

Cultural Heritage and Environmental Communication Through Digital Games

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INTRODUCTION

The PAC-PAC research project of the University of Cagliari explores the potential of video games in promoting, valorizing, and communicating cultural heritage. Through the creation of digital games set in less well-known cultural sites, the project aims to investigate how such ludic experiences could influence touristic interest and cultural heritage divulgation.

PREMISES

It has been noted that storytelling and *experiential tourism* have a reflection on cultural heritage diffusion. More specifically, video game narratives can forge emotional connections with represented places and spaces, re-defining interest in cultural values, customs, and geographical areas (Calabrese & Ragone, 2016).

Ergodic media (Aarseth, 1997) produce a vast number of narratives, especially what has been defined as *alterbiographies*: narratives that are generated during the player's interaction with the game system (Calleja, 2009). Hence, it appears plausible to see digital games as resources for cultural heritage communication and valorization; through narrative generation, they establish emotional bonds between the user and the experience, including places, cultural objects, and peculiar landmarks.

Exemplary cases, such as *Assassin's Creed II's* (Ubisoft Montreal, 2009) digital representation of the town of Monteriggioni, suggest that ludic experiences can build interest over heritage sites. Empiric data confirm in fact an impact of digital games on mass tourism and, most importantly, on disseminating cultural heritage knowledge (Barresi & Dresseno, 2017).

Taking these observations into account, the PAC-PAC research project aims to design digital games that can generate bonding experiences between players and less well-known heritage sites, or areas that deserve attention. Hence, a preliminary phase of the research has been devoted to location scouting with the help of local authorities and cultural associations.

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METHOD

The project involved a software engineering department that developed a new authoring software for point-and-click adventures (Fanni et al., 2019). Using pictures and videos, sometimes shot with 360-degree views, the designed games offer a photographic representation of spaces. This choice was made in order to enforce the emotional bonding between the player and the real environment displayed in the game.

The first step involved a selection of less well-known cultural sites, as well as deep historical research on chosen points of interest. The pre-production phase continued with the preparation of game design documentation. Then, a crew of specialists composed of filmmakers, actors, and stage designers shot all the required scenes onsite. Ultimately, post-production involved the editing of all footage on the authoring software. Following this method, a few games were designed with point-and-click mechanics inspired by milestones such as *Myst* (Cyan, Inc., 1993) or *Riven* (Cyan, Inc., 1997).

Three games are currently undergoing the last phases of the process: an adventure set in the Sardinian southwest that focuses on geo-mineral sites and industrial archaeology such as Monteponi mine, Porto Flavia, and Carbonia; a horror game inspired by H.P. Lovecraft's stories, set in the public gardens of Cagliari; a visual novel/adventure that follows D.H. Lawrence's Sardinian journey.

Each game aims at a different target audience, identified by considering the touristic demographic of the selected sites and according to the scope/tone of the game. For example, the visual novel targets young players interested in low commitment and short stories. On this basis, the evaluation methods scheduled for a later playtesting phase are being crafted to properly fit each target audience: specifically, we plan to study playtesting sessions, hand questionnaires to testers, and then monitor touristic affluence with the help of local authorities.

CONCLUSION

The PAC-PAC research project is due to a public evaluation in late 2021. So far, it counts three playable prototypes and a few more in the pre-production phase. If the feedback collected will confirm a positive influence on cultural heritage communication, the PAC-PAC research project could establish a framework of game design to be used by local authorities in order to efficiently promote and valorize any given custom, tradition, or environment.

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