

# Riot! 1831 : The design of a location based audio drama.

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## ABSTRACT

This paper describes the process and lessons learned from the design of a location based audio drama.

## INTRODUCTION

The use of mobile and pervasive technologies as a medium for entertainment is at a formative stage and just as in the early days of film it is not yet clear what it is good for, what people will value and what the new genres of interaction will be [1]. To explore these questions we commissioned two writers to write an interactive play called Riot! 1831 which was staged for public consumption in Queens Square, Bristol England for a period of three weeks in Spring 2004. During the trial period over 700 people tried out the experience and we have subsequently conducted detailed evaluation and analysis of the public reaction. Feedback from the experience was very positive with many people staying in the square for almost an hour. Based on 563 completed questionnaires responses to how much people enjoyed it, how much history came alive and how immersed they felt all scored highly with mean ratings of 74.5, 73.7 and 73.3 respectively on a scale ranging from 0 (not at all) to 100 (very much). This paper focuses on the design stages and lessons of the experience rather than the evaluation methods and results of the analysis.

## OVERVIEW OF RIOT! 1831

The interactive play is based on the actual riots that occurred in Queens Square in 1831. Visitors could sign up and receive the loan of a small back-pack containing an iPAQ PDA, GPS receiver and headphones with which they strolled around the square triggering a variety of sound-files, each one a short vignette based on real events that took place in the square. For instance they could hear the rioters' voices as they plundered the surrounding buildings, the flames as buildings burn, the merchants as they flee for their lives and the Dragoon Guards as they saber-charge through the crowds cutting the rioters down. Visitors could choose to walk round the square individually or as a pair, physically linked by a headphone splitter. Thirty-four regions covered the 150m wide square and associated with each region was up to three different sound files. In general moving into a region would trigger one of the sound files to start playing and moving out of the region would cause it to stop.

## THE DESIGN PHASES

### Knowledge Sharing and Context Familiarisation

The first phase of the collaboration was to work with the writers to ensure that they were aware of the capabilities and limitations of the computing platform that we would be using, particularly the facets of GPS and the authoring environment that we were developing.

We had several workshops based both in the square and in the lab letting the writers try out different ideas and discuss possibilities. We knew from previous experience [3] that designing for context is essential and so it was important to actually try things out in the square. We chose Queens Square because of its physical setting, grandeur and wealth of history. It is an open pedestrian square recently returned to its eighteenth century magnificence. The square is relatively quiet but open, light and safe. We also wanted to develop an experience that was closely tied to the physical setting. The writers brief was therefore to work with us to develop an interactive soundscape that would be set in Queens Square. They researched the history of the square and suggested the riots of 1831 as a subject.

We used these early workshops to see what kind of language and representations writers would want of the authoring tools. Several ideas and options were discussed and the evaluation of different ideas helped provide the writers with a better idea of what the computing platform would offer.

### Prototyping.

The writers wanted to create a rich experience that would feel as if you were walking through a sea of voices, listening to the activities that took place in 1831. Early experimentation with the system led the writers to abandon the linear structure of a play and to write very short vignettes, that were as far as possible independent, but together could build up a picture of events that happened and some of the key players who were involved. The writers wrote and recorded several example vignettes that we tried out in the square before we left them to a period of solid writing.

### Writing.

Writing began after a period of research into the historical accounts of the riots such as the transcripts of the subsequent trials of the rioters. To write the vignettes the

writers divided the square into themed quadrants. The first quadrant includes the site of the old mansion house where a lot of critical events took place. The scenes in this quadrant tended to be quite violent with lots of action and burning. In contrast another quadrant was more revelry based and the scenes were of dancing and feasting of the rioters. The third quadrant was the concerns of the owners trying to defend their properties and the fourth quadrant was a mixture of events that might have taken place just off the square. At the end of the writing phase 140 vignettes had been written.

#### **Recording.**

Six actors were hired to record the play. The writers arranged the recording schedule and a sound engineer produced all of the recording and sound effects. The quality of the sounds was a major factor in the success of the piece and was frequently commented on.

#### **Production and testing.**

The soundscape was created using the Mobile Bristol authoring tools [2]. The simple drag and drop interface allows the producer to draw regions on an outline map of an area and to specify which sound files should be played and under what conditions. The layout of the regions and the design of the overall experience relied on expertise within the research team. It became clear the writers did not have the necessary time, skills or knowledge to produce the experience alone and so we took on that responsibility. We asked them to specify the conditions and logic and we implemented the design. The writers found this process quite challenging because it is a way of thinking that they were unfamiliar with. We frequently needed to advise on more optimal ways of achieving the effects that they wanted. The test, debug and re-test cycle was also a totally unfamiliar process to the writers that we took responsibility for.

#### **LESSONS LEARNED**

The skills required to produce a technology mediated experience such as Riot! include software development expertise, a deep knowledge of the medium and the staging for the audience. The range of skills required is perhaps analogous to those of a film director but it is clear that a completely new set of techniques and design principles will emerge. It is not obvious that any one discipline is more likely to produce the equivalent of the next Steven Spielberg for located mediascapes. At this nascent stage the interdisciplinary design collaborations will be the most likely to succeed.

Period drama is an established genre that has been delivered through the medium of cinema, television, radio, theater and books. Riot! 1831 is arguably a period drama that the writers tried to adapt to the new medium of mobile and

location sensing computing. Despite an awareness of the non linearity of the medium much of the schema for a narrative was developed in the writing. Several of the vignettes were associated or had interdependencies. This might have been because the subject was essentially a temporal sequence of events. The writers expressed a desire that the experience be essentially non linear and they chose most of the regions to randomly play one of a set of three soundscapes. Whilst most people enjoyed the experience the lack of an overarching structure and not being able to get a big picture of events was a commonly cited frustration. Providing enough contextual information to establish the schema of narrative is an area that needs to be improved in future designs.

During the project we were simultaneously developing the authoring tools whilst trying to let the writers use it for prototyping and development. Optimistically we wanted to be able to incorporate feedback from the writers into the tools. This was not an effective process as it made the design workshops confusing because capabilities would change and the platform would sometimes become unstable. It was like trying to fly a plane whilst still building it! A more sensible approach would be to lock down an agreed set of capabilities and functionality early on in the design and then work within those constraints.

#### **CONCLUSION**

Location based audio dramas can be compelling. The application toolset developed in Mobile Bristol will enable designers to easily produce these kind of experiences. A period of becoming familiar with the medium and the context is an essential phase of the design. Interdisciplinary teams with expertise in audio production and software development projects are most likely to succeed.

#### **ACKNOWLEDGMENTS**

We acknowledge the writers Liz Crow and Ralph Hoyte, the sound producer Armin Elsaesser, the actors and the student helpers. We also acknowledge the rest of the Mobile Bristol team in testing, refining, marketing and supporting Riot 1831!

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