

# **A philosophical Vision to Enhance the Insurance and Heritage Information Value for Designing the New Egyptian Polymer Banknotes**

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## **Abstract**

Banknote Is Considered one of The Prints Most Circulated Among Societies During Their Daily Lives Through All Economic Movements and It is a Symbol of The Sovereignty for Any Country That Reflects the Amount of Its Economic Performance and Contains the Cultural, Cultural, Historical and Historical Milestones That Are Characteristic of The Culture of Peoples and The Contemporary Events That Are Taking Place.

The research problem is summarized by the lack of familiarity with the non-specialized audience with all the means of securing the Egyptian visible currencies, as well as limiting the identity of the Egyptian currencies to the Pharaonic and Islamic cultural heritage, these represent the objectives of the research.

With the tendency of the Egyptian state to produce new polymeric currencies, the researcher developed a design philosophy that reflects the rich heritage of the Egyptian state according to five different proposed patterns characterized by its inclusion of the heritage and cultural heritage of the Egyptian society while strengthening the identity of the new Egyptian currencies by incorporating the augmented reality technology for the proposed design patterns as well as enhancing means of recognition and confirmation The currency is Verified and free from counterfeiting by incorporating rapid response code technology through an application dedicated to the Central Bank of Egypt.

The researcher applied the new philosophy during teaching the course of designing publications with value for two years in a row to reach more than 100 design models within the proposed philosophy to enhance the insurance and heritage information value and simulate the proposed electronic application functions for the Central Bank of Egypt.

## **Keywords**

Polymer Banknote –Augmented Reality– Egyptian Civilization and Heritage - QR codes– Interactive Design.

## **Research problem**

**The search problem is summarized in the following points**

1. The non-specialized public does not know all the insurance methods for Egyptian currencies, which facilitates some counterfeiting operations for currencies.
2. Limiting the identity of Egyptian currencies to the pharaonic and Islamic cultural heritage and not taking advantage of the elements of the Coptic, popular and modern heritage in designing the Egyptian currencies.
3. Some users are not familiar with the cultural and cultural heritage communication message carried by the currency design.

### **Research Aims**

The researcher aims to:

1. Reinforcement of insurance methods for the new Egyptian polymeric currencies that the Central Bank announced that it was going to issue in an easy way to identify to the non-specialized public by incorporating the QR codes associated with the special serial number of each currency through an application dedicated to the Central Bank.
2. Enhancing the heritage information value to increase awareness of the cultural, heritage and civilizational components that make up the design of the new Egyptian polymeric currencies by incorporating augmented reality technology for coin design that is used in tourism promotion.
3. Propose a new design philosophy that brings together the rich aspects of the Egyptian cultural and rich heritage according to five proposed patterns.

### **Research Importance**

1. Adding a new insurance method for Egyptian currencies, whether paper or new polymeric currencies to be issued, easy to verify by the ordinary, non-specialized public.
2. The use of the Egyptian currency as a tourist promotional tool for the Egyptian civilizational, cultural and cultural heritage, enhanced with enhanced virtual reality technologies.
3. Promote the design philosophy of the new Egyptian polymeric currencies.

### **Research Hypotheses**

The analysis of the heritage significance associated with the identity of the Egyptian heritage enables the creation of design alternatives for Egyptian currencies with the possibility of insurance and information enhancement for the user.

### **Methodology**

The researcher used the descriptive analytical approach to the insurance techniques currently available and used for how to integrate augmented reality and rapid response codes in the design of Egyptian currencies and the experimental approach in designing proposed models for the new Egyptian work.

### **Research themes**

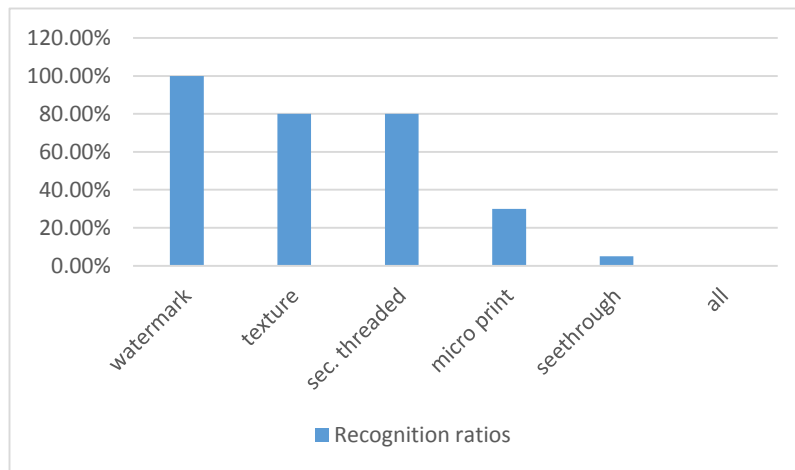
#### **First: The Theoretical & Analytical Framework**

To achieve the goals of the research, the researcher estimated the theoretical and analytical study to

1. Egyptian Banknotes Insurance Levels.
2. QR CODE.
3. Augmented Reality.

#### **Second: The Practical Framework**

1. Questionnaire to get to know the public's awareness of the Egyptian currency insurance means, the result is shown in the next figure.

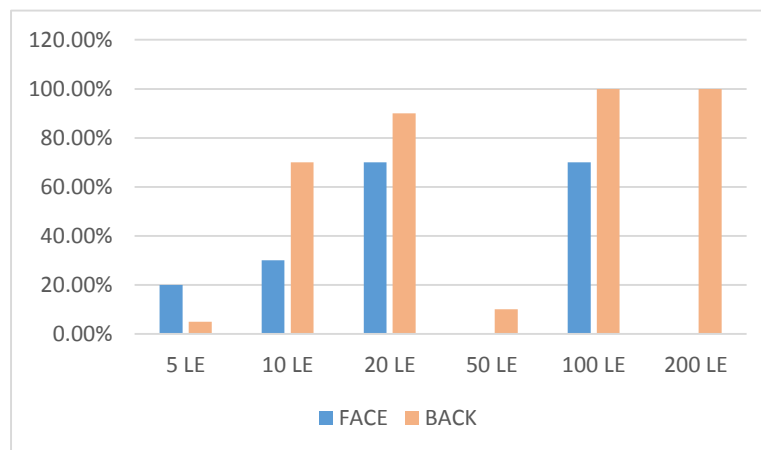


2. An analysis of the culture and cultural heritage of the Egyptian currencies.

### The results

Identity the design of the Egyptian currency which is distinguished by the Islamic heritage in terms of the integration of colors, motifs and portraiture, the main in the design of the face of the currency and the Pharaonic heritage in the design of the back of the currency except for the category of 25 piasters, the back of the coin with the distinctive eagle of the flag of the Arab Republic of Egypt and thus the researcher reached not to exploit the design. The identity of the Egyptian currency for the Coptic, popular and modern heritage, which is considered part of the identity of Egyptian society.

3. Questionnaire of a person on public awareness of the culture and cultural heritage of the



Egyptian currencies, the result is shown in the next figure.

4. A proposed design philosophy for designing the new Egyptian polymeric Currency.

The researcher has applied a design philosophy for the identity of the new Egyptian polymeric currencies to be produced and the researcher has applied it in teaching to the approach to designing publications of value for the third and fourth year for the two years in a row for the academic year 2017-2018 and the academic year 2018-2019 for the Department of Printing, Publishing and Packaging, Faculty of Applied Arts, Helwan University and the Department of

Printing and Publishing and packaging at the Higher Institute of Applied Arts, Fifth Avenue, with a result of more than 100 proposed new designs for designing the new Egyptian polymeric currency with an Egyptian cultural and heritage identity with the integration of augmented reality technologies and rapid response codes following the next steps in teaching the course.



5. Simulating the proposed model to be applied to enhance the insurance and heritage information value.

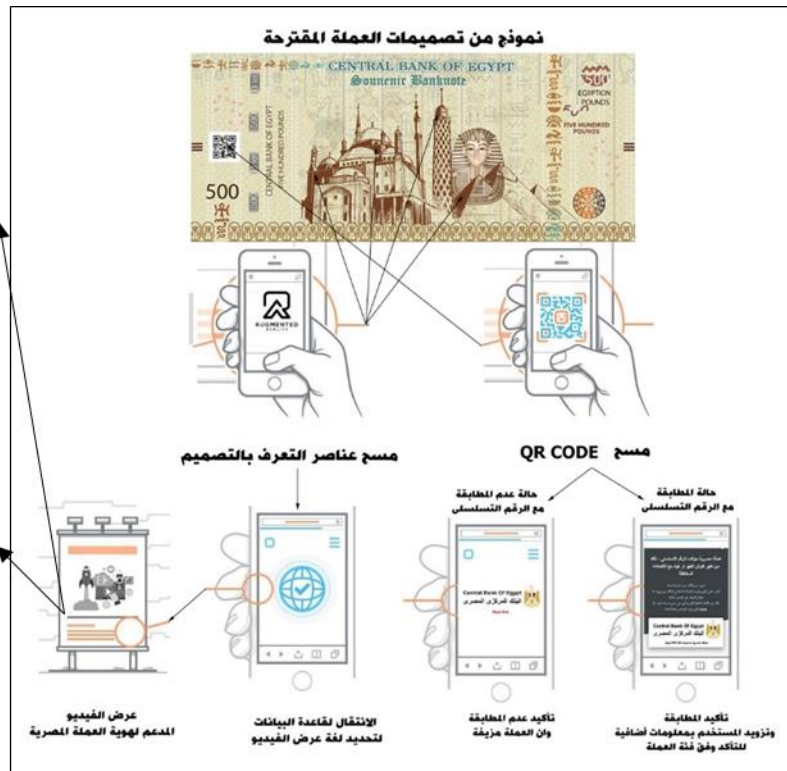
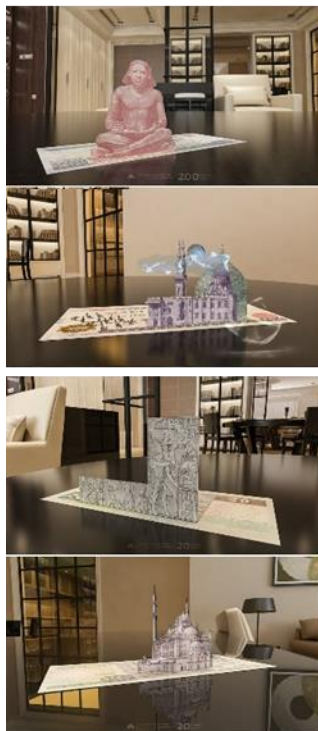




عملة مصرية مؤهلة للرقم التلسلسي - شكك  
من تغير الوان الكوب او كود مع الاضاءة  
المناسبة

الرقم من الكوب من عملة البنك  
التي اثار الجدل في مصر الا ان البنك المركزي  
يضع الكوب في التداول  
كوب من 500 ل.م. كود QR Code  
L255 الكوب في الرقعة من البنك

Central Bank Of Egypt  
البنك المركزي المصري  
عملة مصرية مؤهلة للرقم 500 جنيه



## Results

1. The non-specialized user relies heavily on the watermark and currency texture only to ensure the correctness and safety of the currency and the lack of information related to all insurance methods visible to the Egyptian currencies.
2. The public lack of awareness of the currencies on the cultural components that make up the design of Egyptian currencies.
3. The researcher has developed a philosophy for designing the new polymeric currencies to be produced according to five heritage patterns characterized by their coverage of the diverse and rich Egyptian heritage of the Egyptian society and applied it to many design models while teaching the course of designing publications with value for two academic years in a row and obtaining more than 100 design models of student work .
4. The researcher implemented a simulation model for an electronic application of the Central Bank of Egypt with the aim of enhancing the insurance and heritage information value of

designing the new Egyptian polymeric currencies by combining augmented reality technologies and rapid response codes for the design.

### Recommendations

1. The researcher recommends that the Central Bank of Egypt adopt the design philosophy proposed by the researcher to support the identity of the new Egyptian polymeric currencies to be issued and work to develop design models in insurance.
2. The researcher recommends that the central bank should create its own application, that is used to enhance the ease of verification and reliability and information related to elements of currency insurance, through the rapid response codes technology embedded in the design and linked to the serial number of the currency and is printed digitally with visually changing inks OVI as an additional insurance level as well as support the application to the identity of heritage and cultural currencies through the technology of augmented reality integrated in the elements of insurance design and its advantages to raise the cultural and cognitive level of Egyptian society with heritage as well as the currency is used as an ambassador to support the tourism sector and create an interactive experience.

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