

# Spomenik: Augmenting Memorials in the Woods

David S. Kirk, Stuart Reeves, Abigail Durrant  
Horizon Digital Economy Research  
University of Nottingham  
Nottingham, NG7 2TU, UK

dsk@cs.nott.ac.uk, design@abigaildurrant.com, stuart@tropic.org.uk

## ABSTRACT

Spomenik is a simple technological intervention at a memorial site in rural Slovenia. In its prototype form, the design serves to augment visitors' experiences of the physical site by providing them with a cloud-based audio guide service and access to first-person accounts of those memorialised. Herein, we outline the context and design of Spomenik and discuss initial observations of the service in use, reflecting on the challenges of designing digital ubiquitous technologies for culturally sensitive spaces.

## Categories and Subject Descriptors

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## General Terms

Design, Human Factors.

## Keywords

Monument, Memorial, Pervasive, Slovenia, Thanatosensitive.

## 1. INTRODUCTION

Within the HCI community there has been a recent groundswell of interest in what have been termed 'end-of-life' issues [4] and 'thanatosensitive design' [3]. These considerations are part of a broader agenda within elements of the HCI community to orient towards what is being referred to as a 'value-centred design' approach to HCI [2]. In particular much of this work on 'end-of-life' issues sits on top of a legacy of studies, which have sought to sensitively explore the values behind practices of human memory and the ways in which they intersect with technology [2]. Equally, there has been various consideration of the ways in which we might develop technologically mediated legacies, which exist beyond our lifetimes [4]. Such concerns are particularly resonant with the human challenges of living in a digital economy.

Interest in this area has included the specific study of digital memorials [4] which have either been organically derived from the digital residua of a life, such as Facebook memorial pages [4] or which have been specifically crafted as online memorial spaces (see [www.rememberedforever.com](http://www.rememberedforever.com)) [4], designed as digital places for reflection and commemoration. Other approaches have led to the direct development of digitally augmented physical memorials, which seek to blend aspects of digital media with extant physical memorial practices [4]. We might term such technologies 'pervasive monuments' for the ways in which they

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blend pervasive computing technologies with monument structures, offering intriguing new forms of hybrid physical-digital cultural/memorial artefacts. In a burgeoning digital economy the prevalence of such intersections of the digital and memorial practices will become increasingly commonplace and will raise a variety of challenges not normally encountered by technology designers.

In this paper we wish to discuss one of our own recent socio-technical explorations within this space; specifically, a piece of memorial technology which augments visitor experience to an existing rural memorial location in Slovenia. This has been developed in collaboration with various key facilitating stakeholders. We briefly outline the context of this work, sketch out the system that was developed in part as a design response to the existing memorial site, highlight the evaluation work we have been doing and discuss some of our initial reflections on the challenges that design within this space raises.

## 2. WHAT HAPPENED IN THE WOODS

The context for our work is the memorialisation of victims of post World War II Stalinist purges in Slovenia [1]. Slovenia has a landscape scarred by hundreds of mass graves. For the c.50 years that the Yugoslav communist authorities were in charge of the country, talk of 'what happened in the woods' in 1945, was taboo, resulting in reduced awareness (particularly amongst more recent generations) of the nature of events that had shaped the country. Despite the hostile political climate, some in Slovenia discretely fought to keep alive the memories of those killed by marking the spaces and sites of these atrocities, where known (see Figure 1).



Figure 1. Illicit Marking of Slovenian Mass Grave Site

With effort from the Catholic Church within Slovenia and the Diaspora community outside (in largely, the US and Argentina), the memory and records of individuals exterminated were also kept alive. Post 1991, with the collapse of the Soviet Yugoslav state, recognition (via the government-led Commission on Concealed Mass Graves in Slovenia) and memorialisation of victims has become more commonplace, with some sites gaining official recognition and marking as memorial spaces.

### 3. DEVELOPING A MEMORIAL SYSTEM

We were initially approached by Jim Kosem at Halfman Design, a member of the Slovenian Diaspora community, with a design interest in memorialisation, to collaborate on technologies to support visiting to these memorial sites. After a lengthy conceptual iterative design process, we began to develop 'Spomenik' (Slovenian for 'monument'), a simple interactive site-specific audio-guide, designed for a specific memorial (Jama pod Macesnovo Gorico). During this process we identified key design requirements of inclusivity and accessibility with a key constraint being the rural, 'remote' (in infrastructure terms) nature of the memorial site. We also desired to create a link between the physical site, and wider communities locally, as well as the diaspora. Towards the end of this iterative process we coordinated with two Slovenian institutions the National University Library of Slovenia (NUK) (<http://www.nuk.uni-lj.si>) and the Study Centre for National Reconciliation (SCNR) (<http://www.scnr.si/en/>), both in order to assist locally (e.g., in scoping sites for implementation) and to help develop high quality audio content.



Figure 2. Two stations in woodland (top); the mass grave and existing memorial bell (bottom).

Using cloud telephony service Tropo (<http://www.tropo.com>), we have developed a mobile phone-based audio guide to provide interactive access to testimony from a site survivor (narrated by an actor). The system lets the caller freely step forwards (or backwards) through this narrative as they navigate the woodland memorial site, which is signposted at two stations with the phone number for the guide service (Figure 2, top). These two stations mark the entrance to the woods, and the cave in which killings took place (Figure 2, bottom). At the end of the experience, callers are optionally able to record a reflection on what they have just heard, which we intend to make available through a web interface. Such 'visits' are recorded and will be displayed in the form of a simple visit counter. After use of the service callers will receive a text message directing them to this website.

In this way the system supports our design requirements and constraints through low-tech prerequisites (i.e., simple mobile phone access, without need for data connection), as well as creating a connection (through user generated content) between a physical monument and a globally available web presence for that monument.

In order to iteratively explore the use of our system in the course of its development, SCNR organised a number of school group visits to the site. During these visits we documented user interaction with aspects of the system (we are still prototyping the

web elements), conducting interviews with the participants in order to gain access to how they experienced its use.

### 4. SOME INITIAL CONSIDERATIONS

One of the key challenges we faced when designing the system was in constructing **respectful interactions** that were appropriate to the nature of the woodland setting and the historical features of the site. Our approach was characterised as 'low impact' in that we tried to develop an interaction that did not foreground a digitally 'augmented' visit to the site, but rather, quietly complemented it in the sense of adding a digital layer to the extant layering of other unofficial memorials. This respectfulness was challenged by considerations over the appropriateness of being seen 'on the phone' at the site, however.

In contrast with the criticism of audio guides as isolating [5], participants reflected on the positive features of what was a purely dyadic interactive experience with a mobile phone. At the same time, they reported the **benefit of being alone together**, that is, *collectively* engaging in an individual experience. In some sense use of the system transformed what might have felt contextually 'inappropriate' into a collectively respectful experience.

A central feature of the prototype design is in connecting the physical and the digital, and the remote and the local; i.e., linking the highly specific nature of visiting the woodland site with a digital trace. The concept leverages web connectivity to afford its users the opportunity to **communicate their experiences of visiting the site with a range of remote communities**, including the globally distributed Slovenian diaspora; as such, an interactive experience in the woods connects physical presence with a global dialogue surrounding the testimony narratives.

### 5. SUMMARY

Our research to date highlights the rich potential of a digital, cloud-based audio guide service to support local and global dialogues memorialising a historical event. The web interface component is currently under development, and, in our on-going research, we plan to explore the potential for generating not-for-profit revenue from the service design, as a means to sustain it and also to foster social interest from those that may invest in it.

### 6. ACKNOWLEDGMENTS

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