Design Simplification for Enriching Product Form

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Abstract:

There is an obvious trend to increase the competitive advantage of products by increasing the number of functions performed by one product to attract the consumer. The Shape of the final product, as well as distracting the user from the basic function of the product, the complexity of the external form of the product, the weight of the product, the increase in size, the difficulty of understanding and handling the product, and the exposure of its parts to breakage and damage easily and becomes a burden on the environment. Objective: Determine the criteria for simplifying the design and derive the components of the simple form of a product (i.e. how to judge the product as being simple). What are the constraints of a simple product? This includes the trend of simplifying design within the design process procedures to reach ideas that result in a distinctive product that is easy to use. Combining the trend of simplifying design and the trend of sustainable design to reach design ideas that meet the real needs of the user and increase the efficiency and life of products. Methodology: Descriptive and analytical approach 2- Experimental approach. Results: Simplifying the shape or shortening the details is satisfying as it incorporates rhythm, harmony, balance and diversity in the form and structure of the product. The study also managed to employ simple curved and straight lines to serve the ability to transform and move and achieve the forces of attraction in the general body of the product. Curved lines have led to a smooth and perceptual design as well as an increase in harmony in the body. The design of the product on sound engineering ratios based on engineering theories leads to the arrival of a product balanced in design and visually, which is reflected in its performance. The exaggeration by focusing on the larger area in the element gives sovereignty in the design which causes visual tension to the recipient within the overall body of the product. Employ light and neutral colors to reduce the level of direct attention to other parts and here comes the intention of the designer to attract the attention of the recipient in full to the interface of job receipt . The use of modern materials has led to the possibility of eliminating certain requirements, which led to the provision of alternatives to the general form and to the parts that are added to the body for functional necessities through the use of a special binding technique such as the compression method of plastics material without the need for external binding methods. The use of color contrast techniques in increasing the excitement of the formal system, which reduced the speed of movement of the beholder in space, which led to an increase in the visual information received by the recipient. The use of neutral colors that led to the breaking of monotony and through the use of output techniques to give the material newly suggestive. The emergence of technological systems such as touch control system without the abundance of keys located in the functional receiving interface that in the shares of the formal enrichment of the product.

Keywords:

Simplification, Minimalism, Sustainable Design

References:

- 1. Noor Abbas Hussein. 2016. Abstraction and exaggeration of formality and their reflection in the industrial proc Academic, Maj. 2016, p. 79, pp. 89-106.
- 2. Abdullatif, Tariq Ismail Mohammed. (2003). Utilization of simple construction applications in the field of indus design. Journal of Science and Arts Studies and Research: Helwan University, vol. 15, p. 3, 59 77.
- 3. Ali Abdul Hussein Abboud. (2018). Phenotypicality in high quality and low quality products and their reflection or recipient. Lark, 4(31), 470-485.
- 4. Nawal Mohsen Ali Murtaza Haider Abboud, University of Baghdad/College of Fine Arts. (2017). Functi overcrowding and its reflection on the performance of the industrial product. Journal of the College of Basic Educa 23(97/Scientific).
- 5. Lilo, A. T. (2019). Abstract orientation in industrial product design. Journal of University of Babylon for Humani 27(3), 378-392.
- 6. Bloch, P. H. (1995). Seeking the ideal form: Product design and consumer response. Journal of marketing, 59(3), 16-29
- 7. Awad, Ahmed Ali Mohammed. (1991). Shape design requirements for engineering devices and products in the fiel industrial design. Journal of Science and Arts Studies and Researches: Helwan University, vol. 3, p. 3, 87 107.
- 8. Jassim Khazal Behill. (2009). The appearance of the industrial product and its role in user preferences. al-academy, (52
- 9. Salah Nouri Mahmoud, & Jassim Ahmed Zidane. (2011). Phenotypic directorial methods of the product body and its in the process of attraction and tension. al-academy, (60).
- 10. Chen, Y. (2017). Human experience affects form and function (Doctoral dissertation, The University of Iowa).
- 11. Ali, Osama Hassan Ismail. 2017. Minimalism as a Trend in Residential Interior Design: An Applied Study. Zarqa Jou for Research and Humanities, Maj. 17, p. 2, pp. 640-654.
- 12. VanEenoo, C. (2011). Minimalism in Art and Design: Concept, influences, implications and perspectives. Journal of and Studio Art, 2(1), 7-12.

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- 13. Ahmed, Sayed Abdo, Mohammed, Osama Yousef, Hussein, & Mirna Mohammed. (2018). Design for recycling a environmental requirement in product design. Journal of Architecture, Arts and Humanities, 3(Issue 11(2)), 708-742.
- 14. Abdul Hamid, & Dalia Khaled. (2018). Considerations for achieving the concept of sustainable design in the fiel industrial design. Journal of Architecture, Arts and Humanities, 3(Issue 11(1)), 217-237.
- 15. Al-Taie, Ban Muhammad Shakir. (2016). The mechanism of deletion and addition in the industrial product an relationship to the functional compressor. Journal of the Academy: University of Baghdad College of Fine Arts, v 245-262.
- 16. Shaimaa Abdul Jabbar Hamid, University of Baghdad/College of Fine Arts. (2012). The relationship between analysis expression in industrial product design. journal of the college of basic education, 18(72).
- 17. Nawal Mohsen Ali and Barakat, Mustafa Mohammed. 2015. Integrativity in the industrial achievement design sys Academic, Maj. 2015, p. 73, pp. 167-188.
- 18. Muhammad, Wissam Ansi Ibrahim. (2019). Interaction between design elements in organic direction as an inpuproduct design. Journal of Architecture, Arts and Humanities: Arab Society for Islamic Civilization and Arts, v. 15, 682.
- 19. Huda Mahmoud Omar, University of Baghdad, College of Fine Arts. (2006). Multi-equilibrium and its conditionalii industrial product design. journal of the college of basic education, 8(46).
- 20. Bhail, Jassim Khazal. 2014. Innovative trends in industrial design. Academic, Maj. 2014, p. 68, pp. 56-75
- 21. Mahmoud, Salah Nouri. (2011). The Phenotypic Illusion of Materials and their Employment in Industrial Product Des Journal of Arts: University of Baghdad Faculty of Arts, v. 96, 402-427
- 22. Salah Nouri Mahmoud Shaima Muayyad Mustafa University of Baghdad / College of Fine Arts. (2016). Significant the idea of an industrial product. Journal of the College of Basic Education, 22(93/Scientific).
- 23. Jassim Ahmed Zaidan. (2015). Aesthetic and functional dimensions of movement and direction in industrial prodesign. Journal of the College of Basic Education, 21(88/Scientific).
- 24. Rifi, Aida Ismail. (1999). The role of the designer in achieving the quality of products. Journal of Science and A Studies and Research: Helwan University, vol. 11, p. 3, 99 110
- 25. Mustafa, Mustafa Abdel Khaleq. (2006). Product design, serviceability and maintenance. Journal of Science and A Studies and Research: Helwan University, vol. 18, p. 4, 117-129.
- 26. Mohammed, Bassem Hassan Abdo. (2006). Argentomix and Performance Potency Journal of Science and Arts Stu and Research: Helwan University, vol. 18, p. 1, 103 121.
- 27. Al-Habiri, Rehab Mahmoud Mohamed Kamel. 2016. The interrelationship between aesthetics and ergonc considerations in the product design process. International Design Magazine, M.G. 6, p. 1, pp. 169-175.
- 28. Bloch, P. H. (1995). Seeking the ideal form: Product design and consumer response. Journal of marketing, 59(3), 16-29
- 29. Olivia Telford (2019) The Art of Minimalism A Simple Guide to Declutter and Organize Your Life, Publisher: Pris Publishing
- 30. Rocio Solis, (2020), Minimalism Home: Minimalist Interior Design Decoded, Independently Published.
- 31. Paul Rodgers and Alex Milton (2011) Product Design, Laurence King Publishing, London UK.
- 32. Zhang, X., & Xue, Y. (2019, July). Application of Design Geometry in Minimalist Style Product Design. In Conference Series: Materials Science and Engineering (Vol. 573, No. 1, p. 012100). IOP Publishing.

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