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REPRESENTATIONS OF MEANING AND ITS RELATIONSHIP TO GESTALT PRINCIPLES IN INDUSTRIAL PRODUCT DESIGN

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Abstract

The research discussed a process that represents meaning in the industrial product within the scope of perception, which depends on the concept of meaning to calibrate the constancy and smoothness of visual scanning according to the general Gestalt principles. On the Gestalt principles that govern those elements, a group of industrial products were discussed and their formed elements analyzed as an attempt to explore the Gestalt meaning model at the realistic level in light of the concepts that were extracted through the research discussion. The research reached a set of conclusions that achieved the intended goal of this study with regard to the behavior of the design construction of the industrial product according to the representations of the design meaning used by the industrial design institutions.

Keywords: Representations, Meaning, Gestalt Principles, Industrial Product.

Introduction

Research Problem

The meaning is a complex formulation, as it does not exist outside the process of representations (perceptions), and representation requires the emergence of this meaning, which does not exist except within the context and within special Gestalt conditions for receiving that define its dimensions and extensions. There is no meaning except through its appearance in a material reality that is perceivable, such as industrial products. Since the industrial product is one of the arts of design, it is subject to a specific system in how to organize the formal elements and other criteria that give it a semantic aspect that expresses its content and idea, which achieves its various functions, starting from the ease of perception by the recipient, through arousing his interest, and ending

with achieving the design response. It requires building an intentional visual system by the designer in order to lead the recipient to follow the design and define its dimensions and the values created by the designer, by making the interconnected elements together give the design the value that the designer seeks to achieve, since the process of interdependence between the elements leads to the overall structure of the industrial product and what it carries From hidden meanings that are achieved through the general context of the design, leading to seeing the overall meaning embodied in the industrial product. Therefore, the designer, in fact, does not create meanings, but rather creates new forms of this meaning through a comprehensive, intentional organization process that he conducts on this meaning according to a strategy dictated by the nature of the formal elements. As a carrier of significance, therefore, the research problem can be formulated with the following question: (What is the conceptual relationship between the representations of the meaning of building the formal elements of the industrial product and the Gestalt principles in the context of the analytical frameworks of the form?)

Research Importance

The importance of the research comes by referring to the reality of the representations from which the meaning in the visual achievement is formed through the principles of Gestalt and its elements and their interdependence with the neighboring elements to produce the meaning of the industrial product, in revealing the nature of the formation in the elements that the designer takes to communicate his ideas and goals in order to form a perceived reality. The meaning is formed through it that it intends, but the need for it lies in the addition of knowledge to the previous research that dealt with the subject of meaning and semantic elements and shed light on an important topic that deals with the importance of meaning and its representations in the industrial product according to the principles of Gestalt and as a documentation of the formal elements in the formation of industrial products.

Research Objectives

The current research aims to reveal the representations of meaning and the mechanism of their employment according to the Gestalt principles in the design of the industrial product.

Terminologies and Definitions

Representations:

Representation is that mental image that the designer evokes of the elements and relationships, and translates them into a tangible form, as it represents a high degree of imagery (Sharbel, 1986, p. 27).

Meaning:

It is what is meant by the design elements in the design of the industrial product within the context of the design to express a message directed towards the recipient (Maysa, 2019, p. 4).

Procedural Definition of Representations of Meaning:

It is the formal and objective manifestation of the design elements that have been employed in a manner that is characterized by a mental image capable of sensory and material perception, to place the meaning on the visual surface of the industrial product.

Gestalt Principles:

It is the psychology of form, and it is the process of perceiving form, music, the effect, reactions, the part and the whole, the partial whole, the form and the floor, and the most important of its axes is its interest in understanding the visual language of form (Al-Husseini, Part 1, 2008, p. 233).

Preface

The formal elements are responsible for the movement in the design of the industrial product because the generation of meaning is associated with the generation of movement and its sequence. Through this sequence, the mind of the recipient is prepared to be led beyond the movement to search for a link that connects him to what is presented to him, i.e. receiving the design message in its animated form, then deciphering its codes and interacting with it Many ambiguous industrial products continue to remove the direct meaning and at the same time release a meaning that is stored in the memory by building a common imaginary world between the displayed visual text and its symbolic and metaphorical significance on the one hand, and the receiver who receives these sensory indications on the other hand to establish after that the associations On this basis, the designer forms compound formal elements in the industrial product that carry semantics, leading to the achievement of meaning within the form (Faisal, 2015, p. 542). The meaning is linked to the recipient as a result of the communication that the communicative relationship creates in his psyche, meaning that the meaning operates in the light of physiological and psychological mechanisms, due to their connection to the general whole organized to achieve the Gestalt principles (Rajab, 2001, p. 12), and so that the whole is the sum that expresses the nature of the design work from The sum of the elements and its constituent parts to become the whole (and the gestalt is the integrated whole and not just a sum of the elements and parts. All) (Qasim, 1982, p. 286). Gestalt was a reaction to re-consider the forms and elements that philosophers did not address at the time. Form and content (Khalil, 2001, p. 13). With the progress of time, the meaning in design became one of the topics around which the Gestalt

theory revolves because of its importance in forming the elements. There is no element without meaning because the meaning is part of the perception process of the recipient. The elements, when organized according to the Gestalt principles, have an impact on the general meaning of the products. Industrial (Jalal, 2002, pp. 164-169).

Representations of Meaning in Industrial Design

1- Derivation

The derivation clarifies the meaning of the metaphor. The metaphor is based on analogy because the receiver is able to identify the similarities between the intertwined and to find the relationships between the interconnected elements that are different in meaning. For this, the designer built for him a system of relationships capable of summoning what is in the universe of assets as well as recalling what is in the mind of images and what he uses. The recipient receives meanings with the ideas they carry, and these meanings refer to the existing things around him, including what is familiar and what is strange (Salah, 1996, p. 17). Thus, the metaphor is the replacement of a formal element in another place or the employment of one element instead of the other, taking into account the preservation of the original in the transformation and the survival of the significance and meaning, as the designer resorts to abandoning the use of traditional elements that help the idea, to put other elements instead of them that help his borrowed form to appear clearly (Eid, 1987, p278). Through this, metaphors transfer the meaning of one element to the meaning of another (Sahib, 2014, P8). And the essence of derivation in design lies in the fact that it allows one thing to be understood based on something else, in the sense of substituting one element for the place of another element for the sake of analogy, comparison and replacement, meaning that the industrial product in design consists of a form and a meaning, and therefore the new meaning replaces the meaning of the first or the old, provided that it is canceled The first meaning that he enjoys in his first existence (Jamal, 2009, p. 191). Therefore, the derivation in industrial design is a sensory-visual derivation (form and meaning) on the grounds that it bears a design idea, as it means first and foremost the tangible visual form, which the designer intends to simulate the initial formal structure with the employment of what is compatible with the subject of his idea, as the function of derivation is persuasion, i.e. It is a means of influencing the recipient, and it is what the designer aims to do in making his designs more attractive and aesthetic (Angham, 2008, p. 106).

2-Embedding or Inclusion

Embedding or Inclusion the element, containing it, and including it, where the elements play a role in perception and drawing attention to the industrial product, so the first thing that is thought about is the production and creativity of that form that plays its role in the existence

of the design, so the inclusion is mostly function of developing the meaning, so it is necessary to change and adapt the elements to adapt to Technology developments, where he considered that inclusion and Embedding or Inclusion is a method for that adaptation (Al-Attar, 2000, p. 12), so the industrial designer includes elements that complement his design. As inclusion is depositing something into something else, so the process of constructing elements through inclusion takes place on the basis of merging the characteristics that each of the original elements bear with the merged element, so this method is called merging the elements into the total composition (Al-Obaidi, 2008, p. 10), so inclusion It is the process of delivering a message that carries aesthetic, functional and usage contents through elements that the designer formulates according to merging in his design another design or part of it, so that the new element bears the characteristics of the original elements, as the new elements included are characterized by visual and unusual excitement. The recipient does not have a previously similar picture of these elements, which prompts him to inquire about these strange elements by attracting attention to them, so the recipient begins to identify that new form and its function, and then prompts the recipient to link the aesthetic values of that form through awareness of the performance functional values in the process of seduction For the acquisition of designs characterized by modernity, inclusion has a prominent role in forming elements commensurate with the era in which the recipient and the designer exist together (Al-Husseini, Part 2, 2008, p. 34).

3- Substitution

It is taking the substitute of the element, i.e., replacing it and changing it, and replacing the element in the sense of replacing it and taking from it instead (Ibn Saydah, 2000, p. 338). In other words, the designer comes with an allowance by replacing the element with another, so it takes its place. The principle in the replacement is to change the element from its condition, and the principle in substitution is to make the element in the place of another element (Ibn Manzoor, Substitution Material, p. 48), as it has been stated in some interpretations that the substitution is He left one element and took another in his place (Al-Jazaery, Part 1, p. 30). As substitution is “the substitution of a linguistic element for another element and making it in a single design context” (Nahleh, 2011, p. 206), for designers it represents “a form of textual cohesion that takes place in the signification or meaning between forms, elements and particles” (Afifi, 2011, p. 122). In other words, the substitution achieves semantic continuity through the presence of the substituted element in the subsequent relationship, and thus it represents the relationship between an advanced element and another late element, so that the advanced element is a substitute for the late element, and this is what makes the elements and relations able to achieve coherence and consistency within the form (Qasimi, 2014 / 2015, p. 10). It thus

contributes to the realization of meaning (the meaning of elements and formation), and thus achieves synergy and consistency. The substitution relationship leaves an effect, and its effect is the presence of one of the elements of the substitution, that is, the substituted element must be present within the figure, and for this the substituted remains an indicator that guides the receiver to search for the supposed element, which enables him to fill the void created by the substitution (the previous source, p. 15).

4-Assembly

Assembly in the sense of joining separate elements, arranging them, and linking them together to obtain an integrated unit, which is a composition of several elements and joining them together (Robert, 1997, P55). From these elements, the design work becomes an interconnected and coherent whole in a harmonious manner that creates a sense of continuous connection, as the relationship between these elements is a framing of the internal bonds that make up the structural structure of the design work on the one hand, and between the same internal bonds with each other (the part with the part and the part with the whole). On the other hand. In the first case, it is linked to the movement of the eye and its surroundings, and the integrated relationships that link the forms with their phenotypical characteristics, and the dialectic of drawing attention towards areas designed through these characteristics, i.e., it is possible to create variations designed by exaggerating the formality of the elements. In the second case, the basis of unity that the designer desires can be achieved through Finding treatments that coordinate the effectiveness of the part with the other part and the part with the whole (Al-Bazzaz, 2001, p. 30). The mind of the recipient is ready to try continuously to collect the largest number of elements in one form, and whenever the form consists of the largest number of elements gathered and intertwined in the formation, the more there will be an easy-to-perceive form (the previous source, p. 21). All the elements of the complete design work live in an interwoven and intertwined internal link, they all unite in order to create a cohesive unit (Reed, 1986, p. (Al-Azazy, 2013, p. 120), in general, similar elements tend to aggregate to produce visual assemblies (Freidick, 1993, p. 16).

5-Omission

Omission in design is briefness, reduction, and sufficiency. Briefness is based on deleting an element to signify the rest of it, as it is an original element in design, and the principle in composition is that an element is not deleted except with evidence (Qudamah, 1990, p. 69). Omission also means reduction in formal elements to achieve the desired goal desired by the designer, because reduction is a system that enters many areas (Youssef, 2014). Elimination is a procedure carried out by the designer to address the general composition of the industrial product, as it is considered one of the concepts used in the process of interdependence

and the disclosure of meaning and its representation such as repetition, overlapping and addition (Al-kanzawi, 1991, P342). Thus, the designer performs this treatment by excluding extra elements, without Transferring the meaning to another meaning (Omar, 2004, P27-69) and in this sense the designer deletes the elements that have no importance in the structural and constructive relationships so that he meets the aesthetic and functional need through simplification and the use of basic elements (Al-Hilli, 2005, P26). The deletion helps to force the recipient to participate visually, to add, and to try to return the elements to their visually integrated origin, for example, achieving fairness to the elements that, through their incompleteness, force the recipient to add the deleted parts of the elements and complete the deleted elements, as well as changing the shapes of the elements in the mind and thus causing the contribution effective by the recipient and the formation of the innate deleted part (Jenks, 1991, p211).

6-Addition

It is the addition of a design element to the general composition so that it takes two forms. This added element may be compatible with the available elements, which leads to difficulty in distinguishing between them and the added element, or it may be different from the original composition in form and meaning to a degree that reaches contrast, but achieves synergy as a whole (Afifi, 2013, P3-4). That is, the additions, including those that are interconnected through adding the element while preserving the original elements and their identity, and some of them are separate through the overlap in the addition with the change in the significance of the original elements. And that this addition is somewhat basic and some of it is secondary, in the sense that some of them are important for functional performance, others are important for aesthetic performance, and others are for aesthetic and functional performance (Omar, 2004, P69). Therefore, the new addition does not mean merging the new with the existing, for the existing works as an integrated system, that is, the added element enters the system and loses its balance and interacts with it in a more complex way or another and adapts to it so that the added element becomes part of this system in its survival and renewal (Bashler, 1980, P81). Addition is new elements that are added to old elements to meet the need for change and development, thus generating a new identity that expresses new meanings (Byard, 1998, P14). It is also defined as "a design strategy to add a new entity to another already existing one, in a limited way and in the context of form, content and meaning". From what can be indicated the existence of two parties, the genitive and the original, that is, the existence of an existing element and a new element added to it, between which there is an interdependent relationship that can be controlled through specific principles such as approximation and adhesion, where the meaning changes in the end. Addition means adding a design element to another element vertically or horizontally so

that the resulting elements at the end represent a connected, interdependent and composite unit, taking into account the sharing of both elements in one relationship. Any form based on a number of formal elements to achieve its existence by the designer through deletions and additions that are essential and sometimes complementary or complex causes the recipient to not accept and sometimes actually reverses that (Huda, 2004, p. 70/71). Therefore, sovereignty is important in the diversity that is achieved through deletion and addition, enhancing the aesthetic and functional values in a way that is free from distortion of the formal elements that affect the recipient, by using influences that change the shape of the element by deleting an important part or adding a surprising part (Al-Nouri, 2002, p. 19). Likewise, the design and technical processes used by the designer are diverse, and from these processes, the processes of deletion and addition come as an important part, as they fall into the essence of activation at the moment of design (Nassif, 2001, p. 26).

Gestalt Principles and their Applications in Representations of Meaning

1- Continuity and its Relationship to Derivation

The derivation includes the meaning of metaphor, as the metaphor is defined as a process carried out by the designer by recalling an embodied element and an abstract idea and linking them by addressing the imagination and including them in a single structure that has a presence in the visual field, and pushing new elements to be visible and of aesthetic value and function in the general composition system. for the completed industrial product (Emad, 2015). In order for the interdependent element to be continuous, one must resort to the principle of continuity, which states that the arranged elements take a method of continuity so that they overwhelm the mutual elements in the direction (Martin). The designer resorts to derivation in the industrial product to apply the principle of continuity, as in Figure (1) The shape of the bee clearly indicates to the recipient what this product is, which gave an illusion of continuity by deriving old elements and intertwining them with modern elements.

Figure (1): Shows the derivation in a bottle of honey

Source: homesthetics.com

2- Similarity and its Relationship to Inclusion

The concept of inclusion is based on the inclusion of one element of another element entirely to form together a visual giver. Inclusion is the attachment of one element to another element, because the process of including elements takes place through the interdependence of the original elements at the level of the whole and the part with the merged elements, which gives room for interpretation in several ways, and this method seeks to The interdependence of the elements and their interdependence in the overall composition, while the inclusion is a process through which the designer communicates a message to the recipient so that it carries certain contents, such as aesthetic, functional, or usage, so it includes a formulation of the elements according to a process of interdependence in the design of another design or part of it (Al-Kariza, 2006, p. 189), so the implication is evident through the principle of similarity, which states that similar elements appear to be one group (Walid, 2015, p. 289). The designer resorts to the principle of similarity in the Embedding or Inclusion process to overcome the convergence factor in the interaction of similar elements because their perception constitutes a single group if they exist within the visual field of the recipient, as in Figure (2) when the designer tried to interlock and include the mobile phone in the radio device represented by the analog clock.

Figure (2): Shows the embedding process within radio

Source: Groupon.com

3- Convergence and its Relationship to Substitution

Undoubtedly, creativity is based on the presence of similar elements between the various elements of the industrial product in terms of type, quality, and design process, with a synthesis formulation based on deleting an element or part of it from the composition and replacing it with another element that performs its aesthetic and functional effect, so that modification operations are sometimes shortened to the act of substitution. Formalism about parts and details of the original composition and replacing it with another part for aesthetic purposes that depart from the current context, and serve as an initial encryption on the structure of the composition (Wissam, 2014, p. 289). As in Figure No. (3), which shows the designer's achievement of the principle of convergence by deleting part of the rectangle element and replacing it with the circle element so that it performs its functional and aesthetic effect, so it is a design form in the form of a single group without disturbing the perception of the recipient.

Figure (3): Shows the substitution process within the industrial product

Source: Consumeraffairs.com

4- The Common Destination and its Relationship to Assembly

The aggregation is based on the processes of joining different elements in type and quality and their embodiment as a single formal system that reflects the multiplicity of forms within a comprehensive whole with a visual formulation that embodies a metaphor from natural reality and is different in the synthetic context between the parts, so that the aggregation method is a way to link the basic elements horizontally so that parts of the elements are preserved in them In the independence of its structure despite the convergence, it is to be adjacent or linked by a link (Al-Obaidi, previous source, p. 11). In order to achieve the feature of assembly within the formal cohesion, the designer resorts to the principle of a common destiny, which states (that if the elements of the form are linked in a general direction, they tend to form an integrated group that can be perceived) (Muhammad, 1990) as in Figure No. (4), meaning that the elements have a common destiny They tend to group visually into one group that can be perceived as a single unit with a common destiny.

Figure (4): Shows the assembly process in the library

Source: Furniturefashion.com

5- Closure and its Relationship to the Concept of Omission

Omission is based on the process of phenotypical reduction within the original overall composition, making it the way that expresses the meaning, according to how the change is based on the act of deletion that includes reducing the elements while preserving the perceptive aspect of the recipient (Al-Saeedi, 2015, p. 40). In order for the deletion to be achieved according to the meaning, it is necessary to resort to the principle of closure that includes the meaning of the deletion in the design, which states that (the incomplete elements that suggest that they are complete are treated as if they were actually complete rather than as if they were complementary parts of the thing or the element) (Qasim 1981, p. 22). As in Figure No. (5), which shows the deletion in the

form of the modern phone, which prompts the recipient to complete the missing triangle element through formal synergy.

Figure (5): Shows Omission in modern phones

Source: Yankodesign.com

6- Juxtaposition and its Relationship to the Concept of Addition

A condensation method based on increasing the elements in the structure of the overall composition through a formulation of a complex nature, that is, the industrial product includes a formative duality in a manner that leads to a dual appearance unit of form and function (Al-Saidi, previous source, p. 43). In the other, the elements are the most likely mentally within the same group) (Walid, previous source, p. 289) As in Figure No. (6), the designer tried to suspend the shape of drying in the washing machine so that it appears to the recipient as one group with adjacent elements as an integrated product.

Figure (6): Shows Addition in the washing machine

Source: Techmamas.com

It is possible through the following model, which is a coffee table designed by Indian designer Radhika Komal in 2020.

Source: Tinypartmants.com

In the design of the coffee table, the designer used formal elements that dominated its original shape, recalled from an external nature, represented by the wings of the beetle on both sides of the table top. As a result, the principle of continuity was clarified in this design by deriving the entire beetle shape and its cohesion with the shape of the table. Undoubtedly, there are visible relationships in this design linked by identical formal elements, which led to the clarity of the principle of similarity through the similarity of the beetle wings on the table top in all design aspects (shape, color, size, texture). It is inevitable that identicalness and similarity in the design of the table, it led to the deletion of the formal element represented by the original traditional table top and the addition of another formal element represented by the wings of the glass beetle. Within the same configuration, that is, the beetle's wings on the table top come together whether they are open or closed, and do not affect the shape of the table. With a surface close to a shape derived from the cosmic nature and expressing the nature of the beetle shape.

Results and Conclusion

(1) The added parts in the industrial product lead to the display of a large number of meanings that constitute a distinct visual starting center and add important anchor elements for the recipient to organize the visual sensation process.

(2) The design formulation of all the elements that are formed according to the Gestalt principles have a direct significance that represents the meaning within the industrial product.

(3) The manner in which meaning is conceived within the industrial product depends on the way in which the elements that enable meaning are installed within the industrial product.

(4) The familiar elements have a prominent role in realizing the mechanism of visual communication through movement and its suggestion in the general assembly of the industrial product and its reflection on the perception of the recipient in understanding the meaning and interacting with it.

(5) The form of the apparent elements employed by the designer in constructing the industrial product leads to the production of a holistic meaning through the ability of the recipient to identify these elements.

(6) Employing elements in the designs of industrial products contributes to giving a different character to shapes by adding certain parts of them, which led to multiple meanings, which contributed to enriching the design structure.

(7) Partial deletion sometimes leads to the cancellation of some formal parts within the design structure of the product while preserving its basic function.

Bibliography

Arabic References

1. The Eternity of His Master, Abul-Hassan Ali Bin Ismail Bin Sayeda Al-Mursi, The Arbitrator and the Great Ocean, investigation: Abdul Hamid Hindawi, Dar Al-Kutub Al-Ilmiyyah, Beirut, 1st Edition, Part 9, 2000.
2. Ibn Manzoor, Muhammad bin Makram, the Egyptian African, Lisan al-Arab, Dar Sader, Beirut, 1st edition, Dr.T, Part 11, article allowance.
3. Al-Bazzaz, Azzam Abdel-Salam, Design: Facts and Hypotheses, The Arab Institute for Studies and Publishing, 1st Edition, Beirut, 2001.
4. Al-Jazaery, Abu Bakr, The easiest interpretations of Al-Jazaery, D.T.D.T, Part 1.
5. Al-Husseini, Iyad Hussein Abdullah, The Art of Design (Philosophy, Theory, Application), Part 1, House of Culture and Information, Sharjah.
6. Al-Husseini, Iyad Hussein Abdullah, The Art of Design, Philosophy, Theory and Application, 1st Edition, Part 2, Department of Culture and Information, Sharjah, 2008.
7. Al-Saeedi, Akram Zarzis, Reduction and formal condensation in the design of Iraqi book covers, Department of Print Design, College of Fine Arts, University of Baghdad, 2005.
8. Al-Obeidi, Atta Hassan, Embedding in Contemporary Architecture, a published doctoral thesis, University of Technology, Department of Architectural Engineering, Baghdad, 2008.

9. Al-Azzawi, Hanan Ghazi, Attraction and excitement in the design of the industrial product body, University of Baghdad, unpublished thesis, 2013.
10. Al-Attar, Mukhtar, Horizons of Plastic Art on the Twenty-first Mashareq, Dar Al-Shorouk, 1st Edition, 2000.
11. Al Kariza, Abbas, The Impact of Narrative Structure on Intellectual Structure in Contemporary Architecture, Iraqi Journal of Architectural Engineering, 2006.
12. Al-Nouri, Abdul-Jalil Mutashar, Technical diversity and its role in displaying aesthetic values in posters, an unpublished master's thesis in the Department of Graphic Design, College of Fine Arts, University of Baghdad, 2002.
13. Angham Saadoun, The Structure of Expression in Ancient Iraqi Art, 1st Edition, Jordan, Dar Majdalawi for Publishing and Distribution, 2008.
14. Jalal Jamil, The Concept of Light and Darkness in Theatrical Performance, 2002.
15. Jamal Hammoud, The Philosophy of Language at Ludwig Wittgenstein, 1st Edition, Al-Ikhtif Publications, Algeria, 2009.
16. Khalil Ibrahim Al-Wasiti, Gestalt Theory and its Applications in Design, Baghdad, University of Baghdad, College of Fine Arts, Academic Journal, Issue 31, 2001.
17. Ragab Abdel-Gawad Ibrahim, Studies in Semantics and Lexicon, Cairo, Dar Karib for Printing and Publishing, 1st Edition, 2001.
18. Reed Herbert, Reed, The Meaning of Art, See: Sami Khashaba, House of General Cultural Affairs, Baghdad, 2nd edition, 1986.
19. Charbel, Morris, The Cognitive Development of Jean Piaget, University Foundation for Studies, Publishing and Distribution, Beirut, 1986.
20. Salah Fadl, Rhetoric of Discourse and the Science of the Text, 1st edition, Library of Lebanon Publishers, Cairo, 1996.
21. Afifi Ahmed, Towards the Text (A New Direction in Ars Al-Nahawi), Zahraa Al-Sharq Library, Cairo, 2001.
22. Emad Younis Lafi, Simile and Metaphor in Language and Architecture, International Conference, Dubai, 2015.
23. Frederick Mallens, how do we taste it? (Elements of formation), see: Hadi al-Taie, Baghdad, House of Cultural Affairs, 1993.
24. Faisal Laibi Hammoud, Gestalt and the production of meaning in the part to the whole in the cinematic film, University of Baghdad, College of Fine Arts, Journal of Basic Education, Volume 21, Number 19, 2015.
25. Qassem Hussein Salih, Creativity in Art, House of Cultural Affairs, Baghdad, 1981.
26. Qasimi, Samira, Substitution in the Holy Qur'an, master's thesis, supervised by: Dr. Abdelkader Elbar, Kasdi Merbah University, Ouargla, Algeria, 2014/2015.
27. Qassem Hussein Salih, The Psychology of Perceiving Color and Shape, Baghdad, Ministry of Culture and Information, Dar Al-Rasheed Publishing House, Studies Series (305), 1982.
28. Qudamah bin Jaafar, Criticism of Prose, Dar Al-Kutub Al-Ilmiya, Beirut, 1990.
29. Martin Heidecker, The Origin of the Artwork, Translator: Abu Al-Abd Dudu, 1st Edition, Al-Jamal Publications, Germany.

30. Muhammad Saeed Abu Talib, Artistic Psychology, Ministry of Higher Education and Scientific Research, University of Baghdad, 1990.
31. Maysa Karim Hassan, The Implicit Meaning in the Design of a Printed Achievement, Master's Thesis, College of Fine Arts, Print Design, University of Baghdad, 2019.
32. Nahla, Mahmoud Ahmed, New Horizons in Contemporary Linguistic Research, Library of Arts, Cairo, 1st edition, 2011.
33. Nassif Jassem Muhammad Abbas, Introduction to Advertising Design, Ministry of Culture and Information, Baghdad, 2001.
34. Huda Mahmoud Omar, Industrial Design, Art and Science, Dar Al-Faris for Publishing and Distribution, Jordan, Amman, 2004.
35. Wissam Kamel Abdel-Amir, The Conceptual Transformation of Decorative Structure in Islamic Architecture, unpublished doctoral thesis, College of Fine Arts, University of Baghdad, 2014.
36. Walid Muhammad Mahdi, Visual Illusion and its Kinetic Effectiveness as a Design Direction in Industrial Product Design, Volume 21, Issue 89, Journal of the College of Basic Education, 2015.

Foreign References

1. Al-Kanzawi, A.H.1991. Tabakiyya, a study of the relationship between Cubism and Architecture Unpunished Master's thesis Baghdad: University of Technology. Department of Architecture.
2. Al-Hilli, A.2005. Art and Experience the Small Encyclopedia, No. 447, House of Cultural Affairs. Baghdad.
3. Jenks, Charles, the language of postmodern architecture academy edition, Great Britain, six editions, 1991.
4. Afifi, A. (2013). Environmentally Compatible Architecture as an Entrance to Preserving Buildings of Heritage Value in Egypt [Master's thesis]. Egypt: Ain Shams University, Faculty of Engineering.
5. Omar, H. M. (2004). Industrial Design, Art and Science Dar Al-Fares for Publishing and Distribution in Jordan, Amman, 1st Edition.
6. Bashler, G. T. (1980). Aesthetics of Place translated by: Ghaleb Halasa, Al Qalam Magazine, Al-Jahiz Publishing House, Ministry of Culture and Information, Baghdad.
7. Byard, P. S. (1998). The Architecture of Addition: Design and Regulation W.W. Norton & Company, New York, p. 14.
8. Al-Imam, M. W. 2014. Reading in Architectural Criticism Al-Mada Supplements [online].Available on: https://almadasupplements.com/view.php?cat=11514 [Accessed on 11/09/2020].
9. Al-Qattan, A. A. (2006). Architectural Integration between the Existing and New Formation - Study Cases of Additions to Existing Projects [Master's thesis]. Egypt: Al-Azhar University, p. 51. Available on: http://www.cpas-egypt.com/pdf/Ahmed%20Kattan/M.sc/M.sc.pdf
10. Youssef, M.," LANGUAGE OF MINIMALISM IN ARCHITECTURE", 2014.