

When Place Becomes Character: a critical framing of place for mobile and situated narratives.

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The generosity of place

Travel through place is an immersive experience. The confluence of geography, history, and culture encountered within a place reflects and discloses the journey of civilization. Cities -- positioned as the matrix of accumulated and transformative civilization -- have fascinated and inspired storytellers from Homer to Stendhal to Dickens and beyond. More than any other novel, James Joyce's *Ulysses* invites us to participate with its characters in an almost real-time navigation through a genuine urban space. Joyce's *Ulysses* is a picaresque tale: as an audience, we follow the protagonist's journeys through a sensory surround of particular urban impressions; and, as the narrator in a moment turns our attention to the thoughts of a woman waiting, we understand that we have been seduced by the narrative potential of a place where the sensory surround, culture, rituals, and daydreams that it supports are more important than overt action.

A profound sense of "being there" is often evoked by observational filmmakers whose practices immerse the viewer in a surrogate journey of sensually intense sights and sounds captured from the real world. Similarly, entrepreneurs of tourism often invite the general public to participate in situated dramas: special events, festivals, or spectacles that revive communal life can catalyze a complete reframing of place. Christo and Jeanne-Claude's recent installation of "The Gates" in New York City's Central Park -- 7,500 16-foot-tall saffron-colored gates -- invited the public on a delightful promenade, a festive journey through Olmstead's most famous urban park. Envisioned to express joy and beauty, this spectacular installation carried no meaning beyond itself. The perceptual transformation of the public pathways and the lack of a larger narrative framework made each and every visitor feel special, as if she had journeyed onto a movie set and she -- along with all her kinfolk -- had been invited to take her place, center stage, as she navigated the now majestic pathways. In contrast, the *son et lumiere* enacted at the Palais de Versailles purposefully integrated human actors, cinematic projections, music, and narration to create a theatrical spectacle that dramatizes the story of being such a place; the phantasmagoria of 300 years of historical meaning comes to life on the real geographical site. Prior to the performance or on other visits, the audience may bring their storied imagination to the buildings, the artifacts, the landscape; but, at the time of the performance, hidden ghosts of life lived in this place appear around them to bear witness.

Beyond spectacle: The mechanism of "Taking Place"

Before there was story there was place: landscapes are the archetypal containers for the lives of people. Narratives "take place" as characters converge, act, and interact within the framework of a specific place and time. "Place" immerses characters in a situated context where details of history, culture, and the available physical affordances provide opportunities and constraints that influence the choice of actions and interactions. As narrative construction becomes grounded in a specific physical space, the visitor is invited to travel along a thin line from which history -- the ambitions, attitudes, events, and personae that have made the place -- can be read.

In narrative worlds, places often manifest an approximation of personality and functional psychology in support of the story. This may present a reflection of the thoughts and feelings of characters, or a challenge to them. A creepy, sadistic haunted house works hard to inflict trauma on its human visitors. A beautiful, flower-filled meadow presents opportunities, affordances, and an ambient mood for romantic encounters. A harsh and merciless desert breaks down the physical condition of the stranded traveler, burning away the priorities of her comfortable city life and presenting a blank canvas upon which new thoughts can be projected.

In new media work, place can and often does take on an active role approximating that of a character, engaging the audience in a form of dialogue. This re-positioning shifts the epicenter of the potential experience and its dynamics of exchange. As representations of "place" become augmented to allow narrative exploration and discovery, the audience becomes an active agent who can dynamically affect a discovery path through that place and the tales attached to it by acts of navigation, selective gestures, or other methods of communicating desire to the responsive system.

Augmenting place: time, history, narrative action

The idea of augmented reality developed in parallel with the digital mimicking of real places. The Aspen Project was perhaps the most influential early experiment; initiated in 1978, its goal was to enable the participant to build as complete as possible a cognitive map of Aspen, Colorado without actually being there. The interactive delivery system and its content allowed the audience to actively drive along the street grid, to see the city through time and changing seasons, and to go beyond the building facades to meet some of the town's "colorful" characters -- the police chief, the owner of a high-end woman's shop, and the store's clients.

In the years that followed, many interactive installations and screen-based works continued to explore navigation as the primary paradigm for engagement. These works can roughly be categorized in three ways: those that engaged the audience in hyper-linking scenes of place as they navigated a map (Interactive Cinema's *Elastic Charles* and *Elastic Boston*), those that engaged the audience in a physical, sensual experience of navigating virtual space (such as Jeffery Shaw's *Legible City* or Flavia Sparacino's *City of News*), and those that attempted a more narrative approach to discovery (such as Luc Courschesne's *Landscape One*).

However, none of these approaches brought us into a physical space-time which is 4-dimensional, where "augmented reality" composites the synthetic onto the real, where point-of-view is immersed in the sociological context of a real place and its layered history. Recently mobile, wireless, and sensing technologies have provided new opportunities to recast historical experience and the participatory interpretation of place. With these technologies, we can begin to integrate a rich layering of imagined narrative onto physical place while responding to the needs and desires of the peripatetic participant engaged in a multiplicity of realities.

The relationship between history and narrative is philosophically provocative and provides an inviting opportunity for new media artists working in the mobile domain. As Paul Ricoeur argues in "Time and Narrative," history -- because it is a multi-layered continuum of happenings which can be read from multiple viewpoints -- at first appears antithetical to the familiar Aristotelian notion of beginning, middle, and end or to the fabula described by Russian folklorists. In converging these two modes of storied content, Ricoeur points to Reinhart Koselleck's description of the complementarity between "the space of experience" and "the horizon of expectation." This spatial metaphor for narrative telling provides us with a strong jumping-off point as we examine a new generation of localized place-based historically-inspired narratives that attempt to convey "a sense of being there."

All storytellers struggle to create a credible space of experience within a bounded framework. As the audience explores this space, they also acquire a horizon of expectation. In this sense, expectation is a central attribute of the narrative experience. In 1992, I co-directed *Wheel of Life* with Larry Friedlander. In

this work -- a mini theme park -- we aimed to shape four participatory environments (water, earth, air, and fire) that could be navigated by members of the audience, even as their counterparts provided guidance. In Buddhist tradition, water signifies birth, emergence, movement from darkness to light. At first, we struggled with the container that would signify the watery world; eventually the design team converged on the idea of a fishbowl made of translucent scrim upon which images could be projected. We would welcome visitors to the space by projecting the image a large strong fist that, when it finally opened, released torrents of water. Visual and audio!

clues -- plus cryptic promptings from human colleagues -- helped the explorer solve the mystery of the space. A large *papier mache* whale occupied one third of the watery environment's floor area; by singing into its ear, the explorer released a cathartic show of light and poetry, and won the right to advance to the next mysterious space. Or was it the space that released the audience?

This idea that space itself can have character and can act as the protagonist or antagonist in an engaging narrative has continued to fascinate me. In 1999, we began a series of works exploring how we could create an augmented reality of place for the mobile audience. Some experiments favored the concept of "mobile cinema" while others favored a collect-and-reflect approach to "embedded cinema." Some envisioned the idea of an evolving collection of narrative sequences that could be created by a diverse set of makers over time, resulting in a truly layered window into place. All the work highlighted "situated context," which allows place to embody character in its own right.

In creating work in this genre, the embodiment of "place as character" needs to be articulated at the outset. In an early workshop we developed a story treatment situated in Harvard Square in Cambridge, Massachusetts. The Square provides a call to adventure. It is an intensely peopled location that combines the qualities of a staid university (Harvard) with the vibrant currency of a lively street life fed by constant traffic from an underground train station. Harvard Square can be a street musician's haven and a small shop-owner's nightmare, or vice versa. It is at once a tourist trap and a place where the literati of Cambridge gather.

One of the Square's surprising features is the contradiction between appearing to be a small-town main street and yet providing anonymity to the students, faculty, vendors, tourists, and residents who remain mostly unrecognized as they traverse this sprawling place each day. For the prototype story, we created four fictional characters whose actions on the day in question played to the call to adventure as it is embedded in the contradictory characteristics of the place. Once an initial scenario for each character had been developed, we engineered situations in which they would journey through the Square at approximately the same time (3 PM), thus creating the opportunity for them to pass and interact with each other. These chance encounters were sometimes acknowledged and sometimes not, but inevitably served as a moment when unanticipated action could occur and provided nexis points at which the audience could switch from one story to the next.

Given that our audience would be going any which-way in the Square at any possible hour, often for a short time, our task was to deliver stories that were meaningful, that could be received in almost any order, and that held up no matter how minimally they were viewed. Given our idea of augmenting place, the actions were tied to a specific location. Should the time of day also be fixed to the time of the action? In this case, we would be imitating life but the piece might lack a sufficient density of scene to be meaningful. One idea we evolved was to create monologues for the characters, available once the audience had met them. These monologues would provide insight into the character's motivation, add narrative density, and possibly increase the dramatic interest of the actions that take place in the Square. While we never realized this story, this treatment provided critical insights that were incorporated into our later experiments.

"MIT in Pocket:" a place as it is

After a month of development, we acknowledged that Harvard Square was too far away to comfortably manage an experimental prototype; we therefore framed the next experiment in mobile cinema closer to

home. For many, MIT is a special world that is distinguished by its relentless progress toward knowledge. The institution hosts many thousands of visitors per year. At the time, the use of hand-held computers was on the rise and GPS could provide a reasonably accurate fix on a participant's location anywhere on MIT's 168-acre campus. Could we develop a program that would allow anyone coming onto campus to gain an enhanced sense of this special place?

Once again, the first thing we focused on was the specialness of this place. MIT is more than a campus and a set of buildings: it is a community of extraordinary minds layered across several generations. These minds wander the maze of rooms, hallways, and open spaces at all hours of the day and night. To experience the place is to interact at different levels with this layering of life. From the outset, our story developers were for the most part undergraduates. They were eager to try their hand at dramatic storytelling but had little experience in developing characters or plots. We therefore encouraged them to begin by developing student characters and scenarios: this was their culture, which invited them to draw on their own life stories.

Once the basic characters were selected, the students scripted action scenes. As in the case of Harvard Square, these scenes situated the characters by specifying significant actions at 8 am, 4 pm, and midnight. We layered these basic story lines with the movements of the characters on campus, using overlapping journeys to motivate meetings between characters or new actions. From the beginning, I worked to integrate an historical lens and a lens of the larger intellectual community into the production. I wanted the audience to follow a character down a hallway and overhear the intensity with which two "nano" graduate students discussed a theoretical aspect of their work with their advisor. I wanted to see the ghost of Norbert Wiener at the entrance to Walker Memorial stopping to ask the audience "Can you tell me whether I was coming towards the cafeteria or away from it? I can't remember if I had lunch or not." This layer of situated "being there" would be shot documentary-style or created from archival photographs. It would immerse the audience in the spirit of the place and allow future place-based narratives to evolve over time.

The audience experienced this layered program on Compaq IPaqs, small hand-held computers equipped with GPS, 802.11b, video and audio. The story began running as the audience member switched on the program, which we imagined might be offered on a "location channel." Several technical issues immediately came to the fore. GPS positioning was not exact enough for some of our desired interactions. Several 802.11 networks were involved and at the time (2003) the switch between them was not as transparent as we would have liked; this was particularly problematic for streaming video to a mobile device. Finally, the hand-held screens were virtually worthless in sunlight.

Work arounds for each of these technical difficulties are possible today, with the most far reaching occurring in the media display itself. Being able to meet the past Nobel laureate, Norbert Weiner, as a character who navigates the campus, provides the potential for optimum engagement; however, credibility requires us to achieve a truly augmented reality, a reality that allows us to live intimately with a compositing of the historical over the real. Today industry is learning how to embed small optical displays into common eyeglasses. However for the near term, we turned to audio as the in situ presentation medium with a video replay available at the end of the audience journey or later at home.

HopStory: a place as it was

As we were developing "MIT in Pocket," I also began to work on the problem of stories for historical place with Valentina Nisi, Alison Wood, and Linda Doyle at the Media Lab Europe in Dublin. The laboratory was situated in an unusual 19th-century brewery building that in years past had served as a storage facility for hops. As we discussed the character of this place, we grew increasingly interested in developing a story that would bring to the building a sense of its lifespan, historical activity, and character.

In this case, the structure of the building itself brought to mind earlier approaches to storied place. For centuries, wall painting, statuary, and stained glass have been used to situate characters and their

narratives within buildings; never was this done with greater intensity than in the elaborate facades and windows of the great Gothic cathedrals. How might this idea of embedded narrative be transitioned into the electronic age?

The smell of hops still lingered throughout the building as we began to develop HopStory. What had this building been like when it was still an active part of the brewery proper? Who was likely to be in the building on any given day? We got a few clues from visiting the Guinness StoreHouse museum. The newly opened visitor center housed some striking exhibits, including some wooden kegs stacked up as they would have been 30 years before. From this point, we imagined an accident in which the kegs tumbled down. How could this have happened? Who would have been there to witness this event?

Using a story-generation methodology set out in earlier workshops, we built four historically-inspired characters -- a foreman, a planner, a young boy possibly seeking a job and a young girl child of a laborer. The actions of these characters in the small drama we created were based upon researched suppositions about how they would have spent their days in the 1920's. The foreman's job was to oversee the day-to-day operations; on most days, he would have been present in the hopstore from early morning to late at night. The planner was an employee of the Guinness family charged with overseeing gifts of the family to the public, including certain neighborhood improvements. A young boy might have stopped by the hopstore in the hope of getting a job. If a worker forgot his lunch in the morning, his wife might have asked the daughter to take it to him.

As we developed the story, we visualized where particular characters would be at various moments of the action. Each story fragment is rendered in video using a mix of first- and third-person perspective. In the early morning, the daughter is skipping along the street en route to bringing her father his lunch, while the foreman and the boy are both on the second floor, the foreman overseeing the movement of the hops and the boy considering how to approach the foreman. A few minutes later, the girl passes the guards and runs up to the second floor to find her father. Meanwhile the boy has eyed a stack of kegs and, rather than announcing himself to the foreman, he climbs these to get a better view of the action. Crash! All heads turn.

Our idea was to engage the contemporary audience in a reflection of the life and culture of this earlier time, an era when Guinness was the largest industry in the newly-formed Irish Republic. As the audience navigates the present-day hopstore, they encounter various cats that are positioned throughout like ghosts from the past. Each time an audience member pauses to exchange greetings with a cat, their "iButton" devices pick up a piece of story that represents the perspective from that location and given story time. The cat speaks a short secret about the past while the iButton invisibly acquires a scene number that is added to an "edit list" built up during their unique trail of exploration. Later, in a small viewing area, each audience member could download this list from their iButton and watch their own unique construction of POVs making up the story. When this project was demonstrated at a laboratory open house, many people visited with cats and with each other as they watched their individual versions of the film.

The Selkie Story: tales for remote places

As the HopStory experiment unfolded, we began to discuss another idea. What narrative augmentation could we offer in remote place? The ghosts of these areas are far more primal than the celebrities that make up modern urban legend. Wilderness areas hold a special thrill for the adventurer: the intensity of the sensory surround is often augmented by extreme challenges of the terrain and uncertain encounters with nature and with our own imagination. What worthy stories can enhance this intensity of experience?

The issues we face in traveling into the wilderness include: how we navigate our way there and back; how we can avoid re-crossing previously traveled terrain; and, what are the possible effects of weather?

This project was implemented on Cape Clear, an island in the south of Ireland near Cork. For this location, Alison Wood chose to present a version of the Selkie legend which would play out based on the way the visitor navigated the island and on the reality of the weather, which in Ireland can change abruptly hour by hour. An introductory segment was offered to visitors as they traveled by ferry to the island. Scenes were written for 3 distinct locations on the island, and for sunny, cloudy or rainy days. The visitors wore sensors that measured humidity. The story presentation engine ensured that the plot would move forward, but offered variability in the individual scenes that the visitor experienced. By delivering the story as audio-only as the visitor explored the island, the ancient myth augmented the visitor's imagination: what relationship would a fisherman on a remote island have with the seal population? The story gave one a sense of the distance human imagination might travel in isolation.

Conclusion

New technology has brought new opportunities for overlaying real physical spaces with active agencies of history, culture, and personal storytelling. It is now possible to create a metaphorical passage through real places that result in a dramatic culmination and denouement. The participant audience can become immersed in an evocative sensory surround or can gather bits and pieces of surrogate experience to be later used in acts of creation, consumption, and sharing.

While neither the technologies nor the story forms have yet been perfected, this generation of place-based experiments suggest that we can grow the space of experience to include a window into the stories of others, be they historical or just the thoughts of the poet who lives around the corner. As these stories refresh our imagination, they can put us in touch with a holistic sense of the human life lived and our horizon of expectation will come to acknowledge the generosity of place.