is a stone print created by the famous Dutch artist Mauritz Cornelis Escher in 1961. Where the "Impossible Ladder" has developed further, permanent water traffic appears to move in the waterway from the base of the waterfall and descends the hill along the waterway before reaching the top of the waterfall. Which suggests that they move upwards in a mock view of continuous movement. According to the researcher, the work was characterized by the aesthetics of visual deception through the work of contemporary visual abstraction. The artist has used the work two dimensions conflicting and its complex details and mathematical accuracy, To create profound contradictions, visual paradoxes, and puzzling illusions that challenge traditional perceptions, The viewer looks at the scene in total diagonal form, which means that from the viewer's perspective the channel appears to be tilted upwards, The viewer also looks across the scene partially diagonally from the bottom right, meaning that the two left turns are directly aligned with each other, while the water tanker, the front turn and the end of the canal are all in the course of the water channel.

Accordingly, the artist demonstrated the aesthetic values of visual deception with the participation of the recipient when narrating the two-dimensional work as a three-dimensional using the circular motion trick of the water stream from the bottom to the waterfall head in a continuous movement, a unique creative idea that inspired a new aesthetic sense of the viewer, and direct connection to the subconscious.

Model 5: *Work: Deception Trident "Impossible Fork" Artist: DH Schuster: Date: 1964*



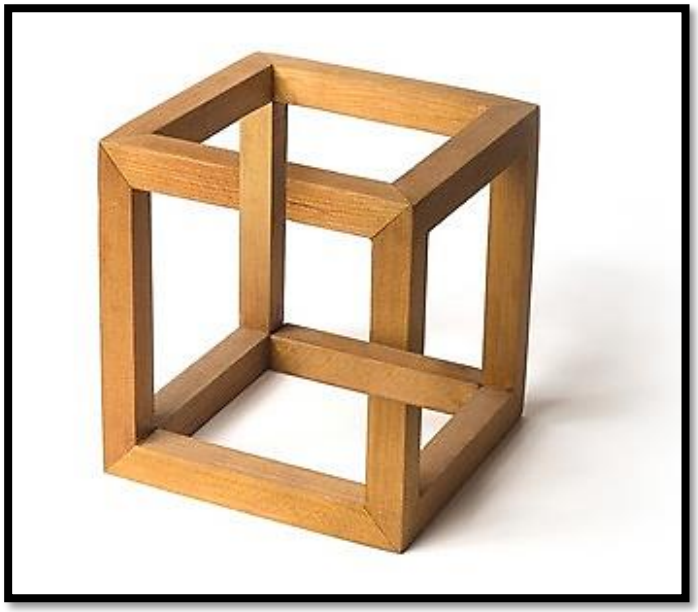
Source: https://www.deceptionsindex.org/i/2-impossible-trident

7.5 Analysis of Artwork

The artist "D H. Schuster" inspired the idea of this work after observing a strange image in a magazine, as this work represents an impossible object by showing that it is a triple-people spear at one end and contains only two forks at the other. The artist relies on the desire of the beholder by using the intuition of the brain's interpretation of linear drawings as projections of 3D objects. For example, if all the parts of the drawing are consistent, you look at them in their entirety. However, when you look through this hypothesis, the triple spear becomes contradictory and geometrically impossible. Interestingly, even when the beholder realizes the impossibility of interpreting linear drawing as a three-dimensional form, the mind continues to try it, rather than seeing painting for what it is as just a set of lines on a flat surface.

According to the researcher, the work was distinguished by aesthetics of visual deception by transforming the artist's level-paced form in the view of the beholder into three-dimensional photographic rules to create deception. Thus, the artist breaks some of these rules to make the construction of the shape impossible, using the interrelationships between opposing lines that provide the deception with an impossible image.

Model 6: *Action: Impossible cube, Artist: Charles Cochrane, Date: 1966*



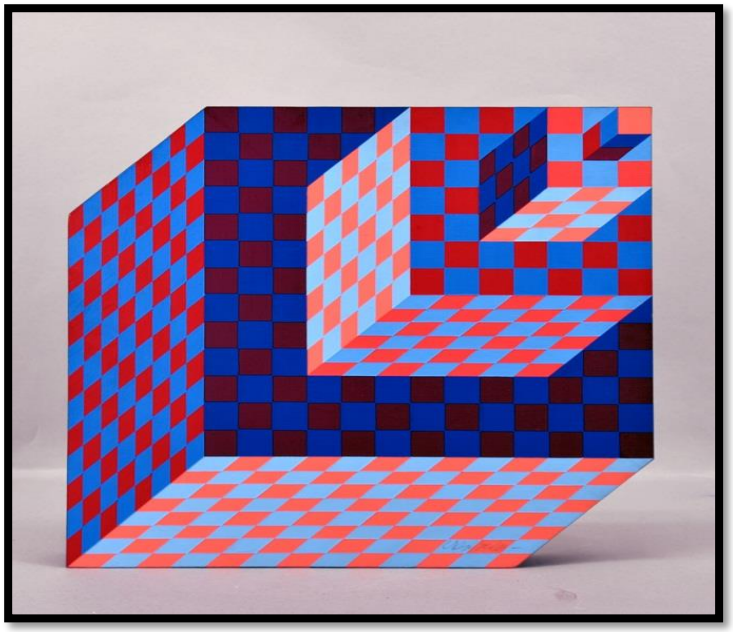
Source: http://bengar.com/blog/tag/ilusiones-opticas/

7.6 Analysis of Artwork

The Impossible Cube is a kind of visual deception, invented by the artist Charles Cochrane in 1966, from the journal Scientific American, where it was called the "Freemish Box," and notes that the Impossible Two-dimensional Cube was created by incorrect communication by optical illusions, which leads us to realize the intersection and movement of the cube's connections and depth. The impossible cube depends on the ambiguity found in the two-dimensional drawing, where the cube is drawn by the edges and the four joints cross the lines and make the front lines go back and vice versa, and the illusion plays on the human eye interpretation of the two-dimensional images as three-dimensional objects, giving the apparent stiffness of the impossible cube beams visual ambiguity

According to the researcher, the work is characterized by the aesthetics of visual deception and creates a sense of depth in the work and visual interest through complex overlaps to make impossible geometric designs, through the work of contemporary visual abstraction. The main trick of the impossible cube is to create a deceptive view of the topic by 3D work while doing two-dimensional work, it forms the wrong integrated image, and this incorrect perception leads to visual deception, and achieves this paradox through a distorted perspective. Visual effects lead us to misconceive reality, or see different things in the same picture depending on several factors such as mood, different stimulation of eyes or brain, by the color, size, shape, movement, direction, perspective, etc.

Model 7: *Work: Forville, Artist: Victor Vazarelli (1906-1997): Date: 1989*



Source: https://www.masterworksfineart.com/

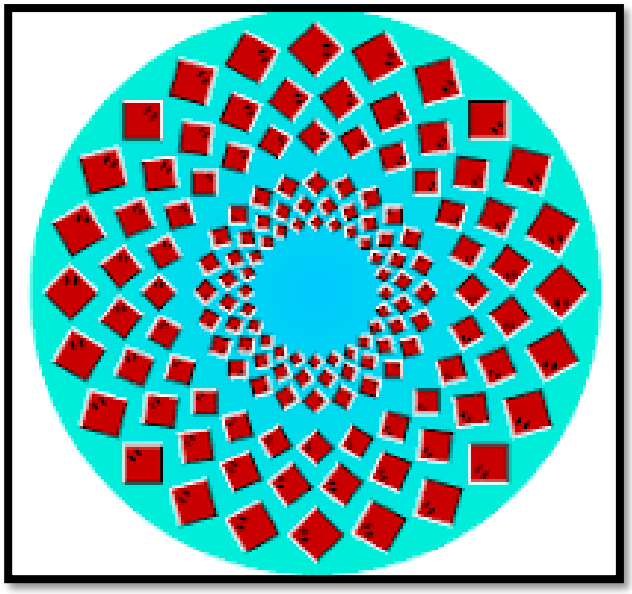
7.7 Analysis of Artwork

This work by the artist “Victor Vasarely” looks like a 3D, with one side of the work in an integrated red and blue combination with boxes extending to the top right. It is an ideal arrangement in which the artist was able to transform and exceed the medium inhabited by this artwork using varying degrees of the same colors to create deep existing corners versus a two-dimensional level. The artist has also taken interest in visual deception by participating in the beholder when narrating the work as a three-dimensional level using uniformity and similarity in the geometric units and bicolour elements through which the holistic and constructive perception of the shape is made.

According to the researcher, the work has been distinguished by aesthetics of visual deception through a work of contemporary visual abstraction. One of the greatest examples of the artist's ability is to produce visual deception by dealing with color, light and geometry, producing visual deception printing and giving the eye network the appearance of overlapping 3D cubes with varying colors.

The artist demonstrated the aesthetic values of visual deception with the participation of the recipient when narrating the two-dimensional work as 3D using the relative size trick, Light and deep colors, uniformity and similarity in geometric units and bicolor elements through which the kidney and constructive perception of the shape is made, This provoked a hierarchical rise in form, a unique creative idea that inspired a new aesthetic feel for the viewer, and direct contact with the subconscious.

Model 8: *Work: Rotating Radiation: Artist: Akiyushi Kitaoka: Date: 2014*



Source: https://en.wikipedia.org/wiki/Akiyoshi_Kitaoka

7.8 Analysis of Artwork

This work, designed by Akiyoshi Kitaoka in 2014, consists of two episodes of red aids, one of the rings inside the grand ring, in which the outer ring of radiation appears to move clockwise, while the inner ring appears to spin the opposite automatically when it is prolonged. The artist has used visual deception of geometric forms, brightness and colors based on the concept of philosophical theory of completeness and cognitive transparency to demonstrate movement in this work by relying on the quality of peripheral vision, or on the psychological state of the viewer.

From the researcher's view, the work has been distinguished by aesthetics of visual deception through alternative fact experiments of distorted reality, which enters the beholder among the physiological and real deception. The effects on the eye and brain result from the excessive stimulation of a particular type of color or movement with the convergence of the partial shape within the kidney work as well as the consideration of geometric angles leading to confusion of the eyes and brains of the beholders.

8. Results

Briefly, given the deep analysis of artwork and research models, several key results are attained, i.e. modern philosophies have contributed to changing a lot of artistic trends that regulate the artist's relationship with the objects around him, such as the philosophical framework associated with the overall perceptions resulting from the Gestalt theory, which has resulted in some rules to regulate the constituent elements of the artwork, such as convergence, contiguity, similarity, shape, surface, angles, as in all research models. The results also show that visual deception-based artworks provide aesthetic values based on a renewed vision based on the beholder's participation in the production of artwork through both eye and mind effects resulting from excessive stimulation of a particular type of color or movement with convergence of the partial shape within the kidney work, as in all research models.

Other key results indicate that modern-day artists employed technology to create innovative entrances that led to the

development of many key artistic trends, i.e. visual deception attempts to link art to scientific progress and to perpetuate the aesthetic element of openness, freedom and intellectuality, as in all research models. Also, the results find that the aesthetic relationships of visual deception resulted by achieving the overall unity of the artwork, as well as the varied expressive homogeneity in front of visual perceptions, as in Models (3, 4, 7, and 8).

Importantly, it is shown that the artist was able to produce works of art characterized by visual deception to produce three-dimensional manifestations by dealing with lines, colors, light and geometric forms, as in Models (2, 3, 4, 5, 6, and 7). Moreover, the artist was able to produce works of art characterized by visual deception to produce kinetic manifestations by dealing with lines, colors, light and geometric forms, as in models (3, 4, and 8).

9. Conclusion

The current article concludes with remarks, i.e. complex paintings by visual deception artists helped to rejuvenate the spirit of contemporary art characterized by pulsating motion when combining geometric shapes with monochrome, binary, or varied color palettes to produce visual tricks. Also, modern and advanced printmaking techniques enabled practical practice and continuous experimentation in multiple ways for visual deception, which helped to access innovative formative relationships and reveal new aesthetics for artwork. Moreover, the artist used methods of heterogeneity, exchange, and compatibility between visual deception ideas, such as poise, rhythm, proportionality, and unity, to inspire movement and achieve artistic depth. Further, the font, color, and space elements can achieve fluctuating visibility of the art form by varying light, dark, and opaque tones.

10. Recommendations

Given the thorough artwork analysis, discussion, and results attained throughout this current paper, this paper recommends utilizing the aesthetics of visual deception to study the geometric and abstract aspects in different art fields. Another key recommendation is having continuous access to technical and technological development to produce works of art that are serious and innovative. Regarding future research work, the article recommends conducting more research investigating the use of aesthetics of visual deception in various fields of knowledge

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