Site-Specific Augmented Reality Gaming for Cultural Engagement: Experience and Reflection

Partner Profiles

Haunted Planet Studios has developed site-specific augmented-reality game experiences since the first smartphones appeared in 2008. Starting with our first major title, *Bram Stokers Vampires* (2012), we have explored a range of models for bringing cultural experiences into heritage sites for public engagement.

Museet Mosede Fort Danmark 1914-18 is a World War 1 museum based in Greve, Denmark, situated on the coast south of Copenhagen and centered around a historical WW1 fort. Rather than a typical war museum, the museum tells a complex story about how national policy decisions, especially around the scarcity of food, during the First World War led to the development of ideas and thinking that became the foundation of the Danish welfare society and are still relevant today – perhaps more than ever.

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Introduction
In this position paper, we present the preliminary experiences of an ambitious collaboration between Haunted Planet Studios and Museet Mosede Fort Danmark 1914-18 (see first sidebar) to develop a sophisticated site-specific augmented-reality game situated in a historical fort. Entitled *Kampen om maden 1914-1918* (loosely translated, "the struggle for food 1914-1918"), the game had multiple objectives: It needed to engage the general public with an attractive and thought-provoking experience, it needed to engage and encourage reflection around how ideas regarding food and nutrition that were developed during WW1 are still relevant today, and it needed to be based on the latest research into national policy and other cultural forces during WW1 in Denmark. Furthermore, it had to be based on Haunted Planet's "Longship" game engine (see second sidebar), which had been used in previous titles, such as *Bram Stoker's Vampires*, which was nominated for the 2016 Heritage in Motion Award.

Shadow and Light
The game uses and reflects upon the fundamental dialectic figure of the poppy. The poppy, which grew on the battered grounds of battlefields, holds the dialectic

Core Game Concept

Mysterious apparitions from the past have appeared. The player must find these apparitions and investigate why they have appeared right here and right now. The player's smartphone is transformed into a "detection device" to help locate and photograph mysterious encounters.

The game contains four game modes: The Map (an overlay on Google Maps) enables coarse-grained navigation, the Radar (a representation of a naval radar) enables fine-grained navigation and search mechanic, the Ghostviewer (an Augmented Reality camera) lets players take photos of the apparitions, and the Casebook (a list of photos and descriptions of encounters) lets them review their photos and game text to consider why exactly these apparitions have emerged right here and right now.

relation between life and death – food and war. This dialectic is present in every part of the overall game concept, structure and mechanics and has been the driver for both the visual and the textual content.

The game experience is structured around nine double encounters. Of each double encounter, the first brings to the fore a particular problem related to food shortage and malnutrition that, from the dark shadows of WW1, arose in Denmark, which was neutral in the war. The second part of the double encounter is a "companion encounter" that relates to the same theme as the first but shows how new solutions to the food-related problems grew out of the war shadows and formed new ways of organising Danish society. The player can choose freely between the first encounters, but once they have engaged with a first encounter, they cannot proceed in the game until they have found the matching second encounter.

The encounter visuals – the apparitions – are taken from historical photos from the time of the war and hence appear in black and white. To enhance the experience of engaging with apparitions from the past, the Ghostviewer (AR camera mode) is also in black and white. In this way the game encourages the player to see the present in the light of the past and vice versa.

Every apparition is accompanied by an intentionally surprising heading and a short text, which evokes the theme that the apparition symbolises. To show the dialectic relation between the apparitions that emanate from the war shadows and the ones that represent new growth, the pictures taken with the Ghostviewer are framed by either withered black branches or a blooming poppy flower décor. (See figure 1.)

Figure 1: Casebook Screenshots from Frås (Gluttony) and Frisk Luft (Clean Air) Apparitions

Conclusion

At the time of writing, we have just begun preliminary user trials, but we have already received some significant feedback on the design. Most importantly, the Casebook should have a far more significant role to play in the game than initially thought. In the field, the game mechanics and the task of finding the apparitions absorb the player completely. Immersed in the challenge of finding the characters, there is little room for contemplation during the play experience. For this reason, a post play visit to the Casebook is of the outmost importance. In a more analytical frame of mind, the player can revisit the encounters and reflect on why the themes from the past that are raised in the game are relevant in the present.