

The Aesthetical Impacts of Quick Response (QR) Codes in Apparel Design to Revitalize Handcrafts

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Abstract:

Embroidery serves as a complex semiotic framework, creating a covert language of cultural symbols that works on diverse social and psychological dimensions; for centuries, the practice of hand embroidery thrived before entering a decline phase. The influence of modern art directions, besides the utilization of machinery, contributed remarkably to the decline of this craft. Symbols are crucial elements in cultural production; they communicate cultural values and are a ubiquitous component of human existence; nowadays, QR codes, which are considered modern-day symbols, mirror the human reliance on technology which appears in the inevitable integration of QR codes in our daily activities; the incorporation of QR codes in the clothing and crafts sector provides evolutionary opportunities for fashion designers as the codes bridge the divide between physical products and the digital world. The research problem can be articulated in the following questions: How can QR code technology and fashion design foster a novel path that promotes handicrafts? What actions can the designer take to raise awareness of the cultural significance and implications of embroidery handcraft? What are the hand embroidery craft's historical and cultural context and symbolic implications? What is the possibility of creating a fashion design collection where a QR code is implemented aesthetically and functionally? The research's Importance is to highlight a new direction where information communication technology (ICT) can be used to revive handicrafts in addition to presenting new QR code applications in fashion design and education, also to support craftsmen by trying to keep their crafts from extinction through raising awareness of their value and symbolism. The research followed the analytical, experimental methodology, studying the historical progression of embroidery and symbols in Egypt across the Ancient Egyptian, Coptic, and Islamic eras; the research also covered the QR code technology, embroidery tools, and materials in addition to commonly used hand embroidery stitches. The researchers proposed a fashion design collection for women aged 25-35, featuring interactive clothes ornamented with hand-embroidered QR codes and other decorative motifs inspired by pixel art. When the code is scanned via smartphone, a document appears providing information on the embroidery history in Egypt, tools, materials, and stitches. The proposed fashion designs were evaluated through a specialist and academic questionnaire of five axes, and the results were tested statically by SPSS 25; the designs were ranked from the highest to the lowest (Design 4, Design 5, Design 1, Design 2, Design 6, and Design 3).

Paper History:

Paper received August 23, 2024, accepted on October 26, 2024, Published on line January 1, 2025

Keywords:

QR Code, Hand Embroidery, Symbols, Handcrafts, Clothing Design.

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CITATION

Bassant Mustafa, et al (2025) The Aesthetical Impacts of Quick Response (QR) Codes in Apparel Design to Revitalize Handcrafts, *International Design Journal*, Vol. 14 No. 6, (January 2025) pp 385-409