Employing Pixel Art as a Visual Stimulus to Enhance Recent Trends in Outdoor Advertising Poster Design

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Abstract:
The visual scene still suffers from chaos and randomness of outdoor advertisements that cause visual pollution such as the absence of unity and harmony, overlap of commercial advertisements, loss of advertising message effect with blocking the visual view of historical, architectural or aesthetic landmarks and ignoring the removal of some advertisements that have expired, causing distortion of the aesthetic face of the city. Advertising designer constantly seeks to develop ideas and employ pixel art as an artistic trend, although it is an old art, but it appeared with the advent of computers; whereas, old devices were not able to display complex, multi-colored and 3D graphics as it is now. The problem is how pixel art can be creative in solving similarity in outdoor advertising, how it can be used as an innovative visual stimulus and how it can be useful for the recipient's psychology?. It assumes that employing pixel art as a visual stimulus in outdoor enhances modern trends in advertising and limit its problems. It aims to recognize pixel art and its aesthetic values and how it can be used in outdoor design. The importance lies in the constant need for non-traditional outdoor design and benefit from the curricula of different art schools. Using descriptive approach in analyzing pixel art advertisements samples, experimental one by designing some applied models and statistical approach using closed questionnaire. The result is analyzing pixel art advertisements is an introduction that enriches advertising of all means. Research Recommend interest in international modern design trends.

Key words: Pixel art; Visual stimulus; Outdoor advertising poster.

Introduction:
The outdoor advertising targets bus stops, train stations and street sidewalks as places where recipients stand or move constantly, so they have plenty of time to read and understand it, so advertising has become a visual character for these places. Despite some environmental problems caused by outdoor advertisements such as tree removal, loud colors and lighting that may distract the driver and pose a danger to public safety, they contribute significantly to the formation of the aesthetic culture and provide a sense of completeness and satisfaction to the
recipient through provided goods and services.

With the rapid development of the advertising industry, simple direct ideas are no longer enough to attract the attention of the recipient, so he is always looking for everything that is new and unconventional in new advertising ideas. Outdoor advertisements are a real challenge for the designer as the viewer is animated, so the idea must be clear and achieve the desired effect.

Although pixel art is a relatively old form of art, it gained popularity with the invention of computers because earlier devices could not display complex, multi-colored, and 3D graphics that are used today. This is why advertising designers are constantly looking for ways to improve the advertising ideas that are presented.

Pixel art depends on drawing a group of small dots next to each other so that one dot is only one pixel in size, which makes these drawings accurate and relatively small in relation to the currently known sizes.

Pixel art is divided into two subsets, isometric, which are 3D graphics drawn without using 3D programs, and non-isometric which are flat graphics such as drawing a figure from the front, back or side.

**Research problem:**
1. How can pixel art be creative in solving similarity in general and outdoor advertising ideas?
2. How can pixel art be used as one of the curricula different art schools in outdoor advertising as an innovative visual stimulus.
3. How can pixel art be useful for the recipient's psychology and his love of challenging and solving puzzles?

**Research hypotheses**
- Employing pixel art as a visual stimulus and graphic processing in outdoor advertising poster design enhances modern trends in outdoor advertising and limit its problems in a manner that doesn’t conflict with the standards and controls of outdoor advertising.

**Research aims:**
- Recognizing pixel art and its aesthetic values and how it can be used in outdoor advertising poster design.

**Research importance:**
1. The constant need for non-traditional outdoor advertising design.
2. The need to benefit from the curricula of different art schools in outdoor advertising as an innovative visual stimulus.

**Research Methodology**
1. **The descriptive approach:** in describing and analyzing samples of pixel art advertising design in other media to benefit from them.
2. **The experimental approach:** by designing some applied models.
3. **Statistical approach:** by extracting statistical results using a closed questionnaire with analysis and graph.
The research sample
A random sample of 100 advertising recipients, men, young men, women, and girls of all ages.

Research terms:

Pixel art:
1. A form of digital art, through which images and works of art are formed at a very precise level, is the level of image composition itself, pixel is the digital image configuration unit in the form of a box.(3)
2. The tiny dots that make up images on computer screens, the image is divided into a matrix of thousands or even millions of pixels. As the number of pixels increases, the more accurate the image and vice versa. (4)

Visual stimulus:
A set of elements that presented to the recipient as visual information through vision, such as images, drawings, lines, colors, etc., So that it attracts his attention to understand and perceive it, divided into realistic and symbolic stimuli. (6)

Outdoor advertising poster:
1. Colored billboards in streets and roads including posters, on transportation of various kinds and ambient advertisements on parts of environment, reaching a large segment of recipients. Displayed repeatedly whenever traffic is repeated in front of them, it takes 2-3 seconds of the recipient time and characterized by the concentration of the advertising messages. (1)
2. An external publication combines brief visual effects with a direct impact on attracting attention while expressing the idea in a simplified and condensed composition in each part, it carries the content of promoting service or product, and aims to influence the recipient in the first place towards the advertiser. It is a means of communication to convey and exchange ideas and meanings through visual forms. (2)

The researcher will address this topic through several points as follows:

I. Pixel Art between past and present:
- Type of art began with the advent of computer, but it was not able to display complex graphics with many colors or 3D images as it is today, so game developers in that period relied on pixels to draw backgrounds and game characters with their simple colors, which despite their simplicity at that time, it was great and very fun like Packman and Sonic games which are the highlights of that era.

*Pixel: The unit of the image, small squares next to each other in a specific order that forms the general and final shape of an image, the resolution of the image increases as the number of its constituent squares increases and vice versa, related to the so-called Resolution (image quality) special in Adobe Photoshop.
In the beginning, pixel graphics were very simple and depended on 8 bit color system, but they evolved to 16 bit and from there to more and more until they include normal color gradations after increasing the workload and the number of colors used. (7)

A style of digital art, much like mosaic, based on pixels (the smallest unit of design size).

Depends on drawing a group of small dots or small squares connected together so that one square is only one pixel in size, each square contains one color of the image, which makes these drawings accurate and relatively small in relation to the sizes adopted at the present time.

II. Pioneers of Pixel Art:

a) Georges Seurat* (23)

Pixel art didn't suddenly show up without prefaces. Pixel art dates back to the school of artist Georges Seurat, which he called the pointillism school, in which he relied on using the point to be the beginning of any shape or image.

*Georges Seurat: A French painter and photographer, born December 1859 and died March 1891 in Paris, one of the founders of the new Impressionist movement in the late 19th century. In his style known as Pointillism, he was able to depict light and its reflections using small, contrasting, clear colors separated from each other, and it is difficult for the viewer to distinguish them if he doesn’t look at the entire artwork from a distance.
Followed the same approach as Georges Seurat, but in a more geometric way, he divided the work into a network of squares or radial shapes resulting from circles inside each other and then filled them with colors, but in an irregular way to get the final image.

pioneers who was able to achieve its essence through his own art, the "human face" with all expressions and emotions he carried with a different contemporary vision and concept, he was known for his giant drawings of the faces of people and his face as well, adopted in some of them a mosaic style, while in others he highlighted details so precise that they looked at the naked eye as if they were Photos.

*Chuck Close: American artist, visual photographer, born in July 1940 in Washington and died in August 2021, belongs to the "realistic photography school" and is one of its followers who followed the same approach as Georges Seurat, but in a more geometric way, he divided the work into a network of squares or radial shapes resulting from circles inside each other and then filled them with colors, but in an irregular way to get the final image.

Example (4) Georges Seurat (La Parade 1889 showing pointillism) (22)

Example (5) Georges Seurat, Le Chahut, 1889-90 (11)

Example (6) Georges Seurat (A Sunday afternoon on the island of La Grande Jatte, 1884-1886, Art Institute of Chicago.) (19)

Example (7) Chuck Close self-portrait - 1967-2005 (9)

Example (8) Chuck Close Phil, 2011–2012 (8)

Example (8) Chuck Close Phil, 2011–2012 (8)
### III. Pixel Art Styles:

<table>
<thead>
<tr>
<th>Isometric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isometric</td>
<td>3D pixel graphics drawn without using 3D programs, shows three sides of the drawn shapes, giving impression that they are three-dimensional, usually with a side view at an angle of 30 degrees, used to draw a specific perspective of virtual locations or places or to draw game backgrounds of this style.</td>
</tr>
</tbody>
</table>

**Example In Games**
- Example (10) Age of Empires (10)
- Example (11) Transport Tycoon (10)

**Example In Advertising**
- Example (12) Printed poster for Sony phones with an Exmor,(14) the name of a technology implemented by Sony on some image sensors in its system that converts analog or digital signals and reduces image noise in just two steps, with slogan “Make. Believe” Using 3D pixel art style.
### Features
- Shapes and images appear in a stereoscopic image.
- Figures drawn without using 3D programs.
- Its dimensions can be seen from all directions, but in fact it is only two-dimensional.
- It is used to draw certain scenes of famous or virtual sites, and sometimes to draw game backgrounds.

### Non-Isometric - Description
Flat pixel graphics; Where image appears directly from one side only, from the front, side, or even from the top without angles.

### Examples In Games
- **Example (13)** Random Heroes (10)
- **Example (14)** Sword Of Xolan (10)

### Examples In Advertising
Example (15) Printed poster for Heinz Tomato Ketchup (17), with slogan “Only for real superheroes” Using flat pixel art style.

### Features
- The most common style of pixel art, in which an image appears on one side, from the front, side, or from the top, with no corners.
- Very simple in color

### Interactivity
The recipient is affected by everything that is different and strange to him, employing Isometric and non-Isometric pixel art in outdoor advertising design is similar to the design of video games that attracts his attention for its simplicity and ability to deliver the message in the least possible number of shapes and colors, in addition to the challenge to understand and interpret the forms used,
which is the essence of the advertisement.

- There is still some chaos and randomness in outdoor advertising posters, which causes a state of advertising distortion for the recipient as well as visual pollution, loss of advertising message impact and neglecting their renewal, care for their cleanliness and safety, ignoring removing some ads that have been over for a long time and causing distortion of the aesthetic face of the place.
- Therefore, the researcher believes that employing pixel art in outdoor advertising design can be considered the solution to these previously mentioned problems, especially with regard to the existence of an innovative vision in outdoor advertising that eliminates the state of advertising saturation for the recipient and raises his awareness.

When employing pixel art in outdoor advertising, the designer seeks to achieve a number of psychological objectives:

- **Attracting the recipient’s attention** by employing pixel art in outdoor advertising as a new visual stimulus and innovative formations that are not accustomed to seeing in an innovative, simple and fun idea for the target recipient at the same time while using high-contrast colors or unconventional colors.

- **Stimulating the recipient’s desire** and temptation through an innovative advertising idea based on employing pixel art, so the recipient feels that there are additional advantages to the product or service as a motivation for him to make a purchase decision.

- **Persuasion** and settling the competition between the advertised product or service and competitors by, for
example, processing pictures of some famous characters in a pixel-art style, which is easy for the recipient to identify and is consistent with his visual experience.

IV. **The aesthetic values of pixel art and its use in outdoor advertising:**

1. The aesthetic value of pixel art is achieved as a result of coordinating images and drawings and arranging them according to a system of structural relationships to come up with an attractive outdoor advertising design that raises the recipient desire and needs to respond to the content of the message.

2. This aesthetic value of pixel art in outdoor advertising affects the recipient’s perception, acceptance and conviction, and thus achieves its positive impact through the recipient’s response.

3. Composition of images and graphics at a very precise level in a square shape that Create new artistic patterns that can be employed in advertising, such as digital mosaic and digital interactive pixels, which can easily be applied in outdoor advertising

4. Processing images and graphics in an attractive manner consistent with the content of the advertisement idea with pixel art has a positive effect on the recipient memory.

5. Suitable for the nature of outdoor advertising, since the outdoor advertisement is seen from long
V. **The role of the aesthetics of the form treated with pixel art in outdoor advertising design:**

1. Get the recipient's attention: By crystallizing the advertising idea in a way that interests him with its content.

2. Attractiveness: Advertising appears in a different and eye-catching way so as to reduce the impact of similarly designed competing advertisements.

3. Ability to influence: Through the way the advertising message is displayed and the strength of its design, it raises ideas in the recipient's mind and directly or indirectly related to the advertiser.

4. Out of the ordinary: by employing pixel art in outdoor advertising design, which is contrary to what the recipient used to see.

5. Ease of understanding: One of the basics of outdoor advertising, especially with the need to quickly understand the idea with the fast or slow movement of the recipient.

6. Leave strong impressions: in the recipient’s memory and provide strong, innovative visual images that preserve the visual identity of the advertiser.

VI. **Analytical study**

<table>
<thead>
<tr>
<th>Non – Isometric Pixel Advertisements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example (16) McDonald’s outdoor ads Hide Burgers and Fries in Pixel Art</td>
</tr>
<tr>
<td>Employing pixel art in posters to express the shape of McDonald's special potatoes and burgers. (15)</td>
</tr>
</tbody>
</table>

**Features**
- The special shape of McDonald's burger and fries appears on square shapes from the front.
- Very simple in color and composition.
- Easy to identify the shape of burger and fries.
- The designer was able to give up McDonald's logo and suffice with the symbolism of colors that express his product.
- The designer followed the policy of say and do by employing pixel art in design.

**Interactivity**
- The recipient interacts with the advertisement because it is similar to video games design that attract his attention for its simplicity and ability to deliver the message in the least time.
The recipient's interaction with the advertisement through the past experience and awareness of the McDonald's brand, which enables him to easily identify the offered product, in addition to the challenge to understand and interpret the shapes used, which is the essence of the advertisement.

**Impact on recipients' awareness**
- Relying entirely on existing customer knowledge and the winking self-awareness of the brand, the ‘No Logo’ advertisement adopts a simple approach, hiding its top-selling burgers and fries behind some pixels, accompanied with the question ‘Guess who’s back?.
- Advertisements visible all over France counting on the fact that McDonald’s is much embedded in popular culture.
- Advertisements like guessing game as they show simply feature 70-pixel images that encourage the receptionist to decode, as they are not a mystery — the McDonald's colors are immediately recognizable, even stripped back to their complex details.

**Psychological goals**
The profits of McDonald's restaurant chain improved during the third quarter of 2021 after launching the campaign to rise to more than 2.15 billion dollars, compared to 1.76 billion dollars during the same period in 2020 during the Corona virus epidemic spread throughout the world (According to the Egyptian Capital Market Journal).

### The aesthetic values of pixel art in advertising
- The aesthetic value of pixel art in advertising is achieved as a result of coordinating shapes of burgers and fries and arranging them at a very precise level in a form of squares that the recipient easily recognizes due to his visual experience.
- Suitable for outdoor advertising nature and can be seen from long distances because it consists of squares next to each other when viewed from far distances, the image is complete.

#### Features
- The shape of Vodka bottle appears on square shapes like sound wave shape and Tetris famous game from the front.
- Simple in color and composition.
- Easy to identify the shape of sound wave and Tetris game.
- The designer gave up Vodka logo and suffice with the symbolism of shape and color that express the product.

**Example (17) Vodka ads**
Employing pixel art in posters to express the special shape of vodka bottle. (21)
### Interactivity
- The recipient's interaction with the advertisement through his experience and awareness of Vodka brand, which enables him to easily identify the offered product.

### Impact on recipients' awareness
- Relying on customer knowledge and awareness of the brand, the ‘No Logo’ advertisement adopts a simple approach, employing some pixels to shape the main product, accompanied with the sentence ‘Absolute BPM, Absolute Tetris.’
- Advertisements like guessing game that encourage the receptionist to decode, as Vodka colors are easy to recognize.

### Psychological goals
- May contribute to sexual and social success according to the advertisement idea related to the absolute state.
- May contribute to a significant change in mood such as stress reduction and relaxation depending on the community in which advertisement is posted.

### The aesthetic values of pixel art in advertising
- Achieved by coordinating some squares next to each other as pixels that shape vodka bottle and arranging them so that the recipient easily recognize due to his visual experience.
- Suitable for outdoor advertising nature as it consists of squares next to each other, the full image is complete when viewed from far distances.

### Features
- The special shape of some sports equipment such as a baseball, golf ball and tennis racket displayed in a form of flat pixel squares as a part of ATARI games.
- Displaying the previous shapes in white with the colored advertisement to achieve more concentration.

Example (18) This campaign titled ‘Golf, Tennis, American football’ was published in March, 2008. It was created for the brand: Atari. Employing a part of pixel art in posters to express the special shape of balls and racquet. (13)
- Easy to identify the shape of baseball and tennis racket in white.

**Interactivity**

- The recipient interacts with the advertisement because it bears memories of the ATARI games with its integration into the modern era that attract his attention for its simplicity and ability to deliver the message in short time.
- The recipient's interaction with the advertisement through the past experience of the ATARI games and the happy memories for him.

**Impact on recipients' awareness**

- Relying on customer knowledge of the brand, these pixelated Atari advertisements remind gamers of the company's roots while the message below the company logo reads "Since 1972."
- These pixelated Atari advertisements are very simple, communicating the passage of time and technological expertise, reaching out to the consumer in a way that brings him back to a simpler time.

**Psychological goals**

These advertisements with these appeal to the nostalgia of the consumers who see themselves, and restore happy memories of childhood, the games and imagery that is in advertisements.

**The aesthetic values of pixel art in advertising**

- Achieved by coordinating shapes of baseball, golf ball and tennis racket and arranging them in squares shapes related to ATARI games and mixing between it and real life that the recipient easily recognizes due to his visual experience.
- Advertisements consists of squares next to each other when viewed from far distances, the image is complete.

**Features**

- Some parts of people face except eyes and mouth displayed in flat pixel squares as a sign of distortion and losing privacy in the digital era.

**Example (19) The End of Privacy.**

Employing a part of pixel art in posters to express the shape of people faces.

**Interactivity**
• The recipient interacts with the advertisement feels fear and anxiety about losing his privacy in the digital age and how his data is collected, and how his private life is shared without realizing the consequences.

### Impact on recipients' awareness

- Relying on fear appeal, advertisement increases the recipient's sense of anxiety and fear when dealing with digital platforms.

### Psychological goals

- By appealing to fear, the advertisement invites the recipient to follow the program to protect his privacy on digital platforms in the current era.

### The aesthetic values of pixel art in advertising

- The aesthetic value represented in converting parts of people face except eyes and mouth into flat pixel squares as a sign of losing privacy in the digital era that the recipient feels fear.
- Advertisements consist of squares next to each other when viewed from far distances, the whole image is complete.

Example (20) Downy Advertising. (16) Employing a part of pixel art in posters to express the power of the product.

### Features

- The shape of some special game characters like super Mario and Sonic displayed in flat pixel squares as a sign of roughness of the fabric of clothes.
- Easy to identify the shape of super Mario and Sonic.

### Interactivity

- The recipient interacts with the lovely characters because it bears memories of old games with its connection with the nature of the product for softening clothes.
- The recipient's interaction with the advertisement through the past experience of these old characters and games and the happy memories for him.

### Impact on recipients' awareness
The advantages of designing an outdoor advertisement by employing pixel art:

1. Capable of capturing the attention of the recipient within a few seconds or less while passing on a public road or a crowded street due to the different processing of images and graphics.

2. It leaves the recipients with a strong impression that makes them think of the advertisement.

3. Low color tones with high contrast at the same time.

4. The advertisement can be seen and understood clearly from a distant place although it consists of squares, seeing the pixel design in a small size is the essence of pixel art.

Psychological goals

These advertisements with these appeal to the nostalgia of the consumers who see themselves, and restore happy memories of childhood, the games and imagery that is in advertisements Linking it to the nature of the work of the product for softening clothes.

The aesthetic values of pixel art in advertising

Achieved by coordinating shapes of super Mario and Sonic displayed in flat pixel squares as a sign of roughness of the fabric of clothes and arranging them in squares shapes related to games and linking it to the nature of the work of the product for softening clothes that the recipient easily recognizes due to his visual experience.

Advertisements consist of squares next to each other when viewed from far distances, the full image is completed.
Example (21) ESMA 'Egyptian Society for Mercy to Animals'

Features

- The special shape of cat and dog appears on square outlines and shapes from the front.
- Simple by using one or two colors and composition.
- Easy to identify the shape of the cat and dog.
- Following the policy of say and do by employing pixel art in design.

Interactivity

- The recipient interacts with the advertisement because it is similar to video games design that attract his attention for its simplicity and ability to deliver the message in short time.
- The recipient's interaction with the advertisement through his experience of the relationship between dogs and cats, which enables him to easily identify the offered services by ESAA foundation, in addition to the challenge to understand the shapes and outlines used, which is the essence of the advertisement.

Impact on recipients' awareness

- The advertisement plays on the warmth and guilt feelings towards homeless animals in the streets and invites the recipient to pay more attention, care for them and donate for these animals to ESMAA Foundation account.

Psychological goals

- Arousing the recipient's interest in homeless animals on the streets, feeling sympathy for them and donating to them.

The aesthetic values of pixel art in advertising

- Achieved through processing dogs and cats shapes in pixel squares that the recipient easily recognizes due to his visual experience.
- Suitable for outdoor advertising nature and can be seen from long distances as it consists of squares next to each other when viewed from far distances, the image is complete.

Commercial Topics
Example (22) JBL

Features

- The shape of JBL headphone appears on square shapes that is easy to identify.
- Using black and white on colored background.

Interactivity

- The recipient interacts with the advertisement for its simplicity and ability to deliver the message easily.

Impact on recipients’ awareness

- Advertising plays on the desire of young people to appear in a different lifestyle that is contemporary and simple at the same time through simplicity in color and composition.

Psychological goals

Arouse the interest of the recipient, attract his attention and convince him of the modern and contemporary design of the headphone and the feeling of pride resulting from buying it.

The aesthetic values of pixel art in advertising

- Achieved through processing headphone shape in pixel squares that the recipient recognizes due to his visual experience.
- Suitable for outdoor advertising and can be seen from long distances.

Entertainment Topics
Example (23) Giza Zoo

Features

- The shape of some animals like (giraffe – lion – ostrich and parrot) appears on square shapes that are easy to identify.
- Using black and white on colored background.

Interactivity

- The recipient's interaction with the advertisement through his love of zoo animals and the relationship between them, which enables him to easily understand and recognize the used shapes, which is the essence of pixel art.

Impact on recipients' awareness

- The advertisement plays on the emotion of fun and happiness resulting from visiting the zoo and promises the recipient endless pleasure when visiting it.

Psychological goals

Reminding the recipient of fun, happiness and renewing the desire to visit the zoo again.

The aesthetic values of pixel art in advertising

- Achieved through processing the shape of giraffe – lion – ostrich and parrot on square shapes that are easy to identify in pixel squares.
- Suitable for outdoor advertising as it consists of squares next to each other when viewed from far distances, the image is complete.

Questionnaire:

A closed questionnaire was applied to a random sample of 100 individuals from advertising recipients, men, youth, women and girls of different ages.

The topics of the proposed applied models were chosen with different criteria, but they have the same in common as outdoor advertisements, and the research sample is common in the average age from 16 to 70 years.

The result of the survey was as follows:-

The first applied model designed by the researcher: Awareness Topics - ESMAA - the Egyptian Association for Mercy to Animals

<table>
<thead>
<tr>
<th>Awareness Topics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey Questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Can you easily recognize the dinner shape?</td>
<td>90%</td>
<td>9%</td>
</tr>
<tr>
<td>2. Have you seen what looks like the dinner shape before?</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>3. Does this kind of shapes catch your attention?</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>4. Do you like to challenge, solve puzzles and decode shapes?</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>5. Can you remember the dinner shape again?</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>6. In your opinion, how the treatment of shapes succeeded in conveying the idea of the advertisement?</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>7. Would you like to see the outdoor advertisement on the street or the picture again?</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>8. Do you think this type of advertisement is suitable for the street?</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>9. Do you prefer the kind of ads?</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>10. Does the advertisement evoke any kind of feelings and emotions?</td>
<td>75%</td>
<td>25%</td>
</tr>
</tbody>
</table>
The research sample was able to easily identify the drawn figure by 93%, 87% of the sample saw what looked like the drawn shape before, the drawn shapes were able to attract the attention of 87% of the sample, 87% of the sample liked the challenge and deciphering the puzzle of shapes, 80% of the sample remembered the drawn shapes again, 87% of the sample believe that this graphic processing of shapes succeeded in conveying the idea of the advertisement, 93% of the sample prefer to see this type of outdoor advertisement again, 93% of the sample believe that this type of advertisement is appropriate for the streets, 73% of the sample prefers this kind of advertisements, and these advertisements provokes feelings of 73% of the research sample.

The second applied model designed by the researcher: Commercial Topics - JBL Headphones

<table>
<thead>
<tr>
<th>Commercial Topics</th>
<th>Survey Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Can you easily recognize the drawn shape?</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>2. Have you seen what looks like the drawn shape before?</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>3. Does this kind of shapes catch your attention?</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>4. Do you like to challenge, solve puzzles and decode shapes?</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>5. Can you remember the drawn shape again?</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>6. In your opinion, the treatment of shapes succeeded in conveying the idea of the advertisement?</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>7. Would you like to see the outdoor advertisement on the street in this picture again?</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>8. Do you think this type of advertisement is suitable for the street?</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>9. Do you prefer this kind of ads?</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>10. Does the advertisement evoke any kind of feelings and emotions?</td>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

The research sample was able to identify the drawn figure by 60%, 67% of the sample saw what looked like the drawn shape before, the drawn shapes were able to attract the attention of 80% of the sample, 87% of the sample liked the challenge and deciphering the puzzle of shapes, 67% of the sample remembered the drawn shapes again, 67% of the sample believe that this graphic processing of the shapes succeeded in conveying advertising idea, 67% of the sample prefer to see this type of outdoor advertisement again, 67% of the sample believe that this type of advertisement is appropriate for the streets, 53% of the sample prefers this kind of advertisements, and 60% of the research sample were affected by these advertisements.

The Third applied model designed by the researcher: Entertainment Topics - Giza Zoo

The research sample was able to identify the drawn figure by 100%, 87% of the sample saw what looked like the drawn shape before, the drawn shapes were able to attract the attention of 100% of the sample, 93% of the sample liked the challenge and deciphering the puzzle of shapes, 97% of the sample remembered the drawn shapes again, 97% of the sample believe that this graphic processing of the shapes succeeded in conveying advertising idea, 97% of the sample prefer to see this type of outdoor advertisement again, 97% of the sample believe that this type of advertisement is appropriate for the streets, 73% of the sample prefers this kind of advertisements, and 60% of the research sample were affected by these advertisements.
the drawn shapes again, 100% of the sample believe that this graphic processing of the shapes succeeded in conveying advertising idea, 100% of the sample prefer to see this type of outdoor advertisement again, 100% of the sample believe that this type of advertisement is appropriate for the streets, 93% of the sample prefers this kind of advertisements, and 100% of the research sample were affected by these advertisements.

Research results
1. Analyzing the aesthetic foundations of pixel art advertisements posters is an introduction that enriches advertising design of all means.

2. The study confirmed that the graphic processing of the figure by applying the basics of pixel art is based on geometric foundations and symmetrical square shapes that can be seen from long distances as if they were naturally drawn images and shapes, which is the essence of outdoor advertising.

3. Pixel art can solve similarity in general and outdoor advertising ideas in creative way.

Research Recommendations
Designers’ interest in drawing continuous inspiration from art schools as modern trends in design to benefit from, which contributes to expanding researchers' perceptions in the field of advertising design.

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Journal of Applied Art and Science - International Periodical Scientific Peer Reviewed - Issued By Faculty of Applied Arts - Damietta Univ. - Egypt

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منجم البكسل كمثير بصري لتعزيز الاتجاهات الحديثة في تصميم الملصق الإعلاني الخارجي

ملخص البحث
لا يزال المشهد البصري يعاني من فوضى وعشوائية الإعلانات الخارجية التي تسبب التلوث البصري مثل غياب الوحدة والانسجام وتبادل الإعلانات التجارية وفقدان تأثير الرسالة الإعلانية مع حجب رؤية المعلق التراثي أو المعمارية أو الجمالية وتحول إزالة بعض الإعلانات التي انتهت صلاحيتها وتشويه وجه الجمال للمدينة. يسعى مصمم الإعلانات باستمرار إلى تطوير الأفكار وتوظيف فن البكسل كناهج فنياً ، بالرغم من كونه فناً قديماً ، إلا أنه ظهر مع ظهور أجهزة الكمبيوتر ؛ بينما لم تكن الأجهزة القديمة قادرة على عرض رسومات متعددة الألوان وثلاثية الأبعاد كما هي الآن. تكمن المشكلة في كيف يمكن أن يساهم فن البكسل في حل التشابه في الإعلانات الخارجية بشكل بديهي، كيف يمكن استخدامه كمثير بصري بديهي وكيف يمكن أن يكون مؤثراً على سياسة الملحق؟ يفترض البحث أن توظيف فن البكسل كمثير بصري في الإعلان الخارجي يعزز الاتجاهات الحديثة في الإعلان ويحد من مشاكله. يهدف إلى التعرف على فن البكسل وقيمته الجمالية وكيف يمكن استخدامه في الإعلان الخارجي. تكمن أهمية في الحاجة المتزايدة لإعلانات خارجية غير تقليدية واستنفاد من ممارسة الفنون المختلطة. باستخدام النهج الوصفي في تحليل بعض نماذج إعلانات فن البكسل ، النهج التجريبي من خلال تصميم بعض النماذج التطبيقية والمنهج الإحصائي باستخدام الاستبيان المغلق. ويستنتج البحث أن تحليل الإعلانات في البكسل مقدمة تثري الإعلان بجميع الوسائل. يوصي البحث بالاهتمام باتحاذات التصميم الحديثة الدولية.

الكلمات المفتاحية: فن البكسل؛ مثير بصري؛ ملصق إعلان خارجي.