

The Aesthetic Dimension of Vector Technique in Design

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The current study addressed the aesthetic dimension of vector technique in the design work. Graphics are part of the study and analysis, which dealt with the content of vector technique, including the problem of research and the need for it to highlight the problem of the current study. The researchers asked: What are the mechanics of vector technique? The objective of the study was to identify the aesthetic dimension of vector technique in design. The theoretical framework included the first topic: digital art and the transformations of contemporary thought, and the second topic: the technique of vector and contemporary aesthetic systems, and in the analysis of samples. The researchers followed the descriptive approach. For analytical purposes the sample was based on the results of the literature review of vector technique. It is followed by the most important findings and conclusions.

Key words: *Digital Art, Digital Technology, Vector, Design aesthetic dimension.*

Introduction

Contemporary digital technology has created a design philosophy of technical innovation. In it, technology and means of communication overlap to achieve creative and aesthetic formulations commensurate with contemporary trends and culture. That led to the emergence of digital techniques including the Vector technique, which is one contemporary digital art that has developed the form of design to express the requirements of contemporary life. The technology has enabled the translation of the elements and design foundations of symbols bearing codes into aesthetic, semantic and functional content, creating a contemporary vision between what design was and what becomes of it.

The designer presented a complex artwork. It overlaps design elements, in accordance with his technical design and technological vision which constructs and forms, from formalism,



colour mixing, disassembly, modulation and shorthand, to create an especially expressive character of the imagination. It expresses the subjective and distinctive designer, and is proportional to the aesthetic technical correlation of the product form of the vector image. It is a vital and pluralistic design, and combines standards of self-perception and digital vision to adopt aesthetic and artistic modern views. It also takes into account contemporary designer culture and arts in different areas, to communicate the message of language creativity which affects the recipient visually and aesthetically.

Research problem

The contemporary design evokes theses and techniques of presentation and stylistic concerns, commensurate with pressures of contemporaneity in the twentieth century. The designer has created a vision for the selection of a means of technical presentation that changed the concept of visual art text, whereas vector technology in contemporary digital art has occupied a creative and aesthetic space that contrasts with other digital technologies. Therefore, the current research is concerned with the study of the aesthetic dimension of vector technology, and with exploring its role in enriching the communicative dimension of design. Hence, the research problem was identified by the following question:

What are the mechanics of the Vector technology in graphic design work?

The importance of research

1. Highlight how to employ a technique (Vector) in the digital design work.
2. To benefit from the theoretical aspect of the intellectual underpinnings and aesthetic aspect of digital design processors for those in the design field.
3. Highlight the role of the computer as an important contemporary tool in design and the arts in general.
4. The effect of the technique (Vector) in the graphic design work, especially in designing logos using the relevant icons with advanced technologies.

The objective of the research

Identify the aesthetic dimension of vector technology in graphic design work.

The Research Methodology

The researchers followed the descriptive approach for the purpose of analysis, to suit the subject of the study.

The research community

Although the researchers have been aware of many of the design works related to vector technology on the internet, they have not been able to count the research community statistically, for many numbers. The researchers, therefore, have reported the works available to cover the current research objective.

The research sample

First, the two researchers reported from the indicators that ended the theoretical framework of the current study in the selection of the sample of the research. The sample of the research was then deliberately chosen, and prepared (3) designs for a logo where the selection accorded with the following reasons: 1 - variation of selected samples in terms of methods and work Vector technologies; 2- Vector, Distinguish samples from others in terms of their fame.

Conceptual and procedural definitions

The aesthetic dimension: Organizations of mental and emotional provisions are generalized to objects or meanings, whether the preference arising from these estimates is explicit or implied (Mahmoud, 1988, p 602). For the purposes of the current study, the researchers know that innovative ideas and new technical methods and their applications in the fields of life are unfamiliar, to create visual excitement.

Technology: Club (2005, p. 35) defines technology as the systematic application of scientific knowledge to practical tasks, which is the integrated organization that incorporates the machine, opinions, ideas, human and working methods so that they all work within one framework which is the systematic treatment of art. For this study, the researchers define technology as: The ability to employ computer software in the design work to complete the work of design integrated elements, based on the abilities of the designer in the composition and distribution of the elements and colours within the work, according to the vision of the designer through a specialized program with the aesthetic and artistic features developed.

Vectors: A technique for the formation of images and graphics that are lines and curves that represent image configuration elements that are mathematically defined (determined by coordinates) where they are stored as lines for each location, direction, thickness, and colour (Noris, 2013; 11). For the purposes of this study, the researchers know them as: the process of constructing graphic forms destined for the visual achievement of my design.



Design work: "... is visual communication and organizational activity by symbols, marks, images and lines instead of the spoken word to achieve communication and exchange with the contemporary World" (Jeremy, 2004; p. 6) For the purposes of this study, the researchers know it as: a visual communication activity that achieves through the ability and experience of creativity and innovation in the implementation of art work using vector technology.

Chapter Two (Theoretical Framework)

Digital art and Contemporary thought transformations

The world today is witnessing rapid developments in all fields. Cultural and economic development, industrial growth and technological innovation have led to continuous changes in social relations; the result of their repercussions on social life, as the experience has touched aesthetic, artistic and creative vision: "... and that the change in the environment from both physical and spiritual, it requires new methods of change" (Dewey 1963, p. 210).

The digital revolution was not only a formal transformation but one of the components of the contemporary intellectual system, and an element of its intellectual creative visions. Today we live in the age of the computer and digital graphics which are characterized by ease of use, performance, speed of production, shortening of the media and reducing time. They are also "... achieving Pre-vision of results and high quality that do not lose value no matter how they rolled up and the possibility of editing, modifying, transferring and publishing via multimedia" (Abdul Hamid, 2005, p. 134).

"The Art of computer design in its historical roles with technical development, computer drawing programs and digital devices have undergone transformations in the patterns and styles with which the names of the arts produced, their characteristics and their qualities began from the technological art and then the electronic abstraction of Labowski and then digital art to the art of Computer (Haralambons, 2005, p. 124) graphics, shapes, scripts, multimedia and images are now located in the term Graphic, which depends on the digital system used to store data and information".

The result of these technological techniques in the field of art has emerged to "re-display the artistic intellectual vision in a contemporary way, and presented aesthetic experiences of innovative design and distinct (which) cannot be implemented only by the computer and technological technologies and became a source of satisfaction of artistic creativity if the artist can invest the capabilities of the machine ('Evolution of Creativity'" (Taman, 2004, p. 4).

Here, the researchers find that the technical dimension of the technology and its essence is inseparable from the philosophy of science. Yet both the structure of technology and scientific knowledge are moving in a controversial exchange of sites. Science is employed to invent a certain technology and employ technology for the service of science, and despite the dialectic of this relationship it remains a scientific research characteristic that differs from the technique in which experiments and attempts are applied to achieve certain results. At the same time they are closely linked and complement each other. Modern technological experiments in design and art are the basis for the development of the arts in their various fields. Without modern techniques, experiments and technology, there is no development of the arts. The difference in the methods of implementing experiments and applying their results seems to have an impact on the appearance and shape of life.

Contemporary vector techniques and aesthetic work systems

The art of design has witnessed a rapid development in its fields, methods, and various resources. It has also pushed into daily life, so as to call it the adjective (daily art) as a phenomenon that is constantly changing and meeting the needs of society as a result of digital technical progress. That led to a major change in the concepts of communication and technical deliberation. It also changed the function and then the aesthetic and media form by interfering with the art of photography, writing and painting that we find in the house and the street, and invests the expressive aspect of the individual's needs.

Design is the environment of the individual who is surrounded by taste and determines its paths. So it is the problem of the artistic age and the phenomenon of contemporary aesthetic discourse. It carries in its content the language of communication as determined in cultural and visual context. Thus the art of design is a form of contemporary expression. It is a means of communication based on aesthetic means, which carries imagination and creativity between it. The designer is aware that the idea he wants to deliver through creative designs seen by people (like logos, brochures, posters, advertising) spread in the modern world and became a necessity for both communication between individuals and the requirements of life in our world today.

Every age has its own tools which the artist must design for use in his creative production. Modern technology has imposed a new reality and technology that has produced a new and changing vision, with which the designer interacted and harnessed to serve his ideas. This results in new intellectual and aesthetic concepts in technical language; the language of graphic techniques used to form and photograph objects accurately and quickly. So as the artist designs to experiment with these techniques and new media to establish aesthetic concepts with artistic value, a series of programs have emerged which in turn have

contributed to the opening of new horizons and various methods to organize the items of elements design in design work.

Vector Technology is one of the most important techniques affecting graphic software and digital systems, to more precisely formulate design work. Vector graphics are vector-based digital images. "These images consisting of lines and curves determined in a mathematical way are known as vectors and these elements overlap with us to be form. The vector graphics are ideal for 2D designs because they can be easily re-measured without any loss."(McCann, 2009, p. 11) The work logo, for example, can be reduced to the size of a business card or raised to the size of a panel, without losing any image quality. Its location is determined by its coordinates, as it is stored in the form of lines and the image preserves the location, direction, thickness and colour of each step. Each line is drawn in the image using mathematical equations.

Vector graphics are referred to as graphic graphics, a type of design that uses mathematical algorithms. They allow the image to be adjusted and enlarged without loss of quality or the accuracy of the image. It is easy to change the size of the image. Re-measurement allows you to increase the size of the design or reduce its size without compromising the original design. We are able to resize the image easily without distortion and blurring. Converting a vector image to lines of pixels or 'raster' is easier than converting a raster to a vector. Vector image elements present as a separate, fully-fledged, complete, manageable element by moving, rotating, sizing, and deleting it as an individual element or group with any precision. The software retains the properties that determine the element based, on mathematical arithmetic using vector images. We can maintain sharp limits at any magnification, with effective storage.

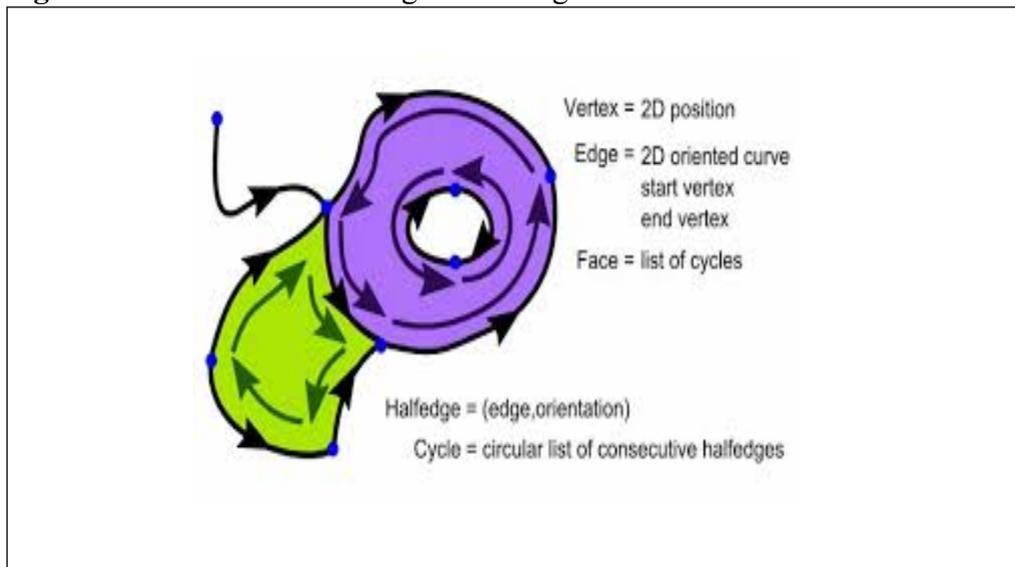
Figure 1 illustrates the difference between a vector image and a raster.



Source:<https://www.slideserve.com>

Its characteristics are very precise. Whatever the degree of magnification it will not affect additions to the 'pen tool', the main tool for working the vector. The edges of the vectors are smooth and accurate because it does not depend on pixels. Designs (Vector) or (vector graphics) consist of curves and lines defined within the computer as mathematical objects called vectors. The vectors describe the image by its geometric elements. Therefore, the size, colour, and location of the vector image can be changed or resized to enlarge or minimize, without affecting the quality of detail or clarity as in Fig. 2.

Figure 2 shows Vector drawings consisting of curves and lines defined within the computer.



Source: <https://www.youtube.com/watch?v=NdQFA>.

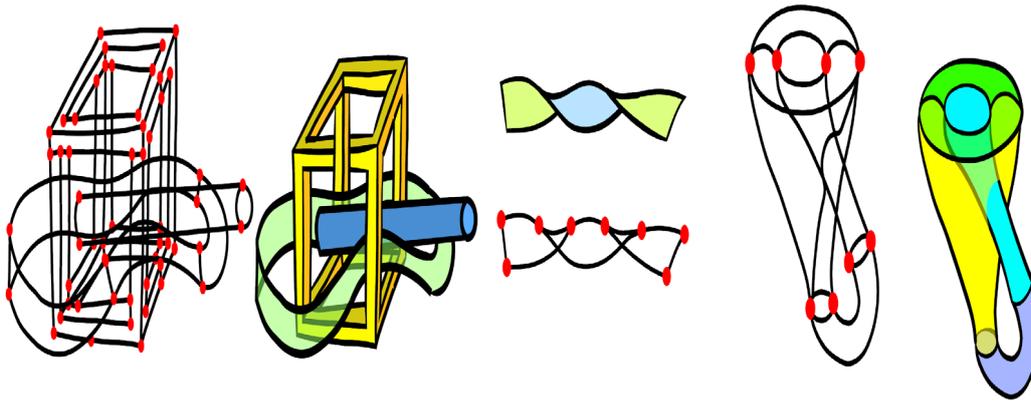
This is therefore a good option for logos. This aspect of processing is based on-line. It makes the computer read the graphic as a set of mathematical equations that lead to redrawing, if you want to enlarge, or a smaller area, or to move them from place. So the computer when processing graphics, acts as if it understands what you are drawing. It works in a more intelligent way. It works by adjacent and contiguous lines, because if we find the straight line, it was the line that reached between two points only; without the need to define all the points in the middle.

"Vectors are a one-dimensional image that exists along the x-axis or y-axis, and its timeline is very simple, it may be a one-dimensional image because it moves on a single linear timeline (the x-axis) and the vector contains a quantity of size and direction, sometimes referred to as the Arrow " (Hamid 2016, p. 24)

Vector graphics are the use of polygons to represent images in computer graphics. Vector graphics are based on vectors, performed across sites called control points or nodes. Each of these points has a specific position on the X and Y axes of the working level and specifies the direction of the path. Furthermore, multiple attributes may be assigned to each path, including

values such as the colour of the border, shape, curve, thickness, and fill (Buss, 2003, p. 256). Vector is ideally suited for logo design, detailed illustration work and industrial illustrations. It is also called object-based graphics or vector-oriented graphics, as in Figure (3):

Figure 3. Represents vector-designed illustrations (Vector).



Source: <https://www.borisdalstein.com/research/vgc/vgc.pdf>

Figure 4. represents a company logo designed with vector technology.

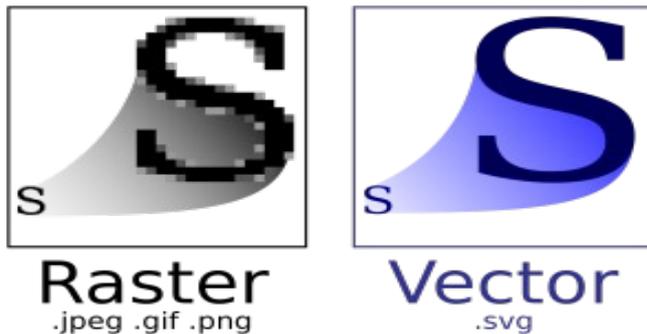


Source: <https://redrocketcreative.com>

Vector graphics are characterized by no loss of clarity if enlarged. They rely on equations that describe the components of the image, re-drawing on any zoom resolution or magnification. That is unlike raster graphics (pixels), which if enlarged lose features when rounding. Vector graphics can modify parts of vector images more easily than raster, without affecting other parts of the image. They keep the data of each part. Vector graphics can store graphics with less storage volume on the computer because they store the equations used to draw the image components, while raster graphics store each pixel in the image separately. Therefore it is a favourite for use in illustrations such as maps and abstract designs. But it is absolutely

inappropriate for photography. This makes vector graphics ideal for logo design, which can be small enough to appear on a business card but can also be resized to fill the billboard in Figure (5)

Figure 5. shows the difference between the design of raster technology and vector technology.



Source: <https://ar.wikipedia>

One of the programs used in vector technology is Adobe Illustrator (SketchBook Pro), Corel Draw. The computer writes these drawings in a special language such as "Post Script" which is used in typographic design as well as commercial printing, and is translated into Optical visual form in computer style (Elmansy, 2013, p. 61) Vector graphic technology is widely used in logo design. Programs can read and interpret the phrases contained in vector files, build raster maps of graphics and images you can categorize, and then show them on the computer or print them. The language (Post script) is a graphical descriptive language because it is rich in capability and powerful. It can be used to describe shapes represented widely, including typographic characters, and is not used to describe photographs because it does not give satisfactory results.

Guided drawings are pictorial drawings whose components are lines, circles, squares, oval and rectangles that can be moved independently of each other within the program, and are used in the program and in applications such as logo design and illustrations, where the images are mathematically described as a set of instructions to create objects in the figure drawn also known as Vector graphics (Shami 2001, p. 1690).

The logo is a simple form that reflects the nature and activity of businesses and companies. It represents a trademark denoting corporate identities, an important area of design. Interest in logo design has increased dramatically since the advent of modernity in the United States in 1950, as widely as it simulates thousands of individuals in different layers, about the nature of the business of the company or the cultural entity. "The design of logos is characterized by

the abstraction of the elements in nature and employs them dramatically serves the idea and achieve the goal " (Mohammed 2010, p. 10).

The design of the logo requires a degree of simplification, shorthand, and modulation. It thereby reaches formulations with the nature of excitement and attention, and pleases visually and aesthetically. The designer must use the various elements and bases of design to achieve aesthetic values, by crafting the icons of imagination, prediction and curiosity with its formal formulations of consensus and synergy. And each piece of content and value of the designer-

"... stands in the face of his aesthetic problems, the first two positions on the dealing with the construction of formal and aesthetic formulas and the second is based on the connotations and meaning contained in the symbols, which are twin positions that integrate them into the formation of the sources of artistic identity in the field of thought to reach the approach for visual communication achieves the desired goal of the logo" (Shaker 1993, p. 3).

There are several considerations for the logo designer to take into account. They include the expression of the content of the company or the organization and the services it provides, and the simplicity of the logo. It also contains icons that are simple, to provide the eye comfort and scope, to understand the content of the logo. Here we find that the most famous logos in the world adopt the principle of simplicity and complexity, which positively affect the process of communication. In addition the world's most popular logos use two or three colours, because a multitude of colours disperse psychological reactions. The lack of colours that make up the logo makes it more capable of conveying the message; a distinctive characteristic of a successful logo that fits the dimensions and has appropriate dimensions that do not lose its value when enlarged or minimized.

The main principle of the design of logos is the distinction between companies, through the company's logo which describes excellence and uniqueness. All of the above is done with contemporary technology, which works to find important visual formulas for the recipient of the logo. Vector image technology is one of the most appropriate techniques in the design of logos.

Features of vector image

- Efficiency and flexibility. You can draw a curve as a set of straight short lines connected to each other, or draw a straight line by setting its end instead of assigning each point in it.
- Part of it can be represented as circular arches with halves of the diagonal and the points specified by the parties. In this way, the control of the sites, colours,

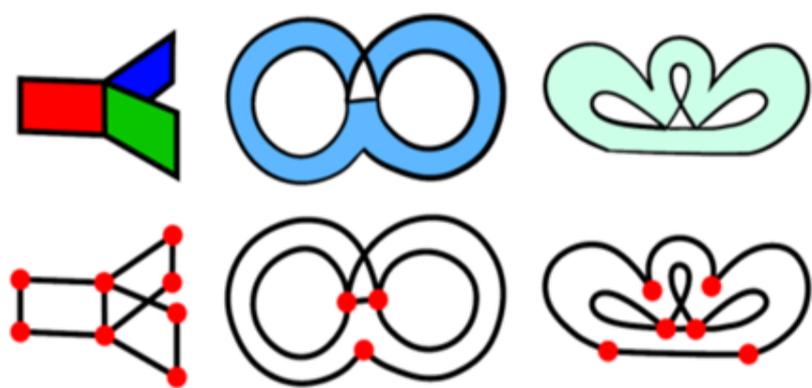
dimensions, and shadows can become easier, without leading to a lack of image quality.

- Small, compressed and compact files are reduced in size and stored in a small space, which is easy to handle and transfer within computers. Lines and shapes can be rearranged without image defects, and their measurements can be scaled up or zoomed several times. The shapes created by the vector graphics program can be moved and rotated as independent, because the vector drawing program retains qualities on a mathematical basis.
- Flexibility in containing vector image files on non-vector data such as colour grading, text, shadows, and raster images.
- Vector graphics are best when writing small size letters and drawings that need sharpness, or will be raised in fonts in variable sizes such as logos.

The features of vector images are not based on the brightness of the screen. Therefore they appear as high as possible, regardless of the brightness of the screen, as opposed to raster. Vector images do not deal with pixels. Instead they deal with lines and so the image is preserved; the location, direction, thickness and colour of each line. Each is drawn a line in the image using mathematical equations, and there is the possibility of enlarging or minimizing it to any degree without affecting image quality. Nor does a vector image require much space when stored.

Vector graphics are made from points connected by curved or straight lines. Paths created by these lines can be open, meaning they contain a starting and ending point, or they can be closed by linking the last point to the first point, creating a form. Mathematical equations determine the positions of the dots, as well as the shapes and sizes of the lines. For this reason, vector graphics can be resized and displayed in any size without losing sharpness or changing appearance as in Figure (6).

Figure 6. illustrates vector drawings



Source: <https://www.borisdalstein.com/research/vgc/vgc.pdf> <https://redrocketcreative.com>

Using these shape tools, it is possible to create icons, logos, graphics, and even advanced digital illustrations. Most printing companies need a vector image because they have the ability to resize the image, and the ability to select all the elements of the image, allowing the printer to give a look to any line, even if the font is not traditionally available to the printer. And “vector technology is digital graphics created using basic geometry-points connected to curved or straight lines. Using these points and lines, you can create everything from simple geometric shapes to widely complex digital illustrations” (Wayne 2003, p. 131).

The aesthetic dimension of the vector technique in designed work

Theoretical framework indicators

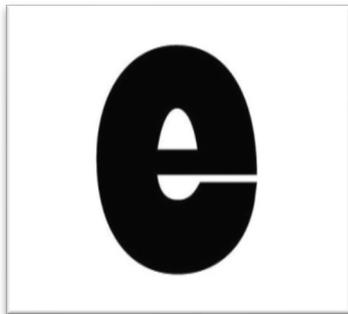
1. The reliance on contemporary techniques and the availability of computer software are entirely dependent on its diversity, its spread and the possibilities available for creative ideas through the designed elements, in an innovative technical method that helps design the logo and its appearance accurately.
2. Vector graphics are used to create shape tools, produced in all image editing applications as well as applications such as pages and keywords. With these shape tools, you can create graphics, symbols, logos, and illustrations.
3. The computer constructed a digital innovation revolution in the field of digital graphic art and its multiple techniques, especially in the technique of vector. The digital designer has a wide range of great possibilities in the formation of graphic shapes with aesthetic and innovative characteristics.
4. The designed work has been established due to digital techniques and contemporary thought, a specific language in which the mind turns into an optical lense and refers to itself, getting out from repetition to innovation, and moves from reality to creativity.
5. Digital art is the art of the age and the most popular and circulated of arts, as a result of the technical achievements of precision vector drawings, which differ from other digital technologies.
6. Vector digital technology has led to transformations in contemporary design structure and its consistency with multimedia, systems of achievement and presentation, and the restoration of philosophical and artistic values to suit different tastes.
7. The Vector Image, which is characterized by a mathematical approach, the basic unit, was characterized by the quality and accuracy in the designed images, whatever the size of the image and its dimensions.
8. Vector Images are flexible in containing Vector Image files that contain non-vector data, such as colour gradients, shadows, texts, and bitmap images.
9. The vector drawings are the best in writing small letters, in addition to the drawings that need a thin or sharp font in a variable size, such as for slogans.
10. Adobe Illustrator_ CorelDraw is vector image software. It is the most widely used digital

software for generating graphics and shapes, and processed with high accuracy, changing its path and colour. Vector drawings are characterized by the arrangement of lines and the return of forms without defects. They change their dimensions by miniaturization or magnification many times. They contain the possibility of printing in multiple measurements without infringement to their forms.

11. The era of the day is the era of image and symbol, as the elements became a mean of communication across cultures for easy identification of their symbols and signs, in isolation from the difference of culture and language.
12. The designed work is a visual communication language based on communication and interaction. The better a visual design is created, the more a positive impression will be given according to the slogan's message.
13. Provide the attraction elements in logos and advertisements on products. These are one of the Cofactors to attract the recipient, increase circulation and attention to the distribution of elements of the designed work. This performed in a coordinated between form and content.
14. The design of the logo is characterized by international symbols. That makes the visual communication acquire expansion, dissemination, preservation of the visual image and its stability in memory, and its attachment with technology and social variables for their simplicity and reduction.

Analysis of models

Model No. 1



The slogan of egg and spoon company

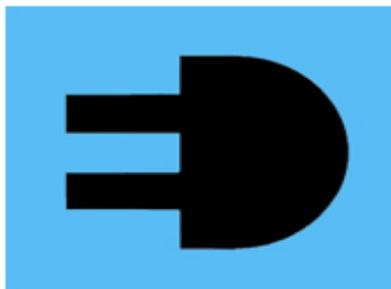
The logo is one visual means of visual communication that relies on brevity in the transfer of the design idea. The main idea of this logo is nutrition. A slogan for the company is “egg and spoon”. The company was represented by the letter “e”. It is an abbreviation of the word “egg” in English. The designer used the CorelDraw vector graphics design technique to achieve a creative design vision, using only two colours; black and white, to make the logo more capable of conveying the visual message. It also produced an unfamiliar shape of the logo structure with an overlay of a configurable curve. The logo was designed in a simple

way to express the activity and nature of the company.

The configurable reduction is an essential characteristic of the design branches, especially in the design of the logos. In this logo, the designer introduced the letter and included it in the shape of the egg and the spoon through the theory of Gestalt Perceptual Realization, which is linked to the closure between the shape and the ground of white vector graphics; carried in this reduction and the simple form of egg and spoon.

Technology played a role here in collecting the technical elements, the process of linguistic reduction, and in showing the shape with a configurable reduction, in a process of blending the word and image to express precise meaning. Hence, the importance of design is evident in its components' composition, and in basing the distribution of the components on a regular, systematic design, to convey an intellectual meaning through configurable relations systems. The designer uses simplicity in this technique to make it easy to distinguish. Great corporate logos such as Samsung, FedEx, BBC are all simple, to make it easy to distinguish them.

Model No. 2



Elettro Domestici

The slogan of a commercial company ED (Elettro Domestici)

Humanity moves into the world of fantasy through art by composition, relying on a specific mechanism in building its artistic form to talk with the recipient. The designed work is a logo for Electro Domestic (ED), an electrical products company in Italy, and the logo designed by Gianni Bortolotti uses the inverse vacuum colour in a creative way to form “E” and “D”.

The designer relied on a combination between shape and word; the logo was implemented using vector graphics. Here, the role of technology in manipulation comes through its dependence on iconic representation. The designer used the negative space surprisingly to show the letter "E" and "D" and took the blue colour as a designed space.

The process of reading and analyzing the logo depends on the design structure formulation,

its activation mechanism, its foundations on which the designed work is based. The design of the logo is based on creating a realistic perceptual icon, and a virtual sense of the idea's meaning. It is remarkable to achieve a double image in the logo idea, through a symbolic icon of the characters of the company name. The designer presented a single icon to clarify the meaning of the image label and its expressive ability. The icon and its cognitive and inspirational significance served the aesthetic and functional dimension; it shows a visual combination based on the substitution deviation method.

Model No. 3



The slogan of London Symphony Orchestra

The icon is the essence of the visual art of the logo. It works to produce a new language that captures the visual energy of the receiver in non-visible interaction between the icon and the level of consciousness possessed by the receiver. The logo design was based on a composite system by creating a coherent visual communication system, which formed an interactive discourse relating the material to location. Vector technology has played a role in the unique expression of the idea, and in adding aesthetic value through the internal movement that formed a linear system, through the establishment of an optical path with an internal direction that attracts the eye to the logo.

The logo of the London Symphony Orchestra contains the letters "LSO" in a new text. It forms a single sinuous line, but what the receiver does not see is the abstract image of the orchestra maestro, who is waving with one arm and acting with the other. This construction came as an investigating innovation in constructing the idea, because borrowing the line there was an innovative way to express the mental image, and imagination, and interpret the hidden connotations within a linear combination that represented the reality and expressed it, to achieve an aesthetic and functional dimension.

Digital technology has been reduced in taking out the idea through one design element and one colour; red. The recipient of this logo can be distinguished after reading it orally. Then

the recipient realizes the rhetorical form clearly, and the receiver detects the blades of the undulating lines to form a language and formal image at the same time. The recipient stands in front of the design text which is integrated and transformed and disciplined; it is not about simulation but about seeing shapes with a new and innovative vision and being a flexible tool for intellectual achievement and aesthetic taste. The designer simulated the reality with a fantasy vision to build a virtual digital image, one that works on attraction in an aesthetic construction through which the designer achieves his career goal, and reads the construction of the logo content based on computer software to come out with this virtual image of aesthetic and artistic dimensions.

Results

1. The modernity of vector technology in the designed configuration, keen on pure abstraction, by adding metaphorical relations between the elements of the designed work, and thus the creation of various indications and the integration of contrasts in colour and shape.
2. The characteristics of the digital forms produced by vector technology and coordination of the visual components of the designed work have varied.
3. The visual communication of designed work.
4. Superiority, clarity, simplicity, and uniqueness characterized by vector technology in the design of logos.
5. Study the cultural, national, and psychological aspects before embarking on the implementation of the designed work in general.
6. The closure process in the designed form is essential in clarifying the grave indications, references and symbols formed by visual deception and manipulation, between form and ground, to achieve the illusion of completion of the technical design form in the receiver, according to the Gestalt theory.

Conclusions

1. Vector technology links the intellectual content and practical content of any form. The ideas of the digital designer have translated into artistic forms with an aesthetic character.
2. The influence of realistic and mental indications, used in graphical icons, enhances communication speech.
3. Vector graphics consist of known curves and lines in the computer as mathematical objects called vectors. Vector images describe the image by their geometric elements, so its size, colour, and location can be changed (maximized or minimized) without affecting the quality or image clarity.
4. The icons in contemporary time are almost a method used by the most famous logos designers in the world, which needs methods that capture the recipient attention.



Recommendations

1. Keeping up technological developments and digital techniques in the design field, with knowledge and training at the level of educational institutions related to the artistic aspect.
2. Supporting the training field for students of Fine Arts in all its departments with innovations, technological multimedia, and digital techniques.
3. Follow up the latest findings of the creators in the technical programming field, and enhancing the cognitive and technical aspects in the field of shapes processing and digital designs.
4. Pay attention to the labour market needs (for designing logos), especially with the spread of visual media.



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- 2- <https://www.borisdalstein.com/research/vgc/vgc.pdf> المصدر