

A view of Sheffield General Cemetery in winter

WALKING AND DESIGNING WITH CULTURAL HERITAGE VOLUNTEERS

Luigina Ciolfi, Sheffield Hallam University
Daniela Petrelli, Sheffield Hallam University

Insights

- Heritage communities are crucial in shaping the visitor experience and are increasingly involved in the ideation of interactive tools for interpretation, education, and access.
- HCI researchers must develop new and deep understandings of how heritage communities can become active players in the technology design process.

Cultural heritage is a variegated field of inquiry for human-computer interaction (HCI), including both efforts to understand how digital technologies mediate human activities in heritage settings and the development of interactives to support the interpretation of heritage. Cultural heritage takes many forms and heritage settings vary greatly, from museums exhibiting traditional "glass case" displays to historic buildings, urban areas, and open-air sites. Heritage is also accessed, presented, and often managed by various local, professional, and/or community groups for the benefit of a larger local community, including different types of visitors, trained staff working in museums, and volunteers and enthusiast groups. Heritage is not only preserved but also lived, discussed, and reproduced by the work and dedication of those who experience, cherish, and communicate it. These communities are thus crucial in shaping the visitor experience of heritage sites, increasingly becoming involved in the ideation of interactive tools for interpretation, education, and access [1]. It is important for HCI researchers to develop new, deep understandings of the practices of the communities involved in cultural heritage, and of how they can become active players in the

technology design process. Given the complexity of heritage sites, it is also important to identify study techniques that capture the relationship between heritage settings and their stakeholders.

In the meSch project, we are designing tools that enable cultural heritage workers to create DIY technological installations that integrate digital content with tangible media [2]. One of our goals is to understand the strategies of heritage staff in devising tours, exhibitions, and other interpretation activities, and to enable them to integrate these with ad-hoc installations that they can design and customize. A setting we have investigated in depth is the historic Sheffield General Cemetery, a rich and complex mix of tangible heritage and community effort.

A parkland cemetery that opened in 1836 and closed for burials in 1978, it is now a 14-acre free and open-access historical, architectural, and natural conservation area managed by a community group, the Sheffield General Cemetery Trust, which engages in conservation and outreach activities and maintains the grounds' accessibility and safety. The cemetery features a large number of funerary monuments, as well as two chapels and a row of semi-interred catacombs. It was landscaped to include symbolic trees and plants, such as "weeping" trees and shrubs associated with mourning. The cemetery's gatehouse was built over the River Porter to represent the idea of crossing the river into the afterlife. As the cemetery was purpose-built via public subscription initiated by a group of wealthy open-minded citizens, it is not consecrated to a particular church. Thus, it is the final resting place for a variety of people of different backgrounds and of various political and religious beliefs, including many well-known citizens in Sheffield's history. The cemetery has also gained the status of "area of natural history interest" and "local nature reserve" due to its variety of plants, trees, and fungi, as well as a rare city-based colony of tawny owls, other birds, and insects. The cemetery is open-access and free of charge around the clock; it has no artificial lighting, so some of the less-frequented paths can be treacherous, particularly in the dark. The cemetery is also a popular with the community; many nearby residents and workers use it for dog walking, jogging, and as a general-purpose green space.

WALKING WITH THE VOLUNTEERS

After conducting observations of visitors exploring the site both on their own and as part of guided tours, we focused our attention on the cemetery volunteers, their practices and strategies, and how these are inextricably linked to the place itself.

We adopted an approach to conducting "fieldwork on foot" [3]. Walking as a way to gather insights on the situated and embodied experience of people derives from theoretical work from geography and philosophy examining paths, their making, and the movement along them. Used within HCI for investigating very diverse domains, field walks consist of conversations while moving along a path, documented as connected instances of conduct. The researcher documents practices as they occur in-situ, thus noting the relationship between certain themes of the conversation and elements of the space and of the walk itself. There are various strategies for devising a field walk study, differentiated, for example, by whether the participants are moving through an environment they know or an unfamiliar one, or by whether the researcher or the participant determines the path to be walked. In our study, we left it to the participants to choose the path. During the walk, the conversation (prompted by the researcher and following a conversation guide) highlights each participant's connection and perception of the space. It is key to document the walks visually in order to link the record of the conversation to the location where it emerged.

Eight volunteers were recruited to participate in field walks. Each was met by the researcher at the main gatehouse and asked to lead a walk around the cemetery following whatever path they preferred. The participants have different degrees of experience volunteering at the cemetery, ranging from six months to 15 years. Jenny (names have been changed) is a historical tour guide; Paul is a bird enthusiast, also guiding bird-watching tours; Andrew and Morris are managers/administrators for the Trust; Nelly is an amateur historical researcher; and Matthew, Eddy, and Marvin work in the environmental conservation team in charge of site maintenance. Their concerted efforts, and those of the rest of the volunteers, make it possible for visitors to explore the cemetery safely, obtain available information on it, and request additional research on the Trust archives and bespoke guided tours.

The conversation with volunteers during the walk was semi-structured around themes such as the volunteers' own relationships to the site and to their colleagues, the type of work they do there, their favorite places in the cemetery, their views on visitor experiences at the site, and on the potential to engage and attract visitors further. The analysis of the walks data highlighted four main themes emerging from the conversations: the multiple aspects of the site and its landmarks that hold heritage value; the importance of establishing personal connections with the site and of caring about a beautiful and treasured place; the constant surprises offered by the site; and its enveloping atmosphere of peace, reflection, and relaxation.

MULTIPLE LAYERS OF HERITAGE

The cemetery can be read and interpreted in many ways, both by the volunteers taking care of it (each of them concentrating on a particular aspect, and often learning from each other) and by the visitors. Encountering various landmarks during the walk, the participants emphasized the historical importance of the site and

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the presence of significant examples of architecture and sculpture, such as the grand Victorian funerary monuments. However, the historical value of the cemetery is also personal, as it is a treasure trove of family history for those who have a relative or an ancestor buried there. Furthermore, the appreciation of the cemetery is something not necessarily linked to an appreciation of art and architecture, but more generally to its charm and uniqueness.

The volunteers recognize that different personal interests will engage different visitors, in the same way as they themselves have different motivations for their own involvement in the cemetery. Spending time at the cemetery made them appreciate other aspects of the site that might not have been their focus originally, but that they have come to know through their work and through their colleagues. When discussing their favorite places, some participants chose landmarks such the chapels, or gravestones that struck them with their sculptural details, inscriptions, or person they commemorated. However, other favorite places included paths, trees, and locations providing a particular atmosphere or the opportunity for other activities, such as glimpsing a seldom-seen bird, taking nice photographs, or enjoying a pleasant stroll.

The cemetery is a complex and multi-layered place of heritage where a broad range of values and content can be experienced: from the history, to the nature and wildlife, to the simple pleasantness of wandering around. We noticed this clearly during the walks, whereby, as participants came close to or noticed something they knew, their commentary switched to cover different themes of interest. For example, Morris pointed out a particular pair of ancient weeping ash trees planted to frame the view of the graves and went on to discuss the variety of plants on site; or, while discussing the personal history of one of the people buried under a certain headstone, Jenny went on to highlight its sculptural elements.

Indeed, making the cemetery attractive for more than one reason was the intention of the original planners, and naturally, through time and history, it has gained even more interesting elements. Take, for example, the history of the long-gone people buried there and of the world they lived in, the reasons they died and their legacy.



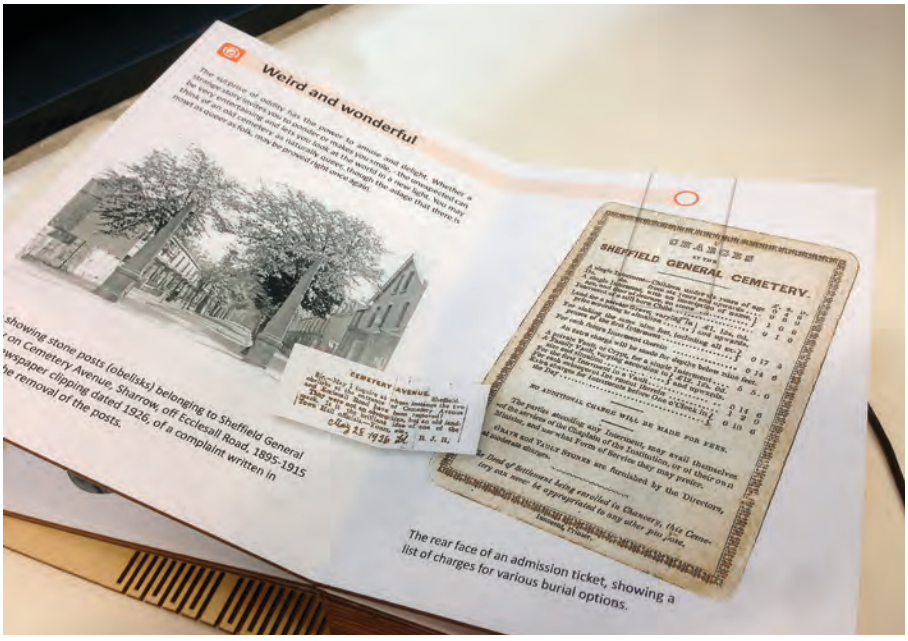
A path often explored during field walks.



One of the cemetery volunteers guiding visitors on a tour.



Describing a favorite place during a field walk.



The Companion Novel prototype.

TO CARE IS TO CONNECT

The volunteers are very attached to the cemetery, and they care for it deeply. They wish to instill the care and connection they feel for the place into the visitors, and this goal motivates many of the activities they offer to the public. Many of the places they included in their walks were in fact chosen because of such personal connections. In certain cases, particular spots have become important for a volunteer by virtue of personal involvement, even though they might not be that relevant to the person's intellectual interests:

I've become somewhat emotionally attached to [the Chapel] in a sense because I'm involved in trying to restore it. So I've got an interest in seeing it come to life . . . Now I don't know if it's . . . one of my favorite places, but I think it just stands out because I'm working on it.

—Andrew, management

Andrew is devoted to the landscape and trees. However, his personal involvement in the restoration project has turned the chapel into something that he cares for and that he has come to hold in high regard. Similarly, Paul chose to show us the memorial of a young soldier who died in World War I because every year Paul takes part in the Remembrance Day commemorations.

The volunteers hope that with their work they will encourage more people to care for the cemetery and to become regular visitors. They also see their work and commitment as being part of the heritage itself. They believe that making personal connections is possible even on a first visit, for example by being moved or simply bemused by particular epitaphs included in the guided tours.

SEEING NEW THINGS AND BEING SURPRISED

The many layers of heritage value and the physical appearance of the cemetery—with striking seasonal changes, lush vegetation, winding paths, and secluded corners—also mean that the site offers constant surprises, even to those who know it well. Seeing something new and unexpected occurred several times during the field walks. The participants discussed this at length as a positive aspect of their involvement with the cemetery, as well as something that can encourage visitors to come to the site repeatedly and make their experiences ever interesting and surprising.

The cemetery is also rich in things that less experienced visitors are likely never to see, being either hidden or hard to find. The volunteers, spending a large amount of time at the site and knowing about such richness, wish that there were ways, beside the traditional tours, for the public to be aware of them:

There's details as well, you see, there's details in the walls and archways . . . A lot of people walk past and not realize there's anything there to see . . . See, everywhere you look there's gravestones . . . hidden away . . . may never be seen again.

—Matthew, conservation

PEACEFULNESS AND REFLECTION

For all its historical, social, and natural importance, one of the cemetery's most striking qualities is peacefulness, and, with it, an atmosphere of quiet reflection and relaxation. Its peacefulness and almost therapeutic atmosphere were the very reason why some of the participants decided to volunteer there—some, like Andrew, even for the purpose of regaining mental health. The volunteers also observe many regular local visitors taking walks for relaxation and de-stressing, for example, through exercising and reading. The cemetery also encourages quiet reflection on life, death, and remembrance, as walking by the gravestones makes one think about the people who chose to be buried here:

I quite like . . . the way that all the tombstones have been softened by the vegetation, and I think—you look the things that give you a little bit of perspective when you think these people are all dead and . . . well, you know, it's what sort of happens to everybody isn't it?

—Marvin, conservation

The volunteers are aware that it is a challenge to increase the number and frequency of visitors while maintaining the atmosphere of the cemetery.

The walks revealed that the involvement of the community of volunteers with the site has become part of what heritage visitors can experience at the cemetery.

DEVELOPING INTERACTION THEMES AND CONCEPTS

Walking with the volunteers revealed narrative paths, interpretation themes, and engagement strategies that relate not only to the physical trails and the structures that populate them but also to the work and dedication of the volunteers themselves. As a site overall, the cemetery conveys a peaceful and reflective mood in addition to presenting important heritage holdings. The many layers of its heritage value are interconnected and interrelated: For example, the ancient weeping trees planted when the cemetery was designed were meant to be seen from a distance and to grow beside the memorials and gravestones. They are closely connected, although they fall under different conservation headings.

Each walk embodied a different personal narrative, representing many themes, personal reflections, and interests. What the participants chose to show to us, and the path, sequence, and timing they chose to take us there represented their habits, their focus as heritage workers, and their personal relationship to the cemetery. Interestingly, the walks revealed that the involvement of the community of volunteers with the site has become part of what heritage visitors can experience at the cemetery.

The themes that emerged from the field walks together with insights gathered through other studies of the cemetery (such as visitor observations) were used to feed a co-design brainstorming workshop with the volunteers, from which three broad and open design themes emerged:

- *Interpretation and access:* Technology can make visitors aware of the many aspects of heritage that characterize the cemetery, also surprising visitors with details or themes they might not have been aware of.
- *Knowing the invisible:* Technology can enable visitors to see and know things that are hidden, and communicate the fact that more and more of the cemetery reveals itself through repeated visits and in different seasons, and through the volunteers' knowledge.
- *Peacefulness and reflection:* Technology can subtly encourage visitors to dwell in the stillness of the site and to reflect more deeply on what they see, mediating and augmenting the restorative ability of heritage environments.

An initial set of interaction concepts inspired by these themes was developed through further co-design workshops. One concept addressing the "interpretation and access" theme is the Companion Novel, a portable book that visitors can use to select a theme for their visit (nature, history, interesting anecdotes, etc.). When approaching points of interest, speakers placed in the environment play appropriate snippets of content for the visitors to hear. This concept has since been built into a working prototype. A second concept, relevant to the "peacefulness and reflection" theme, is Memento Mori, inspired by the Victorian tradition of fashioning pieces of mourning jewelry to remember someone who had passed away: A visitor would be given a piece of augmented jewelry, such as a ring, a brooch, or a bracelet, connected to one particular person buried in the cemetery. The item would provide tangible feedback to the wearer when getting close to the grave of that person (e.g., by getting warmer, vibrating gently, or emitting an increasingly stronger light) and would go quiet again when that site had been found, giving the visitor an opportunity to reflect on the life of this person from the past. A third interaction concept related to the "knowing the invisible" theme: Augmented Binoculars encouraged visitors to stop in places that might look unremarkable, peer through binoculars, and at that point learn something hard to notice, long gone, invisible, or little known. During the later workshop we discussed how these concepts could be integrated into the tours led by volunteers.

CONCLUSION

With the field walks we had the goals of developing our understanding of community heritage sites as settings for technological interventions and detailing part of the process of co-designing technologies with heritage volunteers for a site such as this. The most important finding was that the work, knowledge, and insights of the volunteers in taking care of the cemetery emerged as an important and ever-growing part of its heritage value, and as something that the volunteers want to showcase for visitors to appreciate. In this respect, the contribution of the community goes beyond that of supporting a heritage site, becoming one of its constituents. Any technology design in this context should sensitively consider this: HCI researchers and practitioners must broaden their approach to designing technologies for heritage settings by also focusing on community involvement and by adopting ways to ensure community involvement in the design and deployment of novel installations.

ACKNOWLEDGMENTS

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ENDNOTES

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Luigina Ciolfi is a reader in communication at Sheffield Hallam University. Her research focuses on the experience of technology in the physical world for both individuals and groups, and on notions of place, embodiment, and participation. She has studied and designed technology for heritage sites, urban spaces, and work settings.
→ l.ciolfi@shu.ac.uk

Daniela Petrelli is a professor of interaction design at Sheffield Hallam University. Her current research connects material and digital in the context of personal and cultural heritage. Her other interests include personalization and data visualization, and intelligent user interfaces. Her background is in fine art, computing, and social research.
→ d.petrelli@shu.ac.uk

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