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“Ancient Egyptian Art as an Introduction to Gustatory Verbal Responses to Artistic and Artificial Creativity”

ABSTRACT :

The Egyptian society has preserved its heritage and aesthetic values for many centuries, and with the emergence of artificial production and its spread through social media pages, the researchers raised several questions that revolved around whether the Egyptian society still adheres to the aesthetic value and prefers it to what is reproduced through artificial creativity, so an artwork was selected from ancient Egyptian art that contains intellectual and visual content recognized by non-art specialists, and reformulated through CHAT GPT4, and the two works were presented to a sample of 72 specialists in the field of art education - Helwan University, 72 non-specialists in the field of art in general, taking into account the variety of ages of 25 years. Helwan University, 72 non-specialists in the field of art in general, taking into account that the ages vary from 25: After 60 years old, to identify the difference in aesthetic preference between ages for artistic and artificial creativity. The results revealed a strong preference for traditional artistic creativity over artificial creativity among specialists and non-specialists. This reflects the influence of cultural heritage and originality on the aesthetic preferences of Egyptians, despite the innovative appeal of artificial creations, the emotional, intellectual and aesthetic resonance of ancient Egyptian art still maintains its superior status. It also revealed that both art specialists and non-specialists pay more attention to visual content than intellectual content in both art and artificial creations. Verbal responses also differ by using more descriptive sentences than judgmental sentences used in tasting for both creations. Future research is recommended to further explore these preferences through in-depth qualitative methods and larger, more diverse samples.



عنوان الدراسة

"الفن المصري القديم كمدخل للاستجابات اللفظية التذوقية للإبداع الفني والاصطناعي"

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ملخص البحث

احتفظ المجتمع المصري بتراته وقيمه الجمالية لقرون عديدة، ومع ظهور الإنتاج الاصطناعي وانتشاره عبر صفحات التواصل الاجتماعي اثار لدي الباحثان عده تساؤلات دارت حول هل مازال المجتمع المصري متمسك بقيمة الجمالية وتفضيلاها علي ما يتم استنساخه لها من خلال الابداع الاصطناعي، فتم اختيار عمل فني من الفن المصري القديم يحتوي علي محتوى فكري وبصري متعارف عليه لدي غير المتخصصين بالفن، وإعادة صياغته من خلال CHAT GPT4 ، وعرض العملين علي عينة مكونه من ٧٢ متخصص بميدان التربية الفنية-جامعة حلوان، ٧٢ غير متخصص بميدان الفنون عامتا، مع مراعاة ان تتنوع الاعمار من ٢٥ : ما بعد ٦٠ عاما، للتعرف علي فرق التفضيل الجمالي بين الاعمار للإبداعين الفني والاصطناعي.

كشفت النتائج عن تفضيل قوي للإبداع الفني التقليدي على الإبداع الاصطناعي بين المتخصصين وغير المتخصصين، ويعكس هذا تأثير التراث الثقافي والأصالة بشكل كبير على التفضيلات الجمالية للمصريين، فعلى الرغم من الجاذبية المبتكرة للإبداعات الاصطناعية، فإن الصدى العاطفي والفكري والجمالي للفن المصري القديم مازال يحافظ على مكانته المتفوقة.

كما كشفت عن اهتمام العينة سواء المتخصصين بالفن او غير المتخصصين على الاهتمام بالمحتوى البصري بشكل أكبر من المحتوى الفكري في كل من الإبداعين الفني والاصطناعي. كما تختلف الاستجابات اللفظية باستخدام الجمل الوصفية بشكل أكبر من الجمل الحكيمة المستخدمة في التذوق لكلا الابداعين.

وبالتالي تم التوصية بإجراء أبحاث مستقبلية لمواصلة استكشاف هذه التفضيلات من خلال أساليب نوعية متعمقة وعينات أكبر وأكثر تنوعا.

الكلمات المفتاحية: الاستجابة اللفظية التذوقية، الحضارة المصرية القديمة، الإبداع الفني، الابداع الاصطناعي.

Title of the study

‘Ancient Egyptian art as a gateway to gustatory verbal responses to artistic and artificial creativity’

Introduction:

Ancient Egyptian art is one of the visual arts that flourished in the Nile Valley for more than 3000 years, starting from the pre-dynastic era (about 5000 BC) to the Ptolemaic Kingdom (305-30 BC), and ending with the Roman invasion. It is characterized by its adherence to a set of artistic, aesthetic and functional conventions, symbolic and religious belief systems, social hierarchy, and its connection to the natural world (Bryan, 2021).

Ancient Egyptian art intertwined the worldly life with the hereafter, linking the religious and political ideologies of the country, legitimizing the ruling authorities, and ensuring the eternal well-being of the deceased (Robins, 1997). Much of the art produced was funerary or associated with temples, although



scenes of everyday life also feature prominently (Tiradritti, 2016), offering valuable insights into ancient Egyptian society. Ancient Egyptian art was a powerful combination of symbolism and function, meticulously designed to honor the gods, commemorate rulers, and ensure a smooth passage to the afterlife (Teeter, 2012). Egyptian art is characterized by its strict postures, hierarchical scale, vibrant colors, and expression of a sense of timeless grandeur and spiritual power.

Artistic creativity in ancient Egyptian art was unique in its combination of strict traditions and symbolic and functional purposes that persisted across different dynasties and times, and with what we see of strict artistic traditions that the artist does not deviate from, artistic creativity was manifested in different ways that were unified, and it was a creativity that respected the aesthetic and symbolic values that are established and persistent through the ages.

After the emergence of digital art starting from the mid-20th century, and its development with the emergence of artificial creativity, computational creativity or automated creativity - the ability of a computer or artificial intelligence (AI) systems to produce a creative work - it became a new tradition and method of artistic production or human creativity that continues throughout the ages. AI encompasses the generation of new ideas, artistic expressions, scientific hypotheses, and innovative solutions to issues. Artificial Intelligence (AI) dealt with ancient Egyptian works to explore how to use artificial technologies to generate new artistic outputs inspired by this rich cultural heritage, by training AI models on ancient Egyptian art datasets, creating algorithms that can produce new designs, patterns and compositions that resemble the style and aesthetics of artistic creativity.

While the ancient Egyptian heritage has the ability to generate new and innovative ideas and solutions that suit the belief and societal changes in a creative way that suits all tastes and different stages of life - creating a legend of the ancient Egyptian civilization - with the continuation and change of civilizations and the development of the technological aspect in them, and the emergence of artificial creativity, the human inability to emulate heritage turned into an easy ability through some digital commands, creating innovative communications and free associations that are easy to replicate between one individual and another.

Here we find that artificial creativity has abandoned its individuality and originality available across civilizations, especially after using artistic creativity with its own idea for the creator and user of the programmed, each according to its unique frame of reference, creating an artificial creativity that is intellectually, ideologically and aesthetically different from the artistic creativity of the civilization it is intended to emulate, and both artistic and artificial creativity



have the ability to provoke reactions from the viewer. Both artistic and artificial creations of ancient Egyptian art had the ability to provoke and activate the brainstorming, visual perception and aesthetic criticism of the recipient, through which verbal and gustatory responses can be measured, as well as reveal the difference between the aesthetic and cultural preferences of specialists in the field of arts and non-specialists.

This can be measured through their gustatory verbal responses to the artistic and artificial creative works presented to them, which are their preferences and comparison between them in verbal sentences that can be classified and analyzed, as gustatory verbal responses are reactions expressed in written or spoken language, governed by phonetic symbols towards a stimulus - a work of art - or all the reactions they produce towards a stimulus - a work of art. A work of art - or it is all that the vocal cords produce as an intellectual or emotional response formulated in verbal vocabulary as a means of communication and understanding between a work of art and a connoisseur, or between the artist and the viewer, and this response is related to the translation of human thought and feelings towards this stimulus, whether social, psychological, political or, and may be in written, readable, spoken or audible form. (Ahmed, 2008) '

This study will reveal the difference between the preferences and the quality of verbal responses to artistic and artificial creations among contemporary Egyptian connoisseurs specialised in the field of arts and non-specialists.

Keywords: Gustatory verbal response, ancient Egyptian civilization, artistic creativity, artificial creativity.

Problem of the study:

Although the artistic heritage of the ancient Egyptian civilization retains its aesthetic and philosophical values with its visual and intellectual content, and with its spread on social media pages, and the spread of many artificial intelligence designs (artificial creativity) simulating it, via the Internet or during exhibitions held for plastic art, and the great demand of the Egyptian recipients and tasters for it, despite the existence of significant differences between the visual and intellectual content of both creations.

The study's research question is as follows:

Q1: Does the ancient Egyptian heritage retain its aesthetic and intellectual values for the Egyptian connoisseur in its traditional form (artistic creativity), or does he prefer to reformulate it with artificial intelligence (artificial creativity)?

Q2: Has artificial creativity preserved the intellectual and visual content of the ancient Egyptian civilization?

Q3: Has the gustatory preference of Egyptians in the 21st century for artificial creativity become more favorable than artistic creativity for its artistic heritage?



Q3: Does the artificial re-creation of inherited artistic creativity in different ways in form and content appeal to the Egyptian connoisseur, whether specialized or not, and does this preference vary according to age?

Q4: Do verbal and gustatory responses to artistic and artificial creativity differ?

Q5: Can a categorization of gustatory verbal responses be developed to compare artistic and artificial creativity?

Q6: Can we categorize the verbal responses to both the intellectual and visual content of the artistic and artificial creations?

The hypotheses of the study were:

- 1) There is a difference in the artistic expression - form and content - of the ancient Egyptian civilization between artistic and artificial creativity.
- 2) Aesthetic preferences differ between artistic and artificial creations for the same content of the artwork between specialists in the field of plastic art and non-specialists.
- 3) The greater the age, the greater the preference for artistic creativity, and the less the age, the greater the preference for artificial creativity.
- 4) Specialists prefer artistic creativity more than non-specialists, while non-specialists prefer artificial creativity more than specialists.
- 5) The number of sentences used to describe the intellectual content is higher than the visual content in both types of creativity.
- 6) The types of descriptive and judgemental sentences used in the verbal responses to the comparison differ between artistic and artificial creativity.

Objectives of the study:

- 1- Revealing the difference in the artistic expression - form and content - of the ancient Egyptian civilization between artistic and artificial creativity.
- 2- Identifying the aesthetic preference of Egyptians for artistic and artificial creativity and comparing them according to age.
- 3- Comparing the aesthetic preference of specialists in the field of arts and non-specialists for both artistic and artificial creativity.
- 4- Developing a measure of the intellectual and visual content resulting from the verbal gustatory responses to the artistic and artificial creations of the research sample, to identify and compare the quality of the sentences used to describe the two creations.
- 5- Developing a measure of the verbal gustatory responses used when comparing the two creations of the sample, to identify the quality of the sentences used for both creations and make comparisons between them.

Methodology of the study: The study relies on the qualitative method, where a creative artwork was selected (randomly) from the ancient Egyptian civilization, and presented to the artificial intelligence to produce an analogue of it, then formulated an opinion survey for two different groups in the academic and



professional preparation, and their number was 72 specialists in the field of plastic art, 72 non-specialists, and represented the human sample from Egypt, and the opinion survey was presented via Google Drive, then the responses were collected, classified, analysed, interpreted and came up with the results of the survey, then the responses were collected, classified, analyzed and interpreted.

Study tool:

1- Chat JPT4.

2- A sample of Egyptians characterized by diversity in background and level of expertise. The sample consists of 72 art specialists (faculty members from teaching assistants to full professors at the Faculty of Art Education, a group familiar with the history of plastic art in general) and 72 non-art specialists. And 72 non-art specialists 'are a group with a special perspective and subjective aesthetic vision that has not been guided by university education to the history of art, and they have various scientific specializations.'

3- A scene from the Book of the Dead in ancient Egyptian heritage and its representation by artificial intelligence. Ancient Egyptian art was chosen because the applied sample are Egyptians, and this is a heritage that is commonly seen and specialized.

4- A measure of verbal responses of connoisseurs.
he premises of the study:

Ancient Egyptian verbal writing represents only visual forms and elements without linguistic meaning for Egyptians today, whether specialized or non-specialized.

Terms of the study:

Ancient Egyptian art: An art that arose on the land of Egypt more than 10,000 years ago, characterized by constant artistic and aesthetic characteristics that carry within them religious ideological values, an art that developed through families but with calculated criteria so that its visual appearance did not change with slight changes in its intellectual content depending on the ideological change, and continued on the land of Egypt until it was destroyed intellectually by the Roman invasion in 270 AD. It continues as a visual form of ancient Egyptian heritage.

Artistic creativity in Egyptian civilization: Known for its exceptional artistic creativity as a powerful combination of symbolism, function and aesthetic brilliance, ancient Egyptian art is a testament to the sophisticated understanding of world civilization, as the Egyptians developed a unique and distinctive style that reflects their cultural, religious and social values with distinctive creativity with aesthetic and formative values that represent a belief linked to the worldly life and the hereafter.



Artificial creativity: Also known as computational creativity, it refers to the phenomenon in which machines or computational systems produce outputs that are considered creative, by performing tasks and generating ideas or creating artworks that require imitation of human creative thinking, such as originality, imagination, problem solving, and generating new and valuable outputs. Its techniques can be used to create new ideas in three ways: By producing new combinations of familiar ideas; exploring the potential of conceptual spaces; and making transformations that enable the generation of ideas that were previously impossible. AI will have less difficulty in modelling the generation of new ideas than in automating its evaluation (Boden, 1998)

Artistic creativity: The ability to generate original and valuable ideas, expressions or works within an artistic field. It involves the imaginative use of techniques, materials and concepts to produce something that is not only new, but resonates with connoisseurs, often eliciting an emotional or intellectual response. Artistic creativity is characterized by a combination of innovation, skill and the ability to see the world from a unique perspective, allowing the artist to create works that push boundaries and offer new insights or experiences.

Verbal responses to art: These are written verbal responses to a visual stimulus, in which the viewer expresses their opinions and thoughts about what they see through the words and phrases they use to describe, interpret and interact with the artwork. They are subjective and can vary greatly from person to person. There is no one 'right' or 'wrong' way to respond to a work of art, involving a rich interplay between sensory descriptions, emotional reactions, intellectual interpretations and aesthetic judgements.

Polling:

After selecting a randomly chosen artwork of the ancient Egyptian civilization, it was presented to the artificial intelligence software (Chat JPT4) and the most appropriate and closest simulation of the original work was chosen, one of the most important reasons for choosing the artificial artwork was the emergence of many differences between the original and the simulation, which may provoke various verbal responses for both samples.

A number of questions were then formulated for the two groups of respondents to collect their verbal gustatory responses to the two works by responding to the survey through 'Google Drive', the questions were open-ended, with a total of 3 questions as follows:

- 1- Which one does you prefer aesthetically and why?
- 2- Compare the two works (after displaying the selected artworks in color).
- 3- Which do you prefer aesthetically: Human creativity or artificial creativity

Artificial Creativity	Artistic Creativity
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(Figure 2) Artificial Intelligence Production Chat GP



(Fig. 1 Ancient Egyptian Art) (Williams, 2022)

The first hypothesis states: ‘There is a difference in the artistic expression - form and content - of the ancient Egyptian civilization between the artistic and artificial creations.’

Categorize the two artworks by comparing and contrasting them:

Table No. (1)		
Analysis of the two works of artistic and artificial creativity ²		
Comparisons	Artificial Creativity	Artistic creativity
Intellectual content	Mythic	Mythic
The expressive value of the artwork	A visual cognitive expression based on the programming style of the program used and its cognitive input	Funeral expression ideological and doctrinal
Artwork content	Theatrical scene	Funeral scene
Knowledge content	Translates cognitive content into visual content different from the creative style of civilization	Translates creed into visual content
Visual content	Mixing animals with humans in a purely biological way without relying on the doctrinal concept of the ancient Egyptian	Wearing an animal's face as a mask for the priest in charge of embalming the corpse
Panorama General Authority	Elements have a regular random characteristic, such as the shape of a scale with three palms	Through color, clothing and elements and their distribution very accurately have sacred features of the ancient Egyptian civilization
For colors	Using a color tone not used in	Compatibility of monochroma

¹ <https://www.nationalgeographic.com/history/history-magazine/article/how-ancient-egyptians-from-kings-to-commoners-strived-for-eternal-life>

² For researchers



	Egyptian art	(yellow in shades and brown in shades) and blue in masks
For Fonts	Converting the shape to a contrived visual digitization	It depends on a prior study of a creative approach and constants of linear values in the ancient Egyptian civilization
Perspective	horizontal	Hierarchical scale
General Authority for Technical Work	The position of the deceased on the ground	The position of the deceased on a table
Placement of elements	Side	Side
Number of items	4	٢
Number of masks	unavailable	Mummy and priest mask
apparel	The human being sits in the face of an animal on an unummified body	The Egyptian priest wears the mask of Anubis to finish embalming the mummy inside the coffin
Hieroglyphic language	Used without semantics to use letters in the form of the ancient Egyptian language, and depends on formal features only, and organize them into 4 vertical rows	Whole business background

Analyze and interpret Answer:

In ancient Egyptian art, the formal and aesthetic characteristics between religion and daily life are deeply intertwined. Many human figures were presented in a lateral or frontal position in most drawings, with the head and legs placed in the lateral position while keeping the torso and eyes in the frontal position, and this technique is known as the 'Egyptian perspective', with highlighting the outer lines of the figure clearly and boldly and filling the figures with vibrant static colours, used symbolically to create a sense of simplicity and flatness. The shapes represent different concepts, and ancient Egyptian writing was an integral part of the art, to confirm the visual content with a legible written indication so that the viewer is not lost from understanding the content to be communicated through it, as each Egyptian artwork reflects a message to the viewer related to either the worldly life or the hereafter.

Although there are many technical and historical errors in the simulation of artificial art, such as the appearance of Anubis sitting on top of the mummy, the appearance of the scale during mummification, the appearance of the scale with three paws, the change in the use of coolers which reflects on the connotation, the reduced use of hieroglyphic language in the background with its different



connotation, the appearance of a snake with human legs and hands fighting with a spear and it is not clear who is fighting, and the position in the AI simulation of Anubis is completely different from the original position in the Egyptian artwork.

Although there are many technical and historical errors in the simulation of artificial art, such as the appearance of Anubis sitting on top of the mummy, the appearance of the scale during mummification, the appearance of the scale with three paws, the change in the use of coolers which reflects on the connotation, the reduced use of hieroglyphic language in the background with a different connotation, and the appearance of a snake with human legs and hands fighting with a spear and it is not clear. The appearance of a snake with human legs and hands fighting with a spear, and it is not clear who is fighting, and the pose in the AI simulation of Anubis is completely different from the original pose in the Egyptian artwork, as the original scene is characterized by static movement and its simulation by dynamic movement. The artificial intelligence also embodies the form through light and shadow and this aesthetic value is not available in the artistic creativity of the Egyptian civilization, with a change in the details simulating the original, through a number of details such as the mask of Anubis and the details of the mummified mummy that was stripped of mummification or mask, it did not become a mummy, but rather a human lying down. We also find the scene in industrial creativity expressed as a theatre drama rather than a funeral drama as in artistic creativity, which moves the conscience and feelings without emotion, suggesting an attempt to create an emotional response from the viewer.

Result:

The first hypothesis is true because there is a difference in the artistic expression - form and content - of the ancient Egyptian civilization between artistic and artificial creativity.

The second hypothesis states: ‘Aesthetic preferences differ between artistic and artificial creations for the same content of the artwork between specialists in the field of plastic art and non-specialists.

When the sample was asked in the first question of the survey, ‘Which one do you prefer aesthetically and why?’ With the presentation of the two selected works of artistic and artificial creativity, and the third question ‘Which do you prefer aesthetically: Human Creativity or Artificial Creativity’ without displaying the artworks. Their responses were as follows:

Categorization of answers:

Table No. (2) shows a comparison between the aesthetic preferences of the two creations for both specialists and non-specialists

Preferen ce	Art Specialists			Non-specialists in art			Total
	Total answers	Total answers	Total	Total answers	Total answers	Total	



	to the first question		to the third question				to the first question		to the third question					
	Q 1	%	Q 3	%	T	%	Q 1	%	Q 3	%	T	%	T-Q T	%
Artistic creativity	2	61%	2	61%	4	61%	3	87%	2	53%	5	76%	99	65%
Artificial Creativity	1	37%	1	37%	2	37%	0	13%	1	32%	1	22%	40	30%
Creators	1	2%	1	2%	2	2%	-	-	1	10%	1	8%	8	5%
sum	3	100%	3	100%	6	100%	3	100%	3	100%	6	100%	100	100%

The total responses of art specialists agreed between visual and non-visual preference for the two creations, with 61% for visual art creation, 37% for visual industrial creation, and 2% for both creations, while non-specialists differed somewhat between the two responses, with 87% preferring visual art creation and 53% preferring non-visual art creation and preferring visual art creation. While the preference for visual art and creativity did not receive any preference, and the preference for invisible art and creativity did not receive any preference, and the preference for invisible art and creativity received 76% of the total responses, thus, the preference for artistic creativity, whether visual or invisible, was 65%, for visual and invisible art and creativity was 30%, and the combination of visual and invisible creativity was 5%.

Analyze and interpret the responses:

Art professionals strongly favour the tangible outcomes of visible and invisible artistic creation. The small percentage that equally favours the visible and invisible aspects of artistic and artificial creations represents an ability to distinguish between the two creations.

The majority of non-specialists prefer the artistic creativity of the ancient Egyptian heritage, whether displayed or not with the question by 70%61, which reflects the appreciation of the heritage by the Egyptian people. Combining the two samples, we find the distinction between visual and non-visual artistic creativity among specialists and non-specialists because it is one of the most accessible forms of creativity for most people. Egyptians have greater access to and familiarity with their cultural heritage through education, museums and historical sites. This familiarity is likely to contribute to higher appreciation.



Egyptian society may be more attracted to the cultural and historical significance of ancient Egyptian art, which is associated with the grandeur and sense of wonder and majesty of their ancestors.

The increased preference for artificial creativity among specialists over non-specialists suggests the potential for increased knowledge about different technological creative processes. Artificial creativity challenges traditional notions of authorship, originality and what constitutes art. They may be more interested in the potential of artificial creativity to push boundaries and explore new forms of artistic expression. Specialists are more interested in exploring conceptual boundaries. They see it as an important development in the evolution of art.

Result:

It was hypothesized that there is a difference in aesthetic preferences between artistic and artificial creativity for the same content of the artwork between specialists in the field of plastic art and non-specialists, and this was proven true by preferring artistic creativity over artificial creativity in both groups of art specialists and non-specialists.

The text of the third hypothesis states that the higher the age, the greater the preference for artistic creativity, and the lower the age, the greater the preference for artificial creativity.

Classify the answer:

Table No. (3) Comparison of chronological age with aesthetic preference for artistic and artificial creativity				
	Artistic creativity	Artificial Creativity	Both creators	sum
٣٠ : ٢١	%٥٧	%٣٠	%١٣	%١٠٠
٤٠ : ٣١	%٨٨	-	%١٢	%١٠٠
٤١ : ٥٠	%٤٢	%٢٩	%٢٩	%١٠٠
٦٠ : ٥١	%٤١	%٥٩	-	100%
and more ٦٠	%٧١	%٢٩	-	100%
<u>Total</u>	<u>%٥٧</u>	<u>%٣٣</u>	<u>%١١</u>	<u>100%</u>

Analyse and interpret the answer:

The preference for artistic creativity is highest in the age group 31: 40 (88%), and this preference is almost halved in the age groups 41: 50 and 51: 60, while it increases again for those aged 60 and above (71%).

The preference for artificial creativity peaks in the 51: 60 at 59%. It declines in the 21-30 and 41-50 age groups with similar levels of 30%, and the 31-40 age group has no preference for artificial creativity (0%).

It seems that middle-aged individuals may value the balance between both types of creativity more than other age groups. This suggests that preferences are not strictly aligned with age, suggesting that other factors may influence these preferences.



Looking at the 21-40 age groups, we see an increase in the preference for artistic creativity (from 57% to 88%), which supports the first part of the hypothesis. However, when looking at the 41-60 age groups, there is a significant decrease in preference for artistic creativity (from 88% to 41%), which contradicts the hypothesis.

In addition, the hypothesis states that the preference for artificial creativity increases as age decreases. This trend is not consistently supported by the data. While the 51-60 age group shows a high preference for AI (59%), the 21-30 age group shows a preference of only 30%, which is lower than the 33% found in the 60+ age group.

Another interesting point is that the preference for both types of creativity does not consistently decrease or increase with age, as evidenced by 13% in the 21:30 and 60+ age groups, and the highest at 29% in the 41st age group: 50.

Results:

It was hypothesized that the higher the age, the greater the preference for artistic creativity, and the lower the age, the greater the preference for artificial creativity, from which the hypothesis proved incorrect as the preference for both artistic and artificial creativity was not related to age, and this despite the use of digital art by the younger group, but it seems that the heritage and imitation of it should not be compared for Egyptians in particular.

The fourth opportunity states: “Specialists prefer artistic creativity more than non-specialists, while non-specialists prefer artificial creativity more than specialists.”

Answer rating:

Table 4: Comparison of aesthetic preference for artistic creativity between art specialists and non-art specialists by age			
Age Group	Specialists	Non-Specialists	Total
Artistic creativity	53%	47%	100%
Artificial Creativity	52%	48%	100%
Both	50%	50%	100%

Analyze and categorize the responses:

The very close percentages (53% vs. 47% for artistic creativity and 52% vs. 48% for artificial creativity) indicate that there may not be a statistically significant difference between specialists and non-specialists in their preference for any type of creativity. This proves that the hypothesis is not true, and this may be due to the fact that the respondents provided responses that they believe are expected or conform to social and scientific standards, especially after feeling that their answers will be judged by others, this may have influenced their preferences, especially if they feel that artistic or artificial creativity is viewed more positively by the respondents.



However, the large difference in preference for both types of creativity (25% for specialists versus 75% for non-specialists) suggests that non-specialists may be more open to and appreciative of combining artistic and artificial creativity. Or is it that the Egyptian public's preferences tend to favor appreciating both artistic and artificial creativity in the context of their heritage? Or do they have less understanding of AI technologies and their role in art, which may lead them to be more accepting of their combination. Or they have less awareness of the details of their artistic heritage, which may lead them to accept its combination with AI more readily without delving into the details of the heritage. Or they are more willing to experiment and participate in new experiences, which may encourage them to accept the combination of the two creations more readily.

Result:

Hypothesize that specialists prefer artistic creativity more than non-specialists, while non-specialists prefer artificial creativity more than specialists. From the responses, it is clear that the hypothesis is true to some extent, as the preferences are close to each other with 53% for specialists: 47% for non-specialists, which is not a large percentage.

The fifth hypothesis states: “The number of sentences used to describe the intellectual content is higher than the visual content in both creativity.

Classification of responses:

First, the quality of the content of the verbal responses was categorized into:

1- Intellectual content of art: It refers to the concepts, themes and trends that include the artwork, and includes the historical and social context and everything that surrounds the environment of the creator of the artwork, and is divided into:

1-1- Historical content: It includes the context of the date and place of creation of the artwork, the artistic movements it may be associated with, and the cultural and political events that may have influenced it. Sentences such as: “He painted the various cults they used to practice to express their gratitude to them”, “The ancient Egyptian mural expresses originality and antiquity”, “It was used to document Egyptian history and civilization”.

1-2- Ideological content: It includes the artist's beliefs, the message or themes the artwork is trying to convey, and the societal norms or issues it may challenge or support. Sentences such as: “One of the most prominent factors that influenced the ancient Egyptian arts is religious factors”, “Ancient Egyptians were greatly influenced by the gods”, “They embodied their various religious rituals”. “The written word is an expression of faith”

1-3- Social Content: The social norms, values, and dynamics in which the artwork was created. Sentences such as: “They had a major role in their daily lives”, “The ancient Egyptians enjoyed long periods of stability”, “They enjoyed peaceful years away from the conflicts and wars that some ancient civilizations were preoccupied with”.



1-4- Emotional content: Looks at the emotions that the artist is trying to express or evoke in the viewer, other artists, artistic movements, or cultural trends. Sentences such as “and the feelings of the ancient Egyptian artist in painting or sculpting the artwork”.

2- Visual content: Refers to the multiple sensory, visual, and physical media that the viewer perceives through the artwork

2-1. Synaesthetic content: It combines different and multiple forms, elements and media and expresses the realization, ability and vision of the artist in the formulation of the visual scene in ancient Egyptian art. Sentences such as: “The different surfaces represented for them different spaces for drawing and engraving”, ‘It achieves the ancient Egyptian standards in terms of body proportions, and the choice of common colors’, ”He did not care about details, shadow and light to a great extent.

2-2- Symbolic content: The study of symbols, images and motifs used in the artwork and their meanings.” Symbols that express multiple concepts,”

2-3- Cognitive content: The audience and critics' perception of what the artwork is and how it relates to the intellectual content.

Table (5) shows a comparison between the intellectual and visual content during verbal responses

	Intellectual content					Visual content			
	histori c	Ideologic al	soci al	passiona te	su m	Scenograp hy	symbol ic	Cogniti ve	su m
technici an	٨٣	٦٩	٨٢	٦٧	٣٣	٤١	١٠٠	٧١	67
industri al	١٧	٣١	١٦	٣٣	١١	٥٩	-	٢٩	89

When comparing the sentences used for intellectual content to visual content, the sentences expressing artistic creativity in total came in at 33% for intellectual content: 67% for visual content, while artificial creativity received 11% for intellectual content: 89% for visual content, from which we find that the sample's interest in visual content is greater than intellectual content, whether they are non-specialists or specialists in art.

The intellectual content, which is divided into historical content, received 83% for artistic creativity: 17% for artificial creativity. Ideological content received 69% for artistic creativity: 31% for artificial creativity. Social content received 82% for artistic creativity: 16% for artificial creativity. Emotional content received 67% for artistic creativity: 33% for artificial creativity. This indicates the sample's appreciation and attachment to their heritage and their strong connection to the past, traditions, and historical contexts.



The visual content, which is divided into scenographic content, received 41% for artistic creativity: 59% for artificial creativity. Symbolic content received 100% for artistic creativity: 0% for artificial creativity. Perceptual content received 71% for artistic creativity: 29% for artificial creativity.

Analysis:

Artificial creativity was characterized only in the scenographic content and not in the rest of the content, with 59: 41 for artistic creativity, from which we may find that artificial creativity excels in eliciting verbal responses that are more concerned with visual content than artistic creativity. This indicates that the AI focuses more on the visual and spatial design of the visual content without any attention to the intellectual content.

Artistic creativity characterized the rest of the content in significant proportions, although scenographic content may be important in terms of visual and physical aesthetics, it may not be central to artistic creativity in ancient Egyptian art. This shows the rich use of symbols and metaphors, which is absent in artificial creativity. This reflects a deeper intellectual engagement and understanding of the ancient Egyptian heritage. It indicates that while artificial creativity can generate ideas and evoking emotions, artistic creativity tends to express more nuanced ideologies and is more appreciated for its depth, emotional resonance, and ability to convey complex ideas.

The sample recognizes a strong relationship between the intellectual and visual content of artistic creativity compared to artificial creativity.

Result:

The number of sentences used to describe the intellectual content increased more than the visual content in both creations. This proves the falsity of the hypothesis, as the visual content occupied a much greater position than the intellectual content, as the sample cared more about the visual appearance than the meaning it contains. While artistic creativity provides depth and meaning, artificial creativity offers innovative and visually appealing experiences, but it still lags behind in capturing the deeper, culturally rooted meanings that are always found in artistic creativity.

The sixth hypothesis states: “The types of descriptive and judgmental sentences used in verbal responses differ between artistic and artificial creations.

Classification of responses:

To statistically analyze the results, the following categorization of verbal responses was developed:

1- Descriptive sentences: They are divided into:

1-1- Historical description: Sentences describing the historical period. Sentences such as: “This reflected on their enjoyment of a peaceful life that made them more available for creativity and innovation”, ‘It does not tell the history of the actual event or people’, ‘Works in this period were painted on papyrus or on the



walls of temples', 'It tells the story of mummification.', 'The magic of medical immortality among the ancient Egyptians', "

1.2 - Ideological description: Sentences that describe the process of interpreting the symbols, themes, and underlying messages. Sentences such as: "One of the most prominent factors that influenced the ancient Egyptian arts was religious factors", 'Ancient Egyptians were greatly influenced by the gods', 'They had a great role in their daily lives', 'So the walls of the temples were for them as pages of books on which they embodied their various religious rituals', 'and express the religious and cultural beliefs of that era', 'which is also not in accordance with the Egyptian faith', 'The scale of Anubis has two hands, one for the feather and the other for the heart,' which is also not in accordance with the Egyptian faith". "An explanation of the rituals associated with the mummification process."

1-3- Description of the artist's ability: Sentences concerned with the artist's skill, traditional and modern plastic techniques. Sentences such as "It represents a modern expression of technology and innovation through the use of computers and smart software", "These murals use modern technologies such as virtual reality and augmented reality", "The work is an artificial intelligence scenographic description".

1-4- Symbolic description: Focusing on the interplay between the physical and the ethereal (invisible), the artist captures the essence of things, not just their outward appearance. Sentences such as "symbols express multiple concepts", "We also notice that in the left panel, the scale has three hands instead of just two", and so on.

1-5- Expressive description: Sentences that express what the viewer feels about the artwork. Sentences such as: "the picture is calm and relaxing", 'it gives me the illusion of the dimensions of the room', 'he painted the various cults they used to practice to express their gratitude to them', 'it makes you feel the feelings of the ancient Egyptian artist in painting or sculpture', 'it makes me feel a different expressive vision', 'it has an interesting expressive vision', 'I see in it a rigidity of movement', 'I see in it a different aesthetic vision', 'it has a different aesthetic vision'.

1.6 - Synecdoche Description: These are sentences that describe the lighting, the background of the scene, the clothing of the elements, and the movement.

Sentences such as: "These murals are characterized by their fine details and use of bright colors", 'there is an effect of colors from light to dark', 'I cared about showing the details of the scene', 'shadow, light, and strong, sharp lines', 'different styles of movement and poses', 'there is an effect of colors from light to dark'.

1.7 - Interpretive description: Sentences that provide an interpretation of the artwork's meaning or message. This can include speculation about the artist's



intentions, as well as personal insights based on the viewer's own experiences and perspectives. Sentences such as: “I enjoyed peaceful years away from the conflicts and wars that preoccupied some ancient civilizations”, ‘Number (1) is a painting from ancient Egyptian art’, ‘But not identical to ancient Egyptian ideas in many of its features’, ‘The second work is a work whose elements are inspired by the ancient Egyptian’.

2- Sentences of wisdom: They are divided into:

- Peremptory judgment: It is a preferential judgment that is not followed by a comment or reasons for the choice, sentences such as “artificial and unreal”, “I don't like it”, “no comment”.

2-2- Aesthetic judgment: It is a sentence that expresses an aesthetic value that refers to qualities, characteristics, or an experience that deserves to be appreciated by the taster. Sentences such as: “The ancient Egyptian mural expresses originality and antiquity”, ‘the background colors with the color elements are almost identical’, ‘the first one is flat colors, the background is weak’, ‘the first one is visually more beautiful’, ‘the color in the painting is blurred’, ‘the original painting is more beautiful’, ‘the left painting is anatomically more beautiful’, ‘the left painting is more beautiful’.

2.3 - Critical judgment: Informed criticism based on personal preferences and cultural background. Sentences such as “does not tell the history of the actual event or people”, “artificial and unrealistic”, “the first one has more creativity than the second one”, “the position of Anubis during mummification is more realistic”, “the second one has the beauty of movement”, “it does not show the depth in the painting”, “the second one is not clear in expression”.

Analyzing the sample's answers, it became clear that they used some descriptive and judgmental sentences as follows:

Table (6) Comparison of the percentage of the number of sentences of verbal responses to artistic creativity

	Technical Description							Technical referee			Total
	Scenography	Ideological	historical	expressivist	explanatory	symbolic	Artist's ability	Aesthetic	interrupt	critical	
Artistic creativity	%٢٧	%٨	%٨	%٨	%٦	%٣	%٢	%٣٣	%٤	١ %	100 %
Artificial Creativity	%٤٢	%٨	%١	%٢	%١٥	%٦	%٧	%٧	%٣	٩ %	100 %



Artistic creativity received 27% of the descriptive sentences for synoptic description: 8% each for ideological, historical and expressive descriptions: 6% for interpretive description: 3% symbolic description to 2% description of the artist's ability, and 33% judgmental sentences: 33% aesthetic judgment: 4% Categorical judgment: 1% critical judgment for a total of 100%.

Artificial creativity received 42% descriptive sentences: 8% for ideological description: 1% for historical description: 2% for expressive description: 15% for interpretive description: 6% Symbolic description: 7% Description of the artist's ability, sentences of judgment: 7% Aesthetic judgment: 3% Categorical judgment: 9% Critical judgment. For a total of 100%.

From it, we find that artistic creativity gets 72% descriptive sentences: 28% judgmental sentences. Artificial creativity received 81% descriptive sentences: 19% judgmental sentences.

Analysis of answers:

Artistic creativity involves a deeper emotional and personal involvement, especially as it relates to human, social and historical history for the sample, and therefore received descriptive sentences such as historical and expressive description and from judgmental sentences: Aesthetic judgment only, while artificial creativity excelled in descriptive sentences such as synoptic, interpretive, symbolic description and the artist's ability - because the sentences are related to the digital innovation of artificial intelligence - and in judgmental sentences in critical judgment. Both artistic and artificial creativity are almost equal in the use of ideological descriptive sentences and judgmental sentences in categorical judgment.

The increased use of descriptive sentences is evident in both creations. The increased use of descriptive sentences for both creations and the lack of judgment is an indication of the taster's shift from subjective evaluation to objective observation and detailed description. The focus is on the elements and principles of the artwork, such as form, color, composition, technique, and context, rather than personal opinions or value judgments. This enhances both art specialists and non-specialists' vision, appreciation and analysis of the two creations in a deeper way without resorting to personal judgment. Thus, the verbal responses of the sample show a focus on sensory details in a neutral manner and record their objective observations instead of personal opinions, so the comparison between the two creations came with little judgment and this shows interest in understanding and appreciating the unique qualities of both.

Result:

The hypothesis states that the types of descriptive and judgmental sentences used in the verbal responses to the comparison between the artistic and artificial creations differed.

Results:



The research revolved around a number of questions:

Q1: Does the ancient Egyptian heritage retain its aesthetic and intellectual values for the Egyptian connoisseur in its traditional form, or does the connoisseur prefer the artificial creativity of his heritage over it?

Based on the results of the first and second hypotheses, it is clear that both specialists in the field of art education and non-specialists in the field of art have a preference for artistic creativity over artificial creativity, which indicates that the traditional form of ancient Egyptian heritage retains its aesthetic and intellectual value for civilization. This is supported by the finding that the younger age group, despite their use of digital art, does not show a significant preference for artificial creativity over traditional heritage.

Q2: Does artistic and artificial creativity retain the intellectual and visual content of ancient Egyptian civilization?

The result of the fifth hypothesis indicated that visual content is more important than intellectual content in both artistic and artificial creativity, while artistic creativity tends to offer deeper and culturally rooted meanings, artificial creativity offers innovative visual experiences but lacks depth of meaning. Thus, while both forms retain responsiveness to visual content, artistic creativity better retains the intellectual content of ancient Egyptian civilization.

Q3: Does artificial re-creation of inherited artistic creativity in different styles in terms of form and content appeal to the Egyptian connoisseur?

The results of the fourth hypothesis indicate that the preferences between specialists and non-specialists for artistic versus artificial creativity are close, with a greater preference for artistic creativity, indicating that although artificial creativity is admired, it does not significantly exceed the appreciation of inherited artistic creativity among Egyptians.

Q4: Does Egyptian society still retain its civilizational values or has it abandoned them in favor of modernity?

The results indicate that Egyptian society still retains its cultural values, despite the use of modern digital art by the younger age group, there is no significant shift in the preference for artificial creativity over traditional artistic heritage, which indicates the retention of cultural values amidst modern influences.

Q5: Has the aesthetic preference of Egyptians in the 21st century for artificial creativity become greater than the artistic creativity of its artistic heritage?

Based on the results of the first and fourth hypotheses, the aesthetic preference for artistic creativity remains stronger than artificial creativity among Egyptians, both specialists and non-specialists. The close proportions (53% for specialists and 47% for non-specialists) confirm that although there is some appreciation for artificial creativity, it does not exceed the preference for artistic creativity of their heritage.



Q6: Is it possible to categorize gustatory verbal responses to compare artistic and artificial creativity?

The content quality of the verbal responses was categorized as:

1: The intellectual content of art: It is divided into: Historical, ideological, social, social, and emotional content.

2: Visual content: This was divided into scenographic, symbolic, and perceptual content.

This content was summarized after the researchers had categorized more than one of the items, but the responses were limited to these categories.

Q7: Is it possible to categorize the verbal responses to both the intellectual and visual content of artistic and artificial creativity?

Verbal responses were categorized by:

I: Descriptive sentences: They are divided into: Historical description: Historical description, ideological description, description of the artist's ability, symbolic description, expressive description: Cinematic description, interpretive description.

II: Judgmental sentences: They are divided into: Categorical judgment, aesthetic judgment, critical judgment.

Summary of research findings:

2. The verbal responses of both art connoisseurs and non-art connoisseurs to both artistic and artificial creations can be categorized.

3. There is a clear difference in artistic expression between artistic and industrial innovations in the ancient Egyptian civilization.

4. Aesthetic preferences differ, with both specialists and non-specialists favoring artistic creativity over industrial creativity.

5. Age does not significantly influence the preference for artistic versus industrial creativity.

6. Preferences between specialists and non-specialists are relatively close, with a slight preference for artistic creativity among specialists.

7. Visual content is emphasized more than intellectual content in both artistic and industrial creativity.

8. The quality of descriptive and judgmental sentences differs between artistic and industrial innovations.

The results indicate that the ancient Egyptian heritage retains its aesthetic and intellectual value for contemporary Egyptian gourmets. While industrial creations are appreciated for their modernity and visual appeal, they do not surpass the preference for traditional artistic heritage. The study highlights the importance of cultural heritage and authenticity in shaping aesthetic preferences.

Recommendations:

1. Further research and study on exploring the reasons behind these preferences for artistic and artificial creations.



2. The research was based on online interviews only with the group of respondents, and needs to deepen the results to personal interviews with a larger and more diverse sample in geographical location and specialization, as the study focused on a sample of Helwan University art education graduates as specialists in the field of art, so the next study needs to diversify the sample in terms of its specialization in the field of arts and antiquities to enhance the possibility of generalizing the results.

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