

Holistic Approach for the e-Documentation of the ASINOU Church Monument with the use of an immersive hybrid book

The Interactive Book

A book is a perfect vehicle for building story, environment and character. Since ancient times people have commonly referred to books in order to gain knowledge, find or seek entertainment. The religious atmosphere, together with the history of books and libraries of the Orthodox Church provides a motivation to use this form of communication along with technology to provide an immersive interactive experience.

The potential to add digital content to text on a 'piece of paper' creates opportunities and challenges for visualisation and enrichment of written content, storytelling and the composition of interactive narratives which draw on a holistic approach to documentation of a cultural heritage monument or site.

Data from this type of memory of the past can generate diverse forms of multimedia such as: 3D models, images, video, audio and text.

Examples of the content

On the left side of each page of the e-book there is written text, describing the history of the church (intangible: story). On the right side of the page is the 2D/3D digital content. Users can interact on the first page with a puzzle which pictures different frescoes. As a 'reward', when the users complete the puzzle a short description appears.

The second page consists of an educational game, a variation on "treasure hunting". The concept here is to walk in the church with a flashlight and try to find hotspots on the frescoes. When the users find the hotspot in a specific area, that area scales into a full-size image with its documentation.

Moving on to the next page, users can find a 3D model of the church. The 3D model has been developed according to the HBIM (Historic Building Information Modelling) procedure. Semantic information (dimensions, materials, etc.) and metadata structure are available.

Another option is a 2D puzzle, from the icons of the church (available from Europeana) and on completion of the puzzle a 3D model of the icon appears which users can interact with.

A part of the frescoes, such as the church's dome in a high quality resolution is also available as a 3D puzzle in the final page.

Overall Goal

The overall goal is simplicity combined with flexibility to provide an interesting installation that is easy to interact with. Since the page of the book acts as a screen, the gestures should be equivalent to those widely used in other touch interfaces used in everyday life (tap, drag, slide, hold, swipe and rotate).

Our intention is to integrate this pilot hybrid immersive book installation on a smart device and offer it as a common solution together with the VR/ AR App.

At the beginning of the 21st century, it is clear, that the 'digital invasion' affects every aspect of life: work, home and community. Its task is to make our lives easier and faster, but it also cuts off many people from the physical world and activities.

Conversely, the feeling of reading a physical book can feel more 'lifelike' than scrolling the pages of a tablet or a mouse to read the news. The use of digital advances in combination with physical elements can not only retain the nostalgia but may create a new milieu where the digital and physical meet in balance.

