

# Reviving events, historical figures and artefacts in the context of a physical museum exhibition

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**Abstract:** In this work, we present our approach towards reviving events, historical figures and artefacts in the context of a physical museum exhibition organized by the National Historical Museum in the Old Parliament House as part of the celebration of 200 years since the beginning of the Greek Revolution. In this context, several interactive systems were created to accompany the museum exhibits aiming at augmenting the museum visiting experience through an interactive dialogue with objects, places, persons and events.

## 1. Introduction

The central anniversary exhibition highlighted the ideas, causes, persons, events and results of the Greek War of Independence, as they were formed through conflicts and compositions of different interests and traditions. The exhibition has been enriched with a series of interactive systems designed and implemented by ICS-FORTH to serve the needs of the exhibition.

The systems focus on several topics in the exhibition:

- The Chart of Rigas, where a large interactive view of the Chart allows visitors to explore the complex content of this landmark work of Rigas Feraios.
- The Athens Bazaar, an excellent watercolour by the traveller Edward Dodwell, depicting the inhabitants of the city in the early 19th century, is presented on a touch screen and offers information about society at the time.
- Weapons of the Revolution, a “smart” interactive showcase of relics of the Revolution.
- The Press of the Revolution, a system that presents on a touch screen articles about the Revolution from Greek and Foreign Newspapers of the 1820s.
- The Chronology of the Struggle unfolds in two large interactive touch projections and presents events, persons and places of the Revolution.

## **2. Background and related work**

The evolution of interactive ICT technology [1, 2] has provided today a plethora of new applications of Virtual and Augmented Reality (VR) [3, 4, 5, 6]. At the same time, MR presents real and virtual world objects together on a single display [7, 8]. Recent and current research activities on Virtual Museums [9] are exploiting the aforementioned technical progress and have identified new technological methods and development tools [10, 11].

In this context, CH institutions have identified the potential of increasing their appeal and enhance their visitor's engagement through interactive installations that include some form of public information displays [12]. In addition to improving the aesthetic experience, Mixed Reality (MR) environments positively influence visitor experience, thus favoring the probability of revisiting a specific attraction [13, 14]. Apart from providing an enjoyable experience, MR installations can facilitate cultural awareness, historical reconstruction and heritage awareness. State-of-the-art approaches are not limited to installations in indoor spaces [15, 16], but can also involve vehicles that act as portable kiosks [17].

### **3.1. New museology and immersive cultural experiences**

Today in the post-COVID era Cultural Heritage Institutions seek new ways to attract and engage new visitors [18]. One of the ways to obtain a competitive advantage in this era is to implement strategies that have been proposed a long time before the pandemic such as investing and implementing interactive experiences on-site [19, 20]. In the context of the new museology [21], telling stories through immersive cultural experiences has been proposed since it provides a feeling of being inside or part of the story [22]. Modern technology provides additional benefits to the museum storyline since the visitor is able of exploring a virtual world, perhaps from the viewpoint of one of the characters in the story [23]. Furthermore, through user immersion, a "sense of place" and a "sense of time" contributes to the creation of memorable moments that bind the audience to the story. Examples of engaging storytelling experiences include (a) exploring collections, creating virtual paths, and making links between artefacts [24]; (b) exploring narratives and through them digital collections linked with them [25]; and (c) experiencing interactive stories authored on top of museum collections [26].

## **3. Overview of interactive experiences**

The basic storyline created by the museum evolves in three axes. The first regards the presentation of the events of the revolution, the second dives into the social aspects of living under the Ottoman rule and the third is on providing stories on great personalities of the revolution through their tangible remains that are exhibited in the museum (their weapons). Information on the first axis is transmitted through a map of the key location and a timeline of key events accompanied by testimonies recorded on

the printed press of the time. The second axis is transmitted through analysing the social structure through a painting of the Athens bazaar of the time. The third axis is presented by linking the weapons of the revolution with audiovisual story production. In this section, we analyse each of the systems individually.

### 3.1. Chart of Greece

The interactive system “Chart of Greece” has a central role in the subsection “Modern Greek Enlightenment” which features the importance of the Age of Enlightenment and its influence in the Greek War of Independence (1821). The interactive system presents the life of Rigas Velesinlis who published the Chart in Vienna (1797). It also presents the impact of his work, his associates, the symbols, the historic places and the coins depicted on the Chart. A special mention is made of the French Revolution and its influence on Rigas’ ideas.

The interactive system was implemented in two versions: The first one, to be installed in the exhibition spaces of the Old Parliament Building, comprises an oversized projection with a touch-screen and users can interact both with touch and through an augmented physical object (see Figure 1). The second version is simpler, for the system to be presented through a single touch screen so that it can travel to different cities for temporary or long-term exhibitions.



*Figure 1. The Chart of Greece*

### 3.2. The Athens Bazaar

The Athens Bazaar presents a watercolor drawing from the early 19th century. Users interact via a touch screen. The system was installed both in the museum and in regional exhibitions organized by the museum. The drawing depicts the inhabitants of the city in the early 19th century. Figures revive when interacted by the visitor to present information on the social context of the period including trade and professions, traditional crafts, places of social activity and historical figures (see Figure 2).



*Figure 2. Edward Dodwell: The Bazaar at Athens*

### **3.4. Weapons of the Revolution**

The Weapons of the Revolution is an Interactive Showcase that presents historical weapons and other relics of the Revolution. The system comprises a physical showcase and a projection screen. When a visitor touches the glass of the showcase over a certain object, a multimedia presentation in regard to that object is shown on the screen thus extending and enhancing the provided information (see Figure 3).



*Figure 3. Weapons of the Revolution*

### 3.5. The Press of the Revolution

The Press of the Revolution is a Historical Texts Anthology that presents selected articles from Greek and English language newspapers dating from the early 19th century. Users interact via a touch screen for the selection of articles (see Figure 4).



Figure 4. The Press of the Revolution

### 3.2. The Chronology of the Struggle

This is an interactive timeline application that present historic information in the form of an information stream with which the user can interact to extract information. Several categorizations are available to support information filtering. An indicative screenshot of the system in its operational mode is presented in Figure 5.

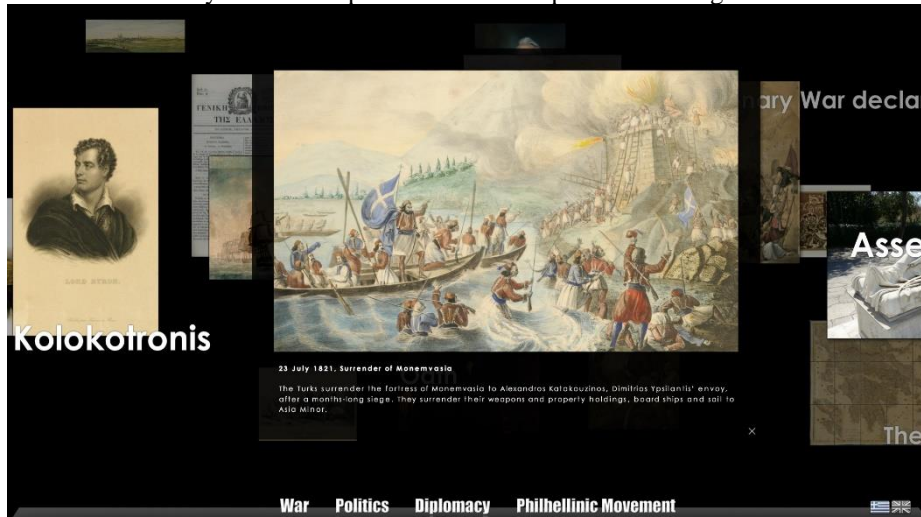


Figure 5. The Chronology of the Struggle

## 4. Conclusion

In this paper, we presented a number of technologies integrated in a museum exhibition organized by the National Historical Museum in the Old Parliament House as part of the celebration of 200 years since the beginning of the Greek Revolution. These technologies were carefully selected to augment visitor experience per thematic area-type of exhibit thus allowing both interactive presentation of information on historic artefacts and intuitive touch-based information retrieval.

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